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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/145,935	01/01/2014	Masahide Tanaka	N0692.70002US02

CONFIRMATION NO. 2279

23628
WOLF GREENFIELD & SACKS, P.C.
600 ATLANTIC AVENUE
BOSTON, MA 02210-2206

POA ACCEPTANCE LETTER

OC000000068116221

Date Mailed: 02/09/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/30/2024.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/qnguyen/

Amazon - Exhibit 1003 - Page 1

PTO/AIA/96 (11-23)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: NL Giken Incorporated

Application No./Patent No.: 9,319,615 Filed/Issue Date: April 19, 2016

Titled: TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER

NL Giken Incorporated (Name of Assignee) , a Corporation (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. [x] The assignee of the entire right, title, and interest.

2. [ ] An assignee of less than the entire right, title, and interest (check applicable box):

   [ ] The extent (by percentage) of its ownership interest is _____ %. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   [ ] There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. [ ] The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. [ ] The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. [ ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached*.

B. [x] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Tohru Matsui To: Masahide Tanaka
   The document was recorded in the United States Patent and Trademark Office at
   Reel 066035, Frame 0811, or for which a copy thereof is attached*.

2. From: Masahide Tanaka To: NL Giken Incorporated
   The document was recorded in the United States Patent and Trademark Office at
   Reel 066066, Frame 0353, or for which a copy thereof is attached*.

PTO/AIA/96 (11-23)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____ , Frame _____ , or for which a copy thereof is attached*.

4. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____ , Frame _____ , or for which a copy thereof is attached*.

5. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____ , Frame _____ , or for which a copy thereof is attached*.

6. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____ , Frame _____ , or for which a copy thereof is attached*.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ *As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/James H. Morris/	January 24, 2024
Signature	Date
James H. Morris	34,681
Printed or Typed Name	Title or Registration Number

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	

Application Number	Patent#: 9,319,615
Filing Date	Issued: April 19, 2016
First Named Inventor	Masahide Tanaka
Art Unit	2422
Examiner Name	S. N. Haiem
Attorney Docket Number	N0692.70002US02

ENCLOSURES (*Check all that apply*)

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [x] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):

Statement under 37 CFR 3.73(c)

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/James H. Morris/		
Printed name	James H. Morris		
Date	January 24, 2024	Reg. No.	34,681

Certificate of Electronic Filing under 37 C.F.R. § 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office's electronic filing system in accordance with 37 C.F.R. § 1.6(a)(4).

Dated: January 30, 2024 Signature: /Stacey L. Appleton/ (Stacey L. Appleton)

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
14/145,935	**01/30/2024 01:24:48 PM Z ET**	**US4CA2**

Title of Invention

TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	9319615
CONFIRMATION #	2279	FILED BY	Stacey Appleton
PATENT CENTER #	64138731	FILING DATE	01/01/2014
CUSTOMER #	67628	FIRST NAMED INVENTOR	Masahide Tanaka
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	James Morris

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
N069270002US02-TRN-JHM.pdf	1	Miscellaneous Incoming Letter	26 KB
N069270002US02-373-JHM.pdf	2	Assignee showing of ownership per 37 CFR 3.73	26 KB
N069270002US02-POA-JHM.pdf	3	Power of Attorney	4342 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
N069270002US02-TRN-JHM.pdf	1AC228A8430880652C60F9AB097409322B3F5305844843B732527278AC327319C19B829A75D8F200C472966E8DEC0D541B16

	74C2FBEAC65F8AC8381CFA98C434
N069270002US02-373-JHM.pdf	DCF0AAD7F459DC7C6E673C2BEC86F7FD0E84B9647ED5A8D8B11B4E78EAA26F5E70F3F7F3E956A791E0E742307D634A9B07010DC3DBEBD99A30C5DC1DF47FED91
N069270002US02-POA-JHM.pdf	52BD0F48B7B6D47114C425687A5147A3A72064A3195FEC04C819AA33A818956899C9E9C09D6E5CA7D7DE19014F54D8ECC08423F94C37B6C12B27D823A8607845

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

POWER OF ATTORNEY REGARDING APPLICATIONS/PATENTS BEFORE THE USPTO

GENERAL POWER OF ATTORNEY

I hereby revoke all previous powers of attorney given in the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

I hereby appoint Practitioners associated with the Customer Number:

23628

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

Please change the correspondence address for the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c) to:

The address associated with Customer Number: **23628**

Statements under 37 CFR 3.73(c) attached hereto may be completed by one of the practitioners appointed above if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

Assignee Name and Address:
NL Giken Incorporated
1-17-9, Ozone, Toyonaka-Shi
Osaka, Japan 561-0813

SIGNATURE of Assignee of Record The individual whose signature and title is supplied below is authorized to act on behalf of the assignee		
Signature	Masahide Tanaka	Date January 15, 2024
Name	MASAHIDE TANAKA	Telephone +81 6 6334 6204
Title	CHIEF EXECUTIVE OFFICER	

11973719.1

Schedule of Patents/Applications

WGS Ref. No.	Title	Cty	Appln No.	Filing Date	Patent No.	Issue Date
N0692.70000US00	MOVING IMAGE DATA DELIVERY SYSTEM, AN ADVERTISING IMAGE DATA DELIVERY SYSTEM, AND A MOVING IMAGE VIEWING APPARATUS	US	14/044,969	10/03/2013	9,197,939	11/24/2015
N0692.70001US00	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/519,389	10/21/2014	9,210,464	12/08/2015
N0692.70001US02	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/224,070	03/25/2014		
N0692.70001US03	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/934,331	11/06/2015	9,762,964	09/12/2017
N0692.70001US04	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/633,776	06/27/2017	9,948,968	04/17/2018
N0692.70001US05	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/922,926	03/16/2018	10,880,593	12/29/2020
N0692.70001US06	DIGITAL CONTENTS RECEIVING APPARATUS	US	17/108,017	12/01/2020		
N0692.70001US07	DIGITAL CONTENTS RECEIVING APPARATUS	US	18/093,798	01/05/2023		
N0692.70002US02	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	14/145,985	01/01/2014	9,319,615	04/19/2016
N0692.70002US03	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/067,240	03/11/2016	10,028,024	07/17/2018
N0692.70002US04	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/635,266	06/28/2017	10,284,803	05/07/2019
N0692.70002US05	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	16/009,278	06/15/2018		
N0692.70002US06	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	17/107,917	11/30/2020		
N0692.70003US00	VEHICLE CAPABLE OF LOW NOISE RUNS	US	14/481,933	09/10/2014	9,352,688	05/31/2016
N0692.70004US00	DIGITAL CAMERA WITH COMMUNICATION FUNCTION	US	15/462,983	03/20/2017	10,992,547	08/17/2020
N0692.70005US00	RECEIVING APPARATUS CAPABLE OF RECEIVING DIGITAL CONTENTS AND COMMERCIAL MESSAGES	US	16/888,740	05/31/2020	11,218,782	01/04/2022

N0692.70007US00	DIGITAL IMAGE VIEWING SYSTEM, A CELLAR PHONE AND A DIGITAL PHOTO FRAME	US	16/362,659	03/24/2019	10,764,432	9/1/2020
N0692.70008US00	3D IMAGE CONTENTS VIEWING SYSTEM	US	16/257,251	01/25/2019	10,728,535	07/28/2020
N0692.70009US00	ELECTRONIC MUSIC BOX	US	15/633,866	06/27/2017	10,032,442	07/24/2018

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	04/19/2016	9319615	US4CA2	2279

67628 7590 03/30/2016

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Masahide Tanaka, Osaka, JAPAN;
Tohru Matsui, Nara, JAPAN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PTO/SB/47 (03-09)
Approved for use through 03/31/2012. OMB 0651-0016
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
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"FEE ADDRESS" INDICATION FORM

Address to:
Mail Stop M Correspondence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

- OR -

Fax to:
571-273-6500

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below**: If you have a Customer Number to represent the fee address. **When to check the second box below**: If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:

☑ Customer Number: 67628

OR

☐ The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
	14/145,935

Completed by (check one):

☑ Applicant/Inventor — /Masahide Tanaka/ (Signature)

☐ Attorney or Agent of record _____ (Reg. No.) — Masahide Tanaka (Typed or printed name)

☐ Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) — +81 6 6334 6204 (Requester's telephone number)

☐ Assignee recorded at Reel _____ Frame_____ — March 9, 2016 (Date)

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more that one signature is required, see below*.

☐ * **Total of _____forms are submitted.**

This collection of information is required by 37 CFR 1.363. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1. 11 and 1.14. This collection is estimated to take 5 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313- 1450. DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.
SEND TO: Mail Stop M Correspondence, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	14145935
Filing Date:	01-Jan-2014
Title of Invention:	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER
First Named Inventor/Applicant Name:	Masahide Tanaka
Filer:	Masahide Tanaka
Attorney Docket Number:	US4CA2

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	2501	1	480	480

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**480**

Electronic Acknowledgement Receipt

EFS ID:	25142116
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	09-MAR-2016
Filing Date:	01-JAN-2014
Time Stamp:	08:46:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$480
RAM confirmation Number	7266
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	14145935ptol85b.pdf	73359 4c4a582295fb856197c890de55de0a33821 4f5d5	no	2
Warnings:					
Information:					
2	Change of Address	14145935sb0047.pdf	311406 63b1325ac6760e63fb9dcce7086416c7649 579be	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	29990 05f6cdeb113bf6fe503451dcebdb8cc0aef4 7c68	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	414755		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Masahide Tanaka
1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

TITLE OF INVENTION:

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$480	$0	$0	$480	03/10/2016

EXAMINER	ART UNIT	CLASS-SUBCLASS

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____ 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: NL GIKEN INCORPORATED

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Osaka, JAPAN

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ■ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☑ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.

☑ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Masahide Tanaka/ Date March 9, 2016

Typed or printed name Masahide Tanaka Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE
COMMISSIONER FOR PATENTS
P.O.BOX 1450
ALEXANDRIA VA 22313-1451

PRESORTED
FIRST-CLASS MAIL
U.S. POSTAGE PAID
POSTEDIGITAL
NNNNN

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA
JAPAN
OSAKA,
JAPAN

Courtesy Reminder for
Application Serial No: 14/145,935

Attorney Docket No: US4CA2
Customer Number: 67628
Date of Electronic Notification: 12/10/2015

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
GUITAR@KYM.BIGLOBE.NE.JP

To view your correspondence online or update your email addresses, please visit us anytime at **https://sportal.uspto.gov/secure/myportal/privatepair.** If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

67628 7590 12/10/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER
HAIEM, SEAN N

ART UNIT	PAPER NUMBER
2422	

DATE MAILED: 12/10/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

TITLE OF INVENTION: TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	03/10/2016

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67628 7590 12/10/2015
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

TITLE OF INVENTION: TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	03/10/2016

EXAMINER	ART UNIT	CLASS-SUBCLASS
HAIEM, SEAN N	2422	348-553000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29 — NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27 — NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

Amazon - Exhibit 1003 - Page 21

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 12/10/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

DATE MAILED: 12/10/2015

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/145,935	Applicant(s) TANAKA ET AL.	
	Examiner SEAN HAIEM	Art Unit 2422	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *09/07/2015*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are *10,12,18 and 21-33*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov .
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/SEAN HAIEM/ Examiner, Art Unit 2422	/JEFFEREY HAROLD/ Supervisory Patent Examiner, Art Unit 2422

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

CPC- SEARCHED		
Symbol	Date	Examiner
H04N5/44; H04H60/32; H04N7/17318; H04N21/4223; H04N21/4312; H04N21/4314; H04N21/44222; H04N21/4424; H04N21/4786; H04N21/4788; H04N21/6582; H04N5/44	11/20/2015	snh

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Classification insight.	9/3/2013	snh
Edan search for inventor and in the east as well	9/3/2013	snh
East class and subclass searched or found 348/553, 97, 734, 730, 143 725/86 455/179.1	9/3/2013	snh
East word search combined with class	9/3/2013	snh
East IDS search, and prior art	9/3/2013	snh
Updated the search for the amended claims of this instant application which is a child of the parent application 13/345,746 for which the initial search record had already been established.	4/10/2014	snh
Extended search for the RCE amendment,	12/16/2014	snh
Extebded search for the 2nd RCE	11/20/2015	snh
After consultation with Brian Yenke (primary), also updated inventor search, added interference search. All completed prior to allowance.	11/20/2015	snh

/SEAN HAIEM/ Examiner.Art Unit 2422	

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
H04N5/44; H04H60/32; H04N7/17318; H04N21/4223; H04N21/4312; H04N21/4314; H04N21/44222; H04N21/4424; H04N21/4786; H04N21/4788; H04N21/6582; H04N5/44		11/20/2015	snh
348	553, 143, 734	11/20/2015	snh
725	86, 41, 105	11/20/2015	snh
709	205, 203	11/20/2015	snh
455	179.1	11/20/2015	snh

/SEAN HAIEM/ Examiner.Art Unit 2422	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2015/11/20 14:29
L2	5	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2015/11/20 14:31
L3	25	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:33
L4	2	(@ad or @pd or @ptad)<"20060407" and remote control$4 with (smart or wireless or cell) phone and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:41
L5	8	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:42
L6	1	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television) and microphone and loudspeaker and scroll and menu with (key or button)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:42
L7	27	(@ad or @pd or @ptad)<"20060407" and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:43
L8	20	(@ad or @pd or @ptad)<"20060407" and ((H04N5/44; H04H60/32; H04N7/17318; H04N21/4223; H04N21/4312; H04N21/4314; H04N21/44222; H04N21/4424; H04N21/4786; H04N21/4788; H04N21/6582; H04N5/44).cpc. or (348/553,97,734,730,143 or 725/86,41,105 or 709/205,203 or 455/179.1).ccls.) and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2015/11/20 14:49
S114	149	((MASAHIDE) near2 (TANAKA)).INV.	US-PGPUB;	ADJ	ON	2013/04/25 16:48

			USPAT			
S115	3	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:51
S117	22	((TOHRU) near2 (MATSUI)).INV.	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:54
S121	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 17:01
S122	3	(@ad or @pd or @ptad)<"20060407" and "2004265219"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:01
S123	2	@ad<"20060407" and "2005228012"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:03
S124	2	@ad<"20060407" and 348/553.ccls. and email	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:04
S125	51	@ad<"20060407" and 348/553.ccls. and pc and remote	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S126	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S127	27	S125 not S126	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S128	51	@ad<"20060407" and 348/553.ccls. and pc and remote	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S129	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S130	27	S128 not S129	US-PGPUB;	ADJ	ON	2013/04/25 17:09

			USPAT; FPRS; EPO; JPO; DERWENT			
S131	25	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:13
S132	4	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:14
S133	1	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief) and key$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:17
S134	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (address or email)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:18
S135	45	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:19
S136	0	@ad<"20060407" and 348/553.ccls. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:20
S137	1	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:20
S138	40	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:21
S140	6	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-	US-PGPUB;	ADJ	ON	2013/04/25 17:23

		20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did.	JPO			
S141	4	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did. and control	US-PGPUB; JPO	ADJ	ON	2013/04/25 17:23
S142	347	@ad<"20060407" and "348".clas. and remote control and shared with channel	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:24
S143	31	@ad<"20060407" and "348".clas. and remote control and shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S144	0	@ad<"20060407" and "348".clas. and remote control and watch$4 shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S145	14	@ad<"20060407" and "348".clas. and remote control and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S146	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with multiple tv)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:26
S147	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with tv)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:26
S148	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with TV)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:27
S149	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:27
S150	0	@ad<"20060407" and "348".clas. and (alert signal) with key$1 and (tv or television) and remote control	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28

S151	13	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28
S152	1	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S153	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S154	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S155	26	@ad<"20060407" and ("725" or "348").clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:30
S157	1	(@ad or @pd or @ptad)<"20060407" and "20050130613"	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2013/04/25 17:40
S158	1	@ad<"20060407" and remote control with key$1 with alert and (TV or television) and panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:27
S159	6	@ad<"20060407" and remote control with key$1 with (abnormal or panic) and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:37
S160	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:09
S161	22	@ad<"20060407" and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:10
S162	3	((MASAHIDE) near2 (TANAKA)).INV. and	US-	ADJ	ON	2013/09/03

		television function and detector arranged with cause with change	PGPUB; USPAT			16:12
S163	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/09/03 16:13
S170	4	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S171	4	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S174	25	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:35
S186	2	(@ad or @pd or @ptad)<"20060407" and remote control$4 with (smart or wireless or cell) phone and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:49
S187	8	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:56
S205	1	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television) and microphone and loudspeaker and scroll and menu with (key or button)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 13:26
S206	27	(@ad or @pd or @ptad)<"20060407" and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/12/16 15:47

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L11	3	((H04N5/44; H04H60/32; H04N7/17318; H04N21/4223; H04N21/4312; H04N21/4314; H04N21/44222; H04N21/4424; H04N21/4786; H04N21/4788; H04N21/6582; H04N5/44).cpc. or (348/553,97,734,730,143 or 725/86,41,105 or 709/205,203 or 455/179.1).ccls.) and television function and detector arranged with cause with change	US-PGPUB	ADJ	ON	2015/11/20 14:51
L12	3	television function and detector arranged with cause with change	US-PGPUB	ADJ	ON	2015/11/20 14:52
S164	681	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller	US-PGPUB; * No UPAD	ADJ	ON	2013/09/03 16:31

S166	18	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined	US-PGPUB; * No UPAD	ADJ	ON	2013/09/03 16:35
S167	2	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; * No UPAD	ADJ	ON	2013/09/03 16:35
S168	3	remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; * No UPAD	ADJ	ON	2013/09/03 16:36
S169	2	remote controller and plurality with keys with predetermined and first controller and second controller and abnormal	US-PGPUB; * No UPAD	ADJ	ON	2013/09/03 16:37

11/20/2015 2:53:21 PM
C:\Users\shaiem\Documents\EAST\Workspaces\14-145-935 (allowed parent 13-345-746, its allowed parent 11-697-413 a better match) Television system, set, remote controller.wsp

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

CPC						
Symbol					**Type**	**Version**
H04N		5	/	44	F	2013-01-01
H04H		60	/	32	I	2013-01-01
H04H		60	/	76	A	2013-01-01
H04H		60	/	80	A	2013-01-01
H04N		7	/	17318	I	2013-01-01
H04N		21	/	4223	I	2013-01-01
H04N		21	/	4312	I	2013-01-01
H04N		21	/	4314	I	2013-01-01
H04N		21	/	44222	I	2013-01-01
H04N		21	/	4424	I	2013-01-01
H04N		21	/	4786	I	2013-01-01
H04N		21	/	4788	I	2013-01-01
H04N		21	/	6582	I	2013-01-01
			/			
			/			

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
			/					
			/					

/SEAN HAIEM/ Examiner.Art Unit 2422	11/20/2015	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	16	
/JEFFEREY HAROLD/ Supervisory Patent Examiner.Art Unit 2422	11/30/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	10	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
348	553

CROSS REFERENCE(S)					
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**				
348	97	734	730	143	
725	86	41	105		
709	205	203			
455	179.1				

INTERNATIONAL CLASSIFICATION																
CLAIMED						**NON-CLAIMED**										
H	0	4	N	5 / 44 (2011.0)												
H	0	4	H	60 / 32 (2008.0)												
H	0	4	N	7 / 173 (2011.0)												
H	0	4	N	21 / 4223 (2011.0)												
H	0	4	N	21 / 431 (2011.0)												
H	0	4	N	21 / 442 (2011.0)												
H	0	4	N	21 / 478 (2011.0)												
H	0	4	N	21 / 658 (2011.0)												

/SEAN HAIEM/ Examiner.Art Unit 2422	11/20/2015	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	16	
/JEFFEREY HAROLD/ Supervisory Patent Examiner.Art Unit 2422	11/30/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	10	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	-	17	16	33										
-	2	3	18												
-	3	-	19												
-	4	-	20												
-	5	4	21												
-	6	5	22												
-	7	6	23												
-	8	7	24												
-	9	8	25												
1	10	9	26												
-	11	10	27												
2	12	11	28												
-	13	12	29												
-	14	13	30												
-	15	14	31												
-	16	15	32												

/SEAN HAIEM/ Examiner.Art Unit 2422	11/20/2015	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	16	
/JEFFEREY HAROLD/ Supervisory Patent Examiner.Art Unit 2422	11/30/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	10	1

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14/145,935	Filing Date	2014-01-01	Docket Number (if applicable)	US4CA2	Art Unit	2422
First Named Inventor	Masahide TANAKA			Examiner Name	HAIEM, SEAN N		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☒ Other The 2nd after final amendment (4/27/2015)

☐ Enclosed

☐ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☐ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☐ Patent Practitioner Signature

☒ Applicant Signature

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Applicant Signature			
Applicant 1		Remove	
Signature	/Masahide Tanaka/	Date (YYYY-MM-DD)	2015-09-07
Name	Masahide Tanaka		
Click ADD for additional Applicant Signature		Add	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	14145935
Filing Date:	01-Jan-2014
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Filer:	Masahide Tanaka
Attorney Docket Number:	US4CA2

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
RCE- 2nd and Subsequent Request	2820	1	850	850
		Total in USD ($)		**950**

Electronic Acknowledgement Receipt

EFS ID:	23418164
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	07-SEP-2015
Filing Date:	01-JAN-2014
Time Stamp:	09:03:35
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$950
RAM confirmation Number	21525
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	14145935RCE2sb0030.pdf	697630 a0497018a7504a7956e86ec0445eeb3b9933dd52	no	3
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31794 2e7fbe5450919ef981a8a3c16a594057f7f8b7df	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	729424		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 08/13/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
08/13/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 14/145,935	**Applicant(s)** TANAKA ET AL.	
	Examiner SEAN HAIEM	**Art Unit** 2422	**AIA (First Inventor to File) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 July 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☒ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☒ Other: Attached PTO 2323, and A.NE to enter the claims.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: .
    Claim(s) withdrawn from consideration: .

/JEFFEREY HAROLD/ Supervisory Patent Examiner, Art Unit 2422	/SEAN HAIEM/ Examiner, Art Unit 2422

Continued from box 7b:

The 2nd after final amendment (7/24/2015) is received in response to the Advisory action mailed also on (7/24/2015) , which amends the previous amended claims as of 7/8/2015 with specific features as detailed in the previous advisory action in agreement with the first After-Final arguments. The amended claims (7/24/2015) overcome the current references in the last office action. However as clearly stated in the previous Advisory action, the new amendments change the scope of the independent claims beyond the previous search and require an expanded search which will not be within the guidelines of the AFCP 2.0 pilot program. Thus, the amendments are entered for two reasons. First, if the applicant would decide to appeal; Second reason, if the applicant would use the current amended claims exactly as presented which already has been considered and as stated above will overcome the current references and allow for required further search of the new scope using a request as continuation.

The limitation argued, and now implemented in the claims as of 07/24/2015, "viewing start request, NOT being sent by either TV to each other", that is, "one TV without the request or acknowledgement from the other TV, sending its currently viewed channel to the other TV", would overcome the current references by changing the scope of the claims, but requires further search and consideration for the new scope.

AFCP 2.0 Decision	Application No.	Applicant(s)
	14/145,935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

This is in response to the After Final Consideration Pilot request filed 08 July 2015.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

   ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.

   ☐ A non-broadening amendment to at least one independent claim was not submitted.

   ☐ A proper AFCP 2.0 request was submitted in response to the most recent final rejection.

   ☐ Other:

2. **Proper Request**

   A. After final amendment submitted with the request will not be treated under AFCP 2.0.
   The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

   ☐ The after final amendment will be treated under pre-pilot procedure.

   B. Updated search and/or completed additional consideration.
   The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

   ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.

   ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action. See attached interview summary for further details.

   ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.

   ☐ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.

☒ 5. Other: The 2nd after final amendment (7/24/2015) is received in response to the Advisory action mailed also on (7/24/2015) , which amends the previous amended claims as of 7/8/2015 with specific features as detailed in the previous advisory action in agreement with the first After-Final arguments. The amended claims (7/24/2015) overcome the current references in the last office action. However as clearly stated in the previous Advisory action, the new amendments change the scope of the independent claims beyond the previous search and require an expanded search which will not be within the guidelines of the AFCP 2.0 pilot program. Thus, the amendments are entered for two reasons. First, if the applicant would decide to appeal; Second reason, if the applicant would use the current amended claims exactly as presented which already has been considered and as stated above will overcome the current references and allow for required further search of the new scope using a request as continuation. Please also see the bottom of the Advisory action form PTO-303.

Examiner Note: Please attach an interview summary when necessary as described above.

OK TO ENTER: /SH/

Patent *Docket No.: US4CA2*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA et al.	Confirmation No.: 2279
Application No.: 14/145,935	Examiner: HAIEM, SEAN N
Filed: January 1, 2014	Group Art Unit: 2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

Amazon - Exhibit 1003 - Page 48

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 07/24/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
07/24/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 14/145,935	**Applicant(s)** TANAKA ET AL.	
	Examiner SEAN HAIEM	**Art Unit** 2422	**AIA (First Inventor to File) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 July 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☒ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☒ Other: Attached PTO 2323, and A.NE to enter the claims.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: .
    Claim(s) withdrawn from consideration: .

/JEFFEREY HAROLD/ Supervisory Patent Examiner, Art Unit 2422	/SEAN HAIEM/ Examiner, Art Unit 2422

Continued from box 7b:

The after final amendment only clarifies the same scope more accurately but it has been already considered in the previous office action, these new limitations are met with the same explanation and citations; thus, there is no new and novel feature added to be met. The amendments are entered for two reasons. First, if the applicant would intent to appeal; Second reason, if the applicant would use the recommendation which is based on the arguments to further amend the claims in order to overcome the current references by changing the scope of the claims; please note in that case, further search and consideration will be required and it will not be within the guidelines of the AFCP 2.0 pilot program. The recommendation is based on the arguments as detailed below:

The applicant has argued on page 7 of the After Final arguments:

By the amendment, it is now definitely clear that the present invention does not cover any of “hand shake” between different TVs, “common viewing operation mode”, “common viewing program table”, “simultaneous viewing start request”, and “a control command” from a master to a slave, or the like, which are disclosed by Kutsuna.

The examiner response:

The "hand shake" is the process of receiving the control signal from another TV conveying the channel that is presently being viewed, to the receiver TV and interpreted by the examiner as an existing process in the instant application claim language, and it is not clear that instant application has a way around it, or even if it can prevent it. More importantly, to identify which extra features, limitations, embodiments or extra capabilities lie within a reference that provide more limitations than the instant application does not prevent the structure and the functionality of the instant application to be provided by the reference as already detailed in the previous office action. It is the limitations of the instant applications that are all met by the reference, not the extra limitations of the reference that should be argued.

Respectfully, there is only one limitation argued above, "viewing start request, NOT being sent by either TV to each other", that is, "one TV without the request or acknowledgement from the other TV, sending its currently viewed channel to the other TV", which if implemented in detail, would overcome the current references by changing the scope of the claims and requiring further search and consideration.

AFCP 2.0 Decision	Application No.	Applicant(s)
	14/145,935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

This is in response to the After Final Consideration Pilot request filed 08 July 2015.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

   ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.

   ☐ A non-broadening amendment to at least one independent claim was not submitted.

   ☐ A proper AFCP 2.0 request was submitted in response to the most recent final rejection.

   ☐ Other:

2. **Proper Request**

   A. After final amendment submitted with the request will not be treated under AFCP 2.0.
   The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

   ☐ The after final amendment will be treated under pre-pilot procedure.

   B. Updated search and/or completed additional consideration.
   The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

   ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.

   ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action. See attached interview summary for further details.

   ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.

   ☐ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.

☒ 5. Other: The after final amendment only clarifies the same scope more accurately but it has been already considered in the previous office action, these new limitations are met with the same explanation and citations; thus, there is no new and novel feature added to be met. The amendments are entered for two reasons. First, if the applicant would intent to appeal; Second reason, if the applicant would use the recommendation which is based on the arguments to further amend the claims in order to overcome the current references by changing the scope of the claims; please note in that case, further search and consideration will be required and it will not be within the guidelines of the AFCP 2.0 pilot program. The recommendation is based on the arguments as detailed at the bottom of the Advisory action form PTO-303.

Examiner Note: Please attach an interview summary when necessary as described above.

OK TO ENTER: /SH/

Patent *Docket No.: US4CA2*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner: HAIEM, SEAN N	
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA et al.	Confirmation No.: 2279
Application No.: 14/145,935	Examiner: HAIEM, SEAN N
Filed: January 1, 2014	Group Art Unit: 2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive, without request or acknowledgement, information of one definite broadcast program which can be displayed on the display and is identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the one definite broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program which is currently not displayed on the display, but can be displayed by a channel change , and

wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller.

11. (Cancelled)

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12. (Previously Presented) The television set system according to claim 10, wherein the channel information of the another television set is converted into its own local channel number if it differs from that of the local channel number in an area where the another television set is located.

13-17. (Cancelled)

18. (Previously Presented) The television set system according to claim 10, wherein the manual controller is a remote controller including:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the one definite broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.

19-20. (Cancelled)

21. (Currently Amended) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive, without request or acknowledgement, information of one definite broadcast program which can be displayed on the display and is identified by the program selection of the another broadcast program viewing system, the information including information of a broadcast program which is not currently not displayed on the display, but can be displayed by a channel change; and

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual

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operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the change in the display of the own broadcast program viewing system into the one definite broadcast program identified by the program selection of the another broadcast program viewing system with the information received by the receiver, wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion, the same manual operation being universal regardless of the information and without any program selecting operation.

22. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (Currently Amended) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing

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system in another place in accordance with information of one definite broadcast program which can be viewed by the broadcast program viewing system and is identified by the program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including a predetermined operating portion to generate, in response to a same manual operation from own motive of a viewer, a control signal for carrying out replacement of a currently viewed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system, the same manual operation being universal regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to the same manual operation from own motive of the viewer at the predetermined operating portion to instantly carry out the replacement of the currently viewed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system, wherein the same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the replacement of the broadcast program of the own broadcast program viewing system into the one definite broadcast program identified by the program selection of the another broadcast program viewing system in accordance with the information,

wherein the information includes information of a broadcast program which is not currently viewed, but can be viewed by a channel change, the information being without request or acknowledgement from the another broadcast program viewing system.

26. (Previously Presented) The remote controller according to claim 25 further comprising a display.

27. (Previously Presented) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

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28. (Previously Presented) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

29. (Previously Presented) The remote controller according to claim 28 further comprising a speaker.

30. (Previously Presented) The remote controller according to claim 29 further comprising a microphone.

31. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

This is in full and timely response to the Official Action of May 8, 2015 and Advisory Action of July 24, 2015. Reexamination in light of the following remarks is respectfully requested.

This Amendment is submitted together with a request under the AFCP 2.0 program. In the event the Office does not deem the application to be in condition for allowance, applicant respectfully requests that he Examiner contact the undersigned applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible.

Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 10, 21 and 25 being independent. Claims 10, 21 and 25 have been amended. No new matter has been introduced by the amendments.

Pursuant to the recommendation in the Advisory Action, all the independent claims have been further amended in order to overcome the current references by changing the scope of the claims.

Respectfully submitted,

Date: July 24, 2015

Masahide Tanaka
NL Giken Incorporated
561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/
Masahide Tanaka
Applicant

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Electronic Acknowledgement Receipt

EFS ID:	23016838
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	24-JUL-2015
Filing Date:	01-JAN-2014
Time Stamp:	14:22:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		14145935RCEResponsToAdvisoryAction.pdf	39994 9ef79705ebfa26cb006219e8b79f2a2332078b4e	yes	7

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Copy Claims/Response to Suggested Claims	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	7
Warnings:			
Information:			
	Total Files Size (in bytes):	39994	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **07/24/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/ANITA JOHNSON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner:	HAIEM, SEAN N
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of [[a]] one definite broadcast program which can be displayed on the display and is identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the one definite broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program which is currently not displayed on the display, but can be displayed by a channel change , and

wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller.

11. (Cancelled)

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12. (Previously Presented) The television set system according to claim 10, wherein the channel information of the another television set is converted into its own local channel number if it differs from that of the local channel number in an area where the another television set is located.

13-17. (Cancelled)

18. (Currently Amended) The television set system according to claim 10, wherein the manual controller is a remote controller including:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the one definite broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.

19-20. (Cancelled)

21. (Currently Amended) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive information of [[a]] one definite broadcast program which can be displayed on the display and is identified by the program selection of the another broadcast program viewing system, the information including information of a broadcast program which is not currently not displayed on the display, but can be displayed by a channel change; and

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual

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operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the change in the display of the own broadcast program viewing system into the one definite broadcast program identified by the program selection of the another broadcast program viewing system with the information received by the receiver, wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion, the same manual operation being universal regardless of the information and without any program selecting operation.

22. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (Currently Amended) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing

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system in another place in accordance with information of [[a]] one definite broadcast program which can be viewed by the broadcast program viewing system and is identified by the program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including a predetermined operating portion to generate, in response to a same manual operation from own motive of a viewer, a control signal for carrying out replacement of a currently viewed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system, the same manual operation being universal regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to the same manual operation from own motive of the viewer at the predetermined operating portion to instantly carry out the replacement of the currently viewed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system, wherein the same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the replacement of the broadcast program of the own broadcast program viewing system into the one definite broadcast program identified by the program selection of the another broadcast program viewing system in accordance with the information,

wherein the information includes information of a broadcast program which is not currently viewed, but can be viewed by a channel change.

26. (Previously Presented) The remote controller according to claim 25 further comprising a display.

27. (Previously Presented) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

28. (Previously Presented) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

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29. (Previously Presented) The remote controller according to claim 28 further comprising a speaker.

30. (Previously Presented) The remote controller according to claim 29 further comprising a microphone.

31. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

This is in full and timely response to the Official Action of May 8, 2015. Reexamination in light of the following remarks is respectfully requested.

This Amendment is submitted together with a request under the AFCP 2.0 program. In the event the Office does not deem the application to be in condition for allowance, applicant respectfully requests that he Examiner contact the undersigned applicant to schedule a phone interview to discuss the application.

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 10, 21 and 25 being independent. Claims 10, 18, 21 and 25 have been amended. No new matter has been introduced by the amendments.

The amendment is made so as to simplify the issue for AFCP 2.0 reconsideration.

In particular, the independent claims are amended to solely clarify that the present invention is limited to have the feature of "a predetermined same manual operation from own motive of a viewer" which instantly replaces the current broadcast program with another one definite broadcast program on identifying information without any program selecting operation.

By the amendment, it is now definitely clear that the present invention does not cover any of "hand shake" between different TVs, "common viewing operation mode", "common viewing program table", "simultaneous viewing start request", and "a control command" from a master to a slave, or the like, which are disclosed by Kutsuna.

The rejection relies on "simultaneous viewing start key 34" shown in Fig. 2. However, the element "34" is not for "a predetermined same manual operation from own motive of a viewer" which instantly replaces the current broadcast program with another one definite broadcast program on identifying information without any program selecting operation, but a key for starting the simultaneous viewing process. No key or operation, which may seemingly relate to the "predetermined same manual operation" of the present invention, is disclosed in Kutsuna

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other than element "34"

The current amendment is not believed to raise a new issue, but is limited to a clarification of the point which has been already discussed in our responses to the previous Office Actions.

The rejection is respectfully considered not on a direct disclosure of Kutsuna, but on an "interpretation" thereof. If a more direct prior art exists, such a prior art may be preferred to the "interpretation" of Ktsuna. Thus, it is respectfully believed that the search has been exhausted. And, now the amendment is believed to be so limited that the present invention is successfully distinguished from Kutusna for all "interpretation". Reconsideration under AFCP 2.0 program is respectfully requested. .

I. Claim Rejections – 35 U.S.C. §102

Claims 10, 12, 18, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna. However, reconsideration is respectfully requested.

1. Claims 10

As has been pointed out, the element "34" of Kutsuna, Fig. 2 is not for "a predetermined same manual operation from own motive of a viewer" which instantly replaces the current broadcast program with another one definite broadcast program on identifying information without any program selecting operation, but a key for starting the simultaneous viewing process.

For the convenience of reconsideration, the followings are citations of all the paragraphs in Kutsuna referring to "simultaneous viewing start key 34" or "simultaneous viewing start key 1034" for our best efforts (Emphasis added.):

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[0176] FIG. 2 is a plan view of a remote control 22a or 22b, provided with a channel up key 30, a channel down key 32, a simultaneous viewing start key 34 and numeral keys 36.

[0083] FIG. 10 is comprised of FIGS. 10A and 10B showing flow charts of a process in the embodiment 1 executed by a control portion 74 of a TV receiver 10a when a simultaneous viewing start key 34 is depressed for the first time by a user after the power supply is turned on, or when a timer expiration is informed from a timer 66;

[0086] FIG. 13 is a flow chart showing a process in the embodiment 1 executed by the control portion 74 when a simultaneous viewing start key 34 and then a channel up/down key 30, 32 are depressed in at least either of the TV receivers 10a, 10b;

[0093] FIG. 20 is a flow chart showing a process in the embodiment 2 executed by the control portion 74 when a simultaneous viewing start key 34 and then a channel up/down key 30, 32 are depressed in at least either of the TV receivers 10a, 10b;

[0113] FIG. 40 is comprised of FIGS. 40A and 40B showing flow charts of a process in the embodiment 4 executed by a control portion 1074 of a TV receiver 1010a or 1010b when a simultaneous viewing start key 1034 is depressed for the first time by a user after the power supply is turned on, or when a timer expiration is informed from a timer 1066;

[0192] A remote control receiver 72, upon receiving a depression signal of the channel up key 30 or the channel down key 32 of the remote controller 22a or 22b, informs the control portion 74 of a channel up/down selecting operation corresponding to such key operation. Also the remote control receiver 72, upon receiving a depression signal of the simultaneous viewing start key 34 for the first time after the power supply is turned on, informs the control portion 74 of a simultaneous viewing start request.

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[0199] When the user depresses the simultaneous viewing start key 34 of the remote control 22a of the TV receiver 10a for the first time after the power supply is turned on (S101), the TV receiver 10a starts the timer 66 (S102) and at the same time transmits a master candidate request, for becoming a master of the program information process, to the TV receiver 10b (S103). The TV receiver 10b returns an OK response (S104).

[0216] FIGS. 10A and 10B are flow charts showing a process of the control portion 74 of the TV receiver 10a in case the user depresses the simultaneous viewing start key 34 for the first time after the power supply is turned on or a timer end notice is received from the timer 66.

[0227] FIG. 13 is a flow chart showing a process executed by the control portion 74 when the simultaneous viewing start key 34 and then the channel up/down key 30 or 32 are depressed in at least either of the TV receivers 10a, 10b.

[0256] FIG. 20 is a flow chart showing a process executed by the control portion 74 when the simultaneous viewing start key 34 and then the channel up/down key 30 or 32 are depressed in at least either of the TV receivers.

[0283] FIG. 29 is a flow chart showing a process executed by the control portion 74 in case the simultaneous viewing start key 34 and then a numeral key 36 are depressed in at least either of the TV receivers.

[0309] A remote control receiver 1072, upon receiving a depression signal of the simultaneous viewing start key 1034 for the first time after the power supply is turned on, informs the control portion 1074 of a simultaneous viewing start request.

[0315] When the user depresses the simultaneous viewing start key 1034 of the remote control 1022a of the TV receiver 1010a for the first time after the power supply is turned on (S1101), the TV receiver 1010a starts the timer 1066 (S1102) and at the same

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time transmits a master candidate request, for becoming a master of the program information process, to the TV receiver 1010b (S1103). The TV receiver 1010b returns an OK response (S104_2). Receiving the OK response, the TV receiver 1010a sets a master flag, indicating the master, at "1" (S105_2). In both TV receivers 1010a, 1010b, an initial state of the master flag is "0".

[0316] In case a user thereafter depresses the simultaneous viewing start key 1034 of the TV receiver 1010b (S1106), the TV receiver 1010b likewise starts the timer 1066 (S1107) and transmits a master candidate request (S1108). The TV receiver 1010a returns an NG response since its master flag is already at "1" (S1109).

[0337] FIGS. 40A and 40B are flow charts showing a process of the control portion 1074 of the TV receivers 1010a, 1010b in case the user depresses the simultaneous viewing start key 1034 for the first time after the power supply is turned on or a timer end notice is received from the timer 1066.

The rejection of claim 10 under 35 U.S.C. 102(b) as being anticipated by Kutsuna is believed to have been overcome by the clarification in the amendment and the fact above.

2. Claims 21 and 25

Other independent claims 21 and 25 are amended in the similar manner to that in claim 10 discussed above. Therefore, the rejections of claims 21 and 25 under 35 U.S.C. 102(b) as being anticipated by Kutsuna are believed to have been similarly overcome by the amendment, respectively.

3. Claims 12, 18, 22 and 24

Claims 12 and 18 depend on claim 10, and claim 22 and 24 depend on claim 21. Therefore, the rejections of these claims under 35 U.S.C. 102(b)2 as being anticipated by

Amazon - Exhibit 1003 - Page 74

Kutsuna have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

II. Claim Rejections – 35 U.S.C. §103

Claims 23 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutsuna in view of Chambers.

Claim 23 depends on claim 21, and claims 26-33 depend on claim 25. Therefore, the rejections of these claims under 35 U.S.C. 103(a) have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

III. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the amendment and the arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this amendment is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

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Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If any unresolved issues remain, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Date: July 8, 2015

Masahide Tanaka
NL Giken Incorporated
561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/
Masahide Tanaka
Applicant

Amazon - Exhibit 1003 - Page 76

Doc Code: A.NE.AFCP
Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0

Practitioner Docket No.:	Application No.:	Filing Date:
US4CA2	14/145,935	January 1, 2014
First Named Inventor:	**Title:**	
Masahide Tanaka	TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER	

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.

1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (*e.g.*, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).
2. The above-identified application contains an outstanding final rejection.
3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.
4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.
5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.
6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).
7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]
8. By filing this certification and request, applicant acknowledges the following:
    - Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.
    - The examiner will verify that the AFCP 2.0 submission is compliant, *i.e.*, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:
        - The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, by mailing an advisory action.
        - If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.
            - The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.
            - If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.

Signature	Date
/Masahide Tanaka/	July 8, 2015
Name (Print/Typed) Masahide Tanaka	Practitioner Registration No.

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

☐ * Total of _____ forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	22853845
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	08-JUL-2015
Filing Date:	01-JAN-2014
Time Stamp:	11:35:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		14145935RCEFOAResponse.pdf	53853 eaa955d0ada536cb4b01d658e3359c4c33ad7924	yes	13

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Response After Final Action	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	13

Warnings:					
Information:					
2	After Final Consideration Program Request	sb0434.pdf	225838 e44cf4a2d3898ff5ce46e7c335c6f26f9971aebd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	279691		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **07/08/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/JACQUELYN WILLIAMS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT

07/08/2015	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/JACQUELYN WILLIAMS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 05/08/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
05/08/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Office Action Summary	Application No.	Applicant(s)	
	14/145,935	TANAKA ET AL.	
	Examiner	Art Unit	
	SEAN HAIEM	2422	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2015*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10,12,18 and 21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10,12,18 and 21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The present application is being examined **under the pre-AIA first to invent** provisions.

DETAILED ACTION

STATUS

1. All the 20 claims originally presented in this **continuation application 14/145-935 were amended prior to the examination (at inception):**

Claims 1 – 9, 11, 13 – 17, 19, and 20 are canceled.

Claims 10, 12, 18, 21 – 33 are pending (including new claims 21 – 33).

The claims 1 – 20 were amended because in their original form they were the duplicate claims for the **first original parent 11/697-413 (dated April 6, 2007),** which was patented as **8,094,236.** However, the claims 11, 15, 16, 18 – 20 of the original parent at that time were canceled and remaining claims were amended to the specific language of the novelty.

The current instant application independent claims 10, 21 and 25 which are very similar to each other, differ from both the original parent above and also from the direct parent 13/345-746 in such language that they do not raise a rejection under double patenting. The direct parent 13/345-746 had also been allowed as patent 8,643,784, only after the amendment to claims 18-20 (similar to the canceled claims of the original parent) added specific novel language.

Response to Arguments

2. Applicant's RCE amendment necessitated the new ground(s) of rejection presented in this Office action.

The arguments assume that the paragraph [0386] {"it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels"} was the only citation meeting the previous amendment (very similar to the current amendment), that is not correct. **This paragraph was cited to provide additional information to the previous citations** as detailed in the office action; to show that even when some channels are not receivable by one TV, the common channels are communicated between the two (or several) TV so that each can select a channel that is viewable by all TVs. **The actual process of handshaking between different TVs**, **in addition to the the already cited paragraphs**, **is cited by paragraphs [153-154, 193] in particular to the current amended language.**

Either TV (among partner TVs) after handshaking, that is, providing the common viewing channels to each other, including the particular channel being watched on that TV, could change its own display channel **via special manual control button** { **Fig 2, element 34**, simultaneous viewing button on remote control, which **a**llows for sharing a channel without directly selecting a channel number**}** to watch the

same channel as the other TV from own motive of a viewer on the basis of the channel information received by the receiver.

In the simultaneous channel viewing mode activated by own motive of a viewer of the slave TV, the master TV does not select its own channel for the slave TV automatically {that is only in one of the embodiments), instead after both mutually transmit their channel information to each other, each TV makes a selection, that is, by the viewer of each TV, on the commonly receivable channels, as cited in [0153-154, 193] in addition to all other citations.

Please also note, in most embodiments cited, the words Master and slave portray roles of each TV at that moment, indicating which TV is requesting and which acknowledging, in order to send and receive the channel being watched on one TV to the other TV. The Master and slave roles are exchanged between TVs to complete the task where, each one knows the channel being watched by the other and has the choice to use the Fig 2, element 34 simultaneous viewing button to replace its broadcast channel with the channel being watched on the other TV.

Respectfully, all arguments have been considered but not found to be persuasive.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(Claims 10, 12, 18, 21 – 33 are pending)

3. Claims 10, 12, 18, 21, 22, 24, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1).

Regarding claim 10, Kutsuna discloses the subject matter of **{two TV sets which communicate through internet to share the same channel, using two remote controllers, where simultaneous viewing button, element 34 in Fig 2 on each remote controller, allows for sharing a channel without directly selecting a channel number}** as illustrated in **figures 1 – 6, 9, 10** and cited in the **abstract** and paragraphs **[0013-15, 17-18, 134-143, 153, 154, 193, 386] as mapped in the body of claim below:**

Claim 10 as claimed, "A television set system {figures 1 and 2 as printed with explanation below**}** comprising:

A television function unit [0017, 18];

A display arranged to display a broadcast program in accordance with the television function unit **[Fig 1 – 6, 9, 10]];**

A receiver arranged to receive information of a broadcast program **identified by a channel selection of another television set in another place [134-143, 153, 154]**; and

A **manual controller {remote controller in Figs 1, 2}** arranged to **change the display in response to a predetermined same manual operation from own motive of a viewer of the display {[0013-15, 153, 154, 193] meet the limitation that either TV could change** the display from own motive of a viewer} **on the basis** of the information received by the receiver, the predetermined same manual operation **from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own** television set into the broadcast program **identified by the channel selection of the another television set with the information received** by the receiver **{[0153, 154, 193]** disclose **an embodiment that each TV** (master /slave roles are played by either of the two TV, and roles are exchanged) **mutually transmit/receive its channel information to the other, where each TV can make a selection of the other TV's channel being watched, that is, by the viewer of each TV**, **on the commonly receivable channels** {commonly receivable channels are cited by **[0386]** "there may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance.

In such case, it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels"},

Wherein the information includes **information of a broadcast program currently not displayed on the display [0013-15]**, and

wherein the manual controller is arranged **to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set** in response to **a predetermined same manual operation, the same manual operation being universal {the push-down of the special button on the remote control in Fig 2} regardless of the information and without any channel selecting operation [0153, 154, 193]**, whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer **[0013-15]** by means of the manual controller **{[0193]}**.

Kutsuna paragraph section:

Fig 1 {**Two TV sets** communicate **through internet** to **share the same channel**,

22a, 22b two remote controllers},

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**},**

[0013] such **program selecting apparatus** may be so constructed that the predetermined **program is selectable both in the** aforementioned **program selecting apparatus** and in the aforementioned **other program selecting apparatus.**

[0017] Also **the selection circuit may be so constructed as** a circuit for **selectively outputting a signal for reproducing the predetermined program**, **transmitted by a predetermined channel, from a receivable broadcast signal**.

[0018] Also the selection circuit may be so constructed as a circuit for **selectively outputting a signal for reproducing the predetermined program**, **among signals stored in a memory** apparatus. **{Reads on, "converted into its own local channel number if it differs" of claim 12},**

[0134] in the following, there will be shown a constitution for **coordinated reception utilizing plural TV receivers.**

[0135] More specifically, there will be disclosed **a TV receiver for receiving television broadcasting, including:**

[0136] communication means which **communicates with an external TV receiver;**

[0137] operation means which **executes a station selecting operation for the TV receiver; and**

[0138] control means which **transmit a control command, for executing a station selecting operation same as the station selecting operation by the operation means, to the external TV receiver through the communication means.**

[0139] there is also disclosed **a TV reception system constituted of such TV receiver and an external controlled TV receiver.**

[0140] there is also disclosed **a TV receiver including:**

[0141] station selecting operation means;

[0142] means which **receives first program information from a broadcast wave;**

[0143] means which **executes a connection with an external TV receiver;**

[0153] There is also disclosed a **constitution of such TV receiver**, **having a common viewing operation mode** of executing **a channel selecting operation based on the common viewing program table**, and an operation mode for executing a channel selecting operation based on own program information.

[0154] there is also disclosed **a constitution of such TV receiver**, where **the common viewing program table is prepared at a switching to the common viewing operation mode**. There is also disclosed a constitution where, in the common viewing operation mode, **the common viewing program table is renewed at every predetermined time.**

[0193] the functions of the control portion 74 will be explained in detail. **Upon receiving a simultaneous viewing start request from the remote control reception portion 72** or a timer end notice from the timer 66, **the control portion 74 transmits a master candidate request to a partner TV receiver through the communication portion 62**. The control portion 74 transmits a program information deriving request to the partner TV receiver and, in response, **obtains a program information data column as shown in FIG. 5 and stores it in the received program information memory 64.** Also upon receiving a program information deriving request from the partner TV receiver through the communication portion 62, the control portion 74 **extracts**, from the SI memory 54, **the program information (channel number, start time, duration time and program title) only from the EIT currently broadcasted to prepare a program information data column as shown in FIG. 4**

{Reads on, "replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the other television set in response to a predetermined same **manual operation (the push-down of the special**

button on the remote control, element 34 in Fig 2) regardless of the information**" and "without any channel selecting operation" in the TV, it tunes to the same channel as that of the a viewer of the other TV}**,

Outputs it to the transmitted program information memory 56 and returns it to the partner TV receiver through the communication portion 62. Also the partner TV receiver executes a similar process and returns the program information data column as shown in FIG. 5.

[0386] "There may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance. In such case, it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels",

Regarding claim 12, as noted in the claim 10 above, **met by paragraph [0018] as** printed with explanation above, meets the limitations of this claim.

Regarding claim 18, as noted in claim 10 above, **its limitations are met by Fig 1** {**Two TV sets** communicate **through internet** to **share the same channel**, **22a, 22b two remote controllers}**,

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**}, and paragraphs [0193].**

Regarding claim 21, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 22, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 24, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Regarding claim 25, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

(Claims 10, 12, 18, 21 – 33 are pending)

4. Claims 23 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claim 23, "The broadcast program viewing system according to claim 21, wherein **the broadcast program is television program data to be downloaded from a server station**, **and wherein the program selection of the another broadcast program viewing system is a code setting to download** the selected broadcast program" this limitation **reads on "on-demand per view" where a TV viewer can download a TV program either "pay-per-view" or free as "on demand" from the server of a cable company or internet.** This is a well know prior art for many years as exhibited by **STB boxes provided by cable companies to their subscribers (provided as the reference),** and it has been successfully implemented in the art of

TV. It would enrich the **Kutsuna** to be able to provide viewers with what is customary and expected by many viewers.

5. Claims 26 – 33 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claims 26 – 33, "The **remote controller** further comprising **a "display" in claim 26, and**

The manual operating portions of the remote controller include:

"A phone call key" in claim 27,

"A ten key" in claim 28,

"A speaker" in claim 29,

"A microphone" in claim 30,

"A menu key" in claim 31,

"A scroll key" in claim 32, and

"A push-down operation key" in claim 33;

Kutsuna discloses a remote controller**, but does not explicitly disclose that the remote controller** can comprise **a "display", "a phone call key", "a ten key", "a**

speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key".

However, Chambers teaches a **universal remote control (e.g. smart phone, game controller, etc.) for TV** {and other appliances} that encompass these type of keys, buttons, scroll, push-button and other controllers which comprises **a "display", "a phone call key", "a ten key** {0-9 phone keys}", **"a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key"** as illustrated in **Fig 1** and cited in **paragraphs [0011{scroll key}, 17{smart phone as remote controller}, 44{menu key}]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Kutsuna** as taught in **Chambers** to provide a **remote controller** comprising **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key". Because,** many viewers always carry **a wireless phone that includes these features** and it would enhance their experience to utilize that instead of their remote controller, so that they do not have to look for, or share the existing remote controller, wherein it provides a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key" for their extended facility to provide both functions of a remote controller of the TV and a wireless phone which requires the use of these buttons.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN HAIEM whose telephone number is (571)270-1048. The examiner can normally be reached on Monday through Thursday 7:00 to 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN HAIEM/
Examiner, Art Unit 2422
/JEFFEREY HAROLD/
Supervisory Patent Examiner, Art Unit 2422

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	04/10/2014	08/07/2014	12/16/2014	04/15/2015					
	1	-	-	-	-					
	2	-	-	-	-					
	3	-	-	-	-					
	4	-	-	-	-					
	5	-	-	-	-					
	6	-	-	-	-					
	7	-	-	-	-					
	8	-	-	-	-					
	9	-	-	-	-					
	10	✓	✓	✓	✓					
	11	-	-	-	-					
	12	✓	✓	✓	✓					
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	14	-	-	-	-					
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	17	-	-	-	-					
	18	✓	✓	✓	✓					
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	20	-	-	-	-					
	21	✓	✓	✓	✓					
	22	✓	✓	✓	✓					
	23	✓	✓	✓	✓					
	24	✓	✓	✓	✓					
	25	✓	✓	✓	✓					
	26	✓	✓	✓	✓					
	27	✓	✓	✓	✓					
	28	✓	✓	✓	✓					
	29	✓	✓	✓	✓					
	30	✓	✓	✓	✓					
	31	✓	✓	✓	✓					
	32	✓	✓	✓	✓					
	33	✓	✓	✓	✓					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner:	HAIEM, SEAN N
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.111

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller ~~without any channel selecting operation~~.

11. (Cancelled)

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12. (Previously Presented) The television set system according to claim 10, wherein the channel information of the another television set is converted into its own local channel number if it differs from that of the local channel number in an area where the another television set is located.

13-17. (Cancelled)

18. (Previously Presented) The television set system according to claim 10, wherein the manual controller is a remote controller including:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.

19-20. (Cancelled)

21. (Currently Amended) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive information of a broadcast program identified by [[a]] <u>the</u> program selection of the another broadcast program viewing system, the information including information of a broadcast program currently not displayed on the display; and

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the change in the display of

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the own broadcast program viewing system into the broadcast program identified by the program ~~channel~~ selection of the another broadcast program viewing system with the information received by the receiver, wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion, the same manual operation being universal regardless of the information and without any program selecting operation.

22. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (Previously Presented)) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (Currently Amended) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place in accordance with information of a broadcast program identified by [[a]] the program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

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a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including a predetermined operating portion to generate, in response to a same manual operation from own motive of a viewer, a control signal for carrying out replacement of a currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system, the same manual operation being universal regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to the same manual operation from own motive of the viewer at the predetermined operating portion to carry out the replacement of the currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system, wherein the [[a]] same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the replacement of the broadcast program of the own broadcast program viewing system into the broadcast program identified by the program ~~channel~~ selection of the another broadcast program viewing system in accordance with the information.

26. (Previously Presented) The remote controller according to claim 25 further comprising a display.

27. (Previously Presented) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

28. (Previously Presented) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

29. (Previously Presented) The remote controller according to claim 28 further comprising a speaker.

30. (Previously Presented) The remote controller according to claim 29 further comprising a microphone.

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31. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

This is in full and timely response to the Official Action of January 5, 2015. Reexamination in light of the following remarks is respectfully requested.

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 10, 21 and 25 being independent. Claims 10, 21 and 25 have been amended. No new matter has been introduced

I. Claim Rejections – 35 U.S.C. §102

Claims 10, 12, 18, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna.

The rejection above relies on the new ground citing paragraph [0386] of Kutsuna, which has been necessitated by Applicant's RCE amendment according to the "Response to Arguments" of the Office Action.

However, reconsideration is respectfully requested.

1. Claim 10

Claim 10 has been further amended to read as follows:

"A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the

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information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller"

The amendment is supported by original specification, paragraph [0097] in terms of the publication, for example.

According to the amendment above, it is clear in claim 10 that:

(1) "another television set" selects its own channel for the "television set system" because that the manual controller is arranged "to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set"; and

(2) "the same manual operation being universal regardless of the information and without any channel selecting operation";

Thus, claim 10 is now definitely impossible to read on the paragraph [0386] of Kutsuna since:

(1) "the master TV does not select its own channel for the slave TV" according to the interpretation of Kutsuna by the Office Action;

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(2) "each TV makes a selection, that is, by the viewer or each TV, on the commonly receivable channels" according to the interpretation of Kutsuna by the Office Action; and

For confirmation, the cited part of paragraph [0386] of Kutsuna as it is states that "there may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance. In such case, it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels."

Claim 10 is also impossible to read on any other part of Kutsuna as shown in Responses to the previous Office Actions.

Therefore, the rejection of claim 10 under 35 U.S.C. 102(b) as being anticipated by Kutsuna has been overcome by the amendment above.

2. Claims 21 and 25

Other independent claims 21 and 25 are amended in the similar manner to that in claim 10 discussed above. Therefore, the rejections of claims 21 and 25 under 35 U.S.C. 102(b) as being anticipated by Kutsuna have been similarly overcome by the amendment, respectively.

3. Claims 12, 18, 22 and 24

Claims 12 and 18 depend on claim 10, and claim 22 and 24 depend on claim 21. Therefore, the rejections of these claims under 35 U.S.C. 102(b)2 as being anticipated by Kutsuna have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

II. Claim Rejections – 35 U.S.C. §103

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Claims 23 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutsuna in view of Chambers.

Claim 23 depends on claim 21, and claims 26-33 depend on claim 25. Therefore, the rejections of these claims under 35 U.S.C. 103(a) have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

III. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the amendment and the arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this amendment is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

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If any unresolved issues remain, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Date: April 5, 2015

Masahide Tanaka
NL Giken Incorporated
561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/
Masahide Tanaka
Applicant

Amazon - Exhibit 1003 - Page 112

Electronic Acknowledgement Receipt

EFS ID:	21971979
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	05-APR-2015
Filing Date:	01-JAN-2014
Time Stamp:	04:25:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		14145935NRCE1stOAResponse.pdf	45939 cd4ebc89672d3e30e7c4fa0f34c92832ad1ed4c4	yes	11

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	11
Warnings:			
Information:			
	Total Files Size (in bytes):	45939	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 01/05/2015

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
01/05/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Office Action Summary	Application No.	Applicant(s)	
	14/145,935	TANAKA ET AL.	
	Examiner	Art Unit	
	SEAN HAIEM	2422	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2014*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10,12,18 and 21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10,12,18 and 21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The present application is being examined **under the pre-AIA first to invent** provisions.

DETAILED ACTION

STATUS

1. All the 20 claims originally presented in this **continuation application 14/145-935 were amended prior to the examination (at inception):**

Claims 1 – 9, 11, 13 – 17, 19, and 20 are canceled.

Claims 10, 12, 18, 21 – 33 are pending (including new claims 21 – 33).

The claims 1 – 20 were amended because in their original form they were the duplicate claims for the **first original parent 11/697-413 (dated April 6, 2007),** which was patented as **8,094,236.** However, the claims 11, 15, 16, 18 – 20 of the original parent at that time were canceled and remaining claims were amended to the specific language of the novelty.

The current instant application independent claims 10, 21 and 25 which are very similar to each other, differ from both the original parent above and also from the direct parent 13/345-746 in such language that they do not raise a rejection under double patenting. The direct parent 13/345-746 had also been allowed as patent 8,643,784, only after the amendment to claims 18-20 (similar to the canceled claims of the original parent) added specific novel language.

Response to Arguments

2. Applicant's RCE amendment necessitated the new ground(s) of rejection presented in this Office action **which renders the arguments moot.**

Please note that the added cited paragraphs [0386] meets the amended limitation in which either TV could change the display channel via special manual control button (predetermined) to watch the same channel as the other TV from own motive of a viewer on the basis of the channel information received by the receiver. **In this embodiment in the simultaneous channel viewing mode activated by own motive of a viewer of the slave TV, the master TV does not select its own channel for the slave TV automatically, instead after both mutually transmit their channel information to each other, each TV makes a selection, that is, by the viewer of each TV, on the commonly receivable channels, as cited:**

[0386] "there may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance. In such case, **it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels".**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(Claims 10, 12, 18, 21 – 33 are pending)

3. Claims 10, 12, 18, 21, 22, 24, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1).

Regarding claim 10, Kutsuna discloses the subject matter of **{two TV sets which communicate through internet to share the same channel, using two remote controllers, where simultaneous viewing button on each remote controller, allows for sharing a channel without directly selecting a channel number}** as illustrated in **figures 1 – 6, 9, 10** and cited in the **abstract** and paragraphs **[0013-15, 17-18, 134-143, 193, 386] as mapped in the body of claim below:**

Claim 10 as claimed, "A television set system {figures 1 and 2 as printed with explanation below**}** comprising:

A television function unit [0017, 18];

A display arranged to display a broadcast program in accordance with the television function unit **[Fig 1 – 6, 9, 10]];**

A receiver arranged to receive information of a broadcast program **identified by a channel selection of another television set in another place [134-143]**; and

A **manual controller {remote controller in Figs 1, 2}** arranged to **change the display in response to a predetermined same manual operation from own motive of a viewer of the display {[0013-15] meet the limitation that either TV could change** the display from own motive of a viewer} **on the basis** of the information received by the receiver,

, the predetermined same manual operation **from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own** television set into the broadcast program **identified by the channel selection of the another television set with the information received** by the receiver **{[0386] discloses an embodiment that the master TV does not select its own channel for the slave TV, instead both mutually transmit their channel information to each other, where each TV make a selection, that is, by the viewer of each TV, on the commonly receivable channels cited as** "there may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance. In such case, it is possible to mutually

transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels"},

Wherein the information includes **information of a broadcast program currently not displayed on the display [0013-15]**, and

wherein the manual controller is arranged **to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set** in response to **a predetermined same manual operation {the push-down of the special button on the remote control in Fig 2}** regardless of the information, **whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer [0013-15]** by means of the manual controller **without any channel selecting operation {[0193]**, printed below with explanation added**}**.

The **most pertinent sections of the citations are highlighted in bold and printed below for ease of reference, As needed, explanation is added** in the **{} brackets embedded inside cited paragraphs.**

Fig 1 {**Two TV sets** communicate **through internet** to **share the same channel**,

22a, 22b two remote controllers},

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**},**

[0013] such **program selecting apparatus** may be so constructed that the predetermined **program is selectable both in the** aforementioned **program selecting apparatus** and in the aforementioned **other program selecting apparatus.**

[0017] Also **the selection circuit may be so constructed as** a circuit for **selectively outputting a signal for reproducing the predetermined program**, **transmitted by a predetermined channel, from a receivable broadcast signal**.

[0018] Also the selection circuit may be so constructed as a circuit for **selectively outputting a signal for reproducing the predetermined program**, **among signals stored in a memory** apparatus. **{Reads on, "converted into its own local channel number if it differs" of claim 12},**

[0134] in the following, there will be shown a constitution for **coordinated reception utilizing plural TV receivers.**

[0135] More specifically, there will be disclosed **a TV receiver for receiving television broadcasting, including:**

[0136] communication means which **communicates with an external TV receiver;**

[0137] operation means which **executes a station selecting operation for the TV receiver; and**

[0138] control means which **transmit a control command, for executing a station selecting operation same as the station selecting operation by the operation means, to the external TV receiver through the communication means.**

[0139] there is also disclosed **a TV reception system constituted of such TV receiver and an external controlled TV receiver.**

[0140] there is also disclosed **a TV receiver including:**

[0141] station selecting operation means;

[0142] means which **receives first program information from a broadcast wave;**

[0143] means which **executes a connection with an external TV receiver;**

[0386] {discloses an embodiment that the master TV does not select its own channel for the slave TV, instead both mutually transmit their channel information to each other, where each TV make a selection, that is, by the viewer of each TV, on the commonly receivable channels cited as:

"There may arise a situation where a specified channel can be received by a receiver but cannot be received by the other, depending upon a reception state of the broadcast signal or upon a tuner performance. In such case, it is possible to mutually transmit information of channels receivable by each receiver and make a selection on the commonly receivable channels"

[0193] the functions of the control portion 74 will be explained in detail. **Upon receiving a simultaneous viewing start request from the remote control reception portion 72** or a timer end notice from the timer 66, **the control portion 74 transmits a master candidate request to a partner TV receiver through the communication portion 62**. The control portion 74 transmits a program information deriving request to the partner TV receiver and, in response, **obtains a program information data column as shown in FIG. 5 and stores it in the received program information memory 64.** Also upon receiving a program information deriving request from the partner TV receiver through the communication portion 62, the control portion 74 **extracts**, from the SI memory 54, **the program information (channel number, start time, duration time and program title) only from the EIT currently broadcasted to prepare a program information data column as shown in FIG. 4**

{Reads on, "replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the other television set in response to a predetermined same **manual operation (the push-down of the special button on the remote control)** regardless of the information**" and "without any channel selecting operation" in the TV, it tunes to the same channel as that of the a viewer of the other TV}**,

Outputs it to the transmitted program information memory 56 and returns it to the partner TV receiver through the communication portion 62. Also the partner TV receiver executes a similar process and returns the program information data column as shown in FIG. 5.

Regarding claim 12, as noted in the claim 10 above, **met by paragraph [0018] as** printed with explanation above, meets the limitations of this claim.

Regarding claim 18, as noted in claim 10 above, **its limitations are met by Fig 1** {**Two TV sets** communicate **through internet** to **share the same channel**, **22a, 22b two remote controllers}**,

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**}, and paragraphs [0193].**

Regarding claim 21, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 22, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 24, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Regarding claim 25, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

(Claims 10, 12, 18, 21 – 33 are pending)

4. Claims 23 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claim 23, "The broadcast program viewing system according to claim 21, wherein **the broadcast program is television program data to be downloaded from a server station**, **and wherein the program selection of the another broadcast program viewing system is a code setting to download** the selected broadcast program" this limitation **reads on "on-demand per view" where a TV viewer can download a TV program either "pay-per-view" or free as "on demand" from the server of a cable company or internet.** This is a well know prior art for many years as exhibited by **STB boxes provided by cable companies to their subscribers (provided as the reference),** and it has been successfully implemented in the art of

TV. It would enrich the **Kutsuna** to be able to provide viewers with what is customary and expected by many viewers.

5. Claims 26 – 33 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claims 26 – 33, "The **remote controller** further comprising **a "display" in claim 26, and**

The manual operating portions of the remote controller include:

"A phone call key" in claim 27,

"A ten key" in claim 28,

"A speaker" in claim 29,

"A microphone" in claim 30,

"A menu key" in claim 31,

"A scroll key" in claim 32, and

"A push-down operation key" in claim 33;

Kutsuna discloses a remote controller**, but does not explicitly disclose that the remote controller** can comprise **a "display", "a phone call key", "a ten key", "a**

speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key".

