

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., AND
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioner,

v.

PAYGEO, LLC,

Patent Owner.

Case IPR2025-01551

Patent No. 8,554,671

**DECLARATION OF STUART J. LIPOFF
IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF
U.S. PATENT NO. 8,554,671**

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- a. [1pre]: “A financial service method that provides a cashless platform of enabling users to perform a financial transaction in a mobile environment, the method comprising:”29
- b. [1a]: “entering financial information related to the financial transaction on a first user mobile station;”31
- c. [1b]: “the first user mobile station generating a code containing the financial information on the first user mobile station,”33
- d. [1c]: “wherein the first user mobile station is in proximity to a second user mobile station;”34
- e. [1d]: “the first user mobile station transferring the generated code to the second user mobile station by means of a directional movement on the first user mobile station in the direction of the second user mobile station;”42
- f. [1e]: “the first user mobile station further transmitting the generated code to a mobile transaction platform to confirm the executability of the financial transaction”47
- g. [1f]: “the second user mobile station automatically recognizing the transferred code;”49
- h. [1g]: “based on the recognized code, the second user mobile station determines whether to accept or decline the financial transaction;”51
- i. [1h]: “wherein when the financial transaction is accepted by the second mobile user station, the mobile transaction platform executing the financial transaction;”53
- j. [1i]: “wherein when the financial transaction is declined by the second user mobile station, the mobile transaction platform preventing the execution of the financial transaction; and”54

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I. INTRODUCTION

1. I, Stuart J. Lipoff, submit this declaration to state my opinions on the matters described below.

2. I have been retained by Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Samsung”) as an independent expert in this proceeding before the United States Patent and Trademark Office. I am being compensated at the rate of \$375 per hour for time that I spend on this case. No part of my compensation depends on the outcome, and I have no other interest in this proceeding.

3. I understand that this proceeding involves U.S. Patent No. 8,554,671 (“the ’671 patent,” Ex-1001), and I have been asked to provide my opinions as to the patentability of the claims of the ’671 patent.

4. I have been asked to consider the validity of certain claims of the ’671 patent based on certain prior art references. I have also been asked to consider the state of the art and prior art available as of July 18, 2011, which is the earliest claimed priority date on the face of the ’671 patent. Based on the combinations of prior art references discussed in this declaration, it is my opinion that claims 1-3 and 22 of the ’671 patent are unpatentable.

II. QUALIFICATIONS AND BACKGROUND

5. Below is a summary of my education, work experience, and other qualifications. My qualifications are stated more fully in my curriculum vitae (CV), which I understand is provided in Ex-1004.

6. I am currently the president of IP Action Partners Inc., which is a consulting practice serving the telecommunications, information technology, media, electronics, and e-business industries.

7. I earned a Bachelor of Science degree in Electrical Engineering in 1968 and a second Bachelor of Science degree in Engineering Physics in 1969, both from Lehigh University. I also earned a Master of Science degree in Electrical Engineering from Northeastern University in 1974 and a Master of Business Administration degree from Suffolk University in 1983.

8. I hold a Federal Communications Commission (“FCC”) General Radiotelephone License. I also hold a Certificate in Data Processing (“CDP”) from the Association for Computing Machinery (“ACM”)-supported Institute for the Certification of Computing Professionals (“ICCP”).

9. I am a registered professional engineer in the Commonwealth of Massachusetts and also in the State of Nevada.

10. I am a fellow of the Institute of Electrical and Electronics Engineers (“IEEE”) Consumer Electronics, Communications, Computer, Circuits, and

Vehicular Technology Groups. I have been a member of the IEEE Consumer Electronics Society National Board of Governors (formerly known as Administrative Committee) from 1981, and was the Boston Chapter Chairman of the IEEE Vehicular Technology Society from 1974 to 1976. I previously served as the 1996-1997 President of the IEEE Consumer Electronics Society, and have served as Chairman of the Society's Technical Activities and Standards Committee. I have served as Vice President of Publications for the Society and VP of Standards and Industrial Activities. I am currently the Historian for the IEEE Consumer Technology Society (formerly known as Consumer Electronics Society). I have also served as the chair and as a committee member for the IEEE Ibuka Award in the field of consumer technology.

11. I have also prepared and presented many papers at IEEE and other professional meetings. For example, in Fall 2000, I served as general program chair for the IEEE Vehicular Technology Conference on advanced wireless communications technology. I have also organized sessions at The International Conference on Consumer Electronics and was the 1984 program chairman. I also conducted an eight-week IEEE sponsored short course on Fiber Optics System Design. I was awarded IEEE's Centennial Medal in 1984 and I was awarded the IEEE's Millennium Medal in 2000. A listing of my publications is included as part of my curriculum vitae, which I understand is provided in Ex-1004.

12. As Vice President and Standards Group Chairman of the Association of Computer Users (“ACU”), I served as the ACU representative to the ANSI X3 Standards Group. I also served as Chairman of the task group on user rule compliance for the FCC’s Citizens Advisory Committee on Citizen’s Band (“CB”) radio (“PURAC”).

13. I have been elected to membership in the Society of Cable Television Engineers (“SCTE”), Cable TV Pioneers, the ACM, and The Society of Motion Picture and Television Engineers (“SMPTE”). I also served as a member of the USA advisory board to the National Science Museum of Israel, presented a short course on international product development strategies as a faculty member of Technion Institute of Management in Israel, and served as a member of the board of directors of The Massachusetts Future Problem Solving Program.

14. I am a named inventor on seven United States patents and am the author of several publications related to data communications, including publications by Electronics Design, Microwaves, Electronic Design News (“EDN”), The Proceedings of the Frequency Control Symposium, Optical Spectra, and IEEE.

15. For 25 years, I worked for Arthur D. Little, Inc. (“ADL”), where I became Vice President and Director of Communications, Information Technology, and Electronics (“CIE”). At ADL, I was responsible for the firm’s global CIE practice in laboratory-based contract engineering, product development, and

technology-based consulting. While employed at ADL, my projects included multiple applications of technology to support next generation financial and ecommerce applications. These projects include electronic wallet applications incorporated into cellphones, as well as standalone devices. I was involved in the application and study of smart card technology in financial transactions and cybersecurity.

16. Prior to my time at ADL, I served as a Section Manager for Bell & Howell Communications Company for four years. Prior to working at Bell & Howell, I served as a Project Engineer for Motorola's Communications Division for three years. At both Bell & Howell and Motorola, I had project design responsibility for wireless communication and paging products.

17. During my career, I have been heavily engaged in the study, analysis, evaluation, design, and implementation of products and services making use of emerging technology in the overlap between telecommunications, information technology, media, and consumer electronics.

18. From 2004 through 2008 I served as The Chief Technology Officer ("CTO") for a mobile wallet startup called "Chameleon Networks Inc." During this time, I contributed to the technology development, constructed prototypes, and applied for several patents as a named inventor. Specifically, I was involved in

developing a portable eWallet device for conducting secure financial transactions using codes, such as barcodes. Ex-1027, 9:37-10:17.

19. I am very familiar with electronic payment systems due to various related project work. I performed several projects directed to security properties of card media for an association of credit card issuers. These projects involved the consideration and evaluation of technologies including RFID, magnetic watermark, Smart Cards, optical storage cards, and holographic storage cards. Under contract to several trade associations representing the grocery industry, I developed recommendations to permit compatible electronic data interchange between suppliers and retail stores at the store level, including the use of Smart Card and digital signature technology. For Mastercard, I investigated the impact of implementing new card media technologies in their credit card authorization network, including the consideration of Smart Cards, optical storage cards, card calculators, and other developing technologies.

20. A summary of my complete qualifications can be found in my CV.

21. In light of the foregoing, I believe that I am qualified to provide an opinion as to what a person of ordinary skill in the art would have understood, known, or concluded regarding the subject matter of the '671 patent at the time of its alleged invention.

III. MATERIALS CONSIDERED

22. In forming my opinions, I have reviewed the entirety of the '671 patent and its file history and the following documents:

Exhibit	Description
Ex-1001	U.S. Patent No. 8,554,671 to Ballout (“the '671 patent”)
Ex-1002	File History for U.S. Patent No. 8,554,671
Ex-1005	U.S. Patent Application Publication No. 2007/0260558 A1 to Look (“ <i>Look</i> ”)
Ex-1006	U.S. Patent Application Publication No. 2010/0156812 A1 to Stallings et al. (“ <i>Stallings</i> ”)
Ex-1007	U.S. Patent Application Publication No. 2007/0255620 A1 to Tumminaro et al. (“ <i>Tumminaro</i> ”)
Ex-1008	U.S. Patent Application Publication No. 2003/0171993 A1 to Chappuis.
Ex-1009	U.S. Patent Application Publication No. 2009/0070263 A1 to Davis et al.
Ex-1010	R. Wray, <i>Paybox expands mobile shopping to Asia and US</i> , The Guardian (Mar. 25, 2002)
Ex-1011	E. Schonfeld, <i>Social Payment Startup Venmo Raised \$1.2 Million and Has a New iPhone App (TCTV)</i> , TechCrunch (Sep. 16, 2010, at 3:39 PM PDT)
Ex-1012	<i>Reserved</i>
Ex-1013	U.S. Patent Application Publication No. 2010/0078472 A1 to Lin et al.
Ex-1014	U.S. Patent Application Publication No. 2008/0010192 A1 to Rackley III et al.
Ex-1015	U.S. Patent Application Publication No. 2007/0255652 A1 to Tumminaro et al.
Ex-1016	U.S. Patent Application Publication No. 2012/0267432 A1 to Kuttuva
Ex-1017	Stamatis Karnouskos, <i>Mobile Payment: A Journey Through Existing Procedures and Standardization Initiatives</i> , IEEE Communications Surveys & Tutorials, Vol. 6, No. 4, pp. 44-66 (2004)

Ex-1018	U.S. Patent Application Publication No. 2012/0130889 A1 to Lyons et al.
Ex-1019	U.S. Patent Application Publication No. 2012/0078788 A1 to Gandhi
Ex-1020	U.S. Patent No. 8,458,088 to Dunwoody
Ex-1021	PayPal, <i>PayPal Launches New Send Money App for iPhone®</i> (Mar. 16, 2010)
Ex-1022	PayPal, <i>PayPal Introduces Mobile Access for the PayPal SecurityKey</i> (Nov. 24, 2008)
Ex-1023	PayPal, <i>New PayPal Mobile iPhone App Tops One Million Downloads</i> (Apr. 7, 2010)
Ex-1024	PayPal, <i>ADDING MULTIMEDIA PayPal Launches Mobile Payments; PayPal Mobile Enables Anytime, Anywhere Payments, Purchases and Donations</i> (Apr. 6, 2006)
Ex-1025	eBay Inc., Form 10-K (Feb. 23, 2006)
Ex-1026	Infrared Data Association, <i>Infrared Data Association Serial Infrared Physical Layer Specification</i> , Version 1.4 (May 30, 2001)
Ex-1027	U.S. Patent No. 7,003,495 to Burger et al.
Ex-1028	Geeks for Geeks, <i>History of Android</i> (last updated Feb. 24, 2025)

IV. LEGAL STANDARDS

23. I am not a lawyer. My understanding of the legal standards to apply in reaching the conclusions in this declaration is based on discussions with counsel for Petitioner, my experience applying similar standards in other patent-related matters, and my reading of the documents submitted in this proceeding. In preparing this declaration, I have tried to faithfully apply these legal standards to the challenged claims.

24. I have been informed that there are two ways in which prior art may render a patent claim unpatentable. First, I have been informed that the prior art can

“anticipate” a claim. Second, I have been informed that the prior art can render a claim “obvious” to a person of ordinary skill in the art. I understand that a claim is patentable if it was not anticipated and would not have been obvious by the prior art at the effective filing date of the patent.

25. I have been informed that a dependent claim is a patent claim that refers back to another patent claim. I have been informed that a dependent claim includes all of the limitations of the claim to which it refers.

26. I have been asked to provide my opinions as to whether the cited prior art teaches or renders obvious claims 1-3 and 22 of the '671 Patent from the perspective of a person of ordinary skill in the art at the '671 Patent's filing date of July 18, 2011, as described in more detail below.

27. I have been informed that in *inter partes* review proceedings, such as this one, the party challenging the patent bears the burden of proving unpatentability by a preponderance of the evidence. I understand that a preponderance of the evidence means “more likely than not.”

28. For purposes of this declaration, I have been asked to provide my opinions on issues regarding unpatentability. I have been informed of the following legal standards, which I have applied in forming my opinions.

A. Level of Ordinary Skill

29. I have been informed a person of ordinary skill in the art is determined by considering several factors, including the (i) type of problems encountered in the art; (ii) prior art solutions to those problems; (iii) rapidity with which innovations are made; (iv) sophistication of the technology; and (v) educational level of active workers in the field. I have been instructed to assume a person of ordinary skill in the art is not a specific real individual, but rather a hypothetical individual having the qualities reflected by the factors discussed above.

B. Prior Art

30. I have been advised and understand the information used to evaluate whether an invention was new and not obvious when made is generally referred to as “prior art.” I understand that prior art includes patents and printed publications that existed before the earliest claimed priority date or the earliest filing date of the patent (which I have been informed is also called the “effective filing date”). I have been informed and understand that a patent or published patent application is prior art if it was filed before the earliest filing date of the claimed invention and that a printed publication is prior art if it was publicly available before the earliest filing date.

C. Anticipation

31. I have been informed that under 35 U.S.C. § 102, a patent claim is unpatentable for anticipation if it is not novel, including if the claimed subject matter was patented or described in a printed publication before the effective filing date of the claimed invention. I have been informed that this is referred to as unpatentability by anticipation. I have been informed that a patent claim is anticipated under § 102 if a single prior art reference discloses all limitations of the claimed invention.

