

**CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION
UNDER 37 CFR 1.102(e) (Page 1 of 1)**

First Named Inventor:	M. YOSHIDA	Nonprovisional Application Number (if known):	
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently \$0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.
2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.
3. The applicable box is checked below:

I. ☒ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

- i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.
---OR---
(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.
- ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, or the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

- i. A request for continued examination has been filed with, or prior to, this form.
- ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
- iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
- iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
- v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature <u>/JOHN R. MATTINGLY/</u>	Date <u>December 13, 2018</u>
Name (Print/Typed) <u>JOHN R. MATTINGLY</u>	Practitioner Registration Number <u>30293</u>
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.*	
☒ *Total of <u>1</u> 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.

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

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	ASA-9940-04
		Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
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		
	Mari		YOSHIDA			
Residence Information (Select One) US Residency • Non US Residency Active US Military Service						
City	Yokohama		Country of Residence ⁱ	JP		
Mailing Address of Inventor:						
Address 1	c/o Hitachi, Ltd., Intellectual Property Group					
Address 2	6-6, Marunouchi 1-chome, Chiyoda-ku					
City	Tokyo		State/Province			
Postal Code	100-8220		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:

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	24956		
Email Address	ptomail@mmiplaw.com	Add Email	Remove Email

Application Information:

Title of the Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
Attorney Docket Number	ASA-9940-04	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	12	Suggested Figure for Publication (if any)	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	ASA-9940-04
		Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

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	24956		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim 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.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	14478020	2014-09-05

Application Data Sheet 37 CFR 1.76		Attorney Docket Number		ASA-9940-04	
		Application Number			
Title of Invention		RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF			
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14478020	Continuation of	12430185	2009-04-27	9159368	2009-11-19
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. 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(i)(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).

Application Number		Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)	Remove
2008-130678		JP	2008-05-19		
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.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	ASA-9940-04
	Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is 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 State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	ASA-9940-04
		Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		

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. ☒			
Organization Name	Maxell, Ltd.		
Mailing Address Information For Applicant:			
Address 1	1, Koizumi, Oyamazaki, Oyamazaki-cho Otokuni-gun		
Address 2			
City	Kyoto	State/Province	
Country	JP	Postal Code	618-8525
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 substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	ASA-9940-04
		Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		

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 or Non-Applicant Assignee is an Organization check here. ☐				
Prefix	Given Name	Middle Name	Family Name	Suffix
Mailing Address Information For Assignee including Non-Applicant Assignee:				
Address 1				
Address 2				
City		State/Province		
Country		Postal Code		
Phone Number		Fax Number		
Email Address				
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add				

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/John R. Mattingly/		Date (YYYY-MM-DD)	2018-12-13
First Name	John	Last Name	Mattingly	Registration Number
				30293
Additional Signature may be generated within this form by selecting the Add button. Add				

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	ASA-9940-04
		Application Number	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

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.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	December 13, 2018
First Named Inventor	M. YOSHIDA
Title	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
Art Unit	
Examiner Name	
Attorney Docket Number	ASA-9940-04

SIGNATURE of Applicant or Patent Practitioner

Signature	/John R. Mattingly/	Date (Optional)	December 13, 2018
Name	John R. Mattingly	Registration Number	30293
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



*Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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.

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

出願人による委任状
POWER OF ATTORNEY BY APPLICANT

私はここに、添付の伝送書もしくは下記枠内で特定された出願に対して、現時点より前に与えられたすべての委任状を破棄します。
I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

出願番号 Application Number	出願日 Filing Date

(注記: PTO/AIA/82Aに同じ情報が明記されている場合、上の枠内は空欄でも可)
(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

私は、下記顧客番号に関連する特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

又は
OR

24956

私は、添付のリスト (PTO/AIA/82C) に記載の特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。(注記: PTO/AIA/82C を記入すること。)

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

添付の伝送書又は上記枠内にて特定された出願に対する郵便物送付先を下記のいずれかに登録または変更してください。

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☒ 上記顧客番号に付随する住所
The address associated with the above-mentioned Customer Number

又は
OR

☐ 顧客番号に付随する住所
The address associated with Customer Number:

又は
OR

事務所または個人
名
Firm or
Individual Name

住所
Address

市
City

州
State

郵便番号
Zip

国
Country

電話番号
Telephone

メールアドレス
Email

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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.

出願人による委任状 POWER OF ATTORNEY BY APPLICANT

私は出願人であり（出願人が法人の場合、出願人名を下記枠内に記入）：

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Maxell, Ltd.

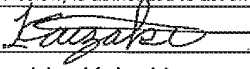
- ☐ 発明者もしくは共同発明者である（下記役職の明記は不要）
Inventor or Joint Inventor (title not required below)
- ☐ 死亡したもしくは成年被後見人である発明者の法定代理人である（下記役職の明記は不要）
Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ 被譲渡人もしくは発明者が譲渡する義務を負う人物である
Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ 上記以外で、十分な独占的所有権を示す人物である（例：37 CFR 1.46(b)(2)に基づく申請が本出願において認められた、又は本書類と共にその申請がなされている場合）（出願人が法人の場合、署名者の役職を明記すること）
Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

特許出願人の署名

SIGNATURE of Applicant for Patent

下記署名者（役職は下記に記載）は出願人の代理人と認められている（出願人が法人の場合等）

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

署名 Signature		署名日（任意） Date (Optional)	Oct. 17, 2017
氏名 Name	Kazuhiro Kaizaki		
役職 Title	Vice President		

注記：署名 - 本書類は37 CFR 1.33に基づき署名されなければならない。署名の要件および証明に関しては37 CFR 1.4を参照。出願人が複数いる場合は、複数の書類を使うこと。

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ 提出書類 計 _____ 枚。
Total of _____ forms are submitted.

Privacy Act Statement

1974年プライバシー保護法(P.L. 93-579)により、特許出願あるいは特許に関する添付書類の提出に関連し、特定情報を提供することが求められています。同法の規定要件に基づき、下記の事項に注意してください。(1) 本情報の収集は35 U.S.C 2(b)(2)により認められています。(2) 求められた情報の提供は任意です。(3) 米国特許商標庁による本情報の主な使用目的は、特許出願あるいは特許に関する提出書類の処理や審査であり、求められた情報を提出しない場合、米国特許商標庁による提出書類の処理や審査に支障をきたす場合があります。その場合、特許出願の手段中止や放棄、または特許失効につながる場合があります。

本用紙に記載された情報は以下の通常使用目的に使われます。

1. 本用紙に記載の情報は、情報公開法(5 U.S.C. 552)およびプライバシー法(5 U.S.C 552a)が許容する範囲において機密情報扱いとなります。本記録システムの記録は、同記録の開示が情報公開法で要求されるものに該当するか否かを判断する目的で、司法省に開示される場合があります。
2. 本記録システムの記録は、通常使用として、法廷、予審判事、行政裁判所に証拠として開示される場合があります。これには示談交渉における反対側弁護士への情報開示も含まれます。
3. 本記録システムの記録は、同記録に関連する個人から、同記録についての支援を依頼され、当該個人に関連した要求を行う米国会議員に対し、通常使用の範囲として開示される場合があります。
4. 本記録システムの記録は、契約を履行するために同記録を必要とする本庁の契約業者に対し、通常使用の範囲として開示される場合があります。情報を受け取る側は、5. U.S.C. 552a(m)に基づき、1974年プライバシー法修正法の規定要件を遵守しなければなりません。
5. 本記録システム内の、特許協力条約に基づき出願された国際出願に関する記録は、通常使用の範囲として、特許協力条約に従い世界知的所有権機関に開示される場合があります。
6. 本記録システムの記録は、通常使用の範囲として、国家安全保障(35 U.S.C. 181)および原子力法(42 U.S.C. 218(c))に拠る検討目的で、他の連邦政府機関に開示される場合があります。
7. 本記録システムの記録は、通常使用の範囲として、44 U.S.C 2904および2906に基づき、記録管理方法およびプログラムに対する改善を提案するという米一般調達局長官(GSA)の職務の一部として実施される記録監査において、GSAまたはその委任による代理人に対し開示される場合があります。この開示は、上記目的による記録監査を規定するGSA法規およびその他関連する(GSAまたは商務省)指令に従って行われます。この開示は、個人を特定する目的に使用されてはなりません。
8. 本記録システムの記録は、通常使用の範囲として、特許出願公開後(35. U.S.C 112(b))、または特許発行後(35 U.S.C. 151)に一般に開示される場合があります。さらに、同記録が、放棄されたもしくは処理が集結している特許出願に記載されており、かつ公開後の出願、一般審査に公開された出願、または発行済み特許の中で参照されている場合には、37. CFR 1.14の制限に従い、通常使用の範囲として、一般に開示される場合があります。
9. 本記録システムの記録は、法律に違反している、もしくは違反する可能性がある米国特許商標庁により判断された場合、通常使用の範囲として、連邦、州、または地方自治体の警察等に関与される場合があります。

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : M. YOSHIDA
Serial No. : To be assigned
Filed : December 13, 2018
For : RECORDING AND REPRODUCING APPARATUS AND
METHOD THEREOF
Group : To be assigned
Examiner : To be assigned
Docket No. : ASA-9940-04
Customer No.: 24956

Confirmation No.: TBD

INFORMATION DISCLOSURE STATEMENT (IDS)
UNDER § 1.97 AND § 1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

December 13, 2018

Sir:

In the matter of the above-identified application, Applicants are submitting herewith a copy, where required, of the documents listed in the attached form PTO/SB/08a. It is requested that the information be considered by the Examiner during prosecution of the application, and that the references be made of record therein.

Applicants note that:

One or more references cited on the attached PTO/SB/08a was cited by or submitted to the U.S. Patent and Trademark Office in parent application No. 14/478,020, filed September 5, 2014, which is relied upon for an earlier filing date under 35 U.S.C. §120. No copies of the references are attached pursuant to 37 CFR §1.98(d).

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417.

If the PTO determines that part(s) of the required content is inadvertently omitted, then it is requested that the Applicant(s) be given additional time and specific identification of such omission(s) to enable full compliance.

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/
John R. Mattingly
Registration No. 30,293
703-684-1120

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	
	Examiner Name	
	Attorney Docket Number	ASA-9940-04

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	7496211	B2	2009-02-24	Yamagami; Rui	
	2	7853897		2010-12-14	Ogawa et al.	Corr. to JP 2008017041
	3	7474764		2009-01-06	Segawa et a;/	Corr. to JP 2006074463
	4	5809202		1998-09-15	Gotoh et al.	
	5	7496211		2009-02-24	Yamagami et al.	
	6	7634662		2009-12-15	Monroe, David A.	
If you wish to add additional U.S. Patent citation information please click the Add button.						Add
U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

1	20060188225	A1	2006-08-24	Yamakage; Tomoo	
2	20080279425	A1	2008-11-13	Tang; Chi Sun Jackson	
3	20070019083	A1	2007-01-25	Nakashima; Teruyoshi	
4	20020175997		2002-11-28	Takata et al.	Corr. to JP 2003046911
5	20090135269		2009-05-28	Nozaki et al.	Corr. to JP 2007150603 & JP 2007150604
6	20080144890		2008-06-19	Ogawa	Corr. to JP 2007281680
7	20110055766		2011-03-03	Ogawa et al.	Corr. to JP 2012054948
8	20080225155		2008-09-18	Ebato et al.	Corr. to JP 2008228134
9	20090059008		2009-03-05	Ishii	Corr. to JP 2009059445
10	20080131073		2008-06-05	Ogawa et al.	Corr. to JP 2008017042
11	20070237360		2007-10-11	Irie et al.	Corr. To JP 2007281858

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

	12	20070162924		2007-07-12	Radhakrishnan et al.	
	13	20070162924		2003-06-12	Li et al.	
	14	20080144890	A1	2008-06-19	Ogawa	
	15	20070036522	A1	2007-02-15	Yoshida et al.	
	16	20080019665		2008-01-24	Huang et al.	
	17	20090016575		2009-01-15	BAK et al.	
	18	20080256450		2008-10-16	Takakura et al.	
	19	20070019083		2007-01-25	Nakashima, Teruyoshi	
	20	20080218595	A1	2008-09-11	KAWAHARA	Corresponds to Foreign Patent Document 30
	21	20080309795	A1	2008-12-18	MITSUHASHI et al.	Corresponds to Foreign Patent Document 31
	22	20100014719	A1	2010-01-21	DATE et al.	Corresponds to Foreign Patent Document 32

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number			
	Filing Date		2018-12-13	
	First Named Inventor	YOSHIDA, M.		
	Art Unit			
	Examiner Name			
	Attorney Docket Number		ASA-9940-04	

23	20070171296	A1	2007-07-26	TSUKIJI et al.	Corresponds to Foreign Patent Document 33
24	20030107592	A1	2003-06-12	LI et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	2002-333652 w/abs	JP	A	2002-11-22	KOKI ELECTRIC IND CO LTD		
	2	2006-323621 w/abs	JP	A	2006-11-30	NORITSU KOKI CO LTD		
	3	2007-329679 w/abs	JP	A	2007-12-20	FUJIFILM CORP		
	4	2003046911	JP		2003-02-14	Matsushita Electric		
	5	2007150603	JP		2007-06-14	Nikon Corp.		
	6	2007150604	JP		2007-06-14	Nikon Corp.		
	7	2007281680	JP		2007-10-25	Sony Corp.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

8	2008017041	JP		2008-01-24	Sony Corp.		
9	2012054948	JP		2012-03-15	Sony Corp.		
10	2008228134	JP		2008-09-25	Sony Corp.		
11	2009059445	JP		2009-03-19	Sony Corp.		
12	2006074463	JP		2006-03-16	Sony Corp.		
13	2008017042	JP		2008-01-24	Sony Corp.		
14	2003150603	JP		2003-05-23	Olympus Optical		
15	2006101325	JP		2006-04-13	Toshiba Corp.		
16	2007049332	JP		2007-02-22	Sony Corp.		
17	2006033659	JP		2006-02-02	Sony Corp.		
18	2006101324	JP		2006-04-13	Toshiba Corp.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

19	2008283486	JP		2008-11-20	Sony Corp.		
20	2009033351	JP		2009-02-12	Canon Inc.		
21	2003283993	JP		2003-10-03	Sanyo Electric		
22	2001045395	JP		2001-02-16	Minolta Co., Ltd.		
23	2004207842	JP		2004-07-22	Casio Computer Co., Ltd.		
24	2006166408	JP		2006-06-22	Canon KK		
25	2007281858	JP		2007-10-25	Omron Tateisi Electronics Co.		
26	2007281680	JP		2007-10-25	Sony Corp.		
27	2007026493	JP		2007-02-01	Sony Corp.		
28	2007049332	JP		2007-02-22	Sony Corp.		
29	06165009	JP		1994-06-10			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
Attorney Docket Number		ASA-9940-04	

	30	2008-99038	JP	A	2008-04-24	NIKON CORP	Corresponds to U.S. Publication Document 20	
	31	2006-173984	JP	A	2006-06-29	NIKON CORP	Corresponds to U.S. Publication Document 21	
	32	2008-78713	JP	A	2008-04-03	SONY CORP	Corresponds to U.S. Publication Document 22	
	33	2007-6033	JP	A	2007-01-11	OMRON TATEISI ELECTRONICS CO	Corresponds to U.S. Publication Document 23	

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Japanese Office Action received in corresponding Japanese Application No. 2016-043206 dated February 7, 2017	×
	2	JP Office Action for Japanese Patent Application No. 2012-063504, issued on April 2, 2013	☐
	3	JP Office Action for Japanese Patent Application No. 2012-063504, issued on October 30, 2012	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/John R. Mattingly/	Date (YYYY-MM-DD)	2018-12-13
Name/Print	John R. Mattingly	Registration Number	30,293

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

ABSTRACT OF THE DISCLOSURE

In a recording and reproducing apparatus and a recording and reproducing method for the recording and reproducing apparatus for recording and reproducing image information on a scene obtained through photographing, relative to a predetermined first recording medium and being capable of setting one or more chapters to each scene, a face recognizing process is executed for a photographed image based on the image information, an importance level of each chapter is set in accordance with a result of the face recognizing process for a very important person (VIP) set by a user, and each chapter having a relevant importance level among importance levels of respective chapters is selectively reproduced. A user can therefore find an object chapter and scene quickly and easily.

CLAIMS

1. A recording and reproducing method for recording and reproducing video information, comprising:
 - photographing, by a photographing unit, an object and generating video information;
 - recording, by a recording unit, the video information having been generated by the photographing unit into a recording medium;
 - executing, by a face-recognition processing unit, a face-recognizing process on the video information to recognize a face;
 - reproducing, by a reproducing unit, the video information having been recorded by the recording unit from the recording medium;
 - setting, by a specific person setting unit, one of a first setting mode and a second setting mode and executing a process of specifying a person with a face according to the set one of the first setting mode and the second setting mode, wherein, when the first setting mode is set, a person is specified with a face recognized by the face-recognition processing unit after the first setting mode is set and before the recording of the video information by the recording unit, and, when the second setting mode is set, a person is specified with a face in the video information in the recording medium that has previously been recorded and previously recognized by the face-recognition processing unit before the specific person setting unit sets the first setting mode or the second setting mode; and

controlling, by a control unit, the reproducing unit so as to selectively reproduce the video information from the recording medium which includes the specific person set by the specific person setting unit according to a result of the face-recognition processing unit.

2. The recording and reproducing method according to claim 1, further comprising:

selecting, by a user of a user interface unit, one of operation modes including:

(1) a specific person setting mode having the first setting mode and the second setting mode,

(2) a recording mode in which the video information generated by the photographing unit are recorded in the recording medium, and

(3) a reproducing mode in which the video information is to be reproduced by the reproducing unit,

wherein the control unit controls the recording and reproducing apparatus according to the mode selected by the user interface unit.

3. The recording and reproducing method according to claim 2, wherein the specific person setting mode is configured to specify one or more persons, and the control unit is configured to control the reproducing unit so as to reproduce the video information of the specified one or more persons.

4. The recording and reproducing method according to claim 2, further comprising:

displaying, by a display unit, information of a face to which the face-recognizing processing has been conducted, in case that the recording mode is selected by the user interface.