However, Chambers teaches a **universal remote control (e.g. smart phone, game controller, etc.) for TV** {and other appliances} that encompass these type of keys, buttons, scroll, push-button and other controllers which comprises **a "display", "a phone call key", "a ten key** {0-9 phone keys}", **"a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key"** as illustrated in **Fig 1** and cited in **paragraphs [0011{scroll key}, 17{smart phone as remote controller}, 44{menu key}]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Kutsuna** as taught in **Chambers** to provide a **remote controller** comprising **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key". Because,** many viewers always carry **a wireless phone that includes these features** and it would enhance their experience to utilize that instead of their remote controller, so that they do not have to look for, or share the existing remote controller, wherein it provides a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key" for their extended facility to provide both functions of a remote controller of the TV and a wireless phone which requires the use of these buttons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN HAIEM whose telephone number is (571)270-1048. The examiner can normally be reached on Monday through Thursday 7:00 to 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN HAIEM/
Examiner, Art Unit 2422
/JEFFEREY HAROLD/
Supervisory Patent Examiner, Art Unit 2422

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	04/10/2014	08/07/2014	12/16/2014						
	1	-	-	-						
	2	-	-	-						
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	9	-	-	-						
	10	✓	✓	✓						
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	12	✓	✓	✓						
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	25	✓	✓	✓						
	26	✓	✓	✓						
	27	✓	✓	✓						
	28	✓	✓	✓						
	29	✓	✓	✓						
	30	✓	✓	✓						
	31	✓	✓	✓						
	32	✓	✓	✓						
	33	✓	✓	✓						

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	27	(@ad or @pd or @ptad)<"20060407" and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/12/16 15:47
S114	149	((MASAHIDE) near2 (TANAKA)).INV.	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:48
S115	3	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:51
S117	22	((TOHRU) near2 (MATSUI)).INV.	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:54
S121	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 17:01
S122	3	(@ad or @pd or @ptad)<"20060407" and "2004265219"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:01
S123	2	@ad<"20060407" and "2005228012"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:03
S124	2	@ad<"20060407" and 348/553.ccls. and email	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:04
S125	51	@ad<"20060407" and 348/553.ccls. and pc and remote	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S126	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S127	27	S125 not S126	US-	ADJ	ON	2013/04/25

			PGPUB; USPAT; FPRS; EPO; JPO; DERWENT			17:09
S128	51	@ad<"20060407" and 348/553.ccls. and pc and remote	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S129	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S130	27	S128 not S129	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S131	25	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:13
S132	4	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:14
S133	1	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief) and key$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:17
S134	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (address or email)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:18
S135	45	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:19
S136	0	@ad<"20060407" and 348/553.ccls. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:20

		abnormal$5 and detect$4 and outside and generate				
S137	1	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:20
S138	40	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:21
S140	6	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did.	US-PGPUB; JPO	ADJ	ON	2013/04/25 17:23
S141	4	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did. and control	US-PGPUB; JPO	ADJ	ON	2013/04/25 17:23
S142	347	@ad<"20060407" and "348".clas. and remote control and shared with channel	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:24
S143	31	@ad<"20060407" and "348".clas. and remote control and shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S144	0	@ad<"20060407" and "348".clas. and remote control and watch$4 shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S145	14	@ad<"20060407" and "348".clas. and remote control and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S146	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with multiple tv)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:26
S147	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with tv)	US-PGPUB; USPAT; FPRS; EPO; JPO;	ADJ	ON	2013/04/25 17:26

			DERWENT			
S148	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with TV)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:27
S149	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:27
S150	0	@ad<"20060407" and "348".clas. and (alert signal) with key$1 and (tv or television) and remote control	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28
S151	13	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28
S152	1	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S153	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S154	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S155	26	@ad<"20060407" and ("725" or "348").clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:30
S157	1	(@ad or @pd or @ptad)<"20060407" and "20050130613"	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2013/04/25 17:40
S158	1	@ad<"20060407" and remote control with key$1 with alert and (TV or television) and panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:27

S159	6	@ad<"20060407" and remote control with key$1 with (abnormal or panic) and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:37
S160	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:09
S161	22	@ad<"20060407" and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:10
S162	3	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/09/03 16:12
S163	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/09/03 16:13
S170	4	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S171	4	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S174	25	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:35
S186	2	(@ad or @pd or @ptad)<"20060407" and remote control$4 with (smart or wireless or cell) phone and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:49
S187	8	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:56
S205	1	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television) and microphone and loudspeaker and scroll and menu with (key or button)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 13:26

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S164	681	(348/553,734 or 725/86,41,105 or	US-	ADJ	ON	2013/09/03

		709/205,203).ccls. and remote controller	PGPUB; UPAD			16:31
S166	18	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:35
S167	2	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:35
S168	3	remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:36
S169	2	remote controller and plurality with keys with predetermined and first controller and second controller and abnormal	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:37

12/16/2014 6:04:17 PM
C:\Users\shaiem\Documents\EAST\Workspaces\14-145-935 (allowed parent 13-345-746, its allowed parent 11-697-413 a better match) Television system, set, remote controller.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Classification insight.	9/3/2013	snh
Edan search for inventor and in the east as well	9/3/2013	snh
East class and subclass searched or found 348/553, 97 725/86 455/179.1	9/3/2013	snh
East word search combined with class	9/3/2013	snh
East IDS search, and prior art	9/3/2013	snh
Updated the search for the amended claims of this instant application which is a child of the parent application 13/345,746 for which the initial search record had already been established.	4/10/2014	snh
Extended search for the RCE amendment,	12/16/2014	snh

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/SEAN HAIEM/ Examiner.Art Unit 2422	

PTO/SB/30EFS (07-09)
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14/145,935	Filing Date	2014-01-01	Docket Number (if applicable)	US4CA2	Art Unit	2422
First Named Inventor	Masahide TANAKA			Examiner Name	HAIEM, SEAN N		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☐ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☐ Patent Practitioner Signature

☒ Applicant Signature

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Applicant Signature			
Applicant 1		Remove	
Signature	/Masahide Tanaka/	Date (YYYY-MM-DD)	2014-12-04
Name	Masahide Tanaka		
Click ADD for additional Applicant Signature		Add	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner:	HAIEM, SEAN N
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

AMENDMENT FOR FILING WITH A REQUEST FOR CONTINUED EXAMINATION (RCE) UNDER 37 C.F.R. §1.114

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....7

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation regardless of the information,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller without any channel selecting operation.

11. (Cancelled)

12. (Previously Presented) The television set system according to claim 10, wherein the channel information of the another television set is converted into its own local channel number

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if it differs from that of the local channel number in an area where the another television set is located.

13-17. (Cancelled)

18. (Previously Presented) The television set system according to claim 10, wherein the manual controller is a remote controller including:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.

19-20. (Cancelled)

21. (Currently Amended) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive information of a broadcast program identified by a program selection of the another broadcast program viewing system, the information including information of a broadcast program currently not displayed on the display; and

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the change in the display of the own broadcast program viewing system into the broadcast program identified by the channel selection of the another broadcast program viewing system with the information received by the

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receiver, wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion regardless of the information and without any program selecting operation.

22. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (Previously Presented)) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (Currently Amended) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place in accordance with information of a broadcast program identified by a program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions

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including a predetermined operating portion to generate, in response to a same manual operation from own motive of a viewer, a control signal for carrying out replacement of a currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to the same manual operation from own motive of the viewer at the predetermined operating portion to carry out the replacement of the currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system, wherein the a same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the replacement of the broadcast program of the own broadcast program viewing system into the broadcast program identified by the channel selection of the another broadcast program viewing system in accordance with the information.

26. (Previously Presented) The remote controller according to claim 25 further comprising a display.

27. (Previously Presented) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

28. (Previously Presented) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

29. (Previously Presented) The remote controller according to claim 28 further comprising a speaker.

30. (Previously Presented) The remote controller according to claim 29 further comprising a microphone.

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31. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

This is in full and timely response to the Official Action of September 8, 2014. Reexamination in light of the following remarks is respectfully requested.

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 10, 21 and 25 being independent. Claims 10, 21 and 25 have been amended. No new matter has been introduced

I. Claim Rejections – 35 U.S.C. §102

Claims 10, 12, 18, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna.

However, reconsideration is respectfully requested.

Kutsuna Paragraphs 0013-0015 read as follows:

1. Claim 10

Claim 10 has been amended to read as follows:

"A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own

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motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation regardless of the information,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller without any channel selecting operation.

."

According to the amendment in claim 10 above, it is clarified that "the predetermined same manual operation from own motive" has "no influence on the channel selection of the another television set", but has "influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver".

In other words, it is clear that the "manual controller" according to amended claim 10 is for carrying out the replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set from his/her own motive free from any "master" (i.e., another television set), and also has no influence on the channel selection of another television set as a "master" of the another television set.

On the contrary, Kutsuna disclose a procedure to determine "master" (see steps 101-109 shown in FIG. 7A of Kutsuna) in response to the operation of "simultaneous viewing start key 34", program exchange procedure (see steps 110-114 shown in FIG. 7A of Kutsuna), and synthesizing process in which channel change in one of the pair of TV receivers 10a and 10b controls the other to forcibly change the channel. (see steps 119-126 shown in FIG. 7B of

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Kutsuna). Namely the channel change in TV receiver 10a, for example, of Kutsuna is not carried out in response to any manual operation of the viewer of TV receiver 10a from own motive of the viewer, but in response to a channel change of the other TV receiver, TV receiver 10b in this case.

In other words, Kutsuna discloses fundamentally different invention from the present invention recited in claim 10. Therefore, the present invention recited in claim 10 is basically not anticipated by Kutsuna.

"Simultaneous viewing start key 34" of Kutsuna is not "the manual controller" of the present invention defined by amended claim 10 above, but a key which "informs the control portion 74 of a simultaneous viewing start request". (See Par. [0192] in publication of Kutsuna.) None of "channel up key 30" and "channel down key 32"in Kutsuna is "the manual controller" of the present invention defined by amended claim 10 above, but a key for transmitting an initiative channel change in one of TV receivers 10a and 10b to the other to forcibly change (i.e., to influence on) the channel thereof. (See Pars. [0244] and [0247] in publication of Kutsuna).

Thus, Kutsuna fails to disclose at least the "the manual controller" of amended laim 10. Therefore, the rejection of claim 10 under 35 U.S.C. 102(b) as being anticipated by Kutsuna has been overcome by the amendment above.

The Office Action has pointed out paragraphs [0013]-[0015], which read as follows:

[0013] Such program selecting apparatus may be so constructed that the predetermined program is selectable both in the aforementioned program selecting apparatus and in the aforementioned other program selecting apparatus.

[0014] Also the control circuit may be so constructed as to output, based on information of programs that can be selected respectively in the aforementioned other program selecting apparatus and in the program selecting apparatus including the control circuit,

Amazon - Exhibit 1003 - Page 150

information for designating a program selectable commonly by the aforementioned other program selecting apparatus and by the program selecting apparatus including the control circuit, as the predetermined program.

[0015] Also the control circuit may be so constructed as to output, based on common program selection information indicating information of a program selectable commonly by the aforementioned other program selecting apparatus and by the program selecting apparatus including the control circuit, information for designating a program selectable commonly by the aforementioned other program selecting apparatus and by the program selecting apparatus including the control circuit, as the predetermined program.

However, there is no evidence in the paragraphs of Kutsuna above that the "a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the broadcast program identified by the channel selection of the another television set with the information received by the receiver" set forth in amended claim 10 is disclosed.

Also, other paragraphs [0017]-[0018], [0134]-[0143] and [0193] referred to in the Office Action all fail to disclose the manual controller recited in amended claim 10.

2. Claims 21 and 25

Other independent claims 21 and 25 are amended in the similar manner to that in claim 10 discussed above. Therefore, the rejections of claims 21 and 25 under 35 U.S.C. 102(b) as being anticipated by Kutsuna have been similarly overcome by the amendment, respectively.

3. Claims 12, 18, 22 and 24

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Claims 12 and 18 depend on claim 10, and claim 22 and 24 depend on claim 21. Therefore, the rejections of these claims under 35 U.S.C. 102(b)2 as being anticipated by Kutsuna have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

II. Claim Rejections – 35 U.S.C. §103

Claims 23 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutsuna in view of Chambers.

Claim 23 depends on claim 21, and claims 26-33 depend on claim 25. Therefore, the rejections of these claims under 35 U.S.C. 103(a) have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

III. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the amendment and the arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this amendment is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

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However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If any unresolved issues remain, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Date: December 4, 2014

Masahide Tanaka
NL Giken Incorporated
561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/
Masahide Tanaka
Applicant

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Electronic Patent Application Fee Transmittal

Application Number:	14145935
Filing Date:	01-Jan-2014
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Filer:	Masahide Tanaka
Attorney Docket Number:	US4CA2

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for Continued Examination	2801	1	600	600
		Total in USD ($)		**600**

Electronic Acknowledgement Receipt

EFS ID:	20863351
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	04-DEC-2014
Filing Date:	01-JAN-2014
Time Stamp:	12:00:51
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$600
RAM confirmation Number	11250
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Request for Continued Examination (RCE)	14145935sb0030.pdf	697591 dca678a52ca4e77db90dec304eff37b7c6f5c675	no	3
Warnings:					
Information:					
2		14145935NRCEAmendmentUS4CA2.pdf	50614 ab7795d13cacb1d5d84780757fca62e8ad8000fa	yes	12

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Claims	2	6
Applicant Arguments/Remarks Made in an Amendment	7	12

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	29684 800c6cdf2d78ad8927632db9b120122bcc6d4fc3	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	777889	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/04/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/VIKKI GRAY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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JAPAN
OSAKA,
JAPAN

Courtesy Reminder for
Application Serial No: 14/145,935

Attorney Docket No: US4CA2
Customer Number: 67628
Date of Electronic Notification: 09/08/2014

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
GUITAR@KYM.BIGLOBE.NE.JP

To view your correspondence online or update your email addresses, please visit us anytime at **https://sportal.uspto.gov/secure/myportal/privatepair.** If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 09/08/2014

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
09/08/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Office Action Summary	Application No.	Applicant(s)	
	14/145,935	TANAKA ET AL.	
	Examiner	Art Unit	
	SEAN HAIEM	2422	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2014*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10,12,18 and 21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10,12,18 and 21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

STATUS

1. All the 20 claims originally presented in this **continuation application 14/145-935 were amended prior to the examination (at inception):**

Claims 1 – 9, 11, 13 – 17, 19, and 20 are canceled.

Claims 10, 12, 18, 21 – 33 are pending (including new claims 21 – 33).

The claims 1 – 20 were amended because in their original form they were the duplicate claims for the **first original parent 11/697-413 (dated April 6, 2007),** which was patented as **8,094,236.** However, the claims 11, 15, 16, 18 – 20 of the original parent at that time were canceled and remaining claims were amended to the specific language of the novelty.

The current instant application independent claims 10, 21 and 25 which are very similar to each other, differ from both the original parent above and also from the direct parent 13/345-746 in such language that they do not raise a rejection under double patenting. The direct parent 13/345-746 had also been allowed as patent 8,643,784, only after the amendment to claims 18-20 (similar to the canceled claims of the original parent) added specific novel language.

Response to Arguments

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action **which renders the arguments moot.**

Please note that the added cited paragraphs [0013-15] meet the amended limitation that either TV could change the display from own motive of a viewer on the basis of the information received by the receiver.

[0013] such **program selecting apparatus** may be so constructed that the predetermined **program is selectable both in the** aforementioned **program selecting apparatus** and in the aforementioned **other program selecting apparatus.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(Claims 10, 12, 18, 21 – 33 are pending)

3. Claims 10, 12, 18, 21, 22, 24, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1).

Regarding claim 10, Kutsuna discloses the subject matter of **{two TV sets which communicate through internet to share the same channel, using two remote controllers, where simultaneous viewing button on each remote controller, allows for sharing a channel without directly selecting a channel number**} as illustrated in **figures 1 – 6, 9, 10** and cited in the **abstract** and paragraphs **[0017-18, 134-143, 193].**

Claim 10 as claimed, "A television set system {figures 1 and 2 as printed with explanation below**}** comprising:

A television function unit [0017, 18];

A display arranged to display a broadcast program in accordance with the television function unit **[Fig 1 – 6, 9, 10]];**

A receiver arranged to receive information of a broadcast program **identified by a channel selection of another television set in another place [134-143]**; and

A **manual controller {remote controller in Figs 1, 2}** arranged to **change the display in response to a predetermined same manual operation from own motive of a viewer of the display {[0013-15] meet the limitation that either TV could change** the display from own motive of a viewer} **on the basis** of the information received by the receiver,

Wherein the information includes **information of a broadcast program currently not displayed on the display [0013-15]**, and

wherein the manual controller is arranged **to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set** in response to **a predetermined same manual operation {the push-down of the special button on the remote control in Fig 2}** regardless of the information, **whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer [0013-15]** by means of the manual controller **without any channel selecting operation {[0193]**, printed below with explanation added**}**.

The **most pertinent sections of the citations are highlighted in bold and printed below for ease of reference, As needed, explanation is added** in the **{} brackets embedded inside cited paragraphs.**

Fig 1 {**Two TV sets** communicate **through internet** to **share the same channel**,

22a, 22b two remote controllers},

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**},**

[0013] such **program selecting apparatus** may be so constructed that the predetermined **program is selectable both in the** aforementioned **program selecting apparatus** and in the aforementioned **other program selecting apparatus.**

[0017] Also **the selection circuit may be so constructed as** a circuit for **selectively outputting a signal for reproducing the predetermined program**, **transmitted by a predetermined channel, from a receivable broadcast signal**.

[0018] Also the selection circuit may be so constructed as a circuit for **selectively outputting a signal for reproducing the predetermined program**, **among signals stored in a memory** apparatus. **{Reads on, "converted into its own local channel number if it differs" of claim 12},**

[0134] in the following, there will be shown a constitution for **coordinated reception utilizing plural TV receivers.**

[0135] More specifically, there will be disclosed **a TV receiver for receiving television broadcasting, including:**

[0136] communication means which **communicates with an external TV receiver;**

[0137] operation means which **executes a station selecting operation for the TV receiver; and**

[0138] control means which **transmit a control command, for executing a station selecting operation same as the station selecting operation by the operation means, to the external TV receiver through the communication means.**

[0139] there is also disclosed **a TV reception system constituted of such TV receiver and an external controlled TV receiver.**

[0140] there is also disclosed **a TV receiver including:**

[0141] station selecting operation means;

[0142] means which **receives first program information from a broadcast wave;**

[0143] means which **executes a connection with an external TV receiver;**

[0193] the functions of the control portion 74 will be explained in detail. **Upon receiving a simultaneous viewing start request from the remote control reception portion 72** or a timer end notice from the timer 66, **the control portion 74 transmits a master candidate request to a partner TV receiver through the communication portion 62**. The control portion 74 transmits a program information deriving request to the partner TV receiver and, in response, **obtains a program information data**

column as shown in FIG. 5 and stores it in the received program information memory 64. Also upon receiving a program information deriving request from the partner TV receiver through the communication portion 62, the control portion 74 **extracts**, from the SI memory 54, **the program information (channel number, start time, duration time and program title) only from the EIT currently broadcasted to prepare a program information data column as shown in FIG. 4**

{Reads on, "replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the other television set in response to a predetermined same **manual operation (the push-down of the special button on the remote control)** regardless of the information**" and "without any channel selecting operation" in the TV, it tunes to the same channel as that of the a viewer of the other TV}**,

Outputs it to the transmitted program information memory 56 and returns it to the partner TV receiver through the communication portion 62. Also the partner TV receiver executes a similar process and returns the program information data column as shown in FIG. 5.

Regarding claim 12, as noted in the claim 10 above, **met by paragraph [0018] as** printed with explanation above, meets the limitations of this claim.

Regarding claim 18, as noted in claim 10 above, **its limitations are met by**

Fig 1 {**Two TV sets** communicate **through internet** to **share the same channel**, **22a, 22b two remote controllers}**,

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**}, and paragraphs [0193].**

Regarding claim 21, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 22, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 10,** and is rejected under the same rationale.

Regarding claim 24, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Regarding claim 25, the "broadcast program viewing system" **of this claim is a broader system of the** "TV system" already **met in claim 18,** and is rejected under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

(Claims 10, 12, 18, 21 – 33 are pending)

4. Claims 23 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claim 23, "The broadcast program viewing system according to claim 21, wherein **the broadcast program is television program data to be downloaded from a server station**, **and wherein the program selection of the another broadcast program viewing system is a code setting to download** the selected broadcast program" this limitation **reads on "on-demand per view" where a TV viewer can download a TV program either "pay-per-view" or free as "on demand"**

from the server of a cable company or internet. This is a well know prior art for many years as exhibited by **STB boxes provided by cable companies to their subscribers (provided as the reference),** and it has been successfully implemented in the art of TV. It would enrich the **Kutsuna** to be able to provide viewers with what is customary and expected by many viewers.

5. Claims 26 – 33 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claims 26 – 33, "The **remote controller** further comprising **a "display" in claim 26, and**

The manual operating portions of the remote controller include:

"A phone call key" in claim 27,

"A ten key" in claim 28,

"A speaker" in claim 29,

"A microphone" in claim 30,

"A menu key" in claim 31,

"A scroll key" in claim 32, and

"A push-down operation key" in claim 33;

Kutsuna discloses a remote controller**, but does not explicitly disclose that the remote controller** can comprise **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key".**

However, Chambers teaches a **universal remote control (e.g. smart phone, game controller, etc.) for TV** {and other appliances} that encompass these type of keys, buttons, scroll, push-button and other controllers which comprises **a "display", "a phone call key", "a ten key** {0-9 phone keys}", **"a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key"** as illustrated in **Fig 1** and cited in **paragraphs [0011{scroll key}, 17{smart phone as remote controller}, 44{menu key}]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Kutsuna** as taught in **Chambers** to provide a **remote controller** comprising **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key". Because,** many viewers always carry **a wireless phone that includes these features** and it would enhance their experience to utilize that instead of their remote controller, so that they do not have to look for, or share the existing remote controller, wherein it provides a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a

menu key", "a scroll key", and "a push-down operation key" for their extended facility to provide both functions of a remote controller of the TV and a wireless phone which requires the use of these buttons.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN HAIEM whose telephone number is (571)270-1048. The examiner can normally be reached on Monday through Thursday 7:00 to 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN HAIEM/
Examiner, Art Unit 2422
/JEFFEREY HAROLD/
Supervisory Patent Examiner, Art Unit 2422

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	**Art Unit**
	SEAN HAIEM	2422

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	04/10/2014	08/07/2014							
	1	-	-							
	2	-	-							
	3	-	-							
	4	-	-							
	5	-	-							
	6	-	-							
	7	-	-							
	8	-	-							
	9	-	-							
	10	✓	✓							
	11	-	-							
	12	✓	✓							
	13	-	-							
	14	-	-							
	15	-	-							
	16	-	-							
	17	-	-							
	18	✓	✓							
	19	-	-							
	20	-	-							
	21	✓	✓							
	22	✓	✓							
	23	✓	✓							
	24	✓	✓							
	25	✓	✓							
	26	✓	✓							
	27	✓	✓							
	28	✓	✓							
	29	✓	✓							
	30	✓	✓							
	31	✓	✓							
	32	✓	✓							
	33	✓	✓							

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner:	HAIEM, SEAN N
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.111

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....6

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the [[a]] predetermined same manual operation regardless of the information,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller without any channel selecting operation.

11. (Cancelled)

12. (Previously Presented) The television set system according to claim 10, wherein the channel information of the another television set is converted into its own local channel number if it differs from that of the local channel number in an area where the another television set is located.

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13-17. (Cancelled)

18. (Currently Amended) The television set system according to claim 10, wherein the manual controller is a remote controller including:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing ~~replaceing~~ the currently displayed broadcast program by the broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.

19-20. (Cancelled)

21. (Currently Amended) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive information of a broadcast program identified by a program selection of the another broadcast program viewing system, the information including information of a broadcast program currently not displayed on the display; and

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion regardless of the information and without any program selecting operation.

22. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and

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wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (Previously Presented) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (Previously Presented)) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (Currently Amended) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place in accordance with information of a broadcast program identified by a program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including a predetermined operating portion to generate, in response to a same manual operation from own motive of a viewer, a control signal for carrying out replacement of a currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to the same manual operation from own motive of the viewer at the predetermined operating portion to

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carry out the replacement of the currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system.

26. (Previously Presented) The remote controller according to claim 25 further comprising a display.

27. (Previously Presented) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

28. (Previously Presented) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

29. (Previously Presented) The remote controller according to claim 28 further comprising a speaker.

30. (Previously Presented) The remote controller according to claim 29 further comprising a microphone.

31. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (Previously Presented) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

This is in full and timely response to the Official Action of April 18, 2014. Reexamination in light of the following remarks is respectfully requested.

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 10, 21 and 25 being independent. Claims 10, 18, 21 and 25 have been amended. No new matter has been introduced

I. Claim Rejections – 35 U.S.C. §102

Claims 10, 12, 18, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna.

However, reconsideration is respectfully requested.

1. Claim 10

Claim 10 has been amended to read as follows (emphasis added):

"A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; and

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver,

wherein the information includes information of a broadcast program currently not displayed on the display, and

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wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation regardless of the information,

whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller without any channel selecting operation."

According to the invention defined in claim 10 above, a viewer of the television set can carry out the replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation regardless of the information from his/her own motive free from any "master".

On the contrary, Kutsuna disclose a procedure to determine "master" (see steps 101-109 shown in FIG. 7A of Kutsuna) in response to the operation of "simultaneous viewing start key 34", program exchange procedure (see steps 110-114 shown in FIG. 7A of Kutsuna), and synthesizing process in which channel change in one of the pair of TV receivers 10a and 10b controls the other to forcibly change the channel. (see steps 119-126 shown in FIG. 7B of Kutsuna). Namely the channel change in TV receiver 10a, for example, of Kutsuna is not carried out in response to any manual operation of the viewer of TV receiver 10a from own motive of the viewer, but in response to a channel change of the other TV receiver, TV receiver 10b in this case.

Thus, Kutsuna discloses fundamentally different invention from the present invention recited in claim 10. Therefore, the present invention recited in claim 10 is basically not anticipated by Kutsuna.

Specifically, amended claim 10 of the preset invention clarifies that "the manual controller is arranged to carry out replacement of the currently displayed broadcast program with

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the broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation regardless of the information". (Emphasis added.)

In contrast, "simultaneous viewing start key 34" of Kutsuna is not "the manual controller" of the present invention defined by claim 10 above, but a key which "informs the control portion 74 of a simultaneous viewing start request". (See Par. [0192] in publication of Kutsuna.) None of "channel up key 30" and "channel down key 32"id Kutsuna is "the manual controller" of the present invention defined by claim 10 above, but a key for transmitting an initiative channel change in one of TV receivers 10a and 10b to the other to forcibly change the channel thereof. (See Pars. [0244] and [0247] in publication of Kutsuna).

Thus, Kutsuna fails to disclose at least the "the manual controller" of claim 10. Therefore, the rejection of claim 10 under 35 U.S.C. 102(b) as being anticipated by Kutsuna has been overcome by the amendment above.

2. Claims 21 and 25

Other independent claims 21 and 25 are amended to similarly to claim 10 discussed above. Therefore, the rejections of claims 21 and 25 under 35 U.S.C. 102(b) as being anticipated by Kutsuna have been similarly overcome by the amendment, respectively.

3. Claims 12, 18, 22 and 24

Claims 12 and 18 depend on claim 10, and claim 22 and 24 depend on claim 21. Therefore, the rejections of these claims under 35 U.S.C. 102(b)2 as being anticipated by Kutsuna have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

II. Claim Rejections – 35 U.S.C. §103

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Claims 23 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutsuna in view of Chambers.

Claim 23 depends on claim 21, and claims 26-33 depend on claim 25. Therefore, the rejections of these claims under 35 U.S.C. 103(a) have been overcome at least by similar reason to that in their parent claims and further limitations, respectively.

III. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the amendment and the arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this amendment is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

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If any unresolved issues remain, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Date: July 18, 2014

Masahide Tanaka
NL Giken Incorporated
561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/
Masahide Tanaka
Applicant

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Electronic Acknowledgement Receipt

EFS ID:	19616546
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	18-JUL-2014
Filing Date:	01-JAN-2014
Time Stamp:	10:53:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		14145935NFOAResponseUS4CA2.pdf	43552 1e1e1063ccbdef22f956b556353fabbf168e05fe	yes	10

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	10
Warnings:			
Information:			
	Total Files Size (in bytes):	43552	

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	07/18/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/LINDA BADIE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/145,935	01/01/2014	Masahide Tanaka	US4CA2

CONFIRMATION NO. 2279

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

PUBLICATION NOTICE

OC000000068168863

Title: Television System, Television Set and Remote Controller

Publication No.US-2014-0118546-A1
Publication Date:05/01/2014

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/145,935	01/01/2014	Masahide Tanaka	US4CA2	2279

67628 7590 04/18/2014

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER	
HAIEM, SEAN N	

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
04/18/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Office Action Summary	Application No.	Applicant(s)	
	14/145,935	TANAKA ET AL.	
	Examiner	Art Unit	
	SEAN HAIEM	2422	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 January 2014*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10,12,18 and 21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10,12,18 and 21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 January 2014* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

STATUS

1. All the 20 claims originally presented in this **continuation application 14/145-935 were amended prior to the examination (at inception):**

Claims 1 – 9, 11, 13 – 17, 19, and 20 are canceled.

Claims 10, 12, 18, 21 – 33 are pending (including new claims 21 – 33).

The claims 1 – 20 were amended because in their original form they were the duplicate claims for the **first original parent 11/697-413 (dated April 6, 2007),** which was patented as **8,094,236.** However, the claims 11, 15, 16, 18 – 20 of the original parent at that time were canceled and remaining claims were amended to the specific language of the novelty.

The current instant application independent claims 10, 21 and 25 which are very similar to each other, differ from both the original parent above and also from the direct parent 13/345-746 in such language that they do not raise a rejection under double patenting. The direct parent 13/345-746 had also been allowed as patent 8,643,784, only after the amendment to claims 18-20 (similar to the canceled claims of the original parent) added specific novel language.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(Claims 10, 12, 18, 21 – 33 are pending)

2. Claims 10, 12, 18, 21, 22, 24, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1).

Regarding claim 10, 12, 18, 21, 22, 24, 25, Kutsuna discloses the subject matter as illustrated in **figures 1 – 6, 9, 10** and cited in the **abstract** and paragraphs **[0017-18, 134-143, 193]** for which the **most pertinent sections are highlighted in bold and printed below** to facilitate the **mapping of these features** against all claim limitations. **The claim limitations are printed exactly as presented by applicant for claim 10** {main independent claim is printed for ease of reference} **and also are highlighted in bold below the paragraphs**. **As needed, explanation is added** in the **{} brackets.**

Fig 1 {**Two TV sets** communicate **through internet** to **share the same channel**,

22a, 22b two remote controllers},

Fig 2 {element 34, **simultaneous viewing button on remote control, a**llows for sharing a channel without directly selecting a channel number**},**

[0017] Also **the selection circuit may be so constructed as** a circuit for **selectively outputting a signal for reproducing the predetermined program**, **transmitted by a predetermined channel, from a receivable broadcast signal**.

[0018] Also the selection circuit may be so constructed as a circuit for **selectively outputting a signal for reproducing the predetermined program**, **among signals stored in a memory** apparatus. **{Reads on, "converted into its own local channel number if it differs" of claim 12},**

[0134] in the following, there will be shown a constitution for **coordinated reception utilizing plural TV receivers.**

[0135] More specifically, there will be disclosed **a TV receiver for receiving television broadcasting, including:**

[0136] communication means which **communicates with an external TV receiver;**

[0137] operation means which **executes a station selecting operation for the TV receiver; and**

[0138] control means which **transmit a control command, for executing a station selecting operation same as the station selecting operation by the operation means, to the external TV receiver through the communication means.**

[0139] there is also disclosed **a TV reception system constituted of such TV receiver and an external controlled TV receiver.**

[0140] there is also disclosed **a TV receiver including:**

[0141] station selecting operation means;

[0142] means which **receives first program information from a broadcast wave;**

[0143] means which **executes a connection with an external TV receiver;**

[0193] the functions of the control portion 74 will be explained in detail. **Upon receiving a simultaneous viewing start request from the remote control reception portion 72** or a timer end notice from the timer 66, **the control portion 74 transmits a master candidate request to a partner TV receiver through the communication portion 62**. The control portion 74 transmits a program information deriving request to the partner TV receiver and, in response, **obtains a program information data**

column as shown in FIG. 5 and stores it in the received program information memory 64. Also upon receiving a program information deriving request from the partner TV receiver through the communication portion 62, the control portion 74 **extracts**, from the SI memory 54, **the program information (channel number, start time, duration time and program title) only from the EIT currently broadcasted to prepare a program information data column as shown in FIG. 4**

{Reads on, "replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the other television set in response to a predetermined same **manual operation (the push-down of the special button on the remote control)** regardless of the information**" and "without any channel selecting operation" in the TV, it tunes to the same channel as that of the a viewer of the other TV}**,

Outputs it to the transmitted program information memory 56 and returns it to the partner TV receiver through the communication portion 62. Also the partner TV receiver executes a similar process and returns the program information data column as shown in FIG. 5.

Claim 10 as claimed, "A television set system {figures 1 and 2 as explained and highlighted above} comprising:

A television function unit;

A display arranged to display a broadcast program in accordance with the television function unit;

A receiver arranged to receive information of a broadcast program **identified by a channel selection of another television set in another place**; and

A **manual controller {remote controller in Figs 1, 2}** arranged to **change the display from own motive of a viewer of the display on the basis** of the information received by the receiver,

Wherein the information includes **information of a broadcast program currently not displayed on the display**, and

wherein the manual controller is arranged **to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set** in response to **a predetermined same manual operation {the push-down of the special button on the remote control in Fig 2}** regardless of the information, **whereby same experience as that of a viewer of the another television set is possible** by means of the manual controller **without any channel selecting operation {[0017-18, 134-143, 193]** as printed above with explanation added**}**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

(Claims 10, 12, 18, 21 – 33 are pending)

3. Claims 23, 26 – 33 are rejected under 35 U.S.C. 103(a) as being un-patentable over Kutsuna et al, hereinafter, **Kutsuna** (US 20050130613 A1)**, in view of** Chambers et al, hereinafter **Chambers** (US 20050134578 A1).

Regarding claim 23, "The broadcast program viewing system according to claim 21, wherein **the broadcast program is television program data to be downloaded from a server station**, **and wherein the program selection of the another broadcast program viewing system is a code setting to download** the selected broadcast program" this limitation **reads on "on-demand per view" where a TV viewer can download a TV program either "pay-per-view" or free as "on demand" from the server of a cable company or internet.** This is a well know art for many years, and it has been successfully implemented in the art of TV. It would enrich the **Kutsuna** to be able to provide viewers with what is customary and expected by many viewers.

Regarding claims 26 -33, "The **remote controller** further comprising **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key",**

Kutsuna discloses a remote controller**, but does not explicitly disclose that the remote controller** can comprise **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key".**

However, Chambers teaches a **universal remote control (e.g. smart phone, game controller, etc.) for TV** {and other appliances} that encompass many type of keys, buttons, scroll, push-button and other controllers which comprises **a "display", "a phone call key", "a ten key** {0-9 phone keys}", **"a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key"** as illustrated in **Fig 1** and cited in **paragraphs [0011{scroll key}, 17{smart phone as remote controller}, 44{menu key}]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Kutsuna** as taught in **Chambers** to provide a **remote controller** comprising **a "display", "a phone call key", "a ten key", "a speaker", "a microphone", "a menu key", "a scroll key", and "a push-down operation key".** Because, many viewers always carry a wireless phone that includes these features and

it would enhance their experience to utilize that instead of their remote controller, so that they do not have to look for, or share the existing remote controller.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN HAIEM whose telephone number is (571)270-1048. The examiner can normally be reached on Monday through Thursday 7:00 to 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN HAIEM/
Examiner, Art Unit 2422

Notice of References Cited	Application/Control No. 14/145,935	Applicant(s)/Patent Under Reexamination TANAKA ET AL.	
	Examiner SEAN HAIEM	Art Unit 2422	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2001/0035917 A1	11-2001	Satake et al.	348/730
*	B	US-2002/0147982 A1	10-2002	Naidoo et al.	725/105
*	C	US-2002/0144273 A1	10-2002	Reto, Wettach	725/86
*	D	US-2005/0015803 A1	01-2005	Macrae et al.	725/041
*	E	US-2005/0091311 A1	04-2005	Lund et al.	709/203
*	F	US-2006/0092323 A1	05-2006	Feeler et al.	348/553
*	G	US-2005/0130613 A1	06-2005	Kutsuna et al.	455/179.1
*	H	US-2005/0134578	06-2005	Chambers et al.	345/184
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	04/10/2014								
	1	-								
	2	-								
	3	-								
	4	-								
	5	-								
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	30	✓								
	31	✓								
	32	✓								
	33	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14145935	TANAKA ET AL.
	Examiner	Art Unit
	SEAN HAIEM	2422

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Classification insight.	9/3/2013	snh
Edan search for inventor and in the east as well	9/3/2013	snh
East class and subclass searched or found 348/553, 97 725/86 455/179.1	9/3/2013	snh
East word search combined with class	9/3/2013	snh
East IDS search, and prior art	9/3/2013	snh
Updated the search for the amended claims of this instant application which is a child of the parent application 13/345,746 for which the initial search record had already been established.	4/10/2014	snh

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/SEAN HAIEM/ Examiner.Art Unit 2422	

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BIB DATA SHEET

CONFIRMATION NO. 2279

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/145,935	01/01/2014	348	2422	US4CA2

APPLICANTS

INVENTORS

Masahide Tanaka, Osaka, JAPAN;
Tohru Matsui, Nara, JAPAN;

**** CONTINUING DATA ***************************

This application is a CON of 13/345,746 01/08/2012 PAT 8643784
which is a CON of 11/697,413 04/06/2007 PAT 8094236

**** FOREIGN APPLICATIONS ***************************

JAPAN 2006-106109 04/07/2006

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
01/15/2014

Foreign Priority claimed ☑ Yes ☐ No 35 USC 119(a-d) conditions met ☑ Yes ☐ No Verified and Acknowledged /SEAN N HAIEM/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		JAPAN	23	20	3

ADDRESS

MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

TITLE

Television System, Television Set and Remote Controller

FILING FEE RECEIVED		
730	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S114	149	((MASAHIDE) near2 (TANAKA)).INV.	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:48
S115	3	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:51
S117	22	((TOHRU) near2 (MATSUI)).INV.	US-PGPUB; USPAT	ADJ	ON	2013/04/25 16:54
S121	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/04/25 17:01
S122	3	(@ad or @pd or @ptad)<"20060407" and "2004265219"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:01
S123	2	@ad<"20060407" and "2005228012"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:03
S124	2	@ad<"20060407" and 348/553.ccls. and email	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:04
S125	51	@ad<"20060407" and 348/553.ccls. and pc and remote	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S126	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:08
S127	27	S125 not S126	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S128	51	@ad<"20060407" and 348/553.ccls. and	US-	ADJ	ON	2013/04/25

		pc and remote	PGPUB; USPAT; FPRS; EPO; JPO; DERWENT			17:09
S129	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and address	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S130	27	S128 not S129	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:09
S131	25	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:13
S132	4	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:14
S133	1	@ad<"20060407" and 348/553.ccls. and pc and remote and (tv or television) and (address or email or mail) and (monitoring or gathering or collecting or resident$1) and (safe$3 or emergency or abnormal$5 or stress or disabled or relief) and key$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:17
S134	24	@ad<"20060407" and 348/553.ccls. and pc and remote and (address or email)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:18
S135	45	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:19
S136	0	@ad<"20060407" and 348/553.ccls. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:20
S137	1	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3	US-PGPUB; USPAT; FPRS;	ADJ	ON	2013/04/25 17:20

		or emergency or relief) and key$1 and communication network and storage and abnormal$5 and detect$4 and outside and generate and (tv or television)	EPO; JPO; DERWENT			
S138	40	@ad<"20060407" and "348".clas. and pc and remote and email and (monitoring or gathering or collecting)and (resident or patient or alone or disabled) and (safe$3 or emergency or relief) and key$1 and communication network and storage and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:21
S140	6	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did.	US-PGPUB; JPO	ADJ	ON	2013/04/25 17:23
S141	4	(US-20060092323-$ or US-20050091311-$ or US-20010035917-$ or US-20020147982-$ or JP-2004265219-$ or JP-2005228012-$).did. and control	US-PGPUB; JPO	ADJ	ON	2013/04/25 17:23
S142	347	@ad<"20060407" and "348".clas. and remote control and shared with channel	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:24
S143	31	@ad<"20060407" and "348".clas. and remote control and shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S144	0	@ad<"20060407" and "348".clas. and remote control and watch$4 shared channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S145	14	@ad<"20060407" and "348".clas. and remote control and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:25
S146	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with multiple tv)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:26
S147	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with tv)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:26
S148	0	@ad<"20060407" and "348".clas. and (watch$4 "same" channel with TV)	US-PGPUB; USPAT; FPRS; EPO; JPO;	ADJ	ON	2013/04/25 17:27

			DERWENT			
S149	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:27
S150	0	@ad<"20060407" and "348".clas. and (alert signal) with key$1 and (tv or television) and remote control	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28
S151	13	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:28
S152	1	@ad<"20060407" and "348".clas. and (tv or television) and remote control with key$1 with panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S153	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S154	21	@ad<"20060407" and "348".clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:29
S155	26	@ad<"20060407" and ("725" or "348").clas. and (watch$4 "same" channel)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/04/25 17:30
S157	1	(@ad or @pd or @ptad)<"20060407" and "20050130613"	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2013/04/25 17:40
S158	1	@ad<"20060407" and remote control with key$1 with alert and (TV or television) and panic	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:27
S159	6	@ad<"20060407" and remote control with key$1 with (abnormal or panic) and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 15:37

S160	13	@ad<"20060407" and "348".clas. and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:09
S161	22	@ad<"20060407" and remote control with key$1 with alert and (TV or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2013/09/03 16:10
S162	3	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/09/03 16:12
S163	3	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2013/09/03 16:13
S170	4	((MASAHIDE) near2 (TANAKA)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S171	4	((TOHRU) near2 (MATSUI)).INV. and television function and detector arranged with cause with change	US-PGPUB; USPAT	ADJ	ON	2014/04/10 12:32
S174	25	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:35
S186	2	(@ad or @pd or @ptad)<"20060407" and remote control$4 with (smart or wireless or cell) phone and watch$4 "same" channel and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:49
S187	8	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 12:56
S205	1	(@ad or @pd or @ptad)<"20060407" and ("348" or "725" or "345").clas. and remote control$4 with smart phone and (tv or television) and microphone and loudspeaker and scroll and menu with (key or button)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2014/04/10 13:26

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S164	681	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:31
S166	18	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:35

S167	2	(348/553,734 or 725/86,41,105 or 709/205,203).ccls. and remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:35
S168	3	remote controller and plurality with keys with predetermined and first controller and second controller	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:36
S169	2	remote controller and plurality with keys with predetermined and first controller and second controller and abnormal	US-PGPUB; UPAD	ADJ	ON	2013/09/03 16:37

4/10/2014 5:35:57 PM
C:\Users\shaiem\Documents\EAST\Workspaces\14-145-935 (allowed parent 13-345-746, its allowed parent 11-697-413 a better match) Television system, set, remote controller.wsp

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA et al.	Confirmation No.:	2279
Application No.:	14/145,935	Examiner: HAIEM, SEAN N	
Filed:	January 1, 2014	Group Art Unit:	2422

For: TELEVISION SYSTEM, TELEVISION SET AND REMOTO CONTROLLER

Commissioner for Patents
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT
UNDER 37 C.F.R. §1.115

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....2

REMARKS.....6

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-9. (Cancelled)

10. (Currently Amended) A television set system comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

~~a communicator arranged to communicate with an outside counterpart;~~

a receiver arranged to receive information of a broadcast program identified by a channel selection of another television set in another place; ~~form the outside counterpart through the communicator;~~ and

a manual controller arranged to ~~automatically~~ change the display from own motive of a viewer of the display on the basis ~~in response to the receipt~~ of the information received by the receiver, ~~from a predetermined outside counterpart~~

wherein the information includes information of a broadcast program currently not displayed on the display, and

wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the channel selection of the another television set in response to a predetermined same manual operation regardless of the information,

whereby same experience as that of a viewer of the another television set is possible by means of the manual controller without any channel selecting operation.

11. (Cancelled)

12. (Currently Amended) The television set system according to claim 10 [[11]], wherein ~~the controller is arranged to display~~ the channel information ~~selection~~ of the another

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television set ~~with~~ is converted into its own ~~the~~ local channel number if it differs from that of the local channel number in an area where the another television set is located.

13-17. (Cancelled)

18. (Currently Amended) [[A]] The television set system according to claim 10, wherein the manual controller is a remote controller including: ~~an appliance comprising:~~

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replaceing the currently displayed broadcast program by the broadcast program identified by the channel selection of the another television set; and

a signal transmitter arranged to transmit a control signal to the television function unit ~~appliance~~ in response to the operation of the predetermined key in the operating part.[[;]]

~~a first controller arranged to determine the signal indicative of one of the predetermined functions to be transmitted to the appliance in response to an operation of at least one of the keys in compliance with a predetermined manner; and~~

~~a second controller arranged to have the signal transmitter to transmit a signal indicative of an abnormality to the appliance in response to an operation of the operating part which does not comply with the predetermined manner, but corresponds to a predetermined abnormal manner.~~

19-20. (Cancelled)

21. (New) A broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program, comprising:

a display arranged to display a broadcast program;

a receiver arranged to receive information of a broadcast program identified by a program selection of the another broadcast program viewing system, the information including information of a broadcast program currently not displayed on the display; and

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a manual controller having a predetermined operating portion to change the display from own motive of a viewer of the display on the basis of the information received by the receiver, wherein the manual controller is arranged to carry out replacement of the currently displayed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system in response to same manual operation at the predetermined operating portion regardless of the information and without any program selecting operation.

22. (New) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.

23. (New) The broadcast program viewing system according to claim 21, wherein the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.

24. (New) The broadcast program viewing system according to claim 21, wherein the manual controller is a remote controller including:

an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion; and

a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.

25. (New) In a broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place in accordance with information of a broadcast program identified by a program selection of the another broadcast program viewing system to share same experience of viewing same broadcast program, a remote controller comprising:

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a manual operating part including a plurality of manual operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including a predetermined operating portion to generate a control signal for carrying out replacement of a currently viewed broadcast program with the broadcast program identified by the program selection of the another broadcast program viewing system regardless of the information and without any program selecting operation; and

a signal transmitter arranged to wirelessly transmit the control signal in response to same manual operation at the predetermined operating portion.

26. (New) The remote controller according to claim 25 further comprising a display.

27. (New) The remote controller according to claim 26, wherein the manual operating portions of the manual operating part include a phone call key.

28. (New) The remote controller according to claim 27, wherein the manual operating portions of the manual operating part include ten key.

29. (New) The remote controller according to claim 28 further comprising a speaker.

30. (New) The remote controller according to claim 29 further comprising a microphone.

31. (New) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a menu key.

32. (New) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a scroll key.

33. (New) The remote controller according to claim 30, wherein the manual operating portions of the manual operating part include a push-down operation key.

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REMARKS

Claims 10, 12, 18 and 21-33 are currently pending in this application, claims 1, 21 and 25 being independent. Claims 10, 12 and 18 have been amended, claims 1-9, 11, 13-17 and 19-20 have been cancelled without prejudice, and claims 21-33 have been added. No new matter has been introduced

Entry of the amendment and examination thereon are respectfully requested.

If any issues will be caused by the amendment, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

Respectfully submitted,

Date: March 6, 2014

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/Masahide Tanaka/
Masahide Tanaka
Applicant

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Electronic Acknowledgement Receipt

EFS ID:	18384851
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remote Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	06-MAR-2014
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Time Stamp:	09:40:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		PreliminaryAmendmentUS4CA2.pdf	32784 a6bc0bfc3680ba252c504cbe83e4355b30d6a372	yes	6

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	6
Warnings:			
Information:			
	Total Files Size (in bytes):	32784	

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/145,935	Filing Date 01/01/2014	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	03/06/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/MOLIKI MAY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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JAPAN PATENT OFFICE

別紙添付の書類に記載されている事項は下記の出願書類に記載されている事項と同一であることを証明する。

This is to certify that the annexed is a true copy of the following application as filed with this Office.

出願年月日 Date of Application:	２００６年　４月　７日
出願番号 Application Number:	特願２００６－１０６１０９
パリ条約による外国への出願に用いる優先権の主張の基礎となる出願の国コードと出願番号 The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is	ＪＰ２００６－１０６１０９
出願人 Applicant(s):	田中　雅英 ＮＬ技研株式会社

２０１４年　１月２７日

特許庁長官
Commissioner,
Japan Patent Office　羽藤秀雄

【書類名】　特許願
【整理番号】　P2006-004
【提出日】　平成18年 4月 7日
【あて先】　特許庁長官殿
【国際特許分類】　G08B 21/00
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　【氏名又は名称】　松井　徹
【手数料の表示】
　【納付番号】　4916-0000-0078-3132
【提出物件の目録】
　【物件名】　特許請求の範囲　1
　【物件名】　明細書　1
　【物件名】　図面　1
　【物件名】　要約書　1

【書類名】特許請求の範囲
【請求項１】
第一テレビ機能部、前記第一テレビ機能部の操作に応じて伝達情報を発生する第一伝達情報発生部、第一テレビ画面、および外部からの伝達情報に応じて前記第一テレビ画面の表示を制御する第一制御部をもつ第一テレビと、第二テレビ機能部、前記第二テレビ機能部の操作に応じて伝達情報を発生する第二伝達情報発生部、第二テレビ画面、および外部からの伝達情報に応じて前記第二テレビ画面の表示を制御する第二制御部をもつ第二テレビと、前記第一伝達情報発生部で発生した伝達情報を前記第二制御部に伝達するとともに前記第二伝達情報発生部で発生した伝達情報を前記第一制御部に伝達する通信手段とを有し、これによって前記第一テレビ機能部の操作に応じて前記第二テレビ画面が変化するとともに前記第二テレビ機能部の操作に応じて前記第一テレビ画面が変化することを特徴とするテレビシステム。
【請求項２】
前記伝達情報はテレビのオンオフ情報であり、前記第一テレビ機能部の操作による前記第一テレビのオンオフ状態が前記第二テレビ画面に表示されるとともに、前記第二テレビ機能部の操作による前記第二テレビのオンオフ状態が前記第一テレビ画面に表示されることを特徴とする請求項１記載のテレビシステム。
【請求項３】
前記伝達情報は番組情報であり、前記第一テレビ機能部の操作によって選択された番組情報が前記第二テレビ画面に表示されるとともに、前記第二テレビ機能部の操作によって選択された番組情報が前記第一テレビ画面に表示されることを特徴とする請求項１または２記載のテレビシステム。
【請求項４】
前記番組情報はチャンネル情報であるとともに、前記第一制御部は、前記第一テレビと前記第二テレビの放送エリアが異なるとき、前記第二伝達情報発生部で発生したチャンネル情報を前記第一テレビの放送エリアにおける対応番組のチャンネル情報に変換して前記第一テレビ画面に表示するためのチャンネル情報変換手段を有することを特徴とする請求項３記載のテレビシステム。
【請求項５】
前記第一制御部は、前記第二伝達情報発生部から伝達された番組情報が前記第一テレビで鑑賞中の番組情報と一致していることを前記第一テレビ画面に表示するための一致検出手段を有することを特徴とする請求項３または４記載のテレビシステム。
【請求項６】
前記第一制御部は、前記第二伝達情報発生部から伝達された番組情報に基づいて前記第一テレビにおける鑑賞番組を選択する選択手段を有することを特徴とする請求項３から５のいずれかに記載のテレビシステム。
【請求項７】
前記第一テレビは、前記第二伝達情報発生部から伝達された伝達情報を記憶する記憶部を有することを特徴とする請求項１から６のいずれかに記載のテレビシステム。
【請求項８】
前記第一制御部は、前記第二伝達情報発生部から伝達された伝達情報に基づき前記第二テレビの操作が所定の条件を満たすかどうか判定する判定手段を有し、前記判定手段の判定結果に基づいて前記第一テレビ画面を制御することを特徴とする請求項１から７のいずれかに記載のテレビシステム。
【請求項９】
第三テレビ機能部、前記第三テレビ機能部の操作に応じて伝達情報を発生する第三伝達情報発生部、第三テレビ画面をもつ第三テレビを有するとともに、前記通信手段は、さらに前記第三伝達情報発生部で発生した伝達情報を前記第一制御部に伝達するよう構成され、これによって前記第三テレビ機能部の操作に応じて前記第一テレビ画面が変化することを特徴とする請求項１から８のいずれかに記載のテレビシステム。

【請求項１０】
前記通信手段は、前記第二伝達情報発生部で発生した伝達情報を前記第一制御部に伝達するための前記第二テレビ側の通信設定を前記第一テレビ側で行うための設定手段を有することを特徴とする請求項１から９のいずれかに記載のテレビシステム。
【請求項１１】
前記通信手段はパソコン通信手段であり、前記第二伝達情報発生部で伝達情報が発生したとき前記第一制御部宛に伝達情報を伝える電子メールを自動作成して自動送信するとともに、前記第一制御部は受信した電子メールによる伝達情報に基づき前記第一テレビ画面の表示を制御することを特徴とする請求項１から１０のいずれかに記載のテレビシステム。
【請求項１２】
前記第二テレビ機能部を操作するためのリモコンを有し、前記第二伝達情報発生部は、前記リモコンが異常操作されたときに前記伝達情報を発生することを特徴とする請求項１から１１のいずれかに記載のテレビシステム。
【請求項１３】
テレビ画面および外部からの伝達情報に応じて前記テレビ画面の表示を制御する制御部をもつ第一テレビと、テレビ機能部および前記テレビ機能部の操作に応じて伝達情報を発生する伝達情報発生部をもつ第二テレビと、前記伝達情報発生部で発生した伝達情報を前記制御部に伝達する通信手段とを有し、これによって前記第二テレビの前記テレビ機能部の操作に応じて前記第一テレビの前記テレビ画面が変化することを特徴とするテレビシステム。
【請求項１４】
テレビ機能部と、前記テレビ機能部の機能に関連して伝達情報を発生する伝達情報発生部と、パソコン通信機能部と、前記伝達情報発生部で伝達情報が発生したとき所定の送信先宛に伝達情報を伝える電子メールを自動作成して前記パソコン通信機能部により自動送信する電子メール自動作成手段とを有することを特徴とする通信機能を有するテレビ。
【請求項１５】
前記電子メール自動作成手段は、前記伝達情報に基づいて前記電子メールに添付する添付情報を作成するとともに前記添付情報を前記電子メールに自動添付することを特徴とする請求項１４記載の通信機能を有するテレビ。
【請求項１６】
前記添付情報は所定の書式に基づいて作成されることを特徴とする請求項１５記載の通信機能を有するテレビ。
【請求項１７】
前記添付情報は、前記テレビ機能部が受信する放送であることを特徴とする請求項１５または１６記載の通信機能を有するテレビ。
【請求項１８】
前記所定の送信先は前記テレビの使用状況により前記家庭の状況を見守る他家庭のテレビであることを特徴とする請求項１４から１７のいずれかに記載の通信機能を有するテレビ。
【請求項１９】
前記所定の送信先は視聴率調査機関であることを特徴とする請求項１４からまたは１８のいずれかに記載の通信機能を有するテレビ。
【請求項２０】
テレビ機能部と、テレビ画面と、パソコン通信機能部と、前記パソコン通信機能部が自動受信する所定の受信相手からの電子メールによって伝達される前記受信相手のテレビに関する情報に応じて前記テレビ画面の表示を自動制御する制御部とを有することを特徴とする通信機能を有するテレビ。
【請求項２１】
前記受信相手のテレビに関する情報は、前記受信相手のテレビのオンオフ状態の情報で

あり、前記制御部は前記テレビ画面に前記受信相手のテレビのオンオフ状態を表示することを特徴とする請求項２０記載の通信機能を有するテレビ。
【請求項２２】
前記受信相手のテレビに関する情報は、前記受信相手のテレビが鑑賞している番組情報であり、前記制御部は前記テレビ画面に前記番組情報を表示することを特徴とする請求項２０または２１記載の通信機能を有するテレビ。
【請求項２３】
前記受信相手のテレビに関する情報は、前記受信相手による送信画像鑑賞済情報であり、前記制御部は前記テレビ画面を送信画像鑑賞済状態の表示とすることを特徴とする請求項２０から２２のいずれかに記載の通信機能を有するテレビ。
【請求項２４】
操作部と、前記操作部の正常操作に応答して機能する通常機能部と、前記操作部の異常操作を検出する異常検出部と、前記異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置。
【請求項２５】
テレビのリモコンであることを特徴とする請求項２４記載の通信機能を有する機器の操作装置。

【書類名】明細書
【発明の名称】通信機能を有するテレビ、テレビシステムおよび通信機能を有する機器の操作装置
【技術分野】
【０００１】
本発明は、通信機能を有するテレビ、テレビシステムおよび通信機能を有する機器の操作装置に関する。
【背景技術】
【０００２】
核家族化が進んで久しい中、離れて住む老親等の様子を見守るための手段が種々検討されている。例えば、特開２００５－２２８０１２号公報では、独居者によるデジタルテレビの番組視聴状況を通信ネットワークを介して収集センタで収集し、これを救援センタに送ることにより、操作日時が所定の時間を経過している利用状況情報があれば独居者確認依頼メッセージを介護端末機に送信することが提案されている。
一方、テレビとパソコンを融合した商品も提案されており、テレビによって電子メールをやりとりする際の問題も特開２００４－２６５２１９号公報などで種々検討されている。
【０００３】
しかしながら、提案されている見守り手段は、専用の大きなシステムを必要とする。また、テレビとパソコンを融合した商品についても、機器の扱いに慣れていない使用者がその利点を充分生かすような状況にはなっていない。
【特許文献１】特開２００５－２２８０１２号公報
【特許文献２】特開２００４－２６５２１９号公報
【発明の開示】
【発明が解決しようとする課題】
【０００４】
本発明が解決しようとする課題は、既存のシステムを活用した見守りシステムを提供することにある。
【課題を解決するための手段】
【０００５】
上記の課題を解決するため、本発明は、ある家庭に置かれた第一テレビとそこから遠隔地の家庭に置かれた第二テレビにそれぞれテレビ機能部、テレビ機能部の操作に応じて伝達情報を発生する情報発生部、テレビ画面、および外部からの伝達情報に応じてテレビ画面の表示を制御する制御部を設け、通信手段によって互いの達情報発生部で発生した伝達情報を相手の制御部に伝達することによって、相手が見ているテレビの自然なテレビ操作に応じて自動的に発生する伝達情報により自分のテレビのテレビ画面が自動的に変化するようにしたテレビシステムを提供する。
伝達情報は、例えばテレビのオンオフ情報や番組情報であり、相手のテレビのオンオフ状態や相手が見ている番組が自動的に自分のテレビ画面で分かるようになる。
これによって、テレビを見ると言う自分の日常動作の中で、相手がテレビを見ている様子もリアルタイムで分かるようになり、相手の無事を確認することができる。
さらにテレビに備わっている既存の通信機能を利用するので、見守りのためのシステムを構築する必要もない。また、通常のテレビを見る以上の機器操作上の知識も必要としない。
【０００６】
本発明の具体的な特徴によれば、番組情報はチャンネル情報であるとともに、遠隔地間でお互いの放送エリアが異なるとき、相手から伝達されたチャンネル情報を自分の放送エリアにおける対応番組のチャンネル情報に変換してテレビ画面に表示する。これによって、放送エリアの違いにより同一番組について相手のチャンネルが異なっていても、自分のテレビ画面上では自分の放送エリアにおける馴染みのあるチャンネルとして表示されるの

で、的確に相手の番組情報が把握できる。

【０００７】

本発明の他の具体的な特徴によれば、相手から伝達された番組情報が自分の番組情報と一致していることを自分のテレビ画面に表示するための一致検出手段が設けられる。これによって、互いに同一番組を見ている状態であることへの注意が喚起され、遠隔地であっても体験を共有しているという擬似的な団欒が演出できる。また、両者の見ている番組を関係付けることにより、一方的に監視されているという感覚を和らげることができる。

【０００８】

本発明の他の具体的な特徴によれば、相手から伝達された番組情報に基づいて自分の鑑賞番組を選択する選択手段をが設けられる。これによって、相手の見ているのと同じ番組を見たいときにその番組を選択するのが容易になる。番組の選択に必要な番組情報はすでに相手から伝達されていて入手済みなので、その番組のチャンネルや番組データのダウンロード元を探す必要がないからである。

【０００９】

本発明の他の具体的な特徴によれば、相手から伝達された伝達情報を記憶する記憶部が設けられる。これによって、伝達情報を蓄積できるとともにその履歴を知ることができるので、自分のテレビをオンするよりも前に発生した相手の伝達情報が自分のテレビのオン時点で把握できるとともに、履歴に基づく相手の操作状況の分析も可能となる。

【００１０】

本発明の他の具体的な特徴によれば、相手から伝達された伝達情報に基づき、相手のテレビ操作が所定の条件を満たすかどうか判定する判定手段が設けられ、判定手段の判定結果に基づいてテレビ画面が制御される。これによって、例えば相手がその日の放送終了時間を過ぎたチャンネルを選択し続けているなどの異常状態について注意が喚起される。

【００１１】

本発明の他の具体的特徴によれば、他の遠隔地に同様の構成の第三テレビがあったとき、第三テレビのテレビ操作によって発生した伝達情報が第一テレビの制御部に伝達される。これによって第二テレビだけでなく第三テレビのテレビ操作によっても第一テレビのテレビ画面が変化するようになり、例えば夫の親と妻の親のように複数の家庭の状況を一括把握することができる。

【００１２】

本発明の他の具体的な特徴によれば、通信手段は、第二テレビの伝達情報発生部で発生した伝達情報を第一テレビの制御部に伝達するに必要な第二テレビ側の通信設定を第一テレビ側で行うための設定手段を有する。これによって、第二テレビの所持者が通信設定に不案内であっても、設定に精通した第一テレビの所持者が第二テレビの通信設定を遠隔操作できる。

【００１３】

本発明の他の具体的な特徴によれば、通信手段はパソコン通信手段であり、第二テレビの伝達情報発生部で伝達情報が発生したとき第一テレビの制御部宛に伝達情報を伝える電子メールを自動作成して自動送信するとともに、第一テレビの制御部は受信した電子メールによる伝達情報に基づき第一テレビのテレビ画面の表示を制御する。

このように、テレビが備えるパソコン機能の電子メール機能を利用すれば、見守りのためのシステムを格別に構築する必要がない。また、電子メール通信は自動的に行われるので、テレビの使用者に電子メール操作の知識がなくても、自動的に自分のテレビ使用状況を相手に知らせることができ、また相手のテレビの使用状況を知ることができる。

【００１４】

本発明の他の具体的な特徴によれば、第二テレビを操作するためのリモコンを有し、第二テレビの伝達情報発生部は、リモコンが異常操作されたときに伝達情報を発生する。これによって、例えば、パニック状態になったり意識が薄れかかっている使用者が日常使用しているテレビのリモコンから相手のテレビ画面上に自分の異常状態を通報することができる。

【００１５】
本発明が提供する最も簡単なテレビシステムは、テレビ画面および外部からの伝達情報に応じてテレビ画面の表示を制御する制御部をもつ第一テレビと、テレビ機能部およびテレビ機能部の操作に応じて伝達情報を発生する伝達情報発生部をもつ第二テレビと、第二テレビの伝達情報発生部で発生した伝達情報を第一テレビの制御部に伝達する通信手段とを有するものであり、これによって第二テレビのテレビ機能部の操作に応じて第一テレビのテレビ画面を変化させる。
【００１６】
本発明はまた、テレビ機能部と、テレビ機能部の機能に関連して伝達情報を発生する伝達情報発生部と、パソコン通信機能部と、伝達情報発生部で伝達情報が発生したとき所定の送信先宛に伝達情報を伝える電子メールを自動作成してパソコン通信機能部により自動送信する電子メール自動作成手段とを有することを特徴とする通信機能を有するテレビを提供する。
これによって、格別のシステムを構築することなく、またパソコンや電子メール機能に関する知識がなくても、自動的に自分のテレビの機能に関連する情報を外部に伝達することができる。
【００１７】
上記本発明の具体的な特徴によれば、電子メール自動作成手段は、伝達情報に基づいて電子メールに添付する添付情報を作成するとともにこの添付情報を電子メールに自動添付する。
これによって、電子メールの受け取り側では、電子メール本文の読解をしなくても、電子メールを自動開封し、添付情報の内容を自動検知すれば伝達情報に対応することができる。このとき、添付情報が所定の統一された書式に基づいて作成されていれば添付情報の自動検知がより容易になる。
また、伝達情報を添付情報の形にすることにより、種々の情報を外部に伝達でき、テレビ機能部が受信する放送自体を添付情報とすることもできる。例えば、ローカルな緊急放送をテレビ機能部が自動受信したときにこれを電子メールに自動添付して自動送信するよう設定しておけば、緊急事態が発生した地域に限定される緊急放送の内容を遠隔地の家族が知ることができる。
【００１８】
上記本発明の通信機能を有するテレビにおいて、所定の送信先を遠隔地の家庭のテレビに設定しておけば、自分のテレビの使用状況により遠隔地の家庭に自分の状況を見守ってもらうことができる。
また、所定の送信先を視聴率調査機関に設定するよう視聴率調査機関との契約などで合意した場合には、視聴率調査機関は格別の機器を配布しなくても広く視聴率の調査をすることができる。
【００１９】
本発明はまた、テレビ機能部と、テレビ画面と、パソコン通信機能部と、パソコン通信機能部が自動受信する所定の受信相手からの電子メールによって伝達される受信相手のテレビに関する情報に応じて自分のテレビ画面の表示を自動制御する制御部とを有することを特徴とする通信機能を有するテレビを提供する。
伝達される情報は、例えば相手のテレビのオンオフ状態や相手が鑑賞している番組情報であり、制御部は自分のテレビ画面に相手のテレビのオンオフ状態や前記番組情報を表示することができる。
これによって、テレビを見ると言う自分の日常動作の中で、相手がテレビを見ている様子もリアルタイムで分かるようになり、相手の無事を確認することができる。
また、伝達される情報は、例えば相手による送信画像鑑賞済情報であり、この情報を受け取った制御部は自分のテレビ画面を送信画像鑑賞済状態の表示とする。
これによって、例えば、子供たちのデジタル写真やデジタルビデオなどの画像を遠隔地の親に電子メール機能で送信していたとき、親がこれを鑑賞済であるかどうかが自分のテ

レビ画面で分かるようになり、近況を知らせる画像を通じたより身近なコミュニケーション図ることができる。

【００２０】

本発明はまた、操作部と、操作部の正常操作に応答して機能する通常機能部と、操作部の異常操作を検出する検出部と、検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置を提供する。

本人がなんらかの異常を感じたときは、携帯電話などにより知人や家族に連絡するかまたは１１９番通報することが考えられる。しかしながら、短縮ダイヤルや電話帳機能があるとしても、本人がパニック状態にあったり意識が薄れかかったりしている場合、その操作は必ずしも容易とはいえない。また、幸いにして電話が繋がったとしても、そのときに本人が口頭で事情を伝えられる状態にあるとは限らない。

一方、専用の緊急通報機器を設ける場合、操作が簡単で通報先や用件も限られている反面、誤報操作も起こりやすい。また、無事であれば何年も操作しないことがあるので、操作法や機器があること自体を忘れてしまったり、機器が電池切れを起こしていざというときに役に立たなかったりすることが考えられる。

これに対し、上記本発明の操作装置は、日常使用される通信機能を有する操作装置を利用し、もや本人が正常な操作ができなくなっていても、そのような状態でありがちな異常操作を検出したとき所定の通信先に所定の伝達情報を自動発信するようにしているので、緊急事態の通報が可能であるとともに、誤報の心配も少なく、また通報のための訓練やメンテナンスも必要としない通報手段を提供するものである。

このような操作装置としては、具体的にはテレビのリモコンが考えられるが、通常の電話や携帯電話としても実施可能である。

【実施例】

【００２１】

図１は、本発明におけるテレビシステムの実施例のブロック図である。図1の実施例におけるシステムは、Ａ家庭1とそこに置かれたＡテレビ２、およびＡ家庭１から遠隔地にあるＢ家庭３とそこに置かれたＢテレビ４からなる。例えば、Ａ家庭１は故郷を離れて独立した息子の一家であり、Ｂ家庭３は故郷にあって一人暮らしの母親であるとする。なお、本発明は二つの家庭間だけで実施されるものではなく、例えば一つの家族と夫側および妻側のそれぞれの親の家庭など、互いに遠隔地にある三つ以上の家庭の間でも実施可能であるが、簡単のため二つの家庭について実施例の説明を行い、必要に応じ、三つ以上の家庭の場合についてコメントを加える。

本発明はこのように互いに遠隔地にある家庭同士がテレビ鑑賞を通じて日常的に情報を交換し、お互いの様子を見守るとともに体験の共有による擬似的な団欒を演出するものである。

【００２２】

Ａテレビ２のＡ制御部５は、テレビ機能の制御だけでなく、Ａ記憶部６との連携によってパソコンの機能を併せ持っており、Ａリモコン７とＡテレビ画面８との連携によるグラフィカルインターフェースによってパソコンとしても操作することが可能である。

Ａ記憶部６は、ハードディスクおよびメモリを備え、パソコン機能のためのプログラムを記憶しているとともに種々のデータも記憶している。Ａ記憶部６は大容量のもので、パソコン関連のプログラムやデータが記憶可能である他、テレビ番組データも記録可能である。

以上のパソコン機能および番組記録機能に関しては、Ｂテレビ４の制御部９、Ｂ記憶部１０、Ｂリモコン１１およびＢテレビ画面１２でも同様である。

なお、Ａリモコン７を操作したときはその操作に応じて赤外線信号がＡリモコン７から送信され、これを受信したＡリモコン受信部１３からＡ制御部５に操作信号が伝えられる。この点についても、Ｂテレビ４のＢリモコン受信部１４は同様の機能を持つ。

【００２３】

Ａテレビ２はさらに、ブロードバンドで外部と常時接続状態にあるＡ通信部１５を有する。Ａ通信部１５は、Ａ制御部５の制御下で通常のインターネットやＥメールが可能であるが、Ａ制御部５のハードとソフトが休止状態であっても、常時電源が供給されており、外部メールサーバにＡテレビ２向けのメールが着信したことを検知する最低限の機能に特化したパソコン機能を有する。これは、後述するように、Ａテレビ２の電源がオフのときにＢテレビ４から緊急メールが発信されたとき、これを検知してＡテレビ２の電源を自動的にオンするためである。以上のようなＡ通信部１５の機能は、Ｂテレビ４のＢ通信部１６においても同様である。

このように、Ａテレビ２とＢテレビ４は、Ａ通信部１５とＢ通信部１６の間のブロードバンド通信によって互いに交信可能であり、平常時においてお互いのテレビ鑑賞状況などを情報交換できるとともに、緊急事態にも対応できるようになっている。なお、図１では、便宜上Ａ通信部１５とＢ通信部１６が直接接続されているごとき図示をしているが、実際には上記のとおりインターネットを介した接続である。

【００２４】

通常のテレビ放送を鑑賞する場合、Ａリモコン７でチャンネル選択をすると、放送電波１７を受信するＡチューナ１８から該当するチャンネルの放送がＡ表示制御部１９を介してＡテレビ画面８で表示される。この点については、Ｂテレビ４における放送電波２０、Ｂチューナ２１およびＢ表示制御部２２も同様である。

【００２５】

また、上記の通信機能により、Ａ記憶部２３は、放送電波１７を介して放送局から送信される放送番組をリアルタイムで記憶するだけではなく、Ａ通信部１５を介してサーバ型放送によって提供される番組データを一括ダウンロードして記憶することも可能である。Ｂテレビ４も、同様にサーバ型放送のダウンロードが可能である。