D. Obviousness

32. I have been informed that under 35 U.S.C. § 103, a patent claim is unpatentable if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which said subject matter pertains at the time the invention was made. I have been informed that this is referred to as unpatentability by obviousness.

33. I have been informed that a proper obviousness analysis includes the following: (a) determining the scope and content of the prior art; (b) ascertaining the differences between the prior art and the claims at issue; (c) resolving the level of ordinary skill in the pertinent art; and (d) considering evidence of secondary indicia of non-obviousness (if available). I am not aware of any evidence of secondary

considerations that would support a determination of non-obviousness of the claimed subject matter in the '671 patent.

34. I have been informed that the relevant time for considering whether a claim would have been obvious to a person of ordinary skill in the art is the time of invention. For my obviousness analysis, counsel for Petitioner instructed me to assume that the date of invention for the Challenged Claims is July 18, 2011. My opinions would not change if I assumed a later date of invention.

35. I have been informed that a reference may be modified or combined with other references or with a person of ordinary skill in the art's own knowledge if the person would have found the modification or combination obvious. I have also been informed that a person of ordinary skill in the art is presumed to know all the relevant prior art, and the obviousness analysis may take into account the inferences and creative steps that a person of ordinary skill in the art would employ.

36. I have been informed that whether a prior art reference renders a patent claim obvious is determined from the perspective of a person of ordinary skill in the art. I have also been informed that, while there is no requirement that the prior art contain an express suggestion to combine known elements to achieve the claimed invention, and while a suggestion to combine known elements to achieve the claimed invention may come from the prior art as a whole or individually and may consider the inferences and creative steps a person of ordinary skill in the art would employ,

as filtered through the knowledge of one skilled in the art, obviousness grounds cannot be sustained by mere conclusory statements and must include some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

37. In determining whether a prior art reference could have been combined with another prior art reference or other information known to a person having ordinary skill in the art, I have been informed that the following principles may be considered:

- a. A combination of familiar elements according to known methods is likely to be obvious if it yields predictable results;
- b. The substitution of one known element for another is likely to be obvious if it yields predictable results;
- c. The use of a known technique to improve similar items or methods in the same way is likely to be obvious if it yields predictable results;
- d. The application of a known technique to a prior art reference that is ready for improvement to yield predictable results;
- e. Any need or problem known in the field and addressed by the reference can provide a reason for combining the elements in the manner claimed;

f. A person of ordinary skill often will be able to fit the teachings of multiple references together like a puzzle; and

g. The proper analysis of obviousness requires a determination of whether a person of ordinary skill in the art would have a “reasonable expectation of success”—but not “absolute predictability” of success—in achieving the claimed invention by combining prior art references.

38. I have been informed that, when a work is available in one field, design alternatives and other market forces can prompt variations of it, either in the same field or in another. I have been informed that if a person of ordinary skill in the art could have implemented a predictable variation and would have seen the benefit of doing so, that variation is likely to have been obvious. I have been informed that, in many fields, there may be little discussion of obvious combinations, and in these fields market demand—not scientific literature—may drive design trends. I have been informed that, when there was a design need or market pressure and there are a finite number of predictable solutions, a person of ordinary skill in the art would have had a good reason to pursue those known options.

39. I have been informed that the law permits the application of “common sense” in examining whether a claimed invention would have been obvious to a person skilled in the art. For example, I have been informed that combining familiar elements according to known methods and in a predictable way may suggest

obviousness when such a combination would yield nothing more than predictable results. I understand, however, that a claim is not obvious merely because every claim element is disclosed in the prior art and that a party asserting obviousness must still provide a specific motivation to combine or modify the references as recited in the claims and explain why one skilled in the art would have reasonably expected to succeed in doing so.

40. I have been informed that there is no rigid rule that a reference or combination of references must contain a “teaching, suggestion, or motivation” to combine references. But I also understand that the “teaching, suggestion, or motivation” test can be a useful guide in establishing a rationale for combining elements of the prior art. I have been informed that this test poses the question as to whether there is an express or implied teaching, suggestion, or motivation to combine prior art elements in a way that realizes the claimed invention, and that it seeks to counter impermissible hindsight analysis.

41. I have been informed that, in an obviousness analysis, prior art must be analogous prior art to the patent being considered. I have been informed that a prior art reference is considered to be analogous, or in the same field of art, if the reference is either (1) in the same field of endeavor as the challenged patent, regardless of the problems the challenged patent and the prior art address, or (2) reasonably pertinent to the particular problem being solved by the challenged patent.

V. TECHNICAL BACKGROUND

42. Software applications facilitating mobile financial transactions became popular in the early 2000s with the widespread use of mobile phones. *Tumminaro*, [0009]-[0011]; Ex-1008, [0002]; Ex-1009, [0002]-[0004]; Ex-1010, 1; Ex-1017, 1-2. Mobile financial transactions offered a convenient and secure alternative to traditional banking and cash exchange, obviating the need to go to a bank or to carry cash. As of the claimed priority date of the '671 patent, July 18, 2011, numerous companies, including PayPal, Venmo, and MasterCard, were offering mobile financial transaction services, including mobile software applications for convenient banking operations. Ex-1011, 2-3; Ex-1021; Ex-1022; Ex-1023; Ex-1024; Ex-1025, 41-42. These mobile applications incorporated touchscreen features such as pressing or swiping a button to pay. Ex-1013, [0088], [0118]; Ex-1011, 1-2.

43. Indeed, the ability to make electronic payments using mobile devices was known in the art well before July 2011. Ex-1001, 1:42-2:11; Ex-1013, [0009]; Ex-1014, [0027]-[0031]; Ex-1015, [0021]; Ex-1016, Abstract, [0002], [0023]; Ex-1017, 1-2. As the '671 patent acknowledges, such payment systems enabled users to input payment information, such as the identity of a payee, a payment amount, and a payment source via the user's mobile device. Ex-1001, 1:52-2:5; Ex-1013, [0122]; Ex-1014, [0159]; Ex-1015, [0304]. This transaction information was then communicated to a financial institution to fulfill the payment request. Ex-1001, 1:52-

2:5; Ex-1013, [0122]; Ex-1014, [0159], [0161]; Ex-1016, [0082]; Ex-1017, 2. Such services thereby enabled payments using bank accounts, credit cards, or other financial accounts via a mobile device. Ex-1001, 1:52-2:5; Ex-1013, [0115]; Ex-1014, [0189]; Ex-1015, [0136]; Ex-1017, 2.

44. It was also widely recognized that mobile financial transactions require exchanging sensitive financial information, necessitating more robust security measures to prevent hacking and fraudulent transactions. *Tumminaro*, [0011]. One well-known technique for solving this problem was the use of codes, such as “a matrix barcode (or two-dimensional code) such as a QR code or other codes such as an EZcode, a high capacity color barcode, a ShotCode, a MaxiCode, a GTIN12 code[,] and/or GTIN-13 code.” Ex-1018, [0048]-[0049]. It was also well known that these codes could include transaction identifiers and other details of the financial transaction. *Id.* Several companies implemented this technology before July 2011, including NTT Data Corp., which used “bar code labels on invoices to facilitate input of account information through a camera-enabled mobile telephone” and others that relied on an RFID component “for wireless interface with a merchant or point of sale (POS) terminal.” Ex-1018, [0004].

45. Various methods of transferring data between mobile devices, including financial transaction information, were known at the time. For example, for a close-range transfer, “[w]ireless mobile, Bluetooth, Wifi, infrared, sound

transfer” (*Look*, [0017]), near-field communication (“NFC”) (*Lin*, [0011], [0085]), and radio frequency identification (RFID) (*Lin*, [0097]) were well known at the time.

VI. THE '671 PATENT

A. Overview of the '671 patent

46. I understand that the application leading to the '671 patent was filed on July 18, 2011. Ex-1001, Cover. For purposes of this declaration, I have assumed the '671 patent is entitled to claim July 18, 2011, as the date of invention.

47. The '671 patent relates to conducting cashless financial transactions in a mobile environment. Ex-1001, Abstract. As the '671 patent explains, a first user inputs information relating to the financial transaction (e.g., target payee and/or preferred payment method) into the first user's mobile device, as shown in step 406 of Figure 4A below. Ex-1001, 12:3-5.

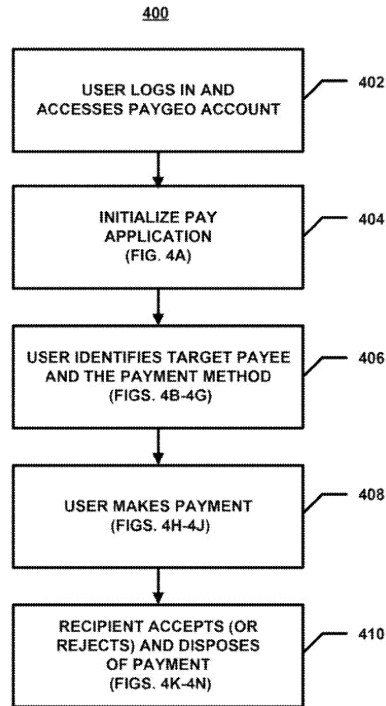


FIG. 4A

Ex-1001, Fig. 4A.

48. When the first user initiates payment (step 408), the first user mobile device generates a scanable code that encodes the financial information. Ex-1001, 13:32-38. The first user mobile device sends the code to the recipient's mobile device based on a swipe gesture "in the direction of the arrow (or in another direction)." Ex-1001, 12:53-65.

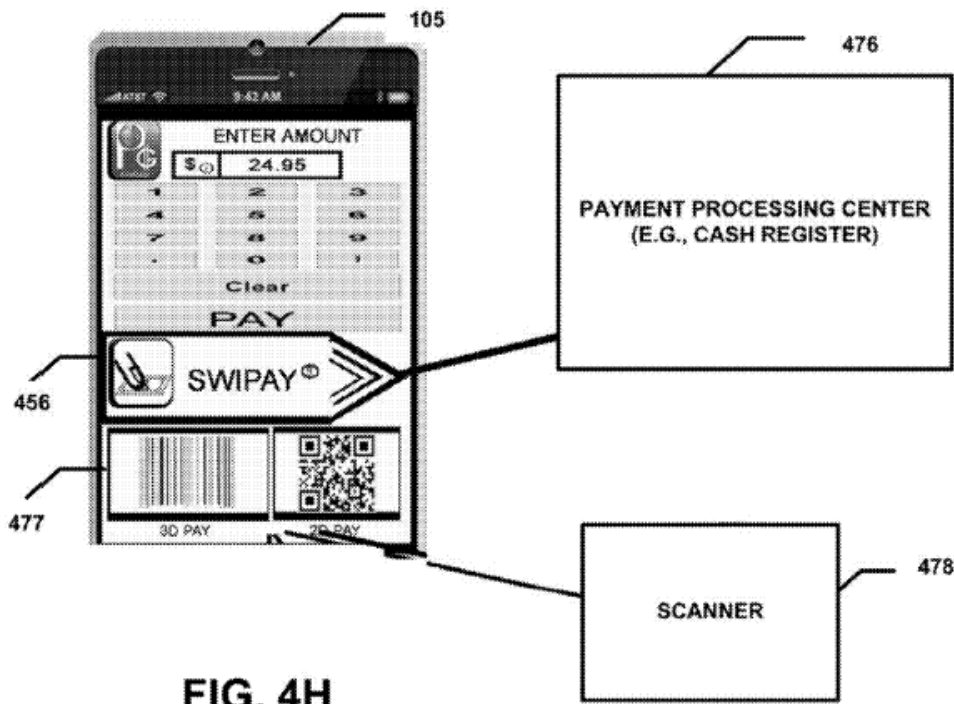


FIG. 4H

Ex-1001, Fig. 4H.

49. When the code is received, the recipient's mobile device recognizes the code and queries the recipient whether to accept or reject the financial transaction request. Ex-1001, 15:1-15. As shown in step 410 in Figure 4A above, the recipient can either accept or reject the financial transaction. *Id.* The recipient's mobile device then sends a confirmation signal to the first user mobile station confirming whether the financial transaction was accepted or rejected. Ex-1001, 15:21-27.

B. Summary of the Prosecution History of the '671 patent

50. I have reviewed the prosecution history of the application that led to the '671 patent. *See* Ex-1002.

51. I understand that during prosecution of the '671 patent, the Office rejected most of the original claims as anticipated by U.S. Patent Application Publication No. 2004/0122771 ("Celi Jr."). Ex-1002, 126-134. In response, the Applicant amended the claims and distinguished Celi Jr. as disclosing "communication between a portable device and an automated teller machine (ATM)" rather than "communication between two mobile devices" as claimed. Ex-1002, 150-160. The Examiner subsequently allowed the application after the Applicant incorporated a few minor amendments proposed by the Examiner. Ex-1002, 191-194, 208, 212-214. However, the Examiner allowed the claims without the benefit of *Look*, *Stallings*, or any other reference mentioned below. As explained below, the prior art discloses and renders obvious the limitations the Applicant argued were not in the prior art, including "communication between two mobile devices."

C. Claim Construction of Terms in the '671 patent

52. I have been informed that, for purposes of *inter partes* review, the standard for construction of terms in a patent's claims is the same as that applied in federal district court litigation.

53. I understand that a district court has yet to construe the claim terms of this patent. At this time, I see no need to construe any terms of the challenged claims for the purposes of this proceeding. Accordingly, in preparing my analysis I have

applied the ordinary and customary meaning that each claim term would have had to a POSITA in light of the '671 patent's specification and prosecution history.

54. If any claim terms are differently construed, I reserve the right to reassess my opinions under those constructions.

VII. PERSON OF ORDINARY SKILL IN THE ART

55. As discussed above, I have been informed that patentability must be analyzed from the perspective of a "person of ordinary skill in the art" in the same field as the patent-in-suit at the time of the invention. I also understand that several factors are considered in assessing the level of ordinary skill in the art, including (1) the types of problems encountered in the art; (2) the prior art solutions to those problems; (3) the rapidity with which innovations are made; (4) the sophistication of the technology; and (5) the education level of active workers in the field.