5. The recording and reproducing method according to claim 2, wherein the reproducing mode selected by the user interface is for reproducing the video information of the specific person specified by the specific person setting unit by which one of a plurality of reproducing modes can be selected, each of the reproducing modes having a respective number of the video information of the specific person, and wherein the control unit controls the reproducing unit so as to reproduce the video information of the specific person according to the selected one of the reproducing modes.

6. A recording and reproducing method for recording and reproducing image information, comprising:

capturing a photograph and generating image information of the photograph;
recording the image information in a recording medium;
executing a face-recognizing process on the image information to recognize a face;
reproducing the recorded image from the recording medium;

registering a person in the image information as a specific person in a mode selected from a first setting mode and a second setting mode, wherein, when the first setting mode is selected, a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person, and, when the second setting mode is selected, a person with a face in the image information is selected from a plurality of faces in the image information recorded in the recording medium and thereafter registered as the specific person; and

selectively reproducing the recorded image information which includes the registered specific person.

7. The recording and reproducing method according to claim 6,
wherein the image information to be selectively reproduced is the image information which is recognized as including the specific person before the recording of the image information.

8. The recording and reproducing method according to claim 6,
wherein the image information to be selectively reproduced is the image information having a relatively high importance level selected among the image information recorded in the recording medium which includes the registered specific person.

9. A recording and reproducing method for recording and reproducing image information, comprising:

photographing an object and generating image information, by a photographing sensor;

recording, by a recorder, the image information generated by the photographing sensor in a recording medium;

reproducing, by a reproducer, the image information recorded by the recorder;

executing, by processing circuitry, a face-recognizing process on the image information generated by the photographing sensor to recognize a face;

registering, by the processing circuitry, a person in the image information as a specific person in a mode selected from a first setting mode and a second setting mode, wherein, when the first setting mode is selected, a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person, and, when the second setting mode is selected, a person with a face in the image information is selected from a plurality of faces in the image information recorded in the recording medium and thereafter registered as the specific person;

firstly, selecting, by the processing circuitry, image information which includes the registered specific person;

secondly, selecting, by the processing circuitry, the image information based on a predetermined condition from among the selected image information which

includes the registered specific person, the predetermined condition being set in accordance with an instruction by a user; and

controlling the reproducer, by the processing circuitry, to selectively and sequentially reproduce the image information selected based on the predetermined condition.

10. The recording and reproducing method according to claim 9, wherein the image information to be selectively and sequentially reproduced is the image information which is recognized as including the specific person before the recording of the image information by the recorder.

11. The recording and reproducing method according to claim 9, further comprising controlling the reproducer, by the processing circuitry, to selectively and sequentially reproduce the image information having the predetermined condition including a relatively high importance level selected from among the image information recorded in the recording medium which includes the registered specific person.

12. A recording and reproducing method for recording and reproducing image information, comprising:

photographing, by a photographing sensor, an object and generating image information;

recording, by a recorder, the image information generated by the photographing sensor in a recording medium;

reproducing, by a reproducer, the image information recorded by the recorder;

executing, by processing circuitry, a face-recognizing process on the image information generated by the photographing sensor to recognize a face;

registering, by processing circuitry, a person in the image information as a specific person, wherein a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person;

firstly, selecting, by processing circuitry, image information which includes the registered specific person,

secondly, selecting, by processing circuitry, the image information based on a predetermined condition from among the selected image information which includes the registered specific person, the predetermined condition being set in accordance with an instruction by a user, and

controlling, by processing circuitry, the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition.

13. The recording and reproducing method according to claim 1, wherein the controlling unit further controls the reproducing unit to reproduce the video information in a reproducing mode set from one of a first reproducing mode and a second reproducing mode, and

wherein a reproducing time required for reproducing the video information under the first reproducing mode is shorter than a reproducing time required for reproducing the video information under the second reproducing mode, and the video information reproduced under the second reproducing mode includes the video information reproduced under the first reproducing mode in addition to other of the video information not reproduced under the first reproducing mode.

14. The recording and reproducing method according to claim 13, wherein the controlling unit further controls the reproducing unit to reproduce the video information in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode, and

wherein a reproducing time required for reproducing the video information under the third reproducing mode is longer than the reproducing time required for reproducing the video information under the second reproducing mode.

15. The recording and reproducing method according to claim 6, further comprising:

controlling the reproduction of the image information in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the

image information reproduced under the second reproducing mode includes the image information reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

16. The recording and reproducing method according to claim 15, further comprising:

controlling the reproduction of the image information in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

17. The recording and reproducing method according to claim 9, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the image information reproduced under the second reproducing mode includes the

image information reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

18. The recording and reproducing method according to claim 17, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

19. The recording and reproducing method according to claim 12, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the image information reproduced under the second reproducing mode includes the

image information reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

20. The recording and reproducing method according to claim 19, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

INCORPORATION BY REFERENCE

This application is a continuation of Application Serial No.
14/478,020, filed September 5, 2014, which is a continuation of
Application Serial No. 12/430,185, filed on April 27, 2009, now U.S.
Patent No. 9,159,368, which claims the benefit of Japanese Application
No. JP 2008-130678 filed on May 19, 2008, in the Japanese Patent
Office, the disclosures of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

The present invention related to a recording and reproducing
apparatus and a recording and reproducing method, suitable for
application to, e.g., a video camera.

In recent years, recording and reproducing apparatus are a
widespread use which apparatus are compatible with randomly accessible
recording media such as a digital versatile disc (DVD), a semiconductor
memory and a hard disc drive (HDD). Such recording and reproducing
apparatus can easily and quickly cue a photographed image recorded in a
recording medium.

Of recording and reproducing apparatus of this type, for example, a
general video camera manages generally video information of
photographed images in the unit of scene, and cues each scene by using

management information on each scene. A video camera of this type can set a plurality of chapters in one scene, and can cue each chapter.

A scene means a series of images recorded
5 during a period from when a user depresses a record button to start photographing to when the user depresses again the record button to stop photographing. The number of scenes increases each time photographing is made upon depression of the
10 record button. The chapter means a delimiter of images in one scene.

A user of a video camera can know quickly the contents of each scene by reproducing image information recorded in the recording medium by sequentially cuing
15 each chapter.

However, if the number of chapters set in a scene is large, a user of the video camera is required to repeat a cue operation as many times as the number of chapters set in the scene, in order to confirm the
20 contents to the last scene. There arises therefore a problem of much work and long time.

JP-A-06-165009 discloses techniques of efficiently knowing the contents of a scene by calculating a priority order of each frame from the
25 type of button manipulation during photographing, and reproducing a frame having a higher priority order.

SUMMARY OF THE INVENTION

The capacity of a recording medium of a recent video camera is becoming large so that a scene photographed in a long time duration can be stored in the recording medium or scenes photographed a plurality
5 of times can be stored in the recording medium. It is therefore difficult for a user to quickly find a target scene from a number of scenes recorded in the recording medium.

Some conventional recording and reproducing
10 apparatus are equipped with a function of displaying a list of thumbnail images of scenes. However, this function displays only one thumbnail image per one scene so that a user feels difficult in some cases to know the whole contents of a scene photographed in a
15 long time duration from one thumbnail image. Further, after a lapse of long time after photographing, it is difficult for a user to remember the whole contents of a scene from one corresponding thumbnail image.

If a user cannot remember the contents of a
20 scene even if the thumbnail image is viewed, the user confirms the contents of the scene by reproducing the scene. If the contents of a long time scene is to be confirmed, it becomes necessary to provide a function of confirming quickly the whole contents of the scene
25 by cuing each chapter. However, this function has not been proposed yet.

JP-A-06-165009 discloses techniques of calculating a priority order of each frame from the

type of button manipulation during photographing, and when digest reproduction for knowing the contents of a scene is to be performed, reproducing a frame having a higher priority order. According to the techniques, 5 however, a priority degree cannot be set to a scene photographed without button manipulation by a user. It cannot be said that the techniques are easy to use.

The present invention has been made in consideration of the above-described issues, and 10 provides a recording and reproducing apparatus and a recording and reproducing method allowing a user to rapidly and easily find a target chapter or scene.

In order to settle these issues, the present invention provides a recording and reproducing 15 apparatus capable of setting one or more chapters to each scene, comprising: a recording and reproducing unit for recording and reproducing image information on the scene obtained through photographing, relative to a predetermined first recording medium; a face 20 recognizing execution unit for executing a face recognizing process for a photographed image based on the image information; an importance level setting unit for setting an importance level of each chapter in accordance with a result of the face recognizing 25 process for a very important person (VIP) set by a user; and a control unit for controlling the recording and reproducing unit so as to selectively reproduce each chapter having a relevant importance level, among

importance levels of respective chapters.

Accordingly, the recording and reproducing apparatus of the present invention can selectively reproduce a particular chapter in accordance with user
5 settings, such as a chapter on which a VIP appears frequently.

The present invention provides further a recording and reproducing method for a recording and reproducing apparatus for recording and reproducing
10 image information on a scene obtained through photographing, relative to a predetermined first recording medium and being capable of setting one or more chapters to each scene, the method comprising: a first step of executing a face recognizing process for
15 a photographed image based on the image information; a second step of setting an importance level of each chapter in accordance with a result of the face recognizing process for a VIP set by a user; and a third step of selectively reproducing each chapter
20 having a relevant importance level, among importance levels of respective chapters.

Accordingly, the recording and reproducing method of the present invention can selectively reproduce a particular chapter in accordance with user
25 settings, such as a chapter on which a VIP appears frequently.

According to the present invention, a user can therefore find an object chapter and scene quickly

and easily.

Other objects, features and advantages of the invention will become apparent from the following description of the embodiments of the invention taken
5 in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram illustrating the structure of a video camera according to first and second embodiments.

10 Fig. 2 is a conceptual diagram illustrating an example of chapter management information.

Fig. 3 is a conceptual diagram illustrating an example of face recognizing management information.

15 Fig. 4 is a conceptual diagram illustrating an example of a photographed image when face recognizing is made valid.

Fig. 5 is a flow chart illustrating the sequence of a photographed image recording process.

20 Fig. 6 is a flow chart illustrating the sequence of a chapter importance level setting process.

Fig. 7 is a brief diagrammatic view illustrating an example of the layout of a VIP determining screen.

25 Fig. 8 is a flow chart illustrating the sequence of an importance level determining process.

Fig. 9 is a table illustrating an example of the chapter arrangement of an object scene and a

chapter importance level set to each chapter.

Fig. 10 is a flow chart illustrating the sequence of a chapter selecting and reproducing process.

5 Fig. 11 is a brief diagrammatic view illustrating an example of the layout of a chapter list screen.

Fig. 12 is a brief diagrammatic view illustrating an example of the layout of a scene list
10 screen.

Fig. 13 is a flow chart illustrating the sequence of a VIP setting process.

Fig. 14 is a brief diagrammatic view illustrating an example of a layout of a pre-
15 photographing VIP setting screen.

Fig. 15 is a brief diagrammatic view illustrating an example of the layout of a VIP photographing screen.

DESCRIPTION OF THE EMBODIMENTS

20 Embodiments of the present invention will now be described with reference to the accompanying drawings.

(1) First Embodiment

(1-1) Structure of Recording and Reproducing Apparatus

25 In Fig. 1, reference numeral 1 represents a video camera of the embodiment. The video camera 1 is a hybrid video camera equipped with a DVD drive (not

shown) and a built-in hard disc drive 2. A DVD 3 to be mounted on the DVD drive includes a plurality of types such as DVD-R, DVD-RW, DVD-RAM, DVD + R, DVD + RW and HD (High Definition)-DVD. The type of DVD 3 applicable
5 to the video camera 1 is not specifically limited.

In the video camera 1, a user interface 4 is constituted of various operation buttons, a touch panel adhered to a screen of a display 6 to be described later. In accordance with a user operation command
10 input from the user interface 4, a system controller 5 executes a corresponding control process to record a photographed image in the hard disc drive 2 and DVD 3 loaded in the DVD drive and to reproduce a photographed image recorded in the hard disc drive 2 and DVD 3 and
15 display the reproduced image on the display 6.

The system controller 5 is actually a microcomputer constituted of a central processing unit (CPU), an internal memory and the like. When a record button in the user interface 4 is depressed after a
20 record mode is selected upon operation of the user interface 4, the system controller 5 drives an image sensor 7 constituted of a charge coupled device (CCD), complementary metal oxide semiconductor (CMOS) transistors and the like.

25 An optical image of an object is converged by a lens 8 on an optical reception plane of the image sensor 7. The image sensor 7 photoelectrically converts the optical image, and sends an obtained

photographed image signal to an analog/digital converter 9. The analog/digital converter 9 converts the analog photographed image signal into a digital image signal, and sends the obtained digital
5 information to a compressor/decompressor (CODEC) 10.

CODEC 10 transfers the supplied image information to the display 6 via a bus 11. The display 6 may be a liquid crystal display, an organic EL display or the like, and displays a photographed image
10 (through image) basing upon the supplied image information.

CODEC 10 encodes the supplied image information by a predetermined compression encoding method such as a Moving Picture Expert Group (MPEG)
15 method, and stores the obtained encoded image information, and the image information not subjected to encoding, in a random access memory (RAM) 12 via the bus 11.

Under control of the system controller 5, the
20 encoded image information stored in RAM 12 is thereafter read by a hard disc drive controller 13 or a DVD drive controller 14, and recorded in the hard disc drive 2 or DVD 3.

The image information stored in RAM 12 is
25 read by a face recognizing execution unit 15. The face recognizing execution unit 15 executes a predetermined face recognizing process for the photographed image corresponding to the image information, and supplies

the recognition results to the hard disc drive controller 13 or DVD drive controller 14 storing the encoded image information, as face recognizing management information to be described later. In this
5 manner, the face recognizing management information is recorded in the hard disc drive 2 or DVD 3, in correspondence with the encoded image information.

When a reproduction button of the user interface 4 is depressed after a reproduction mode is
10 selected upon operation of the user interface 4, the system controller 5 controls a corresponding one of the hard disc drive controller 13 and DVD drive controller 14 to make the hard disc drive controller 13 or DVD drive controller 14 read and transmit the encoded image
15 information to CODEC 10 via the bus 11.

Under control of the system controller 5, CODEC 10 executes a predetermined decoding process for the encoded image information supplied from the hard disc drive controller 13 or DVD drive controller 14,
20 and transmits the obtained reproduced image information to the display 6 via the bus 11. In this manner, a reproduced image corresponding reproduced image information is displayed on the display 6.

An image size converter 16 is also connected
25 to the bus 11. Under control of the system controller 5, the image size converter 16 extracts image information on a start frame of each scene and image information on a start frame of each chapter, from the

image information stored in RAM 12 and image
information read from the hard disk drive 2 or DVD 3
and decoded by CODEC 10, for example, during
photographing. The image size converter 16 converts
5 the extracted image information into image information
on thumbnail images of predetermined sizes, and stores
the image information on the thumbnail images of a
start frame of the scene and a start frame of each
chapter in the hard disc drive 2 or DVD 3 storing the
10 encoded image information on the scene, in
correspondence with the scene.

It is assumed that the video camera 1 has
other hardware and functions of a general video camera,
such as light emitting diodes (LED's) for turning on
15 during power-on, charging, access to the hard disc
drive 2 or DVD 3, or the like, and batteries for
supplying power to each circuit or the like.

In the following description, it is assumed
that a photographed image is recorded in the hard disc
20 drive 2 during photographing, and the photographed
image is dubbed in DVD 3 after photographing. However,
a photographed image may be recorded in DVD 3 during
photographing, and the photographed image is dubbed in
the hard disc drive 2 after photographing.

25 (1-2) Scene Management Information

During photographing with the video camera 1,
encoded image information as well as management
information of each scene (hereinafter called scene

management information) is recorded in the hard disc drive 2. The scene management information is constituted of information for managing a scene such as chapter management information and face recognizing management information. The chapter management information includes information on a position, length, importance level, summary and the like of a start frame of each chapter. The face recognizing management information includes information on a position of a frame on which a face recognized by the face recognizing execution unit appears during photographing, an expression and size of the face on the frame, and the like.

Fig. 2 illustrates an example of the chapter management information. The chapter management information 20 illustrated in Fig. 2 is constituted of chapter ID information 21, start frame position information 22 and chapter importance level information 23, respectively of each chapter set in a scene.

The chapter ID information 21 is information representative of a unique ID given to each chapter (hereinafter called a chapter ID), and the start frame position information 22 is information representative of a position (hour, minute, second and frame number) of a start frame of the corresponding chapter. The chapter importance level information 23 is information representative of an importance level set to the corresponding chapter (herein after called a chapter

importance level). The details of the chapter importance level will be described later. Under control of the system controller 5, the chapter management information 20 is stored in the hard disc drive 2 in correspondence with the encoded image information of the scene.

Fig. 3 illustrates an example of the face recognizing management information. The face recognizing management information 24 illustrated in Fig. 3 is constituted of face ID information 25 for each face recognized in the corresponding scene, path/file name information 26 and frame position information 27.

The face ID information 25 is information representative of a unique ID given to each face recognized by the face recognizing execution unit 15 (hereinafter called a face ID), and the path/file name information 26 is information representative of a path to the image file of an image of a corresponding face (hereinafter called a face image) or a file name of the image file. A face image to be stored in the image file may be an image captured when the person is recognized first in a frame, or an image capturing the best expression of the person in the scene after distinguishing a good expression such as smile during the face recognizing process.

The frame position information 27 is information representative of a frame position (hour,

minute, second and frame number) where a corresponding face is recognized. The frame position information 27 includes all frame positions on which a corresponding face appears. Therefore, the number of frame positions
5 contained in the frame position information 27 becomes larger the larger the number of times when the face (person) appears on the scene. A type of a face expression in a frame may be recorded in correspondence with each frame position.

10 As described above, the face recognizing execution unit 15 stores the face recognizing management information 24 in the hard disc drive 2 in correspondence with the encoded image information of a photographed image recorded at that time.

15 (1-3) Chapter Importance Level Setting Method

 Fig. 4 illustrates an example of an image photographed by setting a face recognizing function "valid" and displayed on the display 6. As the face recognizing function of the video camera 1 is set
20 "valid", a rectangular frame 31 is displayed in a photographed image 30 displayed on the display 6, surrounding a face of a person detected by the face recognizing function. As the face recognizing function is set "invalid", this frame 31 is not displayed.