【００２６】

Ａ記憶部６のＡ蓄積情報２３は、Ｂ家庭３から送られてきたＥメールに添付されていた情報をその日時情報とともに蓄積したものである。また、Ａ蓄積情報２３は、Ｂ家庭３に送信するＥメールに添付するＡ家庭１自身の情報もその日時教法とともに蓄積している。同様に、Ｂ記憶部１０のＢ蓄積情報はＡ家庭１から送られてきたＥメールに添付されていた情報およびＡ家庭１に送信するＥメールに添付するＢ家庭３自身の情報をその日時情報とともに蓄積したものである。Ａ蓄積情報２３およびＢ蓄積情報２４は、いずれも最新の情報が識別可能であるとともに過去の履歴も分析可能となっている。

【００２７】

Ｅメールはテレビのオンオフやチャンネル切換の都度、自動的に送信され、これらの操作を行った時間とともに、鑑賞しているチャンネルの情報が添付される。受信されたＥメールは自動開封されるとともに、その添付情報はＡ蓄積情報２３およびＢ蓄積情報２４に逐次自動蓄積されていくので、それらのうちの最新情報に基づいて相手のテレビがオンの場合、その見ているチャンネル数字をお互いにＡテレビ画面８およびＢテレビ画面１２に表示することができる。これによって、お互いが無事であることが確認できるとともに、同時間に同じチャンネルを見ている場合には体験の共有による擬似的な団欒を感じることができる。

【００２８】

Ａ表示記憶部２５は、主にパソコン機能やテレビの設定機能においてＡテレビ画面８を制御するためのものであるが、上記の場合、Ｂテレビ４がオンであってチャンネル変更が行われない限り、Ｂテレビ４で観賞されている最新のチャンネル数字表示情報を保持している。そしてＡ表示記憶部２５から出力されるチャンネル数字画像情報がＡ表示制御部１９によってＡチューナ１８からの放送画像情報に重畳され、Ａテレビ画面８に表示される。この点については、Ｂテレビ４のＢ表示記憶部２６も同様であり、Ａテレビ２で観賞されている最新のチャンネル数字表示情報がＢ表示制御部２２によってＢチューナ２１からの放送画像情報に重畳され、Ｂテレビ画面１２に表示される。

なお、Ａ表示制御部１９はＡ制御部５の指示に基づき、上記のようにＡチューナ１８お

よびＡ表示記憶部２５からの画像情報を合成して重畳表示するほか、Ａチューナ１８からの画像情報とＡ表示記憶部２５からの画像情報を完全に切換えることもある。例えば、パソコン機能のときやビデオ鑑賞のときは、Ａチューナ１８からの画像情報に換えてＡ表示記憶部２５からの情報だけがＡテレビ画面８に出力される。この点は、Ｂテレビ４のＢ表示制御部でも同様である。

【００２９】

Ａテレビ２はＡ家庭内にあるすべての家電製品の管理機能も有しており、家庭内ネットワークによりこれらの家電製品の情報を把握しているとともに、必要に応じこれらの家電製品を制御する。この目的のために、Ａ制御部５は、Ａテレビ２の外部にあるＡ家電製品２７と接続されている。図１では簡単のためにＡ家電製品を一つだけ図示しているが、上記のように、実際にはＡ制御部５は多数の家電製品と接続されている。また、Ａ制御部５に接続されるのは家電製品に限らず、ベッドなど家庭内の任意の設備や用具をＡ制御部５に接続して、その状態を把握する対象とすることができる。また、設備として玄関ドアのロック装置にＡ制御部５を接続すれば、テレビのオンオフとの組み合わせで外出と帰宅の状態を把握することができる。

Ｂテレビ４のＢ制御部も同様にＢ家庭内にあるすべての家電製品等の管理機能も有しており、家庭内ネットワークによりこれらの家電製品等の情報を把握しているとともに、必要に応じこれらの家電製品等を制御する。図１では簡単のためにＢ家電製品２８を一つだけ図示しているが、実際にはＡ制御部５と同様、Ｂ制御部９は多数の家電製品またはその他の任意の家庭内の設備や用具と接続されている。

そして、これらの家電製品等についても、例えばその電源をオンオフする都度、自動的にＥメールが作成されて自動的に送信され、これらの操作を行った時間とともに、その操作内容が添付される。受信されたＥメールは自動開封されるとともに、その添付情報はＡ蓄積情報２３およびＢ蓄積情報２４にそれぞれ逐次自動蓄積されていくので、それらのうちの最新情報に基づいて相手の家電製品の使用状況をお互いにＡテレビ画面８およびＢテレビ画面１２に表示することができる。これによって、お互いの日常生活が通常通りであって平穏無事に生活していることが確認できる。

【００３０】

Ａテレビ２のＡ制御部５はさらにデジタルカメラ２９との間でデジタル写真情報（以下これを単に「写真」と称することがある）の授受が可能となっている。デジタルカメラ２９からのＡ制御部５への写真入力操作としては、種々の方法が可能である。例えば、デジタルカメラ２９のデジタル端子をＡ制御部５にケーブル接続すること、デジタルカメラ２９からＡ制御部５に画像データをデジタル無線送信すること、Ａ制御部５に接続された充電兼用画像データ入力クレードルにデジタルカメラ２９を置くこと、デジタルカメラ２９の着脱式記録媒体を取り出してＡ制御部５に接続された記録媒体スロットに挿入することなどによる写真入力操作が可能である。

Ａ制御部５に入力されたデジタル写真情報はＡ記憶部６に記憶されるので、適宜Ａテレビ２自身で鑑賞することができるが、これを、Ｂ家庭に送信することもできる。さらに、Ａ家庭からＢ家庭へのデジタル写真情報の送信は自動化することも可能である。例えば、自動送信したい写真にはデジタルカメラ２９の操作で予めマークをつけておき、このマークのついた新しいデジタル写真情報がＡ制御部５に入力される都度、自動的にＥメールを作成してそれらのデジタル写真情報を自動添付し、Ａ通信部１５からＢ家庭に自動送信するようにする。一方、Ｂ通信部１６で受信されたＥメールは自動開封し、添付されたデジタル写真情報をＢ記憶部１０に自動記憶するとともに、Ｂ蓄積情報２４に写真着信の旨の情報を自動蓄積する。これによって、Ｂ蓄積情報２４に基づき、Ｂテレビ画面１２上において写真が新着したことを通知することが可能となる。

なお、図1では、デジタルカメラ２９をＡ家庭のみに図示しているが、Ｂ家庭３においてＢ制御部９に上記と同様にしてデジタル写真情報を入力すれば同様のことが可能である。

【００３１】

テレビ２はさらにＡ制御部５に接続されるとともにテレビを観賞している人の方向に向けられたＡカメラ３０を内蔵している。Ａカメラ３０はテレビカメラであって、テレビ電話および緊急時に相手家庭の情報を収集する際に用いられる。Ａリモコン７には、後述のようにマイクとスピーカが備えられており、テレビ電話の際には、Ａリモコン７を送受話器として使用できる。Ａカメラ３０はＡリモコン７を受話器として持って会話するＡ家庭１の家族を映し出し、Ｂテレビに送信する。テレビ電話の回線はＡ通信部１５を介したインターネット電話回線である。Ｂテレビ４も同様のＢカメラ３１を内蔵しており、その機能はＡカメラ３０と同じなので説明を省略する。

緊急時の機能としては、例えばＢテレビ４からの自動メールでＢ家庭におけるなんらかの異常状態がＡテレビ２に伝えられたとき、必要に応じてＡ通信部１５から緊急メールを発信し、この緊急メールの添付情報により、Ｂカメラ３１によるＢ家庭室内の最広角撮影、および撮影結果の返信をのＢテレビ３に指示すればＢカメラ３１を遠隔操作することができ、これによって画角内のＢ家庭３の様子を確認することができる。

【００３２】

図２は、Ａテレビ２におけるＡテレビ画面８の一例であり、放送画像５１が表示されている。画面の右上隅には、Ａ家庭チャンネル（自チャンネル）数字５２が重畳表示されおり、Ａテレビ２で受信中の放送画像５１が「２チャンネル」のものであることを示している。

一方、Ａテレビ画面８の左上隅には、Ｂ家庭チャンネル（他チャンネル）数字５３が表示されており、現在Ｂテレビ４の電源がオンであって「１２チャンネル」を鑑賞中であることを示している。なお、もしＢテレビ４の電源がオフであれば、Ｂ家庭チャンネル数字５３の場所には何も表示されない。なお、何も表示しない代わりに「ＯＦＦ」という文字を表示してもよい。

また、Ｂ家庭チャンネル数字５３の表示は、Ｂ家庭３の放送エリアにおいて実際に選んだチャンネル数字ではなく、これをＡ家庭１の放送エリアにおける同一内容の放送チャンネルに変換したものが表示される。これは、Ｂ家庭３の放送エリアのチャンネル数字をそのまま表示してもＡ家庭１ではこれに馴染みがなく、直ちにはＢ家庭で鑑賞している番組が何か了解できないからである。

【００３３】

Ａテレビ画面８の左上隅には、さらにＢ家庭の洗濯機を示す他家庭家電アイコン５４が表示されており、現在、洗濯機の電源がオンで稼働中であることを示している。なお、もしＢ家庭３の洗濯機の電源がオフであれば他家電アイコン５４の場所には何も表示されない。また、この場合、Ｂ家庭３において他の家電の電源がオンであればその家電を示すアイコンが他家電アイコン５４の場所に表示される。これによって、Ａ家庭１ではＢ家庭３における日常生活の様子を見守ることができる。そして、通常なら電源がオンされる時間に予定通りの家電のアイコンがＡテレビ画面８の左上隅に表示されない場合、Ｂ家庭３でなんらかの異常がある可能性があるので、必要に応じ速やかに連絡をとることができる。

【００３４】

Ａテレビ画面８の左上隅には、また、送信済み写真アイコン５５が表示されている。写真アイコン５５はＡ家庭１からＢ家庭３に写真を送信することによって表示される。そして、Ｂ家庭３においてこれを鑑賞したことを示すＥメールを受信すると写真アイコン５５は消える。Ｂ家庭に写真を送信したことは速やかにＢテレビ画面１２に表示されているはずなので、写真アイコン５５がいつまでも消えないとＢ家庭においてこれに気付いていないことを意味し、なんらかの異常と判断して連絡を取ることができる。

【００３５】

なお、Ｂ家庭以外にさらに第三の家庭がある場合は、そのそれぞれの家庭についてＡテレビ画面８の左上隅にチャンネル、家電、送付済み写真の表示を行う必要がある。この場合、心配の多い家庭など優先して表示する必要のある家庭を予め決めておき、Ａリモコン７の操作によって必要に応じ第二優先の家庭の表示に切換えるようにする。

また、これに代えて複数の見守り対象家庭の様子を同時に表示したい場合は、例えばＡ

テレビ画面８の左上隅の表示を複数列にし、各列をどの家庭に割り当てるかを予め決めておくとともに、その割り当て家庭を示す家庭アイコンを各列の最上部に表示するようにして互いに識別可能とする。

【００３６】

さらに、見守り対象家庭がＢ家庭だけである場合において、複数の家電の電源がオンになるときの対策としては、同様に、見守り効果上の優先度を予め決めておき、Ａリモコン７の操作によって必要に応じ第二優先の家電の表示に切換えるようにする。

なお、これに代えて電源オンとなっている複数の家電のアイコンをすべて表示するようにすることも可能である。また、電源オフの家電についてアイコンを表示しないようにするのに代えて、見守り対象の家電のアイコンを常にすべて表示しておき、電源のオフのアイコンは色を変えるようにしてもよい。

【００３７】

図３は、図２に対応する同時刻のＢテレビ４におけるＢテレビ画面１２を示す。図２のＡテレビ画面８における左上隅のＢ家庭チャンネル（他チャンネル）数字５３の表示は「１２チャンネル」であったが、図３のＢテレビ画面１２における右上隅に表示されたＢ家庭チャンネル（自チャンネル）数字６１は「３チャンネル」である。これは、Ｂ家庭３の放送エリアにおいて実際に選んだチャンネル数字は「３チャンネル」であるのに対し、Ａ家庭１の放送エリアにおける同一内容の放送チャンネルは「１２チャンネル」なので、図２のＡテレビ場面８におけるＢ家庭チャンネル（他チャンネル）数字５３の表示がＡ家庭１の放送エリアのものに変換されていたためである。

Ｂテレビ画面１２の左上隅には、Ａ家庭チャンネル（他チャンネル）数字６２が表示されており、現在Ａテレビ２の電源がオンであって「１チャンネル」を鑑賞中であることを示している。但し、これは、Ａ家庭１の放送エリアにおいて実際に選ばれているチャンネル数字である「２チャンネル」を、Ｂ家庭３の放送エリアにおける同一内容の放送チャンネルである「１チャンネル」に変換した結果のものである。

【００３８】

図３のＢテレビ画面１２の右上隅には、さらに写真着信アイコン６３が表示されている。写真着信アイコン６３は、該当する写真を鑑賞する操作をすると消えるが、干渉しない限り表示が継続される。なお、前述のように、写真着信アイコン６３がＢテレビ画面から消える機能と写真を鑑賞した旨のメールをＡテレビに自動送信する機能は連動しているので、写真着信アイコン６３がＢテレビ画面から消えるのと連動して、図２の、Ａテレビ画面８における送信済み写真アイコン５５が消える。

【００３９】

なお、図２および図３において、自テレビ側の情報は画面右側に、他テレビ側の情報は画面左側にまとめて表示されている。このように自テレビ側の情報と他テレビ側の情報とを分けて表示することにより表示の混乱を防止している。

【００４０】

また、図２および図３における自チャンネル数字５２、６１、他チャンネル数字５３、６２、および各種アイコン５４、５５、６３は、常時画面に表示されるよう設定することができるが、このような常時表示がわずらわしいときは、Ａテレビ２またはＢテレビ４のいずれかが操作されたあと所定時間（例えば１０秒）だけこれらが表示され、この所定時間が経過すると自動的に消えるよう設定することも可能である。

【００４１】

図２の場合を例にとると、Ａテレビ２をオンして所定時間が経過すると各表示５２、５３，５４，５５が自動的に消えるとともに、例えばチャンネル変更した時にはこれらが再度表示され、そこからさらに所定時間が経過するとまたこれらの表示が自動的に消えるという動作となる。このようにして、Ａ家庭１では自分のＡテレビ２を操作したときに、同時にその時点での最新のＢ家庭３の情報を確認できる。

【００４２】

一方、Ａテレビ２を操作しなくても、Ｂ家庭３側においてＢテレビ４を操作するか、ま

たはＢ家電２８等の状態が変わるかすることによってＢテレビ４からのメールが送信されるので、これをＡテレビ２が受信したときは、各表示５２、５３，５４，５５が再度表示される。そして、そこから所定時間が経過するとまたこれらの表示が自動的に消えるという動作となる。従って、Ｂ家庭３に何かの変化があったときは、速やかにそれをＡテレビ画面８で確認することができる。

但し、この場合はＡテレビ２自体の操作に基づく表示変化ではないので、番組に熱中していると気づかない可能性もある。従って、表示の際には、表示を点滅させるか、または極短時間だけ各表示５２、５３，５４，５５を画面一杯に拡大することによって注意を喚起することもできる。また、このような視覚的は注意喚起ではなく、表示開始の際に通知音を発生させるなど、聴覚的な注意喚起も可能である。

【００４３】

さらに、図２および図３のいずれにおいても、両者のチャンネルが一致したときはチャンネル表示を強調することも可能である。たとえば図２においてＢテレビのチャンネルが変更され、Ｂ家庭チャンネル表示５３が「２チャンネル」に変わったときはチャンネル表示の両方または一方を点滅、色変更、拡大などにより通常とはことなる強調表示をして、両家庭において体験を共有していることを演出することができる。

【００４４】

また、図２および図３のいずれにおいても、相手が見ている番組を見たいときにワンタッチで相手の番組へのチャンネル変更が可能なよう構成することもできる。たとえば図２においてＢテレビが見ている「１２チャンネル」を見たい場合、Ａリモコン７の所定のボタンを押すと、ワンタッチでＡテレビのチャンネルを「１２チャンネル」に変更することがきる。この機能は、相手の見ている番組が何であっても常に同じボタンで同じ操作をするだけで可能となる。これは、ＡテレビＡ２蓄積情報２３の中に相手のチャンネル情報があり、この情報を読み出せば自分のチャンネルをこれに合わせる事ができるからである。

【００４５】

なお、図２における画面左側のＢ家庭２に関する表示については、これをまったく表示しないモードに設定することも可能である。つまり、他情報表示モードと他情報非表示モードが選択可能であり、必要がない場合は煩雑をさけるため、他情報が表示されないようにすることができる。このモード切換はＡリモコン７の操作によって可能である。

このようなモード切換機能については、Ｂテレビ３においてもまったく同様である。

【００４６】

図４は、図１のＡ制御部５またはＢ制御部９動作を示す基本フローチャートである。以下、Ａテレビ２を「自テレビ」、Ｂテレビ４を「他テレビ」として、ＡテレビＡ２のＡ制御部５の動作を説明していくが、ＢテレビＢ４のＢ制御部９の動作については、両者の関係を逆にすることにより理解できるので、特にコメントを要する場合を除き、説明を省略する。

さて、Ａ家庭１においてＡリモコン７の電源ボタンを操作してＡテレビ２の電源をオンすると図４のフローがスタートし、ステップＳ２でテレビ機能および通信機能の起動を含む起動処理を行う。その詳細は後述する。

【００４７】

次いで、ステップＳ４においてＡテレビ２（以下「自テレビ」と称する）の電源がオンになったことをＢテレビ４（以下「他テレビ」と称する）に知らせるためのメール自動送信処理を行う。また、このときＡテレビの現在のチャンネルやＡ家電２７等の状態を含めＡ制御部５が把握しているすべての最新情報に変更があればメールに添付する。その内容は後出のいくつかのステップにおける「メール自動送信処理」と共通であるが、詳細はまとめて後述する。

次のステップＳ６では、自テレビまたは他テレビに関連する種々の変化に応じて図２および図３で例示したような表示を行うための表示処理を行う。この詳細についても後述する。

【００４８】
以上の処理の後、ステップＳ８に至ると、チャンネル切換や音量変更などの自テレビの操作があったかどうかチェックする。そして操作があれば、ステップＳ１０にてその旨を他テレビに知らせるためのメール自動送信処理を行い、ステップＳ１２に移行する。なお、ステップＳ８にて自テレビの操作がなければ直接ステップＳ１２に移行する。
【００４９】
ステップＳ１２では、Ａ制御部５に接続されているＡ家電２７（以下「自家電」と称する）の電源オンオフなどの状態変化があったかどうかチェックする。そして自家電に状態変化があれば、ステップＳ１４にてその旨を他テレビに知らせるためのメール自動送信処理を行い、ステップＳ１６に移行する。なお、ステップＳ１２にて自家電状態に変化がなければ直接ステップＳ１６に移行する。
【００５０】
ステップＳ１６では、デジタルカメラ２９からＡ制御部５に対し、すでに説明した種々の方法のいずれかによる写真入力操作があったかどうかをチェックする。そして写真入力操作があれば、ステップＳ１８にて他テレビ宛の写真メール送信処理を行い、ステップＳ２０に移行する。なお、ステップＳ１６にて写真入力操作がなければ直接ステップＳ２０に移行する。
【００５１】
ステップＳ２０では、着信した写真を鑑賞する操作をＡリモコン７にて行ったかどうかチェックする。そして写真鑑賞操作があれば、ステップＳ１４にてその旨を他テレビに知らせるためのメール自動送信処理を行い、ステップＳ２４に移行する。なお、ステップＳ２０にて自家電状態に変化がなければ直接ステップＳ２４に移行する。
【００５２】
ステップＳ２４では、Ｂテレビ４からのメールの着信がないかどうかチェックする。そしてメールの着信があれば、ステップＳ２６においてこれを自動開封し、Ａ記憶部６にＡ蓄積情報２３として蓄積する情報蓄積処理を行い、ステップＳ２８に移行する。ステップＳ２６の詳細は後述する。なお、ステップＳ２４にて自家電状態に変化がなければ直接ステップＳ２８に移行する。
【００５３】
なお、以上のステップＳ８からステップＳ２２は、Ａ家庭１の状態をＢ家庭３に知らせるためのＡテレビ２におけるＡ制御部５の機能として説明したが、これと同様のことが、Ｂ家庭３においてＢテレビのＢ制御部９によっても行われている。この結果、Ｂ家庭３においてステップＳ８からステップＳ２２に該当する変化があれば、これらを通知するメールがＡ制御部５に送られてくる。
Ａ制御部５における上記ステップＳ２４およびステップＳ２６の機能は、このようにしてＢ家庭３から送られてくる情報をＡ記憶部６に記憶し、Ｂ家庭３の様子を見守るためのものである。
【００５４】
ステップＳ２８では、自テレビの電源をオフしたかどうかをチェックする。そして電源をオフしていなければステップＳ6に戻る。従って、もしステップＳ２６で蓄積情報の変化があれば、ステップＳ６における表示処理によってＡテレビ画面８の表示が変更されるので、Ｂ家庭の様子を見守ることができる。
以下、ステップＳ２８において自テレビ電源オフ操作が検知されない限り、ステップＳ６からステップＳ２８を繰り返す。従って、その間にＡテレビ側２に何らかの変化があれば、これをその都度Ｂテレビ４にメール送信するとともに、Ｂテレビ４側に何らかの変化があってメールを受信すれば、その都度Ａテレビ画面８の表示を変更することができる。
【００５５】
一方、ステップＳ２８において自テレビ電源オフ操作が検出されると、その旨を他テレビに知らせるためのメール自動送信処理を行う。そして、この処理を済ませた後、ステップＳ３２に至って終了処理を行い、テレビ電源をオフしてフローを終了する。

【００５６】
なお、テレビ電源がオフになっても、Ａテレビ２には待機電流が供給されている。この待機電流は、Ａリモコン受信部１３を常に待機状態とし、Ａリモコンからの赤外信号に応答可能とするとともに、Ａ通信部１５も常時接続の待機状態とし、外部のメールサーバにメールが着信したときにこれを検出可能とする。この待機電流の供給に関しては、Ｂテレビ４でも同様である。
【００５７】
図５は、図４のステップＳ２における起動処理の詳細を示すフローチャートである。起動処理がスタートすると、まず、ステップＳ４２においてテレビ機能を起動する。次いで、ステップＳ４３において、パソコンのハードおよびソフトに関する基本機能の起動処理を行う。後述するように、この処理の中には、Ａテレビ２をテレビとして使用する場合の通信機能設定を通常パソコンとして使用する場合とは異なる通信機能設定とするための設定処理も含まれている。また、ステップＳ４３においては、通常パソコンとしての使用が選択されない限り、通信に必要な最低限のハードとソフトのみを起動し、起動にかかる時間を最短にしている。
【００５８】
次いで、ステップＳ４４で、インターネットにより自テレビの放送エリア内の全番組表を新たに受信し、Ａ記憶部６に記憶されている番組表から変化があれば記憶を更新する。
さらに、ステップＳ４５で、同様に、他テレビの放送エリア内の全番組表を新たに受信し、Ａ記憶部６に記憶されている番組表から変化があれば記憶を更新する。
なお、ステップＳ４４およびステップＳ４５の番組表については、デジタル放送電波にこの情報が含まれている場合、放送電波から取得することも可能である。
【００５９】
次に、ステップＳ４６で外部のサーバに着信しているＡテレビ２向けの全メールを自動受信する。そして、ステップＳ４８で全着信メールを確認する。このメール確認においては、直前のステップＳ４６での自動受信以前に既に受信していたメールも対象とする。
【００６０】
メールが確認できるとステップＳ５０に移行し、未読メールがあるかどうかをチェックする。そして未読メールがあればステップＳ５２に進み、情報蓄積処理を行った後ステップＳ５４に移行する。この情報蓄積処理は、図４のステップＳ２６と共通のものであるが、まとめて後述する。
【００６１】
既に述べたように、図２のＡテレビ画面８の表示は、情報蓄積処理によって更新された最新情報に基づいてほぼリアルタイムで更新されるが、自テレビの電源をオンした直後には、さらに特有の表示を行う。このために必要なのがステップＳ５４からステップＳ５８の処理である。
まずステップＳ５４では、Ａ蓄積情報２３に基づき、自テレビの電源をオンしたときに他テレビがオン状態になっているかどうかをチェックする。そしてオン状態であればステップＳ５６に進み、他テレビのオン時刻等表示処理を行う。これは、他テレビがオンされた時刻および現在のチャンネルに変更された時刻をＡテレビ画面８に表示する処理である。この処理は、Ａ蓄積情報２３に基づいて行われ、例えば目立つように画面中央に大きな文字で時刻表示する。
【００６２】
以上のような時刻表示の理由は次のとおりである。つまり、自テレビの電源をオンしたときに図２の他チャンネル数字５３が現れたことを見れば、その時点においてＢ家庭３においてＢテレビ４がオン状態であることがわかるが、そこに至る履歴はわからない。例えば、Ｂテレビ４が３０分前にオンされたのか、５時間同じチャンネルのままつけっぱなしになっているのか判断できない。このため、ステップＳ５６において、他テレビがオンされた時刻および現在のチャンネルに変更された時刻を表示する。これによって、Ａテレビ２の電源をオンしたときに、Ｂテレビ４が現状に至った履歴がわかるので、Ｂ家庭３を見

守っているＡ家庭１の安心感が高まる。なお、ステップＳ５６のオン時刻等表示処理においては、Ａテレビ２の電源オン後所定時間（例えば１０秒）だけオン時刻等表示を行い、所定時間経過後は煩雑なので自動的にこの表示を消す。

【００６３】

一方、ステップＳ５４において、他テレビが現在オフであれば、ステップＳ５８に進み、他テレビのオフ時刻表示処理を行う。これによって、例えばＢテレビ４が１０分前にオフされたのか、それとも一日以上電源をオンした形跡がないのかなどか判断でき、Ｂ家庭３を見守っているＡ家庭１の安心感が高まる。

なお、ステップＳ５８のオフ時刻表示処理におけるその他の点については、ステップＳ５６のオン時刻等表示形態と同様なので説明を省略する。

【００６４】

以上のように、ステップＳ５４からステップＳ５８の処理が自動的に行われるのは起動処理の中だけであり、図４からわかるように一度Ａテレビ２が起動されたあとは、Ｂテレビ４に変化があってもその時刻表示や履歴表示は行われず、現在の状態だけが表示される。しかしながら、もし、時刻や履歴が知りたい場合は、Ａリモコン７を操作すれば、ステップＳ５４からステップＳ５８の処理をいつでも手動で起動できる。

【００６５】

ステップＳ５６またはステップＳ５８の処理が終わるとステップＳ６０に移行し、自テレビでの表示および他テレビへのメール自動送信のために自情報確認を行い、起動処理を終了する。このとき確認される自情報としては、自チャンネル等のＡテレビ２の情報およびをＡ家電２７の情報等がある。

【００６６】

図６は、図５のステップＳ４３におけるパソコン基本機能起動処理の詳細を示すフローチャートである。パソコン基本機能起動処理がスタートすると、まず、ステップＳ７２においてパソコン基本機能を起動する。前述のようにここで起動されるのは、通信に必要な最低限のハードとソフトのみである。

【００６７】

次いでステップＳ７４に移行し、Ａリモコン７の操作によって通常パソコンへの切換操作が行われたかどうかをチェックする。操作がなければステップＳ７６に以降し、ステップＳ７２から移行後所定時間が経過したかどうかをチェックする。そして所定時間経過していなければステップＳ７４に戻る。このようにして、所定時間の間、通常パソコン切換操作がなされるのを待つ。

ステップＳ７４で切換操作があれば、ステップＳ７８に移行し、通常パソコン使用における通信セキュリティの設定を行った後、ステップＳ８０の通常パソコン機能に移行する。ステップＳ８０では、ステップＳ７２段階では起動されていなかったハードやソフトの起動を行い、以後は使用者の操作に応じて通常のパソコン機能を実行する。また、Ａリモコン７の操作によってテレビ機能への移行が指示されれば、通信に必要な最低限のハードとソフト以外の機能のシャットダウンを行った後、後述のステップＳ８２以降のフローに入ることもできる。通常パソコンに関してはよく知られているのでこれ以上の説明は割愛する。

【００６８】

ステップＳ７６おいて所定時間が経過したときは自動的にステップＳ８２に移行する。これによって、パソコン使用の意図や知識がない場合でも、テレビ電源をオンしてそのまま放置しておけば、自動的にステップＳ８２に到達するので、テレビにパソコン機能が付加されていることによる操作上の混乱や弊害はない。

ステップＳ８２以降は、常時接続によるウイルス対策のために設けられているもので、テレビ機能においては、通常パソコン機能を前提とするステップＳ７８における通常通信セキュリティ設定よりも厳しい設定を行う。すなわち、テレビ機能において利用するパソコン機能は特定の相手とのメール交信を中心とする極めて限定されたものなので、必要以外の外部からのアクセスを厳しくシャットアウトする。

【００６９】
まず、ステップＳ８２においてメール以外の外部からのアクセスを拒否する設定を行う。これによってメール以外のアクセスによるウイルスの攻撃を防御する。
次いで、ステップＳ８４においてＡテレビ２とＢテレビ４との間の自動メール交信以外の通常メールの着信通知をＡテレビ画面８で行うための設定操作がなされたかどうかをチェックする。そして、操作がなければステップＳ８６に以降し、ステップＳ８２から移行後所定時間が経過したかどうかをチェックする。そして所定時間経過していなければステップＳ８４に戻る。このようにして、所定時間の間、通常メール着信通知設定操作がなされるのを待つ。そして操作がなされないまま所定時間が経過すると自動的にステップＳ８８に移行する。
ここでも、通常のＥメール使用の意図や知識がない場合は、テレビ電源をオンしてそのまま放置しておけば、自動的にステップＳ８８に到達するので、テレビに通常メール機能が付加されていることによる操作上の混乱や弊害はない。
【００７０】
ステップＳ８８では、登録アドレス以外のメール受信を拒否する設定を行う。これによって、例えばＢテレビ４からのメール以外はすべて受信が拒否されるのでメールを介したウイルスの攻撃が防止される。
一方、ステップＳ８４で通常メール着信通知設定操作があったことが検知されると、ステップＳ９０で、メール着信があったときはその都度Ａテレビ画面８にその旨の表示を行うため準備処理をおこなう。この場合はステップＳ８８を通らないので、Ｂテレビ４以外からのメールを介したウイルス攻撃のリスクは残る。
以上のようにして、ステップＳ８８またはステップＳ９０の処理が終わるとパソコン基本機能起動処理を終了する。
【００７１】
図７は、図４のステップＳ６における表示処理の詳細を示すフローチャートである。表示処理がスタートすると、まず、ステップＳ９２においてＡ蓄積情報２３に基づいてＢ家庭に関する蓄積情報および最新情報のチェックを行う。そして以下のステップはステップＳ９２で確認したＢ家庭の情報に基づいて実行する。
【００７２】
次いで、ステップＳ９４でＡテレビ２がＢ家庭３を見守るために他情報表示モードに設定されているかどうかをチェックする。他情報表示モードであればステップＳ９６に移行し、常時表示モードかどうかをチェックする。常時表示モードであればステップＳ９８で常時表示処理を行ってステップＳ１００に移行する。一方、ステップＳ９６において常時表示モードでなければ操作時表示モードなのでステップＳ１０２に移行し、操作時表示処理を行ってステップＳ１００に移行する。
ステップＳ１０２の操作時表示処理では、Ａテレビ２またはＢテレビ４のいずれかが操作されたときに限って表示を開始するとともに、その表示開始から所定時間（例えば１０秒）経過するとこの表示を自動的に消す表示形態で表示を実行させるための処理を行う。ステップＳ１０２の操作時表示処理には、既に述べたようなＢテレビ４の操作に起因する場合における表示の点滅や拡大、さらには通知音の発生などを行わせるための処理も含まれる。
【００７３】
ステップＳ１００では、Ａ蓄積情報２３に基づいてＢテレビ（他テレビ）３がオンかどうか確認し、オンならば、ステップＳ１０４でＡ蓄積情報２３に基づいてＢテレビ３の最新情報を読み取る。そして、ステップＳ１０６で自テレビと他テレビが異なる放送エリアにあるかどうかをチェックし、放送エリアが異なればステップＳ１０８でチャンネル変換を行ってステップＳ１１０に移行する。ステップＳ１０８のチャンネル変換は、例えば図３におけるＢ家庭チャンネル（自チャンネル）数字６１の「３チャンネル」を、図２におけるＢ家庭チャンネル（他チャンネル）数字５３の「１２チャンネル」に変換する動作に該当する。なお、ステップＳ１０６で異放送エリアでなかったときは、チャンネル変更の

必要がないので直接ステップＳ１１０に移行する。
ステップＳ１１０では、以上のようにして得られたＡ家庭での表示用のＢ家庭チャンネルを表示するための他チャンネル表示処理を行う。そして、他チャンネル表示処理が終了するとステップＳ１１２に移行する。なお、他チャンネル表示処理にはいくつかの機能が含まれるので詳細は後述する。
【００７４】
ステップＳ１００に戻って、他テレビがオフであればこれに関する表示を行わないので直接ステップＳ１１２に移行する。なお、他テレビがオフのときはこのように何も表示しないのに変えて、ステップＳ１００とステップＳ１１２の間に「オフ表示を行う」とのステップを挿入してもよい。
【００７５】
ステップＳ１１２では、Ａ蓄積情報２３に基づいてＢ家庭に関して表示すべき見守り情報があるかどうかをチェックし、情報があればステップＳ１１４で見守り情報表示処理を行ってステップＳ１１６に移行する。一方、ステップＳ１１２で表示すべき情報がなければ直接ステップＳ１１６に移行する。ステップＳ１１４の見守り情報表示処理は、予め所定の異常条件を決めておき、これに該当する場合の警告を見守り情報とするものであるがその詳細については後述する。
【００７６】
ステップＳ１１６では、Ａ蓄積情報２３に基づいて表示すべきデジタル写真情報があるかどうかをチェックし、情報があればステップＳ１１８で写真情報表示処理を行ってステップＳ１２０に移行する。一方、ステップＳ１１６で、表示すべき情報がなければ直接ステップＳ１２０に移行する。ステップＳ１１８の写真情報表示処理の詳細については後述する。
【００７７】
また、ステップＳ９４に戻って、他情報表示モードでなかったときは、表示を行わないとともに以後の表示に関する諸ステップの実行は不要なので、直接ステップＳ１２０に移行する。
【００７８】
以上が通常表示のための処理であるが、ステップＳ１２０では、Ａテレビ２とＢテレビ４との間での通信を可能とするための設定操作が行われたかどうかをチェックする。そして操作があればステップＳ１２２の設定処理に入る。そして設定処理が終わると表示処理を終了する。一方、ステップＳ１２０で、設定操作が行われていなければ、直ちに表示処理を終了する。
【００７９】
図８は、上記図７のステップＳ１２２における設定処理の詳細を示すフローチャートである。このフローで設定される各データは、Ａ記憶部６に記憶される。
設定処理がスタートすると、まず、ステップＳ１３２において操作がテレビ機能の設定のために行われたのかどうかチェックする。そして、テレビ機能設定操作であったときはステップＳ１３４でテレビ機能設定処理をおこなう。これはＡテレビ画面８に表示される所定の設定入力画面の指示に従ってＡリモコン７を操作し、所望の設定を行っていく処理である。テレビ機能設定処理が終わるとステップＳ１３６に移行する。また、ステップＳ１３２において操作がテレビ機能設定操作でないことが確認されたときは直接ステップＳ１３６に移行する。
【００８０】
ステップＳ１３６以降が自テレビと他テレビの自動通信に関する設定操作となる。まず、ステップＳ１３６では操作が送信先設定のために行われたのかどうかをチェックする。送信先設定であったときはステップＳ１３８に移行し、送信先アドレスを一件登録する操作に入る。この操作も、Ａテレビ画面８に表示される所定の設定入力画面の指示に従ってＡリモコン７によって行う。一件の送信先アドレス登録が終わるとステップＳ１４０に移行する。また、ステップＳ１３６において操作が送信先設定操作でないことが確認された

ときは直接ステップＳ１４０に移行する。
【００８１】
ステップＳ１４０では操作が受信相手設定のために行われたのかどうかをチェックする。受信相手設定であったときはステップＳ１４２に移行し、受信アドレスを一件登録する操作に入る。この操作も、Ａテレビ画面８に表示される所定の設定入力画面の指示に従ってＡリモコン７によって行う。一件の受信アドレス登録が終わるとステップＳ１４４に移行する。また、ステップＳ１４０において操作が受信相手設定操作でないことが確認されたときは直接ステップＳ１４４に移行する。
【００８２】
ステップＳ１４４では操作によって登録された受信相手が二件目以降であるかどうかをチェックする。受信相手登録が二件目以降であったときは、ステップＳ１４６に移行し、同時表示設定がされたかどうかをチェックする。そして同時表示設定でないことが確認されるとステップＳ１４８に移行し、優先表示設定処理を行う。
【００８３】
ステップＳ１４８の優先表示設定処理について図２を参照して説明する。登録された受信相手が二件以上あり、かつ同時表示設定でなかったときは、図２における他チャンネル数字５３、他家電アイコン５４および送信済み写真アイコン５５としては、予め優先表示設定した一つの家庭のものだけがまず表示される。たとえば、登録された受信相手がＡ家庭の夫の親の家庭と妻の親の家庭の二件あり、かつ妻の親の家庭が優先表示設定してあったとすると、図２の他チャンネル数字５３、他家電アイコン５４および送信済み写真アイコン５５は妻の親の家庭のものだけとなる。
そして、夫の親の家庭の情報を表示させたいときは、Ａリモコン７を操作すると、図２の他チャンネル数字５３、他家電アイコン５４および送信済み写真アイコン５５は夫の親の家庭のものに切換る。このようにして、Ａテレビ２の立ち上がりの際には、優先表示設定してある受信相手からの情報がＡテレビ画面８の左上隅に表示されるとともに、Ａリモコン７を操作するたびに他の受信相手の情報表示に輪番で切換っていく。
このような表示を行わせるよう設定するのが、ステップＳ１４８の優先表示設定処理である。
【００８４】
一方、ステップＳ１４６で同時表示設定であることが確認されるとステップＳ１５０の識別表示設定処理に移行する。これについてやはり図２を参照して説明すると、識別表示設定処理では、登録された受信相手が二件以上あるとき、そのすべての相手の情報が図２のＡテレビ画面８の左上隅に表示される。その表示形態としては、例えば表示を複数列にし、左側の列に夫の親の家庭の情報を表示するとともに、右側の列にこれと並べて妻の親の家庭の情報を表示する。どの列がどの受信相手の表示情報であるかを識別するためには、まず列の配置の割り当てを上記のように予め決めておく。
また、夫の親の家庭の情報がないときには画面スペースの節約のために妻の家庭の情報を左の列にシフトすることもできる。但し、このように一列しか表示されない場合はどちらの家庭の表示情報かわからないのでそれぞれの家庭を示す家庭アイコンを各列の最上部に表示して識別可能とする。また、家庭ごとに表示の色を変えて列の識別をするようにしてもよい。
このような表示を行わせるよう設定するのが、ステップＳ１５０の識別表示設定処理である。
同時表示設定をするか優先表示設定をするかの設定操作は、Ａテレビ８の操作画面の案内によりＡリモコン７を操作して行うことができ、ステップＳ１４６はこの操作結果に応じてステップＳ１４８またはステップＳ１５０に進む。
ステップＳ１４６またはステップＳ１５０の処理が終わるとステップＳ１５２に移行する。なお、ステップＳ１４４において、受信相手登録が二件目以降でなかった場合、すなわち一件の登録しかなかった段階の場合は、直接ステップＳ１５２に移行する。
【００８５】

送信先の設定は面倒なので、例えば見守り対象家庭が高齢者の一人住まいのであった場合など、見守り対象家庭において自分で送信先の設定を行うのが困難な場合がある。つまり、Ａ家庭１でＢ家庭３を見守ろうとしても、Ｂテレビ４側でＡテレビ２を送信先に設定してくれなければ、見守り体制が成立しない。ステップＳ１５２以降は、このような場合への対策として設けられているものであり、例えばＡテレビ２側から、Ｂテレビ４の送信先を遠隔設定できるようにするためのものである。

【００８６】

まず、ステップＳ１５２では、送信先設定遠隔操作が行われたかどうかをチェックし行われていればステップＳ１５４においてＢテレビとの間で真正のＡテレビからのアクセスであることを証するための認証処理を行う。そしてその上でステップＳ１５６に至り、Ａテレビ２側で設定したＡテレビ２を送信先とする旨の遠隔設定データを送信してステップＳ１５８に移行する。

なお、ステップＳ１５２において送信先設定遠隔操作が行われたことが確認できなければ、直接ステップＳ１５８に移行する。以上が他テレビの設定を行うためのステップである。

【００８７】

図８のフローは、Ｂテレビ４のＢ制御部９にも共通に用いられるフローでもあるので、他テレビから自テレビの設定が行われたときに対応する機能も設けられており、これがステップＳ１５８以降に該当する。

以下、Ｂ制御部の機能として説明すると、ステップＳ１５８では、他テレビで設定された被遠隔設定データを受信したかどうかチェックする。受信していれば、ステップＳ１６０に進み、真正のＡテレビ２からのアクセスであることを確認するため、Ａテレビ２との間で認証処理を行う。そして、その上でステップＳ１６２に至り、受信した被遠隔設定データの設定を実行してステップＳ１６４に移行する。これによって、Ａテレビ２側で設定したＡテレビ２を送信先とする旨の設定が、Ｂ記憶部１０に登録される。

なお、ステップＳ１５８で他テレビで設定された被遠隔設定データを受信していないことが確認された場合は、直接ステップＳ１６４に移行する。

【００８８】

以上のように、送信先遠隔設定操作においては、遠隔操作側においてステップＳ１５２からステップＳ１５６が機能し、被遠隔操作側においてステップＳ１５８からステップＳ１６２が機能する。また、送信先の設定はプライバシー情報の自動送信に係わる問題なので、外部からの成りすまし遠隔操作がないよう、上記のように万全の認証処理が行われる。

なお、ステップの図示は省略しているが、万一認証に失敗した場合は、その旨の表示を行った後、ステップＳ１５４からの場合は直接ステップＳ１５８に飛ぶとともに、ステップＳ１６０からの場合はステップＳ１６４に飛び、遠隔設定データの送信およびこのデータに基づく設定の実行は行われない。

【００８９】

ステップＳ１６４では、設定終了操作があったかどうかをチェックし、操作があれば設定処理を終了する。一方操作がなければステップＳ１３２に戻り、以下設定終了操作があるまで、ステップＳ１３２からステップＳ１６４を繰り返す。これによってこの間にどのような操作があってもそれに対応できる。

【００９０】

図９は、図４のステップＳ４、ステップＳ１０、ステップＳ１４、ステップＳ２２およびステップＳ３０におけるメール自動送信処理の詳細を示すフローチャートである。メール自動送信処理がスタートすると、まず、ステップＳ１７２において登録送信先があるかどうかがチェックされる。

登録送信先があった場合は、ステップＳ１７４に進み、新規メールを自動作成し、ステップＳ１７６でそこに登録送信先を自動入力する。複数の送信先が登録されている場合はすべて入力する。そして、ステップＳ１７８以下の添付書類の確認とその自動添付に進む

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【００９１】
ステップＳ１７８では、自動添付すべき情報がテレビ電源のオンまたはオフであるかどうかをチェックし、該当すればステップＳ１８０に移行する。ステップＳ１８０では、電源オンの場合、その旨のコード情報と電源がオンされた日時情報をメールに自動添付する。さらに、電源オンの場合は、電源オン時のチャンネル情報および電源オン時の日時情報もメールに自動添付する。また、電源オフであれば、その旨のコード情報と電源がオンされた日時情報をメールに自動添付する。そしてこれらの添付が完了するとステップＳ１８２に移行する。なお、ステップＳ１７８で自動添付すべき情報が電源のオンまたはオフでなかったときは、直接ステップＳ１８２に移行する。
【００９２】
ステップＳ１８２では、自動添付すべき情報がテレビのチャンネル変更であるかどうかをチェックし、該当すれば、ステップＳ１８４で変更後のチャンネルとチャンネル変更を行った日時情報をメールに自動添付してステップＳ１８６に移行する。なお、ステップＳ１８２で自動添付すべき情報がチャンネル変更でなかったときは、直接ステップＳ１８６に移行する。
【００９３】
ステップＳ１８６では、自動添付すべき情報がテレビの音量変更であるかどうかをチェックし、該当すれば、ステップＳ１８８で変更後の音量をしめす数値情報と音量変更を行った日時情報をメールに自動添付してステップＳ１９０に移行する。なお、ステップＳ１８６で自動添付すべき情報が音量変更でなかったときは、直接ステップＳ１９０に移行する。
【００９４】
ステップＳ１９０では、自動添付すべき情報が放送録画やダウンロード番組データなどの記憶データの鑑賞に関する情報または送付された写真の鑑賞操作であるかどうかをチェックする。鑑賞される記憶データやデジタル写真情報データは大容量のＡ記憶部６に記憶することができるが、ビデオテープレコーダやデジタルレコーダなどの外部機器に記憶する場合であってもよい。
記憶データの鑑賞に関する情報であれば、ステップＳ１９２でこれを示すコード情報および鑑賞の開始または終了の日時情報をメールに自動添付してステップＳ１９４に移行する。なお、鑑賞している記憶データにデジタル放送録画やダウンロード番組データの場合のように番組を特定するＩＤなどが含まれている場合はその情報もステップＳ１９２で自動添付する。ステップＳ１９２で添付した情報の利用についての詳細は後述する。
一方、自動添付すべき情報が送信された写真の鑑賞情報であったときは、鑑賞した写真（複数枚一括送信の場合はその写真群全体）を特定するＩＤとこれを鑑賞した日付情報をメールに自動添付してステップＳ１９４に移行する。なお、ステップＳ１９０で自動添付すべき情報がビデオ鑑賞操作または送付された写真の鑑賞操作でなかったときは、直接ステップＳ１９４に移行する。
【００９５】
ステップＳ１９４では、自動添付すべき情報がテレビの定例番組登録変更であるかどうかをチェックし、該当すれば、ステップＳ１９６で変更内容と変更日時情報をメールに自動添付してステップＳ１９８に移行する。変更内容としては、番組を特定するＩＤおよび登録または抹消を示すコード情報である。なお、ステップＳ１９４で自動添付すべき情報が音量変更でなかったときは、直接ステップＳ１９８に移行する。
【００９６】
ステップＳ１９８では、自動添付すべき情報が自家電の状態変更であるかどうかをチェックし、該当すれば、ステップＳ２００で自家電を特定した上、そのそれぞれについて変更後の状態を示すコード情報と変更を行った日時情報をメールに自動添付してステップＳ２０２に移行する。なお、ステップＳ１９８で自動添付すべき情報が自家電の状態変更でなかったときは、直接ステップＳ２０２に移行する。

【００９７】
ステップＳ２０２では、以上のようにして新規に自動作成され、送信先が自動入力されるとともに送信すべき情報が自動添付されたメールについて自動送信を実行し、メール自動送信処理を終了する。なお、ステップＳ１７２において登録送信先がなかった場合には、何もせず、直ちにメール自動送信処理を終了する。
【００９８】
図１０は、図４のステップＳ２６および図５のステップＳ５２における情報蓄積処理の詳細を示すフローチャートである。情報蓄積処理がスタートするとまずステップＳ２１２で未読メールの自動開封が行われ、次いでステップＳ２１３で開封したメールに添付されている情報の自動検知が行われる。
次に、ステップＳ２１４で、Ａ蓄積情報２３の中に、所定期間が経過してもはや分析や統計処理には無用のものがないかどうかチェックする。そして該当する情報があればステップＳ２１５でこれを完全削除してステップＳ２１６に移行する。該当情報がなければ直接ステップＳ２１６に移行する。なお、ステップＳ２１４で判定される所定期間の基準は、添付情報の種類によって異なるようにすることができる。例えば電源のオンオフやチャンネルなど生活パターンの分析のためにある程度の期間蓄積が必要なものと、写真鑑賞などの一過性のものとで所定期間を異ならしめることができる。
このような消去の意味は、データの整理と記憶容量の確保とともに、メールに添付される時限性ウイルス等がＡ蓄積情報２３に忍び込んでいた場合に、その発現前にこれを削除できる可能性を少しでも高めるためである。
【００９９】
ステップＳ２１６以下では、ステップＳ２１３で検知された添付情報がＡ蓄積情報２３としてＡ記憶部６に蓄積されていく。
まず、ステップＳ２１６において添付情報が他テレビの電源オンまたはオフの情報であるかどうかがチェックされる。該当する場合はステップＳ２１８に進み、他テレビがオンまたはオフされた旨のコード情報および電源をオンまたはオフした日時情報をＡ蓄積情報２３に追加蓄積する。さらに電源オンの場合はオンした時点での最新のチャンネル情報およびチャンネル情報の最新日時情報もＡ蓄積情報２３に追加蓄積する。これらの追加蓄積が完了すると、ステップＳ２２０に移行する。なお、ステップＳ２１６において添付情報が他テレビの電源オンまたはオフでなかった場合は直接ステップＳ２２０に移行する。
【０１００】
ステップＳ２２０においては、添付情報が他テレビのチャンネル変更であるかどうかがチェックされる。該当する場合はステップＳ２２２に進み、変更後のチャンネルおよび変更時の日時情報をＡ蓄積情報２３に追加蓄積してステップＳ２２４に移行する。なお、ステップＳ２２０において添付情報が他テレビのチャンネル変更でなかった場合は直接ステップＳ２２４に移行する。
【０１０１】
ステップＳ２２４においては、添付情報が他テレビの定例番組変更であるかどうかがチェックされる。該当する場合はステップＳ２２６に進み、定例番組変更内容および変更時の日時情報をＡ蓄積情報２３に追加蓄積してステップＳ２２８に移行する。なお、ステップＳ２２４において添付情報が他テレビの定例版銃未変更でなかった場合は直接ステップＳ２２８に移行する。
【０１０２】
ステップＳ２２８においては、添付情報が他テレビによる記憶データ鑑賞に関する情報であるかどうかがチェックする。該当する場合はステップＳ２３０に進み、情報内容および操作時の日時情報をＡ蓄積情報２３に追加蓄積してステップＳ２３２に移行する。なお、ステップＳ２２８において添付情報が他テレビによる記憶データ鑑賞に関する情報でなかった場合は直接ステップＳ２３２に移行する。
【０１０３】
ステップＳ２３２においては、添付情報が他テレビによる写真鑑賞であるかどうかがチェ

ックされる。該当する場合はステップＳ２３４に進み、写真鑑賞情報および鑑賞の日時情報をＡ蓄積情報２３に追加蓄積してステップＳ２３６に移行する。なお、ステップＳ２３２において添付情報が他テレビによる写真鑑賞でなかった場合は直接ステップＳ２３６に移行する。

【０１０４】

ステップＳ２３６においては、添付情報が他家電等の状態変更であるかどうかがチェックされる。該当する場合はステップＳ２３８に進み、対象家電等毎に、状態変更内容を示すコード情報および変更時の日時情報をＡ蓄積情報２３に追加蓄積する。そして以上が完了すると情報蓄積処理を終了する。なお、ステップＳ２３６において添付情報が他家電等の状態変更でなかったときは直ちに情報蓄積処理を終了する。

【０１０５】

図１１は、図７のステップＳ１１０における他チャンネル表示処理の詳細を示すフローチャートである。他チャンネル表示処理がスタートすると、まずステップＳ２４２で、Ａ蓄積情報２３に基づき、他テレビがＢテレビ４のＢ記憶部１０に記憶された番組データを鑑賞中であるかどうかがチェックされる。

Ｂ記憶部１０に記憶された番組データとしては、典型的なものは放送録画であり、この場合、これを鑑賞しているということはいわゆるビデオ鑑賞に該当する。Ａ蓄積情報２３の中には、Ｂテレビ４がＢ記憶部１０に記憶された番組をビデオ鑑賞中であるという情報だけでなく、Ｂテレビ４が外部のビデオ機器に録画したビデオを鑑賞中であるという情報も蓄積されているので、ステップＳ２４２では、このような外部機器のデータに基づくビデオ鑑賞を行っている場合についても、「記憶データ鑑賞中」と判断する。

さらに、Ｂテレビ２は、サーバ型放送にも対応可能なので、通信によってＡ記憶部２３。にダウンロードされた番組データを読み出して鑑賞している場合もある。ステップＳ２４２では、このような通常のビデオ鑑賞を行っている場合についても、「記憶データ鑑賞中」と判断する。

【０１０６】

ステップ２４２で、記憶データ鑑賞中であれば、ステップＳ２４４において、他チャンネル表示を記憶データ表示に置換する処理が行われる。例えば、通常のビデオ鑑賞中であれば、図２において、Ｂ家庭チャンネル数字５３の位置に、チャンネル数字に代えて「Ｖｉｄｅｏ」の文字が表示される。また、デジタル放送録画やダウンロードデータのごとく番組を特定するＩＤが着信可能な場合は、Ｂ家庭チャンネル数字５３の位置に、チャンネル数字に代えて番組名などが表示される。

以上のようなステップＳ２４４の表示変換処理の後、ステップＳ２４６に移行する。なお、ステップＳ２４２において他テレビが記憶データ鑑賞中であることが検知されなかったときは直接ステップＳ２４６に移行する。

【０１０７】

ステップＳ２４６からステップＳ２６０は、常時表示モードと操作時表示モードの切換えを実行する機能に該当する。但し、常時表示モードにおいても、操作がなされたときから所定時間（例えば１０秒）が経過するまで、表示中のチャンネルをさらに強調表示してチャンネル変更があったことに注意を喚起するようにしている。

【０１０８】

まず、操作時表示モードに設定されている場合について具体的に説明すると、まず、ステップＳ２４６では、自テレビ起動後所定時間経過したかどうかをチェックする。経過していればステップＳ２４８に進み、メール送信後所定時間経過したかどうかをチェックする。そして経過していれば、ステップＳ２５０に進む。ステップＳ２５０に進んだということは、自テレビのどのような操作からも既に所定時間が経過している状態であることを意味する。

次にステップＳ２５０では、メール受信後所定時間経過したかどうかをチェックする。そして経過していればステップＳ２５２に進む。ステップＳ２５２に進んだということは他テレビのどのような操作からも既に所定時間が経過している状態であることを意味する。

このように、自テレビおよび他テレビのいずれの操作からも所定時間経過している場合のみステップＳ２５２に進む。ステップＳ２５２では、常時表示モードかどうかがチェックされるが、この場合、操作時表示モードに設定されているので、ステップＳ２５４に進み、他チャンネルは無表示となる。
一方、操作時表示モードにおいて、ステップＳ２４６、ステップＳ２４８およびステップＳ２５０のいずれかにおいて所定時間が経過していなかったときは、ステップＳ２５６に進む。ステップＳ２５６では、常時表示モードかどうかがチェックされるが、この場合、操作時表示モードに設定されているので、ステップＳ２５８に進み、他チャンネル通常表示を行う。
以上が操作時表示モードにおけるチャンネル表示実行の機能であり、自テレビまたは他テレビのいずれかが操作されてから所定時間だけ他チャンネルが通常表示され、いずれからも所定時間が経過したときは他チャンネルの表示が消されることになる。
【０１０９】
一方、常時表示モードに設定されている場合は次の動作になる。上記と同様、ステップＳ２４６、ステップＳ２４８およびステップＳ２５０のいずれにおいても既に所定時間が経過していれば、ステップＳ２５２に至る。そして、この場合は、常時表示モードに設定されているので、ステップＳ２５８に進み、他チャンネルを通常表示する。
また、常時表示モードにおいて、ステップＳ２４６、ステップＳ２４８およびステップＳ２５０のいずれかにおいて所定時間が経過していなかったときは、ステップＳ２５６に進むが、この場合、常時表示モードに設定されているので、ステップＳ２６０に進み、他チャンネルの強調表示を行う。
以上が常時表示モードにおけるチャンネル表示実行の機能であり、自テレビまたは他テレビのいずれかが操作されてから所定時間だけ他チャンネルが強調表示され、いずれからも所定時間が経過したときは他チャンネルの通常表示が行われることになる。
【０１１０】
ステップＳ２５４、ステップＳ２５８およびステップＳ２６０のいずれの場合もその処理が終わるとステップＳ２６２に至る。ステップＳ２６２では、自他番組の一致がチェックされる。具体的には、自チャンネルと他チャンネルが一致しているかどうかがチェックされる。そして、一致していなければステップＳ２６４に進み、他チャンネルに対応する番組が自テレビの放送エリア内にあるかどうかがチェックされる。そして、対応する番組があれば、ステップＳ２６６に進み、同一番組ワンタッチ切換可能処理を行う。この処理は、相手が見ている番組を見たいときに、チャンネルを選ばなくても、後述のリモコンの所定ボタンを押すことにより、Ａ蓄積情報２３中の他チャンネル情報に基づいて、ワンタッチでチャンネル変更が可能となるようにするものである。その意義は既に図２および図３において説明したので重複は避ける。ステップＳ２６６の処理が完了すると、チャンネル表示処理を終了する。なお、ステップＳ２６４において他チャンネルに対応する番組が自テレビの放送エリア内にないときは、ワンタッチ切換の意味はないので直ちに他チャンネル表示処理を終了する。
【０１１１】
ステップＳ２６６の同一番組ワンタッチ切換可能処理では、リモコンの所定ボタンを押して相手が見ている番組にワンタッチでチャンネルを変えたあと、もう一度同じボタンを押すとワンタッチで自テレビを元のチャンネルに戻すことができる。これは、Ａ蓄積情報２３の中に、他テレビに送信した自テレビの最新チャンネル情報が存在することにより可能である。この機能を使うと、一時的に他テレビの番組を確認したあと元の番組に容易に戻ることができる。
【０１１２】
なお、ステップＳ２４４においてチャンネル表示が記憶データ表示に置換されている場合、ステップＳ２６２の自他番組一致チェックおいては、チャンネル一致の代わりに番組一致の判断を行う。これは、Ａ記憶部２３に着信しているＢテレビ４で鑑賞中の番組特定ＩＤとＡテレビ２で鑑賞中の番組特定ＩＤとを比較することによって可能である。

そして自他番組が一致していない場合、ステップＳ２６４において、Ａ蓄積情報２３に着信しているＢテレビ鑑賞番組特定ＩＤに基づき、同じ番組がＡ通信部１５を介してダウンロード可能であるかどうかチェックされる。そして、ダウンロード可能である場合、ステップＳ２６６に進み、同一番組ワンタッチ切換可能処理を行う。この場合、相手が見ている番組を見るためにリモコンの所定ボタンを押せば、Ａ蓄積情報２３中の番組特定ＩＤに基づいて、ワンタッチで同一番組のダウンロードが始まる。これによって、番組サーチやダウンロードに必要な操作を行わなくても、ワンタッチで同一番組の鑑賞が可能となる。なお、ステップＳ２６４において同一番組のダウンロードができないと判断されたときは、ワンタッチ切換の意味はないので直ちに他チャンネル表示処理を終了する。

【０１１３】

一方、ステップＳ２６２において自チャンネルと他チャンネルが一致していると判断された場合は、ステップＳ２６８に進み、自チャンネルを強調表示し、両家庭において体験を共有していることを演出する。この点についても図２および図３において具体的に説明したので重複を避ける。

なお、ステップＳ２４４においてチャンネル表示が記憶データ表示に置換されている場合は、上記のようにステップＳ２６２においてはチャンネル一致の代わりに番組一致の判断が行われ、自他番組が一致した場合は、自他チャンネル一致の場合と同様、図２の自チャンネル数字５２の位置に表示されている番組名などを強調表示する。以上のようなステップＳ２６８の処理が終了すると他チャンネル表示処理を終了する。

【０１１４】

図１２は、図７のステップＳ１１８における写真情報表示処理の詳細を示すフローチャートであり、ステップＳ２７２からステップＳ２７６までとステップＳ２８０が送信写真に関する表示機能であるとともに、ステップＳ２７８およびステップＳ２８２からステップＳ２８６までが受信写真に関する表示機能に該当している。

写真情報表示処理がスタートすると、まず、ステップＳ２７２で送信済み写真があるかどうかがチェックされる。送信済み写真があればステップＳ２７４に進み、その送信写真についての鑑賞メールが着信しているかどうかをチェックする。これらステップＳ２７２およびステップＳ２７４のチェックは、Ａ蓄積情報２３に基づいて行われる。

ステップＳ２７４で鑑賞メールが未着のときはステップＳ２７６に進み、送信済写真未鑑賞表示を行う。これは、例えば、Ａ家庭からＢ家庭に送信した写真がＢ家庭において未だ鑑賞されていない状態に対応し、図２において送信済み写真アイコン５５が表示されている状態に該当する。そしてこの表示処理を行った後、ステップＳ２７８に移行する。

なお、ステップＳ２７２において送信済み写真がなかったとき、あるいはステップＳ２７４で鑑賞メールが着信していたときはステップＳ２８０に進み、送信済み写真表示を無表示としてステップＳ２７８に移行する。これは、図２において送信済み写真アイコン５５の位置に何も表示されない状態に該当する。

【０１１５】

次に、ステップＳ２７８では受信写真があるかどうかがチェックされる。受信写真があればステップＳ２８２に進み、その受信写真についての鑑賞操作を済ませたかどうかをチェックする。

ステップＳ２８２で受信写真鑑賞操作済であることが検知できなかったときは、ステップＳ２８４に進み、受信写真未鑑賞表示を行って写真情報表示処理を完了する。なお、ステップＳ２７８において受信写真がなかったとき、あるいはステップＳ２８２で受信写真鑑賞操作済であることが検知できたときは、ステップＳ２８６に進み、受信写真未鑑賞表示を無表示として写真情報表示処理を終了する。

以上のステップＳ２７８およびステップＳ２８２からステップＳ２８６までの処理をＢ家庭３におけるＢ制御部９の機能として理解し、図３と対応付けると次のようになる。つまり、図３では、写真着信アイコン６３が表示されているが、これは、図１２においてステップＳ２７８からステップＳ２８２を経由してステップＳ２８４に至った結果である。

また、Ｂ家庭において受信写真鑑賞操作を行っていた場合は、ステップＳ２８２からステップＳ２８６に進むので、図３における写真着信アイコン６３は消える。さらに、Ｂ家庭に元々写真が着信してなければステップＳ２７８からステップＳ２８６に至るので、図における写真着信アイコン６３ははじめから表示されない。

【０１１６】

図１３は、図７のステップＳ１１４における見守り情報表示処理の詳細を示すフローチャートであり、Ｂ家庭３から着信したＡ蓄積情報２３の分析を行うとともに、これが所定の見守り条件を逸脱すると判断されたとき、Ｂ家庭３に何らかの異常があるとしてＡテレビ２に警告表示を出すためのものである。なお、ここでの異常は比較的軽度ものを想定しており、自家庭でテレビを観賞しているときに、他家庭での異常の可能性を警告し、念のため注意を喚起するのが目的である。

見守り情報表示処理がスタートすると、ステップＳ２９２で自テレビのエリアと他テレビのエリアで時差がないかチェックが行われる。これは国際間で離れた家族同士の見守りや広い国土の国で離れて住む家族の間での見守りに対応するためであり、例えば、相手が就寝時間帯にあるにも係わらず、「テレビを長時間見ていない」として異常警告を出すごとき不合理を除去する意義がある。

ステップＳ２９２で時差があることが確認されると相手の生活時間帯に合致した見守り条件となるよう時差補正を行ってステップＳ２９６に移行する。なお、時差がない場合は直接ステップＳ２９６に移行する。

【０１１７】

ステップＳ２９６では、Ａ蓄積情報２３に基づいて受信メール添付情報の履歴を分析する。そして、その結果に基づいて、ステップＳ２９８以下の判断処理を行う。まずステップＳ２９８では、前回のテレビ操作を行ってから何の操作もなしに所定時間（例えば深夜帯を除く６時間）以上が経過したかどうかをチェックする。これに該当するものとしては、所定時間以上テレビをオンした形跡がないケースや所定時間以上テレビがつけっぱなしで且つその間チャンネル変更も音量変更もないケースなどがある。

ステップＳ２９８に該当しなければ、ステップＳ３００に移行し、テレビがオンであって且つ既に放送時間が終了しているチャンネルが選択されているかどうかをチェックする。そして該当がなければステップＳ３０２に移行する。

【０１１８】

ステップＳ３０２では、いつも見ている定例番組の時間になったときにその番組へのチャンネル合せをしたかどうかチェックする。そしてこれが行われていないときはステップＳ３０４に進み、定例番組登録抹消操作をしたかどうかを確認する。そしてこの操作をしていれば、ステップＳ３０４に移行する。なお、ステップＳ３０２において、時間になったときに定例番組へのチャンネル合せをしていれば直接ステップＳ３０６に移行する。

ステップＳ３０６では、音量設定が異常であるかどうかチェックする。音量が異常に大きい場合お異常に小さい場合もこれに該当するが、そのレベルは固定したものには限らず、Ａ蓄積情報２３に基づく学習機能により修正するようにしてもよい。そしてこれにも該当しなければステップＳ３０８に移行する。以上がテレビの操作に関する見守り条件であるが、これに限るものではなく、適宜の条件を追加することは差し支えない。

【０１１９】

ステップＳ３０８では、Ｂ家庭３のＢ家電２８等の異常な使用をチェックする。この場合の見守り条件としては、日常の規則正しい使用からの逸脱を異常と判断する。具体的にはＡ蓄積情報２３を分析し、家電等の電源のオンとオフの時間を分析するが、これに限るものではなく、設定温度や使用情報などに基づいて判断してもよい。また、日常の使用状況の設定はＡ蓄積情報２３の分析に基づく学習機能により修正してもよい。ステップＳ３０８でも異常がなければ見守り情報表示処理を終了する。

【０１２０】

一方、ステップＳ２９８、ステップＳ３００、ステップＳ３０４、ステップＳ３０６およびステップＳ３０８のいずれかにおいて異常と判断すべき状況のときはステップＳ３０９

に移行し、原因別の異常表示をＡテレビ画面８と音声により行って警告する。
　さらに、ステップＳ３１０において、図７および図１１で説明した表示モードが常時表示モードまたは操作時表示モードのいずれに設定されていても、これを強制的に常時表示モードとする。さらに、その表示形態についても通常とは色を異ならしめ異常状態であることが識別できるようにする。このようにして、ステップＳ３０９での表示と合わせ、異常状態の情報量を豊富にする。
【０１２１】
　次いでステップＳ３１１に移行し、メール自動送信処理を行う。その詳細は図９に準じたものであるが、添付内容が異なる。すなわち、ステップＳ３１１のメール自動送信処理では、新規メールを作成し、送信先としてＢテレビ４を自動入力するが、添付内容は、ステップＳ３０９およびステップＳ３１０でＡテレビ２において表示されている異常情報である。そしてこの情報を添付したあと、作成メールの自動送信実行が行われる。
このようにしてＡテレビ画面８で表示される見守り情報をＢテレビにも送信する理由は次のとおりである。つまり、これによってＢテレビ画面１２においても同じ情報を表示することができ、これをＢ家庭４の家族も見ることができる。Ｂ家庭４の家族がＢテレビ画面１２を見ることができないような異常状態にあるときはこの機能は意味がないが、Ｂ家庭の家族が心配するような状況でなかったときは、Ｂテレビ画面１２を見ることにより「心配ない」旨の連絡をＡ家庭１に行うことが可能となる。
異常表示がＡテレビ画面８にもＢテレビ画面１２にも表示された場合、いずれの家庭から連絡をとるかはそれぞれの事情により異なり、通常は早く気づいたほうが連絡をとることになるが、上記のように構成することにより、見守りが一方的な監視ではなくなり、Ｂ家庭の家族自身にとっても、Ａ家庭の家族に自分の情報がどう伝わっているのかをリアルタイムで把握することができるので、両者は同じ情報を対等の立場で共有できることになる。以上により、見守り情報表示処理を終了する。
【０１２２】
　なお、図１３のフローは上位のもので異常と判断されればその時点でステップＳ３０９に進むので、他の条件のチェックが行われない形となっている。従って、このようなフローとする場合は異常検知の優先度の高いものほどフローの上位に置くよう配慮する。
また、図１３のようなフロー構成に代え、フローが各判断を常に漏れなくすべて通るよう構成し、各判断結果をそれぞれ蓄積していくとともに、すべての判断が終わった時点で異常のあったものを一括してすべて表示するようにしてもよい。
【０１２３】
図１４は、定例番組登録自動変更および自動送信のフローチャートである。このフローで自動送信される情報は、図９のメール自動送信においてステップＳ１９６で添付される登録定例番組情報と同じものである。但し、図９フローは、図４のステップＳ８における自テレビ操作によって手動で定例番組の登録を変更した場合のメール自動送信であるのに対し、、図１４のフローは定例番組登録が自動変更された場合のメール自動送信を取り扱う。
図１４のフローは、テレビ電源オン、チャンネル変更、およびある番組が終了して次の番組が開始された時点、のいずれかで自動スタートする。
【０１２４】
フローがスタートすると、まずステップＳ３１２で、登録済み定例番組鑑賞中であるかどうかをチェックする。登録済み定例番組を鑑賞中でなければ、ステップＳ３１３に進み、鑑賞中の番組を過去連続所定回（例えば２回）以上鑑賞したかどうかの履歴をチェックする。そして該当すればステップＳ３１４でその番組を定例番組として追加登録し、ステップＳ３１６に移行する。なお、ステップＳ３１３で該当がなければ直接ステップＳ３１６に移行する。
【０１２５】
ステップＳ３１６では、定例番組開始時間が到来しているかどうかをチェックする。該当すれば、定例番組開始時刻が到来したにもかかわらずその番組を鑑賞していないことを意