56. I refer to a person of ordinary skill in the art here as a "POSITA." A POSITA in this case would have had at least a bachelor's degree in electrical engineering, computer science, or a similar field and at least two years of experience in the field of mobile applications and/or related payment systems. Additional relevant work experience can compensate for less education, and vice versa. I at least meet this definition of a POSITA, now and as of the priority date of the '671 patent.

57. I am also familiar with the knowledge of a POSITA as of the priority date of the '671 patent. I am able to opine on how a POSITA would have understood

the disclosure and claims of the '671 patent, the disclosures of the prior art, the various motivations to combine the prior art, and what combinations would have been obvious to a POSITA.

VIII. THE PRIOR ART

A. Overview of *Look* (Ex-1005)

58. I have been told that U.S. Patent Application Publication No. 2007/0260558 to Look (“*Look*”; Ex-1005) is prior art. *Look* discloses “methods and systems for securely transferring data through mobile devices to be used in transactions that involve payments or data that require[] high security.” *Look*, [0006]; *see also Look*, Abstract, [0002], [0005], [0007].

59. For example, in Figure 1, *Look* discloses a system 10 for conducting transactions between a **user of a mobile phone (i.e., payor)** 12 and a **payee** 16. *Look*, [0012], Fig. 1. The user of the mobile phone initiates a financial transaction, which causes the mobile phone to generate “a secure two-dimensional **code** 20 that can be provided to the **payee** 16 and used to authorize or validate a transaction between the **payee** and a **user of the mobile phone** 12 by securely exchanging information.” *Look*, [0012], [0017].

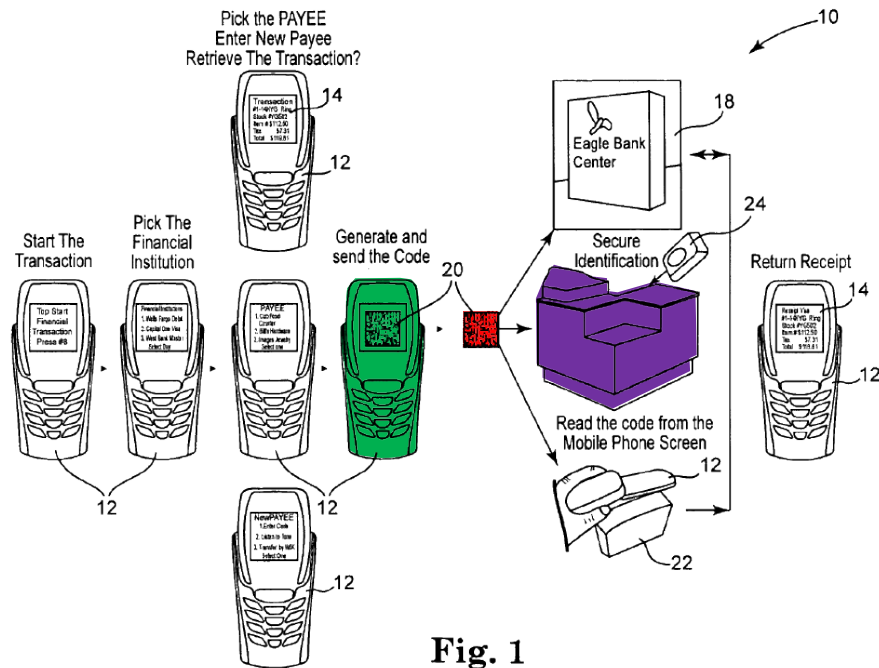


Fig. 1

Look, Fig. 1.

60. *Look* discloses that the “mobile phone preferably uses [w]ireless mobile, Bluetooth, Wifi, infrared, sound transfer[,] or any other available means to transfer the code to the payee for close range transfer.” *Look*, [0017]. The **payee’s device** decodes the **code** and authorizes the request using the financial information contained in the **code**. *Look*, [0017]-[0018]. For example, *Look* discloses that “the payee can upload transaction information to the selected financial institution of the user to authorize or validate the transaction,” and the “payee electronically communicates with the selected financial institution of the user to implement the transaction.” *Look*, [0018]. When the transaction is complete, the **payee’s device**

sends a reverse code containing receipt data back to the **payor's device**. Look, [0038].

B. Overview of *Stallings* (Ex-1006)

61. I have been told that U.S. Patent Application Publication No. 2010/0156812 to Stallings (“*Stallings*”; Ex-1006) is prior art. *Stallings* discloses systems and methods for conveniently exchanging information between two mobile devices. *Stallings*, Abstract, [0001], [0014], [0015]. For example, *Stallings* discloses that “[u]sers of devices 100 may be within close proximity and may desire to transfer items (e.g., objects, data, images, audio, video, links, text, copies of files, etc.) from one **mobile device (e.g., mobile device 100-1)** to another **mobile device (e.g., mobile device 100-2)**,” as shown in Figures 1A and 1B below. *Stallings*, [0015].

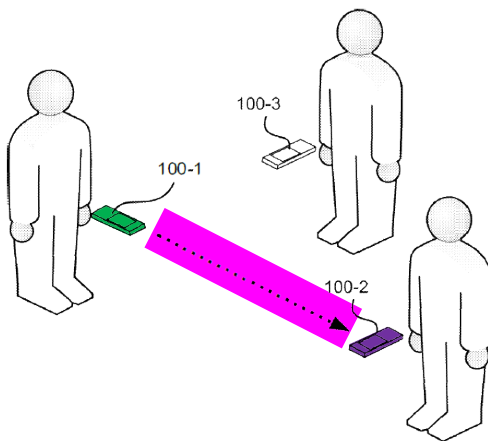


FIG. 1A

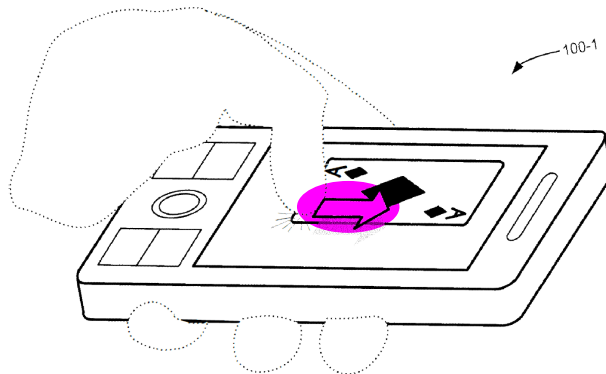


FIG. 1B

Stallings, Figs. 1A, 1B.

62. *Stallings* discloses sending items from one mobile device to another using a **directional swipe gesture** on the sender's mobile device in the direction of the intended recipient. *Stallings*, [0015], Figs. 1A, 1B. *Stallings* explains that the "sending **mobile device 100-1** may identify its own location/orientation to determine the geographic direction of the touch gesture" and "then obtain location information from other nearby mobile devices 100-2 and 100-3 to differentiate the intended recipient's **mobile device 100-2** from an unintended recipient's mobile device 100-3." *Id.*

C. Overview of *Tumminaro* (Ex-1007)

63. I have been told that *Tumminaro* is prior art. *Tumminaro* discloses "a mobile payment platform and service" used to conduct a financial transaction on a "person-to-person (P2P) basis where each party is identified by a unique indicator such as a telephone number or bar code." *Tumminaro*, [1142]. *Tumminaro*'s mobile payment platform includes a "**Mobile Client Application (MCA)**, resident on the mobile device, [which] simplifies access and perform[s] financial transactions in a fast, secure manner." *Id.* For example, as shown in Figure 4 below, the **MCA** allows **user A (payor)** to send money to **user B (payee)**. *Tumminaro*, [0252]-[0253], Fig. 4.

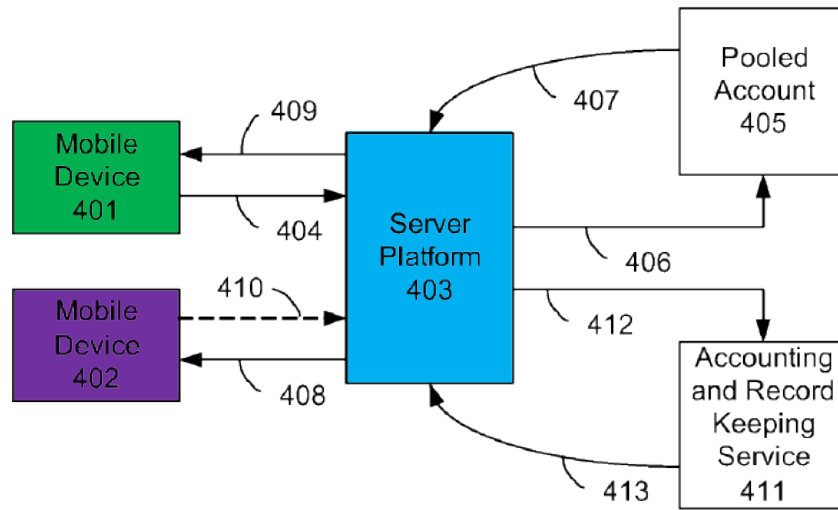


Fig. 4

Tumminaro, Fig. 4.

64. When **user A (payor)** sends money to **user B (payee)**, the **MCA** presents **user B (payee)** “with a screen asking whether B will accept payment from A, decline payment from A, or request a change in the pending transaction from A.” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406]. If **user B** accepts the payment, the financial transaction proceeds, but if **user B** rejects the payment, the financial transaction is declined. *Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406]. The **MCA** sends a message to the sender notifying whether the transaction is accepted or declined. *Id.*

65. For example, *Tumminaro* discloses that “[i]f B accepts payment from A, system checks whether A has sufficient funds to cover transaction,” and “[i]f A has sufficient funds, A is sent message: “Payment accepted. [tel #], [value], [trans #],” the “transaction amount is debited from A’s account and credited to B’s account.” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406]. And, “[i]f B declines the payment, the transaction is canceled and A is sent a message: “Payment declined. [tel #], [value], [trans #].” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406].

66. *Look*, *Stallings*, and *Tumminaro* are analogous art because they are directed to the same field of endeavor as the ’671 patent—mobile applications and/or related payment systems. ’671 patent, Abstract, 1:9-15, 3:44-64; *Look*, [0002], Abstract, [0004]-[0007], Fig. 1; *Stallings*, [0014]-[0017], Figs. 1A-1B; *Tumminaro*, Abstract, [0003], [0022], [0027], [0028], Fig. 5. Each reference is also directed to the same problem as the ’671 patent, for example, conveniently and securely transferring information (e.g., financial information) between two mobile devices. Ex-1001, 1:19-3:40; *Look*, [0006]-[0007]; *Stallings*, [0014]-[0015]; *Tumminaro*, Abstract, [0020].

IX. OPINIONS ON UNPATENTABILITY

67. The following prior art, in my opinion, renders claims 1-3 and 22 of the '671 patent obvious:

Ground	Claims	Basis	Prior Art
1	1-3 and 22	103	<i>Look and Stallings</i>
2	1-3 and 22	103	<i>Look, Stallings, and Tumminaro</i>

A. Ground 1: Claims 1-3 and 22 Are Rendered Obvious by *Look* and *Stallings*

68. In my opinion, *Look* and *Stallings* render obvious claims 1-3 and 22.

1. Independent Claim 1

- a. [1pre]: “A financial service method that provides a cashless platform of enabling users to perform a financial transaction in a mobile environment, the method comprising:”

69. In my opinion, *Look* discloses “[a] financial service method that provides a cashless platform of enabling users to perform a financial transaction in a mobile environment.”

70. For example, *Look* discloses “methods and systems for securely transferring data through mobile devices to be used in transactions that involve payments or data that requires high security.” *Look*, [0006]; *see also Look*, Abstract, [0002], [0005], [0007]. As shown below in Figure 1, *Look* discloses a system 10 for

conducting transactions between a user of a mobile phone 12 and a payee 16. *Look*, [0012], Fig. 1. The user of the mobile phone initiates a financial transaction, which causes the mobile phone to generate “a secure two-dimensional code 20 that can be provided to the payee 16 and used to authorize or validate a transaction between the payee and a user of the mobile phone 12 by securely exchanging information.” *Look*, [0012], [0017].

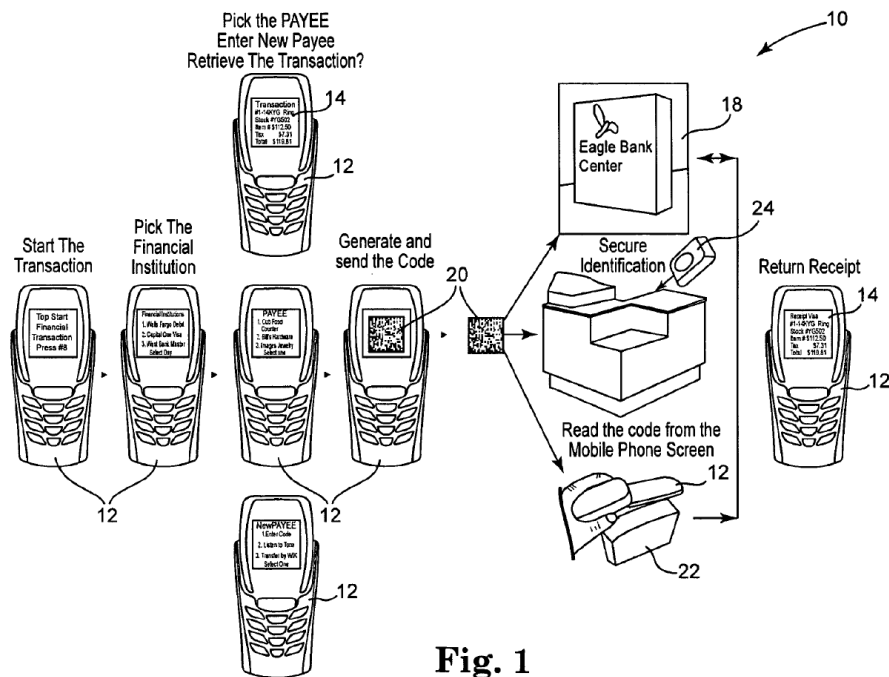


Fig. 1

Look, Fig. 1.