25 Fig. 5 illustrates the contents of a process (hereinafter called a photographed image recording process) of recording an image photographed by setting the face recognizing function "valid" in the hard disc

drive 2, to be executed by the system controller 5.
The system controller 5 executes the photographed image
recording process illustrated in Fig. 5 in accordance
with a corresponding control program stored in the
5 internal memory.

More specifically, as the record button of
the user interface 4 is depressed after the record mode
is selected, the system controller 5 starts the
photographed image recording process. First, the
10 analog/digital converter 9 and CODEC 10 are controlled
to store image information of the photographed image
and encoded image information in RAM 12, and the hard
disc drive controller 13 is controlled to read the
encoded image information of one frame from RAM 12 and
15 store the read encoded image information in the hard
disc drive 2 (Step SP1).

Next, the system controller 5 controls the
face recognizing execution unit 15 to read from RAM 12
the image information of the same frame as the frame
20 whose encoded image information was read from RAM 12 by
the hard disc drive controller 13 at Step SP1 and
execute the face recognizing process for the
photographed image corresponding to the image
information (Step SP2).

25 In this case, for example, the face
recognizing execution unit 15 executes the face
recognizing process by template matching, for example,
using an average face. However, if a user forms a VIP

list registering VIP's before photographing, the face recognizing process may be executed by template matching using the VIP list. After the face recognizing process is completed, the face recognizing execution unit 15 reflects the results of the face recognizing process upon the face recognizing management information described with reference to Fig. 3 (updating the face recognizing management information).

10 Next, the system controller 5 judges whether encoded image information of all frames obtained through photographing has been recorded in the hard disc drive 2 (Step SP3). If this judgment is negated, the flow returns to step SP1, and the system controller
15 5 repeats similar processes (SP1 to SP3, to SP1).

 If the judgment is affirmed at Step SP3 after the encoded image information of all frames obtained through photographing is recorded in the hard disc drive 2, the system controller 5 terminates the
20 photographed image recording process.

 The face recognizing process at Step SP2 of the photographed image recording process may be executed for each frame as described above, or may be executed once for several frames. As the face
25 recognizing process is executed once for several frames, a process load on the face recognizing execution unit 15 can be reduced.

 A function (hereinafter called a post-

photographing face recognizing function) may be provided allowing a face recognizing process to be executed for an image already photographed by setting the face recognizing function "invalid", through
5 operation of a menu or the like. The face recognizing management process similar to that illustrated in Fig. 3 can be obtained by this function. With this post-photographing face recognizing function, a chapter importance level can be set using the face recognizing
10 function as will be described later, even for a scene photographed with another video camera without the face recognizing function. This is very convenient for a user.

Next, description will be made on a method of
15 determining an importance level of each chapter in one scene in accordance with the results (face recognizing management information 24 (Fig. 3)) of the face recognizing process obtained in the manner described above.

20 It is assumed in the following that at least one chapter is set in each scene. A chapter forming method includes a method of making a user manually determine the position of each chapter, a method of automatically setting the position of each chapter
25 where a luminance change is large in the scene, a method of automatically setting chapters at equal pitch of several minutes to several ten minutes, and other methods. In this embodiment, a chapter may be set by

any one of these methods.

Fig. 6 illustrates the process contents of the system controller 5 regarding a chapter importance level setting function of setting an importance level of each chapter in a scene. As the user interface 4 is operated and a first screen display request is input, the system controller 5 executes a chapter importance level setting process illustrated in Fig. 6, in accordance with a corresponding program stored in the internal memory (not shown).

More specifically, upon input of the first screen display request, the system controller 5 reads first the chapter management information 20 (Fig.2) and face recognizing management information 24 (Fig. 3), stored in the hard disc drive 2, of a scene to be processed at that time (hereinafter called an object scene), and displays a VIP deciding screen 40 illustrated in Fig. 7 on the display 6, by using the chapter management information 20 and face recognizing management information 24 (Step SP10).

The VIP deciding screen 40 is a screen to be used for a user to decide a VIP in the object scene. The VIP deciding screen 40 displays face images 41 of all persons recognized during photographing the object scene. Each face image 41 is displayed in accordance with image data read from the image file identified by a corresponding path/file name information 26 (Fig. 3) in the face recognizing management information 24

described with reference to Fig. 3.

A user can select a VIP from the face images
41 of persons displayed on the VIP deciding screen 40.
A plurality of VIP's may be selected. Faces of objects
5 having a high appearance frequency such as family
members may be registered beforehand in the video
camera 1 as a VIP list, and the faces of only the
registered persons are displayed on the VIP deciding
screen 40. In this manner, since the face of a person
10 not associated with the object and photographed in the
background is not displayed, it becomes easy for a user
to decide a VIP.

After the face image 41 of the person desired
to be set as a VIP is selected by a predetermined
15 operation, the user depresses a "decide" button 42 to
register the selected person as a VIP. If an operation
of deciding the chapter importance level is desired to
be terminated, a "cancel" button 43 is depressed. If
it is arranged in such a manner that a user can set
20 whether such a VIP list is always used or not, user-
friendliness of the video camera 1 can be improved.

Next, the system controller 5 stands by until
a VIP is decided using the VIP deciding screen 40 (Step
SP11). As the user decides a VIP, an importance level
25 of each chapter of the object scene is determined in
accordance with the decided VIP (Step SP12).

The system controller 5 reflects the
importance level of each chapter decided at Step SP12

upon the chapter management information 20 described with reference to Fig. 2 (Step SP13), to thereafter terminate the chapter importance level setting process.

Fig. 8 illustrates the specific process
5 contents of the system controller 5 in the chapter importance level setting process at Step SP12.

In the chapter importance level setting process at Step SP12, the system controller 5 starts the importance level setting process. First, the
10 number of appearance frequencies of the VIP decided by the user using the VIP deciding screen 40 (Fig. 7) is counted for each chapter of the object scene (Step SP14).

More specifically, the system controller 5
15 prepares counters corresponding in number to the number of chapters in the scene, on the inner memory of the system. The system controller 5 reads the positions of all frames on which the VIP decided by the user using the VIP deciding screen 40 appears, from the face
20 recognizing management information 24 (Fig. 3), by using a face ID of the VIP, and judges to which chapter each frame belongs, by referring to the chapter management information 20 (Fig. 2). In accordance with the judgment results, the system controller 5
25 increments by "1" the count of the counter corresponding to the chapter to which the frame belongs, for each frame on which the VIP appears. The system controller 5 executes these processes for all

VIP's decided by the user using the VIP deciding screen 40.

Next, the system controller 5 normalizes the counts of the counters in a range from "1" to "5" (Step SP15), and decides a value obtained by subtracting each normalized value from "6", as an importance level of each chapter corresponding to the counter (Step SP16).

With these processes, the highest chapter importance level of "1" is set to the chapter on which the VIP appears most frequently, and the lowest chapter importance level of "5" is set to the chapter on which the VIP appears least frequently. Thereafter, the system controller 5 terminates this importance level deciding process and returns to the chapter importance level setting process.

If a user selects a plurality of VIP's on the VIP deciding screen 40, the chapter importance levels may be weighted to allow the user to set more important persons. User-friendliness of the video camera 1 can therefore be improved further.

(1-4) Reproducing Method Using Chapter Importance Level

Next, description will be made on an object scene reproducing method basing upon the chapter importance level of each chapter set in the manner described above. It is assumed in the following description that the chapter importance level is set in five steps, "1" being the highest chapter importance

level, and "5" being the lowest chapter importance level. In the following, the chapter importance levels are distinguished for the purposes of convenience by calling the chapter importance level "1" superexpress, 5 the chapter importance level "3" express, and the chapter importance level "5" standard.

Fig. 9 illustrates an example of the chapter structure of an object scene and a chapter importance level set to each chapter. In the example illustrated 10 in Fig. 9, the object scene is divided into nine chapters having chapter ID's of "001" to "009". The chapter importance level "1" is set to two chapters having the chapter ID's "002" and "005", the chapter importance level "3" is set to two chapters having the 15 chapter ID's "004" and "009", and the chapter importance level "5" is set to the remaining chapters having the chapter ID's "001", "003", "006" to "008".

In this example, as reproduction is performed by selecting as a reproducing mode a "standard 20 reproducing mode" from the menu, all chapters are sequentially reproduced in an order of smaller chapter ID, irrespective of the chapter importance level set to each chapter. Namely, in the "standard reproducing mode", the chapters having the chapter importance level 25 "5" or smaller (the chapters having the chapter importance levels "1" to "5", i.e., all chapters) are reproduced in this mode of the embodiment.

Further, as a user starts reproducing by

selecting as the reproducing mode an "express reproducing mode", the video camera 1 reproduces first the chapter having the chapter importance level "1" and chapter ID "002", then the chapter having the chapter importance level "3" and the chapter ID "004", and next the chapter having the chapter importance level "1" and the chapter ID "005". Lastly, the video camera 1 reproduces the chapter having the importance level 3 and the chapter ID "009" to thereafter terminate scene reproducing. Namely, in the express reproducing mode", only the chapters having the chapter importance level "3" or smaller (only the chapters having the importance levels "1" to "3") are reproduced. Therefore, as cue skipping is performed during reproducing in the "express reproducing mode", reproducing starts from the start frame of the next chapter having the chapter importance level "3" or smaller.

Furthermore, as a user starts reproducing by selecting as the reproducing mode a "superexpress reproducing mode", the video camera 1 reproduces first the chapter having the chapter importance level "1" and chapter ID "002", then the chapter having the chapter importance level "1" and the chapter ID "005" to thereafter terminate scene reproducing. Namely, in the "super express reproducing mode", only the chapters having the chapter importance level "1" are reproduced.

Therefore, the video camera 1 reproduces always the chapter having the chapter importance level

"1" as any of the reproducing modes is selected, and each of other chapters is reproduced only when the reproducing mode is selected reproducing the chapter having the chapter importance level same as or smaller
5 than that set to each of other chapters.

By utilizing this function (hereinafter called a chapter select reproducing function), the superexpress reproducing mode is used for confirming roughly the contents of the object scene, and at the
10 stage when reproducing comes near the images whose contents are desired to be confirmed in detail, the reproducing mode is switched to the standard reproducing mode. In this manner, the contents of the object scene can be confirmed efficiently and
15 conveniently. The superexpress reproducing mode is very convenient for a user desiring to confirm the contents of a scene in short time.

Fig. 10 illustrates the process contents of the system controller 5 regarding the chapter select
20 reproducing function. The system controller 5 executes the chapter select reproducing process illustrated in Fig. 10 in accordance with a control program stored in the internal memory.

Namely, as a reproducing operation start
25 command is input after the "standard reproducing mode", "express reproducing mode" or "superexpress reproducing mode" is selected, the system controller 5 starts the chapter select reproducing process to first read the

chapter management information of the object scene from a corresponding hard disc drive 2 or DVD 3 (Step SP20).

Next, in accordance with the ID information contained in the chapter management information, the
5 system controller 5 selects the first chapter (e.g., the chapter having the smallest chapter ID) (Step SP21), and judges whether the chapter importance level of the chapter is a predetermined threshold value or smaller set to the present reproducing mode (Step
10 SP22). The threshold value is "5" if the "standard reproducing mode" is set, "3" if the "express reproducing mode" is set, and "1" if the "superexpress reproducing mode" is set.

If a judgment at Step SP22 is negated, the
15 flow advances to Step S24, whereas if the judgment is affirmed, the system controller 5 controls CODEC 10 to reproduce the chapter and display the reproduced image on the display (Step SP23).

Next, the system controller 5 refers to the
20 chapter management information to judge whether the chapter next to the chapter selected at Step SP21 exists (Step SP24). If this judgment is affirmed, the flow returns to Step SP21 to repeat similar processes by sequentially switching the chapter to be selected at
25 Step SP21 (Steps SP21 to SP24, to SP21).

As the processes at Steps SP21 to SP24 are completed for all chapters and the judgment at Step SP24 is negated, the system controller 5 terminates the

chapter select reproducing process.

Next, description will be made on an approach to making a user to easily confirm the chapter importance level set to each chapter in a scene.

5 Fig. 11 illustrates a chapter list screen 50 displayed on the display6 by a user menu operation. For each chapter of an object scene, a thumbnail image 51 set to the chapter, and chapter management information 52 such as a lapse time from the scene start, a chapter importance level and the like, are
10 displayed on the chapter list screen 50.

More practically, when a display command for the chapter list screen 50 is input by operating the user interface 4, the system controller 5 controls a
15 corresponding hard disc drive controller 13 or DVD drive controller 14 to read from the hard disc drive 2 or DVD 3 the chapter management information 20 (Fig. 2) of the object scene, and the image information on the thumbnail image 51 of the start frame of each chapter
20 stored in correspondence with the object scene. Then, the system controller 5 operates to display the thumbnail image 51 of the start frame of each chapter on the chapter list screen 50 in accordance with the read image information, and display the management
25 information 52 of each chapter based on the chapter management information 20, on the chapter list screen 50, in correspondence with the thumbnail image 51.

In this manner, a user can know the chapter

having a high chapter importance level from the chapter list screen 50, and can find an important image quickly.

Next, description will be made on an approach to making a user easily confirm a scene set with a chapter importance level.

Fig. 12 illustrates a scene list screen displayed on the display by a user menu operation. A thumbnail image 54 of each scene stored in the hard disc drive 2 or DVD 3 is displayed on the scene list screen 53.

More practically, when a display command for the scene list screen 53 is input by operating the user interface 4, the system controller 5 controls a corresponding hard disc drive controller 13 or DVD drive controller 14 to read from the hard disc drive 2 or DVD 3 the image information on the thumbnail image 54 of the start frame of every scene stored in the hard disc drive 2 or DVD 3 designated by the user. Then, the system controller 5 operates to display the thumbnail image 54 of the start frame of each scene on the scene list screen 53, in accordance with the read image information.

In this case, the system controller 5 refers to the chapter management information 20 (Fig. 2) of each scene, and displays an icon 55 having a predetermined shape on the thumbnail image 54 of the scene set with the chapter importance level.

It is therefore possible for a user to judge from the icon 55 whether a chapter importance level is set to the scene, for example, to be reproduced. The contents of the scene displayed with the icon 55 can be confirmed efficiently by immediately performing a reproducing operation by the reproducing method using the chapter importance level as described above. For the scene not displayed with the icon, the chapter importance level setting process is executed before the reproduction operation so that the reproducing operation by the above-described reproducing method can be performed.

(1-5) Scene Dubbing Process

Next, description will be made on a process of dubbing encoded image information recorded in the hard disc drive 2 into DVD 3.

When the scene set with the chapter importance level is dubbed from the hard disc drive 2 into DVD 3 in the video camera 1, the system controller 5 copies not only the encoded image information and scene management information (chapter management information 20 (Fig. 2) and face recognizing management information 24 (Fig. 3) but also an image file of face images of faces registered in the face recognizing management information 24 contained in the scene management information, into DVD 3. Therefore, even if the encoded information in the hard disc drive 2 is erased, reproducing using a chapter importance level

and re-setting a chapter importance level can be performed immediately.

(1-6) Effects of the Embodiment

According to the video camera of the
5 embodiment described above, the chapter importance level of each chapter can be set basing upon the results of the face recognizing process executed during photographing. It is therefore possible for a user to quickly find a chapter on which an object person (VIP)
10 appears frequently. Further, a chapter having a relevant chapter importance level is selectively reproduced, among chapter importance levels of respective chapters, so that a user can confirm the whole contents of the scene easily and in short time
15 and can find an object scene quickly. In this manner, user-friendliness of the video camera 1 can be improved considerably.

(2) Second Embodiment

In Fig. 1, reference numeral 60 represents a
20 video camera of the second embodiment. The video camera 60 of the second embodiment is configured like the video camera 1 of the first embodiment, excepting that the chapter importance level setting method is different from that of the first embodiment.

25 Namely, in the first embodiment, a user decides a VIP by using the VIP deciding screen 40 (Fig. 7) after photographing, and in accordance with the decision, a chapter importance level of each chapter is

set. In contrast, in the second embodiment, the face recognizing process is executed only for a VIP decided by a user before photographing, and in accordance with the results of the face recognizing process, a chapter importance level of each chapter is set.

Fig. 13 illustrates the process contents of the system controller regarding a VIP setting process for a user to set a VIP before photographing, in the chapter importance setting method of the second embodiment. The system controller 61 executes the VIP setting process in accordance with a control program stored in the inner memory (not shown).

Namely, when a VIP setting mode is selected by operating the user interface 4, the system controller 61 starts the VIP setting process to first display a pre-photographing VIP setting screen 70 illustrated in Fig. 14 on the display 6 (Step SP30).

Next, the system controller 61 stands by until one of first and second VIP deciding method select buttons 71 and 72 displayed on the pre-photographing VIP setting screen 70 (Step SP31) is depressed. The first VIP deciding method select button 71 is a button corresponding to a mode of preparing for photographing a VIP, and the second VIP deciding method select button 72 is a button corresponding to a mode of deciding a VIP among persons recognized during photographing already performed, similar to the first embodiment.

As one of the first and second VIP deciding method select buttons 71 and 72 is depressed, the system controller 61 judges whether the depressed button is the first VIP deciding method select button
5 71 (Step SP32).

As this judgment is affirmed, the system controller 61 drives the image sensor 7, analog/digital converter 9 and CODEC 10 to display an image illustrated in Fig. 15 and photographed at that time by
10 a user, on the display 6 (Step SP34). In this case, the user photographs a VIP to be registered with the video camera 60.

Next, during photographing a VIP, the system controller 61 drives the face recognizing execution
15 unit 15 to execute the face recognizing process for the VIP under photographing (Step SP35). After completion of the face recognizing process, the system controller 61 makes the face recognizing execution unit 15 form the face recognizing management information 24 (Fig. 3)
20 based upon the face recognizing process results, and store this information in the hard disc drive 2 (Step SP38). Thereafter, the system controller 61 terminates the VIP setting process.