味するのでステップＳ３１７で定例番組開始通知をＡテレビ画面８に表示してステップＳ３１８に進む。
ステップＳ３１８では、この表示に対し、「そのような通知は不要である」旨の応答操作がＡリモコン１３でなされたかどうかをチェックする。そのような操作が行われるということは以後その番組を見る意思のないことを意味するから、この操作を検知するとステップＳ３１９に進み、その番組を定例番組登録から抹消してステップＳ３２０に移行する。なお、ステップＳ３１８で通知不要操作が行なわれたことの検知がなければ直接ステップＳ３２０に移行する。
【０１２６】
また、ステップＳ３１２で、登録済み定例番組を鑑賞中であったとき、またはステップＳ３１６で定例番組開始時刻が到来していなかった場合は、直接ステップＳ３２０に以降する。
【０１２７】
ステップＳ３２０では、定例番組が今回で最終回であって次回からは放送されないものであるかどうかをチェックする。そして該当すればステップＳ３２１でその番組を定例番組登録から抹消してステップＳ３２２に移行する。なお、ステップＳ３２０で定例番組が今回で最終回でなかった場合は直接ステップＳ３２２に移行する。
【０１２８】
ステップＳ３２２では、以上の処理の結果として定例番組登録に変化があったかどうかをチェックし、変化があればステップＳ３２３に進む。ステップＳ３２３では、新規メールを自動作成し、ステップＳ３２４でそこに登録送信先を自動入力する。複数の送信先が登録されている場合はすべて入力する。
そして、ステップＳ３２６で対象番組ＩＤと登録変更内容を示すコード情報、および登録変更の日時情報をメールに自動添付してステップＳ３２８に移行し、作成したメールの自動送信を実行して定例番組登録自動変更および自動送信フローを終了する。なお、ステップＳ３２２において定例番組登録に変化がなかったときは直ちにフローを終了する。
【０１２９】
図１５は、図４のステップＳ１８における写真メール送信処理の詳細を示すフローチャートである。フローがスタートするとまず、ステップＳ３３２で送信マークが付された写真があるかどうかチェックする。そして該当する写真があればステップＳ３３４に進み、さらに自動送信マークが付された写真があるかどうかをチェックする。
以上の結果、自動送信マークの付された写真があれば、ステップＳ３３６に進む。ステップＳ３３６では、新規メールを自動作成し、ステップＳ３３８でそこに登録送信先を自動入力する。複数の送信先が登録されている場合はすべて入力する。
そして、ステップＳ３４０で自動送信マークの付されたすべての対象をこのメールに自動添付し、ステップＳ３４２で、このメールの自動送信を実行してステップＳ３４４に移行する。一方、ステップＳ３３４において自動送信マークの付された写真が検知されなかったときは、直ちにステップＳ３４４に移行する。以上が自動送信に係わる処理である。
【０１３０】
ステップＳ３４４以降は、手動写真送信処理に係わる処理である。まず、ステップＳ３４４では、送信操作を受付ける画面をＡテレビ画面８に表示し、ステップＳ３４６に移行する。ステップＳ３４６では、この表示に応答してＡリモコン７による送信操作が開始されたかどうかをチェックする。操作開始がなければステップ３４８で受付表示開始後所定時間が経過したかどうかをチェックし、該当しなければステップＳ３４６に戻る。一方、ステップＳ３４６で送信開始操作があったことが検知されるとステップＳ３５０の写真表示／手動選択処理に移行する。その詳細は後述する。この処理が終わるとステップＳ３５２で手動写真送信処理に移行し、この処理による写真送信の完了をもって写真メール送信処理を終わる。
【０１３１】
なお、ステップＳ３４８で、送信操作開始が検知されないまま所定時間が経過したこと

が検知されるとステップＳ３５４に移行し、送信操作受付表示を終了して写真メール送信処理を終わる。また、ステップＳ３３２で送信マークの付された写真が検知されたかったときは、直ちに写真メール送信処理を終わる。

【０１３２】

次に、より深刻な異常に対する対策について説明する。図７のステップＳ１１２、ステップＳ１１４および図１３の見守り情報表示処理のフローは、比較的軽度の異常に対応するものであり、少なくともＡテレビ２またはＢテレビ４の電源がそれぞれの家庭によってオンされることを前提としている。これに対し、以下では、仮にテレビがいずれの家庭でもオンされていなかった場合であっても、お互いの家庭での異常状態を相手の家庭に速やかに通報することができる機能について説明する。

図１６は、Ａ家庭１またはＢ家庭３において異常状態が検知されたとき、これを伝えるメールを相手の家庭に緊急発信するためのＡ制御部５またはＢ制御部９のフローチャートである。なお、一部の異常状態については、ダブルチェックのため、図１３と重複するチェックも行っている。また、チェック項目自体は重複するが判定基準を図１３のフローと異ならせているものもある。

以下、Ｂ家庭３での異常発生をＡ家庭１で把握する場合を例にとって説明するため、図１６のフローをＢ制御部９の機能として説明する。

なお、このような異常検知を可能とするため、Ｂテレビ４において、Ｂリモコン受信部１４だけでなく、Ｂ記憶部１０およびＢチューナ２１にも、常に待機電流を供給している。また、Ｂ制御部９についても、異常状態発生の判断に必要な最低限の機能部分に常に待機電流が供給されており、Ｂテレビ４の電源がオフであっても異常状態の検知が可能となっている。これら待機電流の供給については、Ａテレビ２でも同様である。

以上のような待機状態において、予め設定しておいた何らかの異常状態が検知されたときに図１６のフローがスタートする。

【０１３３】

まず、ステップＳ３６２とステップＳ３６４は、Ｂリモコン１１を利用した緊急通報に関する。Ｂ家庭３の家族に異常があるときには、本人が携帯電話などによりＡ家庭１に連絡するかまたは１１９番通報することが考えられる。また、その他、通報専用として家庭内の所定場所に設けられるかまたは本人が常に所持する緊急通報機器のボタンを押すことも考えられる。

しかしながら、例えば携帯電話の場合、短縮ダイヤルや電話帳機能があるとしても、本人がパニック状態にあったり意識が薄れかかったりしている場合、その操作は必ずしも容易とはいえない。また、幸いにして電話が繋がったとしても、そのときに本人が口頭で事情を伝えられる状態にあるとは限らない。

一方、専用の緊急通報機器の場合、操作はボタン一つを押すだけの簡単なものであるとともに、通報先や用件も限られているため、本人がパニック状態にあったり意識が薄れかかったりしていても容易にこれを操作して目的を達成することが可能である。しかしながら、操作が容易であるだけに、誤ってボタンを押してしまう事態が頻発し、いわゆる「狼少年」状態に陥りやすいことが報告されている。特に本人が常に所持するタイプの通報機器の場合に誤報操作が起こりやすい。一方、誤操作が起こりにくい場所に固定的に設置されているボタンの場合は、緊急時に本人がボタンのところまで歩いて行けるとは限らない。さらに専用の緊急通報機器の場合、無事であれば何年も操作しないことがあるので、操作法や機器があること自体を忘れてしまったり、機器が電池切れを起こして必要なときに役に立たなかったりすることが考えられ、これを防ぐためには定期的な操作訓練や機器のメンテナンス必要になって日常生活への大きな負担になる。

【０１３４】

ステップＳ３６２およびステップＳ２６４はこのような問題点への対策のために設けられており、ステップＳ３６２では、まずＢリモコン１１の任意の多数の操作ボタンが同時に押されたかどうかをチェックする。これは、Ｂリモコン１１によって緊急事態を通報しようとしている本人がパニック状態にあったり意識が薄れかかったりしていて、もはや所望

のボタンを選択して操作できなくなっている場合を想定しており、多数のボタンが設けられているＢリモコン１１全体を握ったり、Ｂリモコン１１において複数のボタンが配置されている面全体を押したりしたときに該当する。そしてこのような操作に該当すれば異常状態と判断する。
ステップＳ３６２の操作に該当しなければステップＳ３６４においてＢリモコン１１における任意の同一操作ボタンが、所定の短時間の間に所定回数以上連続して操作されたかどうかをチェックする。これは、Ｂリモコン１１によって何らかの操作をしようとしている本人が慌てて何度も同じ操作をやり直しているか、またはパニック状態で出鱈目にボタンを操作している場合を想定している。このような操作に該当する場合も異常状態と判断する。なお、ステップＳ３６４では、同一ボタンだけでなく、近接する複数の操作ボタンが全体として短時間の間に所定回数異常連続して操作された場合も異常と判断するようにしてもよい。これは、使用者がパニック状態などのとき、所望のボタンの操作を誤って近接するボタンを押すことが考えられるからである。
以上のように、ステップＳ３６２およびステップＳ３６４は、日常的に身近で使用されるＢリモコン１１において、通常は行われない異常でかつ単純何な操作がなされたことを検知するものであり、緊急事態にある通報者本人がパニック状態にあったり意識が薄れかかったりしている場合にありがちな操作を検知可能であるとともに、誤報の心配も少なく、また訓練やメンテナンスも必要としない通報手段を提供するものである。さらに後述するようにステップＳ３６２またはステップＳ３６４によりＢリモコン１１の異常操作が検出されたあとの通報の実行、通報先、通報の趣旨も予め決められているので、異常操作さえ検出できれば通報の目的を達成できる。
【０１３５】
なお、図１６のフローに基づく実施例では、上記のようにステップＳ３６２とステップＳ３６４の状況のオア論理をとり、いずれかに該当すれば異常と判断している。しかしながら、これを変形し、ステップＳ３６２の状況とステップＳ３６４の状況のアンド論理をとって、両者に該当するときに異常と判断するフローとしてもよい。つまり、この場合は、任意の多数のボタンの同時操作が短時間の間に連続して行われた状況の成立をもって異常と判断することになる。
これは誤報の発生を排除するためであり、例えば異常がないのに誤って床に落としたＡリモコン７を踏んでしまった結果ステップＳ３６２の状況に該当することになって誤報が発生することを防止する。また、同じ数字の続く電話番号を手早く入力した場合や、スペースキー、改行キーなどを連続操作した場合などのように異常がないのに、ステップＳ３６４に該当することになって誤報が発生することを防止する。
但し、ステップＳ３６２とステップＳ３６４とのアンド論理をとる場合は、誤報の可能性が減る反面、異常とすべき条件も厳しくなる。従って、ステップＳ３６２とステップＳ３６４のアンド論理をとるかオア論理をとるかをすべてのキーについて画一的に設定するのではなく、キーボード全体のレイアウトおよびキー間の相対配置によってキー毎に異なるよう設定してもよい。
さらに、ステップＳＳ３６２とステップＳ３６４についてはオア論理としてフローを構成するとともに誤報発生防止の他の条件とのアンド論理をとるように構成してもよい。
【０１３６】
また、図１６の実施例では、ステップＳＳ３６２とステップＳ３６４の判断がＡ制御部５でなされるよう構成しているが、本発明の実施はこれに限らない。例えば、ステップＳＳ３６２とステップＳ３６４のような機能をＡリモコン７自体に持たせ、ステップＳＳ３６２とステップＳ３６４のような機能に基づく上記のような種々の異常判断はＡリモコン７のリモコン制御部７２で行わせ、その判断の結論としての「リモコン操作異常信号」をリモコン制御部７２で生成するとともにこれを赤外通信部７３からＡリモコン受信部１３に送信するようにしてもよい。
以上のようにしてステップＳ３６２とステップＳ３６４をリモコン制御部７２で実行させる場合、Ａ制御部５に関する図１６のフローチャートにおいてはステップＳＳ３６２とス

テップＳ３６４の代わりに「リモコン操作異常信号着？」という判断ステップを置く。
【０１３７】
さて、図１６のフローの説明に戻って、検知された異常がステップＳ３６４に該当しないときはステップＳ３６６に進み、放送電波２０または有線放送によりローカル緊急放送がＢ家庭３のエリアで受信されたかどうかをチェックする。なお、この緊急放送は、Ｂ家庭３とは遠隔地にあるＡ家庭１のエリアでは放送されず、その内容もわからないものとする。
検知された異常がステップＳ３６６に該当しないときはステップＳ３６８に進み、テレビの前回操作から所定時間（例えば２４時間）以上の経過であったかどうかがチェックされる。ステップＳ３６８に該当しなければ、ステップＳ３７０に移行し、テレビがオンであって且つ既に放送時間が終了しているチャンネルが選択されているかどうかをチェックする。但し、この状態での放置が所定時間（例えば３０分）より長いことを条件とする。そして該当がなければステップＳ３７２に移行する。
【０１３８】
ステップＳ３７２では、Ｂテレビ４の音量設定が異常であるかどうかチェックする。このチェック項目の内容は、図１３のステップＳ３０６と重複しているが、ダブルチェックのために図１６のフローにも設けられている。ステップＳ３７２に該当しなければ、ステップＳ３７４に移行し、Ｂ家電２８等の異常な使用がないかチェックする。この場合の判定条件は、図１３のステップＳ３０８と同じでもよいが、家電の種類によっては異なる条件としてもよい。また、図１３のステップＳ３０８の見守り対象とする家電と図１６のステップＳ３７４での検知対象とする家電を異なったものとしておいてもよい。
【０１３９】
ステップＳ３７４にも該当しない場合は、予め定めたいずれの異常状態にも該当せずに図１６のフローがスタートしたことを意味するので、異常はなかったものと判断し、ステップＳ３７６で誤動作記録を残してステップＳ３７８に進む。つまり、この場合、緊急メールは発信されない。ステップＳ３７８では、緊急メール発信フローの動作結果をＢテレビ画面に表示してフローを終了する。この場合は、誤動作記録を表示することになる。ステップＳ３７８で行われた表示は、Ｂリモコン１１を操作しない限り消えることはない。Ｂ家庭３の家族はこの表示を確認したあと、適宜表示を消すとともに、誤動作の原因調査を業者等に依頼することができる。
【０１４０】
一方、ステップＳ３６２からステップＳ３７４のいずれかのチェックに該当した場合、フローはステップＳ３８０に移行し、Ｂテレビがオンしているかどうかチェックする。そしてオンしていなければステップＳ３８２で自テレビを自動的にオンするとともに、ステップＳ３８４で通信機能を緊急起動してステップＳ３８６に移行する。このステップＳ３８２からステップＳ３８４の機能は図５のステップＳ４２およびステップＳ４３に相当するが、図６における詳細処理は省略し、セキュリティに関するステップＳ８２とステップＳ８８の設定をして速やかに通信に必要なパソコン基本機能を立ち上げる。一方、ステップＳ３８０においてテレビが既にオンされていればステップＳ３８２およびステップＳ３８４は不要なので直接ステップＳ３８６に移行する。
ステップＳ３８６では、緊急メールの自動新規作成を行うとともにステップＳ３８８においてＡテレビ２を送信先として自動入力する。このときステップＳ３６２またはステップＳ３６４に該当した結果ステップＳ３８０に至った場合には送信先として併せて１１９番通報を加える。
さらに、ステップＳ３９０では、ステップＳ３６２からステップＳ３７４のいずれかによって検知された異常情報を添付し、ステップＳ３９２においてメールの自動送信を実行する。これによって緊急メールがＢ通信部１６からＡ通信部１５に向けて送信される。
【０１４１】
なお、図１３と同様、図１６のフローにおいても、フローの上位のもので異常と判断されればその時点でステップＳ３８０に進むので、他の条件のチェックが行われないまま緊

急メールが発信される。従って、図１６のようなフローとする場合は、異常検知の優先度の高いものほどフローの上位に置くよう配慮する。また、図１６のようなフロー構成に代え、フローがステップＳ３６２からステップＳ３７４までの各判断を常に漏れなくすべて通るよう構成し、各判断結果をそれぞれ蓄積していくとともに、すべての判断が終わった時点で異常のあったものを一括してステップＳ３９０で添付するようにしてもよい。

【０１４２】

メールの送信が終わるとステップＳ３９４に移行し、Ｂテレビカメラ３１をオンするとともにその画角を再広角に設定する。これは、必要に応じＡ家庭１からのＢテレビカメラ３１の遠隔操作を容易にするためである。

以上の処理を行った後、ステップＳ３７８に移行し、ステップＳ３９０で添付したのと同じ情報をＢテレビ画面１２に表示する。この表示により、Ｂ家庭４の家族はステップＳ３９２によってＡ過程に送信された異常情報を見ることができる。Ｂ家庭４の家族がＢテレビ画面１２を見ることができないような異常状態にあるときはこの機能は意味がないが、幸いにしてＢ家庭の家族が無事であったときはときは、Ｂテレビ画面１２を見ることによりＢ家庭３側から「心配ない」旨の連絡をＡ家庭１に行うことが可能となる。

これによって、図１３のステップＳ３１１と同様、両家庭でリアルタイムで情報の共有ができる。以上により、異常状態緊急発進処理を終了する。

【０１４３】

図１７は、緊急メールを受信した際のＡ制御部５またはＢ制御部９の動作を示すフローチャートである。図１６での説明の例との連続性のため、Ｂテレビ４から発信された緊急メールをＡテレビ２で受信した場合についてＡ制御部５の機能として説明を続ける。

ステップＳ３９２においてＢ通信部から発信された緊急メールの着信をＡ通信部１５が検知すると図１７のフローがスタートする。既に述べたとおり、Ａ通信部１５はメールの着信を常に検知することができるように、Ａテレビ２の電源がオフの場合でも待機電流が供給されている。

フローがスタートするとまず、ステップＳ４０２でＡテレビ２がオンかどうかチェックされ、オフであればステップＳ４０４でＡテレビ２をオンしてステップＳ４０６に移行する。なお、ステップＳ４０２で既にＡテレビ２がオンであったときは直接ステップＳ４０６に移行する。

【０１４４】

ステップＳ４０６では、緊急事態を確実にＡ家庭１の家族に警告するため、テレビの音量を自動的にアップさせる。次いでステップＳ４０８で緊急メールを自動開封し、ステップＳ４１０で添付情報の内容を自動検知する。ステップＳ３１２以下は、この自動検知の結果による処理に関する。

まずステップＳ４１２で緊急メールがリモコン異常操作を知らせるものであったかどうかがチェックされる。該当すればステップＳ４１４においてＡテレビ画面８緊急連絡警告が表示するとともに同一内容を音声メッセージとしてもアナウンスする。このとき通常放送を鑑賞中であればそれを中断し、異常内容の伝達を優先する。この点は以下のステップでも同じである。

ステップＳ４１２に該当した場合は緊急度が極めて高いので、Ａリモコン７による解除操作をするまでは、ステップＳ４１４の表示が継続されるとともに音声メッセージのアナウンスも繰り返される。そしてこの繰り返し処理を指示したあとステップＳ４１６に移行する。一方、ステップＳ４１２でリモコン異常操作でなかったときは、直接ステップＳ４１６に移行する。

次に、ステップＳ４１６では、異常状態の確認のためにＢ家庭のＢカメラ３１の遠隔操作を可能とする処理を行う。特にリモコン異常操作のときはＢリモコン１１を持ったＢ家庭３の家族がＢカメラ３１の画角内にいる可能性が高いので、この時点でＢカメラ３１の遠隔操作を可能とすることは有効である。ステップＳ４１６のあとであれば、Ａリモコン７を操作することにより、所望の時点でＢカメラ３１を遠隔操作するためのメール指示をＡ通信部１５から発信することができる。

【０１４５】
次に、ステップＳ４１８では、緊急メールがテレビ操作に関する異常を知らせるものであったかどうかがチェックされ、該当すればステップＳ４２０においてＡテレビ画面８に異常内容を表示するとともに同一内容を音声メッセージとしてもアナウンスする。そして音声メッセージのアナウンスが終わるとステップＳ４２２に移行する。但し、ステップＳ４２０でＡテレビ画面８に出した表示は、ステップＳ４２２以降に進んでも消さずに継続する処理をする。一方、ステップＳ４１８でテレビ操作の異常でなかったときは、直接ステップＳ４２２に移行する。
【０１４６】
ステップＳ４２２では、緊急メールが他家電の異常を知らせるものであったかどうかがチェックされ、該当すればステップＳ４２４においてＡテレビ画面８に異常内容を表示する。このとき、ステップＳ４２０の段階で残した表示があれば行を変えて表示する。ステップＳ４２４でも、表示と同一内容を音声メッセージとしてもアナウンスする。そして音声メッセージのアナウンスが終わるとステップＳ４２６に移行する。但し、この場合もステップＳ４２４でＡテレビ画面８に出した表示は消さずに継続する。なお、ステップＳ４２２で他家電の異常でなかったときは、直接ステップＳ４２６に移行する。
【０１４７】
ステップＳ４２６では、緊急メールがローカル緊急放送データを添付したものであるかどうかをチェックし、該当すればステップＳ４２８において添付されたデータに基づき緊急放送を再生する処理を行い、緊急メール受信処理を終了する。なお、ステップＳ４２６で緊急メールがローカル緊急放送を添付したものでなかったときは、直ちに緊急メール受信処理を終了する。
【０１４８】
図１８は、本発明に用いられるテレビリモコンの構成を示すブロック図であり、図１のＡリモコン７またはＢリモコン１１として実施されるものである。以下、図１８はＡリモコン７であるとして説明を行うが、Ｂリモコン１１も同様の構成および機能を持っている。Ａリモコン７のリモコン操作部７１を操作すると、リモコン制御部７２は、その操作に基づき、赤外通信部７３から赤外線信号をＡリモコン受信部１３に送信する。
また、リモコン操作部７２は、オンオフなどのＡリモコンの状態、操作メニュー、操作の際の選択項目、操作結果など、リモコン操作に必要な情報を表示部７４に表示する。さらに、Ａリモコン７は、既に述べたようにテレビ電話の際の送受話器として使用できるようになっており、この機能を達成するためにリモコン制御部７２に接続されるマイク７５およびスピーカ７６を備えていて、また、マイク７５は、後述のように、送信したい写真をＡテレビ画面８に表示しながら、これにボイスメッセージを入れる際にも使用される。
【０１４９】
リモコン操作部７１には、電源ボタン７７およびチャンネル選択等のためのテンキー７８が設けられている。また、メニューボタン７９を押すと、表示部７４に操作メニューが表示されるので、テンキー７８のいずれかのボタンの押下または十字キー８０の上下左右方向への押下によりメニューの選択操作ができる。なお、選択の決定は、十字キー８０の真下への押下により行われる。
Ａテレビ２の音量は、シーソー構造になっているテレビ音量ボタン８１によるアップダウンできるが、この音量設定に係わらず、テレビ電話またはボイスメッセージ入力ために通話ボタン８２を押すと、これを押している間はテレビ２からの音声がオフされて消音状態になり、マイク７５との間のハウリング等が防止される。また、テレビ２からの音声が消音状態のときスピーカ７６がこれに代わってオン状態となるがその音量調節はシーソー構造になっている通話音量ボタン８３によってアップダウンできる。マイクの入力音量は自動調節される。
【０１５０】
共有ボタン８４は、図１１のステップＳ２６６における同一番組ワンタッチ切換可能処理が行われたときに操作するためのものであって、相手が見ている番組を見たいときに、共

有ボタン８４を押すことにより、チャンネルを選ばなくても、ワンタッチで相手の見ている番組へのチャンネル変更が可能となる。また、サーバ型放送の場合は、共有ボタン８４を押すことによって、番組コードなどの設定をしなくても、相手が見ている番組と同一番組がワンタッチでダウンロードできる。
このように相手の見ている番組を見るための操作を極めて容易にすることによって、遠隔地の家族が体験を共有しやすくなるとともに、ほぼ同時期に同体験をすることによって擬似的な団欒を感じることができる。
なお、既に述べたように、共有ボタン８４を押して相手の見ているチャンネルにワンタッチ変更したあと、もう一度共有ボタン８４を押せばもとの番組に戻ることができる。このようにして、共有ボタン８４を押すたびに、相手と同じ番組との間を簡単に行き来することができる。

【０１５１】

図１９は、図１のデジタルカメラ２９の構成を示すブロック図である。なお、前述のように　図1では、デジタルカメラ２９をＡ家庭のみに図示しているが、Ｂ家庭３においても、同様にして、同様の構成のデジタルカメラからＢ制御部９にデジタル写真情報を入力可能である。
デジタルカメラ２９は、カメラ制御部１０１によって制御され、カメラ操作部１０２に含まれるレリーズボタンを操作することによって撮像部１０３で取得された画像情報が画像処理部１０４で処理され、画像記録部１０５に記録される。画像は通常、記録媒体ドライブ１０６に挿入されたディスクやカードなどの着脱式記録媒体１０７に記録される。なお、画像記録部１０６は、内臓式の内部記録部１０８も備えており、着脱式記録媒体１０７の容量が一杯になったときや設定があったときに画像の記録を行う。また、画像は着脱式記録媒体１０７と内部記録部１０８の両者に記録することも可能であるし、一方に記録された画像を他方に移すことも可能である。

【０１５２】

画像をＡ制御部５に入力するには、着脱式記録媒体１０７を記録媒体ドライブ１０６から取り出してＡ制御部５に接続された記録媒体スロットに挿入する。または、カメラ制御部１０１が読み出した画像記録部の画像を、ケーブル接続部や充電兼用画像データ入出力部を有するデジタル入出力部１０９を介してＡテレビ２のＡ制御部５に有線で送信することもできる。さらに、デジタル入出力部１０９は近距離無線通信手段を有しており、カメラ制御部１０１が読み出した画像記録部１０６の画像を無線でＡ制御部５に送信することもできる。いずれの場合も、Ａ制御部５は画像の入力を自動検知して、図４のステップＳ１６からステップＳ１８に移行する。

【０１５３】

記憶部１１０は、Ａテレビ２と共有している自動送信先アドレスを登録している。組織億部１１０の記憶に基づいて、表示画面１１１とカメラ操作１０２によりＡテレビから自動送信すべき写真の選択を行う。
送信写真の選択にあたっては、表示画面１１１においてＡテレビ２にまだ取り込んでいない写真のサムネイル１１２をすべて表示する。多数あればスクロールできるように表示する。画面１１１では、例としてサムネイル１、サムネイル２、サムネイル３が表示されている。
このような表示に基づいて、操作部１０２を操作し、まず、Ｂ家庭３に送信すべき写真の選択を行い、選択すべき写真があれば、「Ｓ」マークの下にある送信対象選択ボックス１１３にチェックを入れる。表示画面１１１では、例として、サムネイル１とサムネイル２にチェックが入っている。

【０１５４】

そして、送信選択ボックス１１３にチェックが入っているサムネイルについては、自動送信選択ボックス１１４が表示される。表示画面１１１では、例として、二つの自動送信先が登録されている場合を示しており、これらをそれぞれ示す「Ａ１」と「Ａ２」マークの下のサムネイル１とサムネイル３のところに、それぞれ自動送信選択ボックスが表示され

ている。なお、サムネイル２については、送信対象になっていないので、誤操作を防止するため、自動送信選択ボックス１１４は表示されない。また、自動送信先がひとつしか登録されていない場合は「Ａ１」のマークの下に一列だけ自動送信選択ボックス１１４が表示される。さらに、自動送信先が全く登録されていないときは、自動送信選択ボックス１１４は全く表示されない。これらも誤操作を防止するためである。

表示画面１１１では、例として、サムネイル１の自動送信先「Ａ１」に対応するボックスだけにチェックが入っている。従って、サムネイル１は登録送信先「Ａ２」には自動送信されず、また、サムネイル３はいずれの登録送信先にも自動送信されない。自動送信選択をしなかった送信対象写真はＡテレビ２に入力されてから必要に応じ手動で送信操作される。これについては後述する。

【０１５５】

図２０は、図１９のデジタルカメラ２９におけるカメラ制御部１０１の機能の一部を示すフローチャートであり、デジタルカメラ２９における写真の自動送信先の登録を、Ａテレビ２における写真の自動送信先の登録と共有するためのものである。

フローはデジタルカメラ２９が何らかの形でＡテレビ２の情報にアクセスしたときにスタートする。具体的には、デジタルカメラ２９がＡ制御部５に有線または無線で接続されたとき、または着脱式記録媒体１０７をデジタルカメラ２９の記録媒体ドライブ１０６に挿入したときにフローがスタートする。

後者の場合について補足すると、着脱式記録媒体１０７は自動送信先の登録データも保持可能となっており、Ａテレビ２の記録媒体スロットまたはデジタルカメラ２９の記録媒体ドライブ１０６に挿入されたとき所定の手順によりＡテレビ２またはデジタルカメラ２９との間で自動送信先の登録データのやりとりを行う。従って、デジタルカメラ２９の記録媒体ドライブ１０６に挿入された着脱式記録媒体１０７は、その前にＡテレビ２の記録媒体スロットに挿入されることによりＡテレビ２から取得した自動送信先の登録データを保持している可能性がある。この理由により、着脱式記録媒体１０７の記録媒体ドライブ１０６への挿入もＡテレビ２の情報へのアクセスとみなしてフローをスタートさせる。

【０１５６】

フローがスタートすると、まずステップＳ４３２で、Ａテレビ２の情報へのアクセスによりテレビ側情報が取得できたかどうかがチェックされる。情報が取得できた場合は、ステップＳ４３４に進み、取得された情報の中にテレビ側で登録されている送信先アドレスがあるかどうかをチェックする。

送信先アドレスがあれば、さらにステップＳ４３６に進み、Ａテレビ側２で登録されている全ての自動送信先アドレスとデジタルカメラ２９側で登録されている全ての自動送信先アドレスとを比較して、デジタルカメラ２９側で未登録の自動送信先アドレスがＡテレビ２側にあるかどうかチェックする。その結果、未登録アドレスがあればステップＳ４３８に移行し、そのアドレスをデジタルカメラ側の自動送信先登録アドレスに自動追加してステップＳ４４０に移行する。なお、ステップＳ４３４またはステップＳ４３６で該当がなければ、直接ステップＳ４４０に移行する。

以上のようにして、Ａテレビ２側で自動送信先が新たに登録されたとき、これが自動的にデジタルカメラ２９側でも登録されるようになり、両者の情報共有状態が更新される。これによって、Ａテレビ２で対応可能な最新の自動送信先が図１９の表示画面１１に自動送信選択ボックス１１４として自動的に表示されるようになり、デジタルカメラ２９側では、このチェックボックスにチェックを入れるだけで、その写真がＡテレビ２に入力されたときにこれが自動送信されるようにすることができる。

【０１５７】

ステップＳ４４０では、Ａテレビ側２で登録されている全ての自動送信先アドレスとデジタルカメラ２９側で登録されている全ての自動送信先アドレスとを比較し、Ａテレビ２側で未登録の自動送信先アドレスがデジタルカメラ２９側にあるかどうかをチェックする。そして該当するものがあればステップＳ４４２に進み、デジタルカメラ２がＡテレビ２と交信中であるかどうかチェックする。

交信中でなければ、着脱式記録媒体１０７を記録媒体ドライブ１０６に挿入したことによって図２０のフローがスタートしたことを意味するからステップＳ４４８に進み、該当する自動送信先アドレスを着脱式記録媒体１０７に複写してフローを終了する。これによって、着脱式記録媒体１０７が次にテレビ２の記録媒体スロットに挿入されたとき、写真情報とともに自動送信先アドレスがテレビ２に自動入力される。

【０１５８】

一方、ステップＳ４４２において、テレビと交信中であったときは、有線または無線によってデジタルカメラ２９がＡテレビ２のＡ制御部５に接続されていることを意味するからステップＳ４４４に進み、Ａ制御部５がデジタルカメラ２９からの情報を受入可能かどうかチェックしたうえで、受入可であればステップＳ４４６でデジタルカメラ側の自動送信先アドレスをＡ制御部に伝達してフローを終了する。なお、ステップＳ４４４でＡ制御部５がデジタルカメラ２９からの情報を受入可でなければステップＳ４４８の処理に移行する。

【０１５９】

なお、ステップＳ４３２においてテレビ側情報が取得できなかったときは、直ちにフローを終了する。また、ステップＳ４４０においてＡテレビ２側で未登録の自動送信先アドレスがデジタルカメラ２９側になかったときは、この時点で直ちにフローを終了する。

【０１６０】

図２１は、図１９のデジタルカメラ２９におけるカメラ制御部１０１の機能の一部を示すフローチャートであり、表示画面１１１とカメラ操作部１０２によってＡテレビ２に入力すべき写真を選択するためのものである。

フローはカメラ操作部１０２によりＡテレビ２への写真の入力操作を行ったときにスタートし、まずステップＳ４５２でＡテレビ２に未だ入力していない写真があるかどうかチェックする。そして写真があればステップＳ３５４に進み、図１９のように未入力写真のサムネイル１１２を表示する。このとき、送信選択ボックス１１３も同時に表示する。

次いで、ステップＳ４５６に進み、他テレビ送信対象が選択されたかどうか、つまり送信選択ボックス１１３にチェックが入れられたかどうかを確認する。そしてチェックが入っているものがあれば、ステップＳ４５８に進み、自動送信先登録があるかどうかを確認する。自動送信先が登録されていればステップＳ４６０に進み、複数の自動送信先が登録されているかどうか確認する。

【０１６１】

複数の自動送信先が登録されている場合はステップＳ４６２に進み、送信選択ボックス１１３にチェックが入れられたサムネイルについて全ての送信先毎に自動送信設定ができるよう自動送信選択ボックス１１４を表示する。図１９の表示画面１１１はこの状態を図示しており、例として、二つの自動送信先「Ａ１」と「Ａ２」についてこのような表示を行っている場合を示す。

一方、ステップＳ４６０において、複数の送信先が登録されていなかったときは送信先が一つだけ登録されていることを意味するから、単純自動送信設定用表示を行う。具体的には、図１９の表示画面１１１において、「Ａ１」のマークの下に一列だけ自動送信選択ボックス１１４が表示される。なお、ステップＳ４５８において自動送信先の登録がなかったときは、ステップＳ４６２およびステップＳ４６４のいずれの表示も行われない。つまり、自動送信選択ボックス１１４は全く表示されない処理となる。

なお、ステップＳ４５６において他テレビ送信対象選択が行われた写真がないときは、自動送信先の登録があってもステップＳ４６２およびステップＳ４６４のいずれの表示も行われない。つまり、このときも、自動送信選択ボックス１１４は全く表示されない処理となる。

【０１６２】

ステップＳ４５６、ステップＳ４５８、ステップＳ４６２およびステップＳ３６４のいずれかにより自動送信設定表示に関する処理を行った後、ステップＳ４６６に至ると、写真選択を終了する操作が行われたかどうかがチェックされる。そして選択終了操作が行わ

れていないときはステップＳ４５６に戻り、以下、ステップＳ４６６で選択終了操作が行われたことを検知するまでステップＳ４５６からステップＳ４６６の処理を繰り返す。そしてステップＳ４６６で選択終了操作が検知されるフローを終了する。これによって表示画面１１１から選択操作のための表示が消える。

なお、ステップＳ４５２においてＡテレビ２に未入力の写真が全くなかったときは、その旨のメッセージを１１１に出して直ちにフローを終了する。

【０１６３】

なお、図１９から図２１の実施例はデジタルカメラの場合について説明したが、本発明はこれに限られるものではなく、テレビに入力するための写真情報を保持している任意の機器において実施可能である。例えば、カメラ付携帯電話や、撮影機能をもたない携帯式デジタル画像情報ストレージなど、デジタル写真情報を保持するとともにその機器自身に表示画面があるものであれば、本発明の実施により、容易にテレビに自動送信写真を入力できるとともに、自動送信先の登録をテレビと共有することができる。

【０１６４】

図２２は、図１５のステップＳ３５０における写真表示／手動選択処理の詳細を示すフローチャートである。フローがスタートすると、ステップＳ４７２で未決未送信写真があるかどうかがチェックされる。これは、自動送信する旨の設定なしにＡテレビ２に入力された後、未だ手動で送信選択処理がされていない写真があるかどうかをチェックすることを意味する。該当する写真があればステップＳ４７４に進み、所定の順に従ってそのうちの一つの写真をＡテレビ画面８に表示する。これは送信後鑑賞される場合の表示状態をプレビューする意味もあり、この段階で満足できない写真であった場合には、送信決定をしないでおくこともできる。

次にステップＳ４７６でその写真が送信決定されたかどうかがチェックされ、送信決定された場合はステップＳ４７８で、Ａリモコン７の通話ボタン８２が押されているかどうかチェックする。これは、送信決定した写真に対し、送信前にボイスメッセージを付加することを可能にするためである。

【０１６５】

ステップＳ４７８で通話ボタン８２が押されていることが検知された場合はステップＳ４８０に進み、ハウリング防止のためにＡテレビ２のスピーカをオフにする。併せて、ステップＳ４８２においてＡリモコン７のマイク７５をオンにして表示中の写真に付加すべきボイスメッセージの音声録音を開始するとともにステップＳ４８４に進み、Ａリモコン７の通話ボタン８２が押されているかどうかを再度チェックする。

通話ボタン８２が押されていればステップＳ４８０に戻り、以下通話ボタンが押されている限りステップＳ４８０からステップＳ４８４を繰り返し、写真に付加する音声の録音がマイク７５を介して続けられる。そして通話ボタン８２が押されている限りテレビのスピーカのオフ状態が継続される。

【０１６６】

ステップＳ４８４において　通話ボタン８２が話されたことが検知されるとステップＳ４８６に移行する。これによってマイク７５がオフになり録音が停止される。また、テレビのスピーカのオフ状態も解除される。

ステップＳ４８６では、通話ボタンを押してから離すまでの録音中、音声のない空白の時間を自動カットする。これによって、録音を開始してからすぐボイスメッセージを始めなかったり、ボイスメッセージの途中でつまったりすることによる異常に長い音声空白時間が生じてもその時間帯は自動カットされ、再生時に聞き苦しいことがなくなる。

次にステップＳで、音声の区切り前後に無音の自然なポーズ時間を挿入する。これによって、ステップＳ４８６による空白時間カットによりボイスメッセージの文と文の間が不自然に詰まった状態を回復する。また、ボイスメッセージを終わってすぐに通話ボタン８２を離したような場合でも、ボイスメッセージ終了後に自然な余韻時間を付加する。

以上のようにして、一つの写真にボイスメッセージを付加した写真データを作成する場合、鑑賞時において、その写真の表示開始後、自然なポーズの後にボイスメッセージが始ま

り、途中、異常に長い音声空白や異常に急き込んだような状態もなく、またボイスメッセージが終わった瞬間に次の写真に切換るようなこともない形での音声メッセージ付写真のデータを作成することができる。

【０１６７】

以上のような処理の後ステップＳ４９０に進む。また、ステップＳ４７８において通話ボタン８２が押されていることが検知されない場合は、直接ステップＳ４９０に進む。

ステップＳ４９０では、Ａリモコン７によって写真選択終了操作が行われたかどうかをチェックする。そして操作が検知されないときはステップＳ４７２に戻る。また、ステップＳ４７４で表示された写真に対する送信決定がステップＳ４７６で検知できない場合もステップＳ４７２に戻る。

以後、ステップＳ４９０で写真選択終了操作が検知されるか、またはステップＳ４７２で検知される未決未送信写真がなくならない限り、ステップＳ４７２からステップＳ４９０を繰り返す。このときステップＳ４７４に至るたびに、所定の順にしたがって、次の一つの写真が表示される。

【０１６８】

ステップＳ４９０で写真選択終了操作が検知されるか、またはステップＳ４７２で未決未送信写真が検知されなくなると、ステップＳ４９２に進み、送信決定写真があるかどうかがチェックされる。そして、送信決定写真があるとステップＳ４９４に進み、今回送信決定された写真が複数あればこれをスライドショー処理するとともにバックグラウンドミュージックが自動付加され、フローを終わる。なお、ステップＳ４９２において送信決定写真がなければ直ちにフローを終わる。

【０１６９】

図２３は、自動送信にてＡ通信部１５とＢ通信部の間でのやりとりされるメールに添付する情報の書式図である。これらの情報は、メールに添付されるとともに、Ａ蓄積情報２３やＢ蓄積情報２４としてＡ記憶部６およびＢ記憶部１０に記憶される。このような情報の書式を統一しておくことにより、これらの情報に基づく処理や分析が容易になる。

【０１７０】

情報書式１５１は大きく四つに区分されている。まずＡ区分１５２は放送エリアや時差など、Ａ家族１やＢ家族３の所在地の属性に関する情報であり、家族が移動しない限り家族内の事情で変化することはない情報を含む。Ｂ区分１５３は、Ａテレビ２およびＢテレビ４の操作状態に関する情報を含む。Ｃ区分１５４はＡ家庭１およびＢ家庭３の見守り対象となっている家電等の使用状態に関する情報を含む。また、Ｄ区分はその他のフレキシブル性の高い情報を含んでいる。各区分に含まれる情報は、いずれも項目部分と内容部分からなる統一された同一書式の情報として構成されており、この項目部分と内容部分がセットになって一体不可分に取り扱われる。

以上のように、情報書式１５１はＡ区分１５２からＤ区分１５５に区分されているが、各区分は情報書式１５１として一体不可分に取り扱われるのではなく、それぞれ独立して取り扱われる。さらに各区分の中の個々の項目もそれぞれ独立して取り扱われる。区分はあくまでも各情報の分類のために付されているだけである。

【０１７１】

Ａ区分１５２において、エリア項目１５６の内容は、放送エリアのコード情報と日時情報を含む。従って、もし、放送エリアに変更があった場合、日付の異なる旧エリア項目情報と新エリア項目情報が複数存在することになる。以下、全ての情報項目の内容は、日付情報を含んでおり、日時の異なるものが複数発生する。なお、日時情報は各項目データが作成されるときに自動的に記録される。これは以下の項目データにおいても同じである。

Ａ区分１５２の時差項目１５７の内容は、標準時との時差の数値情報と日時情報を含んでいる。時差情報の場合、夏時間制を実施している地域では、夏時間の始まりの日時を持つ時差情報と冬時間の始まりの日時を持つ時差情報が毎年二つ発生することになる。

【０１７２】

Ｂ区分１５３のテレビ電源項目１５８の内容は電源のオンまたはオフを示すコード情報

とその変更を行った日時情報を含む。同様に、チャンネル項目１５９はチャンネルの数字情報と日時情報を持つ。さらに、音量項目１６０は音量の数値情報と日時情報を持つ。これらの情報はテレビのオン／オフ、チャンネル変更、音量変更を行う毎に日時情報の異なるものが発生する。
ビデオ鑑賞項目１６１は、ビデオ鑑賞を行っている状態であることを示す情報であり、その内容としては、ビデオ鑑賞の開始と終了の別を示すコード情報および開始／終了操作をした日時情報を含む。この情報は一回の鑑賞について開始時と終了時の二つの情報が発生する。
このビデオ鑑賞項目１６１は、チャンネル合せによる通常の番組鑑賞ではない状態であること示せば足り、鑑賞対象が何であるかは問題としないので、Ｂ区分に分類されている。つまり、後述のＤ区分の情報におけるような鑑賞対象を示すＩＤは持たせていない。しかしながら、既に述べたように、図１１のステップＳ２４２の判断においては、ビデオ鑑賞項目１６１の内容が「開始」となっている場合についても、後述する記憶データ項目１６９の内容が「開始」となっているときと同様、「記憶データ鑑賞中」と判断する。

【０１７３】

なお、図示していないが、Ｂ区分に分類される情報としてはさらにテレビのタイマー設定項目がある。この項目の内容は、タイマー設定している旨のコード信号とタイマーによる操作の開始予定日時および終了予定日時である。また、タイマー設定した日時も他の項目と同様記録される。作成されたデータはメールに自動添付されて他テレビに自動送信される。

このような情報を受け取った他テレビは、図１３および図１６の見守り条件を変更する。例えば、タイマー設定した日時からタイマーによる操作の開始予定日時までの時間帯はテレビの操作がなくても異常ではないと考えられるので、例えば図１３のステップＳ２９８の所定時間として上記時間帯を差し引いて判断する。

【０１７４】

Ｃ区分１５４の家電１項目１６２から家電３－１項目１６４はそれぞれ家電の使用または不使用を示すコード情報とその操作を行った日時情報を含む。これらの情報は家電毎に設けられている。なお、家電３－１項目１６４は、家電３に関するものでその使用／不使用情報に該当するが、家電３についてはその温度設定も見守り項目となっており、これが家電３－２項目１６５となっている。家電３－２項目は設定温度を示す数値情報とその設定を行った日時情報を含む。
設備／用具1項目１６６は、家電ではないが、家庭内に設けられる設備または用具の打ち見守り対象になっているものに関する情報であり、その使用状態示すコード情報とその使用状態になった日付情報を含む。また、例えば玄関ドアを見守り対象とした場合、状態１／状態２をこのような二状態だけでなく、玄関ドア内側からのロック／解除および外側からのキーによるロック／解除など、三種類以上の状態を示すコード情報が記録可能なように構成できる。そして、日時情報順の玄関ドアのロック／解除履歴と他の家電や設備／用具の使用状態の履歴情報と組み合わせることでよりきめ細かな見守りができる。
さらに、玄関ドア情報に基づく外出／帰宅の判断により図１３や図１６における見守り条件を変更したり、またその基準となる所定時間を変更したりすることもできる。

【０１７５】

このＣ区分１５４に分類される項目としてはさらに、図示していないが、Ａリモコン７またはＢリモコン１１の操作によって作成可能な「長期旅行情報」がある。これは、長期旅行で留守をすることによって日常生活のリズムが変化することを意識的に他テレビに知らせるものであり、Ａリモコン７またはＢリモコン１１を操作することによって長期旅行の旨のコード信号と出発および帰宅予定日時情報を入力することによりデータを作成する。データ作成日時は他の項目と同様、自動入力される。作成されたデータはメールに自動添付されて他テレビに自動送信される。

このような情報を受け取った他テレビは、図１３および図１６の見守り条件を変更する。例えば、図１３のステップＳ２９８は日常生活であれば前回操作から所定時間以上経過

しても操作がなかったことをもって異常との判断をするが、「長期旅行情報」を受け取った場合には、旅行期間の留守中に操作があったことをもって異常と判断するよう見守り条件を変更する。
以上のＣ区分１５４の情報は、見守り対象や同じ見守り対象の見守り項目が増えれば適宜増加させる。
【０１７６】
Ｄ区分１５５の定例番組項目１６７は、定例番組のＩＤ、これを登録したか抹消したかの別を示すコード情報および日時情報を含む。定例番組のＩＤは番組コードであってもよいし、チャンネルと曜日と放送時刻であってもよい。
写真鑑賞項目１６８は、対象写真のＩＤと鑑賞を行った日時情報を持つ。写真鑑賞項目１６８が発生してそのＩＤがＡ記憶部６またはＢ記憶部１０に記憶されているデジタル写真情報のＩＤに一致すると、図２の送信済み写真アイコン５５または図３の写真着信アイコン６３が消える。
記憶データ項目１６９は、デジタル放送の録画またはダウンロード番組などの記憶データの鑑賞に関するもので、記憶データを特定するＩＤ、記憶データの鑑賞の開始または終了を示すコード情報、および開始／終了操作をした日時情報を含む。この情報についても、一つの記憶情報の一回の鑑賞について開始時と終了時の二つの情報が発生する。
【０１７７】
以上の実施例の説明においては、Ａテレビ２とＢテレビ４との情報交換は、自動送信メールに自動添付される所定書式の添付情報によるものとした。しかしながらこの発明はこのような情報交換方式に限られるものではなく、例えば双方向のデジタル放送回線を通じた通信や、外部サーバを介したメール以外の通信などによっても適宜実施可能である。
【０１７８】
しかしながら、実施例に説明した自動送信メールに自動添付される所定書式の添付情報に基づく情報交換は、テレビの使用状況を外部に伝える方法としては極めて簡単であり、特にテレビとパソコンが融合した機器においては既存の機能を流用することにより実施できる利点がある。
この利点に関しては、この発明は、一般家庭同士のテレビ間通信への実施に限られるものではない。例えば、自動送信先の設定を契約により視聴率調査機関とすれば、従来の特別の装置によるサンプル調査と統計処理による視聴率調査よりも信頼性と効率性の高い視聴率調査が可能となる。
【０１７９】
また、図１６のステップＳ３６２およびステップＳ３６４に例示したリモコン異常操作検出のための構成はテレビリモコンへの実施に限るものではない。例えば、通常電話や携帯電話においてＳ３６２およびステップＳ３６４のような異常操作検出の構成を設け、このような異常操作を検出した場合には予め設定しておいたダイヤル先への自動発呼を行うとともに電話がつながったときに所定のボイスメッセージが流れるように構成することが可能である。
このように構成すれば、実施例においてリモコン操作の場合について詳述したのと同様、本人がパニック状態にあったり意識が薄れかかったりしている場合でも所定の通報が可能になるとともに、誤報の可能性も低く、格別のメンテナンスや訓練も不要な緊急通報手段が提供できる。
【０１８０】
なお、上記の実施例において、Ａ家庭１とＢ家庭３で交換する写真はデジタルカメラによって撮影される静止画として説明したが、デジタルカメラまたはビデオカメラによって撮影される動画であっても本発明が実施できることはいうまでもない。
【図面の簡単な説明】
【０１８１】
【図１】本発明におけるテレビシステムの実施例のブロック図を示した図面代用写真である。

【図２】本発明の実施例のテレビ画面の一例を示した図面代用写真である。
【図３】本発明の実施例のテレビ画面の他の例を示した図面代用写真である。
【図４】図１の制御部の動作の基本フローチャートを示した図面代用写真である。
【図５】図４のステップＳ２における起動処理の詳細のフローチャートを示した図面代用写真である。
【図６】図５のステップＳ４３におけるパソコン基本機能起動処理の詳細のフローチャートを示した図面代用写真である。
【図７】図４のステップＳ６における表示処理の詳細のフローチャートを示した図面代用写真である。
【図８】図７のステップＳ１２２における設定処理の詳細のフローチャートを示した図面代用写真である。
【図９】図４におけるメール自動送信処理の詳細のフローチャートを示した図面代用写真である。
【図１０】図４のステップＳ２６および図５のステップＳ５２における情報蓄積処理の詳細のフローチャートを示した図面代用写真である。
【図１１】図７のステップＳ１１０における他チャンネル表示処理の詳細のフローチャートを示した図面代用写真である。
【図１２】図７のステップＳ１１８における写真情報表示処理の詳細のフローチャートを示した図面代用写真である。
【図１３】図７のステップＳ１１４における見守り情報表示処理の詳細を示すフローチャート本発明の実施例のテレビ画面の他の例を示した図面代用写真である。
【図１４】定例番組登録自動変更および自動送信のフローチャートを示した図面代用写真である。
【図１５】図４のステップＳ１８における写真メール送信処理の詳細のフローチャートを示した図面代用写真である。
【図１６】異常状態が検知されたときにこれを伝える緊急メールを発信するための図１における制御部の動作のフローチャートを示した図面代用写真である。
【図１７】緊急メールを受信した際の図１における制御部の動作のフローチャートを示した図面代用写真である。
【図１８】図１の実施例におけるテレビリモコンの構成のブロック図を示した図面代用写真である。
【図１９】図１の実施例におけるデジタルカメラの構成のブロック図示した図面代用写真である。
【図２０】図１９のデジタルカメラにおけるカメラ制御部の一部機能のフローチャートを示した図面代用写真である。
【図２１】図１９のデジタルカメラにおけるカメラ制御部の他の一部機能のフローチャートを示した図面代用写真である。
【図２２】図１５のステップＳ３５０における写真表示／手動選択処理の詳細のフローチャートを示した図面代用写真である。
【図２３】図１の通信部の間でのやりとりされるメールに添付する情報の書式図を示した図面代用写真である。

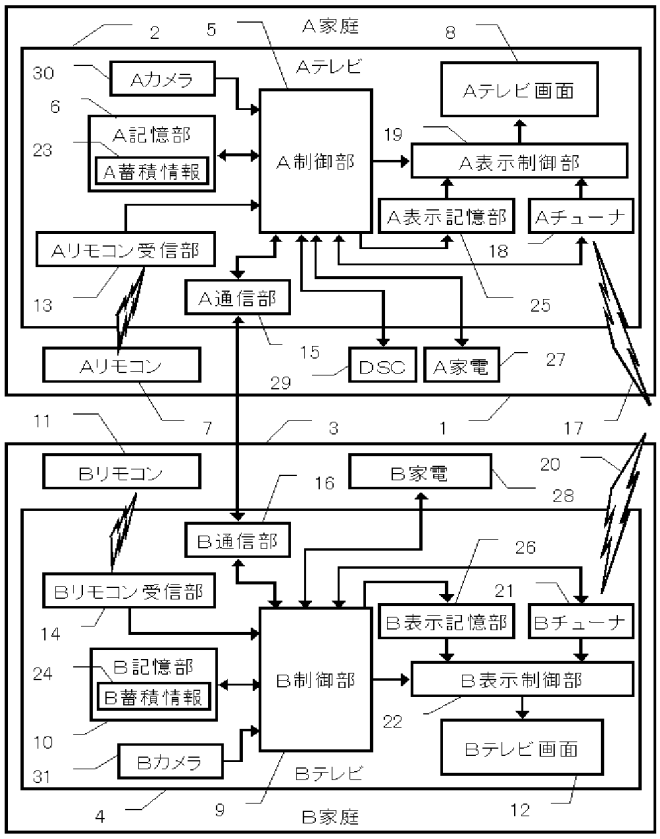
【符号の説明】

【０１８２】

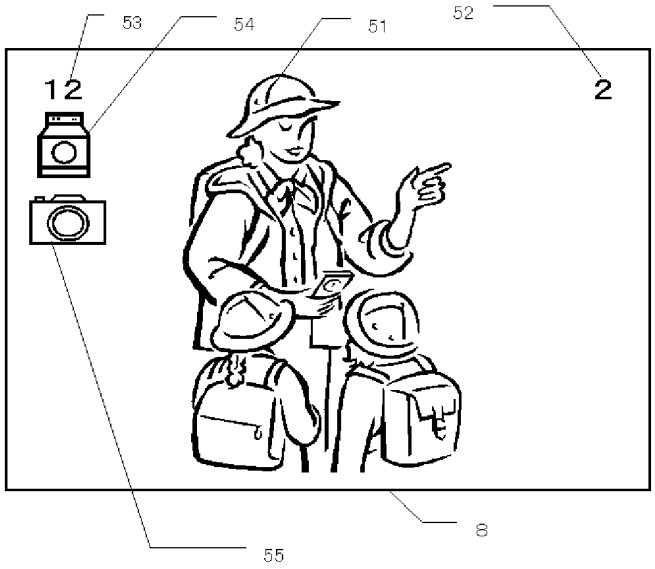
２　　第一テレビ
４　　第二テレビ
５、１３，１８，１９，２５　第一テレビ機能部
５　　第一伝達情報発生部
８　　第一テレビ画面
５，２５　第一制御部
９，１４，２１，２２，２６　第二テレビ機能部

９　　第二伝達情報発生部
１２　　第二テレビ画面
９、２６　第二制御部
５、１５，９、１６　通信手段（パソコン通信手段）
５　　チャンネル情報変換手段
５　　一致検出手段
５、８４　選択手段
２３　　記憶部
５　　判定手段
５　　設定手段
１１　　リモコン
５　　電子メール自動作成手段
１１、７１　操作部
９、１２、１４、２１、２２、２６　通常機能部
９、７２　異常検出部
９、１６、７３　緊急伝達情報発生部

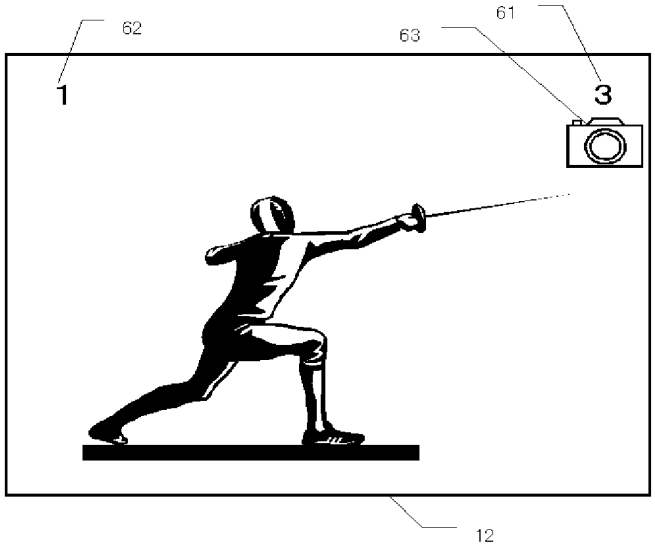
【書類名】図面
【図１】


A家庭
2
5
8
30
Aカメラ
Aテレビ
Aテレビ画面
6
A記憶部
23
A蓄積情報
A制御部
19
A表示制御部
A表示記憶部
Aチューナ
Aリモコン受信部
18
13
A通信部
25
15
DSC
A家電
27
Aリモコン
29
11
7
3
1
17
Bリモコン
B家電
20
16
28
B通信部
26
Bリモコン受信部
21
B表示記憶部
Bチューナ
14
24
B記憶部
B蓄積情報
B制御部
B表示制御部
22
10
Bカメラ
Bテレビ
Bテレビ画面
31
4
9
B家庭
12

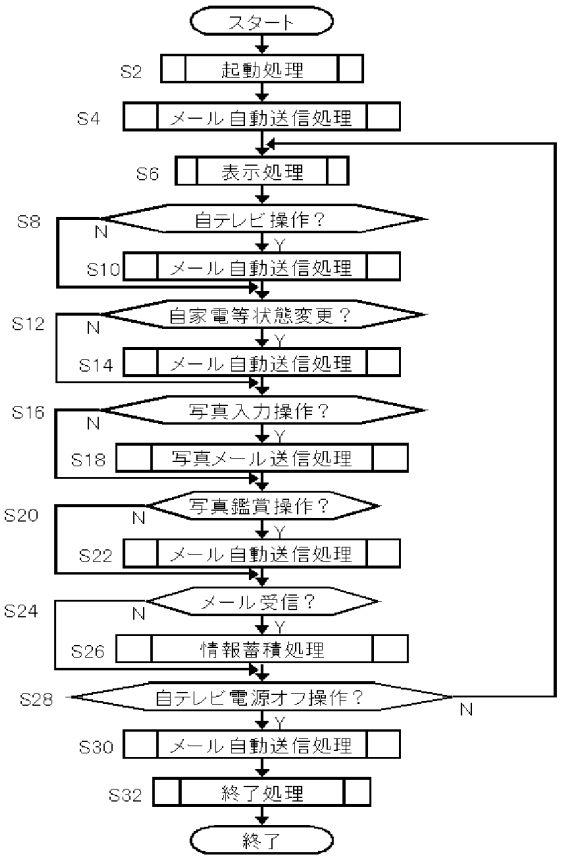
【図２】



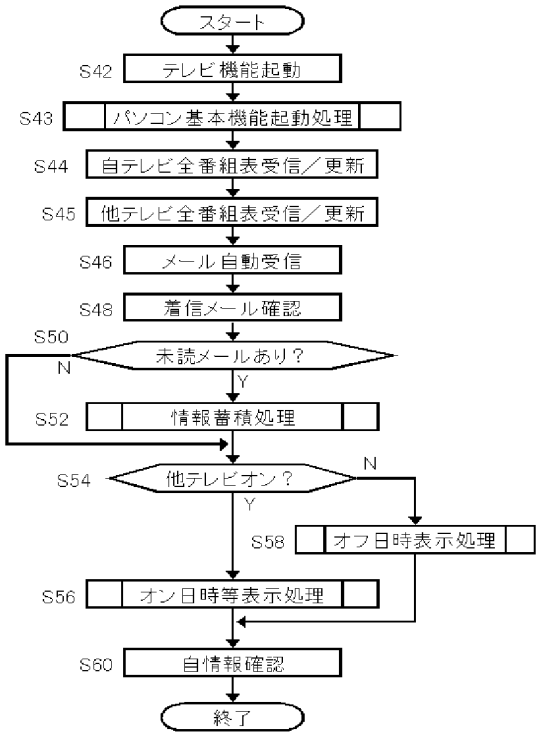
【図３】



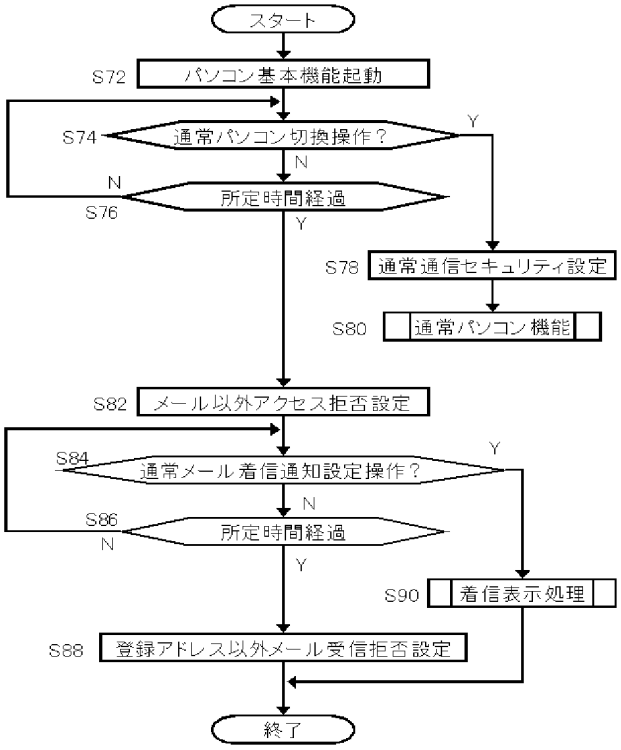
【図４】


スタート
S2
起動処理
S4
メール自動送信処理
S6
表示処理
S8
自テレビ操作？
N
Y
S10
メール自動送信処理
S12
自家電等状態変更？
N
Y
S14
メール自動送信処理
S16
写真入力操作？
N
Y
S18
写真メール送信処理
S20
写真鑑賞操作？
N
Y
S22
メール自動送信処理
S24
メール受信？
N
Y
S26
情報蓄積処理
S28
自テレビ電源オフ操作？
N
Y
S30
メール自動送信処理
S32
終了処理
終了

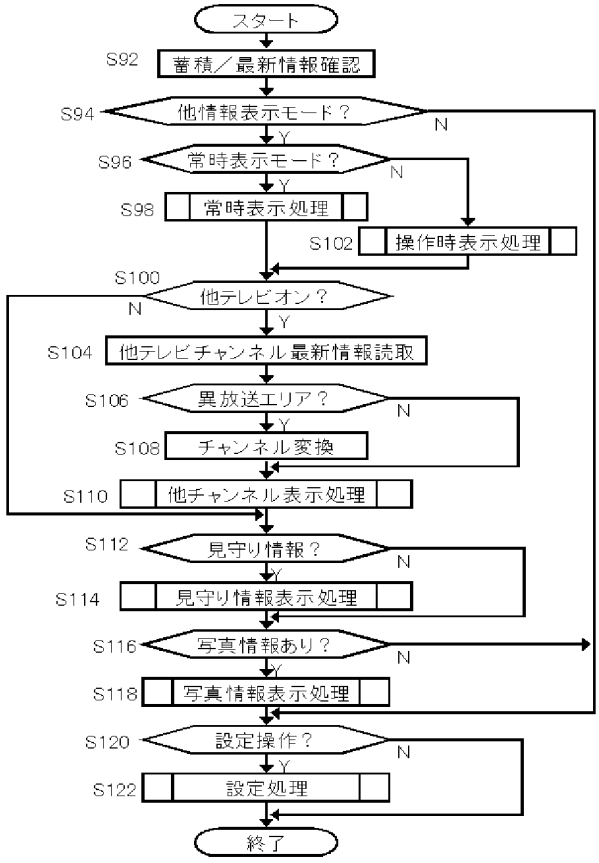
【図５】


スタート
S42
テレビ機能起動
S43
パソコン基本機能起動処理
S44
自テレビ全番組表受信／更新
S45
他テレビ全番組表受信／更新
S46
メール自動受信
S48
着信メール確認
S50
未読メールあり？
N
Y
S52
情報蓄積処理
S54
他テレビオン？
N
Y
S58
オフ日時表示処理
S56
オン日時等表示処理
S60
自情報確認
終了

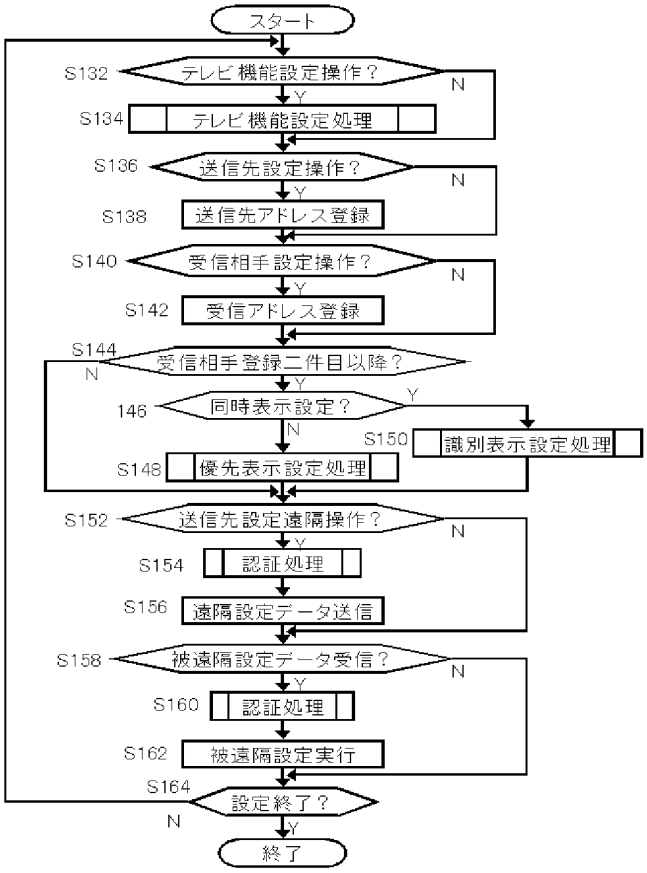
【図６】


スタート
S72
パソコン基本機能起動
S74
通常パソコン切換操作？
Y
N
N
S76
所定時間経過
Y
S78
通常通信セキュリティ設定
S80
通常パソコン機能
S82
メール以外アクセス拒否設定
S84
通常メール着信通知設定操作？
Y
N
S86
所定時間経過
N
Y
S90
着信表示処理
S88
登録アドレス以外メール受信拒否設定
終了

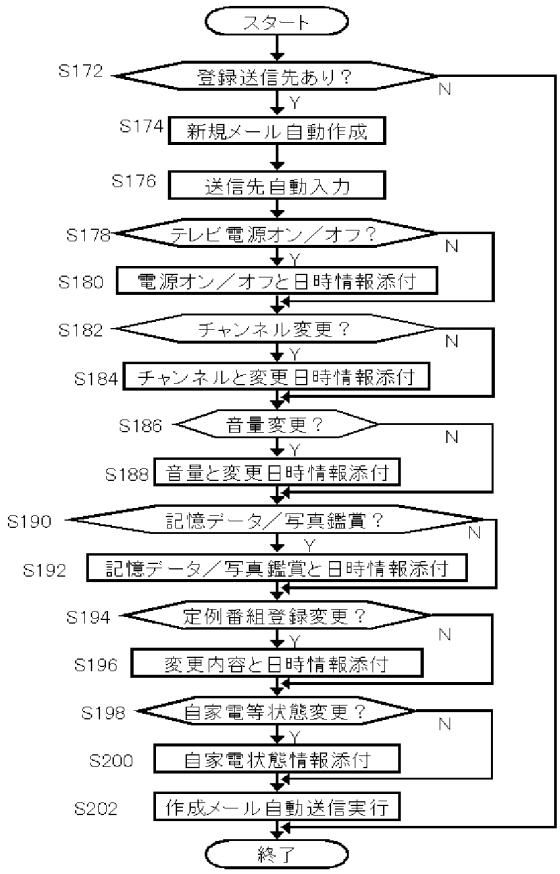
【図７】


スタート
S92
蓄積／最新情報確認
S94
他情報表示モード？
N
Y
S96
常時表示モード？
N
Y
S98
常時表示処理
S102
操作時表示処理
S100
他テレビオン？
N
Y
S104
他テレビチャンネル最新情報読取
S106
異放送エリア？
N
Y
S108
チャンネル変換
S110
他チャンネル表示処理
S112
見守り情報？
N
Y
S114
見守り情報表示処理
S116
写真情報あり？
N
Y
S118
写真情報表示処理
S120
設定操作？
N
Y
S122
設定処理
終了

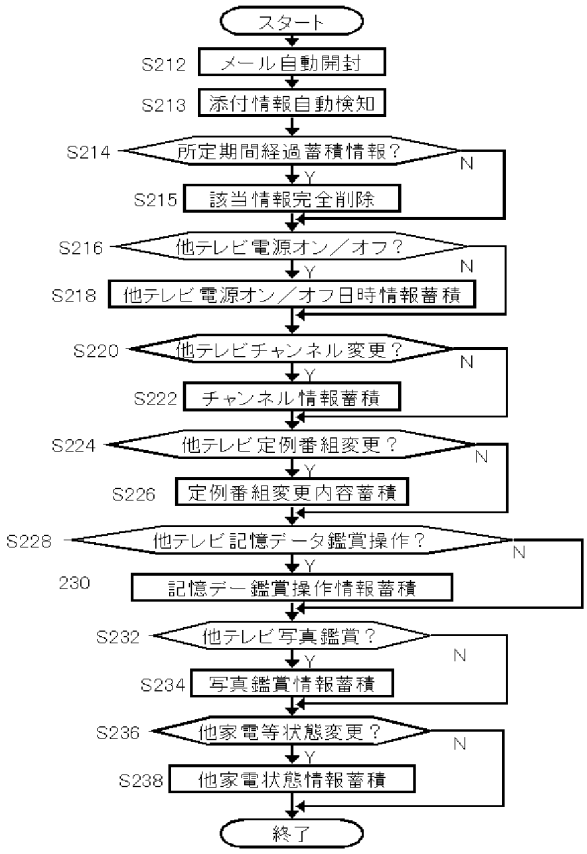
【図８】


スタート
S132
テレビ機能設定操作？
N
Y
S134
テレビ機能設定処理
S136
送信先設定操作？
N
Y
S138
送信先アドレス登録
S140
受信相手設定操作？
N
Y
S142
受信アドレス登録
S144
受信相手登録二件目以降？
N
Y
146
同時表示設定？
Y
N
S150
識別表示設定処理
S148
優先表示設定処理
S152
送信先設定遠隔操作？
N
Y
S154
認証処理
S156
遠隔設定データ送信
S158
被遠隔設定データ受信？
N
Y
S160
認証処理
S162
被遠隔設定実行
S164
設定終了？
N
Y
終了