71. In my opinion, a POSITA would have understood that *Look*'s mobile transaction system is a "cashless platform" because the transactions are carried out electronically in a mobile environment without using physical cash, which was a well-known feature at the time. Ex-1025, 41-42 ("PayPal faces competition from

Visa's Visa Direct, MasterCard's MoneySend, and Royal Bank of Scotland's World Pay and Webpay International's Click & Buy in the European Community, NOCHEX, Moneybookers, NETeller and FirePay in the U.K., CertaPay and HyperWallet in Canada, Paymate in Australia, Alipay and 99Bill in China and Inicis in South Korea.”). This is consistent with the ’671 patent, which allegedly “enables cash-less transactions and eliminates the need to carry credit cards, cash, thus replacing all the contents of a physical wallet, and completely supplanting the physical wallet with a digital wallet.” Ex-1001, 4:49-53.

b. [1a]: “entering financial information related to the financial transaction on a first user mobile station;”

72. In my opinion, *Look* discloses “entering financial information related to the financial transaction on a first user mobile station.”

73. For example, *Look* discloses that “a user initiates a transaction by pressing a key, series of keys, or uses a voice command on the mobile phone to start the process.” *Look*, [0017]; *see also Look*, [0026]. According to *Look*, the “user typically selects a financial institution from a list of authorized sources for conducting the transaction, preferably from a drop down list or the like on the mobile phone.” *Look*, [0017]; *see also Look*, [0027]. *Look* also discloses that the user may select from “a pull down list of potential payees to identify the correct payee,” and “[i]f this were the first transaction with a given payee the payee identifier could be

added manually or by a two-way communications method (wired or wireless).”
Look, [0017]; *see also Look*, [0028].

74. As shown in Figure 1 below, the transaction involves the user of the mobile phone 12 “pick[ing] the financial institution” and “pick[ing] the PAYEE” on the user’s mobile phone (*i.e.*, a first user mobile station). *Look*, Fig. 1; *see also Look*, [0017].

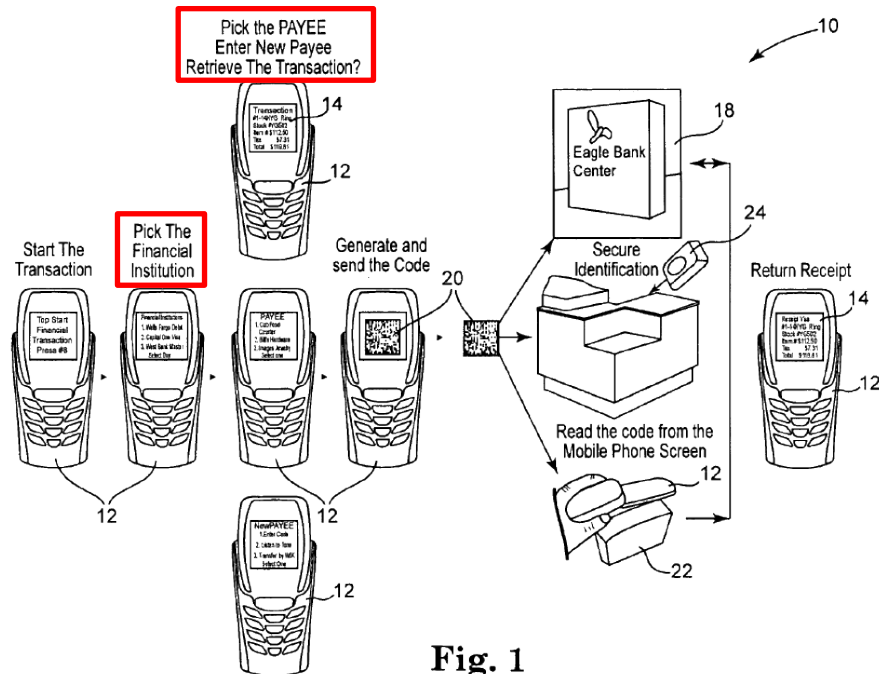


Fig. 1

Look, FIG 1.

75. In my opinion, *Look*’s disclosure is consistent with the ’671 patent, which explains that the “financial information includes, for example, the payor’s name and address, the payee’s name (and possibly the payee’s address and additional identification), the number, date and amount of the check 620, the bank’s name and

address, and the memo information identifying the purpose of the check 620.” Ex-1001, 18:36-41.

c. [1b]: “the first user mobile station generating a code containing the financial information on the first user mobile station,”

76. In my opinion, *Look* discloses “the first user mobile station generating a code containing the financial information on the first user mobile station.”

77. For example, *Look* discloses that the “mobile phone generates the secure two-dimensional code, preferably as an electronic signal, containing the desired transaction information or data to be sent to the payee or directly to the financial institution or both.” *Look*, [0017]; *see also Look*, [0029]-[0031]. *Look* explains that “[t]ransaction information or data refers to information, data, signals, or the like that is used to conduct a transaction.” *Id.* As discussed above, the transaction information in *Look* includes, for example, information about the payee and/or the financial institution. *Id.*; *supra* §IX.A.1.b [1a].

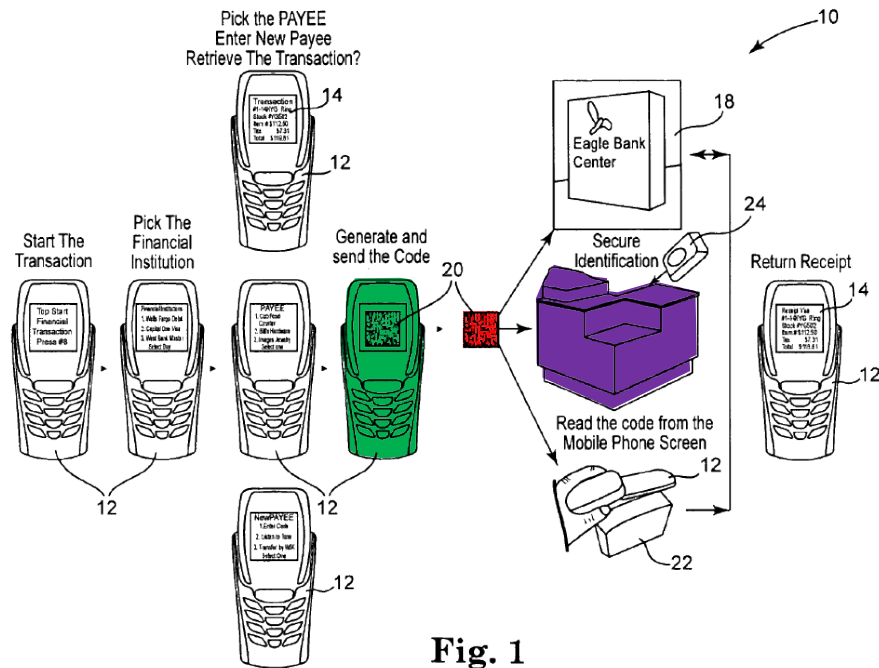


Fig. 1

Look, Fig 1.

d. [1c]: “wherein the first user mobile station is in proximity to a second user mobile station;”

78. In my opinion, *Look* discloses or *Look* and *Stallings* render obvious “wherein the first user mobile station is in proximity to a second user mobile station.”

79. For example, *Look* discloses that the “mobile phone preferably uses Wireless mobile, Bluetooth, Wifi, infrared, sound transfer or any other available means to transfer the code to the payee for *close range transfer*.” *Look*, [0017]. *Look* also explains how its system works for “long range” communications. *Id.* Thus, in my opinion, a POSITA would have understood that “close range transfer” means the mobile phone (payor) is in proximity to the payee. Further, a POSITA would have

understood that the infrared and sound transfer methods disclosed in *Look* can only function properly if the devices are in proximity to each other.

80. Unlike radio frequency-based data transmission systems such as WiFi, signals from sound or infrared (i.e., light) cannot penetrate opaque surfaces such as the walls of room, and thus by necessity are limited to communications with devices in their proximity. For example, a widely used standard for infrared data transmission is published by the Infrared Data Association (IrDA) and provides for data transmission on the order of 1 meter (or less) between devices as per the excerpts below:

The IrDA serial infrared link specification supports low cost optoelectronic technology and is designed to support a link between two nodes from 0 to at least 1 meter apart (20 cm for low power parts: please see Section 4.1) as shown in Figure 1 (the two ports need not be perfectly aligned).

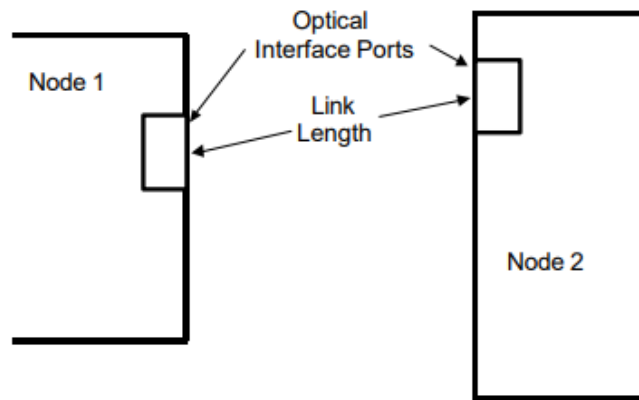


Figure 1. Schematic View of the Optical Interface Port Geometry

Ex-1026, 9, Figure 1.

2.1. Point-to-Point Link Overview

The serial infrared link supports optical link lengths from zero to at least 1 meter with standard power transceivers (20cm for low power transceivers: see section 4.1) for accurate (within specified bit error ratio), free space communication between two independent nodes (such as a calculator and a printer, or two computers).

Ex-1026, 13.

81. Moreover, in my opinion, a POSITA would have understood the payee's device in *Look* to be a "second user mobile station." The '671 patent explains that a "user mobile device (or station)" can be "a standalone device, such as a mobile phone, tablet, or computer, or it can be used with other auxiliary devices, such as an external speaker 355, a GPS receiver 356, a microphone 357, a cellular (mobile or satellite) phone 358, or any other available compatible device 360." Ex-1001, 9:57-58, 11:46-56. Like the '671 patent, *Look* discloses that the payee's device can be a "computer" and be used in conjunction with a "mobile phone two-dimensional optical code reader" for processing the financial transaction with the payor's device. *Look*, [0033]. At the time of *Look*, POSITAs would have understood that the term "computer" would include both desktop and mobile computers. Ex-1001, 1:19-36;

Look, [0006]; *Stallings*, [0017]; *Tumminaro*, [1149]; Ex-1009, [0002]; Ex-1018, [0046]; Ex-1019, [0063].

82. Further, *Look* summarizes its disclosure as “methods and systems for conducting secure business transactions with ***electronic devices such as mobile handheld electronic devices***.” *Look*, [0002]; *see also Look*, [0005], [0006] (“methods and systems for securely transferring data through ***mobile devices*** to be used in transactions that involve payments or data that requires high security”). *Look* also explains that “[a]ny ***mobile or portable devices*** that function to store and/or share data can be used in accordance with the present invention.” *Look*, [0006]. *Look*’s reference to plural “devices” shows that it contemplated two or more mobile devices involved in the transactions, i.e., one mobile device for the user/payor and another mobile device for the payee. Thus, in my opinion, a POSITA would have understood *Look*’s payee’s device to be a “second user mobile station” in communication with the user/payor’s mobile phone (the first user mobile station).