If the judgment at Step SP32 is negated
25 (i.e., if the second VIP deciding method select button 72 is depressed), the system controller 61 displays the VIP display screen 40 described with reference to Fig. 7 on the display 6 (Step SP36).

Next, the system controller 61 stands by until a VIP is selected from the VIP display screen 40 (Step SP37). As a VIP is selected, the face recognizing execution unit 15 is instructed to form the face recognizing management information 24 illustrated in Fig. 3 registering only information on the selected VIP (Step SP38). Thereafter, the system controller 61 terminates the VIP setting process.

With this arrangement, the system controller 61 controls the face recognizing execution unit 15 to reflect only the results of the face recognizing process for the VIP registered in the manner described above, upon the face recognizing management information 24 (Fig. 3), during photographing. Each time scene photographing is completed, the importance level setting process described with reference to Fig. 8 is executed to determine a chapter importance level of each chapter set in the scene, and in accordance with the determined chapter importance level, the chapter management information 20 (Fig. 2) is updated.

As described above, the video camera 60 of the embodiment executes the face recognizing process only for a VIP decided before moving image photographing, and in accordance with the results of the face recognizing process, a chapter importance level of each chapter is set. It is therefore possible to facilitate setting of the chapter importance level of each chapter. Further, since the video camera 60

registers a VIP in advance as described above, it is possible to avoid the following phenomenon. Namely, in performing autofocus and autoexposure utilizing face recognition, if the face of another person photographed
5 together with a VIP is recognized by chance, the optimum focus and exposure are set to this other person, and the object VIP is not photographed well.

(3) Other Embodiments

In the first and second embodiments, the
10 present invention is applied to the video camera 1, 60 configured as illustrated in Fig. 1. The present invention is not limited thereto, but is also applicable to video cameras having various structures, apparatus other than video cameras such as DVD
15 recorders, electronic still cameras and mobile phones provided with a moving image photographing function.

Further, in the first and second embodiments, although the hard disc drive 2 and DVD 3 are adopted as recording media for recording photographed images, the
20 present invention is not limited thereto, but recording media other than the DVD and hard disc drive may also be adopted including a Blu-ray disc (BD), a compact disc (CD), a mini disc (MD), a semiconductor memory and the like.

25 Furthermore, in the first and second embodiments, although the hard disc drive 2 and a DVD drive as the recording/reproducing unit for recording and reproducing image information on photographed

scenes relative to recording media are built in the video camera 1, 60, the present invention is not limited thereto, but may adopt an external mount type drive connected by USB (Universal Serial Bus), eSATA
5 (External Serial Advanced Technology Attachment) and the like as the recording and reproducing unit.

Still further, in the first and second embodiments, although one system controller 5, 61 is constituted of: an importance level setting unit for
10 setting a chapter importance level of each chapter in accordance with the results of a face recognizing process for a VIP set by a user; a controller for controlling the hard disc drive 2 and DVD drive so as to selectively reproduce a chapter having a relevant
15 importance level, among importance levels of respective chapters; and a VIP setting unit for setting as a VIP a person corresponding to a face image selected by a user from a list of face images displayed on the display, the present invention is not limited thereto, but the
20 importance level setting unit, control unit and VIP setting unit may be structured discretely.

The present invention is widely applicable to various recording and reproducing apparatus such as DVD recorders in addition to video cameras.

25 The preferred embodiments of the present invention have been described above. According to the present invention, a particular chapter can be selectively reproduced in accordance with user settings

so that a user can find quickly a chapter on which a
desired person appears. Further, since a particular
chapter based on user settings can be selectively
reproduced, a user can know the whole contents of a
5 scene in short time and easily.

It should be further understood by those
skilled in the art that although the foregoing
description has been made on embodiments of the
invention, the invention is not limited thereto and
10 various changes and modifications may be made without
departing from the spirit of the invention and the
scope of the appended claims.

FIG. 1

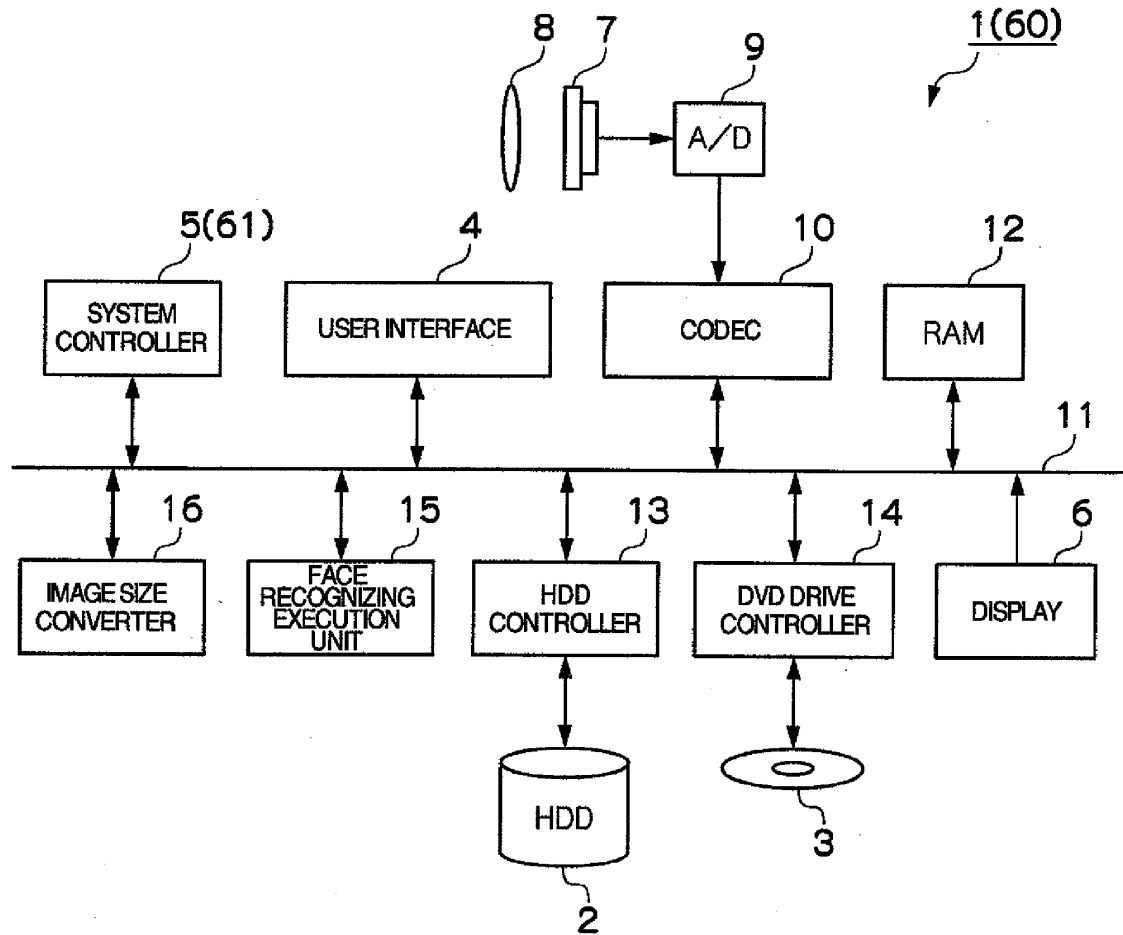


FIG. 2

21	22	23
001	hh:mm:ss:ff	2
002	hh:mm:ss:ff	1
003	hh:mm:ss:ff	3
⋮	⋮	⋮

20

FIG. 3

25	26	27
001	filepath/file. jpg	hh:mm:ss:ff ...
002	filepath/file. jpg	
003	filepath/file. jpg	hh:mm:ss:ff ...
⋮	⋮	