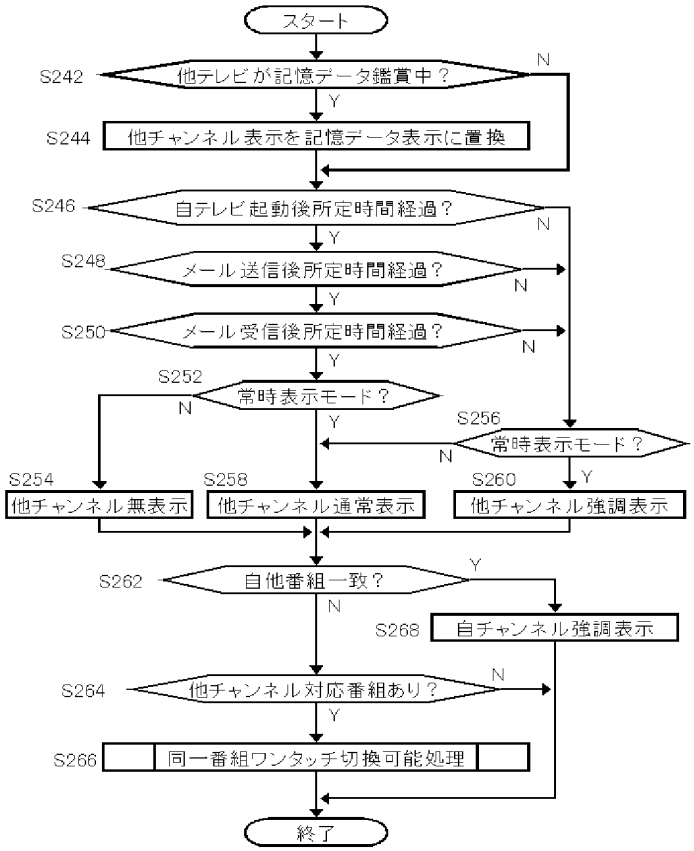
【図９】


スタート
S172
登録送信先あり？
N
Y
S174
新規メール自動作成
S176
送信先自動入力
S178
テレビ電源オン／オフ？
N
Y
S180
電源オン／オフと日時情報添付
S182
チャンネル変更？
N
Y
S184
チャンネルと変更日時情報添付
S186
音量変更？
N
Y
S188
音量と変更日時情報添付
S190
記憶データ／写真鑑賞？
N
Y
S192
記憶データ／写真鑑賞と日時情報添付
S194
定例番組登録変更？
N
Y
S196
変更内容と日時情報添付
S198
自家電等状態変更？
N
Y
S200
自家電状態情報添付
S202
作成メール自動送信実行
終了

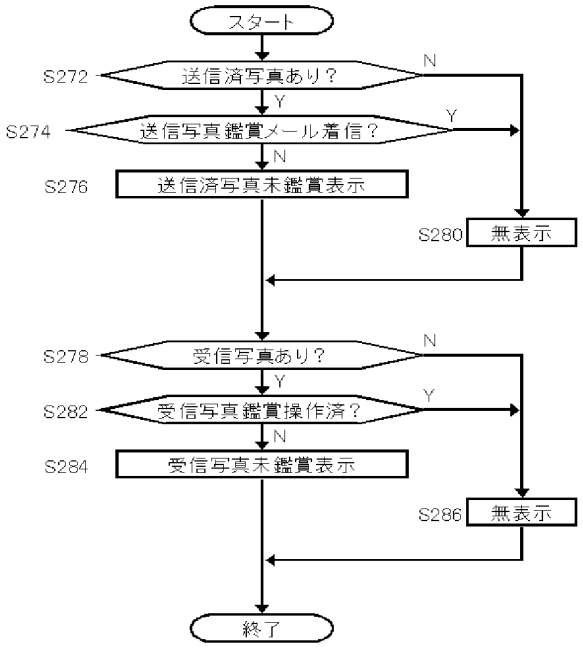
【図１０】


スタート
S212
メール自動開封
S213
添付情報自動検知
S214
所定期間経過蓄積情報？
N
Y
S215
該当情報完全削除
S216
他テレビ電源オン／オフ？
N
Y
S218
他テレビ電源オン／オフ日時情報蓄積
S220
他テレビチャンネル変更？
N
Y
S222
チャンネル情報蓄積
S224
他テレビ定例番組変更？
N
Y
S226
定例番組変更内容蓄積
S228
他テレビ記憶データ鑑賞操作？
N
Y
230
記憶データ鑑賞操作情報蓄積
S232
他テレビ写真鑑賞？
N
Y
S234
写真鑑賞情報蓄積
S236
他家電等状態変更？
N
Y
S238
他家電状態情報蓄積
終了

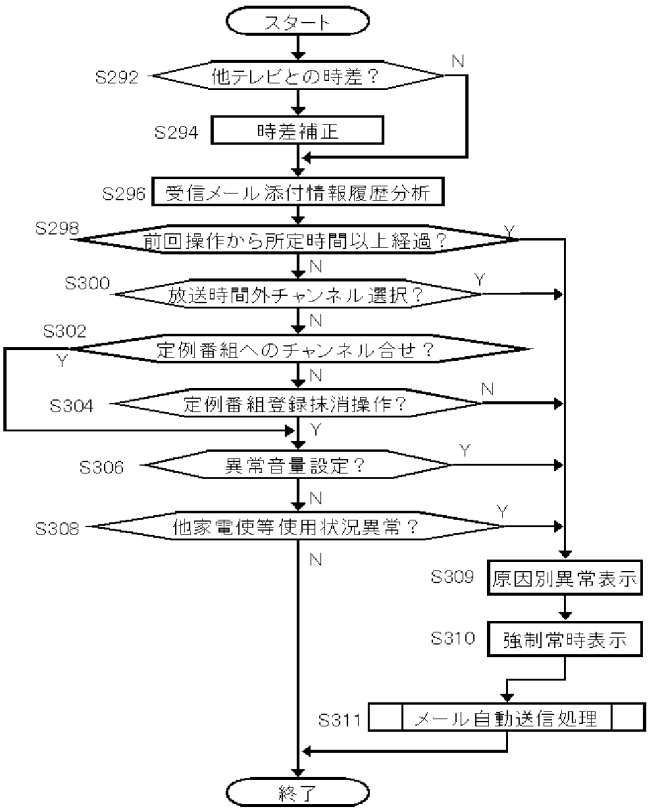
【図１１】


スタート
S242
他テレビが記憶データ鑑賞中？
N
Y
S244
他チャンネル表示を記憶データ表示に置換
S246
自テレビ起動後所定時間経過？
N
Y
S248
メール送信後所定時間経過？
N
Y
S250
メール受信後所定時間経過？
N
Y
S252
常時表示モード？
N
Y
S256
常時表示モード？
N
Y
S254
他チャンネル無表示
S258
他チャンネル通常表示
S260
他チャンネル強調表示
S262
自他番組一致？
Y
N
S268
自チャンネル強調表示
S264
他チャンネル対応番組あり？
N
Y
S266
同一番組ワンタッチ切換可能処理
終了

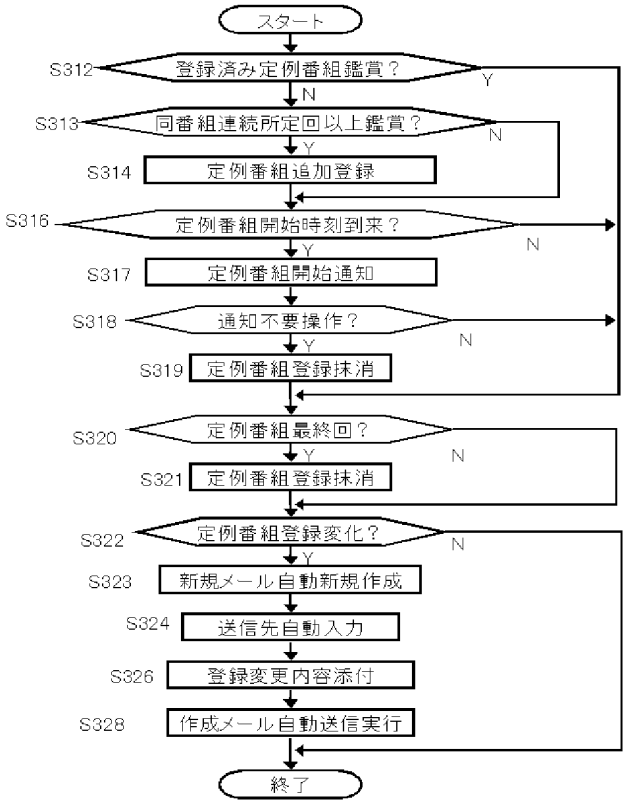
【図１２】


スタート
S272
送信済写真あり？
N
Y
S274
送信写真鑑賞メール着信？
Y
N
S276
送信済写真未鑑賞表示
S280
無表示
S278
受信写真あり？
N
Y
S282
受信写真鑑賞操作済？
Y
N
S284
受信写真未鑑賞表示
S286
無表示
終了

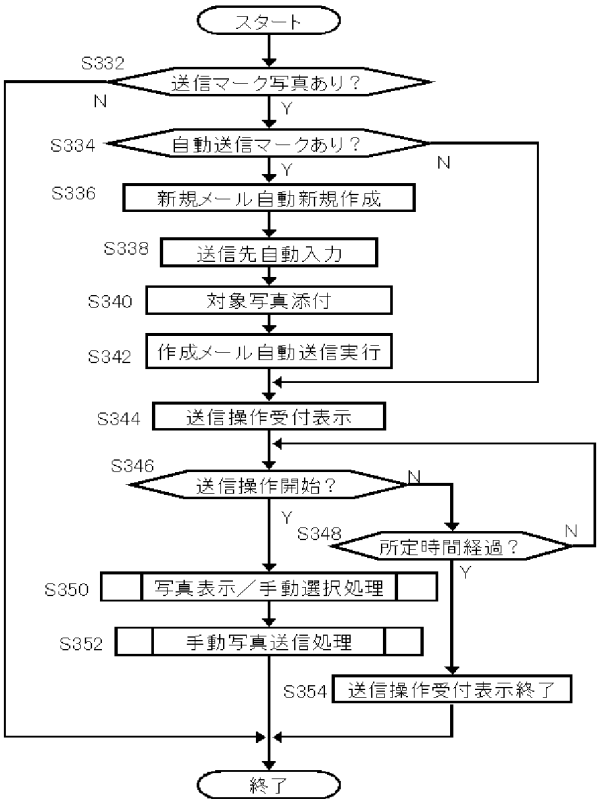
【図１３】


スタート
S292
他テレビとの時差？
N
S294
時差補正
S296
受信メール添付情報履歴分析
S298
前回操作から所定時間以上経過？
Y
N
S300
放送時間外チャンネル選択？
Y
N
S302
定例番組へのチャンネル合せ？
Y
N
S304
定例番組登録抹消操作？
N
Y
S306
異常音量設定？
Y
N
S308
他家電使等使用状況異常？
Y
N
S309
原因別異常表示
S310
強制常時表示
S311
メール自動送信処理
終了

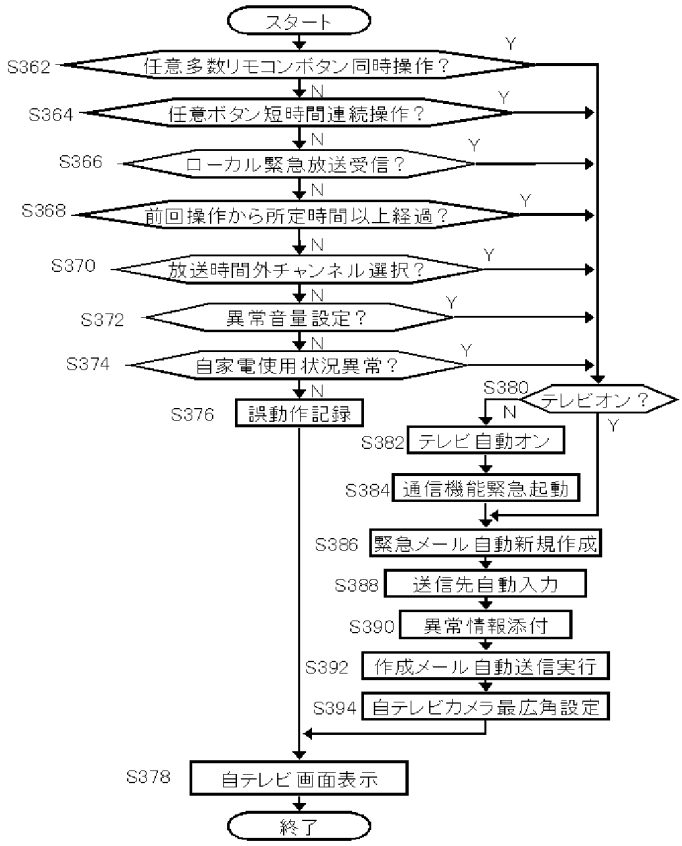
【図１４】


スタート
S312
登録済み定例番組鑑賞？
Y
N
S313
同番組連続所定回以上鑑賞？
N
Y
S314
定例番組追加登録
S316
定例番組開始時刻到来？
N
Y
S317
定例番組開始通知
S318
通知不要操作？
N
Y
S319
定例番組登録抹消
S320
定例番組最終回？
N
Y
S321
定例番組登録抹消
S322
定例番組登録変化？
N
Y
S323
新規メール自動新規作成
S324
送信先自動入力
S326
登録変更内容添付
S328
作成メール自動送信実行
終了

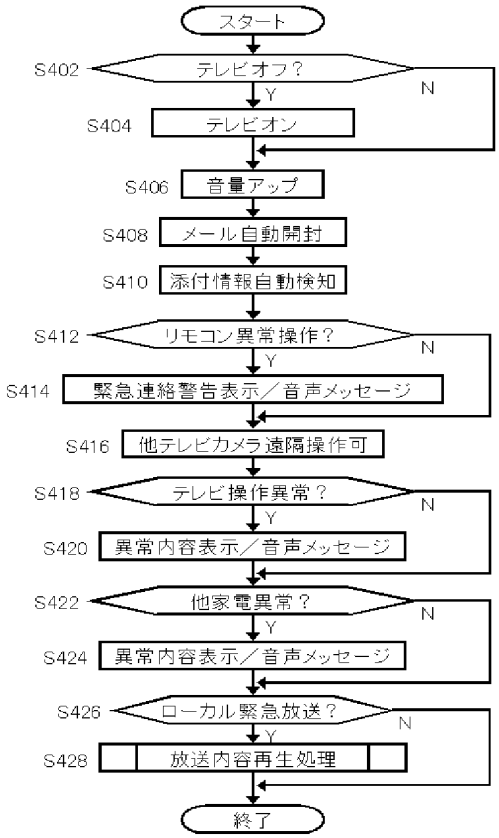
【図１５】


スタート
S332
送信マーク写真あり？
N
Y
S334
自動送信マークあり？
N
Y
S336
新規メール自動新規作成
S338
送信先自動入力
S340
対象写真添付
S342
作成メール自動送信実行
S344
送信操作受付表示
S346
送信操作開始？
N
Y
S348
所定時間経過？
N
Y
S350
写真表示／手動選択処理
S352
手動写真送信処理
S354
送信操作受付表示終了
終了

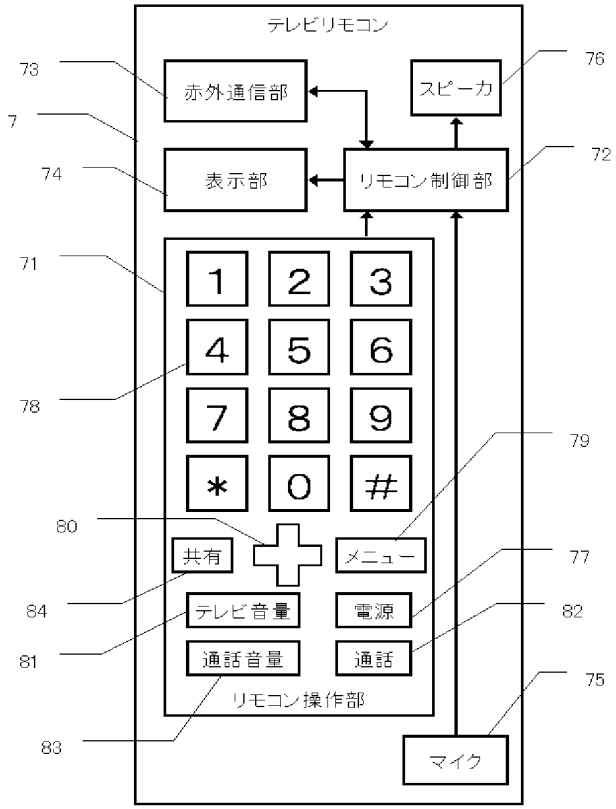
【図１６】


スタート
S362
任意多数リモコンボタン同時操作？
Y
N
S364
任意ボタン短時間連続操作？
Y
N
S366
ローカル緊急放送受信？
Y
N
S368
前回操作から所定時間以上経過？
Y
N
S370
放送時間外チャンネル選択？
Y
N
S372
異常音量設定？
Y
N
S374
自家電使用状況異常？
Y
N
S376
誤動作記録
S380
テレビオン？
N
Y
S382
テレビ自動オン
S384
通信機能緊急起動
S386
緊急メール自動新規作成
S388
送信先自動入力
S390
異常情報添付
S392
作成メール自動送信実行
S394
自テレビカメラ最広角設定
S378
自テレビ画面表示
終了

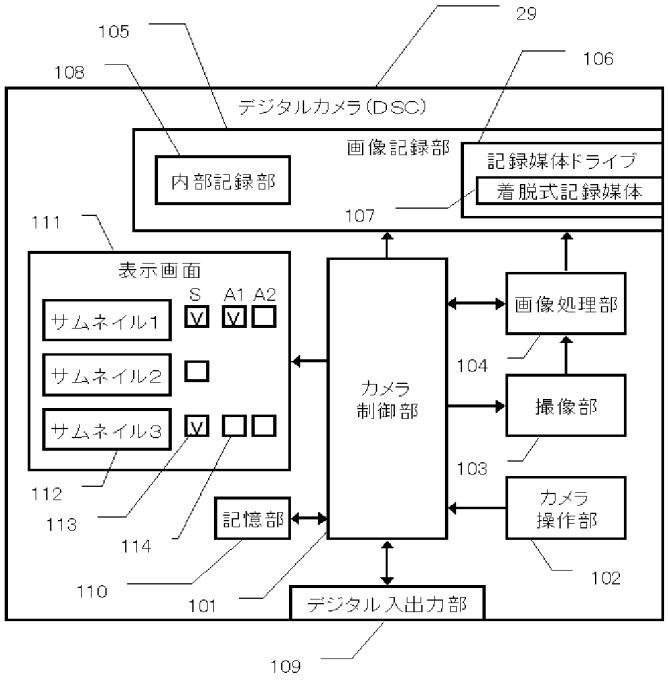
【図１７】


スタート
S402
テレビオフ？
Y
N
S404
テレビオン
S406
音量アップ
S408
メール自動開封
S410
添付情報自動検知
S412
リモコン異常操作？
Y
N
S414
緊急連絡警告表示／音声メッセージ
S416
他テレビカメラ遠隔操作可
S418
テレビ操作異常？
Y
N
S420
異常内容表示／音声メッセージ
S422
他家電異常？
Y
N
S424
異常内容表示／音声メッセージ
S426
ローカル緊急放送？
Y
N
S428
放送内容再生処理
終了

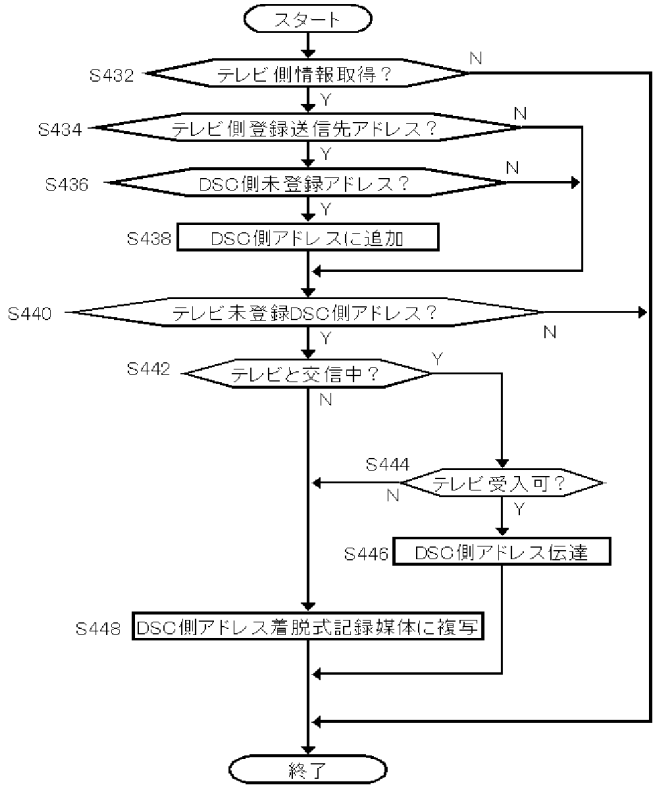
【図１８】


テレビリモコン
73
赤外通信部
スピーカ
76
7
74
表示部
リモコン制御部
72
71
1
2
3
4
5
6
78
7
8
9
79
*
0
#
80
共有
メニュー
77
84
テレビ音量
電源
82
81
通話音量
通話
75
リモコン操作部
83
マイク

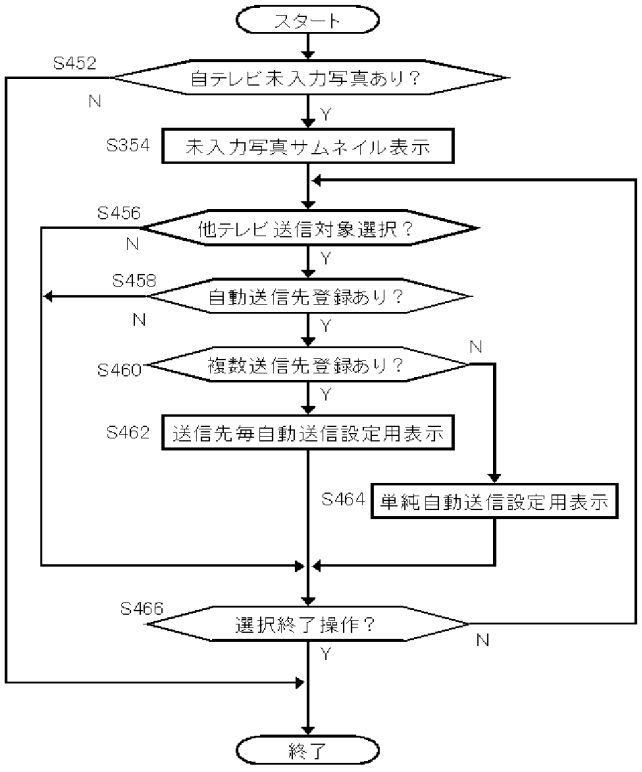
【図１９】


105
29
108
106
デジタルカメラ(DSC)
画像記録部
記録媒体ドライブ
内部記録部
着脱式記録媒体
107
111
表示画面
S
A1
A2
サムネイル1
サムネイル2
サムネイル3
画像処理部
104
カメラ
制御部
撮像部
103
カメラ
操作部
112
113
114
記憶部
110
101
102
デジタル入出力部
109

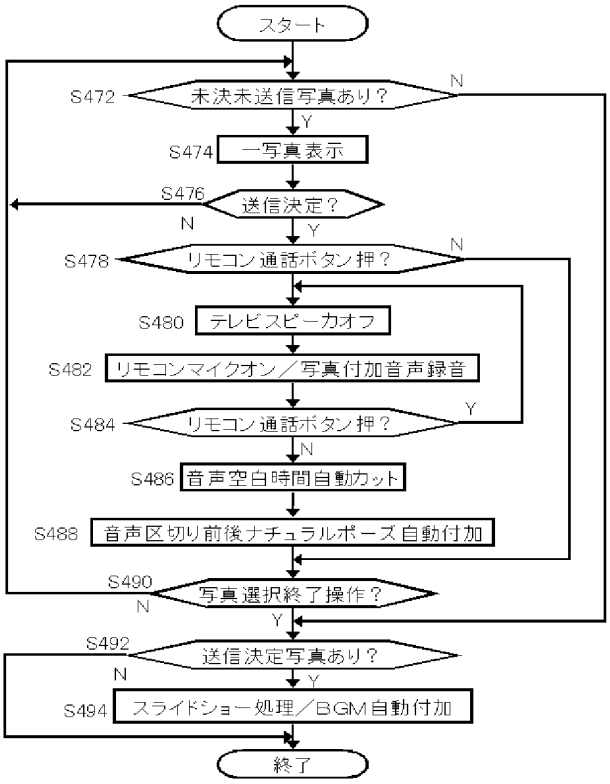
【図２０】


スタート
S432
テレビ側情報取得？
N
Y
S434
テレビ側登録送信先アドレス？
N
Y
S436
DSC側未登録アドレス？
N
Y
S438
DSC側アドレスに追加
S440
テレビ未登録DSC側アドレス？
N
Y
S442
テレビと交信中？
Y
N
S444
テレビ受入可？
N
Y
S446
DSC側アドレス伝達
S448
DSC側アドレス着脱式記録媒体に複写
終了

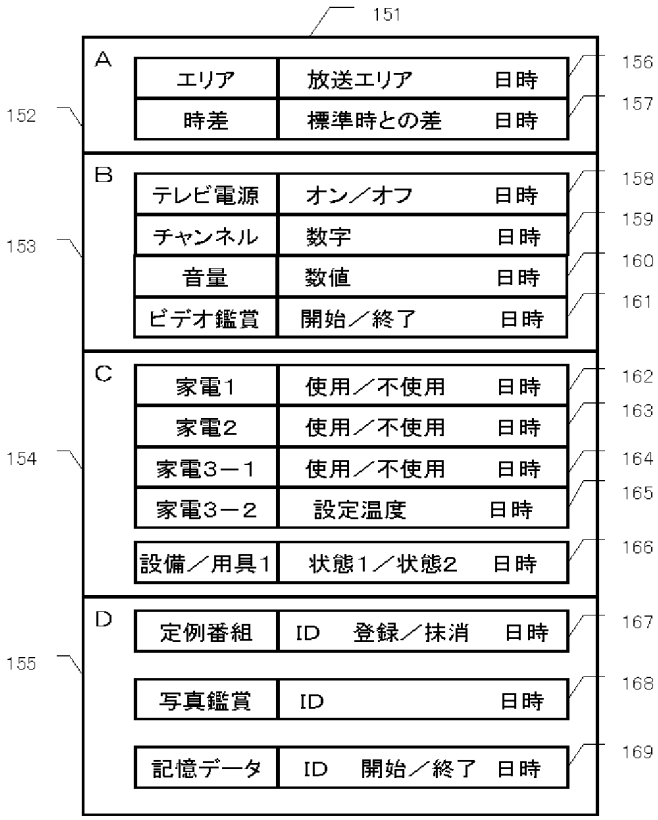
【図２１】


スタート
S452
自テレビ未入力写真あり？
N
Y
S354
未入力写真サムネイル表示
S456
他テレビ送信対象選択？
N
Y
S458
自動送信先登録あり？
N
Y
S460
複数送信先登録あり？
N
Y
S462
送信先毎自動送信設定用表示
S464
単純自動送信設定用表示
S466
選択終了操作？
N
Y
終了

【図２２】


スタート
S472
未決未送信写真あり？
N
Y
S474
一写真表示
S476
送信決定？
N
Y
S478
リモコン通話ボタン押？
N
S480
テレビスピーカオフ
S482
リモコンマイクオン／写真付加音声録音
S484
リモコン通話ボタン押？
Y
N
S486
音声空白時間自動カット
S488
音声区切り前後ナチュラルポーズ自動付加
S490
写真選択終了操作？
N
Y
S492
送信決定写真あり？
N
Y
S494
スライドショー処理／BGM自動付加
終了

【図２３】


151
A
エリア
放送エリア
日時
156
時差
標準時との差
日時
157
152
B
テレビ電源
オン／オフ
日時
158
チャンネル
数字
日時
159
153
音量
数値
日時
160
ビデオ鑑賞
開始／終了
日時
161
C
家電1
使用／不使用
日時
162
家電2
使用／不使用
日時
163
154
家電3－1
使用／不使用
日時
164
家電3－2
設定温度
日時
165
設備／用具1
状態1／状態2
日時
166
D
定例番組
ID
登録／抹消
日時
167
155
写真鑑賞
ID
日時
168
記憶データ
ID
開始／終了
日時
169

【書類名】要約書
【要約】
【課題】既存のシステムを活用し、高齢者等の見守りシステムを提供する。
【解決手段】パソコン機能一体型テレビにおいて、オンオフやチャンネル切換などに応じてその情報を自動添付した電子メールを遠隔地のテレビに自動送信し、遠隔地のテレビはこれを自動受信、自動開封して自分のテレビに表示する。異なる放送エリア間ではチャンネルを受信側放送エリアのものに自動変換する。両者同一番組を見ているときはその旨表示して体験共有感を演出する。相手の見ている番組へのワンタッチ切換を可能にする。受信情報に異常があれば警告する。受信情報を記憶し、履歴に基づく異常判断もできる。電子メールの自動送信先を視聴率調査機関とすることもできる。リモコンや携帯電話等の操作装置において異常操作を検出したときは、所定の送信先に緊急発信する。
【選択図】　　図１

【書類名】　　手続補正書
【整理番号】　　P2006-004
【あて先】　　特許庁長官殿
【事件の表示】
　【出願番号】　　特願2006-106109
【補正をする者】
　【識別番号】　　706000296
　【住所又は居所】　大阪府豊中市小曽根１丁目１７番９号
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【手続補正1】
　【補正対象書類名】　特許願
　【補正対象項目名】　特許出願人
　【補正方法】　　変更
　【補正の内容】
　　【特許出願人】
　　【識別番号】　　706000296
　　【住所又は居所】　大阪府豊中市小曽根１丁目１７番９号
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　　【特許出願人】
　　【識別番号】　　506038291
　　【住所又は居所】　奈良県奈良市登美ヶ丘６丁目１０番１３号
　　【氏名又は名称】　松井　徹
【その他】　　「特許出願人」の欄に「代表出願人」の項を誤記により挿入していましたので削除します。

【書類名】　　手続補正書
【あて先】　　特許庁長官殿
【事件の表示】
　【出願番号】　　特願2006-106109
【補正をする者】
　【識別番号】　　706000296
　【氏名又は名称】　田中　雅英
【手続補正1】
　【補正対象書類名】　特許請求の範囲
　【補正対象項目名】　全文
　【補正方法】　　変更
　【補正の内容】
　　【書類名】特許請求の範囲
　　【請求項１】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、前記テレビ操作部の操作に基づき外部のテレビのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を自動的に前記外部のテレビに送信するとともに外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、前記テレビ操作部の操作および前記通信部が受信する伝達情報に基づいて前記テレビ画面の表示を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項２】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、前記テレビ操作部の操作および前記通信部が受信する伝達情報に基づいて前記テレビ画面の表示を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項３】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、前記テレビ操作部の操作に基づき外部のテレビのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を自動的に前記外部のテレビに送信する通信部と、前記操作部の操作に基づいて前記テレビ画面の表示を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項４】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、前記テレビ操作部による操作に基づいて所定の送信先宛の電子メールを自動作成するとともに前記テレビ操作部の操作に基づく伝達情報を前記電子メールに自動添付する電子メール自動作成手段と、前記電子メール自動作成手段が作成した電子メールを自動的に送信する通信部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項５】
前記テレビ操作部は、正常操作に応答して機能する通常機能部と、異常操作を検出する異常検出部とを有し、前記異常検出部に応答して緊急伝達情報を発生することを特徴とする請求項１または３または４記載の通信機能を有するテレビ。
　　【請求項６】
　操作部と、前記操作部の正常操作に応答して機能する通常機能部と、前記操作部の異常操作を検出する異常検出部と、前記異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置。

【書類名】　出願人名義変更届
【提出日】　平成21年 6月29日
【あて先】　特許庁長官殿
【事件の表示】
　【出願番号】　特願2006-106109
【承継人】
　【識別番号】　706000296
　【氏名又は名称】　田中　雅英
【承継人】
　【識別番号】　508278745
　【氏名又は名称】　ＮＬ技研株式会社
　【代表者】　田中　雅英
【手数料の表示】
　【納付金額】　4,200円
【提出物件の目録】
　【物件名】　承継人であることを証明する書面（持分譲渡証書）　1
　　【援用の表示】　特願２００６－０２６３９３の出願人名義変更届に添付のものを援用する。
　【物件名】　承継人であることを証明する書面（一部譲渡証書）　1
　　【援用の表示】　特願２００６－０２６３９３の出願人名義変更届に添付のものを援用する。

【書類名】　手続補正書
【あて先】　特許庁長官殿
【事件の表示】
　【出願番号】　特願2006-106109
【補正をする者】
　【識別番号】　706000296
　【氏名又は名称】　田中　雅英
【手続補正1】
　【補正対象書類名】　特許請求の範囲
　【補正対象項目名】　全文
　【補正方法】　変更
　【補正の内容】
　　【書類名】特許請求の範囲
　　【請求項１】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、前記テレビ操作部の操作に基づき外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を自動的に前記外部のテレビに送信するとともに外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記通信部が受信する伝達情報に基づいてテレビ番組自体は変更せずに前記テレビ画面の表示を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項２】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記通信部が受信する伝達情報に基づいてテレビ番組自体は変更せずに前記テレビ画面の表示を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項３】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、前記テレビ操作部の操作に基づき外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を自動的に前記外部のテレビに送信する通信部と、前記操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項４】
　テレビ番組を表示するテレビ画面と、前記テレビ画面を操作するためのテレビ操作部と、通常の電子メールが可能な通信部と、前記テレビ操作部による所定のテレビ画面操作に基づいて電子メールを自動作成して所定の通信宛先を自動入力するとともに前記テレビ操作部による所定のテレビ画面操作に基づく伝達情報を所定の書式の情報として前記電子メールに自動添付する電子メール自動作成手段と、前記電子メール自動作成手段が作成し前記所定の書式の情報が添付された電子メールを前記通信部により自動的に送信する自動送信手段とを有することを特徴とする通信機能を有するテレビ。
　　【請求項５】
前記テレビ操作部は複数の操作ボタンを有し、前記テレビ画面を操作するための前記操作ボタンの正常操作に応答して機能する通常機能部と、多数の前記操作ボタンが同時に押されるかまたは同一の前記操作ボタンないし近接する複数の前記操作ボタンが短時間の間に所定回数以上連続して操作されることによる異常操作を検出する異常検出部とを有し、前記異常検出部に応答して緊急伝達情報を発生することを特徴とする請求項１または３または４記載の通信機能を有するテレビ。

【請求項６】
複数の操作ボタンを有する操作部と、前記操作ボタンによる前記操作部の正常操作に応答して機能する通常機能部と、多数の前記操作ボタンが同時に押されるかまたは同一の前記操作ボタンないし近接する複数の前記操作ボタンが短時間の間に所定回数以上連続して操作されることによる前記操作部の異常操作を検出する異常検出部と、前記異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置。

【手続補正2】
【補正対象書類名】　明細書
【補正対象項目名】　０００５
【補正方法】　変更
【補正の内容】
【０００５】
上記の課題を解決するため、本発明は、テレビ番組を表示するテレビ画面と、テレビ操作部と、テレビ操作部の操作に基づき外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、伝達情報を自動的に外部のテレビに送信するとともに外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、テレビ操作部の操作に基づいてテレビ画面に表示されるテレビ番組を変更するとともに通信部が受信する伝達情報に基づいてテレビ番組自体は変更せずにテレビ画面の表示を変更するテレビ機能部とを有するテレビを提供する。

【手続補正3】
【補正対象書類名】　明細書
【補正対象項目名】　０００６
【補正方法】　変更
【補正の内容】
【０００６】
本発明の他の特徴によれば、テレビ番組を表示するテレビ画面と、テレビ操作部と、外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信する通信部と、テレビ操作部の操作に基づいてテレビ画面に表示されるテレビ番組を変更するとともに通信部が受信する伝達情報に基づいてテレビ番組自体は変更せずにテレビ画面の表示を変更するテレビ機能部とを有するテレビが提供される。

【手続補正4】
【補正対象書類名】　明細書
【補正対象項目名】　０００７
【補正方法】　変更
【補正の内容】
【０００７】
本発明の他の特徴によれば、テレビ番組を表示するテレビ画面と、テレビ操作部と、テレビ操作部の操作に基づき外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、伝達情報を自動的に前記外部のテレビに送信する通信部と、操作部の操作に基づいてテレビ画面に表示されるテレビ番組を変更するテレビ機能部とを有するテレビが提供される。

【手続補正5】
　【補正対象書類名】　明細書
　【補正対象項目名】　０００８
　【補正方法】　変更
　【補正の内容】
　　【０００８】
本発明の特徴によれば、テレビ番組を表示するテレビ画面と、前記テレビ画面を操作するためのテレビ操作部と、通常の電子メールが可能な通信部と、前記テレビ操作部による所定のテレビ画面操作に基づいて電子メールを自動作成して所定の通信宛先を自動入力するとともに前記テレビ操作部による所定のテレビ画面操作に基づく伝達情報を所定の書式の情報として前記電子メールに自動添付する電子メール自動作成手段と、前記電子メール自動作成手段が作成し前記所定の書式の情報が添付された電子メールを前記通信部により自動的に送信する自動送信手段とを有することを特徴とする通信機能を有するテレビが提供される。

【手続補正6】
　【補正対象書類名】　明細書
　【補正対象項目名】　０００９
　【補正方法】　変更
　【補正の内容】
　　【０００９】
　本発明の他の特徴によれば、複数の操作ボタンを有する操作部と、操作ボタンによる操作部の正常操作に応答して機能する通常機能部と、多数の操作ボタンが同時に押されるかまたは同一の操作ボタンないし近接する複数の操作ボタンが短時間の間に所定回数以上連続して操作されることによる操作部の異常操作を検出する異常検出部と、異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有する機器の操作装置が提供される。

【手続補正7】
　【補正対象書類名】　明細書
　【補正対象項目名】　００１０
　【補正方法】　削除

【手続補正8】
　【補正対象書類名】　明細書
　【補正対象項目名】　００１１
　【補正方法】　削除

【手続補正9】
　【補正対象書類名】　明細書
　【補正対象項目名】　００１２
　【補正方法】　削除

【手続補正10】
　【補正対象書類名】　明細書
　【補正対象項目名】　００１３
　【補正方法】　削除

【手続補正11】
【補正対象書類名】　明細書
【補正対象項目名】　００１４
【補正方法】　削除

【手続補正12】
【補正対象書類名】　明細書
【補正対象項目名】　００１５
【補正方法】　削除

【手続補正13】
【補正対象書類名】　明細書
【補正対象項目名】　００１６
【補正方法】　削除

【手続補正14】
【補正対象書類名】　明細書
【補正対象項目名】　００１７
【補正方法】　削除

【手続補正15】
【補正対象書類名】　明細書
【補正対象項目名】　００１８
【補正方法】　削除

【手続補正16】
【補正対象書類名】　明細書
【補正対象項目名】　００１９
【補正方法】　削除

【手続補正17】
【補正対象書類名】　明細書
【補正対象項目名】　００２０
【補正方法】　削除

【書類名】　手続補正書
【あて先】　特許庁長官殿
【事件の表示】
　【出願番号】　特願2006-106109
【補正をする者】
　【識別番号】　706000296
　【氏名又は名称】　田中　雅英
【手続補正1】
　【補正対象書類名】　特許請求の範囲
　【補正対象項目名】　全文
　【補正方法】　変更
　【補正の内容】
　　【書類名】特許請求の範囲
　　【請求項１】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記テレビ操作部の操作に応答して前記特定の外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を公開のための第三者の管理によらず自動的に前記外部のテレビに送信するとともに前記特定の外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信し前記特定の外部のテレビ以外からの自動受信は拒否する通信部と、前記通信部が受信した外部からの伝達情報を蓄積する伝達情報蓄積部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記伝達情報蓄積部における最新の伝達情報に基づいて前記テレビ画面の表示を維持し伝達情報が新着すればテレビ番組自体は変更せずに前記テレビ画面の表示を自動的に更新するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項２】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記特定の外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信し前記特定の外部のテレビ以外からの自動受信は拒否する通信部と、前記通信部が受信した外部からの伝達情報を蓄積する伝達情報蓄積部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記伝達情報蓄積部における最新の伝達情報に基づいて前記テレビ画面の表示を維持し伝達情報が新着すればテレビ番組自体は変更せずに前記テレビ画面の表示を自動的に更新するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項３】
　テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記テレビ操作部の操作に応答して前記特定の外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を公開のための第三者の管理によらず自動的に前記外部のテレビに送信する通信部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビ。
　　【請求項４】
　テレビ番組を表示するテレビ画面と、テレビの電源のオンオフおよび前記テレビ画面を操作するためのテレビ操作部と、通常の電子メールが可能な通信部と、特定の通信相手を前記通信部に予め設定する設定部と、前記テレビ操作部によるテレビの電源オンおよびテレビ番組を変更するテレビ画面操作に基づいてそれぞれ電子メールを自動作成して前記特定の通信宛先を自動入力するとともに前記テレビ操作部によるテレビの電源オンおよびテ

レビ番組を変更するテレビ画面操作に基づく伝達情報を所定の書式の情報として前記それぞれの電子メールに自動添付する電子メール自動作成手段と、前記電子メール自動作成手段が作成し前記所定の書式の情報が添付された電子メールを前記通信部によりそれぞれ自動的に送信する自動送信手段とを有することを特徴とする通信機能を有するテレビ。

【請求項５】

前記テレビ操作部は複数の操作ボタンを有し、前記テレビ画面を操作するための前記操作ボタンの正常操作に応答して機能する通常機能部と、任意の同一の前記操作ボタンないし任意の近接する複数の前記操作ボタンが短時間の間に所定回数以上連続して操作されることによる異常操作を検出する異常検出部とを有し、前記異常検出部に応答して緊急伝達情報を発生することを特徴とする請求項１または３または４記載の通信機能を有するテレビ。

【請求項６】

複数の操作ボタンを有する操作部と、前記操作ボタンによる前記操作部の正常操作に応答して機能する通常機能部と、任意の同一の前記操作ボタンないし任意の近接する複数の前記操作ボタンが短時間の間に所定回数以上連続して操作されることによる前記操作部の異常操作を検出する異常検出部と、前記異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置。

【手続補正2】

【補正対象書類名】　明細書

【補正対象項目名】　０００５

【補正方法】　変更

【補正の内容】

【０００５】

上記の課題を解決するため、本発明は、テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記テレビ操作部の操作に応答して前記特定の外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を公開のための第三者の管理によらず自動的に前記外部のテレビに送信するとともに前記特定の外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信し前記特定の外部のテレビ以外からの自動受信は拒否する通信部と、前記通信部が受信した外部からの伝達情報を蓄積する伝達情報蓄積部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記伝達情報蓄積部における最新の伝達情報に基づいて前記テレビ画面の表示を維持し伝達情報が新着すればテレビ番組自体は変更せずに前記テレビ画面の表示を自動的に更新するテレビ機能部とを有することを特徴とする通信機能を有するテレビを提供する。

【手続補正3】

【補正対象書類名】　明細書

【補正対象項目名】　０００６

【補正方法】　変更

【補正の内容】

【０００６】

本発明の他の特徴によれば、テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記特定の外部のテレビによって行われたテレビ操作に基づいて外部から自動的に伝達される伝達情報を受信し前記特定の外部のテレビ以外からの自動受信は拒否する通信部と、前記通信部が受信した外部からの伝達情報を蓄積する伝達情報蓄積部と、前記テレビ操作部の操作

に基づいて前記テレビ画面に表示されるテレビ番組を変更するとともに前記伝達情報蓄積部における最新の伝達情報に基づいて前記テレビ画面の表示を維持し伝達情報が新着すればテレビ番組自体は変更せずに前記テレビ画面の表示を自動的に更新するテレビ機能部とを有することを特徴とする通信機能を有するテレビが提供される。

【手続補正4】
【補正対象書類名】　明細書
【補正対象項目名】　０００７
【補正方法】　変更
【補正の内容】
【０００７】
本発明の他の特徴によれば、テレビ番組を表示するテレビ画面と、テレビ操作部と、特定の外部のテレビを公開のための第三者の管理によらず予め設定する設定部と、前記テレビ操作部の操作に応答して前記特定の外部のテレビにおけるテレビ番組自体の変更機能なしにそのテレビ画面の表示を変更するための伝達情報を自動的に作成する伝達情報作成部と、前記伝達情報を公開のための第三者の管理によらず自動的に前記外部のテレビに送信する通信部と、前記テレビ操作部の操作に基づいて前記テレビ画面に表示されるテレビ番組を変更するテレビ機能部とを有することを特徴とする通信機能を有するテレビが提供される。

【手続補正5】
【補正対象書類名】　明細書
【補正対象項目名】　０００８
【補正方法】　変更
【補正の内容】
【０００８】
本発明の特徴によれば、テレビ番組を表示するテレビ画面と、テレビの電源のオンオフおよび前記テレビ画面を操作するためのテレビ操作部と、通常の電子メールが可能な通信部と、特定の通信相手を前記通信部に予め設定する設定部と、前記テレビ操作部によるテレビの電源オンおよびテレビ番組を変更するテレビ画面操作に基づいてそれぞれ電子メールを自動作成して前記特定の通信宛先を自動入力するとともに前記テレビ操作部によるテレビの電源オンおよびテレビ番組を変更するテレビ画面操作に基づく伝達情報を所定の書式の情報として前記それぞれの電子メールに自動添付する電子メール自動作成手段と、前記電子メール自動作成手段が作成し前記所定の書式の情報が添付された電子メールを前記通信部によりそれぞれ自動的に送信する自動送信手段とを有することを特徴とする通信機能を有するテレビが提供される。

【手続補正6】
【補正対象書類名】　明細書
【補正対象項目名】　０００９
【補正方法】　変更
【補正の内容】
【０００９】
本発明の他の特徴によれば、複数の操作ボタンを有する操作部と、前記操作ボタンによる前記操作部の正常操作に応答して機能する通常機能部と、任意の同一の前記操作ボタンないし任意の近接する複数の前記操作ボタンが短時間の間に所定回数以上連続して操作されることによる前記操作部の異常操作を検出する異常検出部と、前記異常検出部に応答して所定の通信先に所定の伝達情報を自動発信する緊急伝達情報発生部とを有することを特徴とする通信機能を有する機器の操作装置が提供される。

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ＮＬ技研株式会社

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 14/145,935

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*	x 40 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 210 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	730		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
14/145,935	01/01/2014	2422	730	US4CA2	20	3

CONFIRMATION NO. 2279

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

FILING RECEIPT

OC000000066103847

Date Mailed: 01/24/2014

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Masahide Tanaka, Osaka, JAPAN;
Tohru Matsui, Nara, JAPAN;

Applicant(s)

Masahide Tanaka, Osaka, JAPAN;
Tohru Matsui, Nara, JAPAN;

Assignment For Published Patent Application

NL GIKEN INCORPORATED, Osaka, JAPAN

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 13/345,746 01/08/2012 PAT 8643784
which is a CON of 11/697,413 04/06/2007 PAT 8094236

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)
JAPAN 2006-106109 04/07/2006

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Retrieve Electronic Priority Application(s) (PTO/SB/38 or its equivalent). Consequently, the USPTO will attempt to electronically retrieve these priority documents.

If Required, Foreign Filing License Granted: 01/15/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/145,935**

Projected Publication Date: 05/01/2014

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

Television System, Television Set and Remote Controller

Preliminary Class

348

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	US4CA2
First Inventor	Masahide Tanaka
Title	
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☐ **Fee Transmittal Form** (e.g., PTO/SB/17)
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification** [*Total Pages* 69]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☑ **Drawing(s)** (*35 U.S.C. 113*) [*Total Sheets* 23]
5. **Oath or Declaration** [*Total Sheets* 5]
   a. ☑ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
   (for continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☑ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

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Alexandria VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee_____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☐ **Return Receipt Postcard** (MPEP 503)
    (*Should be specifically itemized)*
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ Other:_____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☑ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 13/345,746

Prior application information: *Examiner* HAIEM, SEAN N *Art Unit:* 2422

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 67628 ***OR*** ☐ Correspondence address below

Name	Masahide Tanaka				
Address	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan				
City	Osaka	State		Zip Code	561-0813
Country	Japan	Telephone	+81663343204	Email	guitar@kym.biglobe.ne.jp

Signature	/Masahide Tanaka/	Date	January 1, 2014
Name (Print/Type)	Masahide Tanaka	Registration No. (Attorney/Agent)	

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
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The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
Mr.	Masahide		Tanaka	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Osaka	Country of Residence i	JP

Mailing Address of Inventor:

Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan		
Address 2			
City	Osaka	**State/Province**	
Postal Code	561-0813	**Country** i	JP

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
Mr.	Tohru		Matsui	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Nara	Country of Residence i	JP

Mailing Address of Inventor:

Address 1	6-10-13, Tomigaoka, Nara-Shi, Nara, Japan		
Address 2			
City	Nara	**State/Province**	
Postal Code	631-0004	**Country** i	JP

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence Information of this application.			
Customer Number	67628		
Email Address	guitar@kym.biglobe.ne.jp	Add Email	Remove Email

Application Information:

Title of the Invention	Television System, Television Set and Remote Controller		
Attorney Docket Number	US4CA2	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	23	**Suggested Figure for Publication (if any)**	

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	67628		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	13/345746	2012-01-08
Prior Application Status	Patented		Remove

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13/345746	Continuation of	11/697413	2007-04-06	8094236	2012-01-10

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) [i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code [i] (if applicable)
2006-106109	JP	2006-04-07	

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◯ Assignee	◯ Legal Representative under 35 U.S.C. 117	◯ Joint Inventor
◯ Person to whom the inventor is obligated to assign.	◯ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Applicant is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

Mailing Address Information:			
Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not subsitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication . An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee is an Organization check here. ☒

Organization Name	NL Giken Incorporated

Mailing Address Information:			
Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan		
Address 2			
City	Osaka	**State/Province**	
Country i	JP	Postal Code	561-0813
Phone Number	+81663346204	Fax Number	+81663346204
Email Address	guitar@kym.biglobe.ne.jp		

Additional Assignee Data may be generated within this form by selecting the Add button. Add

Remove

Signature:

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature	/Masahide Tanaka/	Date (YYYY-MM-DD)	2014-01-01

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	US4CA2
	Application Number	
Title of Invention	Television System, Television Set and Remote Controller	

First Name	Masahide	Last Name	Tanaka	Registration Number	

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Signature:

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Signature	/Tohru Matsui/			Date (YYYY-MM-DD)	2014-01-01
First Name	Tohru	Last Name	Matsui	Registration Number	

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

SPECIFICATION

CROSS REFERENCE TO RELATED APPLICATION

This application is a ***Continuation Application*** of U.S. application Ser. No. 13/345,746 filed January 8, 2012, which is a Continuation Application of U.S. application Ser. No. 11/697,413 filed April 6, 2007, herein incorporated by reference in its entirety.

TITLE OF THE INVENTION

Television System, Television Set and Remote Controller

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

This invention relates to a television system, a television set with communication function and a remote controller for an appliance, such as television set.

2. DESCRIPTION OF THE RELATED ART

For example, a son having left his home town far away because of his job desires to keep a warm eye on his old mother living alone in the home town. Japanese Laid-open Patent Application No. 2005-228012 discloses a system including a digital television set in a single-person home, an audience information gathering center and an emergency service center, which are connected through communication network. The audience information gathering center receives the audience information from the digital television set to transmit the same to the emergency service center, which updates the operation date and time in response to the received audience information. Among the updated audience information, the emergency service center detects any audience information, which has not been updated for a period longer than a predetermined limit, to inform a caring terminal of a message for confirming the safety of the single-person home where the digital television set is located. In this field of art, however, the monitoring of a single-person home or the like generally requires large scale system.

On the other hand, Japanese Laid-open Patent Application No. 2004-265219 discloses a television set combined with a personal computer capable so exchange e-mails through the television set. However, e-mail sending requires some knowledge in addition to that in merely watching television.

SUMMARY OF THE INVENTION

Amazon - Exhibit 1003 - Page 302

An object of this invention is to provide a safety monitoring system which can be easily realized on the basis of existing system in home.

Another object of this invention is to provide a television set which can transmit information to the outside for various purposes.

Still another object of this invention is to provide a television set easily inform the outside of the safety in the home where the television set is located.

To achieve one of the above objects, this invention provides a television system including a television set and an outside counterpart which communicate each other.

For such a system, this invention provides a television set comprising a television function unit, a detector arranged to detect a cause of change in the television function, a communicator arranged to communicate with an outside counterpart by means of designating an address of the counter part, an input arranged to prepare a first information of a free contents, a first designator arranged to freely designate a desired address to which the first information is sent, a first trigger arranged to manually send the first information through the communicator, an automatic generator of a second information of a prepared contents in response to the detector which detects a cause of a predetermined change in the television function, a second designator arranged to automatically designate a predetermined address to which the second information is sent, and a second trigger arranged to automatically send the second information through the communicator in response to the completion of the function of the automatic generator and the second designator.

According to the above feature of this invention, information of prepared contents is automatically generated in response to a predetermined change in the television function with a predetermined address automatically added. Further, the information is automatically sent in response to the completion of the automatic generation of the information. The above function is carried out on an existing communicator in the television set and automatically without any knowledge in addition to that in merely watching television.

In the television set according to a detailed feature of this invention, the detector includes a receiver arranged to receive a signal from a remote controller. In other words, the conventional operation of the remote controller can be transmitted to the outside counterpart. For example, the change in the television function is the change in at least one of the power-on or power-off, the channel selection and sound volume.

In the television set according to another detailed feature of this invention, the automatic generator is arranged to generate the second information in accordance with

Amazon - Exhibit 1003 - Page 303

a predetermined format. According to more detailed feature of this invention, the automatic generator is arranged to generate an e-mail to which the second information in the predetermined format is attached. These features each or in combination are advantageous the automatic treatment of the information.

According to another detailed feature of this invention, the second designator is arranged to designate an address of another television set located at a familiar home. Thus, one of the familiar homes can keep a warm eye on the other home mutually on each television set. Moreover, the familiar homes actually far away from each other can feel as if they are one family on the connection through the television sets.

According to another detailed feature of this invention, on the other hand, the second designator is arranged to designate an address of a rating company in charge of an audience share survey. Thus, this invention presents a novel and easy audience rating survey system of higher reliability and efficiency than a conventional system on a sampling by a special apparatus and statistics method.

According to still another detailed feature of this invention, the television set further comprises a second detector arranged to detect an abnormal use of the television set, wherein the automatic generator is further responsive to the second detector. In this case, the second designator may be arranged to designate an address of an emergency organization in place of or in addition to the familiar home..

To achieve the above discussed objects, this invention also provides a television set comprising a television function unit, a display arranged to display a broadcast program in accordance with the television function unit, a communicator arranged to communicate with an outside counterpart, a receiver arranged to receive information form the outside counterpart through the communicator, and a controller arranged to automatically change the display in response to the receipt of the information by the receiver from a predetermined outside counterpart.

According to the above feature of this invention, the television display is automatically changed in response to the receipt of the information from a predetermined outside counterpart. Thus, any change in the predetermined out side counterpart is know on the own television set. The above function is also carried out on an existing communicator in the television set and automatically without any knowledge in addition to that in merely watching television. Also in this case, it is meaningful to arrange the television set so that the predetermined counterpart is another television set located at a familiar home, and that the received information includes a change in at least one of the power-on or power-off, the channel selection and sound volume of the another television set.

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In more detail, the television set is so designed that the controller displays the channel selection of the other television set with the local channel number. In other words, the channel number for the other television set may not be the channel number actually selected at the area of the other television set as it is, but a converted local channel number. This is because that the channel numbers for the same broadcast program may differs in areas, and a family may not familiar with the channel number actually selected in the area of the other television set located far away.

According to another detailed feature of this invention, the television set is so designed that the controller is arranged to change the display if the broadcast program identified by the channel selection of the other television set coincides with the broadcast program displayed in accordance with the television function unit. The change in display in this case is a change in color or blink of the channel number display for example. This makes it easier for both the families to note that they share the same experience as if they live together.

According to another detailed feature of this invention, the television set is so designed that the controller is arranged to make it possible to replace the broadcast program displayed in accordance with the television function unit by another broadcast program identified by the channel selection of the other television set. This makes it easier for one family to share the same experience or to check the broadcast program which the other family is watching.

According to another detailed feature of this invention, the television set further comprises a storage arranged to record the received information and an analyzer arranged to detect an abnormality in the predetermined outside counterpart on the basis of an analysis of the recorded information.

According to another detailed feature of this invention, on the other hand, the television set is so designed that the received information includes a sign of abnormality in the predetermined outside counterpart.

The above features are highly advantageous for one family to know possible abnormality of the other family.

According to another feature of this invention, the television set is so designed that the receiver is arranged to refuse receiving information other than the information from the predetermined outside counterpart for automatically change the display. This feature is advantageous for protecting the television set from virus otherwise suffered from the constant connection.

To achieve the above discussed objects, this invention also provides a remote controller for an appliance comprising an operating part including a plurality of keys

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each of which are assigned to predetermined functions, respectively, a signal transmitter arranged to transmit a control signal to the appliance in response to the operation in the operating part, first controller arranged to determine the signal indicative of one of the predetermined functions to be transmitted to the appliance in response to an operation of at least one of the keys in compliance with a predetermined manner, and a second controller arranged to have the signal transmitter to transmit a signal indicative of an abnormality to the appliance in response to an operation of the operating part which does not comply with the predetermined manner, but corresponds to a predetermined abnormal manner.

In the above remote controller, the appliance is for example a television set including a communicator arranged to communicate with an outside counterpart by means of designating an address of the counter part.

And, an example of the predetermined abnormal manner includes at least one of such manners that three keys or more are pushed at once and that the same key or a group of closely arranged keys is pushed more than a predetermined times in a limited period.

According to the above and its detailed features, a person even in panic or off his or her truck can report the emergency on the remote controller by means of a simple action not to be taken by a normal person, but is apt to be taken by a person in panic or off the truck. Further, a possibility of erroneous emergency report is relatively low because the assumed action in the features above would not be taken by a normal person. Further the feature above does not require any regular exercise and maintenance to keep the reliability of emergency report since the remote controller is in daily use.

Other features and advantages according to this invention will be readily understood from the detailed description of the preferred embodiments in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram of a television set system according to an embodiment of this invention.

Fig. 2 is an example of the picture on the display of own television set, in which broadcast program is displayed.

Fig. 3 is an example of the picture on the display of the other television set at the same time as that at Fig. 2.

Fig. 4 is a flow chart of the basic function of the television set in Fig. 1.

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Fig. 5 is a flow chart showing the detail of step 2 in Fig. 4 that relates to the start-up process for the television function and the communication function.

Fig. 6 is a flow chart showing the detail of the personal computer start-up process in step S43 of Fig. 5.

Fig. 7 is a flow chart showing the detail of display process in step 6 of Fig. 4.

Fig. 8 is a flow chart showing the detail of the setting process in step S122 of Fig. 7.

Fig. 9 is a flow chart showing the detail of the automatic e-mail sending process carried out in any of steps S4, S10, S14, S22 and S30 of Fig.4.

Fig. 10 is a flow chart showing the detail of the automatic information storage process in step S26 of Fig. 4 and step S52 of Fig. 5.

Fig. 11 is a flow chart showing the detail of the other channel display process in step S110 of Fig. 7.

Fig. 12 is a flow chart showing the detail of the photograph information display process in step 118 of Fig. 7.

Fig. 13 is a flow chart showing the detail of the monitoring information display process in step S114 of Fig. 7.

Fig. 14 is a flow chart for the process of automatically changing the registration of the regularly viewed broadcast program and automatically sending an e-mail with the information of such a change attached.

Fig. 15 is a flow chart showing the detail of the automatic photograph e-mail sending process in step S18 of Fig. 4.

Fig. 16 is a flow chart of the function of the controller of the television set of own home to urgently inform the other home of the detected serious abnormality by means of e-mail.

Fig. 17 is a flow chart of the function of the controller of the television set when it receives the urgent e-mail.

Fig. 18 is a block diagram of a remote controller for the television set according to the embodiment of this invention.

Fig. 19 is a block diagram of the digital camera in Fig. 1.

Fig. 20 is a flow chart showing the function in part carried out by the controller of digital camera in Fig. 19 relating to sharing a registration of address for automatic sending between digital camera and the television set.

Fig. 21 is a flow chart showing the function in part carried out by the controller of digital camera in Fig. 19 relating to the selection of photograph to be input into the television set.

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Fig. 22 is a flow chart showing the detail of step 350 in Fig. 15 that relates to the photograph display and manual selection process.

Fig. 23 is a table for showing a unique format of the information to be attached to e-mail exchanged between the television sets.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Fig. 1 is a block diagram of a television set system according to an embodiment of this invention. The system includes the first home 1 with the first television set 2 and the second home 3 with the second television set 4, the second home 3 being located far from the first home 1. For example, the first home 1 is of a family of a son leaving his home town because of his job and the second home 3 is of his old mother living alone in the home town. This invention, however, is not limited to an application to a pair of homes, but also is applicable to more than two homes, such as a home of a family, a home of the wife's parents and a home of the husband 's parents, the three homes being far away from another, respectively. The following explanation will be basically made on the basis of a simplified model including of two homes with some comments on the case of more than two homes added upon necessity.

Thus, this invention relates to a daily information exchange by way of television sets between homes far away from each other to keep a warm eye on the other family or to share the same experience as if they all live together in a happy circle.

The first television set 2 includes the first controller 5 which controls not only the ordinary television function, but also functions as a personal computer in combination with the first memory 6. The fist remote controller 7 originally for ordinary television control and the first display 8 originally for ordinary television monitor also function as graphical interface of the first controller as the personal computer.

The first memory 6 includes a hard disc drive, ROM and RAM for storing the computer software and various data. The first memory 6 is of a large capacity which can store not only the software computer software and various data, but also television program.

The second television set 4 also includes the second controller 9, the second memory 10, the second remote controller 11 and the second display 12, which are similar to the first controller 5, the first memory 6, the first remote controller 7 and the first display 8, respectively, of the explanation thereof being omitted for avoiding the repetition.

In response to an operation of the first remote controller 7, infrared light signal

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is sent to the first remote control receiver 13, which is transmitted to the first controller to function in response to the operation of the first remote controller 7. The second remote control receiver 14 has the similar function.

The first television set 2 further includes the first communicator 15 which is in communication with the outside counterpart through always-connected Internet. The first communicator 15 is capable of the conventional internet or e-mail communication, in which e-mail exchange is possible by means of freely inputting information through the first remote controller 7 to prepare a conventional e-mail contents, freely designating a desired address to which the input information is sent, and manually triggering through the first remote controller 7 to send the information through the internet.

The first communicator 15 is not only capable of the conventional internet or e-mail communication under control of the first controller 5, but also is capable of functioning as a bare-bones personal computer to at least be informed by a server of a receipt of an e-mail addressed to the first television set 2 by means of being constantly powered even if the hardware and the software of the first controller 5 is in inoperative condition. This is for automatically turning the first television set 2 into on state by detecting a receipt of an urgent e-mail from the second television set 4 with the first television set is in off state. The second communicator 16 of the second television set 4 is of the similar function. The function of the first and second communicators 15 and 16 are explained later in more detail.

As has been understood from the above explanation, the first and second television sets 2 and 4 are in normal communication with each other for pleasure by means of broadband line through the first and communicators 15 and 16 for one side to inform the other side of television program which is watched on the one side and vice versa. Moreover, the one side is urgently informed of an abnormality of the other side and vice versa. In Fig. 1, the first and communicators 15 and 16 are shown as if they are directly connected. In reality, however, they are in connection through the broadband line.

In the case of enjoining conventional television program through the first television set 2, one of television channels is selected by the first remote controller 7. And, the desired program on the airwave 17 is turned by the first tuner 18 to appear on the first display 8 under the control of the first display controller 19. This is also true in the case of the second television set 4 in relation to airwave 20, the second tuner 21 and the second display controller 22.

The first memory 6 of the first television set 2 stores not only the television

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program transmitted on airwave 17 from a broadcast station in real time, but also the television program data downloaded from a server station on internet by way of the first communicator 15. This is also true in the case of the second television set 4 in relation to the second memory 10.

The first storage information 23 in the first memory 6 includes information attached to e-mail received from the second home 3 with the date and time of receipt incorporated. The first storage information 23 also includes information of the first home 1 itself attached to e-mail sent to the second home 3 with the date and time of transmittal incorporated. Similarly, the second storage information 24 in the second memory 10 includes information attached to e-mail received from the first home 1 with the date and time of receipt incorporated, as well as information of the second home 3 itself attached to e-mail sent to the first home 1 with the date and time of transmittal incorporated. The latest information is identifiable in the first storage information 23. The archival analysis of information in the first storage is also possible. These are true also in the second storage information 24.

The e-mail is automatically produced and sent upon every turning on or off of the television set as well as upon every change in the channel of the television set with the information of date and time as well as the selected channel automatically attached to the e-mail. The received e-mail with its attachment is automatically read and accumulated as the first and second storage information 23 and 24, respectively. So, the person in the first home 1 is informed of the television program which the person in the second home 3 is now watching, and vise versa, if the channel numbers attached to the latest e-mails mutually exchanged are indicated on first display 8 and the second display 12, respectively, provided that both the first and second television sets 2 and 4 are in on state. Thus, both the families can mutually confirm their doing well. Moreover, the families at remote locations from each other feel themselves as if they are a company in the same room if they mutually know that they are sharing the same television program substantially at the same time.

In the embodiment of this invention, it is needless to say that conventional e-mail, its receipt is reported by a server through internet, is manually read, any attachment to the e-mail being also manually read, by operating the first remote controller 7. Thus, the contents of conventional e-mail and its attachment manually read is displayed on the first display in response to the operation of the first remote controller 7 in contrast to the case of e-mail according to the feature of this invention automatically read.

The first display memory 25 is mainly for controlling the first display 8 for the

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display of still image necessary for the function of the first television set 2 as a personal computer or setting of various function of the first television set 2. The first display memory 25 also keeps the image of channel number related to the latest television program selected by the second television set 4 unless the second television set 4 is turned off or its channel selection is changed. The first display controller 19 overlaps the still image of channel number for the second television set 4 kept by the first display memory 25 on the television program moving image from the first tuner 18 for display on the first display 8. This is also true in the case of the second television set 4 in relation to the second display memory 26. In other words, the second display controller 22 overlaps the still image of latest channel number for the first television set 2 kept by the second display memory 26 on the television program moving image from the second tuner 21 for display on the second display 12.

The first display controller 19 does not only overlap the still image of channel number kept by the first display memory 25 on the television program moving image from the first tuner 18, but also completely substitutes the still image of channel number of the second television set 4 for an image according to the conventional function of the first television set 2 under the control of the first controller 5. For example, a still image according to a personal computer function or a moving image according to a stored television program from the first memory 6 may be completely replaced by still image of channel number for the second television set 4. This is because that the still image of a personal computer function or a moving image of a stored television program can be completely interrupted without any problem by the still image of channel number for the second television set 4. Such a possibility of complete substitution is also true in the case of the second television set 4.

The first television set 2 also serves as a total controller of all the home electric appliances in the first home 1 by means of monitoring the conditions thereof through home network to control them on necessity. For example, the first controller 5 is connected with the first home electric appliance 27 outside the first television set 2. In Fig. 1, there is only one home electric appliance is shown for simplification. However, various many home electric appliances are connected to the first controller in actuality as has been mentioned above. Further, the first controller 5 can be connected not only with the home electric appliances, but also with other equipments or tools in the first home 1, such as bed, for monitoring their conditions or controlling them. The lock system of the entrance door of the first home 1 is another example to be connected to the first controller 5, wherein the outing and coming home of the family in the first home 1 can be more surely monitored in combination with the turning on and off of the first

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television set 2.

Similarly, the second controller 9 of the second television set 4 also serves as a total controller of all the home electric appliances in the second home 3 by means of monitoring the conditions thereof through home network to control them on necessity. In Fig. 1, only the second home electric appliance 28 is shown for simplification. However, various many home electric appliances as well as other home equipments or tools are connected to the second controller 9 in actuality as in the case of the first controller 5.

With respect to the home electric appliances, the first and second controllers 5 and 9 automatically produce and send e-mails, respectively, upon every turning on or off operation of the electric appliance with the information of date and time of such operation attached. The received e-mail with its attachment is automatically read and accumulated as the first and second storage information 23 and 24, respectively. So, the person in the first home 1 is informed of the usage of each electric appliance by the person in the second home 3, and vise versa, if the information of the home electric appliance attached to the latest e-mails mutually exchanged are indicated on first display 8 and the second display 12, respectively. Thus, both the families can mutually confirm their doing well in using the home electric appliances as usual.

The first controller 5 of the first television set 2 is also in communication with digital camera 29 for exchanging digital photograph information (herein after referred to as "photograph"). There are various ways for the first controller 5 to receive photographs from digital camera 29, such as a cable or wireless or cradle connection between digital camera 29 and the first controller 5, or memory card taking out of digital camera 29 and putting into a slot connected to the first controller 5.

The photographs taken into the first controller 5 is stored in the first memory 6, which are possible to be viewed on the first television set 2 in any time. Further, the photographs stored in the first memory 6 are possible to be sent to the second home 3. Such a sending of the photographs from the first home 1 to the second home 3 can be automated. For example, if each photograph to be automatically sent is selected and marked within digital camera 29 in advance, the marked photographs are automatically attached to an e-mail to the second home 3 which is automatically produced and sent from the first communicator 15 every time when the photographs are taken into the first controller 5. The e-mail received at the second communicator 16 is automatically read to automatically store the attached photographs in the second memory 10 as well as to accumulate the fact of receipt of the photographs as the second storage information 24. Thus, the fact of photograph receipt can be indicated on the

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second display 12 in response to the latest second storage information 24.