83. To the extent *Look* does not disclose “a second user mobile station,” it would have been obvious. It was well known at the time of the claimed priority date to transfer information, such as financial transaction information, between two mobile devices. *See supra* §V. For example, numerous mobile payment services like Venmo, PayPal, and MoneySend, which allow mobile device users to send money to each other, were available at the time. Ex-1011; Ex-1021; Ex-1022; Ex-1023; Ex-

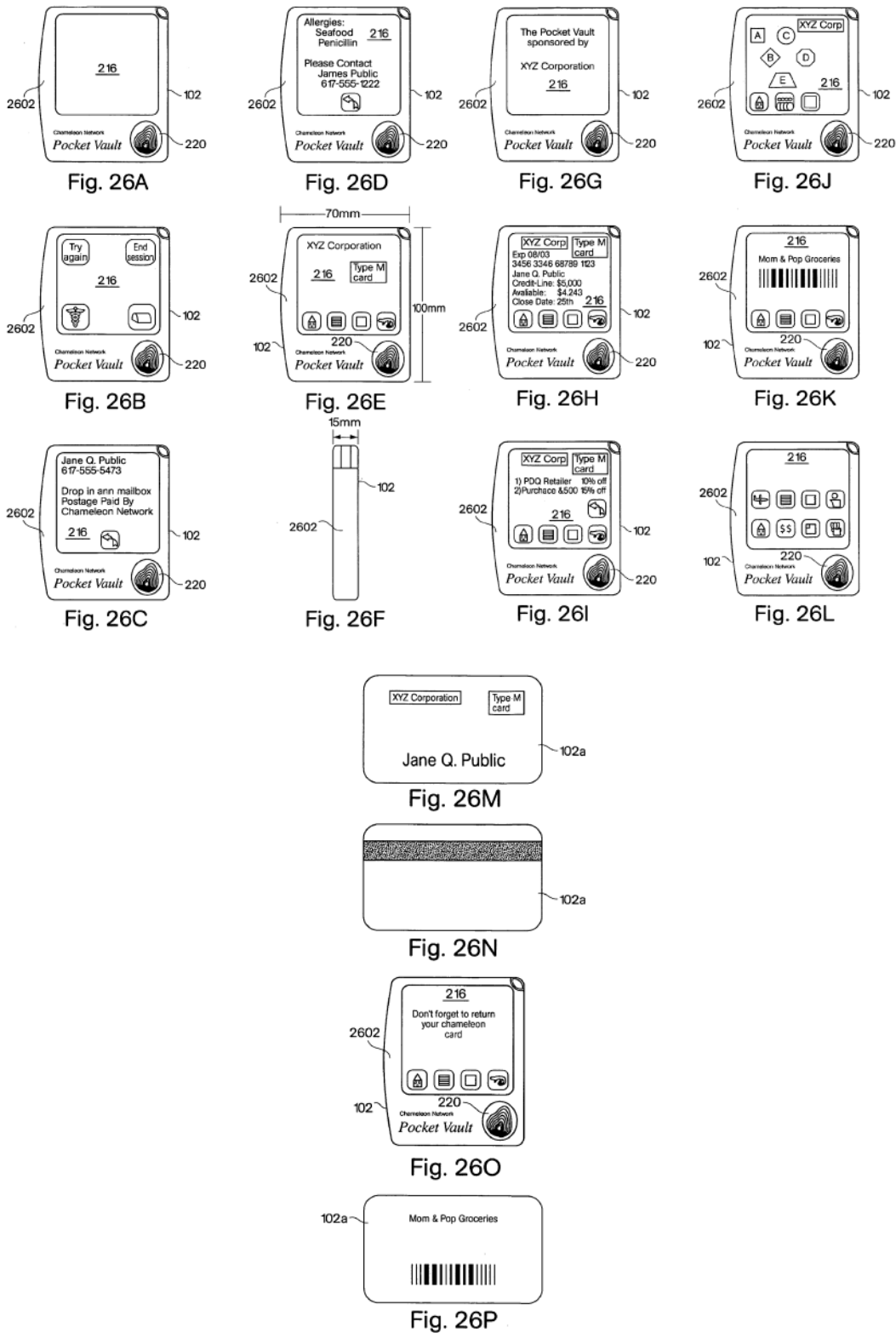
1024; Ex-1025, 41-42. Indeed, the '671 patent itself acknowledges conducting financial transactions between mobile devices was well known in the art. Ex-1001, 1:19-2:5 (describing mobile devices that “employ[] public-key cryptography (PKC) to securely and wirelessly transmit the payment to the terminal component utilizing the m-card and linked account” and “methods and systems for providing a financial payment to a payee (or recipient) utilizing a mobile device or a wireless connected personal digital assistant (PDA).”). Further, *Stallings* discloses transferring different types of information from one mobile device to another mobile device in close proximity. *Stallings*, Figs. 1A-1B, [0015].

84. For example, *Stallings* discloses that any mobile device can be used for its method, including “a radiotelephone, a personal communications system (PCS) terminal (e.g., that may combine a cellular radiotelephone with data processing and data communications capabilities), a PDA (e.g., that can include a radiotelephone, a pager, Internet/intranet access, etc.) . . . a personal computer, a laptop computer, any other device capable of utilizing a touch-panel that can identify directional movement of a touch, a thread or process running on one of these devices, and/or an object executed by one of these devices.” *Stallings*, [0017]. *Stallings* also contemplates transferring “any computer-readable file that may be transferred over a network, such as objects, data, images, audio, video, text, copies of files, and/or links to files accessible via one or more networks,” which a POSITA would have

understood to include text or codes related to financial information as discussed in *Look*. *Stallings*, [0016].

85. In my opinion, a POSITA would have been motivated to modify *Look*'s payee device to be a mobile device, to the extent it is not already. A POSITA would have found it advantageous for *Look* to use a mobile device (e.g., a cell phone or a laptop), such that users of the mobile devices can conveniently perform financial transactions wirelessly from anywhere. For example, the '671 patent admits that "there have been concerted efforts and proposed solutions to minimize [or] alleviate the consumers from redundant clutters so as to facilitate their mobility." Ex-1001, 1:37-39. A POSITA would have recognized that the mobility of users would be improved if *Look*'s payee device was a mobile device that can be carried anywhere. *Look*, [0005]-[0006]; *Stallings*, [0001], [0015]; *Tumminaro*, [0009]-[0010].

86. Indeed, while I was serving as the CTO of an electronic wallet startup called Chameleon Network Inc., I contributed to several inventions including U.S. Patent No. 7,003,495 issued on Feb 21, 2006. Ex-1027, 1. As described in this patent, we envisioned a portable electronic device functioning as an electronic wallet (eWallet) mobility device. Ex-1027, 7:22-33. As depicted in Figure 26 and other drawings in this patent, our eWallet device supports all matters related to financial transactions and transaction media including generation of graphical bar code representations. Ex-1027, 7:63-8:25.



Ex-1027, Figs. 26A-26P.

87. In my opinion, a POSITA would have reasonably expected to succeed in modifying *Look*'s payee device to be a mobile device. Indeed, it would have been a straightforward modification because such systems were well known in the art before the claimed priority date of the '671 patent. *See, e.g.*, Ex-1009, Abstract, [0006]-[0007] (describing "a system that enables funds to be transferred from one individual to another via a peer to peer-like network" using "a mobile device (e.g., cellphone, Smartphone, personal digital assistant (PDA), personal media player)"), Figs. 1-2; Ex-1018, Abstract, [0007]-[0009], [0071]-[0076] (describing an embodiment in which two smartphone users settle a debt using their smartphones), Figs. 12-13; Ex-1020, Abstract, 1:24-45, 2:41-48, Fig. 6 (describing "a method of transferring funds between mobile devices."). For example, miniaturized and portable computers, such as laptops, cell phones, and PDAs, were widely used since the early 2000s. *See, e.g.*, Ex-1001, 1:19-36; *Look*, [0006]; *Stallings*, [0017]; *Tumminaro*, [1149]; Ex-1009, [0002]; Ex-1018, [0046]; Ex-1019, [0063]. Thus, the hardware of *Look*'s payee device could have easily been modified to be one of these well-known mobile devices. Implementing the use of such a mobile device in *Look*'s payee device to enable transactions to be performed from anywhere would have been merely the straightforward application of known, conventional techniques used according to their known functions to yield predictable results.

- e. **[1d]: “the first user mobile station transferring the generated code to the second user mobile station by means of a directional movement on the first user mobile station in the direction of the second user mobile station;”**

88. In my opinion, *Look* and *Stallings* render obvious “the first user mobile station transferring the generated code to the second user mobile station by means of a directional movement on the first user mobile station in the direction of the second user mobile station.”

89. As discussed above, *Look* discloses that the user/payor’s mobile phone “generates the secure two-dimensional code, preferably as an electronic signal, containing the desired transaction information or data to be sent to the payee.” *Look*, [0017]. Thus, *Look* discloses transferring the generated code from the user/payor’s mobile phone to the payee’s device.

90. Moreover, sending data via a directional movement on a first user mobile station in the direction of a second user mobile station was well known to a POSITA at the time of the claimed priority date. For example, *Stallings* discloses that “[u]sers of devices 100 may be within close proximity and may desire to transfer items (e.g., objects, data, images, audio, video, links, text, copies of files, etc.) from one **mobile device (e.g., mobile device 100-1)** to another **mobile device (e.g., mobile device 100-2)**,” as shown in Figures 1A and 1B below. *Stallings*, [0015].

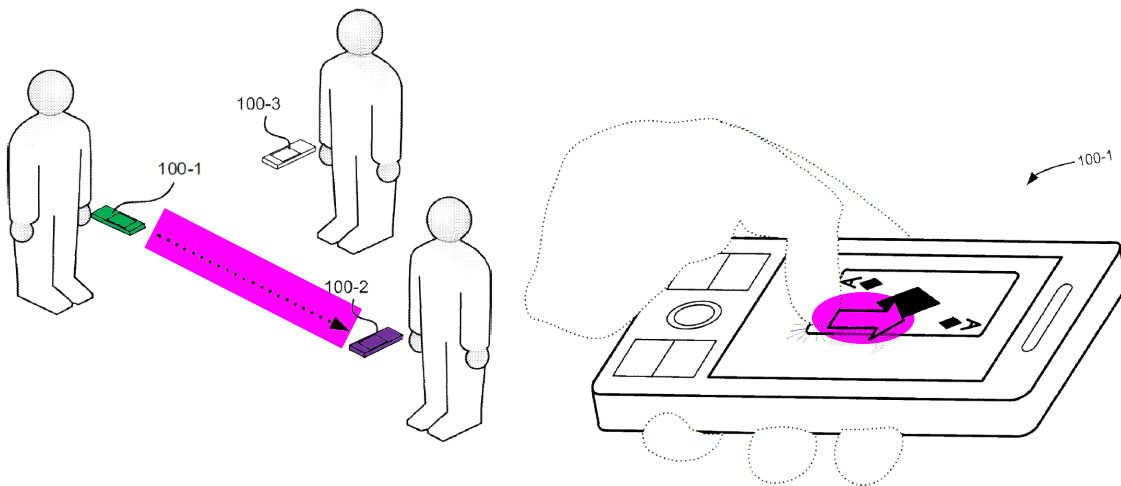


FIG. 1A

FIG. 1B

Stallings, Figs. 1A-1B.

91. *Stallings* further discloses that “[r]ather than specifically identifying a particular recipient’s mobile device 100-2 (e.g., entering a name/identifier or selecting one from a list), a user of sending **mobile device 100-1** may simply use a **touch gesture (e.g., sliding a touch in a direction along the surface of a touch-sensitive panel)**, as shown in Fig. 1B.” *Stallings*, [0015], Figs. 1A-1B. *Stallings* explains that the “sending **mobile device 100-1** may identify its own location/orientation to determine the geographic direction of the touch gesture” and “then obtain location information from other nearby mobile devices 100-2 and 100-3 to differentiate the intended recipient’s **mobile device 100-2** from an unintended recipient's mobile device 100-3.” *Id.* Thus, the user of the sending mobile device

100-1 uses a sliding gesture in a direction of the intended recipient's mobile device 100-2 to initiate the transfer.

92. In my opinion, a POSITA would have been motivated to modify *Look*'s mobile phone (payor device) to implement *Stallings*'s directional sliding gesture, such that the payor device transfers the code containing financial information to the payee device when the user of the payor device slides in the direction of the payee.

93. Both references substantially overlap in subject matter and complement each other. For example, each reference involves using mobile electronic devices, such as disclosed in *Look* (e.g., [0006]) and *Stallings* (e.g., [0001]), that have communications capabilities to external devices. Further, each reference employs touch screen user interfaces as disclosed in *Look* (e.g., [0026]) and *Stallings* (e.g., [0014]). A POSITA would have understood that the hardware and user interfaces in both references are fully compatible with each other and their teachings can be combined in a straightforward manner.

94. In my opinion, a POSITA would have found it advantageous to implement *Stallings*'s directional sliding gesture in *Look*'s payor device, so that the user of the payor device can conveniently and securely transfer a code containing sensitive financial transaction information to an intended recipient. A POSITA would have recognized that anyone with a camera or a code scanner can scan a two-dimensional code and access sensitive financial information without authorization.

To avoid this problem, a POSITA would have found it advantageous to transfer the code from the payor device to the payee device without publicly displaying it, such that it cannot be intercepted by an unintended recipient. Furthermore, directional swiping adds an interactive feature to the user interface that is more intuitive for the user and improves the user's experience. Ex-1019, [0005]-[0006], [0059] (explaining that "mobile devices typically have relatively small screens, making such transactions difficult and not very enjoyable. For example, a user may have difficulty or find it boring to enter information and select boxes or links to process an information transfer or transaction to another user or merchant.").

95. In my opinion, a POSITA would have reasonably expected to succeed in modifying *Look*'s payor device to include *Stallings*'s directional sliding gesture. A POSITA would have recognized that both *Look* and *Stallings* are directed to transferring information between two mobile devices. *Look*, [0006] ("The present invention thus provides methods and systems for securely transferring data through mobile devices to be used in transactions that involve payments or data that requires high security. Any mobile or portable devices that function to store and/or share data can be used in accordance with the present invention."); *Stallings*, [0014]-[0017] (describing systems and/or methods for "gesture-based item delivery for devices within a local wireless network," including "[t]ouch gestures (e.g., a "flick") on the surface of a mobile device equipped with a touch-sensitive panel may be used to

initiate sending an item from a sending mobile device to another mobile device or to a fixed-location (e.g., stationary) recipient device.”). *Look* discloses a mobile financial transaction platform that uses a code containing financial transaction information (e.g., payee identification, financial institution information) sent from a first device to a second device to authorize payment. *Look*, [0017]. *Look* also discloses that a user/payor’s mobile phone is configured to “transfer the code to the payee for close range transfer.” *Id.*

96. *Stallings* discloses peer-to-peer sharing of information through a directional movement on a mobile phone, such as “sliding a touch in a direction along the surface of a touch-sensitive panel” to specify and send the data to the intended recipient. *Stallings*, [0014]-[0015]. *Stallings* discloses that this directional sliding gesture can be used to transfer various “items (e.g., objects, data, images, audio, video, links, text, copies of files, etc.) from one mobile device (e.g., mobile device 100-1) to another mobile device (e.g., mobile device 100-2)” that are “accessible via one or more networks.” *Stallings*, [0015]-[0016].