24

FIG. 4

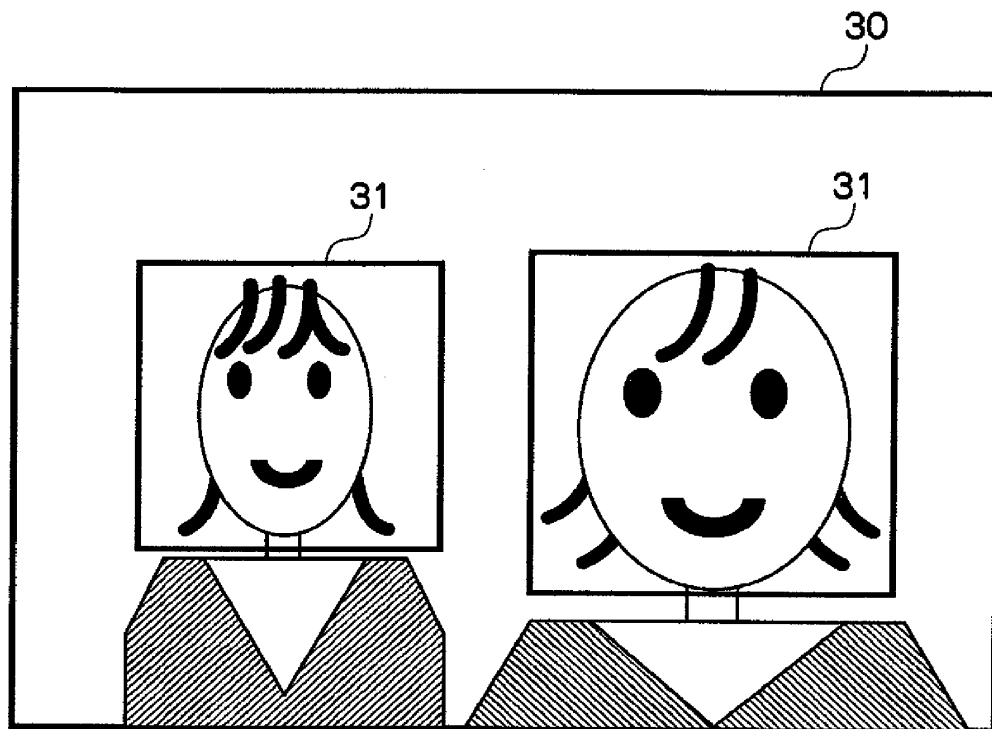


FIG. 5

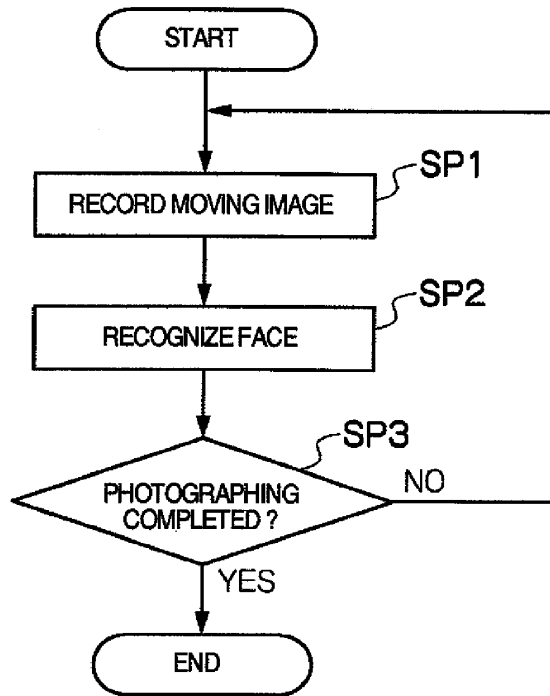


FIG. 6

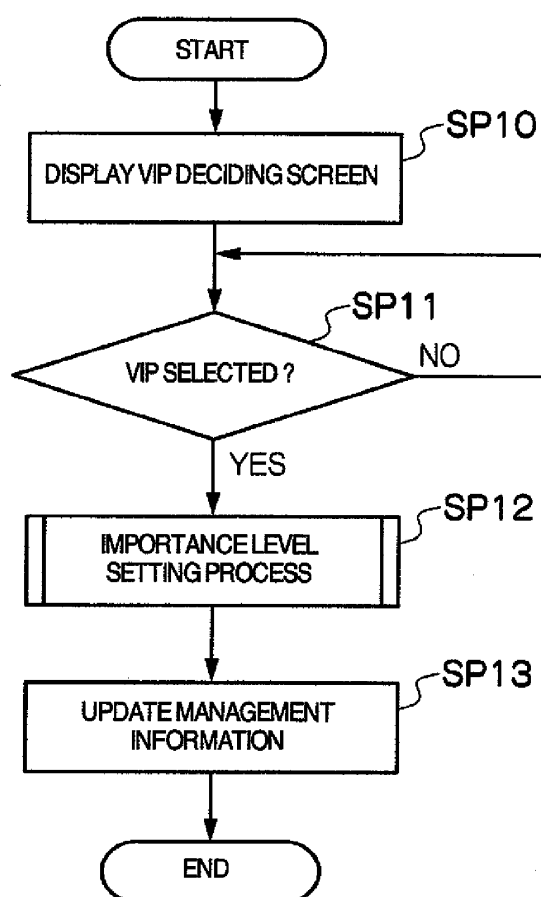


FIG. 7

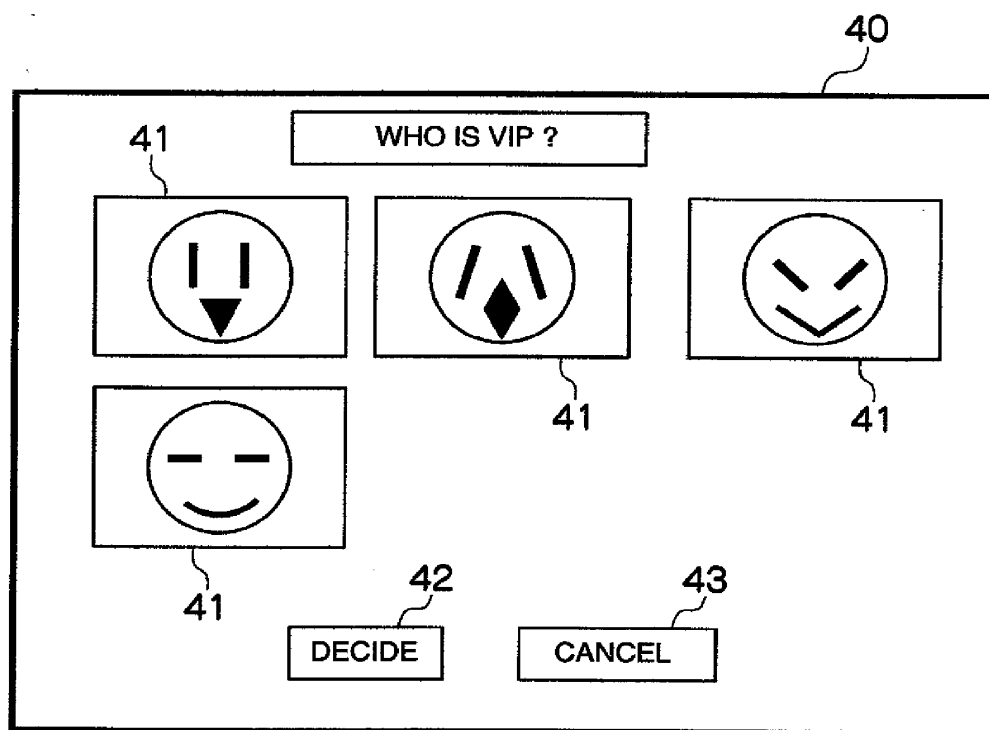


FIG. 8

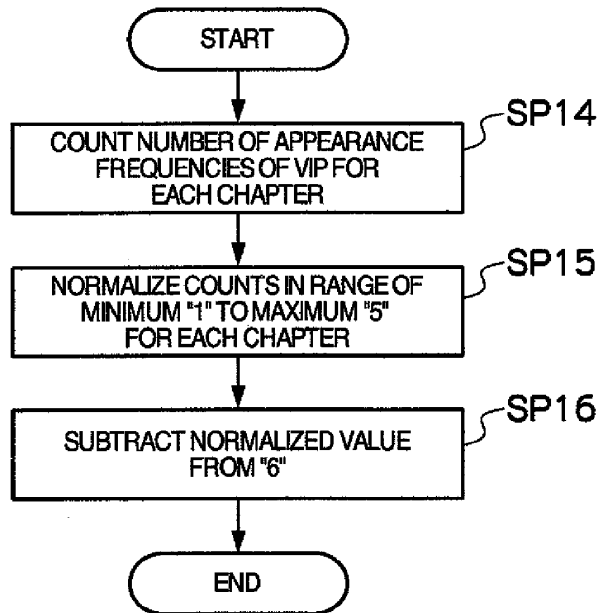


FIG. 9

CHAPTER ID	CHAPTER IMPORTANCE LEVEL
001	5
002	1
003	5
004	3
005	1
006	5
007	5
008	5
009	3

FIG. 10

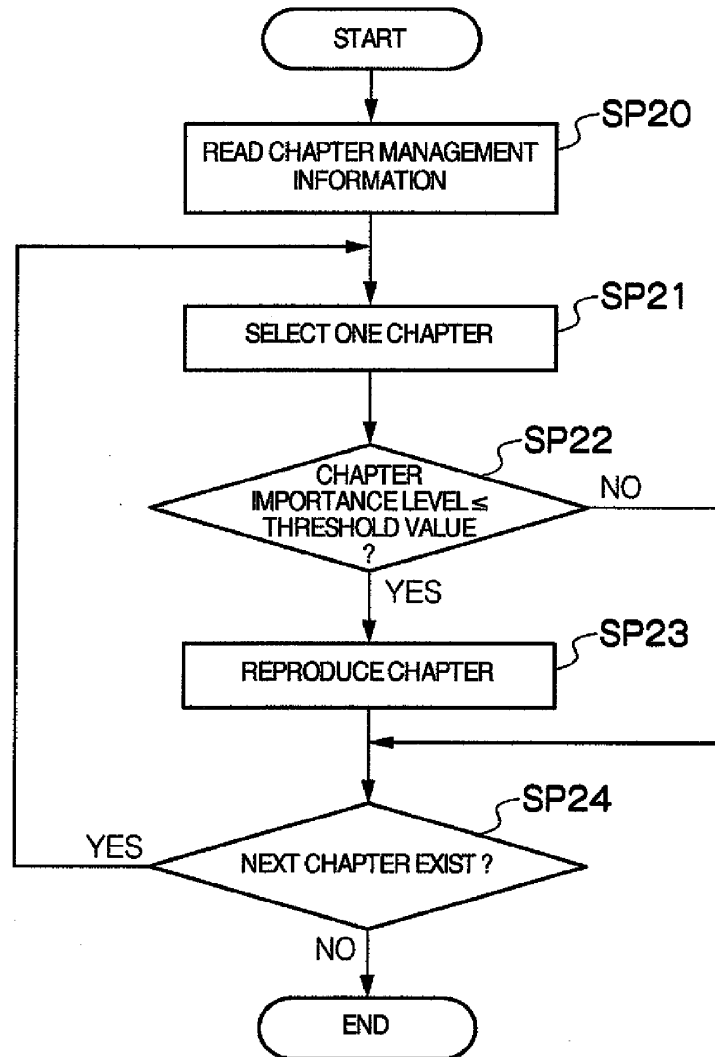


FIG. 11

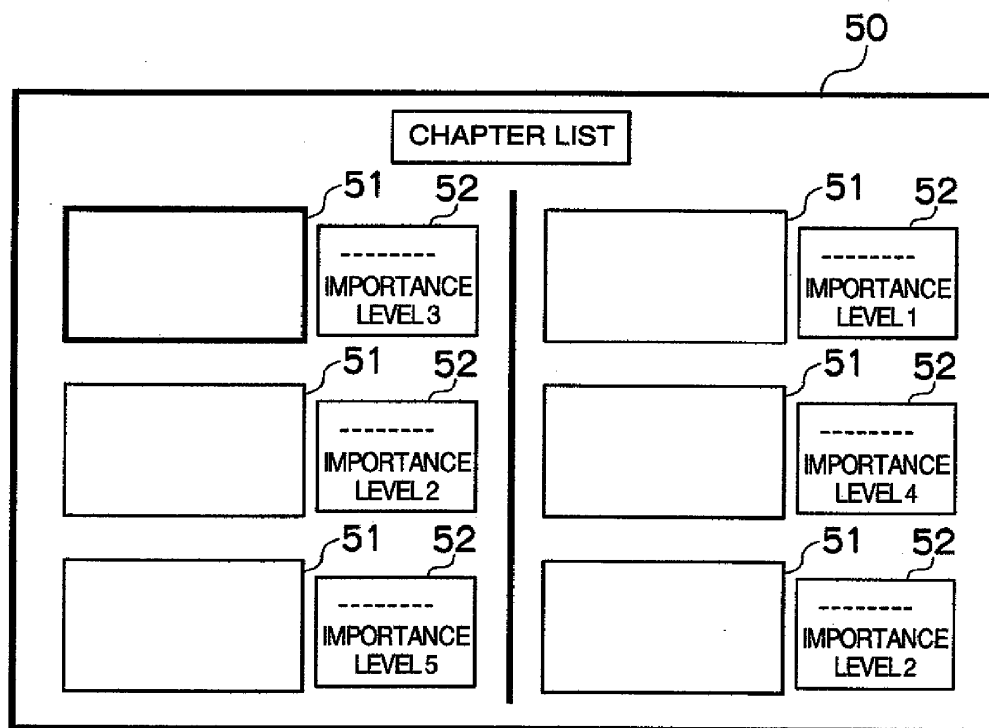


FIG. 12

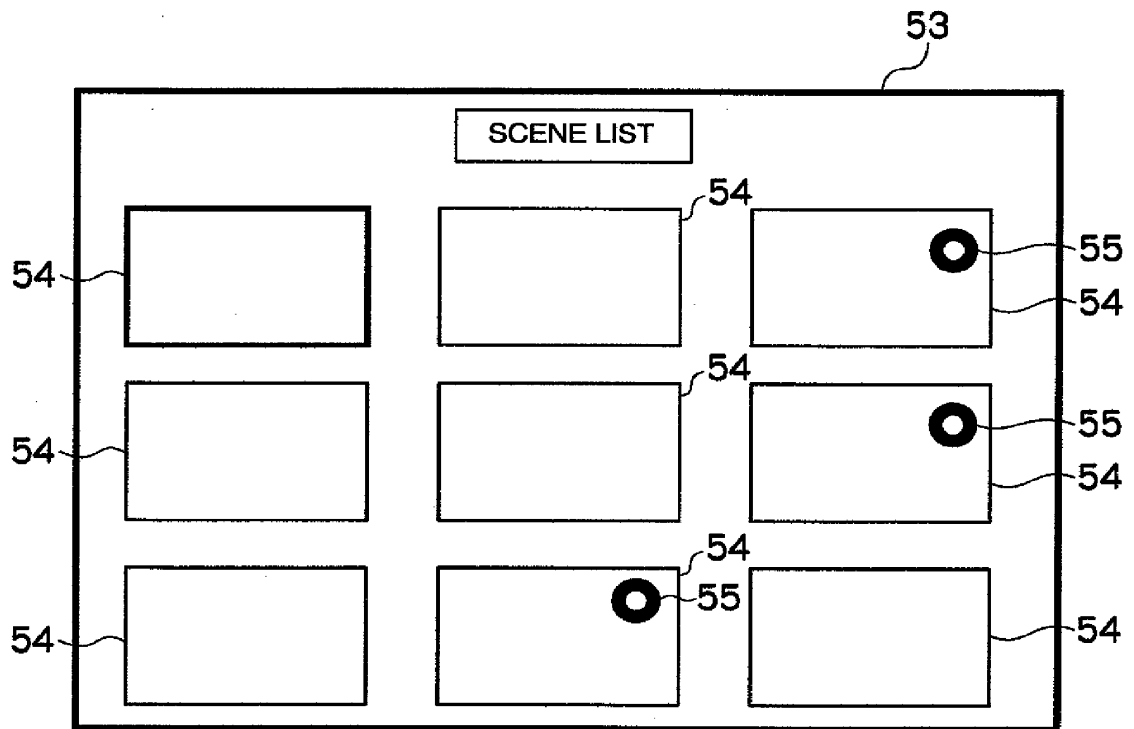


FIG. 13

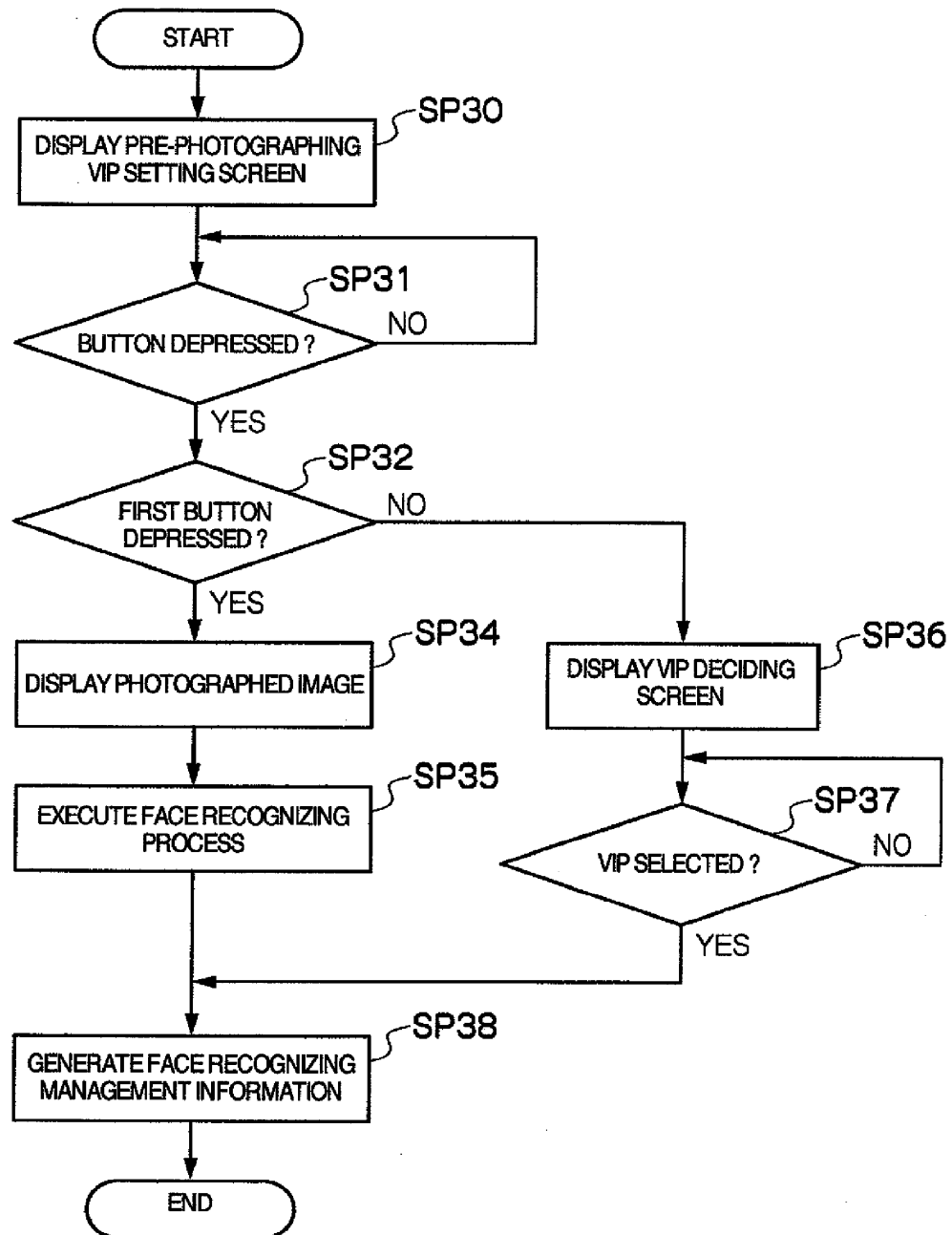


FIG. 14

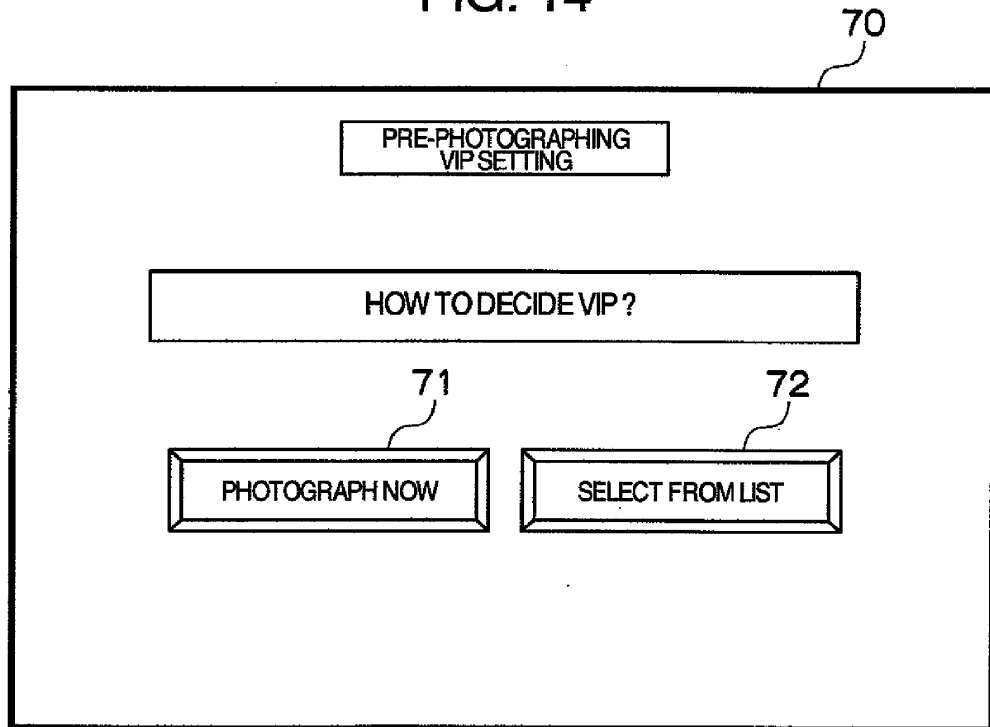
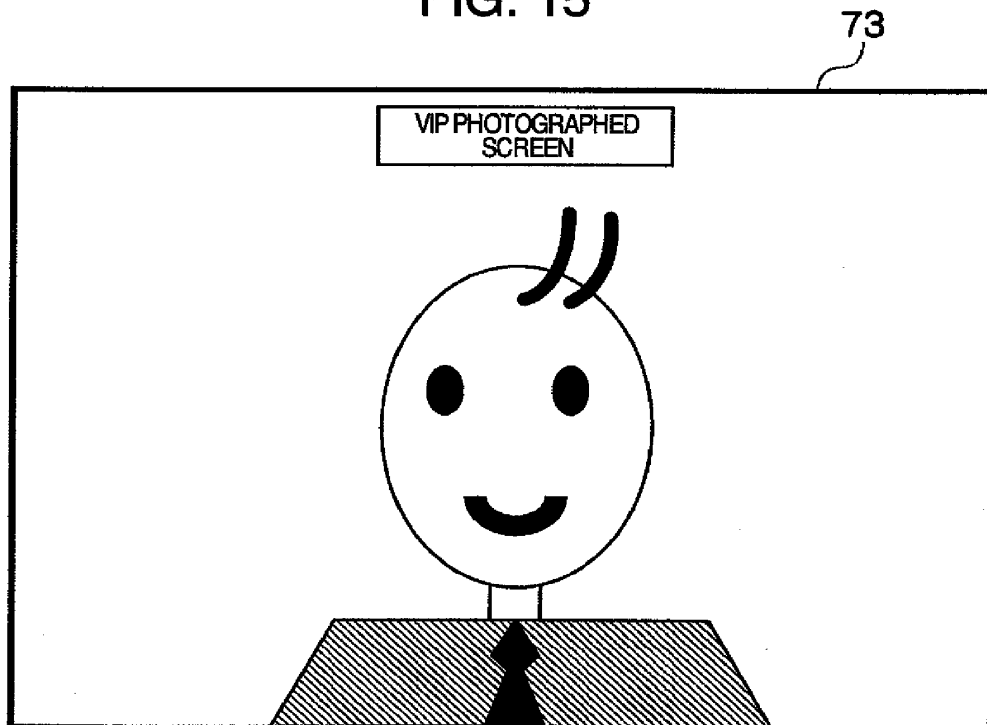


FIG. 15



Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
First Named Inventor/Applicant Name:		Mari YOSHIDA		
Filer:		John Roberts Mattingly/Krista Hargrove		
Attorney Docket Number:		ASA-9940-04		
Filed as Large Entity				
Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	300	300
UTILITY SEARCH FEE	1111	1	660	660
UTILITY EXAMINATION FEE	1311	1	760	760
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4000	4000
Pages:				
Claims:				
INDEPENDENT CLAIMS IN EXCESS OF 3	1201	1	460	460
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				6320

Electronic Acknowledgement Receipt	
EFS ID:	34571864
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Krista Hargrove
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	13-DEC-2018
Filing Date:	
Time Stamp:	11:03:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 6320
RAM confirmation Number	121318INTEFSW11041400
Deposit Account	501417
Authorized User	Krista Hargrove
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)					
37 CFR 1.20 (Post Issuance fees)					
37 CFR 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	TrackOne Request	9940-04-Trac1.pdf	114193	no	2
			4aaf2a66dc786721996bd735406fb7c86c2080e7		
Warnings:					
Information:					
2	Application Data Sheet	ASA-9940-04-ADS.pdf	1823404	no	8
			c634414cc6b121df6a5a7f89624b6db1b18bec93		
Warnings:					
Information:					
3	Power of Attorney	9940-04-poa.pdf	443270	no	4
			52510f95523232c508085a9c8740ac4eb5aa8741		
Warnings:					
Information:					
4	Transmittal Letter	ASA-9940-04-IDS.pdf	16119	no	2
			534761f3c3f068c29105bca2375b654190079af3		
Warnings:					
Information:					
5	Information Disclosure Statement (IDS) Form (SB08)	9940-04-SB08A.pdf	1037410	no	10
			b266968a87039189abb8b924599596e50fd15a4b		
Warnings:					
Information:					
6		ASA-9940-04-SPEC.pdf	1139365	yes	47
			4e7f7545072597f30341047989cb8b6b2637fc64		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	

	Abstract		47		47
	Claims		36		46
	Specification		1		35
Warnings:					
Information:					
7	Oath or Declaration filed	ASA-9940-04-declaration.pdf	82265 5f8daeeab55daf11d85c5d7ad98b4ee5656e64f	no	2
Warnings:					
Information:					
8	Drawings-only black and white line drawings	ASA-9940-04-drawings.pdf	154745 cfc01c68cc50fb424ce3809441a05dfb262484b7	no	12
Warnings:					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	41767 4300026dff85d01245bf3f2cafb209a281081426d	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			4852538		
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.					

申請データシート(37 CFR 1.76)を使った実用及び意匠登録出願宣言書(37 CFR 1.63)

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
USING AN APPLICATION DATA SHEET (37 CFR 1.76)

発明の名称

Title of Invention

RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

下記発明者である私は、つぎのことがらを宣言します。

As the below named inventor, I hereby declare that:

本宣言は

This declaration is directed to:



添付されている、あるいは

The attached application, or

_____に、米国出願あるいは PCT 国際出願番号 _____として出願されているものに
宛てられています。



United States application or PCT international application

number 14 / 478020 filed on September 5, 2014

上記の出願は私自身、あるいは私が権限を譲与したものによって行われたものです。

The above-identified application was made or authorized to be made by me.

私は本出願書中にあらわれるもとの発明者、あるいはもとの共同発明者です。

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

私は本宣言書において故意に虚偽の申し立てを行った場合は 18 U.S.C. 1001 により、罰金あるいは最高五(5)年の禁固刑、あるいはその両方による罰則の対象となることを認めます。

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.

私は、特許請求の範囲を含む上記の明細書を確認し内容を理解しています。

I have reviewed and understand the contents of the above-identified application, including the claims.