Digital camera 29 is only shown at the first home 1 in Fig. 1. However, similar photograph transmission form the second home 3 to the first home 1 is possible if photographs are taken into the second controller 9 from a digital camera.

The first television set also includes the first camera 30 connected to the first controller 5 and faced toward a person watching the first television set 2. The first camera 30 is a television camera for use in videophone or monitoring of the other home upon emergency. The first remote controller 7 has a microphone and a speaker, as will be explained in more detail, for making it possible to use the first remote controller 7 as a phone receiver upon videophone conversation. Thus, the first camera takes a moving picture of a member of the first home 1 who speaking with the first remote controller 7 to send the moving picture to the second television set 4. The videophone line is over the Web through the first communicator 15. The second television set 4 also has the second camera 31, the explanation thereof being omitted for avoiding a duplication of the case of the first camera 30.

Upon emergency such as the case that some abnormality on the second home 3 reported by an automatic e-mail from the second television set 4 is indicated on the first television set 2, an emergency e-mail is sent from the first communicator 15 with an attachment information, which orders the second camera 31 to take a moving picture of the second home 3 with the most wide angle setting and to attach the taken picture to an automatic return e-mail. Thus, the second camera 31 is remote controlled from the first home 1 to monitor the second home 3 within the angle of the second camera 31.

Fig. 2 is an example of the picture on the first display 8, in which broadcast program 51 is displayed. The upper-right corner of the first display 8 is for indicating channel number 52 of the first home 1, e.g., own channel number. In other words, broadcast program 51 received by the first television set 2 is of channel “2”.

On the other hand, the upper-left corner of the first display 8 is for indicating channel number 53 of the second home 3, e.g., the other channel number. This means that the second television set 4 of the second home 3 is now in the on state to enjoy a broadcast program of channel “12”. On the contrary, there is no indication at the upper-left corner portion for channel number 53 of the first display 8 if the second television set 4 is in off state. In place of no indication, characters, “OFF” may be indicated at the upper-left corner portion 53 .

It should be noted that the channel number 53 indicated at the upper-left corner portion may not be the channel number actually selected at the area of the second television set 4 as it is, but a converted channel number, i.e., the channel number

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of the corresponding broadcast program selectable in the area of the first television set 2. This is because that the channel numbers for the same broadcast program may differs in areas, and the family living in the area of the first television set 2 may not familiar with the channel number actually selected in the area of the second television set 4.

At the upper-left corner of the first display 8, electric appliance icon 54 of the second home, e.g., an icon of the washing machine is displayed to indicate that the washing machine of the second home 3 is working. On the contrary, if no electric appliance is working in the second home 3, no icon is displayed at the position of icon 54. If another electric appliance other than the washing machine, an icon indicating the working electric appliance is displayed at the position of icon 54. Thus, the daily life in the second home 3 relating to the electric appliances can be monitored from the first home 1. In other word, a person in the first home 1 can know a possible abnormality in the second home 3 if the expected icon does not appear at the position of icon 54 at an expected regular time. So the person can quickly contact the second home if necessary.

At the upper-left corner of the first display 8, camera icon 55 appears when photographs are sent via e-mail from the first home 1 to the second home 3. Camera icon 55 disappears when an e-mail from the second home 3 indicating that the photographs are viewed is received. On the other hand, the arrival of the photograph via e-mail is displayed on the second display 12 with a suitable icon for facilitating a person in the second home 3 to view the photographs. Thus, a person in the first home 1 can know a possible trouble in the second home 3 disabling the photographs viewing if icon 55 is not to disappear for a long time. So the person of the first home 1 can quickly contact the second home if necessary.

If a third home exists in addition to the second home 3, it is necessary to for the first display 8 to display icons of the channel number, the electric appliance, and the camera also for the third home. In such a case, the order of priority of home is preset to initially indicate the icons for home of the first priority of concern. And, the icons for home of the second priority will replace the icons of the first priority if the first remote controller 7 is operated upon necessity.

Or, all the icons of both the second and third homes can be displayed at once if two columns of icons are layout at the upper-left corner of the first display 8 with each column assigned to each home, respectively. In this case, it is preferable to locate an icon identifying the assigned home at the top of each column.

Even in a case that the second home 3 is the only concern of the first home 1, the above idea of priority is useful if the condition of a plurality of electric appliances are to be monitored. Namely, the order of priority of electric appliance is preset to

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initially indicate the icon for electric appliance of the first priority in working condition. And, the icon for anther electric appliance of the second priority in working condition if any will replace the icon of the first priority if the first remote controller 7 is operated upon necessity.

Alternatively, all the electric appliances in working condition are to be displayed. Or, all the electric appliances are to be displayed regardless of their condition in working or not with the indication color of the electric appliance in working condition different from the electric appliance in rest condition.

Fig. 3 is an example of the picture on the second display 12 of the second television set 4 at the same time as that at Fig. 2. In contrast to that channel number 53 at the upper-left corner of the first display 8 in Fig. 2, which indicates the channel number of the second home 3, e.g., the other channel number of the first home 1, is "12", channel number 61 at the upper-right corner of the second display 12 in Fig. 3, which indicates the channel number of the second home 3, e.g., own channel number of the second home 3, is "3". This is because that the channel actually selected in the second home 3 in its broadcast area is "3", which is converted into "12" indicating the corresponding channel number under which the same broadcast program comes on the air in the broadcast area where the first home 1 lives. ,

At the upper-left corner of the second display 12 in Fig. 3, channel number 62 indicating "1" is displayed to show that the broadcast program under channel "1" is now enjoyed ins the first home 1. It should be noted again that the channel actually selected in the first home 1 in its broadcast area is "2", which is converted into "1" indicating the corresponding channel number under which the same broadcast program comes on the air in the broadcast area where the second home 3 lives.

At the upper-right corner of the second display 12, icon 63 of camera appears when photographs are received via e-mail from the first home 1 to the second home 3. Icon 63 disappears when the photographs are viewed in the second home 3, while icon 63 remains if the photographs are left unseen. When the photographs are viewed in the second home 3, an e-mail is automatically created and sent to inform the first home 1 of the fact that the photographs are viewed in the second home 3. As has been explained, the arrival of such an e-mail has icon 55 in the first display 8 disappear. In other word, icon 63 in the second display 12 and icon 55 in the first display 12 disappear almost at the same time with a delay of e-mail transmission.

Both in Figs. 2 and 3, icons relating to information of own home are located at the right side of the first display 8 or the second display 12, while icons relating to information of the other home are located at the left side of the first display 8 or the

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second display 12. This layout of icon isolation avoids confusion of icon interpretation.

Icons 52 and 61 for own channel number and icons 53 and 62 for the other channel number as well as other various icons 54, 55 and 63 may be arranged to appear in the first display 8 and the second display 12 at any time as long as the functions relating to the icons are in working condition. Alternatively, the icon indication may be arranged to appear for a limited period, e.g., 10 seconds, initiating from an occurrence of any change in the first television set 2 or the second television set 4 so as to automatically disappear after the lapse of the limited period for avoiding complex indication in the first and second displays 8 and 12.

In Fig. 2, for example, icons 52 to 55 appearing upon powering the first television set 2 automatically disappear after the lapse of the limited time. However, they appear again if channel is changed, they disappearing again after the lapse of the limited time after the channel changing. Thus, every time when channel is changed in the first home 1, the latest channel for the second home 3 is confirmed by the first home 1.

In place of the change in the first television set 2, the change in the second home 4 such as in the second television set 4 of in the second home electric appliance 28 causes the appearance of icons 52 to 55 in the first display 8 upon the arrival of an automatic e-mail with attachment informing of such a change in the second home 4. Icons will disappear again after the lapse of the limited period following the e-mail arrival. Thus, the first home 1 can quickly note the change in the second home 3 on the first display 8.

However, such appearance of icons 52 to 55 may possibly be overlooked in the first home 1 concentrating on an exciting program since the appearance of icons 52 to 55 is not caused by any own action in the first home 1. To this, icons 52 to 55 are arranged to blink upon appearance caused by the second home 3. Alternatively, icons 52 to 55 may appear in enlarged size to occupy the entire area of the first display 8 for a moment to call for attention of the first home 1. In addition to or in place of such a visible means for calling for attention, an audible means such as beep or chime accompanying the appearance of icons 52 to 55 is useful..

Both in Fig. 2 and Fig. 3, at least one channel number is highlighted if both the first and second homes 1 and 3 share the same broadcast program. In Fig. 2, for example, if the channel is changed in the second home 3 causing the indication at channel number 53 of the first display 8 to change from “12” to “2” which is he same program now enjoyed in the first home 1, some change in one or both of channel numbers 52 and 53 is caused to inform the first home 1 of the fact that both the homes

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share the same experience as if a family living together. For example, one or both of channel numbers 52 and 53 are to blink, or change its color, or be enlarged if both the channel numbers are matched.

Further, both in Fig. 2 and Fig. 3, it is possible to arrange any of the first and second television sets 2 and 4 so as to easily and quickly change the channel number into one viewed in the other home. In Fig. 2, for example, if it is desired in the first home 1 to view the same broadcast program of channel "12" at the channel number 53, which is viewed in the second home 3, channel number 52 can be instantly changed from "2" to "12" by pushing a predetermined key of the first remote controller 7. This operation is universally possible by the same predetermined key regardless of the second channel number 53 indicated. This is because that the first storage information 23 of the first television set 2 has the information of the channel number for the other home gotten via e-mail, which is taken out in response to the operation of the same predetermined key.

In Fig. 2, such a setting is possible that the icons at the left side of the first display 8 relating to the information of the second home 3 are not indicated at all. In other words, one of a sophisticated first mode of indicating information of the other home and a simplified second mode of non-indication of the other home information is selectable. The selection is possible by operating the first remote controller 7.

The second television set 4 is also capable of the above selection of one of the sophisticated first mode and the simplified second mode by means of the second remote controller 11.

Fig. 4 is a flow chart of the basic function of the first controller 5 or the second controller 9 in Fig. 1. In the following explanation, however, the flow chart is for the first controller 5 with the first television set 2 referred to as "the own television set" while the second television set 4 as "the other television set". Since the function of the second controller 9 is readily understood if the relationship between "the own television set" and "the other television set", the explanation will be omitted unless special comment is necessary.

The flow in Fig. 4 starts when the first television set 2 is powered by operating a power key of the first remote controller 7 to advance to step S2, in which the start-up process for the television function and the communication function is carried out. The details of the start-up process will be explained later.

Next, in step S4, the automatic e-mail sending process is carried out for informing the second television set 4 (herein after referred to as "the other television set") of the power-on of the first television set 2 (herein after referred to as "the own

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television set"). If there is any other information such as the channel number, or the state of the first home electric appliance 27, the information is also attached to the e-mail. The automatic e-mail sending process in step S4 is similar to those appears in other steps, the details of the process being explained later.

Next, in step S6, display process is carried out, in which the display explained with respect to Figs. 2 and 3 relating to the change in conditions of the own television set or the other television set is treated, the details of which will be described later.

Following the above steps, the flow checks in step S8 whether or not any operation, such as the change in channel or volume, is done in the own television set. If some operation is detected in step S8, the flow advances to step S10 for automatic e-mail sending process to inform the other television set of the operation, the flow then going to step S12. If any operation is not detected in step S8, on the other hand, the flow directly goes to step S12.

In step S12, it is checked whether or not any change such as power-on or power-off, in the first home electric appliance (herein after referred to as "the own electric appliance") occurs. If some change in the own electric appliance is detected in step S12, the flow advances to step S14 for automatic e-mail sending process to inform the other television set of the change, the flow then going to step S16. If any change is not detected in step S12, on the other hand, the flow directly goes to step S16.

In step S16, it is checked whether or not any photograph taken the first digital camera 29 is input into the first controller 5 by some means already explained. If some photograph input is detected in step S16, the flow advances to step S18 for automatic e-mail sending process to send the photograph to the other television set, the flow then going to step S20. If any photograph input is not detected in step S16, on the other hand, the flow directly goes to step S20.

In step S20, it is checked whether or not a operation for viewing a received photograph is done by means of the first remote controller 7. If the operation is detected in step S20, the flow advances to step S22 for automatic e-mail sending process to inform the other television set of the photograph viewing operation, the flow then going to step S24. If any photograph viewing operation is not detected in step S20, on the other hand, the flow directly goes to step S24.

In step S24, it is checked whether or not any e-mail form the other television set is received. If the receipt of the e-mail is detected in step S24, the flow advances to step S26 for automatic information storage process to automatically read the e-mail and the attachment to store the contents of the attachment into the first memory 6 as the first storage information 23, the flow then going to step S28. If any receipt of e-mail is

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not detected in step S24, on the other hand, the flow directly goes to step S28.

The steps S8 to S22 of the first controller 5 are explained for the first television set 2 to inform the second television set 4 of the condition of the first home 1. The similar function is also carried out by the second controller 9 in the second television set 4. Thus, any change in condition of the second home 3 automatically causes an e-mail informing the first television set 2 of the condition of the second home 3.

The function in steps S24 and S26 for the first controller 5 is to automatically read the e-mail thus sent from the second television set 4 to store the information in the attachment thereof into the first memory 6 for looking after the second home 3

In step S28, it is checked whether or not a power-off operation is done. If the power-off operation is not detected in step S28, the flow returns to step S6. Therefore, if some change in the first storage information 23 is caused by the automatic information storage process in step SS28, the indication in the first display 8 is changed by display process in step 8. Thus, the condition in the second home 3 is monitored in the first display 8.

Unless the power-off operation is detected in step S28, the flow repeats the loop of steps S 6 to S28. During the repletion of the loop, an e-mail is sent to the second television set 4 if any change occurs on the side of the first home 1, and the indication on the first display 8 is changed if any change occurs on the side of the second home 3.

On the other hand, if the power-off operation is detected in step S28, the flow advances to step S30, in which an automatic e-mail sending process is carried out to inform the other television set of the power-off of the own television set, the flow then going to step S32. In step S32, the shutting down process is carried out to power-off the own television set, the flow then go to the end.

Even in the power-off state, the first television set 2 is provided with a standby power, which keeps the first remote control receiver 13 in the standby state to detect the infrared signal from the first remote controller 7 any time. Also, the first communicator 15 is provided with a standby power, which keeps the first communicator 15 in the standby state to detect the arrival of e-mail to an outside server in constant connection. The necessary elements in the second television set 4 are also provided with a standby power in its power-off state for the similar functions.

Fig. 5 is a flow chart showing the detail of step 2 in Fig. 4 that relates to the start-up process for the television function and the communication function. When the start-up process is initiated, the flow advances to step S42 to start-up the television function. And the flow advances to step S43, in which the personal computer start-up process is carried out to start-up the basic function of the personal computer hardware

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and software. The personal computer start-up process, the detail of which will be described later, includes a process for setting the communication function of the personal computer to serve as the communicator for the television set according to this invention, which is additional to and different from the conventional communication function in the personal computer. The start-up process in step 43 is limited to start-up only the hardware and software which are necessary to carry out the television set functions according to this invention unless the conventional personal computer functions are requested. Such a start-up process with limited function is advantageous to minimize the time taken in the start-up of the television set..

Next, in step S44, the latest broadcast program schedule in the area of the own television set is downloaded through the internet, the program schedule stored in the first memory 6 being updated by the downloaded program schedule.

Further, in step S44, the latest broadcast program schedule in the area of the other television set is downloaded through the internet, the program schedule stored in the first memory 6 being updated by the downloaded program schedule.

The information of latest broadcast program schedule downloaded in steps 44 and 45 can also be gotten through the airwave if it includes such information in addition to the broadcast program..

The downloading and updating of the latest broadcast program schedule in steps 44 and 45 are followed by step S46 in which all the e-mails reaching the server are automatically downloaded. All the downloaded e-mails are automatically investigated in step S48. In this step, e-mails which have been downloaded in advance to step S46, i.e., already downloaded e-mails which have not been read yet are also investigated.

After investigating e-mails, the flow advances to step S50 to check where there is any unread e-mail. If any, the flow advances to step S52 to execute the automatic information storage process, the flow then going to step S54. The automatic information storage process in step S52 is similar to that in step S26 in Fig. 4, the details of which will be explained later.

As has been explained, the indications on the first display 8 in Fig. 2 are updated in response to the change in the information stored by the automatic information storage process. In addition to such updating during the own television set is in power-on state, the first display 8 is to perform a specific indication when the own television set is turned on. Steps 54 to 58 are necessary for such a specific indication.

Firstly, in step S54, it is checked in accordance with the first storage information whether or not the other television set is in power-on state when the own

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television set is turned on. If the other television set is in power-on state, the flow advances to step S56 to perform the other television set power-on time indication process. This process is to indicate on the first display 8 the power-on time and the channel change time to the current channel with respect to the other television set. The indication is made on the basis of the first storage information 23 in such a manner that the indication is made with enlarged character to draw attention of the person of the first home 1.

The reason why the time indication above is made is as follows. Namely, the fact that the other television set is in power-on state at the time when the own television set is turned on by means of channel number 53 appearing in the first display 8. However, it is unknown when the other television set was turned on. In other word, for example, it cannot be decided at all whether the other television set was turned on only 30 minuets ago or the other television set are left in power-on state for 5 hours. Therefore, the time when the other television set was turned on and the time when the channel was changed to the current channel are indicated in step 56. Thus, the history of the operation of the other television set is known when the own television set is turned on, which makes the person of the first home 1 feel at ease in remotely watching over the second home 3. In step S56, the time indication continues only for a predetermined period e.g. 10 seconds, after the power-on of the own television set to automatically discontinue not for otherwise needlessly intercepting the broadcast program indication.

On the other hand, if it is determined in step 54 that the other television set is in power-off state, the flow goes to step S58 to execute the other television set power-off time indication process. Thus, for example, it can be decided whether the other television set was turned off just 10 minuets ago or the other television set are left without turning on for entire one day. Thus, the person of the first home 1 feels at ease in remotely watching over the second home 3.

The other part of the other television set power-off time indication process in step S58 is similar to the other television set power-on time indication process in step S56. So, further explanation is omitted for avoiding a needless duplication.

As is apparent from the above, steps S54 to S58 are automatically executed only in the start-up process. As is understood by Fig. 4, once the other television set is turned on, the time or history of the operation of the other television set is not indicated on the first display 8 even if there is some change in the operation of the other television set, but only the current state, such as current channel number 53 is indicated. However, if the person in the first home 1 wants to know the information of the time or

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history of the operation of the other television set, steps 54 to S58 respond any time to an operation of the first remote controller 7.

After termination of step S56 or S58, the flow goes to step S60 in which the information of own television set to be indicated on the first display or sent to the other television via e-mail is confirmed, and then the flow terminating. The information to be confirmed in step S60 includes the channel number of the first television set 2 and the condition of the first home electric appliance 27.

Fig. 6 is a flow chart showing the detail of the personal computer start-up process in step S43 of Fig. 5. When the personal computer start-up process is initiated, the flow advances to step S72 to start-up the basic function of the personal computer,. As has been explained, the basic function is limited to start-up only the hardware and software which are necessary to carry out the television set functions according to this invention. In other words, the basic function is limited to the function relating to the first communicator 15.

And the flow advances to step S74 to check whether or not the switching of the personal computer to the ordinary computer function is directed by the first remote controller 7. If such a switching direction is not detected in step S74, the flow advances to step S76 to check whether or not a predetermined time has passed since the starting-up of the basic function of the personal computer in step S72. The flow returns to step S74 if the predetermined time has not passed in step S76. Thus, the flow waits for the switching direction for the predetermined time.

If the switching is directed in step S74, the flow advances to step S78, in which the communication security of the ordinary level is set, the flow then going into ordinary personal computer functions in step S80. In other words, in step S80, the flow starts-up the ordinary software and hardware functions of the personal computer other than the basic function relating to the first communicator 15 which has been started-up in step S72. In step 80, the ordinary personal computer functions are carried out in accordance with the operation by the user of the personal computer. Further, in step S80, it is possible to go to step S82 if the personal computer is switched buck to the television function in response to the first remote controller 7. In this case, the ordinary software and hardware are other than the basic function relating to the first communicator 15 is shut down in advance to go to step S82. The ordinary function of software and hardware of the personal computer are well known, any additional explanation being believed to be unnecessary.

If it is detected in step S76 that the predetermined time has passed, the flow advances to step S82. Thus, if a person who has no knowledge of handling the personal

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computer leaves the television set without any operation further to the power-on operation, the flow automatically reaches to step 82. In other words, there is no problem in operating the television set caused by adding the personal computer function to the television set.

The steps lead by step S82 are for a process of protecting the personal computer from virus otherwise suffered from the constant connection. The antivirus process lead by step S82 is stricter than in the communication security of the ordinary level in step 78. In other words, since the personal computer function utilized in the television set according to this invention is substantially limited to the e-mail function with a predetermined person or home, the other type of access to the personal computer, which would be allowed in the security level of step S78, is strictly shut out.

The antivirus process begins with step S82 to set the personal computer to shut out any access to the computer other than e-mails Thus, an attack to the computer other than e-mail is blocked.

Next in step S84, it is checked whether or not a setting is done to automatically give on the first display 8 a notice of arrival of ordinary e-mail other than the automatic e-mail for information exchange between the first television set 2 and the second television set 4. If there is no setting detected in step S84, the flow advances to step S86 to check whether or not a predetermined time has passed since the setting in step S82. The flow returns to step S84 if the predetermined time has not passed in step S86. Thus, the flow waits for the setting is detected in step S84 for the predetermined time. And, if it is detected in step S86 that the predetermined time has passed, the flow advances to step S88.

Thus, if a person who has no knowledge of handling the personal computer leaves the television set without any operation further to the power-on operation, the flow automatically reaches to step 88. In other words, there is no problem in operating the television set caused by adding the ordinary e-mail function to the television set.

In step S88, the personal computer is set to shut out e-mail from an address other than the registered ones. For example, the computer is set to only accept e-mail from the second television set 4. Thus, an attack to the computer through e-mail from a stranger is shut out. Further, step S88 may be modified to shut out e-mail unless a predetermined form of information is attached even if the e-mail is from the registered address.

On the other hand, if it is detected in step S84 that the ordinary e-mail notice setting is done, the flow advances to step S90, in which notice preparation process is carried out for preparing to automatically give on the first display 8 a notice every time

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when an ordinary e-mail arrives. Since step S90 skips step S88, a risk of an attack to the computer through an e-mail from a stranger is left.

If step S88 or step 90 has done, the personal computer start-up process is terminated.

Fig. 7 is a flow chart showing the detail of display process in step 6 of Fig. 4. If the display process starts, the accumulated and the latest information relating to the second home 3 is confirmed in step S92 on the basis of the first storage information. The information of the second home 3 confirmed in step S92 is utilized in carrying out the following steps.

Next in step S94, it is checked whether or not the other information display mode is set for the first television set 2 to monitor the second home 3. If it is detected in step S94 that the other information display mode is set, the flow advances to step S96 to check whether the continuous display mode is set. If it is detected in step S96 that the continuous display mode is set, the flow advances to step S98 to carry out the continuous display process, the flow then going to step S100. On the other hand, non-detection in step S96 of the continuous display mode setting means that the mode is the eventual display mode. So, the flow goes to stepS102 to carry out the eventual display process., the flow then going to step S100.

In the eventual display process in step S102, a preparation to automatically start the display only when one of the first television set 2 or the second television set 4 is operated, and in turn, to automatically terminate the display when a predetermined time, e.g., 10 seconds, elapsed. The eventual display process in step S102 also includes the blink or enlargement of the character or generation of beep in response to the operation of the second television set 4,

In step S100, it is checked whether or not the second television set 4 (the other television set) is in on-state on the basis of the first storage information 23. If it is confirmed in step S100 that the other television set is in on-state, the flow goes to step S104 to read out the latest information of channel of the second television set 4 on the basis of the first storage information 23. And then, in step 106 it is checked whether or not the own television set and the other television set are in the different broadcast program areas from each other. If the areas differ, the flow goes to step S108 to convert the channel number, the flow the going to step S110. The channel number conversion carried out in step S108 corresponds to the conversion of channel “3” on the second display 12 at channel number 61 in Fig. 3 (own channel number) into channel “12” on the first display 8 at channel number 53 in Fig.2 (the other channel number), for example. On the other hand, if it is not determined in step S106 that the areas differ,

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the flow directly goes to step S110.

In step S110, the other channel display process is carried out for displaying on the first display 8 the information of channel selected by the second home 3. And then, the flow goes to step S112. The other channel display process will be discussed in more detail with some additional functions.

In step S100, on the other hand, if the other television set is in off-state, the flow goes directly to step S112 since there is no need of the display relating to the other television set. Alternatively, step S100 with the other television set in off-state may be followed by a step of displaying a notice that the other television set is in off-state in place of directly going to step S112.

In step S112, it is checked whether or not any monitoring information for the second home 3 is in the first storage information 23. And, if any, the flow advances to step 114 to carry out the monitoring information display process, the flow then going to step S116. On the other hand, if there is no monitoring information in the first storage information 23, the flow directly goes to step S116. The monitoring information display process in step S114 is to make a warning in response to a predetermined condition, the detail of which will be explained later.

In step S116, it is checked whether or not any photograph to be displayed is in the first storage information 23. And, if any, the flow advances to step 118 to carry out the photograph information display process, the flow then going to step S120. On the other hand, if there is no photograph information in the first storage information 23, the flow directly goes to step S120. The detail of the photograph information display process in step S118 will be explained later.

If it is detected in step S94 that the other information display mode is not set, the flow directly goes to step S120 since no display nor process for display is needed.

In addition to the above steps for the display process, it is checked in step S120 whether or not necessary operation is done for making it possible for the first television set 2 and the second television set 4 to communicate with each other. If such operation is detected in step S120, the flow advances to step S122 for the setting process, and then the flow terminates. On the other hand, if such operation is not detected in step S120, the flow instantly terminates.

Fig. 8 is a flow chart showing the detail of the setting process in step S122 of Fig. 7. Various date set in this process are stored in the first memory 6.

If the setting process starts, it is checked in step S132 whether or not the operation has been done for setting television set function. And, if it is detected in step S132 that the operation is for setting television set function, the flow advances to step

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S134 to carry out the television function setting process, in which desired various settings are done by the operation of the first remote controller 7 in accordance with a series of the input instructions on the first display 8. If the television function setting process is completed, the flow advances to step S136. On the other hand, if it is not detected in step S132 that the operation is for setting television set function, the flow directly goes to step S136.

The steps lead by step S136 are for a process of setting the function relating to the automatic e-mail exchange between the owe television set and the other television set. Initially in step S136, it is checked whether or not the operation has been done for setting address for sending e-mail. If it is detected that the operation is done for setting address for sending e-mail, the flow advances to step S138 to register one address for sending e-mail. Such an operation for registering the address is done by the operation of the first remote controller 7 in accordance with a series of the registering instructions on the first display 8. If the registering of one address is completed in step S138, the flow goes to step S140. On the other hand, if the operation is not for setting address of the other television set in step S136, the flow directly goes to step S140.

In step S140, it is checked whether or not the operation has been done for setting address for receiving e-mail. If it is detected that the operation is done for setting address for receiving e-mail, the flow advances to step S142 to register one address for receiving e-mail. The operation for registering the address for receiving e-mail is also done by the operation of the first remote controller 7 in accordance with a series of the registering instructions on the first display 8. If the registering of one address is completed in step S142, the flow goes to step S144. On the other hand, if the operation is not for setting address for receiving e-mail, the flow directly goes to step S144.

In step S144, it is checked whether or not the registered address is the second one or later. If it is detected that the registered address in not the first one, i.e., the second one or later, the flow advances to step S146 to check whether or not the simultaneous display setting has been done to display all the received e-mail regardless of the address. If it is detected that the simultaneous display setting has not been done, the flow goes to step S148, in which the selective priority display process is to be carried out.

The selective priority display process in step S148 is to be explained in reference to Fig. 2. According to the selective priority display process, even if more than two addresses for receiving e-mail are registered, information from only the

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predetermined first priority address is displayed at the other channel number 53, electric appliance icon 54 and camera icon 55 in the first display 8 of Fig. 2 with no display of information from those of any of the other addresses. For example, provided that there are two registered addresses consisting of an address of the parents of the husband of the first home 1 and that of the wife of the first home 1 with the latter predetermined as an address of the first priority, only the information of the parents of the wife of the first home 1 is displayed at the other channel number 53, electric appliance icon 54 and camera icon 55 in the first display 8 of Fig. 2

If it is desired to display information of the parents of the husband, the first remote controller 7 is operated. And, the display at the other channel number 53, electric appliance icon 54 and camera icon 55 in the first display 8 of Fig. 2 is replaced by the information of the parents of the husband. Thus, according to the selective priority display process, only the information of the first priority is displayed at the upper-left corner of the first display 8 upon starting-up of the first television set 2 with the display replaced by the information of the next priority one by one upon every operation of the first remote controller 7 in a cyclic manner.

The above is the contents of display carried out in accordance with the selective priority display process in step S148.

On the other hand, if it is detected in step S146 that the simultaneous display setting has been done, the flow advances to step S150, in which the identified display process is carried out. The identified display process in step S150 is to be explained also n reference to Fig. 2. According to the identified display process, information through e-mails from all the registered addresses is simultaneously displayed at the upper-left corner of the first display 8 in Fig. 2 with some measure for identifying each of addresses form the others implemented. For example, provided that the address of the parents of the husband of the first home 1 and that of the wife of the first home 1 are registered, the display is made in two columns with information form the husband parents address at the left column and that form the wife parents address at the right column. Thus, by means of predetermining the layout to be assigned to information from the plurality of addresses, the identification of the information is possible.

In the layout above, it is possible for the purpose of saving the area of the first display 8 to shift the column of display for the information from parents of wife to the left if there is no information from the parents of husband. To identify thus shifted column from the column for parents of husband, an icon representing the parents of wife is put at the top of the shifted column, an icon representing the parents of husband being of course put at the top of the column if there is information thereof.

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Alternatively, the identification is possible by means of making the color of display for each column different from that for the others.

The above is the contents of display carried out in accordance with the identified display process in step S150.

The selection whether or not to set the simultaneous display is possible in advance by the first remote controller 7 according to the guide on the first display 8. Step 146 decides whether to go to step 148 or to step 150 in accordance with the result of such selection in advance.

After the process in step S148 or step 150, the flow advances to step S152. It should be noted that the flow directly goes from step S144 to step S152 if it is detected in step S144 that the registered address is the first one.

It may not easy for a person, especially an old person living alone, who is not familiar with a television setting in detail to set the address for automatically sending e-mail. In other words, there may be a cease in which the necessary television setting by a person to be monitored is impossible by itself. For example, unless the operation is made at the second television set 4 to set the address of first television set 2 to which the automatic e-mail is sent, it is impossible for the first home 1 to monitor the second home 3 by means of the first television set 2. The steps lead by step S152 are for a process to solve this problem by means of, for example, making it possible for the first television set 2 to remotely control the second television set 4 to set the address for automatically sending e-mail.

In step S152, it is checked whether or not the operation for remotely controlling the other television set to register the address for automatically sending e-mail is done. And, if such an operation is made, the flow advances to step S154 to carry out the authentication process. If the authentication by the second television set 4 that the first television set 2 is true is successful, the flow is allowed to advance to step S156 for sending e-mail to the second television set 4 with the remote control data attached, the flow then going to step S158.

If it is not detected in step S152 that the operation for remotely controlling the other television set is done, the flow directly goes to step S158. The above is the process for making it possible for the first television set 2 to remote control the second television set 4 to set the address for automatically sending e-mail.

The flown is not only for the first controller 5, but also for the second controller 9 in common. So, the flow includes a process necessary for the own television set to function in response to a remote control by the other television set. The steps lead by step S158 are for such a process.

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Thus the following explanation of Fig. 8 will be made that the flow is of the second controller 9 of the second television set 4 in response to the remote control by the first television set 2. In step S158, it is checked whether or not an e-mail with the remote control data attached is received form the other television set. If such an e-mail is received, the flow advances to step S160 in which an authentication is made with the first television set 4 to confirm that the sender of the e-mail is truly the first television set 2. If the authentication in step S160 is successful, the flow advances to step S162 to carry out the function as directed by the remote control data attached to the e-mail, the flow then going to step S164. Thus, the setting of address of sending e-mail from the second television set 4, which has been prepared and sent by the first television set 2, is registering in the second memory 10.

On the other hand, if it is not detected in step S158 that any e-mail with the remote control data attached is received form the other television set, .the flow directly goes to step S164.

Thus, in the operation for remote control to register the address for automatically sending e-mail, steps S152 to S156 function on the side of remotely controlling the other side while steps S158 toS162 function on the side of being controlled by the other side. And, since the address setting is an important issue affecting the privacy, authentication steps S154 and S160 are absolutely necessary to prevent a fraud remote control by impersonation.

Though not shown in Fig. 8, if the authentication fails in step S154, the flow goes to a step of displaying thereof and then to step 158. Similarly, if the authentication fails in step S160, the flow goes to a step of displaying thereof and then to step 164. Thus, no remote control data is sent, nor any address setting is carried out on the basis of received remote control data.

In step S164, it is checked whether or not a setting termination operation is made to terminate the flow upon detection of such an operation. On the other hand, if no such an operation is detected in step S164, the flow returns to step S132 and the loop of steps S132 to S164 is repeated unless the setting termination operation is detected in step S164. Thus, the flow can respond to any operation done during the repletion of the loop.

Fig. 9 is a flow chart showing the detail of the automatic e-mail sending process carried out in any of steps S4, S10, S14, S22 and S30 in Fig. 4. If the automatic e-mail sending process setting process starts, it is checked in step S172 whether or not an address for automatically sending an e-mail is registered.

If it is detected that an address to which an e-mail is sent is registered, the flow

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advances to step S174 to automatically create an e-mail, an address being then automatically input in step S176 in accordance with the registration thereof. If there are addresses more than two are registered, all of the addresses are input. And, the flow advances to steps lead by step S178 in which various attachments are confirmed and automatically attached to the created and addressed e-mail.

In step S178, it is checked whether or not the information to be attached relates to the power-on or power-off of the television set. And the flow goes to step S180 if the information is of the power-on or power-off. In step S180, the code representing the power-on or power-off with the date and time at which such an operation was made are attached to the e-mail. Further, in the case of the power-on, the channel number at the time of power-on is further attached to the e-mail. The flow goes to step 182 after completion of the attachment of the information in step S180. On the other hand, the flow directly goes to step S182 if the information does not relates to the power-on or power-off.

In step S182, it is checked whether or not the information to be attached relates to the change in the channel of the television set. And the flow goes to step S184 if the information is of the change in the channel. In step S184, the new channel number with the date and time at which such change was made are automatically attached to the e-mail. The flow goes to step 186 after completion of the attachment of the information in step S184. On the other hand, the flow directly goes to step S186 if the information does not relates to the change in channel.

In step S186, it is checked whether or not the information to be attached relates to the change in the sound volume of the television set. And the flow goes to step S188 if the information is of the change in the sound volume. In step S188, the numerical information for the new sound volume with the date and time at which such change was made are attached to the e-mail. The flow goes to step 190 after completion of the attachment of the information in step S188. On the other hand, the flow directly goes to step S190 if the information does not relates to the change in sound volume.

In step S190, it is checked whether or not the information to be attached relates to the viewing of the recorded or downloaded broadcast program or the received photograph. The recorded or downloaded broadcast programs are stored in the first memory 6 of large capacity inside the television set. Alternatively, the recorded or downloaded broadcast programs are stored in an outside storage such as video tape recorder or digital disc recorder.

And the flow goes to step S192 if the information relates to the viewing of the

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recorded or downloaded broadcast program or the received photograph. In step S192, the code representing the fact of viewing and the date and time at which the viewing of the broadcast program was started and ended are automatically attached to the e-mail. If an ID code identifying the broadcast program is included in the viewed data as in the case of digital broadcast program data or downloaded broadcast program data, such an ID is also attached to the e-mail in step S192.

If the viewed data is the received photograph, an ID of each photograph viewed or ID of a group of photographs in the case of being sent in a lump with the date and time at which each photograph is viewed are automatically attached to the e-mail in step S192. The flow goes to step 194 after completion of the attachment of the information in step S192. How to use the information attached in step S192 will be explained later. On the other hand, the flow directly goes to step S194 if the information does not relates to the viewing of the recorded or downloaded broadcast program or the received photograph.

In step S194, it is checked whether or not the information to be attached relates to the change in registration of the regularly viewed broadcast program. And the flow goes to step S196 if the information is of the change in such a registration. In step S196, the information of change in registration with the date and time at which such registration change was made are automatically attached to the e-mail. The information of change in registration includes the code representing the fact of the addition or deletion and the ID of the added or deleted broadcast program to or from the registration. The flow goes to step 198 after completion of the attachment of the information in step S196. On the other hand, the flow directly goes to step S198 if the information does not relates to the change in registration of the regularly viewed broadcast program.

In step S198, it is checked whether or not the information to be attached relates to the change in the condition of the home electric appliance. And the flow goes to step S200 if the information is of the change in the condition of the home electric appliance. In step S200, the ID of the home electric appliance and its condition with the date and time at which such change occurred are attached to the e-mail. The flow goes to step 202 after completion of the attachment of the information in step S200. On the other hand, the flow directly goes to step S202 if the information does not relates to the change in the condition of the home electric appliance.

In step S202, the e-mail created and addressed in the above steps with the information attached in the above steps is automatic sent to the other television set.. And then the flow terminates. On the other hand, the flow instantly terminates

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without any action if it is not detected in step S172 that any address for automatically sending an e-mail is registered.

Fig. 10 is a flow chart showing the detail of the automatic information storage process in step S26 of Fig. 4 and step S52 of Fig. 5. If the automatic information storage process starts, the received e-mail is automatically read in step S212, and the attachment to the read e-mail is automatically examined in step S213.

Next, it is checked in step S214 whether or not the first storage information 23 includes too old information to take into consideration in statistics or analysis. If such old information is in the first storage information 23, the old information is completely deleted from the first storage information 23 in step S215, the flow the going to step S216. On the other hand, there is no such old information in the first storage information 23, the flow directly goes from step 214 to step S216. The limit for judging whether the information is too old or not in step S214 can be individually set depending on the nature of the information. For example, the power-on or power-off and the channel changing which are daily repeated are accumulated for a relatively long term for analyzing the regular pattern of life. On the other hand, the viewing of photograph which temporarily occurs is not meaningful to accumulate for a long term, but the sent photograph is to be monitored every time not to leave unviewed.

The deletion of old data in step S215 is mainly for ordering the necessary data and for saving the capacity of the memory 6. Further, the deletion of old data is advantageous in case that a time bomb type virus attached to an e-mail is invading into the first storage information 23 since such a virus may hopefully be deleted before its expression.

In the steps lead by step 216, the S140, the attachment information examined in step S213 is stored in memory 6 as the first storage information 23.

In step S216, it is checked whether or not the attached information relates to the power-on or power-off of the other television set. And the flow goes to step S218 if the information is of the power-on or power-off. In step S218, the code representing the power-on or power-off with the date and time at which such an operation was made are added to and accumulated in the first storage information 23. Further, in the case of the power-on, the channel number at the time of power-on is further added to the first storage information 23. The flow goes to step 220 after completion of the addition and accumulation of the information in step S218. On the other hand, the flow directly goes to step S220 if the information does not relate to the power-on or power-off of the other television set.

In step S220, it is checked whether or not the attached information relates to

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the change in channel or sound volume at the other television set. And the flow goes to step S222 if the information is of the channel change or sound volume. In step S222, the new channel number or numerical information for the new sound volume with the date and time at which such a change operation was made are added to and accumulated in the first storage information 23. The flow goes to step 224 after completion of the addition and accumulation of the information in step S222. On the other hand, the flow directly goes from step S220 to step S224 if the information does not relate to the change in channel or the sound volume at the other television set.

In step S224, it is checked whether or not the attached information relates to the change in registration of the regularly viewed broadcast program. And the flow goes to step S226 if the information is of the change in such a registration. In step S226, the information of change in registration with the date and time at which such registration change was made are automatically added to and accumulated in the first storage information 23. The flow goes to step 228 after completion of the addition and accumulation of the information in step S226. On the other hand, the flow directly goes from step S224 to step S228 if the information does not relate to the change in registration of the regularly viewed broadcast program.

In step S228, it is checked whether or not the attached information relates to the viewing of the recorded or downloaded broadcast program by the other television set. And the flow goes to step S230 if the information relates to the viewing of the recorded or downloaded broadcast program. In step S230, the code representing the fact of viewing and the date and time at which the viewing of the broadcast program was started and ended are automatically added to and accumulated in the first storage information 23. The flow goes to step 232 after completion of addition and accumulation of the information in step S230. On the other hand, the flow directly goes from step S228 to step S232 if the information does not relate to the viewing of the recorded or downloaded broadcast program.

In step S232, it is checked whether or not the attached information relates to the viewing of the photograph at the other television set, the photograph having been sent by the own television set. And the flow goes to step S234 if the information relates to the viewing of the photograph. In step S234, an ID of each photograph viewed or ID of a group of photographs in the case of being sent in a lump with the date and time at which each photograph is viewed are automatically added to and accumulated in the first storage information 23. The flow goes to step 236 after completion of the addition and accumulation of the information in step S234. On the other hand, the flow directly goes to from step S232 step S236 if the information does not relate to the viewing of the

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photograph at the other television set.

In step S236, it is checked whether or not the attached information relates to the change in the condition of the home electric appliance in the other home. And the flow goes to step S238 if the information is of the change in the condition of the home electric appliance. In step S238, the ID of the home electric appliance with the date and time at which such change occurred at the other home are automatically added to and accumulated in the first storage information 23. The flow terminates the automatic information storage process after completion of the addition and accumulation of the information in step S238. On the other hand, instantly terminates the automatic information storage process if the information does not relate to the change in the condition of the home electric appliance at the other home.

Fig. 11 is a flow chart showing the detail of the other channel display process in step S110 of Fig. 7. If the other channel display process starts, it is checked in step S242 on the basis of the first storage information 23 whether or not the broadcast program data stored in the second memory 10 is viewed on the second television set 4.

The typical stored broadcast program data is the video recorded program stored in the second memory 10. In other words, the typical viewing of the recorded broadcast program is a playback of the video recorded program. The first storage information 23 includes not only such a viewing of the data stored in the second memory 10, but also a playback of the broadcast program recorded by a video recorder outside the second television set 4. Therefore, such a playback of the program recorded by the outside video recorder is also considered in step S242 as the case of the recorded broadcast program data is viewed

Further, the second television set 4 can download a broadcast program from a server through the internet. Thus, the viewing of a broadcast program downloaded and stored in the second memory 10 is also considered in step S242 as the case of the recorded broadcast program data is viewed.

If it is determined in step S242 that the other television set is viewing the recorded broadcast program data, the flow advances to step S244 to replace the other channel display on the first display 8 by the recorded data viewing display. For example, the other channel number 53 in Fig. 2 is replaced by a character display such as “VIDEO” if video recorded broadcast program is viewed. Alternatively, the other channel number 53 in Fig. 2 is replaced by a character display showing the title of the program if digital recorded or downloaded program data including digital ID information capable of identifying the program is viewed.

The flow advances to step S246 after the display replacement in step 244 is

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done. On the other hand, the flow directly goes to step S246 if it is not determined in step 242 that the other television set is viewing the recorded broadcast program data,

Step S246 to step S260 carry out the switching between the continuous display mode setting and the eventual display mode setting. It should be noted here that, even in the continuous display mode, the channel display for example is highlighted for a predetermined time, e.g., 10 seconds, when the channel is changed for drawing attention to occurrence of the change as in the eventual display mode.

The explanation begins with the case that the eventual display mode is set. In step S246, it is checked whether or not a predetermined time has passed after the start-up of the own television set. And, if the predetermined time has passed, the flow advances to step S248 to check whether or not a predetermined time has passed after a sending of e-mail. If it is determined in step S248 that the predetermined time has passed, the flow advances to step S250. The fact that the flow reaches step 250 means that the predetermined time has passed after any operation of the own television set.

In step S140, it is checked whether or not a predetermined time has passed after a receipt of e-mail. And, if the predetermined time has passed, the flow advances to step S252. The fact that the flow reaches step 252 means that the predetermined time has passed from any operation of the other television set. Thus, step S252 is reached only when the predetermined time has passed after any of operation of both the own television set and the other television set. In step S252, it is checked whether or not the continuous display mode is set. The flow goes to step S254 to make no display for the other television set since the eventual display mode is set in this case as has been provided.

On the other hand, if the predetermined time has not passed yet in one of steps S246, S248 and S250 n step S140, the flow advances to step S256 to check whether or not it is checked whether or not the continuous display mode is set. The flow goes to step S258 to make normal display for the other television set since the eventual display mode is set in this case as has been provided.

The above is the function in the other channel display process with the eventual display mode is set. In other words, the display for the other channel is made only for a predetermine time after the operation of one of the own television set and the other television set, the display discontinuing when the predetermined time has passed after the last operation.

In the case that the continuous display mode is set, the following function results. If the predetermined time has passed in all of steps S246, S248 and S250, the flow reaches step S252. And the flow goes to step S258 to make normal display for the

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other television set since the continuous display mode is set in this case.

On the other hand, if the predetermined time has not passed yet in one of steps S246, S248 and S250, the flow goes to step S256. And the flow goes to step S260 to make highlight display for the other television set since the continuous display mode is set in this case.

The above is the function in the other channel display process with the continuous display mode is set. In other words, the highlight display for the other channel is made for a predetermine time after the operation of one of the own television set and the other television set, the display itself continuing with switched into normal display when the predetermined time has passed after the last operation.

After the completion of function in one of steps S246, S248 and S250, the flow goes to step S262. In step S262, it is checked whether or not the broadcast program viewed on the own television set is identical with that on the other television set. If not, the flow goes to step S264 to check whether or not an identical broadcast program with that viewed on the other television set is on-air in the area of the own television set. If such a broadcast program is on-air and availabe, the flow advances to step S266 to carry out the easy tuning process, in which the channel of the own television set can be switched to the channel for the same broadcast program as that viewed on the other television set with a single touch of a predetermined key of the first remote controller 7 without any channel selecting operation. This is possible on the channel information from the other television set in the first storage information 23. The meaning of the easy tuning process has been discussed in relation to Figs. 2 and 3, which will not be repeated here. If the process in step S266 is completed, the flow of the other channel display process terminates. On the other hand, if it is not detected in step S264 that an identical broadcast program with that viewed on the other television set is on-air in the area of the own television set, the flow instantly terminates since the easy tuning process in step 264 is meaningless.

According to the easy tuning process in step S266, if the predetermined key of the first remote controller 7, which has been once touched to change the channel into the broadcast program viewed on the other television set, is touched again, the channel returns to the broadcast program which was formerly viewed on the own televisions set. This is possible on the channel information of the own television set in the first storage information 23 which includes information sent to the other television set such as channel number of the own television set. By means of this function in the easy tuning process, it is easily possible to temporally confirm the contents of the broadcast program viewed on the other television set and then to return to the broadcast program which

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was originally viewed on the own television set.

In the case that the channel display on the first display 8 is replaced by the recorded data viewing display in step 244, it is checked in step S262 whether or not the recorded broadcast program viewed on the own television set is identical with that on the other television set. In place of channel comparison, the recorded broadcast program comparison is done on the program ID. In other words, the program ID received from the second television set 4 and stored in the first storage information 23 is compared wit the program ID of the program viewed on the first television set 2.

If the broadcast program viewed on the other television set does not coincide with that viewed on the own television set, it is checked in step 264 whether or not it is possible to download the same broadcast program through the internet by way of the first communicator 15. The broadcast program can be identified by the ID in the first storage information 23. If the download is possible, the flow advances to step S266 to carry out the easy tuning process, in which the download starts on the basis of the ID in the first storage information 23 if the predetermined key of the first remote controller 7 is operated. Thus, the download is easily done without any search for the broadcast program or any further operation for the download. On the other hand, if it is not detected in step S264 that an identical broadcast program with that viewed on the other television set can be downloaded, the flow instantly terminates since the easy tuning process in step 264 is meaningless.

On the other hand, if it is decided that the broadcast program viewed on the own television set is identical with that on the other television set, the flow advances to step S268, in which the own channel is highlighted to notice that the own home and the other home share the same experience. The meaning of the easy tuning process in this case has been discussed in relation to Figs. 2 and 3, which will not be repeated here.

In the case that the channel display is replaced by the recorded data viewing display in step 244, it is checked in step S262 whether or not the recorded broadcast program viewed on the own television set is identical with that on the other television set. In place of channel comparison, the recorded broadcast program comparison is done on the program ID. If it is decided that the broadcast program viewed on the own television set is identical with that on the other television set, the flow advances to step S268, in which the own title of the program or the like is highlighted to notice that the own home and the other home share the same experience. The other channel display process in Fig. 11 terminates when the highlight function in step S268 is completed.

Fig. 12 is a flow chart showing the detail of the photograph information display process in step 118 of Fig. 7, in which steps S272 to S276 and S280 relate to the function

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of sending photographs, while steps S278 and S282 to S286 to the function of receiving photographs

If the photograph information display process starts, it is checked in step S272 whether or not any photograph has been sent. And if any, the flow advances to step S274 to check whether or not any e-mail reporting that the sent photograph has been viewed is received. The functions in steps S272 and S274 are done on the basis of the first storage information 23.

If it is not determined in step S274 that such an e-mail is received, the flow goes to step S276 to make display that the sent photograph has not been viewed yet. This corresponds, for example, to the case that a photograph is sent from the first home 1 to the second home 3, in which camera icon 55 in Fig. 2 remains to be displayed until the photograph is viewed on the second television set 4. And then, the flow goes to step S278.

On the other hand, if it is not determined that any photograph has been sent, or the flow goes to step S280 to make no display at the place where camera icon 55 is otherwise to be displayed in Fig. 2, for example. And, if it is determined in step S274 that the e-mail reporting that the sent photograph has been viewed is received, the flow goes to step 280 to cause no display. This means, for example, that camera icon 55 in Fig. 2 disappears.

In step 278 it is checked whether or not any photograph is received. If any, the flow goes to step 282 to check whether or not an operation to view the received photograph had been done.

If it is not determined that such an operation has been done, the flow goes to step S284 to make display that the received photograph has not been viewed yet, the flow then terminating the photograph information display process. On the other hand, if it is not determined in step S278 that any photograph is received, the flow goes to step S286 to make no display. And, if it is determined in step S282 that the operation to view the received photograph has been done, the flow goes to step S286 to cause no display. The flow then terminates the photograph information display process.

The above steps S278 to S282 can be better understood as the function of the second controller 9 of the second home 3 in conjugation with Fig. 3, for example. Namely, camera icon 63 indicating the receipt of photograph is displayed on the second display 12 in Fig. which is the result of the function of step 278 to S284 by way of S282.

If it is detected in step S282 that the operation to view the received photograph has been done in the second home 3, the flow goes to step S286, which causes camera icon 63 in Fig. 3 to disappear. If it is not detected in step S278 that any photograph

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has been received at the second home 3, the flow goes to step S286, in which any icon is not displayed from the beginning at the place for camera icon 63.

Fig. 13 is a flow chart showing the detail of the monitoring information display process in step S114 of Fig. 7, in which the information form the second home 3 stored in the first storage information 23 is analyzed to make a warning of some abnormality in the second home 3 on the first television set 2 if the information form the second home 3 deviates form a predetermined condition. The abnormality here is of such a low level that is reported on the first display 8 on which the family of the first home 1 enjoys some broadcast program so that the family notices the abnormality of the second home 3 by way of caution.

If the monitoring information display process in Fig. 13 starts, it is checked in step S292 whether or not any time difference exists between the first home 1 and the second home 3. This is for homes internationally far from each other or homes far from each other in a wide country which desire to monitor or be monitored each other. For example, the consideration of the time difference is effective to avoid such a case that a nonsense warning for "long time power-off of the television set" as an abnormal condition although it is caused by a mere sleeping night time.

If any time difference is detected in step S292 that any, the flow advances to step S294 to compensate for the time difference, the flow then going to step S296. On the other hand, the flow directly goes to step S296 if there is no time difference detected in step S292.

In step S296, the history of the information attached to the received e-mails is analyzed on the basis of the first storage information 23 to make various judges in the steps lead by step S298. In step 298, it is checked whether or not a predetermined time period, e.g., 6 hours excluding the sleeping time zone, has passed with the other television set not operated at all since the last operation. For example, such a case falls under the category that the other television set is left in power-off state for the predetermined time period or left in power-on state without any change in channel or sound volume for the predetermined time period.

If it is not determined that the predetermined time period has not passed yet, the flow goes to step S300 to check whether or not the other television set is left in power-on state with a channel selected under which no broadcast program is on-air anymore because of too deep night. If it is not the case, the flow advances from step S300 to step S302.

In step 302, it is checked whether or not the registered regular broadcast program is viewed on time on the other television set. If not, the flow goes form step

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S302 to step S304 to check whether or not the registration of the broadcast program ha been cancelled by an operation. If the cancellation has been done, the flow goes from step S304 to step S306. On the other hand, if it is determined in step S302 that the registered regular broadcast program is viewed on time, the flow directly goes to step S306.

In step S306, it is checked whether or not the sound volume is abnormal. Either of a too loud sound volume or a too small sound volume is regarded as the abnormal sound volume. The range of normal sound volume is not only predetermined, but also may be determined and modified in accordance with an automatic learning function on the basis of the first storage information 23. If it is not determined in step S306 that the sound volume is abnormal, the flow goes to step S308. The monitoring information display process relating to the television set operation is not limited to the judges above, but other suitable judges may be further added thereto.

In step S308, it is checked whether or not the second home electric appliance 28 in the second home 3 is in an abnormal use. A use deviating form daily regular pattern of use is regarded as the abnormal use. For example, the time of power-on or porwer-off of the second home electric appliance 28 is judged in the light of analysis of the first storage information 23. Alternatively, the temperature setting or usage history in the second home electric appliance 28 in the second home 3 may be judged. The standard of abnormality is not only predetermined, but also may be determined and modified in accordance with an automatic learning function on the basis of the first storage information 23. If there is no abnormality detected in step S308, the monitoring information display process is terminated.

On the other hand, if it is judged in one of steps S298, S300, S304, S306 and S308 that any abnormality occurs, the flow goes to step S309 to make a warning on the first display 8 with corresponding voice depending on the cause of abnormality.

Further in step S310, the continuous display mode is forced with the warning displayed in distinguishable color from that in the normal display regardless of whether the continuous display mode or the eventual display mode is set. Thus, in combination with the function in step 309, step 310 effectively notices the abnormality.

Next, in step S310, the automatic e-mail sending process basically similar to that in Fig. 9 with only the attachment differs. In other words, in the automatic e-mail sending process in step S311, a new e-mail addressed to the second television set 4 is automatically created with the contents of the displayed information of abnormality in steps S309 and S310 attached, the e-mail with the attachment being then automatically sent to the second television set 4.

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The reason why the contents of the monitoring information displayed on the first television set 2 is also sent to the second television set 4 is as follows. Namely, the same monitoring information is displayed on the second television set 4 by means of step S311, which makes it possible for the family in the second home 2 to share the information displayed at the first home 1. In such a case that the second home 3 is in so abnormal condition that the second television set 4 can hardly viewed, the above display on the second television set 4 is of course meaningless. However, if the second home 3 is not in an abnormal condition as a matter of fact, the family in the second home 3 can inform the first home 1 of no problem in the second home 3 in response to the display on the second television set 4 in advance to a contact from the first home 1..

It depends on the circumstances whether the first home 1 or the second home 3 firstly makes contact with the other in response to the same display on both sides. In any way, one home that notices the display first may contact the other home first. Thus, the monitoring information display process in Fig. 13 is not a one-way monitoring system, but is an equal two-way system for both homes to share the same information. In other words, the second home 3 can monitor in real time the manner in which the own condition is monitored by the first home 1. After completion of step S311, the monitoring information display process terminates.

The flow of Fig. 13 goes to step S309 at the instant of detection of abnormality by anyone of steps S298 to S308. This means that the flow skips the check by downstream steps if an upstream step detects an abnormality. Therefore, the order of the steps for checking abnormality is so designed that a higher priority step is located at the upstream of the flow with a lower priority step located at the downstream..

Alternatively, such a modification is possible that the flow goes through all the abnormality checking steps with each checking result saved to determine a final decision on the saved results or to display all the saved results after all the checks have been completed..

Fig. 14 is a flow chart for the process of automatically changing the registration of the regularly viewed broadcast program and automatically sending an e-mail with the information of such a change attached. The information attached to the e-mail sent in accordance with this flow is substantially identical with the information of registration of the regularly viewed broadcast program attached to the e-mail in step S196 in Fig. 9. It should be noted, however, that the information attached to the e-mail in the flow in Fig. 9 relates to the registration of the regularly viewed broadcast program manually changed in step S8 in Fig. 4, while the information attached to the e-mail in the flow in Fig. 14 relates to the registration of the regularly viewed broadcast

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program automatically changed.

The flow of Fig. 14 starts in response to one of the power-on, the change in channel and the beginning of a broadcast program following the end of a preceding broadcast program.

If the flow of Fig. 14 starts, it is checked in step S312 whether or not a registered broadcast program is being viewed. If not, the flow advances to step S313 to check the whether or not the currently viewed broad cast program is serial and has been viewed more than predetermined times, e.g., two times. And, if it is determined in step S313 that the serial program has been viewed more than predetermined times, the broadcast program is automatically registered as the regularly viewed broadcast program in step S314, the flow then going to step S316. On the other hand, if it is not determined in step S313 that the currently program is serial and has been viewed more than predetermined times, the flow directly goes to step S316 without any registration.

In step S316, if it is checked whether or not the registered regular broadcast program is on time. If it is determined that the registered regular broadcast program is on time, the flow advances to step S317 to notice on the first display 8 that the registered regular serial broadcast program is on time since the broadcast program is not viewed at that time.

Next, in step S318, it is checked whether or not a response input to the notice above is made through the first remote controller 7 to express that the notice is no more necessary. If it is determined in step S318 that the response is input, the flow advances to step 319 to automatically delete the broadcast program form the registration of the regularly viewed broadcast program since the response input means that there is no intention to view the noticed serial broadcast program no more. The flow then goes to step S320. On the other hand, if it is not determined in step S318 that the response is input, the flow directly goes to step 320.

On the other hand, if it is determined in step 312 that the registered broadcast program is being viewed, or it is not determined in step S316 that the registered regular broadcast program is on time, the flow directly goes to step 320.

In step S320, it is checked whether or not the viewed broadcast program is the final episode of a serial and no next episode. If it is determined in step S320 that the viewed broadcast program is the final episode of a serial, the flow advances to step 320 to automatically delete the broadcast program form the registration of the regularly viewed broadcast program. The flow then goes to step S322. On the other hand, if it is not determined in step S320 that the viewed broadcast program is not the final episode of a serial, the flow directly goes to step S322.

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In step S322, it is checked whether or not any change in registration of the regularly viewed broadcast program is caused by any of steps S314, S319 and 321. If any, the flow advances to step S323 to automatically create an e-mail, the registered address being automatically added to the e-mail in step 324. If a plurality of addresses are registered, all the addresses are added in step S324.

Further, the information change in the registration, which includes ID of the broadcast program, the code indicating what change is made such as addition or deletion, and the date and time, is attached to the e-mail in step S326. Thus prepared e-mail is automatically sent in step S328 to terminate the process of automatically changing the registration of the regularly viewed broadcast program and automatically sending an e-mail with the information of such a change attached. On the other hand, if it is not determined that any change in registration of the regularly viewed broadcast program is caused by any of steps S314, S319 and 321, the process is instantly terminated.

Fig. 15 is a flow chart showing the detail of the automatic photograph e-mail sending process in step S18 of Fig. 4. If the flow starts, it is checked in step S332 whether or not a photograph with sending mark is included in the photographs taken into the first controller 5. If any, the flow advances to step S334 to check whether or not a photograph with automatic sending mark is included.

If it is determined in step S334 that at least one photograph with automatic sending mark is included in the photographs taken into the first controller 5, the flow advances to step S336 to automatically create an e-mail, the registered address being automatically added to the e-mail in step S338. If a plurality of addresses are registered, all the addresses are added in step S338.

Further, all the photographs with the automatic sending mark are attached to the e-mail in step S340. Thus prepared e-mail is automatically sent in step S342 to advance to step S344. On the other hand, if it is not determined in step S334 that any photograph with automatic sending mark is included in the photographs taken into the first controller 5, the flow directly goes to step S344. The above steps thus relate to the automatic photograph sending.

On the other hand, the steps lead by steps lead by step 344 relate to the manual photograph sending. In step S344, such a display is initiated on the first display 8 that the manual photograph sending operation is ready to accept, the flow then goes to step S346 to check whether or not an operation for entry for the manual photograph sending is done through the first remote controller 7 in response to the display. If not, the flow goes to step S348 to check whether or not a predetermined

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time has passed after the display in step S344. And, if the predetermined time has not passed yet, the flow returns to step S346. The steps S346 and S348 are to be repeated until the photograph sending operation is detected in step S346 or the predetermined time has passed in step S348. If the photograph sending entry operation is detected in step S346, the flow advances to step S350, in which the photograph display and manual selection process is carried out, the details being to be explained later. If the process in step S350 in completed, the flow advances to step S352, in which the manual photograph sending process. The automatic photograph e-mail sending process terminates if the process in step S352 is completed.

In step S348, if it is determined that the predetermined time has passed without the photograph sending operation, the flow goes to step S354 to vanish the display initiated in step S344. The automatic photograph e-mail sending process terminates following step S354. This means that the automatic photograph e-mail sending process automatically terminates if nothing is done after the automatic e-mail sending has been carried out in step S342. On the other hand, if it is not determined in step S332 that any photograph with sending mark is included in the photographs taken into the first controller 5, the automatic photograph e-mail sending process instantly terminates.

The following description in conjugation with Fig. 16 relates to countermeasures against relatively serious abnormality in the home to be monitored. For reference, the monitoring information display explained in steps S112 and S114 in Fig. 7 and the flow chart in Fig. 13 relates to the abnormality of a relatively low level on the promise that the television set can be powered-on at each home by itself. On the contrary, the following description is directed to functions which enable one home to quickly inform the other home mutually of the relatively serious abnormality even if the television sets on both homes are in power-off state.

Fig. 16 is a flow chart of the function of the first controller 5 or the second controller 9 in Fig. 1 for one of the first home 1 and the second home 3 to urgently inform the other home of the detected serious abnormality by means of e-mail. A part of the functions overlaps the functions in Fig. 13 for double checking important abnormality. Further, among such overlapping functions, some if Fig. 16 differ from those in Fig. 13 in the standard of detecting abnormality.

The following explanation is made as the function of the second controller 9, in which an abnormality in the second home 3 is reported to the first home 1, for example.

For the purpose of detecting the serious abnormality, not only the second remote control receiver 14, but also the second memory 10 and the second tuner 21 are

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continuously provided with the standby power even if the power-off state of the second television set 4. Further, the second controller 9 is continuously provided with the standby power for at least a portion for making a decision on a sensed abnormality even if the second television set in power-off state. The provision of such standby power is also true in the first television set 2.

The flow in Fig. 16 starts if an occurrence of one of predetermined abnormalities is detected.

Steps S362 and S364 relate to abnormality sensed by the second remote controller 11 on the basis of an action of a person in the second home 3. Conventionally, a person in the second home 3 may make a call by mobile phone to the first home 1 or to an emergency organization such as nine-one-one upon emergency. Alternatively, it may be possible for the person to push an exclusive emergency hotline button located at a predetermined position in the second home 3 or on a portable device that the person carries.

However, in the case of the call by mobile phone, it is not easy for a person in panic or off his or her track to properly operate the mobile phone for all the speed dial call function or the phonebook call function. Further, the person may be too knocked out to speak on the phone of the abnormality even if the connection is successfully made.

In the case of the an exclusive emergency hotline, on the other hand, it may be easy for a person even in panic or off the track to properly push the button since the operation is very simple and the contents and addressee of information is predetermined. However, this simplicity in operation means not only the advantage, but also the disadvantage since the button is experienced to be simply and frequently pushed in error in the case that the button is located at a convenient place such as on the portable device, the high frequency of the erroneous push of the button lowering the reliability of the hotline like “wolf child”. On the contrary, if the button is fixedly located at a place where an erroneous push hardly occurs, a person in panic or off the track may not successfully get to the button to push it. Further, the hotline is of a nature that has not been daily used for a long time if the family is so happy that no serious abnormality occurs. This means that the family is apt to forget about the hotline button or forget the hotline system itself with passing time, or that the batteries of the hotline device left as it is for a long time are running so low that the hotline system does not work upon emergency. Thus, the home with such a hot line system bears a considerable burden in daily life such as regular exercises and maintenances of the hotline device to keep its reliability. .

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Steps S362 and S364 are for solving the above mentioned problems in the conventional emergency responding systems. In step S362, it is checked whether a number of predetermined keys on the second remote controller 11, such as three keys or more, are pushed at once. In other words, step S362 assumes a case that a person in the second home 3 is so in panic or off the truck that he or she can no more properly operate the second remote controller 11 to inform someone of the emergency occurring in the second home 3. But, it is assumed that he or she can grasp the entire of the second remote controller 11 or push the entire surface of the remote controller 11 with the palm to cause the situation to be detected in step S362, in which the number of predetermined keys are pushed at once. Since such a situation would not be caused in a normal operation of the second remote controller 11, step S362 upon detecting the situation judges that an emergency occurs.

If it is not detected in step S362 that a number of predetermined keys on the second remote controller 11 are pushed at once, the flow advances to step S364 to check whether or not a predetermined same key is repeatedly pushed more than a predetermined times in a short period. In other words, step S364 assumes a case that a person in panic may be repeatedly trying and failing in the same operation on the second remote controller 11 or so in panic or off the truck that he or she can only operate the second remote controller 11 randomly. Since such a meaningless repetition of pushing the same key in a short period would not be caused in a normal operation of the second remote controller 11, step S364 upon detecting the repetition judges that an emergency occurs. In step 364, not only one key, but also a group of closely arranged keys are checked to detect whether or not any one or ones in the group is repeatedly pushed more than a predetermined times in a limited short period. In other words, step S364 assumes a case that a person in panic may push a key next to the correct key in error and try again to push the correct key, such erroneous push and retry being repeated in panic.

As has been readily understood, steps S362 and S364 can detect emergency by means of abnormal operation on the second remote controller 11 which is daily used. Thus, a person even in panic or off his or her truck can cause a report of the emergency on the basis of a simple action not to be taken by a normal person, but is apt to be taken by a person in panic or off the truck. Further, a possibility of erroneous emergency report is relatively low because the assumed action under detection would not be taken by a normal person. Of course, steps S362 and S364 do not require any regular exercise and maintenance to keep the reliability of emergency report since the second remote controller 11 is in daily use. As will be explained later, steps S362 and S364 are

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followed by a predetermined process with the report creation method as well as the contents and address of the report all predetermined. Thus, if the abnormal operation of the second remote controller 11 is successfully detected in step S362 or S364, the necessary report is automatically carried out.

In steps S362 and S364 of the flow chart in Fig. 16 constitute an OR logic, in which the abnormality is concluded if the situation assumed in step S362 or that in step S364 is detected. However, such a modification is possible that the steps S362 and S364 constitute an AND logic, in which the abnormality is concluded if the situation assumed in step S362 and that in step S364 are both detected. According to the modified flow chart, steps S362 and S364 in combination judge that an emergency occurs when a number of predetermined keys are pushed at once and a predetermined one key or one or ones in a predetermined group of closely arranged keys is repeatedly pushed more than a predetermined times in a short period.

This above modification in AND logic is advantageous to avoid such an erroneous emergency report only by step S362 detecting that a number of predetermined keys are pushed at once which may be accidentally caused by a mere dropping of the second remote controller 11 with the keys facing the floor or a mere stepping on the second remote controller dropped on the floor. The above modification in AND logic is also advantageous to avoid such an erroneous emergency report only by step S364 detecting that a predetermined one key is repeatedly pushed more than a predetermined times in a short period, which may be caused by inputting an address including a series of the same figure or by operating the space key or the line feeding key which is apt to be normally pushed in repetition.

On the other hand, however, is should bi noted that the above modification in AND logic may lead to such a disadvantage that necessary abnormality may not be detected because of the too strict judgment standard. So, it is recommended not to give uniform treatment to all the keys in adopting the OR logic or the AND logic of steps S362 and S364, but to different treatment to individual keys in dependence on the total layout of the keyboard and the relative arrangement of keys on the second remote controller 11.

Or, such an alternative modification is possible that the OR logic is adopted as to steps S362 and S364 as they are in Fig. 16 and the AND logics are added to each of steps S362 and S364 with other conditional steps for avoiding erroneous report, respectively.

According to the flow chart in Fig. 16, steps S362 and S364 are carried out by the second controller 9. However, this invention is not limited to such an embodiment.

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For example, steps S362 and S364 can be modified to be carried out by a control unit in the second remote controller 11 to detect and judge the abnormality in operation within the second remote controller 11 by itself. In this case, the second remote controller 11 informs the second television set 4 of the final judgment. Such function in the second remote controller 11 is so carried out that the final judgment is done by control unit 72 to create the abnormal remote controller operation signal, which is in turn transmitted from infrared communicator 73 of the second remote controller 11 to the second remote control receiver 14 of the second television set 4. The details of the second remote controller 11 including control unit 72 and infrared communicator 73 is to be explained later with reference to Fig. 18.

If steps S362 and S364 are modified to be carried out by control unit 72 in the second remote controller 11, original steps S362 and S364 in Fig. 16 are replaced by a step to check whether or not the abnormal remote controller operation signal is received from the second remote controller 11.