97. Implementing the directional sliding gesture of *Stallings* into *Look*’s payor device would have been merely using a known technique (directional sliding) to improve a known data-transferring method (a financial transaction process by transferring codes) to obtain predictable results (i.e., improved convenience and security of the financial transaction method). It would also have been obvious to try,

given that the combination involves choosing from a finite number of identified, predictable solutions (inputting the payee identification information versus swiping in the direction of the payee) for improving the method of specifying the recipient of the financial transaction with a reasonable expectation of success. *Look* already discloses that its mobile financial transaction method can be used with existing computing devices, such as “PDA’s, Blackberry type devices, video/dvd players or recorders, game consoles, audio or music players such as MP3 players and the like,” *Look*, [0006], which a POSITA would have understood to include mobile phones with touchscreens, such as those disclosed in *Stallings*. *Stallings*, [0017]. Modifying *Look*’s mobile devices to include a touch panel for recognizing direction gestures would have required nothing more than routine hardware and software changes that were well known in the art. *Stallings*, [0014]-[0015], [0017], [0021], [0052], [0063], [0080]-[0081]; Ex-1019, [0007], [0020], [0075].

f. [1e]: “the first user mobile station further transmitting the generated code to a mobile transaction platform to confirm the executability of the financial transaction”

98. In my opinion, *Look* discloses “the first user mobile station further transmitting the generated code to a mobile transaction platform to confirm the executability of the financial transaction.”

99. For example, *Look* discloses that the **mobile phone (payor)** “generates the **secure two-dimensional code**, preferably as an electronic signal, containing the

desired transaction information or data to be sent to the **payee** or directly to the **financial institution** or **both**.” *Look*, [0017]. *Look* further discloses that the “**payee** and/or **financial institution** decodes the **secure two-dimensional code** extracting the required transaction information for the particular transaction requirements.” *Look*, [0018].

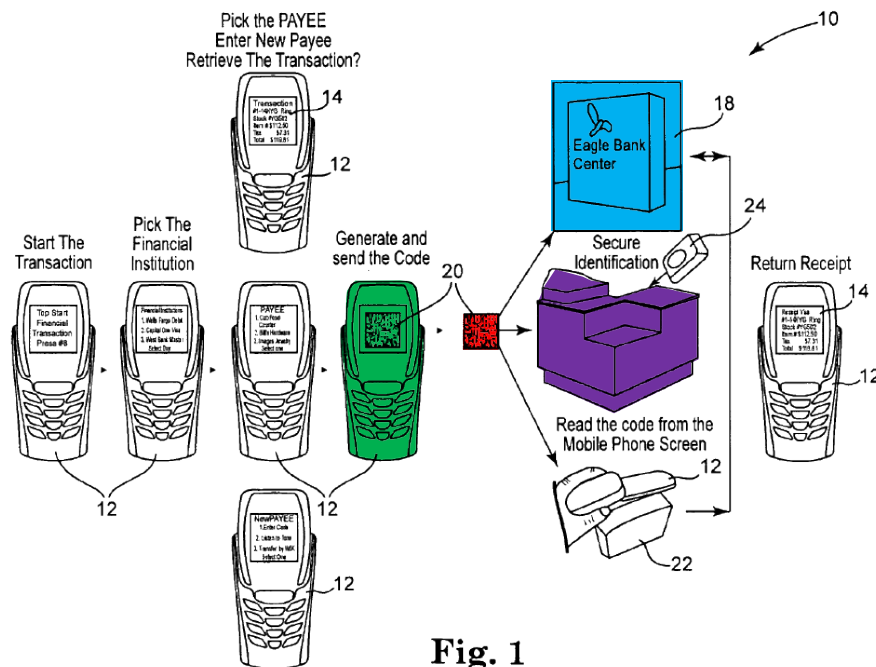


Fig. 1

Look, Fig. 1.

100. *Look* further discloses that the payor transmits the code to the financial institution to confirm the executability of the financial transaction. *Look*, [0017]-[0018]. A POSITA would have understood that the code is sent to the financial institution, in addition to the payee, so that the financial institution can authenticate and verify the transaction from the payor instead of simply trusting the payee. *Look*,

[0018]. For example, the financial institution can determine whether the transaction information is correct and legitimate.

101. Moreover, a POSITA would have understood that *Look*'s "financial institution" is the claimed "mobile transaction platform." In one embodiment, the '671 patent states that "the mobile transaction platform is a financial institution." Ex-1001, 24:25-26. Likewise, *Look* discloses the sending of "payee financial account data, user financial institution account data, and financial data through a *bank transaction card network to the financial institution* using a secure two-dimensional code." *Look*, [0044].

102. In my opinion, a POSITA would have recognized that *Look*'s financial institution includes a mobile transaction platform that connects mobile devices involved in a financial transaction through a network and facilitates communications between the payor, the payee, and the financial institution through a wireless network. Indeed, just like the '671 patent, the mobile transaction platform disclosed in *Look* is a financial institution. Ex-1001, 24:25-26.

g. [1f]: "the second user mobile station automatically recognizing the transferred code;"

103. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious "the second user mobile station automatically recognizing the transferred code."

104. For example, *Look* discloses that the “payee ... decodes the secure two-dimensional code extracting the required transaction information for the particular transaction requirements” and the payee “can upload transaction information to the selected financial institution of the user to authorize or validate the transaction.” *Look*, [0018].

105. In my opinion, a POSITA would have understood that *Look*’s payee (second user mobile station) automatically recognizes the transferred code. The ’671 patent provides that “PayGeo service allows the transactions to be coded in 2D or 3D bar/matrix/QR/maxi codes, SMS etc., so that the resulting codes may be read by, for example: smart phones, scanner, cashier scanners, instruments with compatible software, etc.” Ex-1001, 4:66-5:3; *see also* Ex-1001, 6:20-30, 13:32-38, 14:1-4, Fig. 4H. Like the ’671 patent, *Look* explains that “[a]ny known or developed two-dimensional bar coding system is contemplated[.]” *Look*, [0014]. *Look* further discloses that “[f]or mobile phones with cameras, the camera can be used to image a one-dimensional or two-dimensional code with the payee information and an application on the phone can decode and format the data as payee information.” *Look*, [0020]. A POSITA would thus understand that, like the ’671 patent, *Look*’s payee device automatically recognizes two-dimensional code.

h. [1g]: “based on the recognized code, the second user mobile station determines whether to accept or decline the financial transaction;”

106. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious “based on the recognized code, the second user mobile station determin[ing] whether to accept or decline the financial transaction.”

107. For example, based on the recognized code, *Look* discloses that “the payee can upload transaction information to the selected financial institution of the user to authorize or validate the transaction,” and the “payee electronically communicates with the selected financial institution of the user to implement the transaction.” *Look*, [0018]. In determining whether to “authorize or validate the transaction,” *id.*, a POSITA would have understood that the payee (second user mobile station) determines whether to accept or decline the financial transaction.

108. To the extent *Look* does not disclose this limitation, it would have been obvious. For example, *Look* already teaches that the payee communicates with the financial institution to “authorize or validate the transaction” and “implement the transaction.” *Look*, [0018]. It would have thus been obvious for the payee to determine whether to accept or decline the transaction as part of authorizing, validating, and/or implementing the transaction. Indeed, a POSITA would have recognized that the purpose of the payee and financial institution authorizing, validating, and/or implementing the transaction is to determine whether the

transaction should be accepted or declined. A POSITA would have understood that having the payee accept or decline the transaction would improve the accuracy and reliability of the transaction. For example, if certain details were incorrect, the payee would be able to decline the transaction to prevent any erroneous or fraudulent charges. Further, a POSITA would have found it obvious for the mobile transaction platform to execute the transaction, if the payee accepts it, and prevent the transaction if the payee declines it, to ensure that only authorized transactions are executed for security reasons. Thus, a POSITA would have been motivated to modify *Look*'s method to have the payee accept or decline the transaction, to the extent it is not already disclosed by *Look. Id.*

109. *Look* explicitly discloses that the payee can generate a receipt (*Look*, [0018]), and it is therefore implicit that the act of generating a receipt would also involve the step of deciding to accept the transaction. Thus, a POSITA would have understood that *Look*'s function of generating the receipt involves accepting the transaction.

110. In my opinion, a POSITA would have had a reasonable expectation of success as it would have been straightforward for a POSITA to modify *Look*'s method to have the payee accept or decline the transaction, to the extent it is not disclosed already. Because the payee in *Look*'s method is already involved with authorizing, validating, and implementing the transaction (*Look*, [0018]), it would

have been a straightforward modification to the software to enable the payee to input whether to accept or decline the transaction. Indeed, such a method was already well known in the art. *See, e.g., Tumminaro*, [0354] (Flow A); Ex-1019, [0050], Fig. 7 (explaining that “the recipient can accept the transaction or action from the user.”).

- i. **[1h]: “wherein when the financial transaction is accepted by the second mobile user station, the mobile transaction platform executing the financial transaction;”**

111. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious “wherein when the financial transaction is accepted by the second mobile user station, the mobile transaction platform executing the financial transaction.”

112. For example, as discussed above, *Look* discloses that “the payee can upload transaction information to the selected financial institution of the user to authorize or validate the transaction,” and the “payee electronically communicates with the selected financial institution of the user to implement the transaction.” *Look*, [0018]. *Look* further discloses that “[w]hen the transaction is complete, a receipt can be generated by the payee or the financial institution in paper as well as electronic form as desired.” *Id.* Thus, a POSITA would have understood that the transaction in *Look* is executed when the payee and financial institution authorize, validate, and/or implement the transaction.

113. To the extent *Look* does not disclose that “when the financial transaction is accepted by the second mobile user station, the mobile transaction platform executing the financial transaction,” it would have been obvious in view of *Look* and/or *Stallings* for at least the reasons discussed above for [1g]. *Supra* §IX.A.1.h.

- j. [1i]: “wherein when the financial transaction is declined by the second user mobile station, the mobile transaction platform preventing the execution of the financial transaction; and”

114. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious “when the financial transaction is declined by the second user mobile station, the mobile transaction platform preventing the execution of the financial transaction.”

115. For example, as discussed above, *Look* discloses that “the payee can upload transaction information to the selected financial institution of the user to authorize or validate the transaction,” and the “payee electronically communicates with the selected financial institution of the user to implement the transaction.” *Look*, [0018]. *Look* further discloses that “[w]hen the transaction is complete, a receipt can be generated by the payee or the financial institution in paper as well as electronic form as desired.” *Id.*

116. In my opinion, a POSITA would have understood that, if the payee determines that the transaction is not authorized or invalid, then the payee will

decline the financial transaction, and the financial institution will prevent execution of the financial transaction. As discussed above, a POSITA would have recognized that the purpose of the payee and financial institution authorizing, validating, and/or implementing the transaction is to determine whether the transaction should be accepted or declined. And, if certain details were incorrect, the payee would be able to decline the transaction and the financial institution would prevent execution of the financial transaction, to prevent any erroneous or fraudulent charges.

117. To the extent *Look* does not disclose that “when the financial transaction is declined by the second user mobile station, the mobile transaction platform preventing the execution of the financial transaction,” it would have been obvious in view of *Look* and/or *Stallings* for at least the reasons discussed above for [1g]. *Supra* §IX.A.1.h.

- k. **[1j]: “the second user mobile station transmitting a reverse code to the first user mobile station, to confirm whether the financial transaction was either accepted or declined by the second user mobile station.”**

118. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious “the second user mobile station transmitting a reverse code to the first user mobile station, to confirm whether the financial transaction was either accepted or declined by the second user mobile station.”

119. For example, *Look* discloses that “[w]hen the transaction is complete, a receipt can be generated by the payee or the financial institution in paper as well as electronic form as desired.” *Look*, [0018]. As shown in Fig. 2, *Look* discloses “the payee transmitting receipt data of the transaction to the mobile phone using a secure two-dimensional code.” *Look*, [0038].

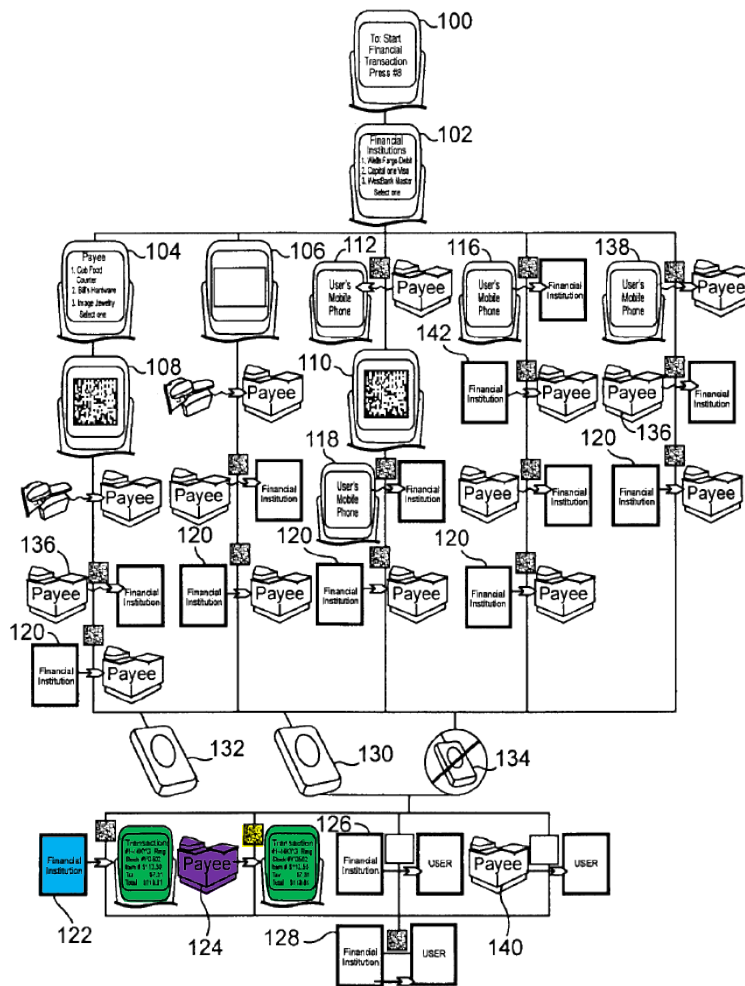


Fig. 2

Look, Fig. 2.