私は、連邦規則法典第 37 編規則 1.56 に定義されている、特許性について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

発明者の正式氏名:

LEGAL NAME OF INVENTOR: Mari YOSHIDA

署名:

Signature: Mari Yoshida

日付(任意):

Date (Optional): Nov. 9, 2014

備考: 出願データシート(PTO/AIA/14 あるいはその同等用紙)は、発明の自主独立体全体の命名を含め、本用紙に添付すること。なお残余の発明者ごとにこの用紙の写しを使用する。

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional copy of the present form for each additional inventor.

CERTIFICATE OF TRANSLATION

I, the below-named translator, of 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan hereby declare that I am conversant with the Japanese and English languages and that to the best of my knowledge and belief the attached Declaration includes a true and accurate translation into English of the Japanese text contained in the Declaration.

Dated July 17, 2014

Signature of Translator: 
Takeshi Kanai



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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
16/218,644	12/13/2018	2484	2180	ASA-9940-04	20	4

CONFIRMATION NO. 7757

FILING RECEIPT



0000000104901402

24956
MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

Date Mailed: 01/11/2019

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)

Mari YOSHIDA, Yokohama, JAPAN;

Applicant(s)

Maxell, Ltd., Tokyo, JAPAN;

Power of Attorney: The patent practitioners associated with Customer Number 24956

Domestic Priority data as claimed by applicant

This application is a CON of 14/478,020 09/05/2014 PAT 10176848
which is a CON of 12/430,185 04/27/2009 PAT 9159368

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 2008-130678 05/19/2008 No Access Code Provided

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 01/04/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/218,644**

Projected Publication Date: 04/18/2019

page 1 of 3

Non-Publication Request: No

Early Publication Request: No
Title

RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

Preliminary Class

386

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

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 U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 16/218,644				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)			
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	300			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	660			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	760			
TOTAL CLAIMS (37 CFR 1.16(i))	20	minus 20 = *				x 100 =	0.00			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4	minus 3 = *	1			x 460 =	460			
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		TOTAL	2180			
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=		x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=		x	=
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=		x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=		x	=
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			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.										



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.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757
24956 7590 01/15/2019 MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 210 ALEXANDRIA, VA 22314			EXAMINER	
			ART UNIT	PAPER NUMBER
			2484	
			NOTIFICATION DATE	DELIVERY MODE
			01/15/2019	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):

ptomail@mmiplaw.com

<i>Decision Granting Request for Prioritized Examination (Track I)</i>	Application No. 16/218,644	Applicant(s) YOSHIDA, Mari	
	Examiner BRIAN W BROWN	Art Unit OPET	AIA (First Inventor to File) Status No
1. THE REQUEST FILED <u>13 December 2018</u> IS GRANTED . The above-identified application has met the requirements for prioritized examination A. ☒ for an original nonprovisional application (Track I). B. ☐ for an application undergoing continued examination (RCE). 2. The above-identified application will undergo prioritized examination. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs: A. filing a <u>petition for extension of time</u> to extend the time period for filing a reply; B. filing an <u>amendment to amend the application to contain more than four independent claims, more than thirty total claims</u>, or a multiple dependent claim; C. filing a <u>request for continued examination</u> ; D. filing a notice of appeal; E. filing a request for suspension of action; F. mailing of a notice of allowance; G. mailing of a final Office action; H. completion of examination as defined in 37 CFR 41.102; or I. abandonment of the application. Telephone inquiries with regard to this decision should be directed to BRIAN BROWN at (571)272-5338. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.			
/BRIAN W BROWN/ Petitions Examiner, OPET			



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.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757
24956	7590	01/29/2019		
MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 210 ALEXANDRIA, VA 22314			EXAMINER CHEVALIER, ROBERT	
			ART UNIT 2484	PAPER NUMBER
			NOTIFICATION DATE 01/29/2019	DELIVERY MODE 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):

ptomail@mmiplaw.com

Office Action Summary	Application No. 16/218,644	Applicant(s) YOSHIDA, Mari	
	Examiner ROBERT CHEVALIER	Art Unit 2484	AIA Status No

-- 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 MONTHS 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 12/13/18.
 ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

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

3) ☐ 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.

4) ☐ 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*

5) ☒ Claim(s) 1-20 is/are pending in the application.
 5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) ____ is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, 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.

Application Papers

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

11) ☒ The drawing(s) filed on 12/13/18 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).

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).
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)).

** 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) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
 Paper No(s)/Mail Date ____.

3) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date ____.

4) ☐ Other: ____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(I)(1) - 706.02(I)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed

determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

3. Claims 1-20 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 10,176,848. Although the conflicting claims are not identical, and that the claimed language of the present Application is somewhat different from the language recited in the patented claims 1-20 of U.S. Patent No. 10,176,848, however, they are not patentably distinct from each other because it is noted that it would have been obvious to one of ordinary skill in the art to recognize that the patented claims 1-20 of U.S. Patent No. 10,176,848, would be able to perform the functions of the claimed limitations of the present Application since the limitations recited in the claimed invention of the present Application are also recited in the patented claims 1-20 of U.S. Patent No. 10,176,848, including the feature of controlling, by a control unit, the reproducing unit so as to selectively reproduce the video information from the recording medium which includes the specific person set by the specific person setting unit according to a result of the face-recognition processing unit.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sukegawa et al disclose a person recognition apparatus and method thereof.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT CHEVALIER whose telephone number is (571)272-7374. The examiner can normally be reached on Campus M-W 11:00-7:30 and Telework TH-F 11:00-7:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. 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.

/ROBERT CHEVALIER/
Examiner, Art Unit 2484
January 22, 2019.

<i>Notice of References Cited</i>	Application/Control No. 16/218,644		Applicant(s)/Patent Under Reexamination	
	Examiner ROBERT CHEVALIER		Art Unit 2484	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20140079299-A1	03-2014	Sukegawa; Hiroshi	G06K9/00288	382/118
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC 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.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20190122

Search Notes 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

CPC - Searched*		
Symbol	Date	Examiner
G06F17/30852; G06K9/00, 00288, 00711; G11B27/034, 34, 105, 28, 30; H04N5/77, 772, 781, 85; H04N9/8042; G11B2220/455, H04N21/4347	01/22/2019	R.C.

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
386	230, 356,	01/22/2019	R.C.
348	239,	01/22/2019	R.C.
382	103, 118	01/22/2019	R.C.
715	719	01/22/2019	R.C.

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Text search performed	01/22/2019	R.C.

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

--	--

<i>Index of Claims</i> 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

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

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	01/22/2019								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								
	19	✓								
	20	✓								

Bibliographic Data

Application No: 16/218,644

Foreign Priority claimed: ☒ Yes ☐ No

35 USC 119 (a-d) conditions met: ☒ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /ROBERT CHEVALIER/

Examiner's Signature

Initials

Title:

RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/13/2018	386	2484	ASA-9940-04
RULE			

APPLICANTS

Maxell, Ltd., Tokyo, JAPAN

INVENTORS

Mari YOSHIDA Yokohama, JAPAN

CONTINUING DATA

This application is a CON of 14478020 09/05/2014 PAT 10176848

14478020 is a CON of 12430185 04/27/2009 PAT 9159368

FOREIGN APPLICATIONS

JAPAN 2008-130678 05/19/2008

IF REQUIRED, FOREIGN LICENSE GRANTED**

01/04/2019

STATE OR COUNTRY

JAPAN

ADDRESS

MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314
UNITED STATES

FILING FEE RECEIVED

\$6,320

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	
	Examiner Name	
	Attorney Docket Number	ASA-9940-04

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	7496211	B2	2009-02-24	Yamagami; Rui	
	2	7853897		2010-12-14	Ogawa et al.	Corr. to JP 2008017041
	3	7474764		2009-01-06	Segawa et a;/	Corr. to JP 2006074463
	4	5809202		1998-09-15	Gotoh et al.	
	5	7496211		2009-02-24	Yamagami et al.	
	6	7634662		2009-12-15	Monroe, David A.	
If you wish to add additional U.S. Patent citation information please click the Add button.						Add
U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number		ASA-9940-04

1	20060188225	A1	2006-08-24	Yamakage; Tomoo	
2	20080279425	A1	2008-11-13	Tang; Chi Sun Jackson	
3	20070019083	A1	2007-01-25	Nakashima; Teruyoshi	
4	20020175997		2002-11-28	Takata et al.	Corr. to JP 2003046911
5	20090135269		2009-05-28	Nozaki et al.	Corr. to JP 2007150603 & JP 2007150604
6	20080144890		2008-06-19	Ogawa	Corr. to JP 2007281680
7	20110055766		2011-03-03	Ogawa et al.	Corr. to JP 2012054948
8	20080225155		2008-09-18	Ebato et al.	Corr. to JP 2008228134
9	20090059008		2009-03-05	Ishii	Corr. to JP 2009059445
10	20080131073		2008-06-05	Ogawa et al.	Corr. to JP 2008017042
11	20070237360		2007-10-11	Irie et al.	Corr. To JP 2007281858

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number		ASA-9940-04

	12	20070162924		2007-07-12	Radhakrishnan et al.	
	13	20070162924		2003-06-12	Li et al.	
	14	20080144890	A1	2008-06-19	Ogawa	
	15	20070036522	A1	2007-02-15	Yoshida et al.	
	16	20080019665		2008-01-24	Huang et al.	
	17	20090016575		2009-01-15	BAK et al.	
	18	20080256450		2008-10-16	Takakura et al.	
	19	20070019083		2007-01-25	Nakashima, Teruyoshi	
	20	20080218595	A1	2008-09-11	KAWAHARA	Corresponds to Foreign Patent Document 30
	21	20080309795	A1	2008-12-18	MITSUHASHI et al.	Corresponds to Foreign Patent Document 31
	22	20100014719	A1	2010-01-21	DATE et al.	Corresponds to Foreign Patent Document 32

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

23	20070171296	A1	2007-07-26	TSUKIJI et al.	Corresponds to Foreign Patent Document 33
24	20030107592	A1	2003-06-12	LI et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	2002-333652 w/abs	JP	A	2002-11-22	KOKI ELECTRIC IND CO LTD		
	2	2006-323621 w/abs	JP	A	2006-11-30	NORITSU KOKI CO LTD		
	3	2007-329679 w/abs	JP	A	2007-12-20	FUJIFILM CORP		
	4	2003046911	JP		2003-02-14	Matsushita Electric		
	5	2007150603	JP		2007-06-14	Nikon Corp.		
	6	2007150604	JP		2007-06-14	Nikon Corp.		
	7	2007281680	JP		2007-10-25	Sony Corp.		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

8	2008017041	JP		2008-01-24	Sony Corp.		
9	2012054948	JP		2012-03-15	Sony Corp.		
10	2008228134	JP		2008-09-25	Sony Corp.		
11	2009059445	JP		2009-03-19	Sony Corp.		
12	2006074463	JP		2006-03-16	Sony Corp.		
13	2008017042	JP		2008-01-24	Sony Corp.		
14	2003150603	JP		2003-05-23	Olympus Optical		
15	2006101325	JP		2006-04-13	Toshiba Corp.		
16	2007049332	JP		2007-02-22	Sony Corp.		
17	2006033659	JP		2006-02-02	Sony Corp.		
18	2006101324	JP		2006-04-13	Toshiba Corp.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number		ASA-9940-04

19	2008283486	JP		2008-11-20	Sony Corp.		
20	2009033351	JP		2009-02-12	Canon Inc.		
21	2003283993	JP		2003-10-03	Sanyo Electric		
22	2001045395	JP		2001-02-16	Minolta Co., Ltd.		
23	2004207842	JP		2004-07-22	Casio Computer Co., Ltd.		
24	2006166408	JP		2006-06-22	Canon KK		
25	2007281858	JP		2007-10-25	Omron Tateisi Electronics Co.		
26	2007281680	JP		2007-10-25	Sony Corp.		
27	2007026493	JP		2007-02-01	Sony Corp.		
28	2007049332	JP		2007-02-22	Sony Corp.		
29	06165009	JP		1994-06-10			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
Attorney Docket Number		ASA-9940-04	

	30	2008-99038	JP	A	2008-04-24	NIKON CORP	Corresponds to U.S. Publication Document 20	
	31	2006-173984	JP	A	2006-06-29	NIKON CORP	Corresponds to U.S. Publication Document 21	
	32	2008-78713	JP	A	2008-04-03	SONY CORP	Corresponds to U.S. Publication Document 22	
	33	2007-6033	JP	A	2007-01-11	OMRON TATEISI ELECTRONICS CO	Corresponds to U.S. Publication Document 23	

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Japanese Office Action received in corresponding Japanese Application No. 2016-043206 dated February 7, 2017	×
	2	JP Office Action for Japanese Patent Application No. 2012-063504, issued on April 2, 2013	☐
	3	JP Office Action for Japanese Patent Application No. 2012-063504, issued on October 30, 2012	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/ROBERT CHEVALIER/	Date Considered	01/22/2019
--------------------	--------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/John R. Mattingly/	Date (YYYY-MM-DD)	2018-12-13
Name/Print	John R. Mattingly	Registration Number	30,293

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	26	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN.	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:42
L2	69021	face near3 recogni\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:43
L3	508272	specific near3 (user or viewer or person)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:44
L4	501129	set\$4 near3 mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L5	53703	4 near6 first	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L6	44701	4 near6 second	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L7	25893	5 same 6	US-PGPUB; USPAT; USOCR;	OR	ON	2019/01/22 16:46

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
L8	32	7 same 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:46
L9	1	8 same 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:47
L10	14	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN. and 2	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:57
L11	1	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN. and 2 and 4	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:57

1/ 22/ 2019 5:58:44 PM

C:\Users\rchevalier\Documents\EAST Workspaces\EastWorkspacer.wsp

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : MAXELL, LTD.
Serial No. : 16/218,644
Filed : December 13, 2018
For : RECORDING AND REPRODUCING APPARATUS AND METHOD
THEREOF
Group : 2484
Examiner : Robert CHEVALIER
Docket No. : ASA-9940-04
Customer No.: 24956

Confirmation No.: 7757

AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 22, 2019

Sir:

In response to the Office Action mailed January 29, 2019, reconsideration and withdrawal of the outstanding rejections and allowance of the present application are respectfully requested in view of the following remarks.

Remarks are included following the amendments.

REMARKS

Claims 1-20 are pending in this application.

Double Patenting Rejections

Claims 1-20 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 10,176,848. An e-terminal disclaimer is being submitted with this Reply to overcome the rejection, without admitting to the propriety of the rejections.

Conclusion

In view of the foregoing amendments and remarks, Applicants request reconsideration of the rejection and allowance of the claims.

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417 (referencing Attorney Docket No. ASA-9940-04).

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/
John R. Mattingly
Registration No. 30,293
703-684-1120

Electronic Acknowledgement Receipt	
EFS ID:	35222135
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Krista Hargrove
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	22-FEB-2019
Filing Date:	13-DEC-2018
Time Stamp:	11:28:16
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		9940-04-AMD01.pdf	31831	yes	2
			ef40ac550e403144ad75c3bf73f24bffa638ed07e		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Applicant Arguments/Remarks Made in an Amendment	2	2
Warnings:			
Information:			
Total Files Size (in bytes):		31831	
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.			

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce
Electronic Petition Request	TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	
Application Number	16218644	
Filing Date	13-Dec-2018	
First Named Inventor	Mari YOSHIDA	
Attorney Docket Number	ASA-9940-04	
Title of Invention	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF	
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action ☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.		
Owner	Percent Interest	
Maxell, Ltd.	100%	
The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s) 10176848 as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later: - expires for failure to pay a maintenance fee; - is held unenforceable; - is found invalid by a court of competent jurisdiction; - is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; - has all claims canceled by a reexamination certificate; - is reissued; or - is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer. ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.		

☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.	
Applicant claims the following fee status:	
☐ Small Entity ☐ Micro Entity ☒ Regular Undiscounted	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am:	
☒ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application Registration Number <u>30293</u>	
☐ A sole inventor ☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ☐ A joint inventor; all of whom are signing this request	
Signature	/John R. Mattingly/
Name	John R. Mattingly

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
 Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal				
Application Number:		16218644		
Filing Date:		13-Dec-2018		
Title of Invention:		RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
First Named Inventor/Applicant Name:		Mari YOSHIDA		
Filer:		John Roberts Mattingly/Krista Hargrove		
Attorney Docket Number:		ASA-9940-04		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	160	160
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 16218644

Filing Date: 13-Dec-2018

Applicant/Patent under Reexamination: YOSHIDA

Electronic Terminal Disclaimer filed on February 22, 2019

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt	
EFS ID:	35222191
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Krista Hargrove
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	22-FEB-2019
Filing Date:	13-DEC-2018
Time Stamp:	11:29:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 160
RAM confirmation Number	022219INTEFSW11294100
Deposit Account	501417
Authorized User	Krista Hargrove
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	33271	no	2
			d903ab0f3889c730e9c0507d22825a035827b3f8		

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30332	no	2
			e6ab96273be6ca69ac066d1ae57b9f500e2646d8		

Warnings:

Information:

Total Files Size (in bytes): 63603

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

24956 7590 03/20/2019
MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

EXAMINER

CHEVALIER, ROBERT

ART UNIT

PAPER NUMBER

2484

DATE MAILED: 03/20/2019

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757

TITLE OF INVENTION: RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	06/20/2019

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: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (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)

24956 7590 03/20/2019
MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

	(Typed or printed name)
	(Signature)
	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757

TITLE OF INVENTION: RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	06/20/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHEVALIER, ROBERT	2484	386-230000

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 03-09 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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). 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. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

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

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

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.

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.

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. _____



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.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757
24956 7590 03/20/2019 MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 210 ALEXANDRIA, VA 22314			EXAMINER CHEVALIER, ROBERT	
			ART UNIT	PAPER NUMBER
			2484	
DATE MAILED: 03/20/2019				

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 30 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. 16/218,644	Applicant(s) YOSHIDA, Mari	
	Examiner ROBERT CHEVALIER	Art Unit 2484	AIA (FITF) 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 the Terminal Disclaimer filed in on 2/22/19.
☐ 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 1-20. 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)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☐ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.	