Returning to the explanation of the flow chart in Fig. 16, if the abnormality assumed in step S364 is not detected, the flow advances to step S366 to check whether or not a local emergency broadcast is received by the second television set 4 through airwave or cable broadcast system. Such a local broadcast is not sent over in the area to which the first home 1 belongs, the contents as well as the occurrence itself of suh a broadcast being unknown in the first home 1 which is far from the second home 3.

If the abnormality assumed in step S366 is not detected, the flow advances to step S368 to check whether or not the second television set 4 is left for a long time, e.g., 24 hours, without any operation after the latest operation. If the abnormality assumed in step S366 is not detected, the flow advances to step S368 to check whether or not the second television set 4 is left for a long time, e.g., 24 hours, without any operation after the latest operation. If the abnormality assumed in step S368 is not detected, the flow goes to step S370 to check whether or not the other television set is left in power-on state for a long time, e.g., 30 minuets, with a channel selected under which no broadcast program is on-air. If it is not the case, the flow advances from step S370 to step S372.

In step S372, it is checked whether or not the sound volume is abnormal. Though this step overlaps step 306 in Fig. 13, the similar function is arranged in Fig. 16 step 372 for double checking. If the abnormality assumed in step S372 is not detected, the flow advances to step S374 to check whether or not the second home electric appliance 28 in the second home 3 is in an abnormal use. Though this step may completely overlap step 308 in Fig. 13 for the purpose of double checking, the condition of judging the abnormal use for the same electric appliance may differ from that in step

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308 in Fig. 13 depending on the nature of the electric appliance. Or, another electric appliance different from that in step 308 in Fig. 13 may be checked in step S374 in Fig. 16.

If the abnormality assumed in step S374 is not detected, the flow advances to step S376 to record that the process of urgently informing the serious abnormality is started by a malfunction since the flow chart in Fig. 16 is designed to start only in response to the occurrence of one of the abnormalities assumed in steps S362 to S374. In other words, no urgent e-mail is created nor sent in this case, but the flow directly advances to step S378 to display the result of the function of the flow, the flow then terminating. In this case the recorded malfunction is displayed in step S378, the display remaining even after the termination of the flow until manually cancelled by means of operating the second remote controller 11. Thus, a person in the second home 3 can confirm the fact of malfunction with cancelling the display to order a professional investigation into the reason of the malfunction.

On the other hand, if one of the abnormalities assumed in steps S362 to S374 is detected, the flow advances to step S380 to check whether or not the second television set 4 is in power-on state. If not, the flow goes to step S382 to automatically make the second television set 4 into power-on state. Further, in step S384 to urgently activate the communication function, the flow then going to step S386. Such function in steps S382 and S384 correspond to the function in steps S42 and S43 in Fig. 5. In the case of Fig 16, however, most part of functions such as in Fig.6, which shows the details of step S43, are omitted for the purpose of quickly starting-up the personal computer function necessary for e-mail communication with the security process in steps S82 and S88 at least carried out. On the other hand, if the television set 4 is in power-on state at step S380 the flow directly goes to step S386.

In step S386, an urgent e-mail is automatically created, the registered address of the first television set 2 being automatically added to the e-mail in step 388. Further, in step S388, the address corresponding to nine-one-one is added as the address if the flow comes to step S380 form step S362 or step S364

Next, in step S390, the contents of abnormality detected in one of steps S362 to S374 is attached to the e-mail. Thus prepared e-mail is automatically sent in step S392. According to the process above the urgent e-mail is sent form the second communicator 16 to the first communicator 15 by way of the internet.

As in the case of Fig. 13, the flow of Fig. 16 goes to step S380 at the instant of detection of abnormality by anyone of steps S362 to S374. This means that the flow skips the check by downstream steps if an upstream step detects an abnormality to

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cause the sending of the urgent e-mail. Therefore, the order of the steps for checking abnormality is so designed that a higher priority step is located at the upstream of the flow with a lower priority step located at the downstream. Alternatively, such a modification is possible that the flow goes through all the abnormality checking steps with each checking result saved, all the saved abnormalities being attached to the e-mail in step S390 after all the checks in steps S362 to S374 have been completed..

Upon completion of the e-mail sending, the flow goes to step S394 to automatically make the second camera 31 into power-on state with the field angle of is zoom lens system automatically set at the widest angle. This make is easy for the first television set 2 to monitor the second home 3 with the second camera 31 under the remote control by the first television set 2.

Next, the flow advances to step S378 to display the result of the function of the flow, the flow then terminating. In this case the same information as attached to the e-mail sent in step S392 is displayed on the second display 12 of the second television set 4. By means of this display, a person in the second home 4 can know about the information of abnormality transmitted to the first home 2. If the abnormality in the second home 3 is so serious that anyone in the second home 3 cannot view the display, such a display may unfortunately be meaningless. However, if the second home 3 is OK, a person in the second home 3 who views the display on the second television set 4 can instantly contact the first home 1 to relieve the family in the first home 1 of their anxiety.

Thus, the first home 1 and the second home 3 share information in real time as in step S311 in Fig. 13. That is all for the function to urgent information exchange by means of e-mail in Fig. 16.

Fig. 17 is a flow chart of the function of the first controller 5 or the second controller 9 in Fig. 1 when it receives the urgent e-mail. For the consistency in the explanation with that in Fig. 16, the following explanation is made as the function of the first controller 5, in which an urgent e-mail from the second television set 4 is received by the first television set 2, for example.

The flow of Fig. 17 starts when an urgent e-mail sent from the second communicator 16 in step S392 is received by the fist communicator 15. As has been explained, the first communicator 15 is supplied with the standby power, which keeps the first communicator 15 in the standby state to detect the arrival of an e-mail any time.

If the flow starts, it is checked in step S402 whether or not the first television set is in power-on state. If not, the flow goes to step S404 to automatically make the

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first television set 2 into power-on state, the flow then going to step S406. On the other hand, if the first television set 2 is in power-on state at step S402, the flow directly goes to step S406.

In step S406, the sound volume of the first television set 2 is automatically increased to its maximum for example for effectively informing the family of the first home 1 of the receipt of the urgent information. Next, in step S408, the received e-mail is automatically read, the attached information being automatically examined in step S410. Steps lead by step S312 relate to process in response to the automatically confirmed information attached to the e-mail.

In step S412, it is checked whether or not the attached information is of the abnormal operation of the second remote controller 11 detected in steps S362 and S364. If t it is determined in step S412 that the attached information is of the abnormal remote controller operation, the flow advances to step S414 to make display of the urgency on the first display 8 with voice message of the same contents accompanying. If an ordinary broadcast program is viewed at that time, the broadcast program is interrupted to be replaced by the display and voice message of urgency. Similar interruption of broadcast program is forced also in the following steps when the urgency is displayed with the voice message.

Since the abnormal remote controller operation has been possibly caused by a highly serious reason, the display with voice message initiated in step S414 is continued and repeated until they are cancelled by operating the first remote controller 7. The flow itself advances to step S418 after the display with voice message is initiated. On the other hand, if it is not determined in step S412 that the attached information is of the abnormal remote controller operation, the flow directly goes to step S416,

Step S416 is for enabling for the first television set 2 to remotely control the second camera 31 for visually monitoring the abnormality in the second home 3. In the case of the abnormal operation of the second remote controller 11, such a possibility is high that the person causing the abnormal operation is within the field angle of the second camera 31 with the second remote controller 11 held since the second camera 31 is directed to the watchers of the second television set 4. Thus, step S416 following steps S414 is meaningful. After step S416, a remote control signal attached to e-mail is sent from the first communicator 15 in response to an operation at the first remote controller 7.

Next, in step S418, it is checked whether or not the attached information is of the abnormality in the television operation detected in steps S368 to S372. If t it is determined in step S418 that the attached information is of the abnormality in the

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television operation, the flow advances to step S420 to make display of the urgency on the first display 8 with voice message of the same contents accompanying. The display with voice message initiated in step S420 is continued and repeated until they are cancelled by operating the first remote controller 7. The flow itself advances to step S422 after the completion of the first voice message. On the other hand, if it is not determined in step S418 that the attached information is of the abnormality in the television operation, the flow directly goes to step S422,

In step S422, it is checked whether or not the attached information is of the abnormality in the second electric appliance 28 detected in step S374. If t it is determined in step S422 that the attached information is of abnormality in the second electric appliance 28, the flow advances to step S424 to make display of the urgency on the first display 8 with voice message of the same contents accompanying. The display with voice message initiated in step S424 is continued and repeated until they are cancelled by operating the first remote controller 7. The flow itself advances to step S426 after the completion of the first voice message. On the other hand, if it is not determined in step S418 that the attached information is of abnormality in the second electric appliance 28, the flow directly goes to step S426,

In step S426, it is checked whether or not the attached information is of the local emergency broadcast detected in step S366. If t it is determined in step S426 that the attached information is of the local emergency broadcast, the flow advances to step S428 to playback the local emergency broadcast on the first display 8. The play back of the local emergency broadcast initiated in step S428 is continued and repeated until they are cancelled by operating the first remote controller 7. The flow itself terminates after the completion of the first playback of the local emergency broadcast. On the other hand, if it is not determined in step S418 that the attached information is of the local emergency broadcast, the flow instantly terminates.

Fig. 18 is a block diagram of a remote controller for the television set according to the embodiment of this invention. The remote controller is embodied as the first remote controller 7 or the second remote controller 11 in Fig. 1. Fig. 18 is hereinafter explained as the details of the first remote controller 7 for example. The second remote controller 11, however, has the same structure and functions.

In response to an operation at operating portion 71 of the first remote controller 7, control unit 72 has infrared communicator 73 send infrared light signal to the first remote control receiver 13

Control unit 72 also has display 74 indicate information necessary for operation including the current status of the first remote controller 7 such as power-on

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or power-off state, menu of operations, selection items for operation and the result of operation. As has been explained, the first remote controller 7 includes microphone 75 and speaker 76 connected to control unit 72 to serve as a phone receiver. Microphone 75 is also useful in picking up a voice message with a photograph to be sent being displayed of the first display 8 as will be explained later in more detail.

Operating portion 71 includes power key 77, ten-key 78 for channel selection or the like. In response to operating menu key 79, the menu of operations is indicated on display 74 for selection by one of ten-key 78 or up-down or right-left shifting and push-down operation by arrow key 80.

The sound volume of the first television set 2 is up-down adjustment by television sound volume key 81 of the tilting board type. Regardless of the adjustment by sound volume key 81, the voice from the first television set is muted during phone call key 82 is pressed for phone call or voice message input, which is effective to avoid the acoustic feedback. In place of the muted voice from the first television set 2, speaker 76 generates sound, the volume of which is up-down adjustment by phone call sound volume key 83 of the tilting board type. The sound input volume of microphone 75 is automatically adjusted.

Share key 84 is in use for the easy tuning process in step S266 in Fig. 11. In more detail, the own television set can be switched to the channel for the same broadcast program as that viewed on the other television set with a single touch of share key 84 without any channel selecting operation. Also in the case of the television program data downloaded from a server station on internet, the operation of share key 84 makes it possible to download the same television program data as that viewed on the other television set without any code setting to identify the television program to be downloaded.

Share key 84 for making it easy to get to the same television program as that is viewed on the other television set helps to share the same experience at the substantially same time as if a family living together.

As has been explained, if share key 84 which has been once touched to change the channel into the broadcast program viewed on the other television set, is touched again, the channel returns to the broadcast program which was formerly viewed on the own televisions set. By means of this function of share key 84, it is easily possible to temporally confirm the contents of the broadcast program viewed on the other television set and then to return to the broadcast program which was originally viewed on the own television set.

Fig. 19 is a block diagram of digital camera 29 in Fig. 1. As has been

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mentioned, it is also possible in the second home 3 to input photograph from a digital camera similar to digital camera 29 into the second controller 9 although only digital camera 29 for the first home 1 is shown in Fig. 1. So the following explanation with respect to Fig. 19 is also applicable to the digital camera and the second television set 4 in the second home 3.

Digital camera 29 controlled by camera controller 101 takes a photograph in response to an operation of a release button included in camera operating portion 102 in such a manner that an image sensed by image taking portion 103 is processed by image processor 104 to be stored in image storage portion 105. Image storage portion 105 includes storage media drive 106 for receiving removable storage media 107, to which the processed image is stored. Image storage portion 105 also includes internal storage 108 for storing the processed image in case that removable storage media 107 is full. Internal storage 108 also stores the processed image if so set. A photograph may be stored in duplicate in both removable storage media 107 and internal storage 108. Further, a photograph may be transferred from removable storage media 107 to internal storage 108, or vice versa.

For inputting a photograph into the first controller, removable storage media 107 is taken out from storage media drive to insert into a storage media slot of the first controller 5. Or, camera controller 101 retrieves a photograph from image storage portion 105 to send the same from digital IO interface 109 to the first controller 5 through connection cable. Further, digital camera 29 includes a wireless local communicator (not shown) which sends to the first controller 5 over the radio the photograph retrieved by camera controller 101 form image storage portion 106. In either case, the first controller 5 detects the receipt of the photograph to advance from step S16 to step S18 in Fig, 4,

Memory 110 stores a registration of address for automatic sending, which is shared with the first television set 2. With respect to the registered address, photographs to be automatically sent from the first television set 2 are selected by means of display 111 and camera operating portion 102.

In selection of photographs, thumbnails 112 for all the photographs which have not been transmitted to the first television set 2 are indicated on display 111. If there are too many photographs, thumbnails 112 are to be scrolled in display 111. In Fig, 19, the first thumbnail, the second thumbnail and the third thumbnail are indicated on display 111, for example.

With such indication of thumbnails on display 111, camera operating portion 102 is operated to select photographs to be sent to the second home 3, in which a

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sending box 113 under mark "S" is put a tick for a thumbnail of the photograph to be sent. For example in Fig. 19, "S" sending boxes 113 for the first thumbnail and the third thumbnail are put a tick, respectively.

As to the thumbnail with its "S" box put a tick, address box 114 indicating the registered automatic sending address is shown. For example, Fig. 19 is a case that two automatic sending addresses are registered to show "A1" box and "A2" box as address box 114 at the first thumbnail and the third thumbnail with their sending box 113 put a tick. On the centrally, there is no address pox 114 shown for the second thumbnail with its sending box 113 not put a tick. This is for avoiding such a confused selection that an address box 114 is put a tick in error for a thumbnail with its sending box 113 not put a tick. It should be noted that only "A1" box is shown as address box 114 if only one automatic sending address is registered. Further, no address box 114 is shown if no automatic sending address is registered. This is also for avoiding a confused selection.

In Fig. 18, "A1" box for the first thumbnail is put a tick for example. Thus, the photograph corresponding to the first thumbnail is not sent to the second automatic sending address, while the photograph corresponding to the third thumbnail is not sent to any of the registered automatic sending addresses. The photograph wit its sending box 113 put a tick while its automatic sending box 114 not put a tick will be sent by means of a manual operation after the photograph is input into the first television set 2. This will be further explained later.

Fig. 20 is a flow chart showing the function in part carried out by camera controller 101 of digital camera 29 in Fig. 19 relating to sharing a registration of address for automatic sending between digital camera 29 and the first television set 2.

The flow in Fig. 20 starts when digital camera 29 accesses to the information of the first television set 2 in some manner. In other words, for example, the flow starts when digital camera 29 is connected to the first controller 5 with a cable or wireless access or when removable storage media 107 is inserted into storage media drive 106 of digital camera 29.

The following is a supplemental comment on the latter case of access of digital camera 29 to the information of the first television set 2. Namely, removable storage media 107 originally for keeping photograph information also keeps the registration of automatic sending address. And, removable storage media 107 exchanges information with the first television set 2 or digital camera 29 to share the registration of automatic sending address according to a predetermined process when it is inserted into the storage media slot of the first television set 2 or into storage media drive 106 of digital

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camera 29, respectively. Thus, removable storage media 107 newly inserted into storage media drive 106 of digital camera 29 had been possibly inserted into the storage media slot of the first television set 2 to receive and keep the registration of automatic sending address originated by the first television set 2. In this reason, the insertion of removable storage media 107 into storage media drive 106 of digital camera 29 is regarded as an access to the information of the first television set 2 to start the flow in Fig. 20.

If the flow starts, it is checked in step S432 whether or not any information is gotten form the first television set 2 by means of accessing thereto. If any, the flow advances to step S434 to check whether or not the gotten information includes the address for automatically sending e-mail registered in the first television set.

If it is detected in step S434 that the gotten information includes the address for automatically sending e-mail, the flow advances to step S436 to check whether or not the information of address for automatically sending e-mail registered in the first television set 2 and gotten therefrom is new to digital camera 29. This check is made by comparing all the addresses gotten from the first television set 2 with all the addresses registered in digital camera 29. If the information of address is new to digital camera 29, the flow advances to step S438 to add the new address to the registration of addresses for automatic sending e-mail in digital camera 29, the flow then going to step S440. On the other hand, if it is determined in step S434 that the gotten information does not include the address for automatically sending e-mail registered in the first television set 2, or it is determined in step S436 that the information of address is not new, but has been already registered in digital camera 29, the flow directly goes to step S440.

Thus, if a new address for automatically sending e-mail is registered in the first television set 2, the new address is automatically registered also in digital camera 29 to share it. Thus, an address to which the second television set 2 is to send e-mail is indicated on display 111 of digital camera in Fig. 19 address box 114. Accordingly, if such an address box 114 for a desired thumbnail 112 is put a tick in digital camera 29, the photograph corresponding to the thumbnail with its address box 114 put a tick is automatically sent to the registered address when the photograph is input to the first television set 2.

In step S440, all the addresses gotten from the first television set 2 are compared with all the addresses registered in digital camera 29 to check whether or not such an address exists that has not been registered in the first television set 2 yet, but is registered in digital camera 29 only. If any, the flow advances to step S442 to check

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whether or not digital camera 29 is in communication with the first television set 2.

If it is not detected in step S442 that digital camera 29 is in communication with the first television set 2, the flow goes to step S448 to duplicated the address, which has not been registered in the first television set 2, to store it into removable storage media 107, the flow then terminating. This is because that the flow starts in response to the insertion of removable storage media 107 into storage media drive 106 if it is not detected in step S442 that digital camera 29 is in communication with the first television set 2. Thus, the duplicated and stored address is to be automatically input into the first television set 2 if removable storage media 107 is inserted into the media slot of the television set 2 for the purpose of inputting the photographs stored in removable storage media 107 into the first television set 2..

On the other hand, if it is detected in step S442 that digital camera 29 is in communication with the first television set 2, which means that digital camera 29 is connected to the first television set 2 with cable or wireless connection, the flow goes to step S444 to check whether or not the first controller 5 is capable of receiving the information form digital camera 29. If the first controller 5 of capable of receiving the information, the flow advances to step S446 to transmit the automatic e-mail sending addresses registered in digital camera 29 to the first controller 5, the flow then terminating. On the other hand, if it determined tin step S444 hat the first controller 5 is incapable of receiving the information form digital camera 29, the flow goes to step 448.

In step s432, if it is not determined that any information is gotten form the first television set 2, the flow instantly terminates. Also the flow instantly terminates if it is determined in step S440 that such an address does not exist that has not been registered in the first television set 2 yet, but is registered in digital camera 29.

Fig. 21 is a flow chart showing the function in part carried out by camera controller 101 of digital camera 29 in Fig. 19 relating to the selection of photograph to be input into the first television set 2 by means of the combination of display 111 and camera operation portion 102.

The flow in Fig. 21 starts when the operation by camera operation portion 102 is initiated for inputting the photograph into the first television set. When the flow starts, it is checked in step S452 whether or not such a photograph exists that has not been input into the first television set 2. If any, the flow advances to step S454 to indicate the thumbnail 112 of the photograph on display 111 as shown in Fig. 19 with sending box 113 also indicated.

Next in step S456, it is checked whether or not a photograph is selected for

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sending to the other television set. In other words, it is checked in step 456 whether or any sending box 113 in Fig. 19 is put a tick. If any, the flow advances to step S458 to check whether or not any address for automatically sending e-mail is registered in digital camera 29. If any address is registered, the flow advances to step S460 to check whether or not a plurality addresses for automatically sending e-mail are registered in digital camera 29.

If it is determined in step S460 that a plurality of addresses for automatically sending e-mail are registered in digital camera 29, the flow advances to step S462, in which address boxes 114 for all registered addresses are indicated with respect to each thumbnail 112 with its sending box put a tick. Thus, the selection among addresses is possible for each thumbnail 112. Display 111 in Fig. 19 shows the status under these functions. For example, address boxes 114 are indicated for the two registered addresses "A1" and "A2" with respect to the first and third thumbnails. 112

If it is not determined in step S460 that a plurality of addresses for automatically sending e-mail are registered, the flow goes to step S464 to indicate a simple automatic sending indication is made since only one address is registered in this case. For example, only one column of address boxes 114 are indicated below mark "A1" on display 111 in Fig 19. If it is not determined in step S458 that any address for automatically sending e-mail is registered in digital camera 29, the flow goes to step S466 without any indication of address box 114 in step S462 or S464.

Also, if it is not determined in step S456 that any photograph is selected for sending to the other television set, the flow goes to step S466 without any indication of address box 114 in step S462 or S464 even if some address is registered for automatically sending e-mail..

In step S466 reached by way of any of steps S456, S458, S462 and S464, it is checked whether or not a selection closing operation is done. If it is not detected in step S466 that such an operation is done, the flow returns to step S456 to repeat step S456 to S466 until it is determined in step S466 that a selection closing operation is done. On the other hand, the flow terminates if it is determined in step S466 that a selection closing operation is done. In response to the termination of the flow, the indication for the selection of photograph to be input into the first television set 2 is canceled out of display 111.

In step S452, if it is not determined that such a photograph exists that has not been input into the first television set 2, the flow instantly terminates with a message of no un input photograph indicated on display 111.

In the above explanation in conjugation with Figs. 19 to 21, the embodiment of

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digital camera is explained. However, the origin of the information of photograph according to this invention is not limited to the digital camera, but this invention is also applicable to various types of other origins keeping the information of photograph to be inputted into the television set. For example, a mobile phone with digital camera or mobile digital photograph storage without picture taking ability by itself or any other electronics capable of keeping and displaying photograph can be combined with a television set to share photograph and address for sending e-mail with the photograph attached according to this invention.

Fig. 22 is a flow chart showing the detail of step 350 in Fig. 15 that relates to the photograph display and manual selection process. If the flow starts, it is checked in step S472 whether or not such an undecided photograph is stored in first memory 6. The undecided photograph means a photograph input into the first television set 2 from the digital camera 29 or the like without the automatic sending mark and has not been decided to send to the second home by means of a manual operation. If any, the flow advances to step S474 to indicate one of such photographs on the first display 8 in accordance with a predetermined order. This makes it possible to preview the undecided photograph to decide whether or not to send the photograph. If the photograph is not satisfactory as the result of the preview, the photograph is left undecided or deleted.

Next, in step S476, it is checked whether or not the previewed photograph is decided to send. If the decision is made, the flow is advanced to step S478 to check whether or not phone call key 82 is pressed for inputting voice message to be added to the photograph in advance to the sending thereof.

If it is determined in step S478 that the phone call key 82 is pressed, the flow advances to step S480 to mute the voice from the first television set 2 for avoiding the acoustic feedback. Further, in step S482, microphone 75 of the first remote controller 7 is activated to start the sampling of voice to be added to the photograph on the first display 8. Next, in step S484, it is checked whether or not phone call key 82 is still pressed

If it is determined in step S484 that phone call key 82 is still pressed, the flow returns to step S480 to continue muting the voice from the first television set 2. Thus, the steps S480 to S484 are repeated unless it is determined in step S484 that phone call key 82 is not pressed.

If it is determined in step S484 that phone call key 82 is not pressed any more, the flow ceases the repetition to stop the sampling of voice by microphone 57 and the muting of the voice from the first television set 2, and the flow advances to step S486..

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In step S486, data in a voiceless period is automatically removed from all data sampled during phone call key 82 is kept in pressed state. In other words, even if such a defective voice message is sampled that a massage barely starts with an intolerable silence or a message chokes for an intolerable time, the message is improved to be played back in more listenable manner with the voiceless period automatically removed.

Next in step S488, a natural pause data is inserted at every break point of the voice. In more detail, the natural pose is inserted at a point where the voiceless data is removed by way of compensation to avoid such a message that the voice unnaturally continues at the removed voiceless data. The natural pose is also added in front of or the end of the voice message to avoid such a message that the voice suddenly starts or the massage ends without afterglow.

By means of the above steps S486 and S488 solely or in combination, a voice massage to be added to a photograph is automatically improved even if it is poorly sampled. Thus, the playback voice message starts with a natural pose after the appearance of new photograph in the automatic slide show, continues without intolerable silence or flustered tone, and ends with a natural afterglow before the photograph is replaced by new one in the automatic slideshow.

The flow advances to step S490 following to step S490. On the other hands, if it is not determined in step S478 that the phone call key 82 is pressed, the flow directly goes to step S490

In step S490, it is checked whether or not decision closing operation is done by means of the first remote controller 7. If it is not detected in step S490 that such an operation is done, the flow returns to step S472. If it is not detected in step S476 that the previewed photograph is decided to send, the flow also returns to step S472.

After the return to step S472 from step S490 or step S476, the steps S472 to S490 are repeated unless it is determined in step S490 that the decision closing operation is done, or it is determined in step S472 that an undecided photograph stored in first memory 6 does not exist any more. In step S474, the display of the former photograph is replaced by new one according to a predetermined order every time the flow comes form step S472 to step S474.

If it is determined in step S490 that the decision closing operation is done, or if it is determined in step S472 that an undecided photograph stored in first memory 6 does not exist any more, the flow goes to step S492 to check whether or not any photograph is decided to be sent. If any, the flow advances to step S494 for slide show process with background music, in which a control data for slideshow and background music data is added to the photographs if the decided photographs are plural, the flow

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then terminating. On the other hands, the flow instantly terminates if it is determined in step S492 that any photograph is not decided to be sent at all.

Fig. 23 is a table for showing a unique format of the information to be attached to e-mail exchanged between the first communicator 15 and the second communicator 16. The information according to the format is not only attached to e-mail, but also kept in the fist memory 6 or the second memory 10 as the first storage information 23 or the second storage information 24, respectively. The unique format of information to be exchanged and stored makes it easy to process or analyze the such information.

In Fig. 23, information format 151 includes four groups consisting of the first group 152, the second group 153, the third group 154 and the fourth group 155. The first group 152 is for attribute relating to the area where the fist home 1 or the second home 2 locates, such as broadcast area or time difference, which are unchanged unless the home moves to a different area. The second group 153 is for attribute relating to of the operation of the first television set 2 or the second television set 4, the third group 154 for attribute relating to the condition of the home electric appliance to be monitored in the first home 1 and the second home 3, and the fourth group 155 for attribute relating to other flexible items. Each group includes a plurality of independent items each uniformly consist of a set of item name part and item contents part, which are inseparable from each other.

The information format 151 of the above explained structure is not treated in one body, but individual groups 152 to 155 are separable to be independently treated, respectively. Further, the items in each group are also separable to be independently treated, respectively. Thus, the structure in information format 151 is only for grouping and for attribute allocation.

In the first group 152, item 156 consists of an item name part for "broadcast area" and a contents part including broadcast area code as well as date and time. If a change in the broadcast area is caused by a moving of the home, there are two information as to the "area" item, i.e., the former broadcast area with the old date and time and the new broadcast area with the new date and time when the change occurs. Similarly, the following items each include the information of date and time at the contents part. Thus, there may be caused a plurality of information with different date and time as to the same item. The date and time of each information is automatically recorded when each information is created.

The item 157 in the first group 152 consists of an item name part for "time difference" and a contents part including the difference from the standard time as well as date and time. In an area where summer time is adopted, a first information for

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winter time difference with date and time for the beginning of the winter time and a second information for summer time difference with date and time for the beginning of the summer time are created in every year.

The item 158 in the second group 153 consists of an item name part for "television set power" and a contents part including a code indicative of power-on state or power-off state as well as date and time. Similarly, the item 159 in the second group 153 consists of an item name part for "channel" and a contents part including channel number as well as date and time, the item 160 consisting of an item name part for "sound volume" and a contents part including numerical value for sound volume. As to items 158, 159 and 160, new information is created every time when any change is caused in one of the power, the channel and the sound volume, each being created with different date and time.

The item 161 in the second group 153 consists of an item name part for "video playback" and a contents part including a code indicative of the start or end of the playback as well as date and time. This information is created twice, i.e., at the start and at the end of one video playback.

Item 161 is not for any information of the contents of video program, but a mere indication that the television set is switched from broadcast program receiving mode to a video playback mode. This is the reason why item 161 is classified into the second group 153. In other words, item 161 has no ID information for identifying the played back program as in the items classified into the third group 154. As to the code indicative of the start or end of the playback in the contents part of item 161, it should be noted that the code indicative of the start of the playback is to be interpreted to indicate that the broadcast program data stored in the second memory 10 is viewed at that time. This is same as in the case of code indicative of the start or end of the playback in the contents part of 169 explained later.

Although not shown in Fig. 23, the second group 153 relating to the television operation also includes an item consists of an item name part for "timer setting" and a contents part including a code indicative of whether or not the timer is set, a set time for starting, and a set time for ending as well as date and time. Such an item is also automatically attached to e-mail which is automatically sent.

In response to the receipt of the information of "timer setting" item, the television set changes its judging condition for monitored information in carrying out the process of Fig.13 and Fig. 16. For example, the interval between the timer setting operation time and the set time for starting something is excluded from the predetermined time period of step S298 in Fig. 13 since it may not abnormal even if no

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operation is done in such an interval.

Items 162 to 164 in the third group 154 relate to the condition of the home electric appliances #1 to #3 each independently consisting of an item name part for "appliance #1" or the like and a contents part including a code indicative of the in use or out of use of the home electric appliance as well as date and time. Among the three home electric appliances, appliance #3 relates to a second item 165 in addition to the first item 164 named "appliance #3-1", the second item 165 consisting of an item name part for "appliance #3-2" and a contents part including numeric information indicative of temperature set to appliance #3 as well as date and time. As in appliance #3, some home electric appliance causes a plurality of items if such an electric appliance includes a plurality of monitored information.

Items 166 in the third group 154 does not relate to a home electric appliances, but to home equipment or joinery to be monitored, item 166 consisting of an item name part for "equipment #1" or the like and a contents part including a code indicative of its state as well as date and time. For example, if a door is to be monitored, the contents codes are representative of open state and close state. Such contents codes include not only the two, but also more than three such as lock and unlock of the door lock turned at the outside or those at the inside. Information of the above items for appliance, equipment and joinery or the like in the home can be analyzed in combination since these are normally used in a regular order, such as shutting off home electric appliance followed by turning the lock of the door at the outside in the case of leaving home. The date and time in the contents part in each item is useful in such an analysis or historical analysis.

Further, in response to the decision of leaving or coming home on the received information of the item relating to door lock, for example, the television set changes its judging condition of time for monitored information in the process of Fig.13 and Fig. 16.

Although not shown in Fig. 23, the third group 154 also includes an item consists of an item name part for "long vacation" and a contents part including a code indicative of long absence in vacation, the leaving date and time, and the returning date and time as well as date and time of creating the item. Such an item is also automatically attached to e-mail which is automatically sent for informing the other home of an irregular change in the life of own home. This item can be created by operating the first remote controller 7 or the second remote controller 11, the date and time of creating such an item being automatically added to the contents part as in all the other items. .

In response to the receipt of the information of "long vacation" item, the

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television set changes its judging condition for monitored information in carrying out the process of Fig.13 and Fig. 16. For example, the interval between the leaving date and time and the returning date and time is excluded from the predetermined time period of step S298 in Fig. 13 since it may not abnormal even if no operation is done in such an interval. In place of such exclusion, a step is added to detect an operation done in the interval between the leaving date and time and the returning date and time to judge an abnormality since any operation in the absence interval is suspiciously done by an invading stranger. .

The number of items in the third group 154 can be increased in dependence on the increase in number of objects or of items in the same object.

Items 167 in the fourth group 155 relates to the registration of the regularly viewed series broadcast program and consists of an item name part for "series program" and a contents part including ID for identifying the series broadcast program, a code indicative of whether to add or delete the program to or from the registration as well as date and time. The ID may be the code unique to the program or a combination of channel, the day of the week, and the starting time.

Items 168 in the fourth group 155 relates to the photograph and consists of an item name part for "photograph viewing" and a contents part including ID for identifying the photograph as well as date and time when the photograph is viewed. The generated or received information of item 168 is to be compared with the ID for the photograph stored in the first memory 6 or the second memory 10. If both the ID's coincide with each other, icon 55 in Fig. 2, which indicates that a photograph is sent, or icon 63 in Fig. 3, which indicates that a photograph is received, disappears.

Items 169 in the fourth group 155 relates to the broadcast program recorded or downloaded to be stored into the first memory 6 or the second memory 10 and consists of an item name part for "stored program" and a contents part including ID for identifying the broadcast program stored, a code indicative of the start or end of the playback as well as date and time. This information is created twice, i.e., at the start and at the end of one video playback.

In the above explanation, the information exchange between the first television set 2 and the second television set 4 is carried out by an attachment to e-mail through server on the internet. However, this invention is not limited to the embodiment on e-mail and attachment, but is applicable to other types of information exchange between the first television set 2 and the second television set 4, such as bidirectional digital broadcast network or communication way other than e-mail through server on the internet.

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However, the information exchange in the embodiment through a unique format of information automatically attached to e-mail which is automatically sent is advantageous in that the manner is simple for informing the other television set of the condition of the own television set and that the system can be realize on a currently existing hardware including television set combined with a personal computer having e-mail sending function.

This advantage is received not only by a group of private homes such as the first home 1 and the second home 2, but also widely received by various system including television set. For example, if the address of the other television set for automatically sending e-mail is replaced by an address of a rating company, an audience share survey can be easily carried out. Of course, the rating company makes an agreement with a great number of audience homes to automatically send e-mail every time when the channel of television set in each home is changed according to this invention. Thus, this invention presents a novel and easy audience rating survey system of higher reliability and efficiency than a conventional system on a sampling by a special apparatus and statistics method.

Further, the feature and advantage for sensing abnormality on the basis of actions of a person to the remote controller explained in steps S362 and S364 is related not only to the remote controller for the television set, but also widely relates to various handy appliances, such as a land phone or a mobile phone. In other words, the feature of steps S362 and S364 can be applicable to a land phone or a mobile phone to improve them. In other words, in response to the sensing of the abnormality in steps S362 and S364, the improved land phone or mobile phone automatically puts a call in to a predetermined phone number and automatically transmits a prepared voice message when connection is made.

Thus, a person even in panic or off his or her truck can report the emergency on the land phone or mobile phone by means of a simple action not to be taken by a normal person, but is apt to be taken by a person in panic or off the truck. Further, a possibility of erroneous emergency report is relatively low because the assumed action in steps S362 and S364 would not be taken by a normal person. Further the improvement does not require any regular exercise and maintenance to keep the reliability of emergency report since the land phone or the mobile phone is in daily use.

In the embodiment above, it is explained that photograph taken by a digital camera is exchanged between the first home 1 and the second home 3. However, image information to be exchanged between television sets in accordance with this invention is not limited to the still image such as photograph, but information of moving image

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taken by digital camera or a movie camera can be attached to e-mail exchanged between the homes.

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What is claimed is:

1. A television set comprising:

a television function unit;

a detector arranged to detect a cause of change in the television function;

a communicator arranged to communicate with an outside counterpart by means of designating an address of the counter part;

an input arranged to prepare a first information of a free contents;

a first designator arranged to freely designate a desired address to which the first information is sent;

a first trigger arranged to manually send the first information through the communicator;

an automatic generator of a second information of a prepared contents in response to the detector which detects a cause of a predetermined change in the television function;

a second designator arranged to automatically designate a predetermined address to which the second information is sent; and

a second trigger arranged to automatically send the second information through the communicator in response to the completion of the function of the automatic generator and the second designator.

2. The television set according to claim 1, wherein the detector includes a receiver arranged to receive a signal from a remote controller.

3. The television set according to claim 1, wherein the change in the television function is the change in at least one of the power-on or power-off, the channel selection and sound volume.

4. The television set according to claim 1, wherein the automatic generator is arranged to generate the second information in accordance with a predetermined format.

5. The television set according to claim 4, wherein the automatic generator is arranged to generate an e-mail to which the second information in the predetermined format is attached.

6. The television set according to claim 1, wherein the second designator is arranged to designate an address of another television set located at a familiar home.

7. The television set according to claim 1, wherein the second designator is arranged to designate an address of a rating company in charge of an audience share survey.

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8. The television set according to claim 1 further comprising a second detector arranged to detect an abnormal use of the television set, wherein the automatic generator is further responsive to the second detector.

9. The television set according to claim 1, wherein the second designator is arranged to designate an address of an emergency organization.

10. A television set comprising:

a television function unit;

a display arranged to display a broadcast program in accordance with the television function unit;

a communicator arranged to communicate with an outside counterpart;

a receiver arranged to receive information form the outside counterpart through the communicator; and

a controller arranged to automatically change the display in response to the receipt of the information by the receiver from a predetermined outside counterpart.

11. The television set according to claim 10, wherein the predetermined counterpart is another television set located at a familiar home, and wherein the received information includes a change in at least one of the power-on or power-off, the channel selection and sound volume of the another television set.

12. The television set according to claim 11, wherein the controller is arranged to display the channel selection of the other television set with the local channel number.

13. The television set according to claim 11, wherein the controller is arranged to change the display if the broadcast program identified by the channel selection of the other television set coincides with the broadcast program displayed in accordance with the television function unit.

14. The television set according to claim 11, wherein the controller is arranged to make it possible to replace the broadcast program displayed in accordance with the television function unit by another broadcast program identified by the channel selection of the other television set.

15. The television set according to claim 10 further comprising a storage arranged to record the received information and an analyzer arranged to detect an abnormality in the predetermined outside counterpart on the basis of an analysis of the recorded information.

16. The television set according to claim 10, wherein the received information includes a sign of abnormality in the predetermined outside counterpart.

17. The television set according to claim 10, wherein the receiver is arranged

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to refuse receiving information other than the information from the predetermined outside counterpart for automatically change the display.

18. A remote controller for an appliance comprising:

an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively;

a signal transmitter arranged to transmit a control signal to the appliance in response to the operation in the operating part;

a first controller arranged to determine the signal indicative of one of the predetermined functions to be transmitted to the appliance in response to an operation of at least one of the keys in compliance with a predetermined manner; and

a second controller arranged to have the signal transmitter to transmit a signal indicative of an abnormality to the appliance in response to an operation of the operating part which does not comply with the predetermined manner, but corresponds to a predetermined abnormal manner.

19. The remote controller according to claim 18, wherein the appliance is a television set including a communicator arranged to communicate with an outside counterpart by means of designating an address of the counter part.

20. The remote controller according to claim 18, wherein the predetermined abnormal manner includes at least one of such manners that three keys or more are pushed at once and that the same key or a group of closely arranged keys is pushed more than a predetermined times in a limited period.

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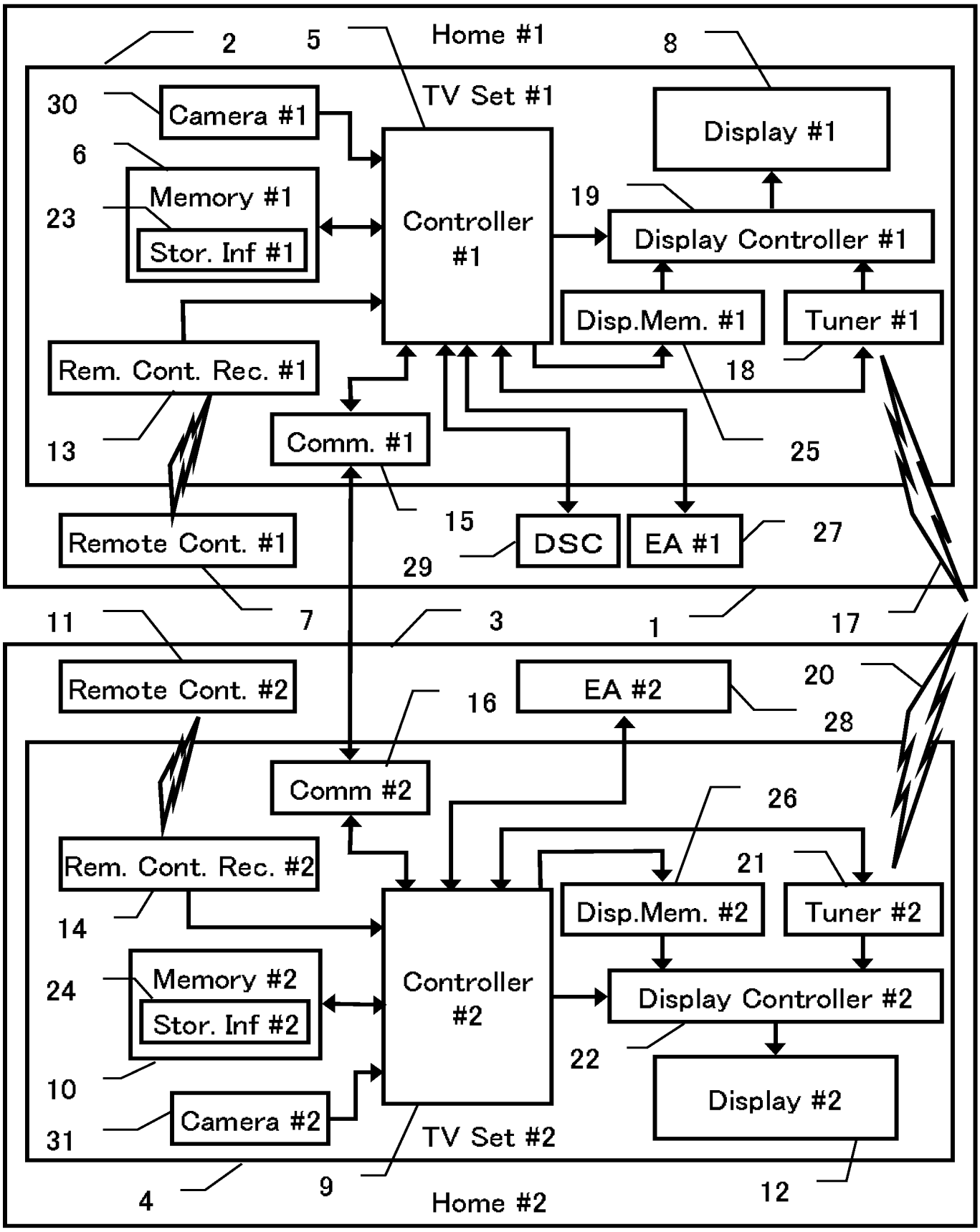

Home #1
2
5
8
TV Set #1
30
Camera #1
Display #1
6
Memory #1
23
Stor. Inf #1
Controller #1
19
Display Controller #1
Disp.Mem. #1
Tuner #1
Rem. Cont. Rec. #1
18
13
Comm. #1
25
15
Remote Cont. #1
DSC
EA #1
27
29
7
3
1
17
11
Remote Cont. #2
16
EA #2
20
28
Comm #2
26
Rem. Cont. Rec. #2
21
14
Disp.Mem. #2
Tuner #2
24
Memory #2
Stor. Inf #2
Controller #2
Display Controller #2
22
10
Display #2
Camera #2
31
TV Set #2
4
9
12
Home #2

Fig.1

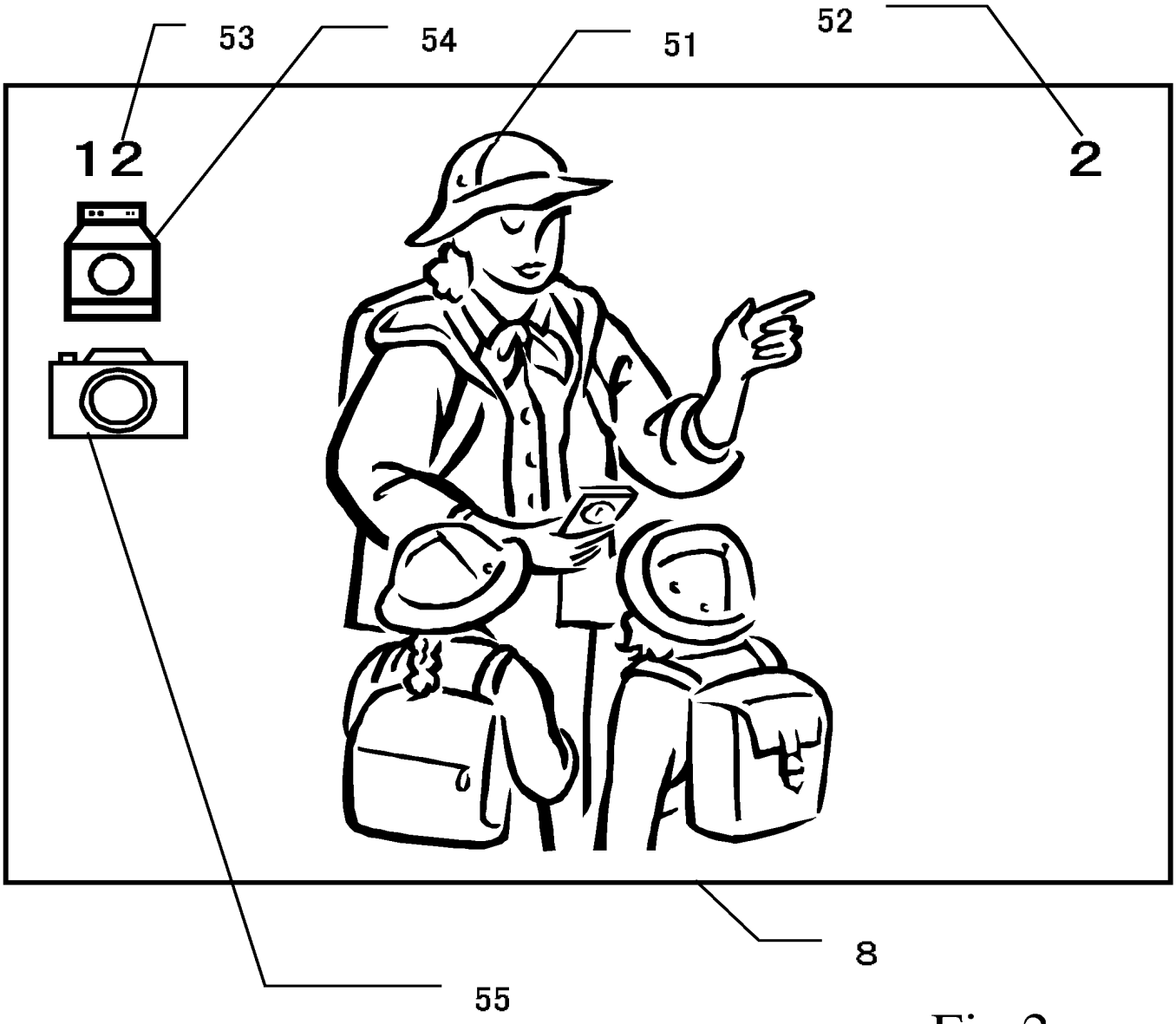


Fig.2

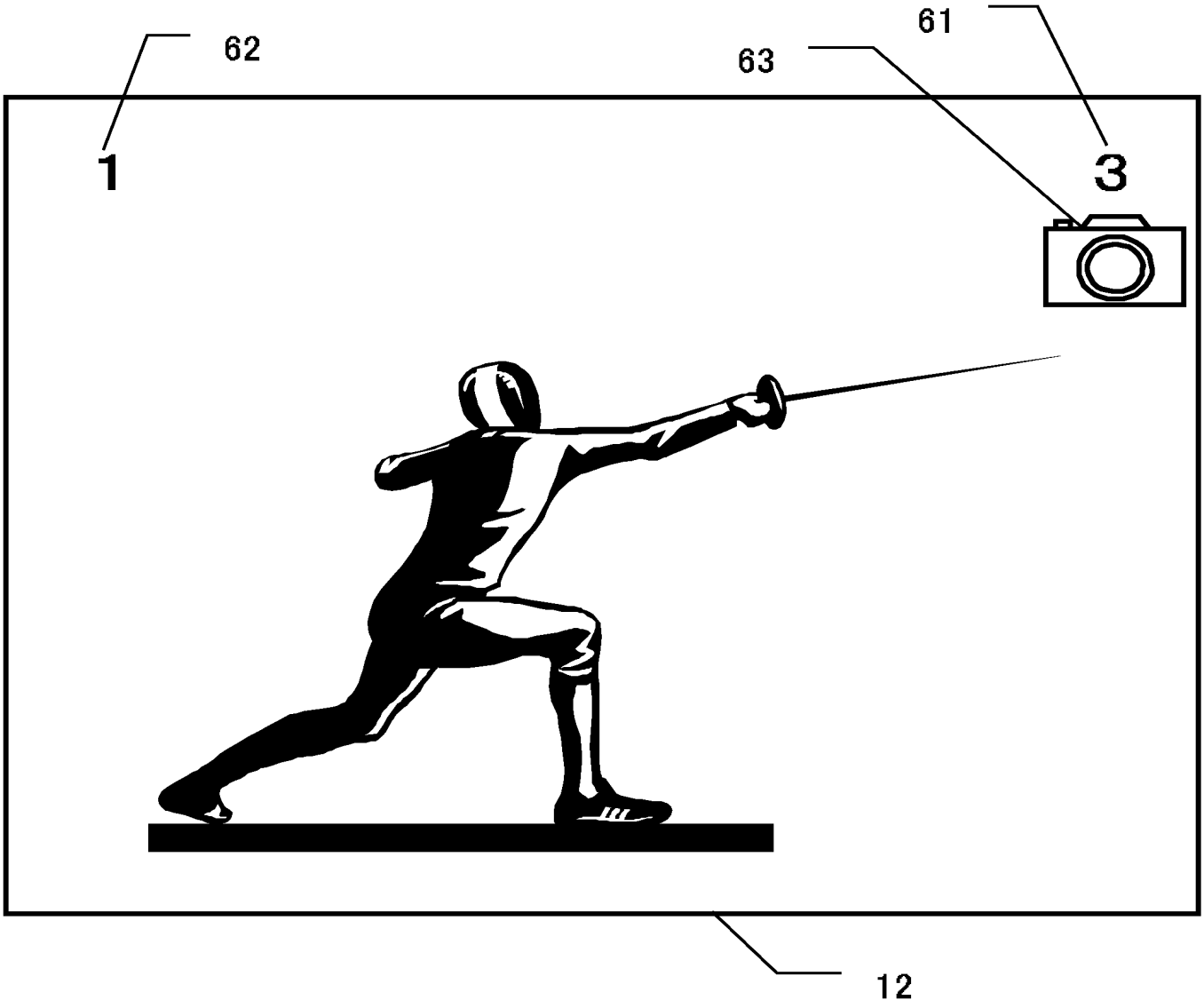


Fig.3

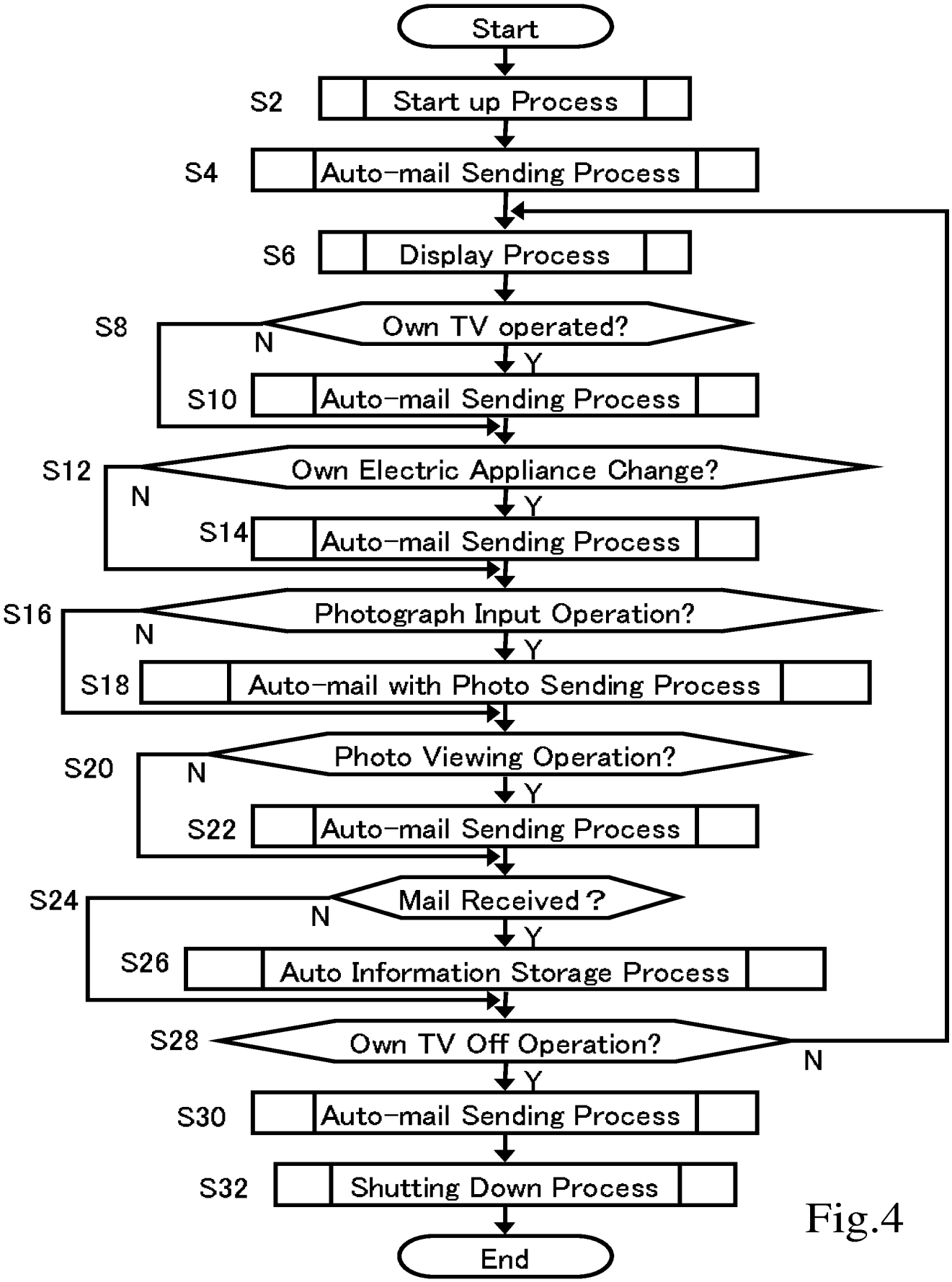

Start
S2
Start up Process
S4
Auto-mail Sending Process
S6
Display Process
S8
Own TV operated?
N
Y
S10
Auto-mail Sending Process
S12
Own Electric Appliance Change?
N
Y
S14
Auto-mail Sending Process
S16
Photograph Input Operation?
N
Y
S18
Auto-mail with Photo Sending Process
S20
Photo Viewing Operation?
N
Y
S22
Auto-mail Sending Process
S24
Mail Received ?
N
Y
S26
Auto Information Storage Process
S28
Own TV Off Operation?
N
Y
S30
Auto-mail Sending Process
S32
Shutting Down Process
End

Fig.4

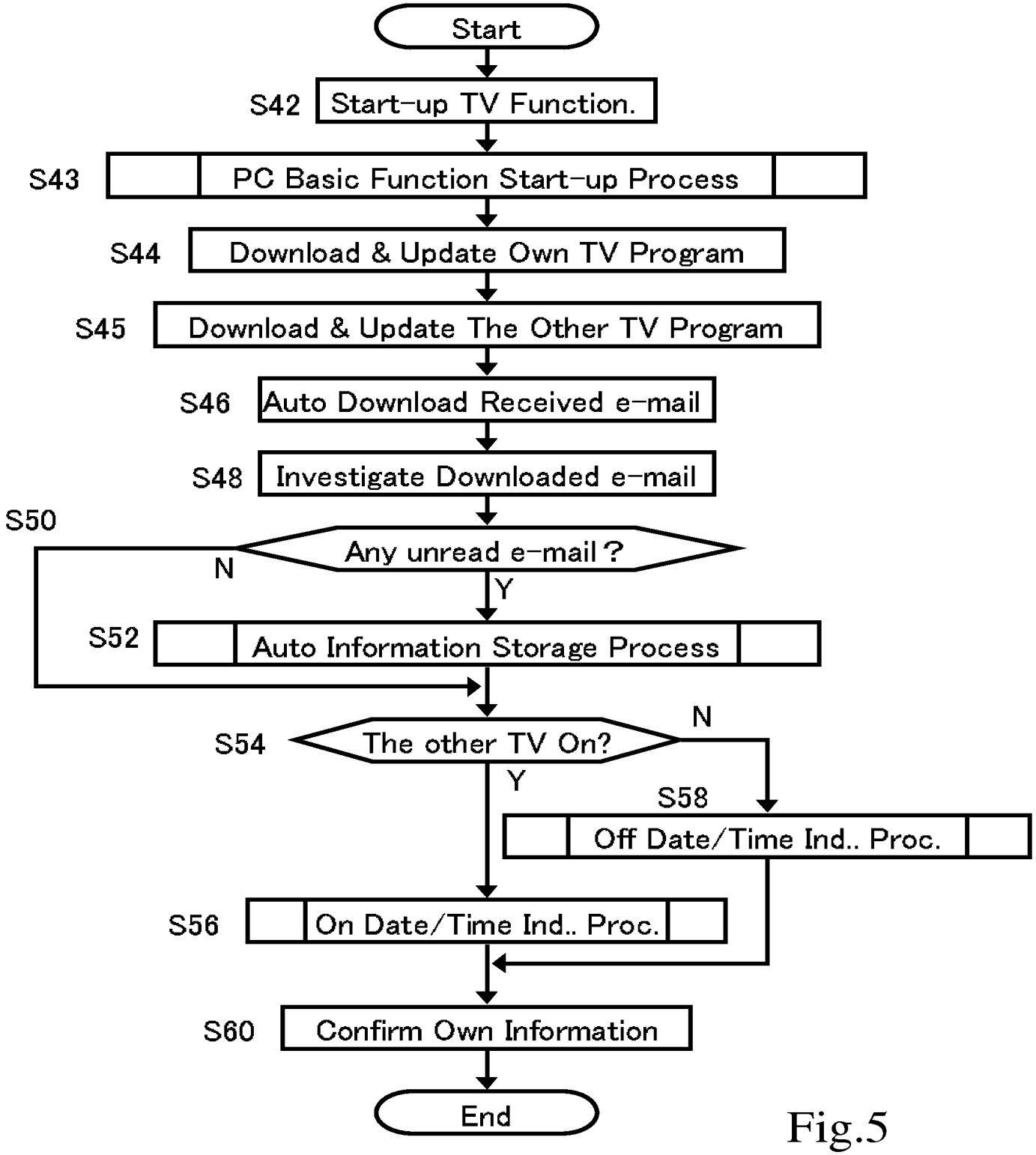

Start
S42
Start-up TV Function.
S43
PC Basic Function Start-up Process
S44
Download & Update Own TV Program
S45
Download & Update The Other TV Program
S46
Auto Download Received e-mail
S48
Investigate Downloaded e-mail
S50
Any unread e-mail ?
N
Y
S52
Auto Information Storage Process
S54
The other TV On?
N
Y
S58
Off Date/Time Ind.. Proc.
S56
On Date/Time Ind.. Proc.
S60
Confirm Own Information
End

Fig.5

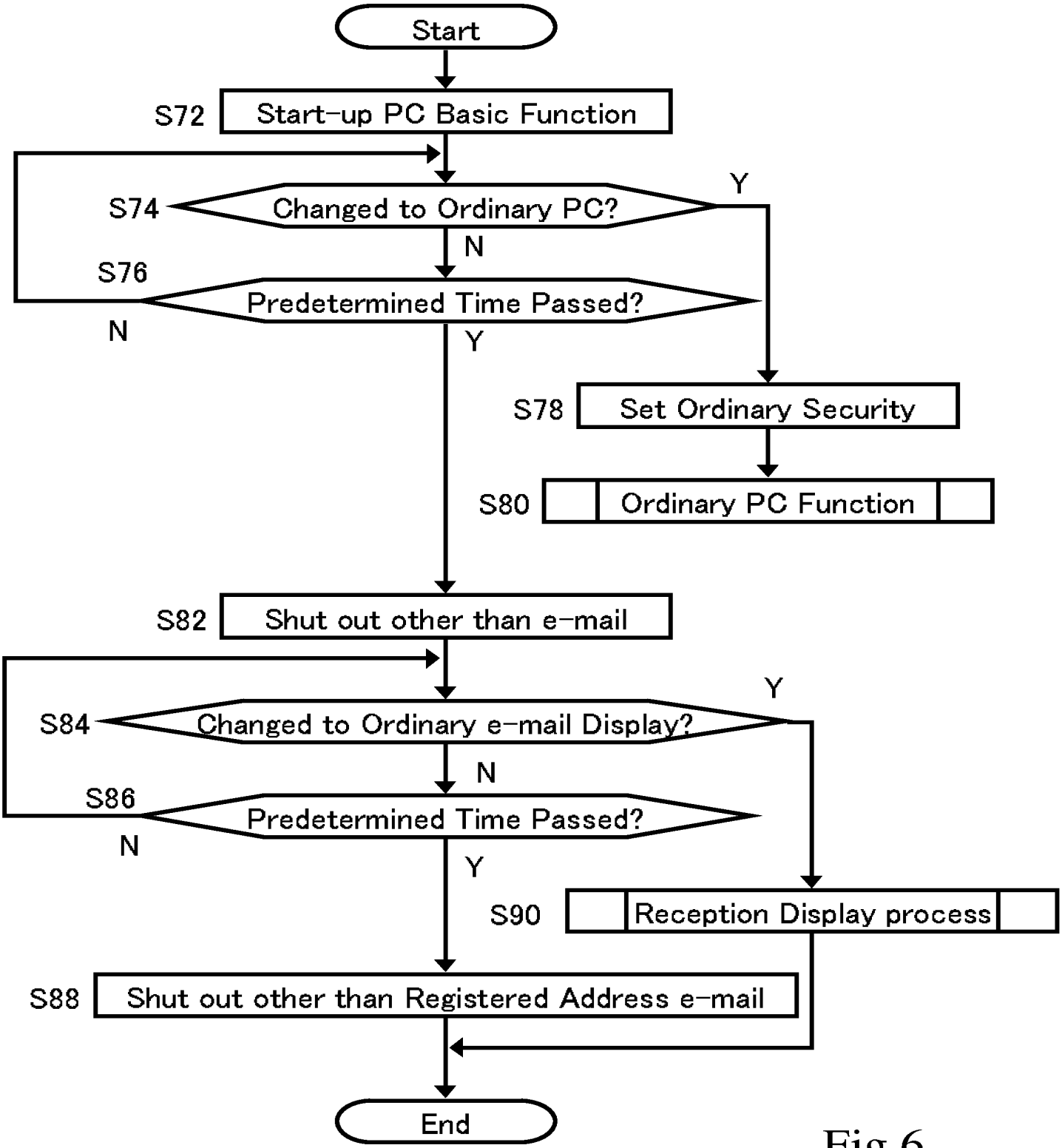

Start
S72
Start-up PC Basic Function
S74
Changed to Ordinary PC?
Y
N
S76
Predetermined Time Passed?
N
Y
S78
Set Ordinary Security
S80
Ordinary PC Function
S82
Shut out other than e-mail
S84
Changed to Ordinary e-mail Display?
Y
N
S86
Predetermined Time Passed?
N
Y
S90
Reception Display process
S88
Shut out other than Registered Address e-mail
End

Fig.6

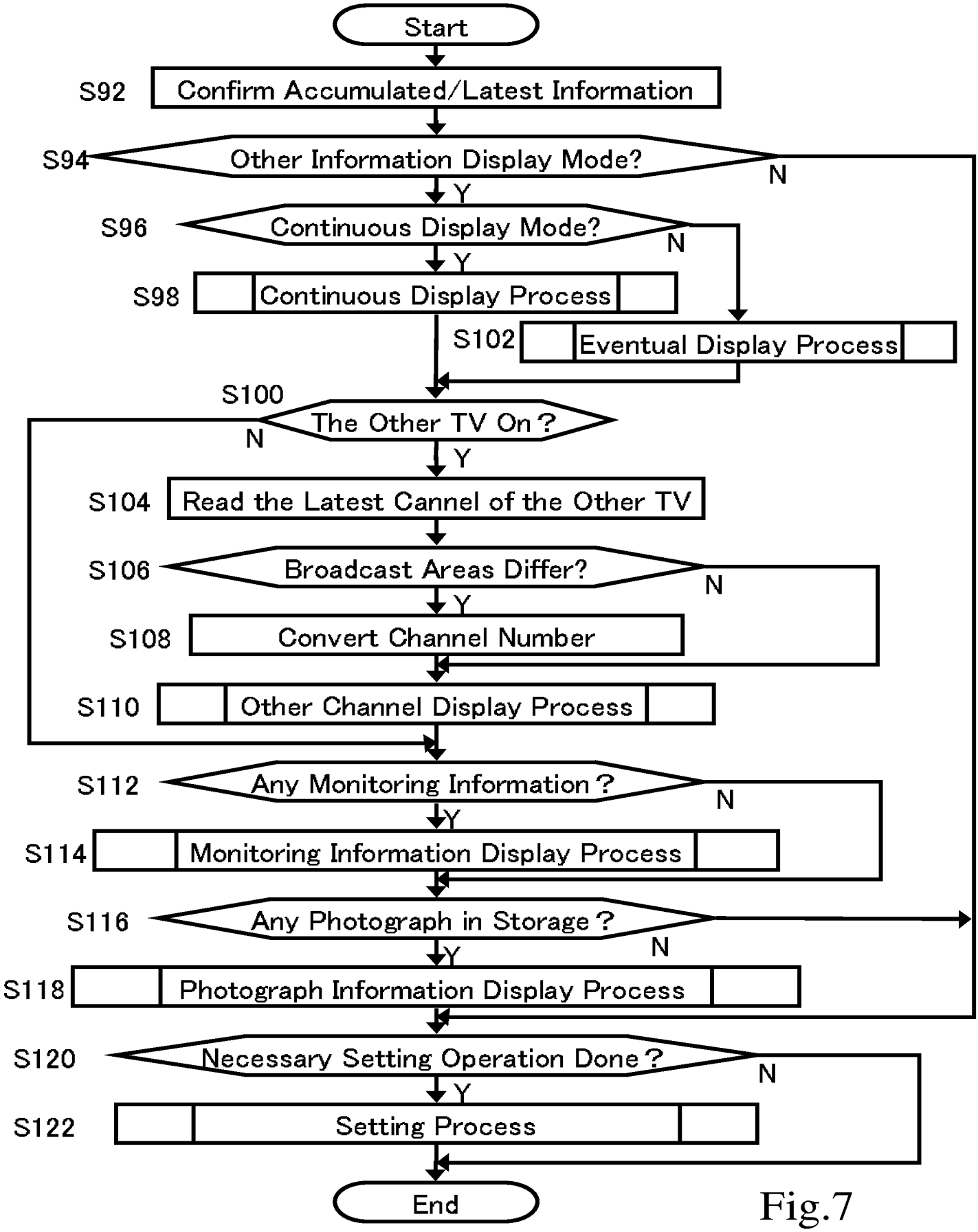

Start
S92
Confirm Accumulated/Latest Information
S94
Other Information Display Mode?
N
Y
S96
Continuous Display Mode?
N
Y
S98
Continuous Display Process
S102
Eventual Display Process
S100
The Other TV On ?
N
Y
S104
Read the Latest Cannel of the Other TV
S106
Broadcast Areas Differ?
N
Y
S108
Convert Channel Number
S110
Other Channel Display Process
S112
Any Monitoring Information ?
N
Y
S114
Monitoring Information Display Process
S116
Any Photograph in Storage ?
N
Y
S118
Photograph Information Display Process
S120
Necessary Setting Operation Done ?
N
Y
S122
Setting Process
End