120. In my opinion, a POSITA would have recognized that this is a **reverse code** indicating whether the financial transaction was accepted or declined by the **payee**. Figure 2 above shows that, when the transaction is successful, the **payee** sends a **secure two-dimensional code** to the **first user mobile station** confirming “Transaction” and other information identifying the successful financial transaction. *Look*, Fig. 2.

121. To the extent *Look* does not disclose “the financial transaction was either accepted or declined by the second user mobile station,” it would have been obvious in view of *Look* and/or *Stallings* for at least the reasons discussed above for [1g]. *See supra* §IX.A.1.h.

122. For example, it would have been obvious for the payee device to indicate whether the financial transaction was either accepted or declined in the reverse code to the payor device as part of authorizing, validating, and/or implementing the transaction. A POSITA would have understood that it would have been advantageous for the payee device to indicate whether the financial transaction has been accepted or declined to the payor device, so that the payor device knows the status of the financial transaction. *Id.* Thus, a POSITA would have been motivated to modify *Look*’s method, such that the payee device transmits a reverse code to the payor device confirming whether the financial transaction was accepted or declined, to the extent it is not already disclosed by *Look*. *Id.*

123. In my opinion, a POSITA would have had a reasonable expectation of success as it would have been straightforward for a POSITA to modify *Look*'s method, such that the payee device sends a reverse code to the payor device confirming whether the financial transaction was accepted or declined, to the extent it is not disclosed already. Because the payee in *Look*'s method is already involved with authorizing, validating, and implementing the transaction (*Look*, [0018]), it would have been a straightforward modification to the software to enable the payee device to send a code back to the payor device confirming whether the financial transaction was accepted or declined.

124. Therefore, in my opinion, *Look* and *Stallings* render obvious claim 1.

2. Claim 2

- a. “The method of claim 1, wherein the second user mobile station executes the financial transaction at a third party financial institution.”**

125. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious the additional limitation of claim 2.

126. *Look* discloses sending “payee financial account data, user financial institution account data, and financial data through a ***bank transaction card network to the financial institution*** using a secure two-dimensional code.” *Look*, [0044]. The “payee electronically communicates with the ***selected financial institution*** of the user to implement the transaction.” *Look*, [0018]. *Look* explains that the term

“financial institution typically refers to a banking or financial account holder of a user that processes and clears financial transactions.” *Look*, [0012]. A POSITA would have recognized that *Look*’s “banking or financial account” is a third-party financial institution because it is neither the payor device nor the payee device. This is consistent with the ’671 patent, which explains that the “third party financial institution” includes “a bank.” Ex-1001, 19:37-39. Further, as discussed above, *Look* discloses a close-range transfer. *Look*, [0017]; *see supra* §IX.A.1.d.

3. Claim 3

- a. **“The method of claim 1, wherein the directional movement on the first user mobile station includes a directional swipe movement towards the second user mobile station.”**

127. *Look* and *Stallings* render obvious the additional limitations of claim 3.

128. For example, as discussed above in §IX.A.1.e [1d], *Stallings* discloses that “[r]ather than specifically identifying a particular recipient’s mobile device **100-2** (e.g., entering a name/identifier or selecting one from a list), a user of sending **mobile device 100-1** may simply use a **touch gesture (e.g., sliding a touch in a direction along the surface of a touch-sensitive panel)**, as shown in Fig. 1B.” *Stallings*, [0015], Figs. 1A-1B.

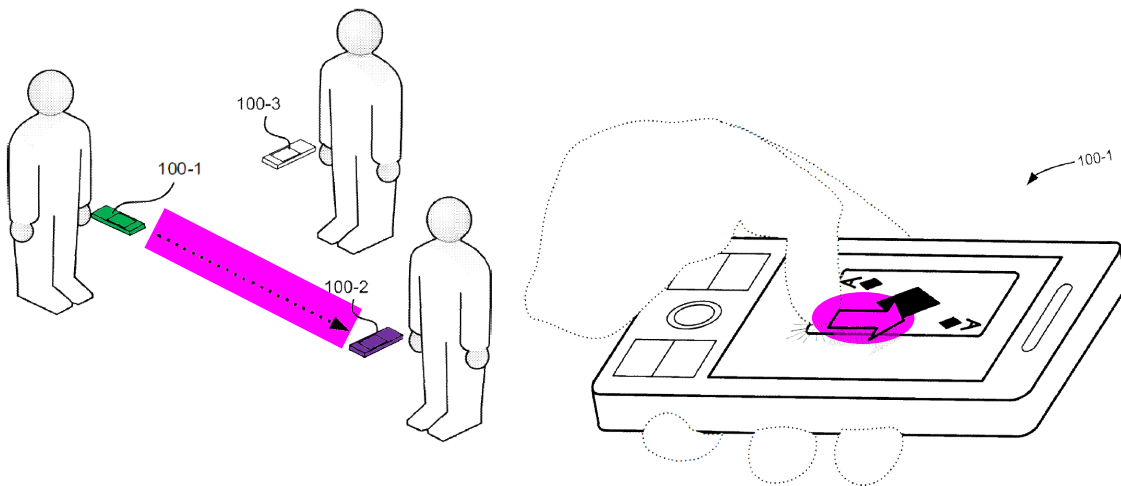


FIG. 1A

FIG. 1B

Stallings, Figs. 1A-1B.

129. In my opinion, a POSITA would have understood that the sliding gesture in a direction of the intended recipient's mobile device 100-2 in *Stallings* corresponds to the claimed "directional swipe movement towards the second user mobile station." For at least the reasons discussed above for [1d], it would have been obvious to modify *Look*'s mobile phone (payor device) to implement *Stallings*'s directional sliding gesture. *See supra* §IX.A.1.e.

4. Claim 22

- a. **"The method of claim 1, wherein any one of the first and second user mobile stations is registered with the mobile transaction platform that authenticates the financial transaction."**

130. In my opinion, *Look* discloses or *Look* and/or *Stallings* render obvious the additional limitations of claim 22.

131. For example, *Look* discloses “user public data” that is “exchanged between a user, payee, and/or financial institution” and includes “payee name, demographic data, financial transaction account number and financial data.” *Look*, [0020]. A POSITA would have recognized that the “financial transaction account number” is an account number assigned to a registered user of a financial institution or bank. As discussed above, *Look* discloses its financial institution includes a mobile transaction platform that “authorize[s] or validate[s] the transaction.” *See supra* § IX.A.1.g; *Look*, [0017]-[0018]. *Look* further discloses that a user’s device, such as a “mobile phone comprises a unique identifier stored in memory of the mobile phone for uniquely identifying the mobile phone[.]” *Look*, [0009]; *see also Look*, [0008]. Thus, a POSITA would have understood that the device of at least one of the payor and payee in *Look* is registered with the financial institution (mobile transaction platform) that authenticates the financial transaction.

B. Ground 2: Claims 1-3 and 22 Are Rendered Obvious by *Look*, *Stallings*, and *Tumminaro*

132. To the extent *Look* and *Stallings* do not render obvious claims 1-3 and 22, in my opinion, the combination of *Look*, *Stallings*, and *Tumminaro* renders them obvious.

1. Independent Claim 1

a. [1pre]-[1d] and [1f]

133. As discussed above for Ground 1, in my opinion, *Look* discloses, or *Look* and/or *Stallings* render obvious, limitations [1pre]-[1d] and [1f]. *Supra* §§IX.A.1.a-IX.A.1.e, IX.A.1.g;

b. [1e]: “the first user mobile station further transmitting the generated code to a mobile transaction platform to confirm the executability of the financial transaction”

134. In my opinion, to the extent *Look* does not disclose “a mobile transaction platform,” the combination of *Look* and/or *Stallings*, and in further view of *Tumminaro* renders it obvious.

135. For example, *Tumminaro* discloses “a mobile payment platform and service” used to conduct a financial transaction on a “person-to-person (P2P) basis where each party is identified by a unique indicator such as a telephone number or bar code.” *Tumminaro*, [1142]. *Tumminaro*’s mobile payment platform includes a “**Mobile Client Application (MCA)**, resident on the mobile device, [which] simplifies access and perform[s] financial transactions in a fast, secure manner.” *Id.* For example, as shown in Figure 4 below, the **MCA** allows **user A (payor)** to send money to **user B (payee)**. *Tumminaro*, [0252]-[0253], Fig. 4.

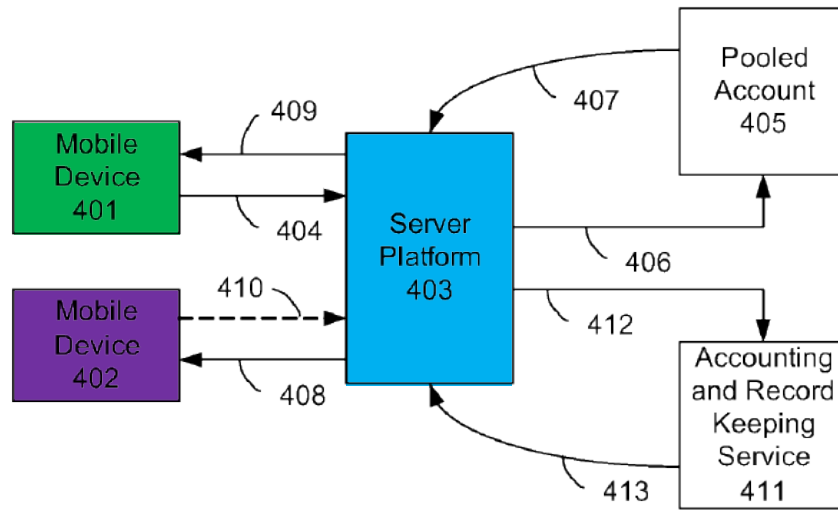


Fig. 4

Tumminaro, Fig. 4.

136. The MCA confirms the executability of the financial transaction by, for example, validating the payer's user account using a PIN number and confirming whether the payer has sufficient funds in its bank account. *Tumminaro*, [0335]-[0336].

137. In my opinion, a POSITA would have been motivated to modify *Look's* financial institution to incorporate *Tumminaro's* MCA (mobile transaction platform) that confirms the executability of the financial transaction. A POSITA would have found it advantageous to implement a dedicated mobile transaction platform for executing financial transactions to simplify access to various banking operations and thereby improve user experience and customer satisfaction. *Tumminaro*, [1142].

Furthermore, a POSITA would have recognized that *Tumminaro*'s MCA (mobile transaction platform) can centralize a financial institution's transactions in a single software application, allowing the financial institution to have better control over the transactions thereby improving speed and security of financial transactions. *Tumminaro*, [1142].

138. Both *Look* and *Tumminaro* are in the same field of endeavor with shared objectives of facilitating mobile electronic financial transactions. Moreover, both references employ cellular mobile phone end user devices as disclosed in *Look* (e.g., [0005]) and *Tumminaro* (e.g., [0003]). A POSITA would have recognized that these mobile phone devices available at the time of the '671 patent supported operating systems (e.g., Android introduced in 2008 (Ex-1028, 2)) capable of supporting applications, such as *Tumminaro*'s MCA, which would have been fully compatible with the application disclosed in *Look*.

139. In my opinion, a POSITA would have reasonably expected to succeed in modifying *Look*'s financial institution to incorporate *Tumminaro*'s MCA (mobile transaction platform). A POSITA would have recognized that both *Look* and *Tumminaro* are directed to conducting financial transactions using mobile devices. *Look*, [0006]; *Tumminaro*, Abstract, [0003]. A POSITA would have also understood that *Look*'s method uses a software application to receive user input and to facilitate communication with others involved in the financial transaction. *Look*, [0016]-

[0017]. *Tumminaro* further discloses a dedicated software application (MCA) designed for conducting mobile financial transactions, such as those disclosed in *Look*. *Tumminaro*, [1142]. Thus, modifying *Look*'s software application with *Tumminaro*'s MCA would have required nothing more than routine and conventional changes that were well known in the art. Further, combining these elements would have resulted in combining prior art elements according to known methods (i.e., implementing a known mobile software application in a known financial transaction system) to yield predictable results (i.e., an improved financial transaction system using a software application that increases convenience and security of financial transactions). Moreover, the combination would have been obvious to try, given the finite number of identified and predictable solutions (i.e., a mobile financial transaction method with or without a dedicated mobile software application) with a reasonable expectation of success.

c. **[1g]: “based on the recognized code, the second user mobile station determines whether to accept or decline the financial transaction;”**

140. In my opinion, to the extent *Look* and/or *Stallings* does not disclose or render obvious “based on the recognized code, the second user mobile station determin[ing] whether to accept or decline the financial transaction,” the combination of *Look* and/or *Stallings*, and in further view of *Tumminaro* renders it obvious.

141. For example, as explained in Ground 1, *Look* discloses that, based on the recognized code, “the payee can upload transaction information to the selected financial institution of the user to authorize or validate the transaction,” and the “payee electronically communicates with the selected financial institution of the user to implement the transaction.” *Look*, [0018]; *see supra* §IX.A.1.g. Further, it was well known for a payee of a financial transaction between two parties to determine whether to accept or decline the financial transaction.

142. For example, *Tumminaro* discloses that, when user A (payor) sends money to user B (payee), the MCA presents user B (payee) “with a screen asking whether B will accept payment from A, decline payment from A, or request a change in the pending transaction from A.” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406]. *Tumminaro* further discloses that “[i]f B accepts payment from A, system checks whether A has sufficient funds to cover the transaction,” and “[i]f A has sufficient funds, A is sent message” indicating “[p]ayment accepted.” *Tumminaro*, [0382] (Flow C). *Tumminaro* further discloses that “[i]f B declines the payment, the transaction is canceled and A is sent a message,” indicating “[p]ayment declined.” *Id.* The second user mobile station (user B’s mobile station) determines whether to accept or decline the financial transaction by virtue of the payee (user B) accepting or declining the payment. *Id.*

143. In my opinion, a POSITA would have been motivated to modify *Look*'s mobile financial transaction system to implement *Tumminaro*'s method of requesting the payee determine whether to accept or reject the payment request.