/ROBERT CHEVALIER/ Examiner, Art Unit 2484	
---	--

<i>Index of Claims</i> 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

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

CLAIMS									
☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47									
CLAIM		DATE							
Final	Original	01/22/2019	03/11/2019						
	1	✓	=						
	2	✓	=						
	3	✓	=						
	4	✓	=						
	5	✓	=						
	6	✓	=						
	7	✓	=						
	8	✓	=						
	9	✓	=						
	10	✓	=						
	11	✓	=						
	12	✓	=						
	13	✓	=						
	14	✓	=						
	15	✓	=						
	16	✓	=						
	17	✓	=						
	18	✓	=						
	19	✓	=						
	20	✓	=						

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

CPC						
Symbol					Type	Version
G11B	/	27	/	34	F	2013-01-01
G06K	/	9	/	00711	I	2013-01-01
H04N	/	5	/	781	I	2013-01-01
G11B	/	27	/	30	I	2013-01-01
G06K	/	9	/	00288	I	2013-01-01
H04N	/	9	/	8042	I	2013-01-01
H04N	/	5	/	85	I	2013-01-01
G06K	/	9	/	00	I	2013-01-01
H04N	/	5	/	772	I	2013-01-01
H04N	/	5	/	77	I	2013-01-01
G11B	/	27	/	28	I	2013-01-01
G11B	/	27	/	105	I	2013-01-01
G11B	/	27	/	034	I	2013-01-01
G06F	/	16	/	745	I	2019-01-01
G06F	/	16	/	73	I	2019-01-01
G11B	/	2220	/	455	A	2013-01-01
H04N	/	21	/	4347	A	2013-01-01

CPC Combination Sets					
Symbol		Type	Set	Ranking	Version
	/		/		

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	11 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190311

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

INTERNATIONAL CLASSIFICATION			
CLAIMED			
H04N	/	5	/ 775
NON-CLAIMED			
H04N	/	5	/ 917

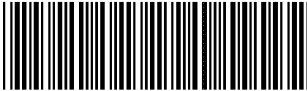
US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
386	230

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
386	356					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	11 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190311

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		10		19										
	2		11		20										
	3		12												
	4		13												
	5		14												
	6		15												
	7		16												
	8		17												
	9		18												

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	11 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190311

Search Notes 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

CPC - Searched*		
Symbol	Date	Examiner
G06F17/30852; G06K9/00, 00288, 00711; G11B27/034, 34, 105, 28, 30; H04N5/77, 772, 781, 85; H04N9/8042; G11B2220/455, H04N21/4347	01/22/2019	R.C.

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
386	230, 356,	01/22/2019	R.C.
348	239,	01/22/2019	R.C.
382	103, 118	01/22/2019	R.C.
715	719	01/22/2019	R.C.
	Updated above search	03/11/2019	R.C.

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Text search performed	01/22/2019	R.C.
Text search performed	03/11/2019	R.C.
Interference search print out included	03/11/2019	R.C.

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	Interference search performed	03/11/2019	R.C.

--	--

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	26	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN.	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:42
L2	69021	face near3 recogni\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:43
L3	508272	specific near3 (user or viewer or person)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:44
L4	501129	set\$4 near3 mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L5	53703	4 near6 first	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L6	44701	4 near6 second	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:45
L7	25893	5 same 6	US-PGPUB; USPAT; USOCR;	OR	ON	2019/01/22 16:46

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
L8	32	7 same 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:46
L9	1	8 same 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 16:47
L10	14	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN. and 2	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:57
L11	1	("20020175997" "20030107592" "20060188225" "20070019083" "20070036522" "20070162924" "20070171296" "20070237360" "20080019665" "20080131073" "20080144890" "20080218595" "20080225155" "20080256450" "20080279425" "20080309795" "20090016575" "20090059008" "20090135269" "20100014719" "20110055766" "5809202" "7474764" "7496211" "7634662" "7853897").PN. and 2 and 4	US-PGPUB; USPAT	OR	OFF	2019/01/22 16:57
L12	191108	(G11B27/34 or G06F17/30852 or G06K9/00 or G06K9/00288 or G06K9/00711 or G11B27/034 or G11B27/105 or G11B27/28 or G11B27/30 or H04N5/77 or H04N5/772 or H04N5/781 or H04N5/85 or H04N9/8042 or G11B2220/455 or H04N21/4347).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:10
L13	6208	(G11B27/34 or G06F17/30852 or G06K9/00 or G06K9/00288 or G06K9/00711 or G11B27/034 or G11B27/105 or G11B27/28 or G11B27/30 or H04N5/77 or H04N5/772 or H04N5/781 or H04N5/85 or H04N9/8042 or G11B2220/455 or H04N21/4347).cpc. and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:11
L14	446	(G11B27/34 or G06F17/30852 or G06K9/00 or G06K9/00288 or G06K9/00711 or G11B27/034 or	US-PGPUB; USPAT; USOCR;	OR	ON	2019/01/22 18:11

		G11B27/105 or G11B27/28 or G11B27/30 or H04N5/77 or H04N5/772 or H04N5/781 or H04N5/85 or H04N9/8042 or G11B2220/455 or H04N21/4347).cpc. and 2 and 4	FPRS; EPO; JPO; DERWENT; IBM_TDB			
L15	183	(G11B27/34 or G06F17/30852 or G06K9/00 or G06K9/00288 or G06K9/00711 or G11B27/034 or G11B27/105 or G11B27/28 or G11B27/30 or H04N5/77 or H04N5/772 or H04N5/781 or H04N5/85 or H04N9/8042 or G11B2220/455 or H04N21/4347).cpc. and 2 and 4 and 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:12
L16	7	(G11B27/34 or G06F17/30852 or G06K9/00 or G06K9/00288 or G06K9/00711 or G11B27/034 or G11B27/105 or G11B27/28 or G11B27/30 or H04N5/77 or H04N5/772 or H04N5/781 or H04N5/85 or H04N9/8042 or G11B2220/455 or H04N21/4347).cpc. and 2 and 4 and 3 and 7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:12
L17	1077	(face and recogni\$5 and mode).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:19
L18	315	(face and recogni\$5 and mode and record\$3).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:20
L19	263	(face and recogni\$5 and mode and record\$3 and process\$3).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:20
L20	171	(face and recogni\$5 and mode and record\$3 and process\$3 and set\$4).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:20
L21	97	(face and recogni\$5 and mode and record\$3 and process\$3 and set\$4 and person).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:21
L22	65	(face and recogni\$5 and mode and record\$3 and process\$3 and set\$4 and person and photograph\$4).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2019/01/22 18:21

			DERWENT; IBM_TDB			
L23	15	(face and recogni\$5 and mode and record\$3 and process\$3 and set\$4 and person and photograph\$4 and video).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:21
L24	1	(face and recogni\$5 and mode and record\$3 and process\$3 and set\$4 and person and photograph\$4 and video and reproduc\$4).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:21
L25	3203	2 same (reproduc\$4 or play\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:26
L26	562926	video with record\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:26
L27	185	25 same 26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:26
L28	1	27 same 5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:27
L29	1	27 same 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:27
L30	1	27 same 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/01/22 18:27

1/ 22/ 2019 6:28:04 PM

C:\Users\rchevalier\Documents\EAST\Workspaces\EastWorkspacer.wsp

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	71261	face near3 recogni\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:04
L2	506823	set\$4 near3 mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:05
L3	112397	person with face	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:06
L4	112397	3 same 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:06
L5	14829	3 same 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:06
L6	119	5 same 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:06
L7	24	6 same record\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:06
L8	11	7 same video	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:07
L9	1	8 same (reproduc\$4 or play\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:07
L10	2180	(face and recogni\$5 and record\$3).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:10

L11	723	(face and recogni\$5 and record\$3 and person).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:10
L12	532	(face and recogni\$5 and record\$3 and person and process\$3).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:21
L13	220	(face and recogni\$5 and record\$3 and person and process\$3 and video).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:21
L14	118	(face and recogni\$5 and record\$3 and person and process\$3 and video and set\$4).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:21
L15	26	(face and recogni\$5 and record\$3 and person and process\$3 and video and set\$4 and mode).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:21
L16	1	(face and recogni\$5 and record\$3 and person and process\$3 and video and set\$4 and mode and reproduc\$4).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:22
L17	3747	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:32
L18	2239	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:33
L19	638	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:33
L20	3169000	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and 2 video	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:33
L21	1601	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and video	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:33
L22	1409	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and video and record\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:34

EAST Search History

L23	3250	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and 2 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:34
L24	64	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and 2 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:35
L25	5	(H04N5/772 H04N5/232 H04N5/23219 H04N5/77 H04N5/781).cpc. and 1 and 3 and 2 and 6 and 8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/11 15:35

3/ 11/ 2019 3:36:35 PM

C:\Users\rchevalier\Documents\EAST\Workspaces\EastWorkspacer.wsp



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04

CONFIRMATION NO. 7757

PUBLICATION NOTICE



0000000107512496

24956
MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

Title:RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

Publication No.US-2019-0115050-A1

Publication Date:04/18/2019

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 publicly 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 Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, 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 <https://portal.uspto.gov/pair/PublicPair>. 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 Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Electronic Acknowledgement Receipt	
EFS ID:	36163553
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Jasmyn Martinez
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	31-MAY-2019
Filing Date:	13-DEC-2018
Time Stamp:	10:42:11
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	Amendment after Notice of Allowance (Rule 312)	9940-04-312Amd_TBF.pdf	46111 048b1d8b8c49f02e0cbb69bc5822edf19b074457	no	14
Warnings:					

Information:	
Total Files Size (in bytes):	46111
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.	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : M. YOSHIDA Confirmation No. 7757
Serial No. : 16/218,644
Filed : December 13, 2018
For : RECORDING AND REPRODUCING APPARATUS AND METHOD
THEREOF
Group : 2484
Examiner : R. CHEVALIER
Docket No. : ASA-9940-04
Customer No.: 24956

AMENDMENT UNDER 37 CFR §1.312

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May 31, 2019

Sir:

In response to the Notice of Allowance mailed March 20, 2019, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this paper.

Remarks are included following the amendments.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A recording and reproducing method for recording and reproducing image information, comprising:
 - photographing, by a photographing unit, an object and generating video information;
 - recording, by a recording unit, the video information having been generated by the photographing unit into a recording medium;
 - executing, by a face-recognition processing unit, a face-recognizing process on the video information to recognize a face;
 - reproducing, by a reproducing unit, the video information having been recorded by the recording unit from the recording medium;
 - setting, by a specific person setting unit, one of a first setting mode and a second setting mode and executing a process of specifying a person with a face according to the set one of the first setting mode and the second setting mode, wherein, when the first setting mode is set, a person is specified with a face recognized by the face-recognition processing unit after the first setting mode is set and before the recording of

the video information by the recording unit, and, when the second setting mode is set, a person is specified with a face in the video information in the recording medium that has previously been recorded and previously recognized by the face-recognition processing unit before the specific person setting unit sets the first setting mode or the second setting mode; and

controlling, by a control unit, the reproducing unit so as to selectively reproduce the video information from the recording medium which includes the specific person set by the specific person setting unit according to a result of the face-recognition processing unit.

2. (Original) The recording and reproducing method according to claim 1, further comprising:

selecting, by a user of a user interface unit, one of operation modes including:

(1) a specific person setting mode having the first setting mode and the second setting mode,

(2) a recording mode in which the video information generated by the photographing unit are recorded in the recording medium, and

(3) a reproducing mode in which the video information is to be reproduced by the reproducing unit,

wherein the control unit controls the recording and reproducing apparatus according to the mode selected by the user interface unit.

3. (Original) The recording and reproducing method according to claim 2, wherein the specific person setting mode is configured to specify one or more persons, and the control unit is configured to control the reproducing unit so as to reproduce the video information of the specified one or more persons.

4. (Original) The recording and reproducing method according to claim 2, further comprising:

displaying, by a display unit, information of a face to which the face-recognizing processing has been conducted, in case that the recording mode is selected by the user interface.

5. (Original) The recording and reproducing method according to claim 2, wherein the reproducing mode selected by the user interface is for reproducing the video information of the specific person specified by the specific person setting unit by which one of a plurality of reproducing modes can be selected, each of the reproducing modes having a respective number of the video information of the specific person, and wherein the control unit controls the reproducing unit so as to reproduce the video

information of the specific person according to the selected one of the reproducing modes.

6. (Currently Amended) A recording and reproducing method for recording and reproducing image information, comprising:

capturing a photograph and generating image information of the photograph;

recording the image information in a recording medium;

executing a face-recognizing process on the image information to recognize a face;

reproducing the recorded image information from the recording medium;

registering a person in the image information as a specific person in a mode selected from a first setting mode and a second setting mode, wherein, when the first setting mode is selected, a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person, and, when the second setting mode is selected, a person with a face in the image information is selected from a plurality of faces in the image information recorded in the recording medium and thereafter registered as the specific person; and

selectively reproducing the recorded image information which includes the registered specific person.

7. (Original) The recording and reproducing method according to claim 6,
wherein the image information to be selectively reproduced is the image
information which is recognized as including the specific person before the recording of
the image information.
8. (Original) The recording and reproducing method according to claim 6,
wherein the image information to be selectively reproduced is the image
information having a relatively high importance level selected among the image
information recorded in the recording medium which includes the registered specific
person.
9. (Original) A recording and reproducing method for recording and reproducing
image information, comprising:
photographing an object and generating image information, by a photographing
sensor;
recording, by a recorder, the image information generated by the photographing
sensor in a recording medium;
reproducing, by a reproducer, the image information recorded by the recorder;
executing, by processing circuitry, a face-recognizing process on the image
information generated by the photographing sensor to recognize a face;

registering, by the processing circuitry, a person in the image information as a specific person in a mode selected from a first setting mode and a second setting mode, wherein, when the first setting mode is selected, a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person, and, when the second setting mode is selected, a person with a face in the image information is selected from a plurality of faces in the image information recorded in the recording medium and thereafter registered as the specific person;

firstly, selecting, by the processing circuitry, image information which includes the registered specific person;

secondly, selecting, by the processing circuitry, the image information based on a predetermined condition from among the selected image information which includes the registered specific person, the predetermined condition being set in accordance with an instruction by a user; and

controlling the reproducer, by the processing circuitry, to selectively and sequentially reproduce the image information selected based on the predetermined condition.

10. (Original) The recording and reproducing method according to claim 9,

wherein the image information to be selectively and sequentially reproduced is the image information which is recognized as including the specific person before the recording of the image information by the recorder.

11. (Original) The recording and reproducing method according to claim 9, further comprising controlling the reproducer, by the processing circuitry, to selectively and sequentially reproduce the image information having the predetermined condition including a relatively high importance level selected from among the image information recorded in the recording medium which includes the registered specific person.

12. (Original) A recording and reproducing method for recording and reproducing image information, comprising:

photographing, by a photographing sensor, an object and generating image information;

recording, by a recorder, the image information generated by the photographing sensor in a recording medium;

reproducing, by a reproducer, the image information recorded by the recorder;

executing, by processing circuitry, a face-recognizing process on the image information generated by the photographing sensor to recognize a face;

registering, by processing circuitry, a person in the image information as a specific person, wherein a person with a face is obtained by newly photographing the person in a photographing mode and thereafter registered as the specific person;

firstly, selecting, by processing circuitry, image information which includes the registered specific person,

secondly, selecting, by processing circuitry, the image information based on a predetermined condition from among the selected image information which includes the registered specific person, the predetermined condition being set in accordance with an instruction by a user, and

controlling, by processing circuitry, the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition.

13. (Original) The recording and reproducing method according to claim 1, wherein the controlling unit further controls the reproducing unit to reproduce the video information in a reproducing mode set from one of a first reproducing mode and a second reproducing mode, and

wherein a reproducing time required for reproducing the video information under the first reproducing mode is shorter than a reproducing time required for reproducing the video information under the second reproducing mode, and the video information reproduced under the second reproducing mode includes the video information

reproduced under the first reproducing mode in addition to other of the video information not reproduced under the first reproducing mode.

14. (Original) The recording and reproducing method according to claim 13, wherein the controlling unit further controls the reproducing unit to reproduce the video information in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode, and

wherein a reproducing time required for reproducing the video information under the third reproducing mode is longer than the reproducing time required for reproducing the video information under the second reproducing mode.

15. (Original) The recording and reproducing method according to claim 6, further comprising:

controlling the reproduction of the image information in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the image information reproduced under the second reproducing mode includes the image information

reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

16. (Original) The recording and reproducing method according to claim 15, further comprising:

controlling the reproduction of the image information in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

17. (Original) The recording and reproducing method according to claim 9, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the image information

reproduced under the second reproducing mode includes the image information reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

18. (Original) The recording and reproducing method according to claim 17, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

19. (Original) The recording and reproducing method according to claim 12, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in a reproducing mode set from one of a first reproducing mode and a second reproducing mode,

wherein a reproducing time required for reproducing the image information under the first reproducing mode is shorter than a reproducing time required for reproducing the image information under the second reproducing mode, and the image information reproduced under the second reproducing mode includes the image information reproduced under the first reproducing mode and other of the image information not reproduced under the first reproducing mode.

20. (Original) The recording and reproducing method according to claim 19, further comprising:

controlling the reproducer to selectively and sequentially reproduce the image information selected based on the predetermined condition in the reproducing mode set from one of the first reproducing mode, the second reproducing mode, and a third reproducing mode,

wherein a reproducing time required for reproducing the image information under the third reproducing mode is longer than the reproducing time required for reproducing the image information under the second reproducing mode.

Serial No. 16/218,644
Amendment Under 37 CFR §1.312 filed May 31, 2019
Reply to Notice of Allowance mailed March 20, 2019

REMARKS

This paper is subsequent to the Notice of Allowance having a USPTO mailing date of March 20, 2019.