Fig.7

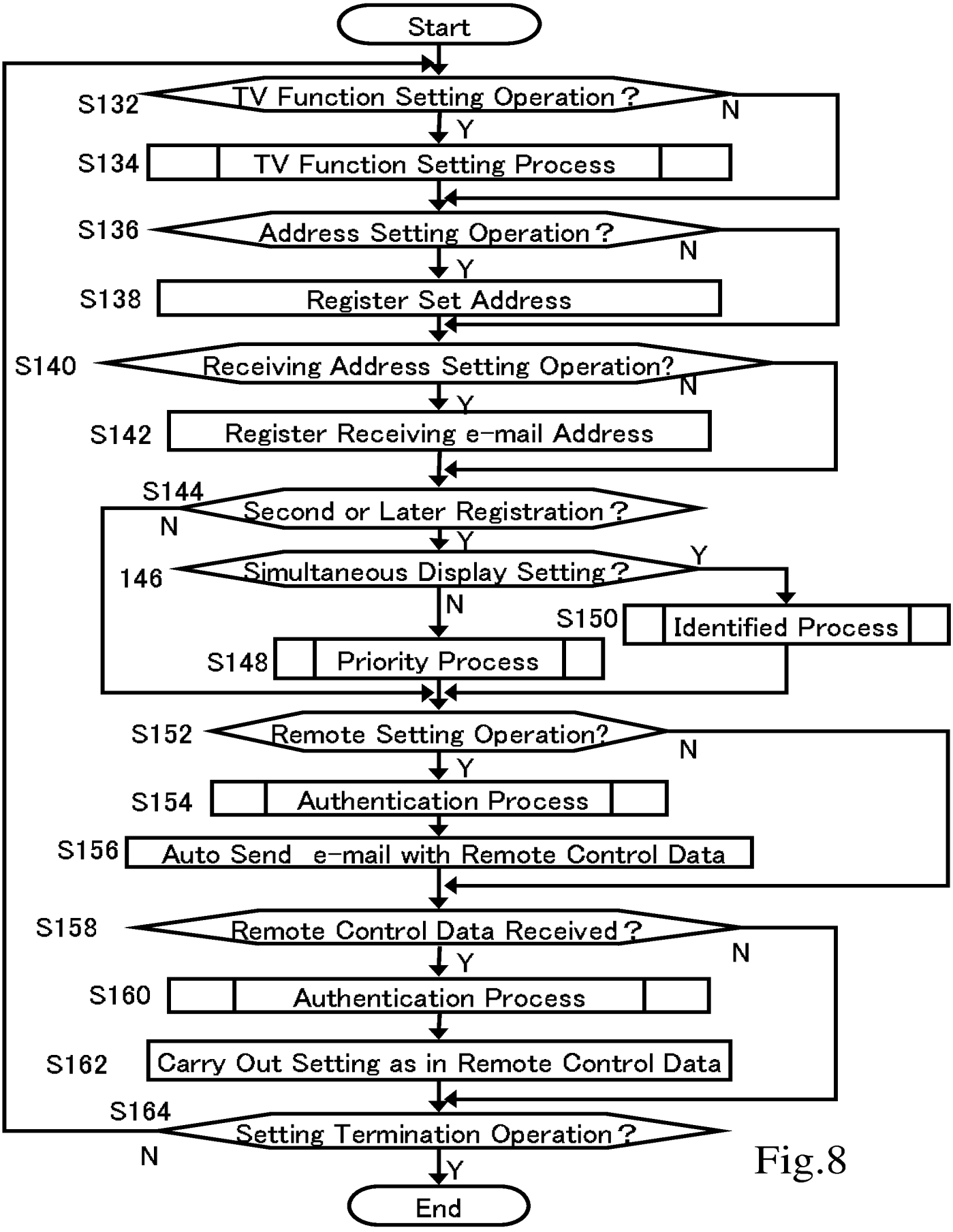

Start
S132
TV Function Setting Operation?
N
Y
S134
TV Function Setting Process
S136
Address Setting Operation?
N
Y
S138
Register Set Address
S140
Receiving Address Setting Operation?
N
Y
S142
Register Receiving e-mail Address
S144
Second or Later Registration?
N
Y
146
Simultaneous Display Setting?
Y
N
S150
Identified Process
S148
Priority Process
S152
Remote Setting Operation?
N
Y
S154
Authentication Process
S156
Auto Send e-mail with Remote Control Data
S158
Remote Control Data Received?
N
Y
S160
Authentication Process
S162
Carry Out Setting as in Remote Control Data
S164
Setting Termination Operation?
N
Y
End

Fig.8

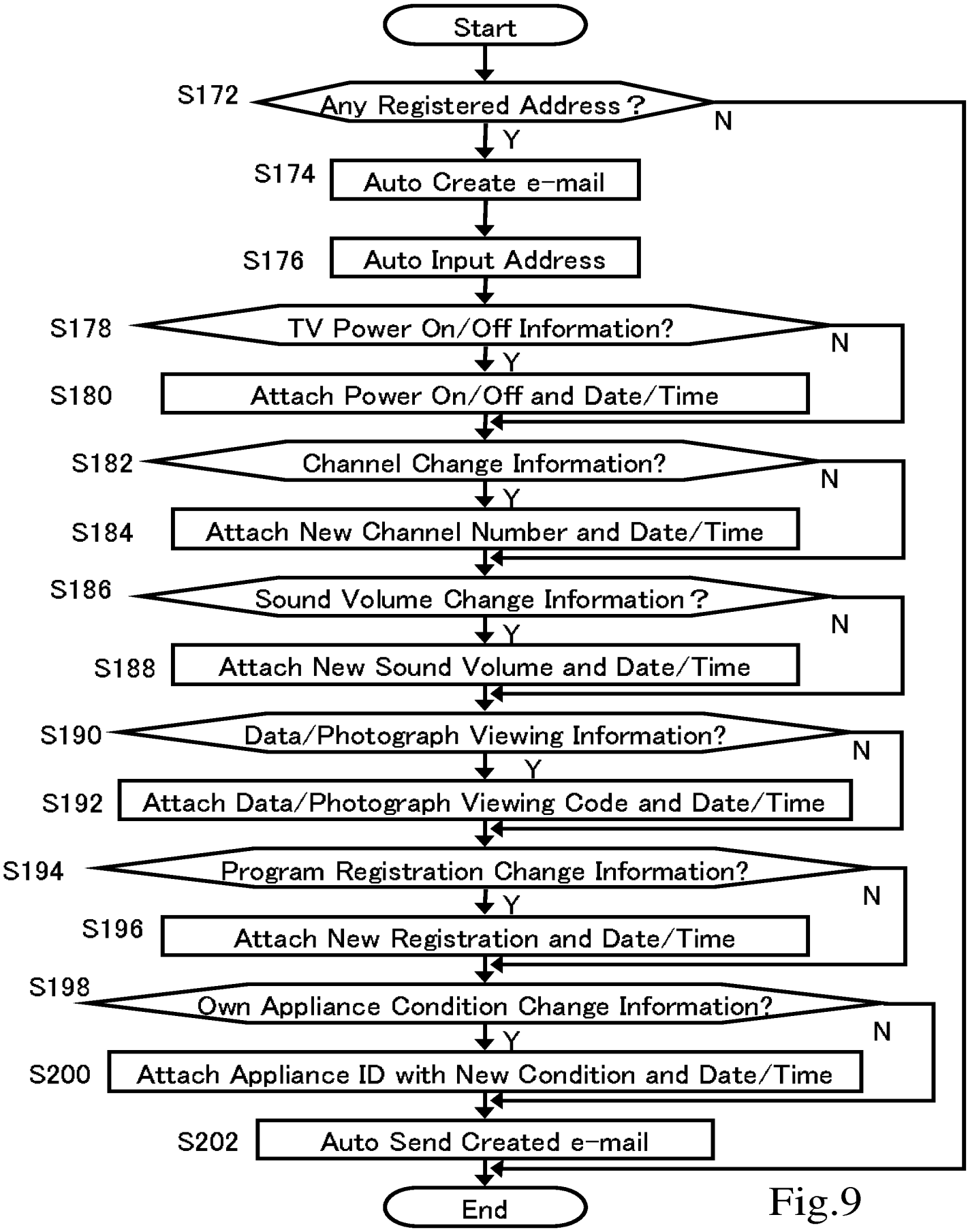

Start
S172
Any Registered Address ?
N
Y
S174
Auto Create e-mail
S176
Auto Input Address
S178
TV Power On/Off Information?
N
Y
S180
Attach Power On/Off and Date/Time
S182
Channel Change Information?
N
Y
S184
Attach New Channel Number and Date/Time
S186
Sound Volume Change Information ?
N
Y
S188
Attach New Sound Volume and Date/Time
S190
Data/Photograph Viewing Information?
N
Y
S192
Attach Data/Photograph Viewing Code and Date/Time
S194
Program Registration Change Information?
N
Y
S196
Attach New Registration and Date/Time
S198
Own Appliance Condition Change Information?
N
Y
S200
Attach Appliance ID with New Condition and Date/Time
S202
Auto Send Created e-mail
End

Fig.9

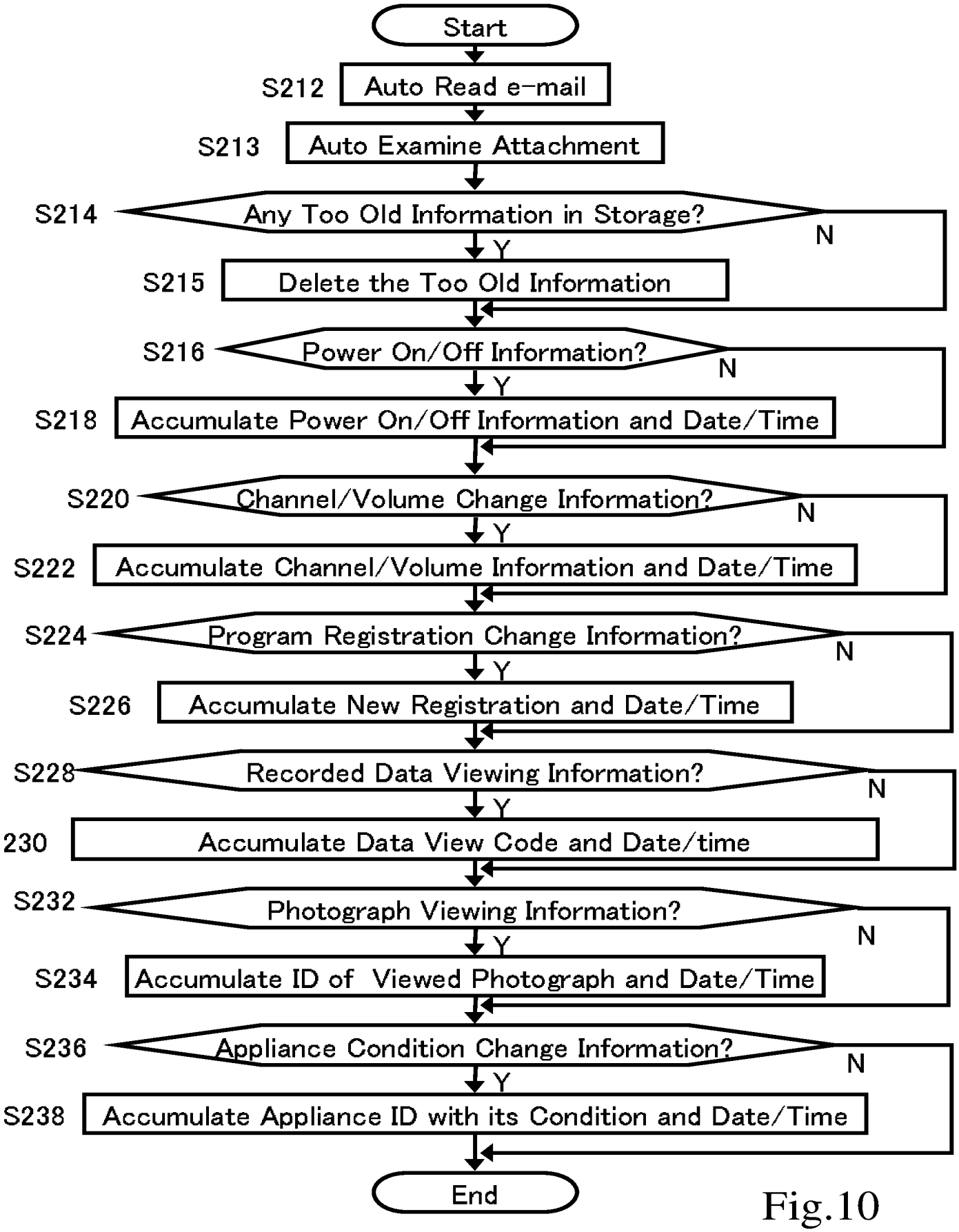

Start
S212
Auto Read e-mail
S213
Auto Examine Attachment
S214
Any Too Old Information in Storage?
N
Y
S215
Delete the Too Old Information
S216
Power On/Off Information?
N
Y
S218
Accumulate Power On/Off Information and Date/Time
S220
Channel/Volume Change Information?
N
Y
S222
Accumulate Channel/Volume Information and Date/Time
S224
Program Registration Change Information?
N
Y
S226
Accumulate New Registration and Date/Time
S228
Recorded Data Viewing Information?
N
Y
230
Accumulate Data View Code and Date/time
S232
Photograph Viewing Information?
N
Y
S234
Accumulate ID of Viewed Photograph and Date/Time
S236
Appliance Condition Change Information?
N
Y
S238
Accumulate Appliance ID with its Condition and Date/Time
End

Fig.10

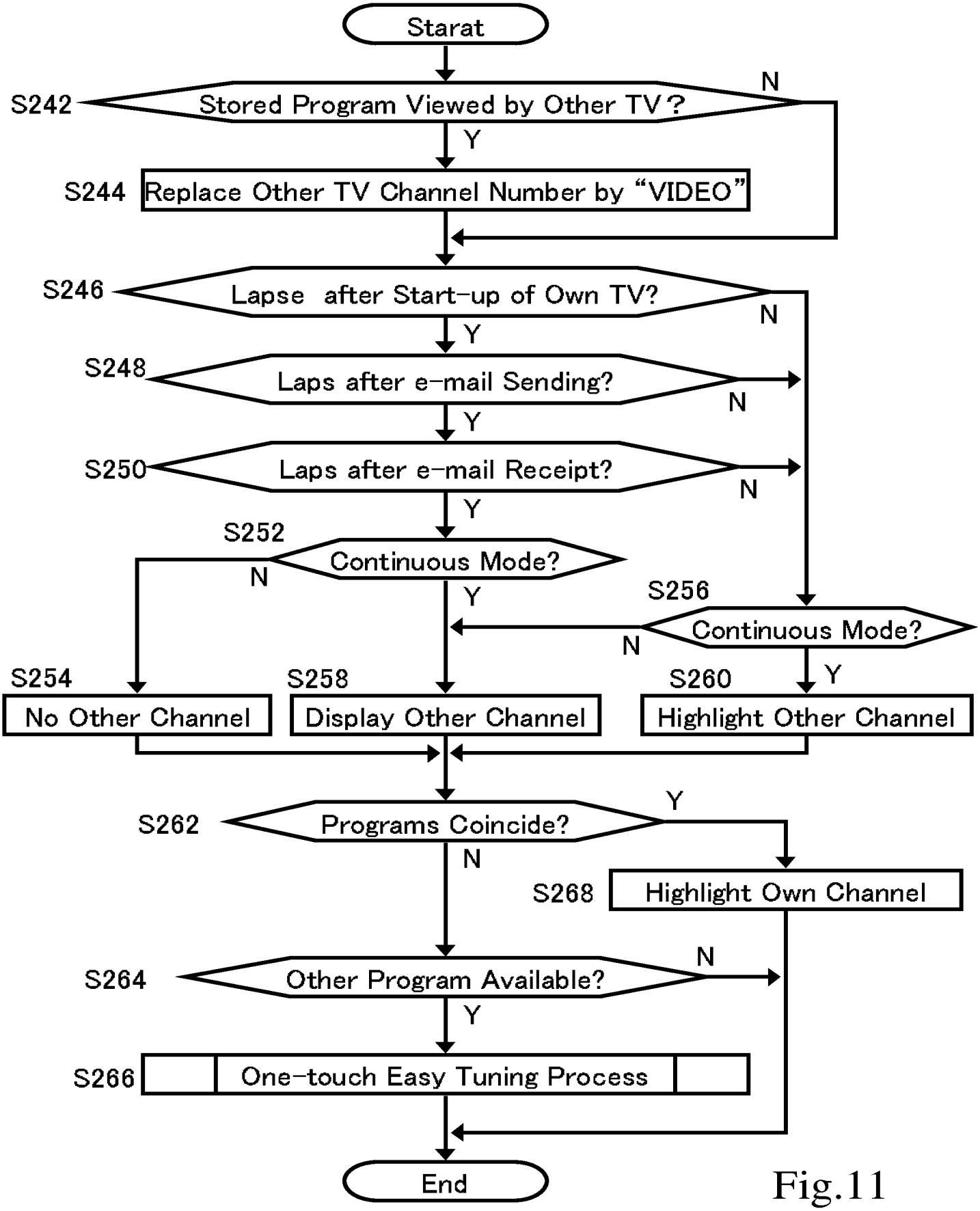

Starat
S242
Stored Program Viewed by Other TV?
N
Y
S244
Replace Other TV Channel Number by "VIDEO"
S246
Lapse after Start-up of Own TV?
N
Y
S248
Laps after e-mail Sending?
N
Y
S250
Laps after e-mail Receipt?
N
Y
S252
Continuous Mode?
N
Y
S256
Continuous Mode?
N
Y
S254
No Other Channel
S258
Display Other Channel
S260
Highlight Other Channel
S262
Programs Coincide?
Y
N
S268
Highlight Own Channel
S264
Other Program Available?
N
Y
S266
One-touch Easy Tuning Process
End

Fig.11

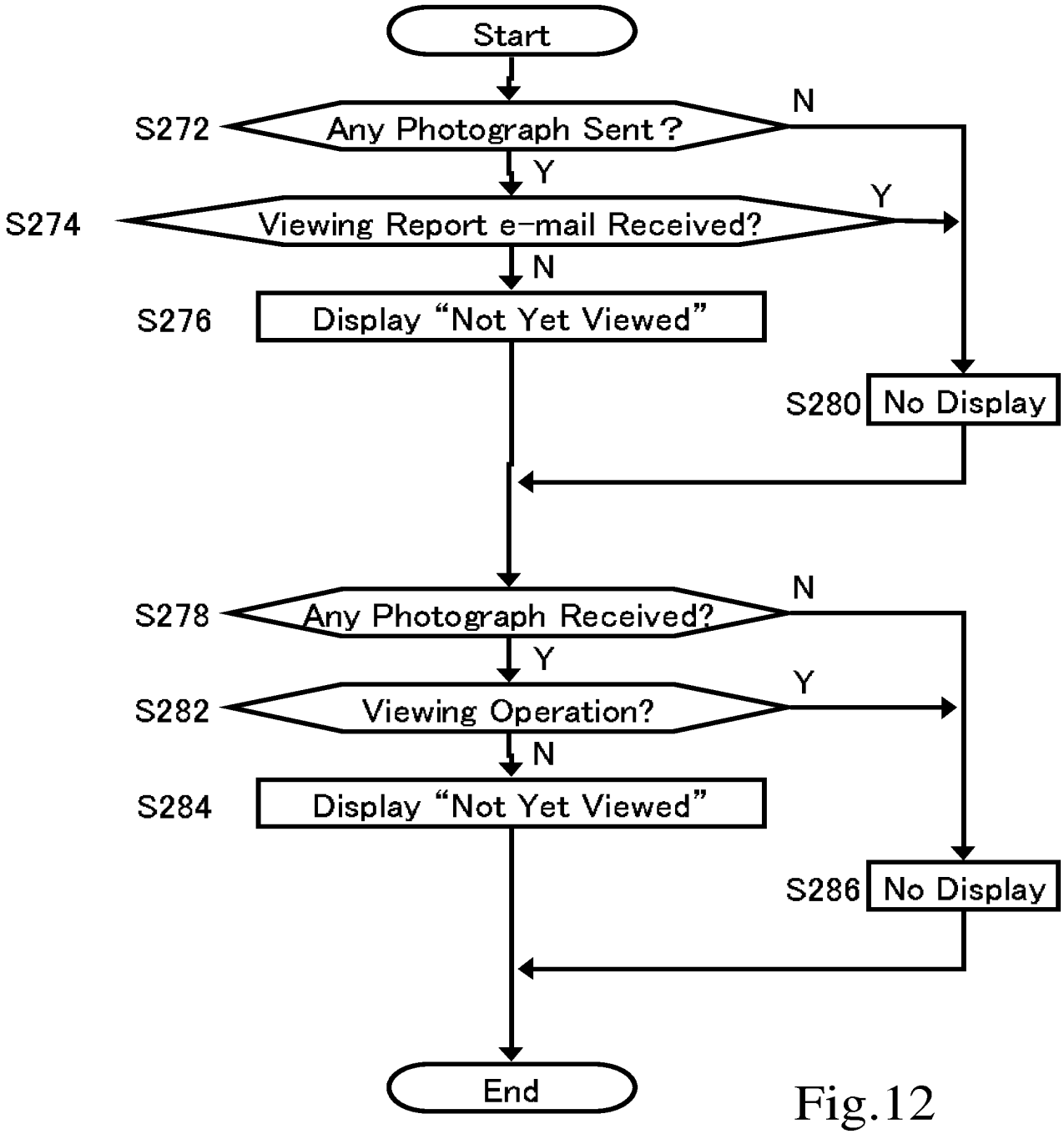

Start
S272
Any Photograph Sent?
N
Y
S274
Viewing Report e-mail Received?
Y
N
S276
Display "Not Yet Viewed"
S280
No Display
S278
Any Photograph Received?
N
Y
S282
Viewing Operation?
Y
N
S284
Display "Not Yet Viewed"
S286
No Display
End

Fig.12

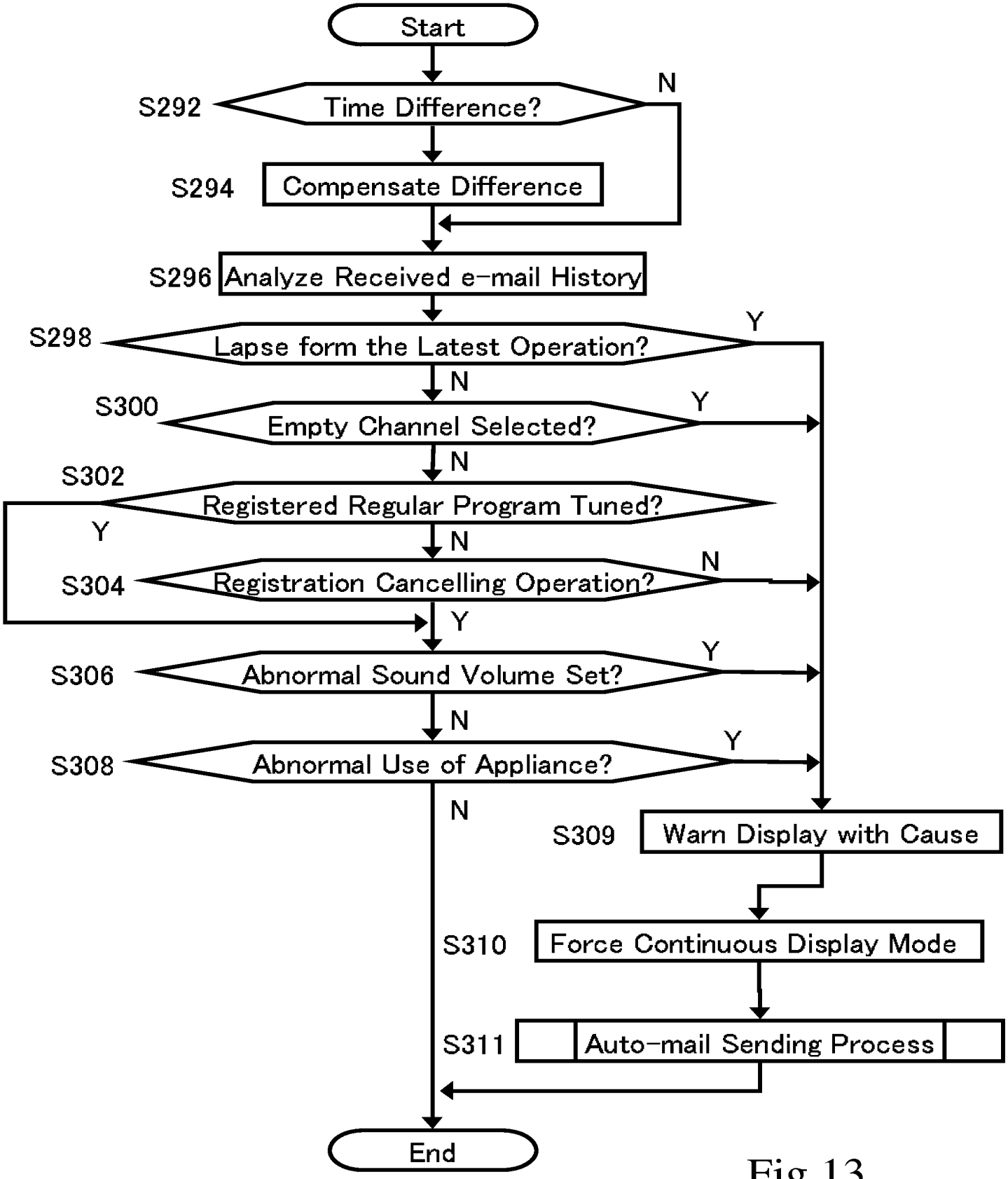

Start
S292
Time Difference?
N
S294
Compensate Difference
S296
Analyze Received e-mail History
S298
Lapse form the Latest Operation?
Y
N
S300
Empty Channel Selected?
Y
N
S302
Registered Regular Program Tuned?
Y
N
S304
Registration Cancelling Operation?
N
Y
S306
Abnormal Sound Volume Set?
Y
N
S308
Abnormal Use of Appliance?
Y
N
S309
Warn Display with Cause
S310
Force Continuous Display Mode
S311
Auto-mail Sending Process
End

Fig.13

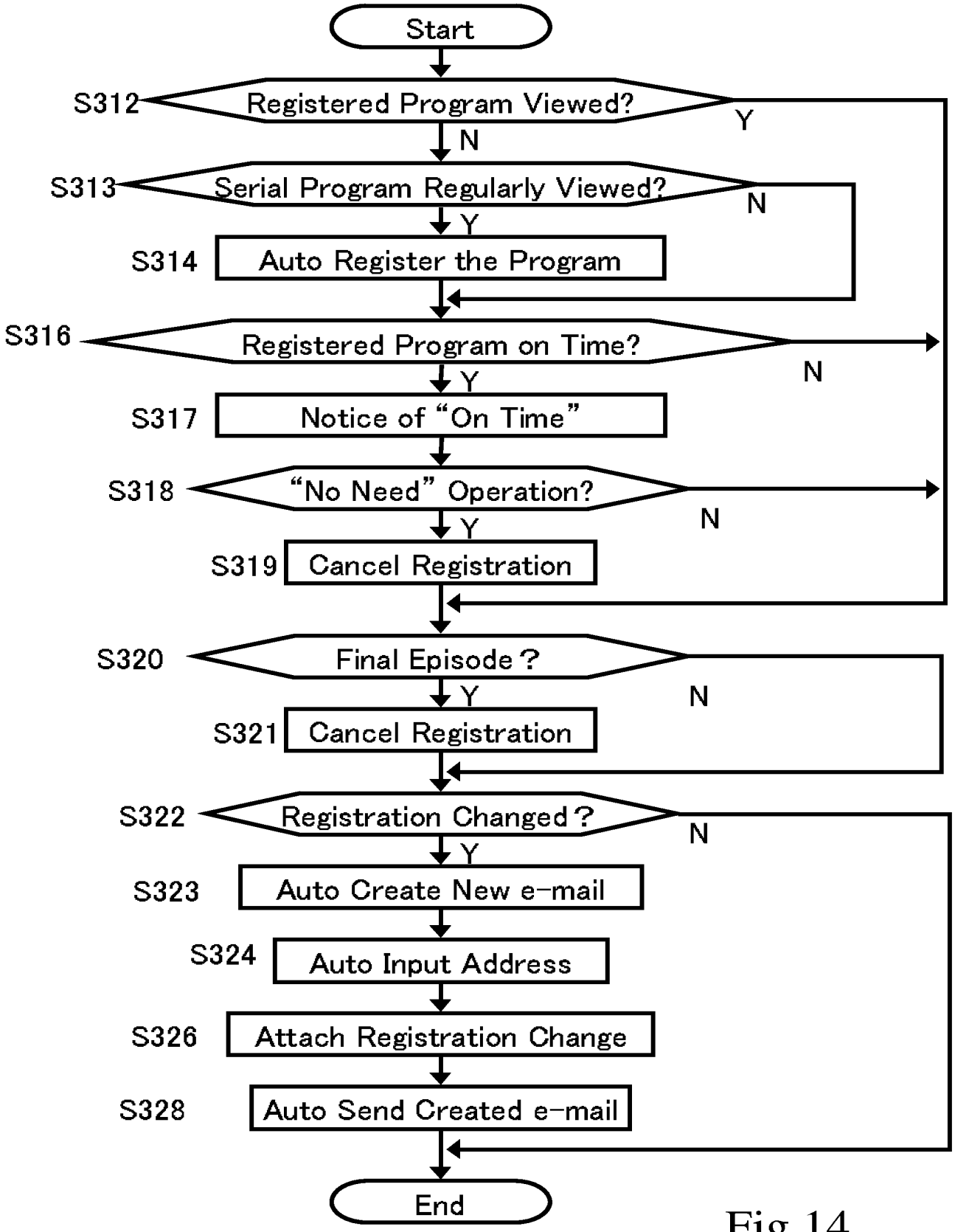

Start
S312
Registered Program Viewed?
Y
N
S313
Serial Program Regularly Viewed?
N
Y
S314
Auto Register the Program
S316
Registered Program on Time?
N
Y
S317
Notice of "On Time"
S318
"No Need" Operation?
N
Y
S319
Cancel Registration
S320
Final Episode ?
N
Y
S321
Cancel Registration
S322
Registration Changed ?
N
Y
S323
Auto Create New e-mail
S324
Auto Input Address
S326
Attach Registration Change
S328
Auto Send Created e-mail
End

Fig.14

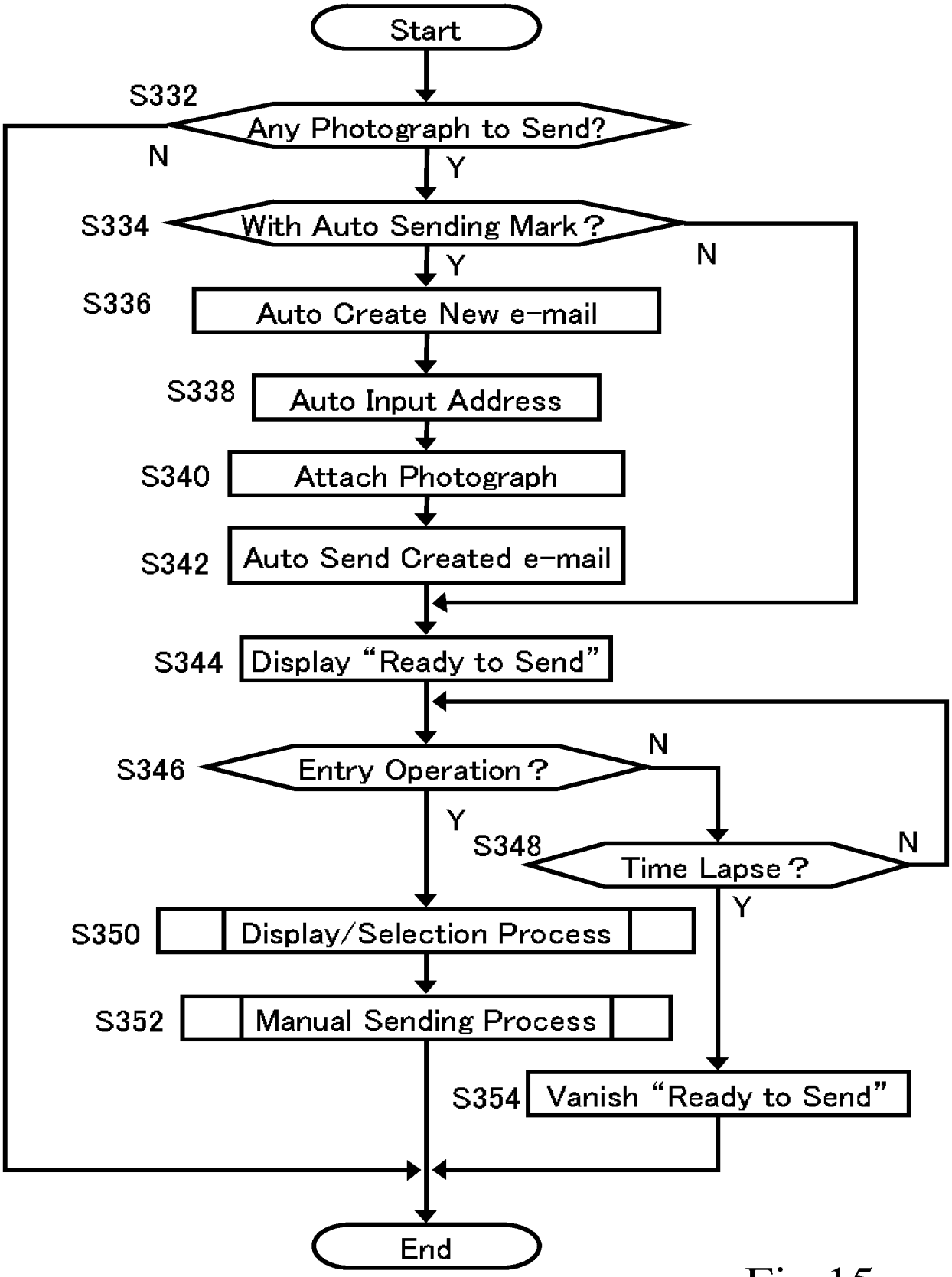

Start
S332
Any Photograph to Send?
N
Y
S334
With Auto Sending Mark?
N
Y
S336
Auto Create New e-mail
S338
Auto Input Address
S340
Attach Photograph
S342
Auto Send Created e-mail
S344
Display "Ready to Send"
S346
Entry Operation?
N
Y
S348
Time Lapse?
N
Y
S350
Display/Selection Process
S352
Manual Sending Process
S354
Vanish "Ready to Send"
End

Fig.15

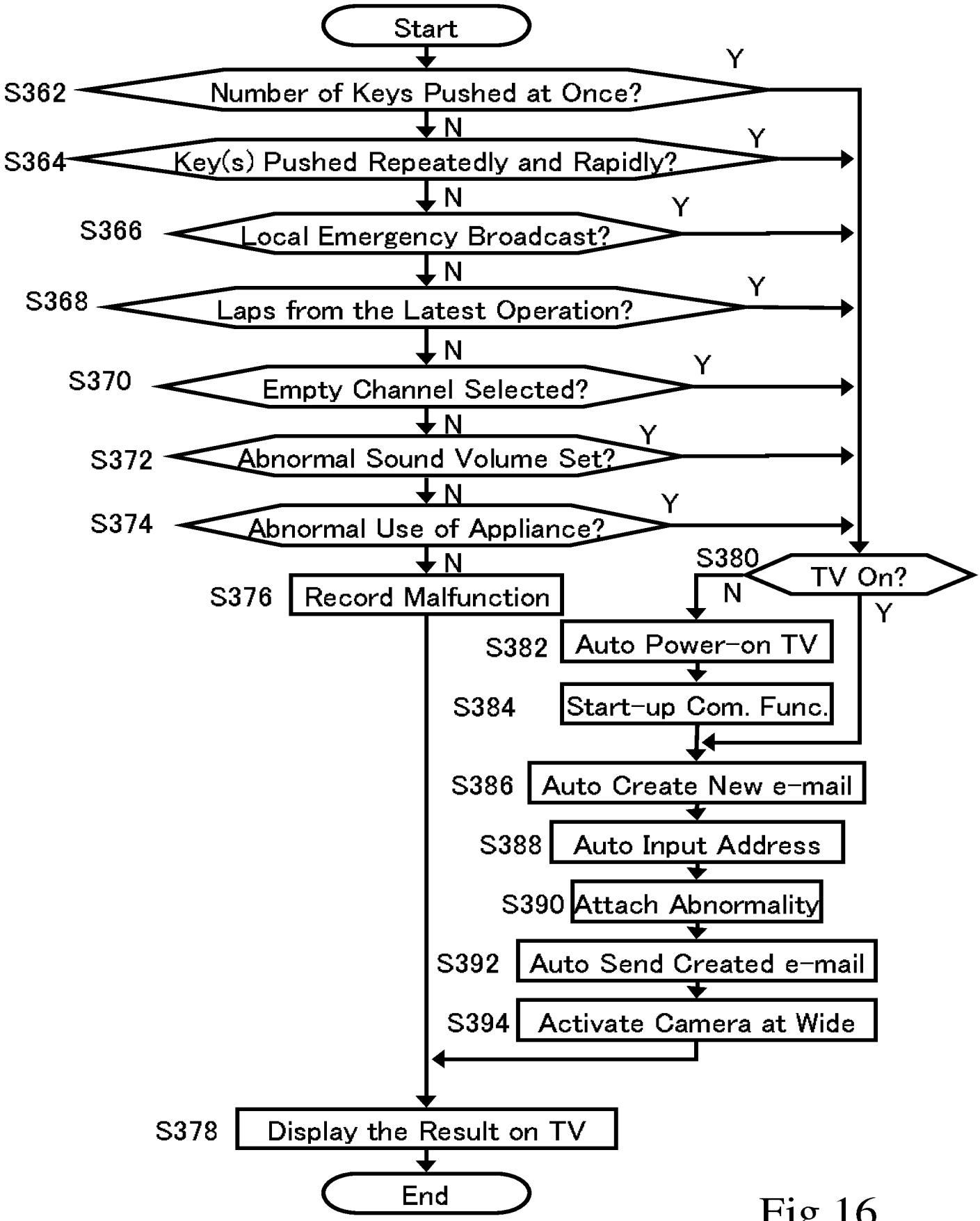

Start
S362
Number of Keys Pushed at Once?
Y
N
S364
Key(s) Pushed Repeatedly and Rapidly?
Y
N
S366
Local Emergency Broadcast?
Y
N
S368
Laps from the Latest Operation?
Y
N
S370
Empty Channel Selected?
Y
N
S372
Abnormal Sound Volume Set?
Y
N
S374
Abnormal Use of Appliance?
Y
N
S376
Record Malfunction
S380
TV On?
N
Y
S382
Auto Power-on TV
S384
Start-up Com. Func.
S386
Auto Create New e-mail
S388
Auto Input Address
S390
Attach Abnormality
S392
Auto Send Created e-mail
S394
Activate Camera at Wide
S378
Display the Result on TV
End

Fig.16

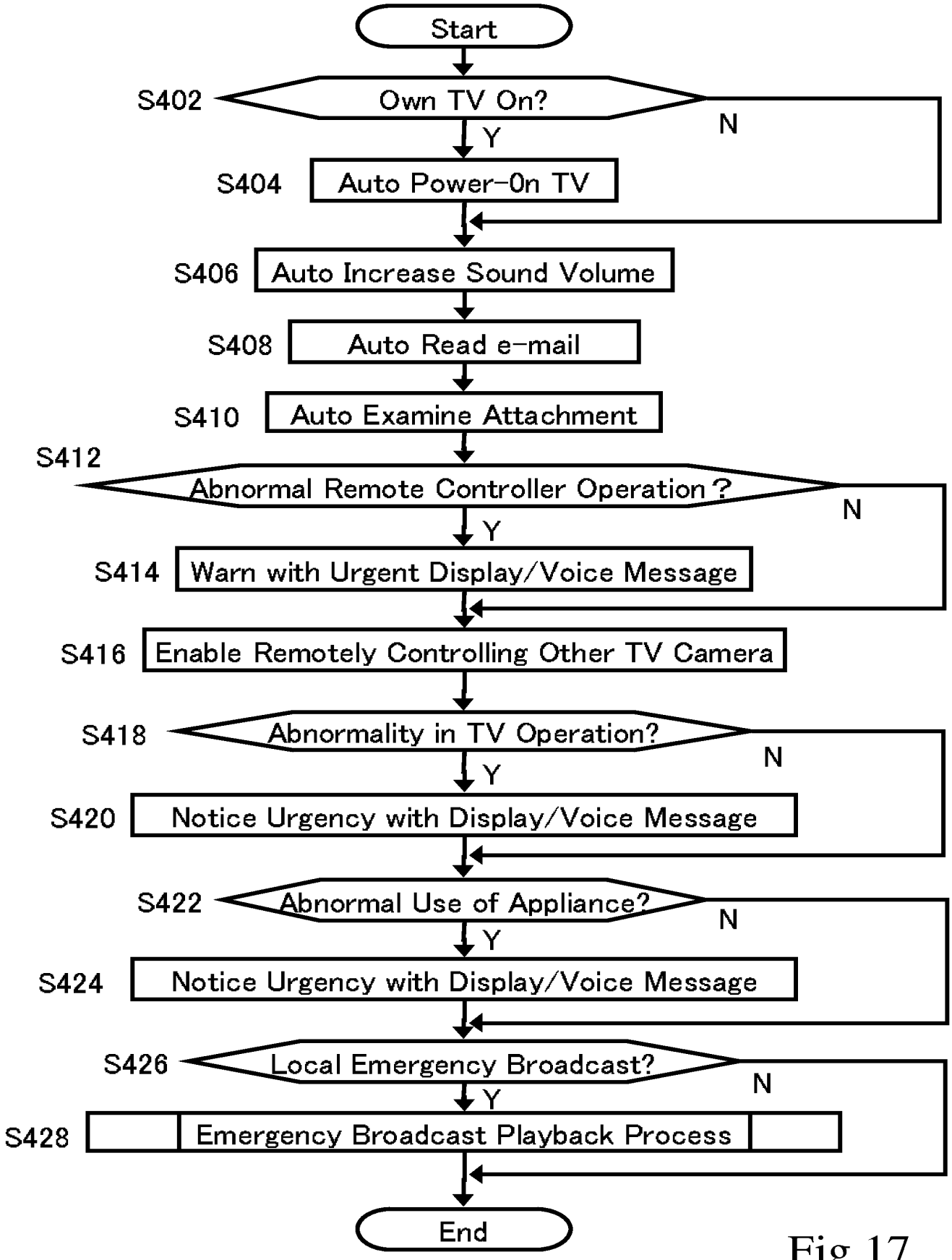

Start
S402
Own TV On?
N
Y
S404
Auto Power-On TV
S406
Auto Increase Sound Volume
S408
Auto Read e-mail
S410
Auto Examine Attachment
S412
Abnormal Remote Controller Operation ?
N
Y
S414
Warn with Urgent Display/Voice Message
S416
Enable Remotely Controlling Other TV Camera
S418
Abnormality in TV Operation?
N
Y
S420
Notice Urgency with Display/Voice Message
S422
Abnormal Use of Appliance?
N
Y
S424
Notice Urgency with Display/Voice Message
S426
Local Emergency Broadcast?
N
Y
S428
Emergency Broadcast Playback Process
End

Fig.17

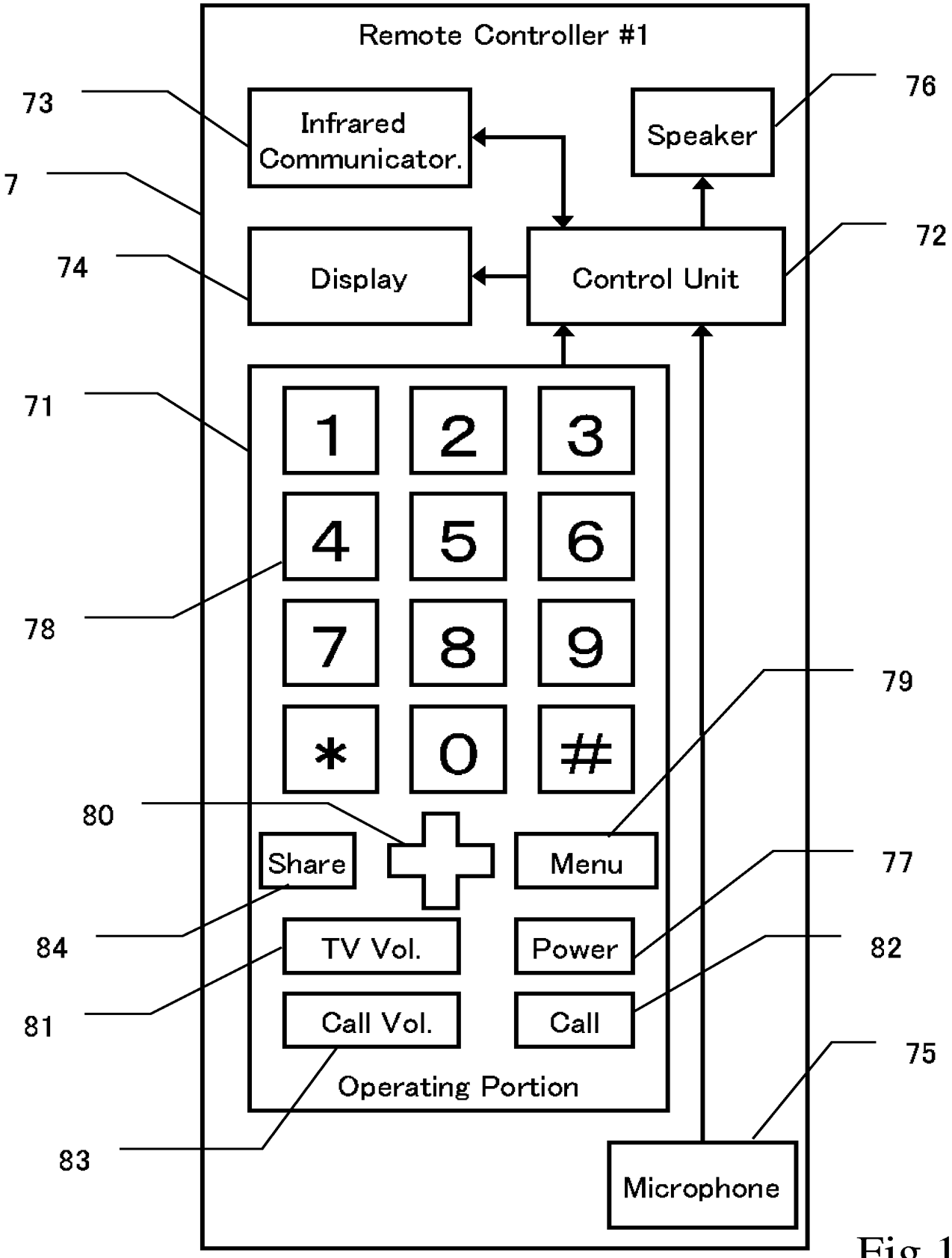

Remote Controller #1
73
Infrared Communicator.
76
Speaker
7
74
Display
Control Unit
72
71
1
2
3
4
5
6
78
7
8
9
79
*
0
#
80
Share
Menu
77
84
TV Vol.
Power
82
81
Call Vol.
Call
75
Operating Portion
83
Microphone

Fig.18

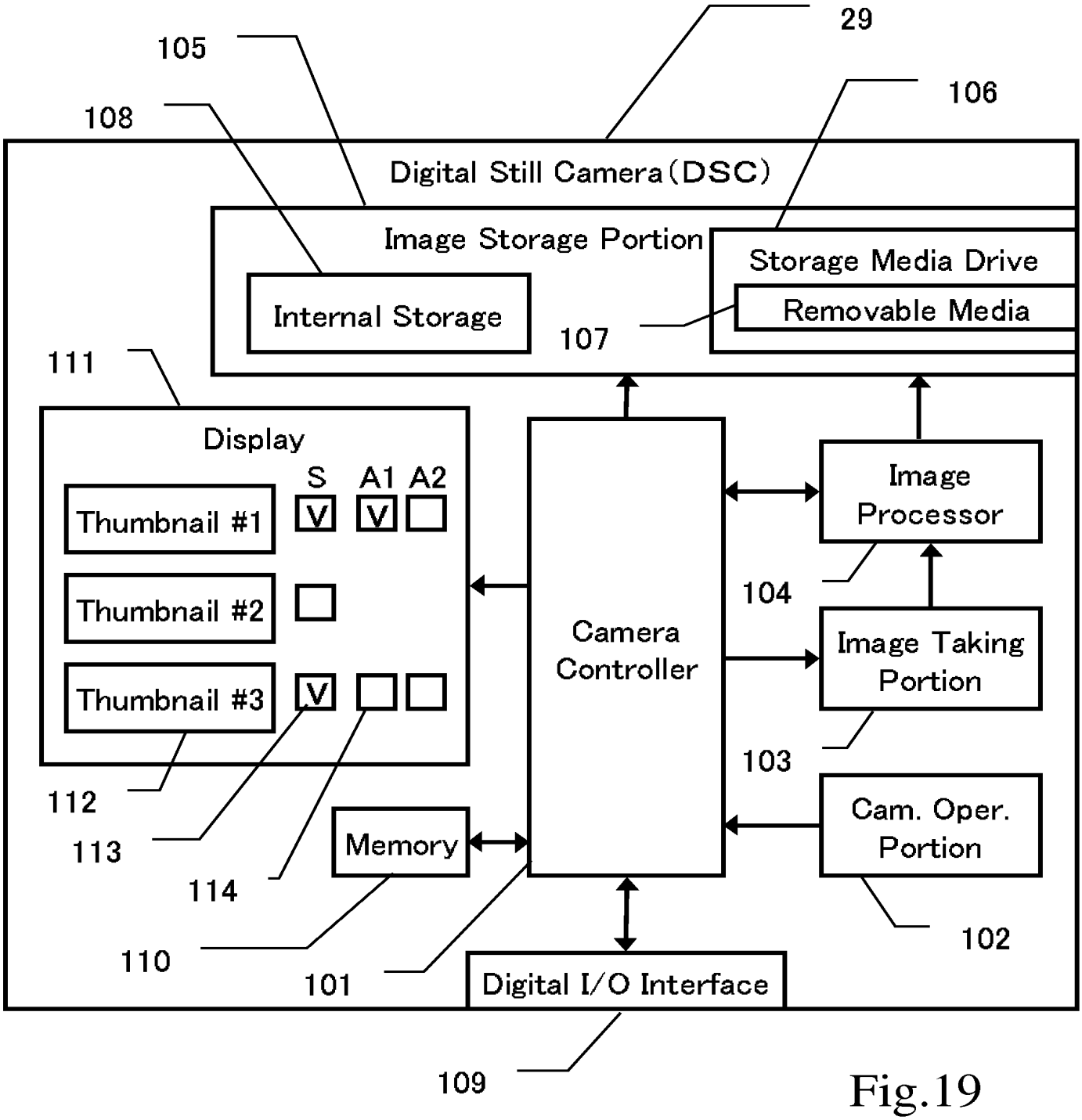

29
105
106
108
Digital Still Camera (DSC)
Image Storage Portion
Storage Media Drive
Internal Storage
Removable Media
107
111
Display
S
A1
A2
Thumbnail #1
Thumbnail #2
Thumbnail #3
Image Processor
104
Camera Controller
Image Taking Portion
103
Cam. Oper. Portion
102
112
113
114
Memory
110
101
Digital I/O Interface
109

Fig.19

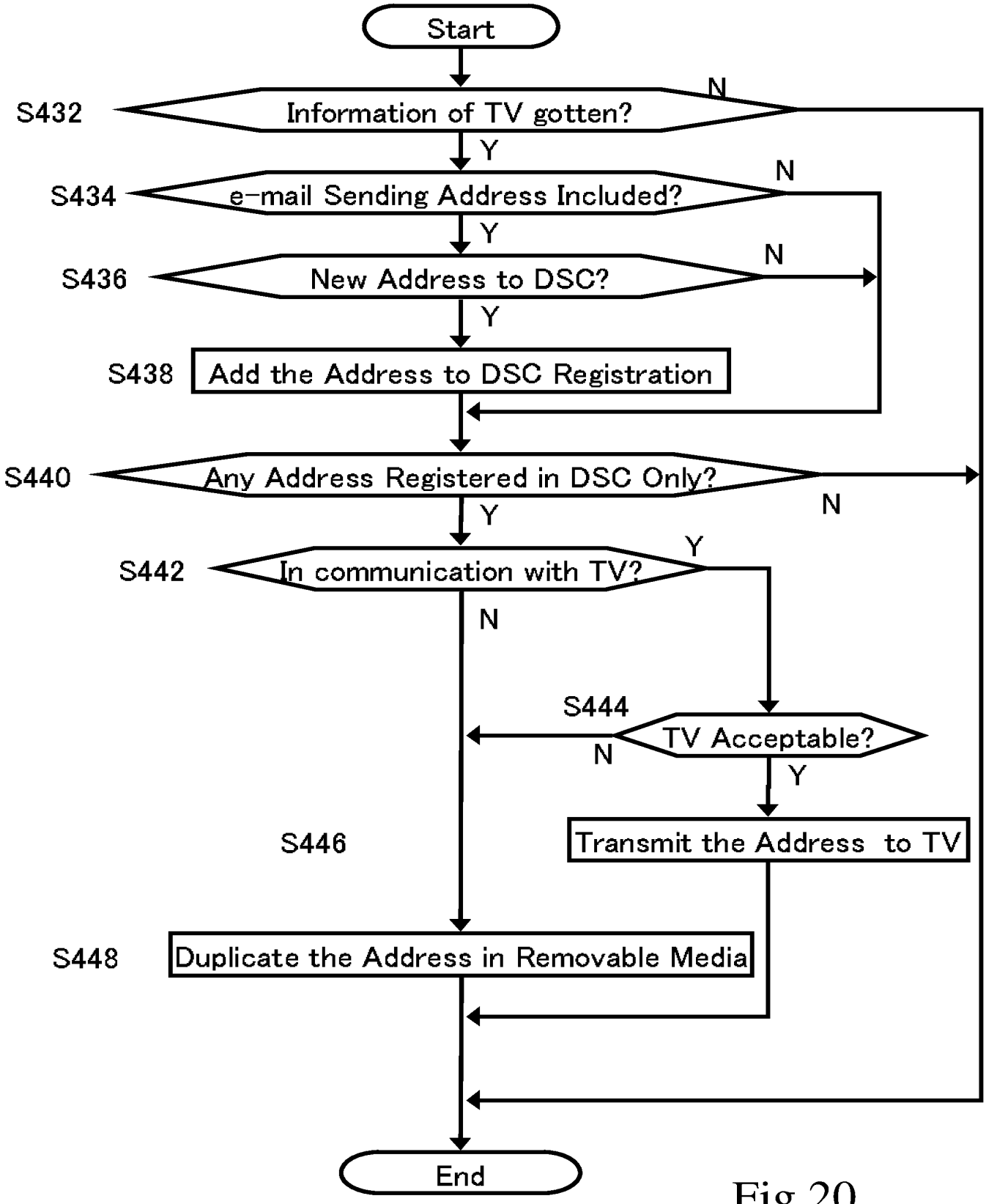

Start
S432
Information of TV gotten?
N
Y
S434
e-mail Sending Address Included?
N
Y
S436
New Address to DSC?
N
Y
S438
Add the Address to DSC Registration
S440
Any Address Registered in DSC Only?
N
Y
S442
In communication with TV?
Y
N
S444
TV Acceptable?
N
Y
S446
Transmit the Address to TV
S448
Duplicate the Address in Removable Media
End

Fig.20

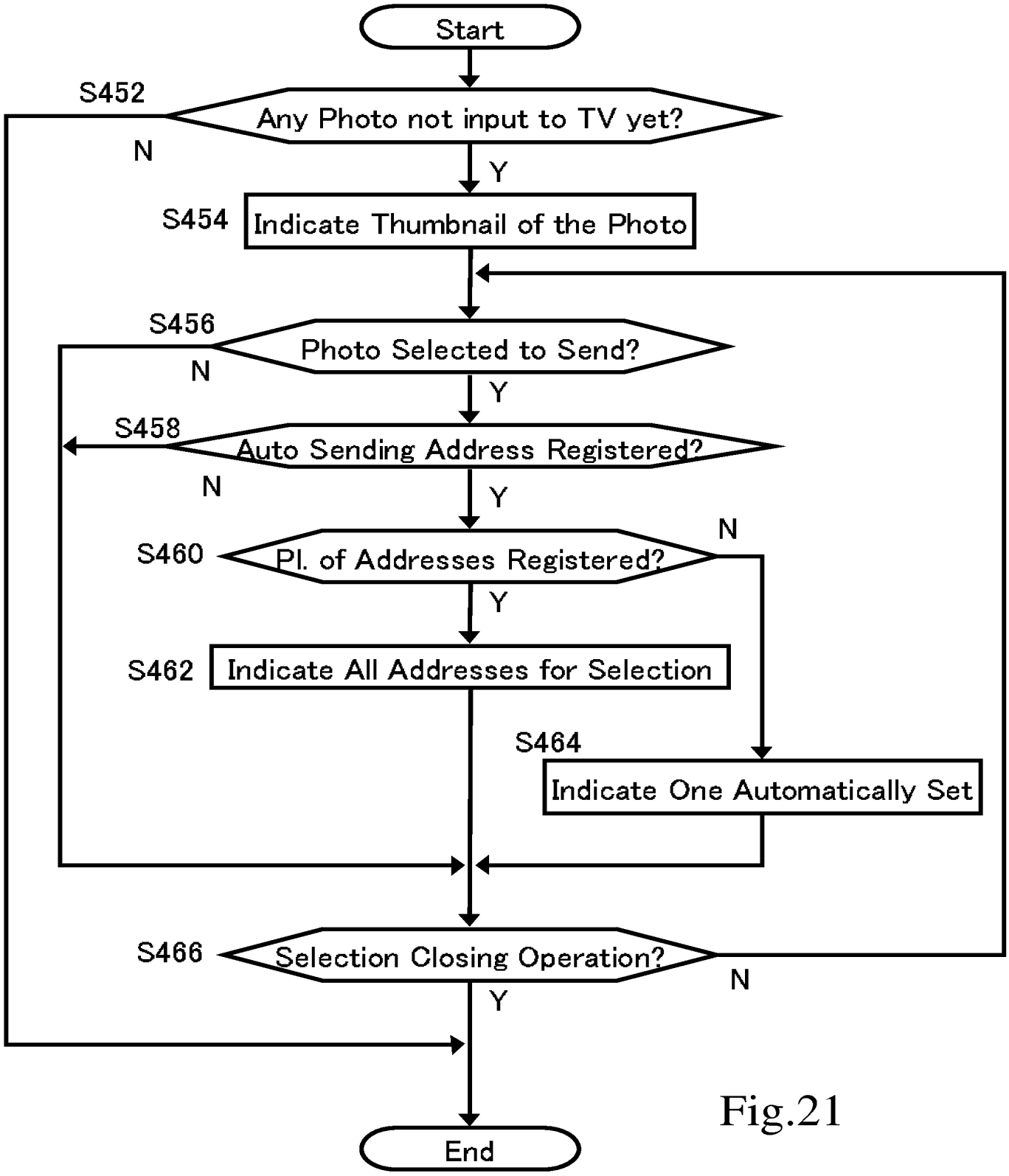

Start
S452
Any Photo not input to TV yet?
N
Y
S454
Indicate Thumbnail of the Photo
S456
Photo Selected to Send?
N
Y
S458
Auto Sending Address Registered?
N
Y
N
S460
Pl. of Addresses Registered?
Y
S462
Indicate All Addresses for Selection
S464
Indicate One Automatically Set
S466
Selection Closing Operation?
N
Y
End

Fig.21

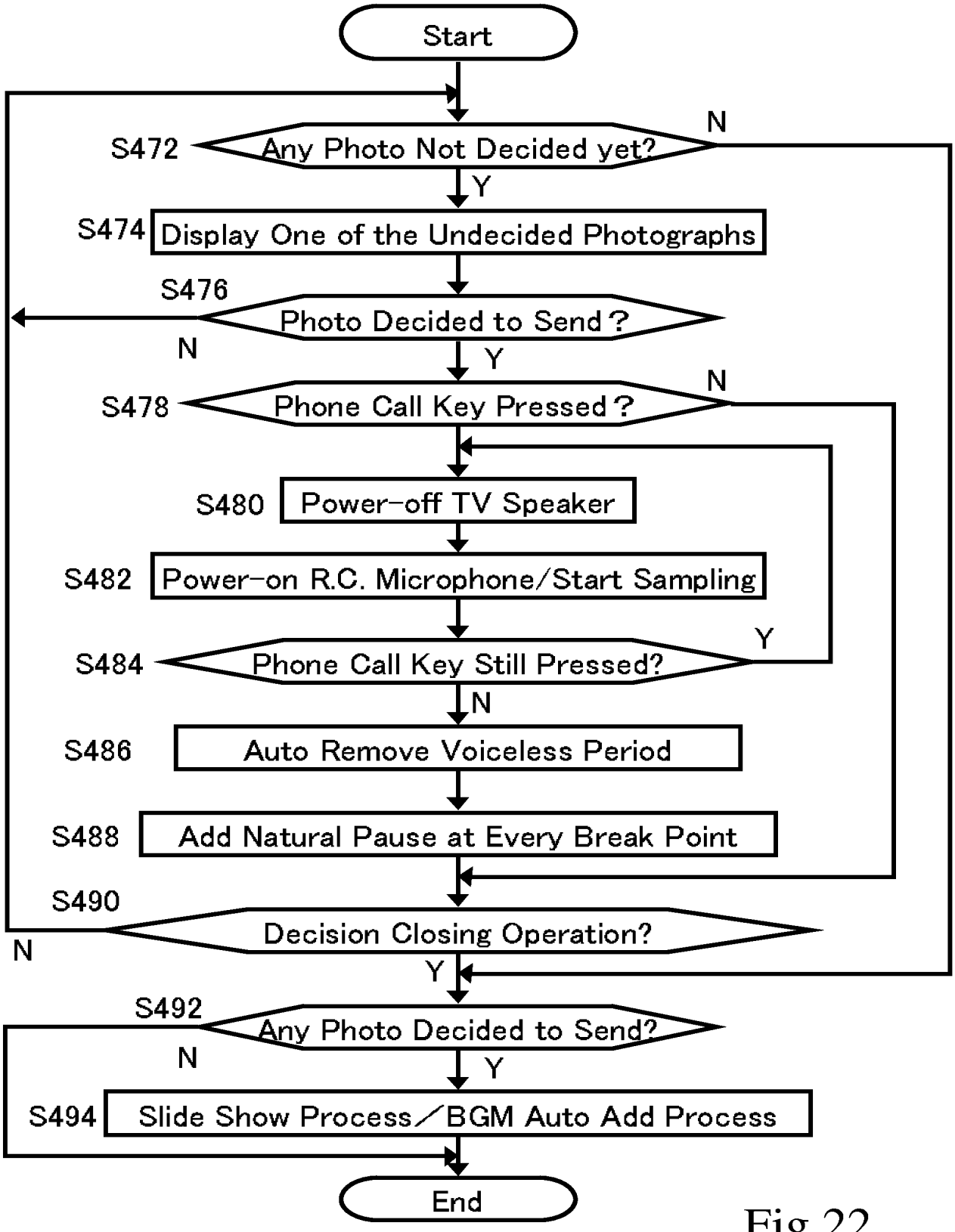

Start
S472
Any Photo Not Decided yet?
N
Y
S474
Display One of the Undecided Photographs
S476
Photo Decided to Send?
N
Y
S478
Phone Call Key Pressed?
N
S480
Power-off TV Speaker
S482
Power-on R.C. Microphone/Start Sampling
S484
Phone Call Key Still Pressed?
Y
N
S486
Auto Remove Voiceless Period
S488
Add Natural Pause at Every Break Point
S490
Decision Closing Operation?
N
Y
S492
Any Photo Decided to Send?
N
Y
S494
Slide Show Process／BGM Auto Add Process
End

Fig.22

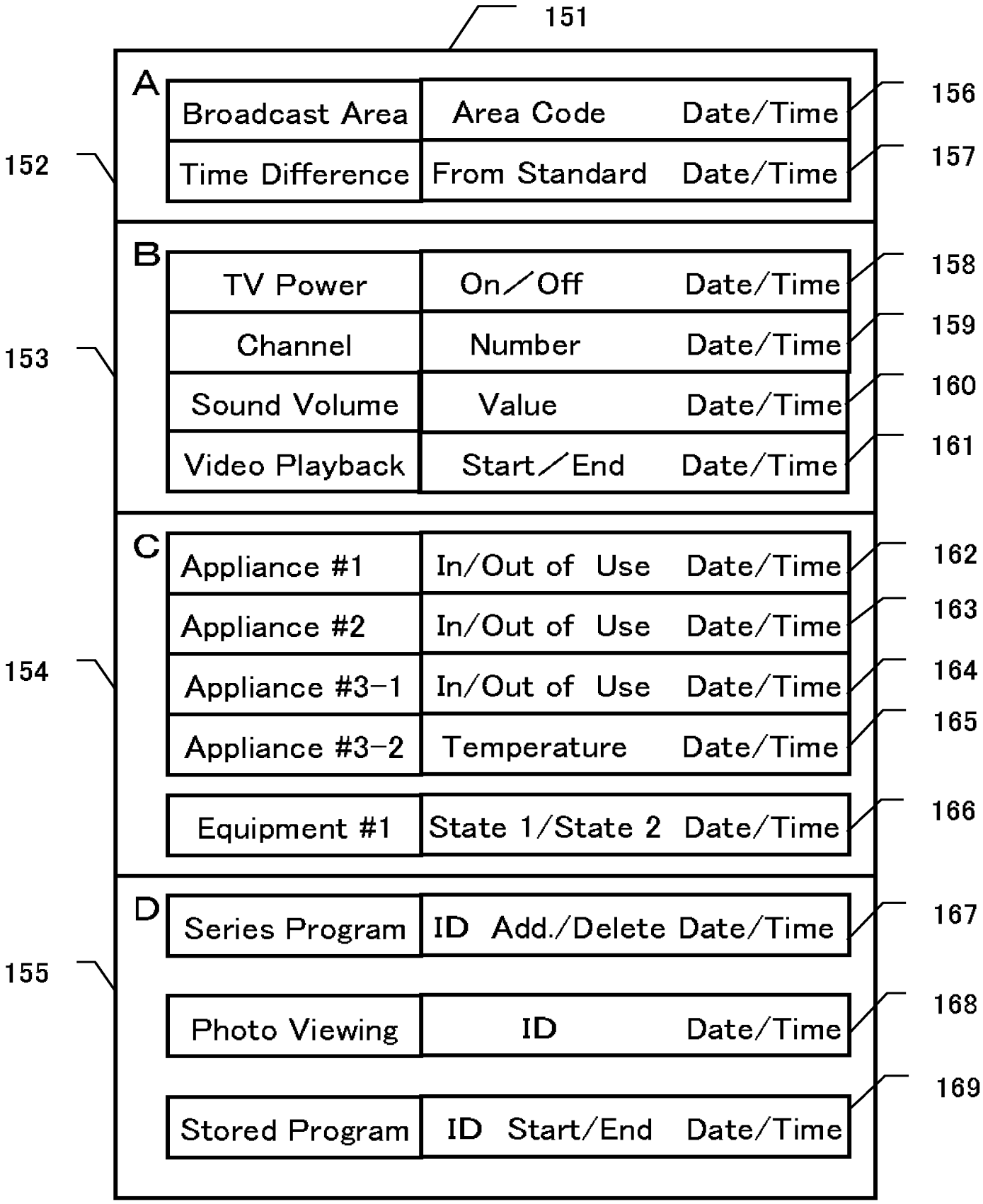

151
A
Broadcast Area
Area Code
Date/Time
Time Difference
From Standard
Date/Time
152
156
157
B
TV Power
On／Off
Date/Time
Channel
Number
Date/Time
Sound Volume
Value
Date/Time
Video Playback
Start／End
Date/Time
153
158
159
160
161
C
Appliance #1
In/Out of Use
Date/Time
Appliance #2
In/Out of Use
Date/Time
Appliance #3-1
In/Out of Use
Date/Time
Appliance #3-2
Temperature
Date/Time
Equipment #1
State 1/State 2
Date/Time
154
162
163
164
165
166
D
Series Program
ID Add./Delete
Date/Time
Photo Viewing
ID
Date/Time
Stored Program
ID Start/End
Date/Time
155
167
168
169

Fig.23

ABSTRACT OF THE DISCLOSURE

In response to an operation such as power-on or power-off, channel change and sound volume change, a television set combined with a personal computer automatically makes e-mail with information in a predetermined format indicative of the operation attached. The e-mail is automatically sent to another television set to inform the other television set of operation of the own television set. On the other hand, the e-mail can be sent to a rating company for audience share survey. The television set automatically reads the received e-mail and attachment to change the indication of display. The television set has storage of the received information for analysis of an abnormality. Abnormality can be also sensed through abnormal act on the remote controller apt to be taken by a person in panic or off the truck.. The television set refuses information from unknown address for blocking an attack of a stranger.

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☑ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	US4CA2
First Named Inventor	Masahide Tanaka
COMPLETE IF KNOWN	
Application Number	
Filing Date	1-JAN-2014
Art Unit	
Examiner Name	

Television System, Television Set and Remote Controller

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☑ The attached application,

OR

☐ United States Application Number or PCT International application number _____

filed on _____.

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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☑ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

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LEGAL NAME OF SOLE OR FIRST INVENTOR:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

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■ Additional inventors are being named on the 1 supplemental sheet(s) PTO/AIA/10 attached hereto

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Supplemental Sheet (for PTO/AIA/08,09) Page 1 of 1

Legal Name of Additional Joint Inventor, if any:

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(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature	Date (Optional)

Residence: City	State	Country

Mailing Address

City	State	Zip	Country

Legal Name of Additional Joint Inventor, if any:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature	Date (Optional)

Residence: City	State	Country

Mailing Address

City	State	Zip	Country

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	Television System, Television Set and Remoto Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Filer:	Masahide Tanaka
Attorney Docket Number:	US4CA2

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**730**

Electronic Acknowledgement Receipt

EFS ID:	17792581
Application Number:	14145935
International Application Number:	
Confirmation Number:	2279
Title of Invention:	Television System, Television Set and Remoto Controller
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US4CA2
Receipt Date:	01-JAN-2014
Filing Date:	
Time Stamp:	01:26:14
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$730
RAM confirmation Number	8421
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Transmittal of New Application	TransmittalUS4CA2.pdf	280511 d4e9ff9e5b58a05dcf38230b31e827ea4b754325	no	2
Warnings:					
Information:					
2	Application Data Sheet	ADSaia0014US4CA2.pdf	1505470 c5f72f7a146f9cc84b0bb3914a21d7fa8a833a7c	no	7
Warnings:					
Information:					
3	Specification	SpecificationUS4CA2.pdf	273815 3e577c7cbfa30209b975f5ea681189004a998ba7	no	65
Warnings:					
Information:					
4	Claims	ClaimsUS4CA2.pdf	24102 721ed900a27f3a4d658e399b75719a3abdbb64a3	no	3
Warnings:					
Information:					
5	Drawings-only black and white line drawings	PatfigsUS4CA2.pdf	114644 f2accb03cb26f2be340aa618b82ae3aa62982ac4	no	23
Warnings:					
Information:					
6	Abstract	AbstractUS4CA2.pdf	17319 82d7568e2bc1a2166f20451eaf8464fa3a5f7ae4	no	1
Warnings:					
Information:					
7	Oath or Declaration filed	DecAddAIA0008US4CA2.pdf	192025 7092def88495b8129c7f659606627c07f0efc7f1	no	3
Warnings:					
Information:					
8	Oath or Declaration filed	DecSupAIA0010US4CA2.pdf	214722 208e9749f5fcd15f5d3a1142481656be03b7392f	no	2
Warnings:					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	32076 429be355bea6d30de06637a64f747b68e91503e2	no	2
Warnings:					
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
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New International Application Filed with the USPTO as a Receiving Office
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