144. In my opinion, a POSITA would have recognized that *Look* and *Tumminaro* are both directed to conducting financial transactions using mobile devices. *Look*, [0006]; *Tumminaro*, [0003]. *Look* also already discloses that the payee communicates with the financial institution to "authorize or validate the transaction" and "implement the transaction." *Look*, [0018]. A POSITA therefore would have understood that *Look* at least recognizes the need to review and provide authorization before executing the financial transaction. Indeed, a POSITA would have recognized that the purpose of the payee and financial institution authorizing, validating, and/or implementing the transaction is to determine whether the transaction should be accepted or declined.

145. In my opinion, a POSITA would have understood that having the payee accept or decline the transaction would improve the accuracy and reliability of the transaction. For example, if certain details were incorrect, the payee would be able to decline the transaction to prevent any erroneous or fraudulent charges. Thus, a POSITA would have been motivated to modify *Look*'s system to have the payee accept or decline the transaction, as disclosed by *Tumminaro*.

146. In my opinion, a POSITA would have reasonably expected to succeed in combining *Look*'s mobile financial transaction system with *Tumminaro*'s method of requesting the payee to determine whether to accept or reject the payment request. Because the payee in *Look*'s system is already involved with authorizing, validating, and implementing the transaction (*Look*, [0018]), it would have been a straightforward modification to the software to determine whether to accept or decline the transaction based on user input. Indeed, *Look* already provides the hardware and software necessary for authorizing or validating financial transaction methods (*Look*, [0006], [0014]-[0016]), so modifying *Look* to allow the payee to accept or decline the financial transaction would have required nothing more than routine hardware and software changes that were well known in the art. Ex-1019, [0007], [0031], [0049]-[0050], [0057], Fig. 7, Figs. 11A-D. Implementing *Tumminaro*'s method allowing the payee to accept or reject the payment request in *Look*'s mobile financial transaction system would have been combining prior art elements according to known financial transaction processes (i.e., accepting or rejecting a payment request) to yield predictable results (i.e., screening any erroneous or fraudulent requests to improve the security of the financial mobile transactions).

- d. [1h]: “wherein when the financial transaction is accepted by the second mobile user station, the mobile transaction platform executing the financial transaction;”

147. In my opinion, to the extent *Look* and/or *Stallings* does not disclose or render obvious “wherein when the financial transaction is accepted by the second mobile user station, the mobile transaction platform execut[es] the financial transaction,” the combination of *Look* and/or *Stallings*, and in further view of *Tumminaro* renders it obvious.

148. For example, *Tumminaro* discloses that “[i]f B accepts payment from A, system checks whether A has sufficient funds to cover transaction,” and “[i]f A has sufficient funds, A is sent message: “Payment accepted. [tel #], [value], [trans #],” the “transaction amount is debited from A’s account and credited to B’s account.” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406].

149. In my opinion, a POSITA would have been motivated to modify *Look*’s mobile financial transaction system to implement *Tumminaro*’s method of executing the financial transaction when the payee accepts the financial transaction request with a reasonable expectation of success for at least the reasons discussed above for [1g]. *See supra* §IX.B.1.c.

- e. **[1i]: “wherein when the financial transaction is declined by the second user mobile station, the mobile transaction platform preventing the execution of the financial transaction; and”**

150. In my opinion, to the extent *Look* and/or *Stallings* does not disclose or render obvious “wherein when the financial transaction is declined by the second user mobile station, the mobile transaction platform prevent[s] the execution of the financial transaction,” the combination of *Look* and/or *Stallings*, and in further view of *Tumminaro* renders it obvious.

151. For example, *Tumminaro* discloses that when “B is notified that A wants to send B money,” “B is presented with a screen asking whether B will accept payment from A, decline payment from A, or request a change in the pending transaction from A.” *Tumminaro*, [0354] (Flow A). “If B declines the payment, the transaction is canceled and A is sent a message: “Payment declined. [tel #], [value], [trans #].” *Tumminaro*, [0354] (Flow A); *see also Tumminaro*, [0022], [0027], [0028], [0384], [0400], [0405], [0406].

152. In my opinion, a POSITA would have been motivated to modify *Look*’s mobile financial transaction system to implement *Tumminaro*’s method of preventing execution of the financial transaction when the payee declines the financial transaction with a reasonable expectation of success for at least the reasons discussed above for [1g]. *See supra* §IX.B.1.c.

- f. [1j]: “the second user mobile station transmitting a reverse code to the first user mobile station, to confirm whether the financial transaction was either accepted or declined by the second user mobile station.”

153. In my opinion, to the extent *Look* and/or *Stallings* does not disclose or render obvious “the second user mobile station transmitting a reverse code to the first user mobile station, to confirm whether the financial transaction was either accepted or declined by the second user mobile station,” the combination of *Look* and/or *Stallings*, and in further view of *Tumminaro* renders it obvious.

154. For example, as explained in Ground 1, *Look* discloses “the payee transmitting receipt data of the transaction to the mobile phone using a secure two-dimensional code.” *Look*, [0038].

155. Further, as discussed above, *Tumminaro* discloses that, when user A (payor) sends money to user B (payee), the MCA presents user B (payee) “with a screen asking whether B will accept payment from A, decline payment from A, or request a change in the pending transaction from A.” *Tumminaro*, [0354] (Flow A); *see also id.*, [0022], [0027], [0028], [0384], [0400], [0405], [0406].

156. In my opinion, a POSITA would have been motivated to modify *Look*’s mobile financial transaction system to implement *Tumminaro*’s method of confirming whether the financial transaction was either accepted or declined by the payee for at least the reasons discussed above for [1g]. *See supra* §IX.B.1.c.

157. In my opinion, a POSITA would have recognized that *Look* and *Tumminaro* are both directed to conducting financial transactions using mobile devices. *Look*, [0006]; *Tumminaro*, [0003]. A POSITA would have found it obvious to modify *Look*'s second mobile station to indicate whether the financial transaction was either accepted or declined in the reverse code to the first mobile station as part of authorizing, validating, and/or implementing the transaction. A POSITA would have understood that it would have been advantageous for the payee device to indicate whether the financial transaction has been accepted or declined to the payor device, so that the first mobile station knows the status of the financial transaction. Thus, a POSITA would have been motivated to modify *Look*'s system, such that the payee device transmits a reverse code to the payor device confirming whether the financial transaction was accepted or declined, as taught by *Tumminaro. Id.*

158. In my opinion, a POSITA would have reasonably expected to succeed in combining *Look*'s mobile financial transaction system with *Tumminaro*'s method of confirming whether the financial transaction was either accepted or declined by the payee for at least the reasons discussed above for [1g]. *See supra* §IX.B.1.c.

159. In my opinion, a POSITA would have had a reasonable expectation of success as it would have been straightforward for a POSITA to modify *Look*'s system, such that the payee device sends a reverse code to the payor device confirming whether the financial transaction was accepted or declined, as taught by

Tumminaro. Because the payee in *Look*'s system is already involved with authorizing, validating, and implementing the transaction (*Look*, [0018]), it would have been a straightforward modification to the software for *Look*'s payee device to send a code back to the payor device confirming whether the financial transaction was accepted or declined.

2. Claim 2

160. It is my opinion that as discussed above for Ground 1, *Look* discloses or *Look* and *Stallings* render obvious the additional limitation of claim 2. *See supra* §IX.A.2.a.

3. Claim 3

161. It is my opinion that as discussed above for Ground 1, *Look* and *Stallings* render obvious the additional limitations of claim 3. *See supra* §IX.A.3.a.

4. Claim 22

- a. “The method of claim 1, wherein any one of the first and second user mobile stations is registered with the mobile transaction platform that authenticates the financial transaction.”**

162. In my opinion, *Look* and/or *Stallings*, and in further view of *Tumminaro* render obvious the additional limitations of claim 22. *See supra* §IX.A.4.a.

163. To the extent *Look* does not disclose or render obvious this limitation, *Tumminaro* renders it obvious. *Tumminaro* discloses a “mobile payment system,” in which “registered users or members may send payment to other member or

unregistered users or nonmembers.” *Tumminaro*, Abstract, [0021]. For example, *Tumminaro* discloses “a person-to-person payment system [that] allows existing members of a payment system to send funds to nonmembers with the intent that the nonmember becomes a member.” *Tumminaro*, [0021]. *Tumminaro* further discloses that “[u]pon registering, the account holder enters their mobile phone number and a server pushes the mobile client application to their phone,” indicating that the user registration process includes registering the user’s mobile station. *Tumminaro*, [0201].

164. As shown in Figure 57 below, *Tumminaro*’s payment system uses “**an enterprise application**” (i.e., mobile transaction platform) that communicates with “**a consumer computer device (e.g., telephony device, smartphone, or portable computer)**” and authenticates the financial transaction. *Tumminaro*, [0665], Fig. 57. *Tumminaro* discloses that the “**consumer computer device**” includes “a sequence number authentication (SNA) client software component,” and the “**enterprise application**” includes a sequence number authentication server software component,” both of which “handle the authentication when the consumer device sends a transaction to the server.” *Tumminaro*, [0665], Fig. 57.

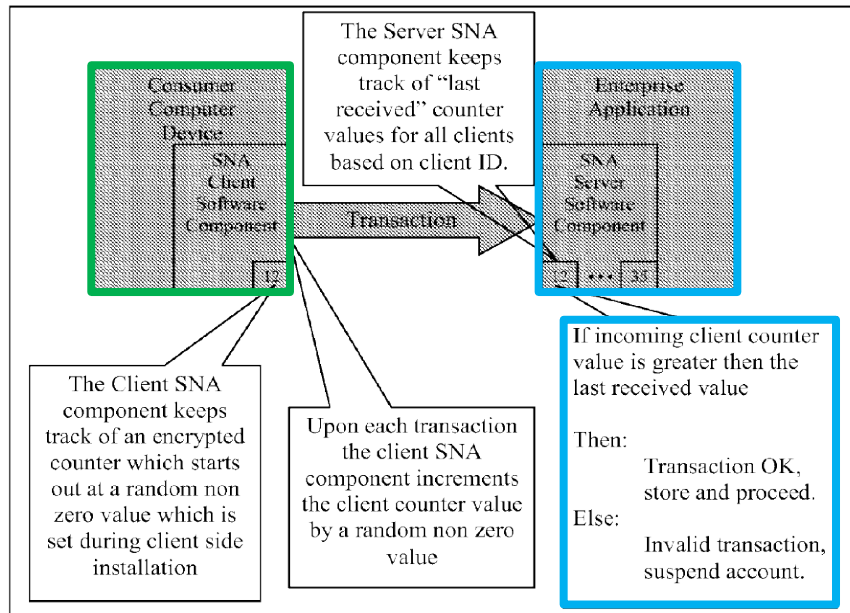


Fig. 57

Tumminaro, Fig. 57.

165. In my opinion, a POSITA would have been motivated to modify *Look*'s mobile financial transaction system to implement *Tumminaro*'s method that requires registration.

166. *Look* discloses "[t]he present invention is directed to methods and systems for conducting secure business transactions with electronic devices such as mobile handheld electronic devices." *Look*, [0002]. A need for security is further reinforced in the title of *Look*'s patent: "Methods and Systems for Secure Transactions with Electronic Devices." *Look*, Title. Given *Look*'s objectives to support secure transactions, a POSITA would have recognized the obvious need to incorporate the well-known aspects of registration as disclosed by *Tumminaro* into *Look*'s methods and systems.

167. Moreover, a POSITA would have found it advantageous to require any one of the users of the payor and payee devices to be registered with the mobile transaction platform. When any one of the users of the payor and payee devices is registered, the mobile transaction platform will execute the financial transaction faster because it can rely on financial information (e.g., name and address, bank account information) that has been previously authenticated during the registration process, thereby bypassing certain steps during a mobile financial transaction process. *Tumminaro*, [0201], [0228], [0274].

168. In my opinion, a POSITA would have reasonably expected to succeed in modifying *Look*'s mobile financial transaction system to implement *Tumminaro*'s registration method that requires registration. *Look*'s system authenticates a financial transaction using "secure identification such as a pin code or biometric identification or data using such devices as a keypad or fingerprint reader or the like according to requirements of the financial institution," stored in the user's mobile phone. *Look*, [0041], [0021]. A POSITA would have recognized that modifying *Look*'s authentication step with *Tumminaro*'s method that requires registration involves nothing more than applying a known technique to a known financial transaction system to yield an improved financial transaction system with improved efficiency and security. *Look* already provides the hardware and software necessary for mobile station registration, such as "a pin number, security code, or the like to authorize a

desired transaction(s)” (*Look*, [0017]), so modifying *Look* such that any one of the payor and payee devices is registered with the mobile transaction platform would have required nothing more than routine hardware and software changes that were well known in the art. Ex-1019, [0008], [0022], [0039], [0055].

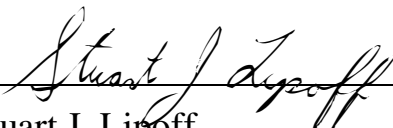
X. CONCLUSION

169. For the reasons set forth above, it is my opinion that claims 1-3 and 22 of the '671 patent are unpatentable in view of the prior art.

170. In signing this declaration, I understand that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I acknowledge that I may be subject to cross-examination in this case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

171. I declare that all statements made herein of my knowledge are true, that all statements made on information and belief are believed to be true, and 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.

Dated: October 2, 2025

By: 
Stuart J. Lipoff