The foregoing minor amendment is believed to be necessary in order to improve the clarity of the allowed claims, and accordingly, consideration and entry of the amendments is respectfully requested. It is believed that this minor amendment does not affect the scope of the invention

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/
John R. Mattingly
Registration No. 30,293
703-684-1120



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.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757
24956	7590	06/12/2019		
MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 210 ALEXANDRIA, VA 22314			EXAMINER CHEVALIER, ROBERT	
			ART UNIT 2484	PAPER NUMBER
			NOTIFICATION DATE 06/12/2019	DELIVERY MODE 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):

ptomail@mmiplaw.com

Response to Rule 312 Communication	Application No. 16/218,644	Applicant(s) YOSHIDA, Mari	
	Examiner ROBERT CHEVALIER	Art Unit 2484	AIA Status No
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -- 1. ☒ The amendment filed on <u>31 May 2019</u> under 37 CFR 1.312 has been considered, and has been: a) ☐ entered. b) ☒ entered as directed to matters of form not affecting the scope of the invention. c) ☐ disapproved because the amendment was filed after the payment of the issue fee. Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue. d) ☐ disapproved. See explanation below. e) ☐ entered in part. See explanation below. _____			
/ROBERT CHEVALIER/ Examiner, Art Unit 2484			

OK TO ENTER: /R.C/

06/06/2019

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : M. YOSHIDA Confirmation No. 7757
Serial No. : 16/218,644
Filed : December 13, 2018
For : RECORDING AND REPRODUCING APPARATUS AND METHOD
THEREOF
Group : 2484
Examiner : R. CHEVALIER
Docket No. : ASA-9940-04
Customer No.: 24956

AMENDMENT UNDER 37 CFR §1.312

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May 31, 2019

Sir:

In response to the Notice of Allowance mailed March 20, 2019, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this paper.

Remarks are included following the amendments.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (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)

24956 7590 03/20/2019
MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757

TITLE OF INVENTION: RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	06/20/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHEVALIER, ROBERT	2484	386-230000

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 03-09 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 Mattingly & Malur, PC

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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Maxell, Ltd.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Kyoto, 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. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 50-1417

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

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

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.

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.

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 John R. Mattingly/

Date June 17, 2019

Typed or printed name John R. Mattingly

Registration No. 30,293

Electronic Patent Application Fee Transmittal				
Application Number:		16218644		
Filing Date:		13-Dec-2018		
Title of Invention:		RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
First Named Inventor/Applicant Name:		Mari YOSHIDA		
Filer:		John Roberts Mattingly/Jasmyn Martinez		
Attorney Docket Number:		ASA-9940-04		
Filed as Large 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	1501	1	1000	1000

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1000

Electronic Acknowledgement Receipt	
EFS ID:	36300523
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Jasmyn Martinez
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	17-JUN-2019
Filing Date:	13-DEC-2018
Time Stamp:	12:44:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 1000
RAM confirmation Number	061719INTEFSW12444500
Deposit Account	501417
Authorized User	Jasmyn Martinez
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

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)	9940-04-Issue_Fee_Transmittal.pdf	102718 b76b346fbfa61ef29dafd825338d1eef8f30c139	no	1

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30352 d12bc1cc8945d57bded7054a62b006e82ad93710	no	2
---	----------------------	--------------	---	----	---

Warnings:

Information:

Total Files Size (in bytes):	133070
-------------------------------------	--------

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.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	ASA-9940-04	

	12	20070162924		2007-07-12	Radhakrishnan et al.	
Change(s) applied to document.	13	20070162924		~~2007-07-12~~ 07/2007	Radhakrishnan, et al.	
/D.M./ 5/3/2019	14	20080144890	A1	2008-06-19	Ogawa	
	15	20070036522	A1	2007-02-15	Yoshida et al.	
	16	20080019665		2008-01-24	Huang et al.	
	17	20090016575		2009-01-15	BAK et al.	
	18	20080256450		2008-10-16	Takakura et al.	
	19	20070019083		2007-01-25	Nakashima, Teruyoshi	
	20	20080218595	A1	2008-09-11	KAWAHARA	Corresponds to Foreign Patent Document 30
	21	20080309795	A1	2008-12-18	MITSUHASHI et al.	Corresponds to Foreign Patent Document 31
	22	20100014719	A1	2010-01-21	DATE et al.	Corresponds to Foreign Patent Document 32



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.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	08/06/2019	10373649	ASA-9940-04	7757

24956 7590 07/17/2019

MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

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):

Maxell, Ltd., Tokyo, JAPAN;
Mari YOSHIDA, Yokohama, 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.

IR103 (Rev. 10/09)



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.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	08/06/2019	10373649	ASA-9940-04	7757

24956 7590 07/17/2019

MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

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):

Maxell, Ltd., Tokyo, JAPAN;
Mari YOSHIDA, Yokohama, 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.

IR103 (Rev. 10/09)

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)							
Application Number	16218644	Filing Date	2018-12-31	Docket Number (if applicable)	ASA-9940-04	Art Unit	2484
First Named Inventor	YOSHIDA, M.			Examiner Name	CHEVALIER, R.		
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 <u>501417</u>							
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED							
☒ Patent Practitioner Signature Applicant Signature							

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (02-18)

Approved for use through 11/30/2020. OMB 0851-0031

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 contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/John R. Mattingly/	Date (YYYY-MM-DD)	2019-07-19
Name	John R. Mattingly	Registration Number	30293

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.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16218644
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	2484
	Examiner Name	CHEVALIER, R.
	Attorney Docket Number	ASA-9940-04

U.S.PATENTS							Remove	
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Patent citation information please click the Add button.							Add	
U.S.PATENT APPLICATION PUBLICATIONS							Remove	
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1	20080199056	A1	2008-08-21	TOKUSE			
If you wish to add additional U.S. Published Application citation information please click the Add button.							Add	
FOREIGN PATENT DOCUMENTS							Remove	
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²ⁱ	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							
If you wish to add additional Foreign Patent Document citation information please click the Add button								Add
NON-PATENT LITERATURE DOCUMENTS								Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.						T ⁵

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		16218644
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit	2484	
	Examiner Name	CHEVALIER, R.	
	Attorney Docket Number	ASA-9940-04	

1	United States Non-Final Office Action received in corresponding U.S. Application No. 15/898,351 mailed July 11, 2019		
If you wish to add additional non-patent literature document citation information please click the Add button			Add
EXAMINER SIGNATURE			
Examiner Signature			Date Considered
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16218644
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	2484
	Examiner Name	CHEVALIER, R.
	Attorney Docket Number	ASA-9940-04

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/John R. Mattingly/	Date (YYYY-MM-DD)	2019-07-19
Name/Print	John R. Mattingly	Registration Number	30,293

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

Doc Code: PET.AUTO Document Description: Petition automatically granted by EFS-Web		PTO/SB/140 U.S. Patent and Trademark Office Department of Commerce	
Electronic Petition Request	PETITION TO WITHDRAW AN APPLICATION FROM ISSUE AFTER PAYMENT OF THE ISSUE FEE UNDER 37 CFR 1.313(c)		
Application Number	16218644		
Filing Date	13-Dec-2018		
First Named Inventor	Mari YOSHIDA		
Art Unit	2484		
Examiner Name	ROBERT CHEVALIER		
Attorney Docket Number	ASA-9940-04		
Title	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
An application may be withdrawn from issue for further action upon petition by the applicant. To request that the Office withdraw an application from issue, applicant must file a petition under this section including the fee set forth in § 1.17(h) and a showing of good and sufficient reasons why withdrawal of the application from issue is necessary. APPLICANT HEREBY PETITIONS TO WITHDRAW THIS APPLICATION FROM ISSUE UNDER 37 CFR 1.313(c). A grantable petition requires the following items: (1) Petition fee; and (2) One of the following reasons: (a) Unpatentability of one or more claims, which must be accompanied by an unequivocal statement that one or more claims are unpatentable, an amendment to such claim or claims, and an explanation as to how the amendment causes such claim or claims to be patentable; (b) Consideration of a request for continued examination in compliance with § 1.114 (for a utility or plant application only); or (c) Express abandonment of the application. Such express abandonment may be in favor of a continuing application, but not a CPA under 37 CFR 1.53(d).			
Petition Fee			
☐ Small Entity			
☐ Micro Entity			
☒ Regular Undiscounted			
Reason for withdrawal from issue			

☐ One or more claims are unpatentable ☒ Consideration of a request for continued examination (RCE) (List of Required Documents and Fees) ☐ Applicant hereby expressly abandons the instant application (any attorney/agent signing for this reason must have power of attorney pursuant to 37 CFR 1.32(b)).	
RCE request, submission, and fee. ☐ I certify, in accordance with 37 CFR 1.4(d)(4) that : The RCE request ,submission, and fee have already been filed in the above-identified application on ☒ Are attached.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ☒ An attorney or agent registered to practice before the Patent and Trademark Office who has been given power of attorney in this application. ☐ An attorney or agent registered to practice before the Patent and Trademark Office, acting in a representative capacity. ☐ A sole inventor ☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ☐ A joint inventor; all of whom are signing this e-petition	
Signature	/John R. Mattingly/
Name	John R. Mattingly
Registration Number	30293

Electronic Patent Application Fee Transmittal				
Application Number:		16218644		
Filing Date:		13-Dec-2018		
Title of Invention:		RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF		
First Named Inventor/Applicant Name:		Mari YOSHIDA		
Filer:		John Roberts Mattingly/Emily Scotti		
Attorney Docket Number:		ASA-9940-04		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
PETITION FEE- 37 CFR 1.17(H) (GROUP III)	1464	1	140	140
RCE- 1ST REQUEST	1801	1	1300	1300
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 (\$)				1440



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Decision Date : July 19, 2019

In re Application of :

Mari YOSHIDA

DECISION ON PETITION

UNDER CFR 1.313(c)(2)

Application No : 16218644

Filed : 13-Dec-2018

Attorney Docket No : ASA-9940-04

This is an electronic decision on the petition under 37 CFR 1.313(c)(2), filed July 19, 2019 , to withdraw the above-identified application from issue after payment of the issue fee.

The petition is **GRANTED**.

The above-identified application is withdrawn from issue for consideration of a submission under 37 CFR 1.114 (request for continued examination). See 37 CFR 1.313(c)(2).

Petitioner is advised that the issue fee paid in this application cannot be refunded. If, however, this application is again allowed, petitioner may request that it be applied towards the issue fee required by the new Notice of Allowance.

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

This application file is being referred to Technology Center AU 2484 for processing of the request for continuing examination under 37 CFR 1.114 .

Office of Petitions

Electronic Acknowledgement Receipt	
EFS ID:	36631886
Application Number:	16218644
International Application Number:	
Confirmation Number:	7757
Title of Invention:	RECORDING AND REPRODUCING APPARATUS AND METHOD THEREOF
First Named Inventor/Applicant Name:	Mari YOSHIDA
Customer Number:	24956
Filer:	John Roberts Mattingly/Emily Scotti
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-9940-04
Receipt Date:	19-JUL-2019
Filing Date:	13-DEC-2018
Time Stamp:	09:11:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 1440
RAM confirmation Number	071919INTEFSW09114700
Deposit Account	501417
Authorized User	Emily Scotti
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)					
37 CFR 1.20 (Post Issuance fees)					
37 CFR 1.21 (Miscellaneous fees and charges)					
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)	9940-04-RCE.pdf	1349929	no	3
			8ee038c80c433904a44ac4a7dc470c0b5d2bfd8c		
Warnings:					
Information:					
2	Quick Path Information Disclosure Statement	9940-04-QPIDS.pdf	186426	no	2
			4b723aeb96ec43f3ba57281bbf0553e657163e06		
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	9940-04-SB08A.pdf	1034356	no	4
			fc87967fdc99fb29d92422117d22e4b0ce427a19		
Warnings:					
Information:					
4	Petition automatically granted by EFS	petition-request.pdf	31573	no	2
			3d5051adc01b981932be89ed3a34773b26dfcd6b		
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	32021	no	2
			67e49b3705cd72a7c54dde5692ca89540c8a458		
Warnings:					
Information:					
Total Files Size (in bytes):			2634305		

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.
16/218,644	12/13/2018	Mari YOSHIDA	ASA-9940-04	7757
24956	7590	08/12/2019		
MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 210 ALEXANDRIA, VA 22314			EXAMINER CHEVALIER, ROBERT	
			ART UNIT	PAPER NUMBER
			2484	
			NOTIFICATION DATE	DELIVERY MODE
			08/12/2019	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):

ptomail@mmiplaw.com

Supplemental Notice of Allowability	Application No. 16/218,644	Applicant(s) YOSHIDA, Mari	
	Examiner ROBERT CHEVALIER	Art Unit 2484	AIA (FITF) 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 the IDS filed in on 7/19/19.
 ☐ 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 1-20. 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 _____.
--	---

/ROBERT CHEVALIER/ Examiner, Art Unit 2484	
---	--

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

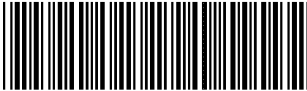
CPC						
Symbol					Type	Version
G11B	/	27	/	34	F	2013-01-01
G06F	/	16	/	745	I	2019-01-01
G06K	/	9	/	00	I	2013-01-01
G06K	/	9	/	00288	I	2013-01-01
G06K	/	9	/	00711	I	2013-01-01
G11B	/	27	/	034	I	2013-01-01
G11B	/	27	/	105	I	2013-01-01
G11B	/	27	/	28	I	2013-01-01
G11B	/	27	/	30	I	2013-01-01
H04N	/	5	/	77	I	2013-01-01
H04N	/	5	/	772	I	2013-01-01
H04N	/	5	/	781	I	2013-01-01
H04N	/	5	/	85	I	2013-01-01
H04N	/	9	/	8042	I	2013-01-01
G06F	/	16	/	73	I	2019-01-01
H04N	/	21	/	4347	A	2013-01-01
G11B	/	2220	/	455	A	2013-01-01

CPC Combination Sets						
Symbol			Type	Set	Ranking	Version
	/		/			

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	07 August 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190807

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

INTERNATIONAL CLASSIFICATION			
CLAIMED			
H04N	/	5	/ 775
NON-CLAIMED			
H04N	/	5	/ 917

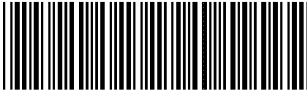
US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
386	230

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
386	356					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	07 August 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190807

Issue Classification 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		10		19										
	2		11		20										
	3		12												
	4		13												
	5		14												
	6		15												
	7		16												
	8		17												
	9		18												

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/ROBERT CHEVALIER/ Primary Examiner, Art Unit 2484	07 August 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20190807

Search Notes 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

CPC - Searched*		
Symbol	Date	Examiner
G06F17/30852; G06K9/00, 00288, 00711; G11B27/034, 34, 105, 28, 30; H04N5/77, 772, 781, 85; H04N9/8042; G11B2220/455, H04N21/4347	01/22/2019	R.C.

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
386	230, 356,	01/22/2019	R.C.
348	239,	01/22/2019	R.C.
382	103, 118	01/22/2019	R.C.
715	719	01/22/2019	R.C.
	Updated above search	03/11/2019	R.C.

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Text search performed	01/22/2019	R.C.
Text search performed	03/11/2019	R.C.
Interference search print out included	03/11/2019	R.C.
text search performed	08/07/2019	R.C.

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	Interference search performed	03/11/2019	R.C.

--	--

<i>Search Notes</i> 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

--	--

<i>Index of Claims</i> 	Application/Control No. 16/218,644	Applicant(s)/Patent Under Reexamination YOSHIDA, Mari
	Examiner ROBERT CHEVALIER	Art Unit 2484

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

CLAIMS									
☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47									
CLAIM		DATE							
Final	Original	01/22/2019	03/11/2019	08/07/2019					
	1	✓	=	=					
	2	✓	=	=					
	3	✓	=	=					
	4	✓	=	=					
	5	✓	=	=					
	6	✓	=	=					
	7	✓	=	=					
	8	✓	=	=					
	9	✓	=	=					
	10	✓	=	=					
	11	✓	=	=					
	12	✓	=	=					
	13	✓	=	=					
	14	✓	=	=					
	15	✓	=	=					
	16	✓	=	=					
	17	✓	=	=					
	18	✓	=	=					
	19	✓	=	=					
	20	✓	=	=					

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16218644
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	2484
	Examiner Name	CHEVALIER, R.
	Attorney Docket Number	ASA-9940-04

U.S.PATENTS							Remove	
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Patent citation information please click the Add button.							Add	
U.S.PATENT APPLICATION PUBLICATIONS							Remove	
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1	20080199056	A1	2008-08-21	TOKUSE			
If you wish to add additional U.S. Published Application citation information please click the Add button.							Add	
FOREIGN PATENT DOCUMENTS							Remove	
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²ⁱ	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							
If you wish to add additional Foreign Patent Document citation information please click the Add button								Add
NON-PATENT LITERATURE DOCUMENTS								Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.						T ⁵

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.C./

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		16218644
	Filing Date		2018-12-13
	First Named Inventor	YOSHIDA, M.	
	Art Unit	2484	
	Examiner Name	CHEVALIER, R.	
	Attorney Docket Number	ASA-9940-04	

1	United States Non-Final Office Action received in corresponding U.S. Application No. 15/898,351 mailed July 11, 2019		
If you wish to add additional non-patent literature document citation information please click the Add button Add			
EXAMINER SIGNATURE			
Examiner Signature	/ROBERT CHEVALIER/		Date Considered 08/07/2019
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.			

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /R.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16218644
	Filing Date	2018-12-13
	First Named Inventor	YOSHIDA, M.
	Art Unit	2484
	Examiner Name	CHEVALIER, R.
	Attorney Docket Number	ASA-9940-04

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/John R. Mattingly/	Date (YYYY-MM-DD)	2019-07-19
Name/Print	John R. Mattingly	Registration Number	30,293

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("20080199056").PN.	US-PGPUB; USPAT	OR	OFF	2019/08/07 17:32
L2	522746	set\$4 near3 mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:38
L3	30709	2 same (reproduc\$4 or play\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:44
L4	77746	face near3 recogni\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:44
L5	1	4 and 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:45
L6	56543	2 near6 first	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:46
L7	47108	2 near6 second	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:47
L8	27466	6 same 7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:47
L9	0	8 and 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:47
L10	0	1 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:47
L11	1	1 and record\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:48
L12	0	11 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/07 17:48

8/ 7/ 2019 5:49:31 PM



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.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/218,644	09/17/2019	10418069	ASA-9940-04	7757

24956 7590 08/28/2019

MATTINGLY & MALUR, PC
1800 DIAGONAL ROAD
SUITE 210
ALEXANDRIA, VA 22314

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):

Maxell, Ltd., Tokyo, JAPAN;
Mari YOSHIDA, Yokohama, 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.

IR103 (Rev. 10/09)