US 20130325632A1

(19) **United States**

(12) **Patent Application Publication**

**Thomas**

(10) **Pub. No.: US 2013/0325632 A1**

(43) **Pub. Date: Dec. 5, 2013**

(54) **METHOD AND SYSTEM FOR PROVIDING NOTIFICATION OF PUBLICATIONS**

(71) Applicant: **C. Douglass Thomas**, Saratoga, CA (US)

(72) Inventor: **C. Douglass Thomas**, Saratoga, CA (US)

(21) Appl. No.: **13/962,867**

(22) Filed: **Aug. 8, 2013**

**Related U.S. Application Data**

(63) Continuation of application No. 09/969,049, filed on Oct. 1, 2001, now Pat. No. 8,521,576.

(60) Provisional application No. 60/238,565, filed on Oct. 7, 2000.

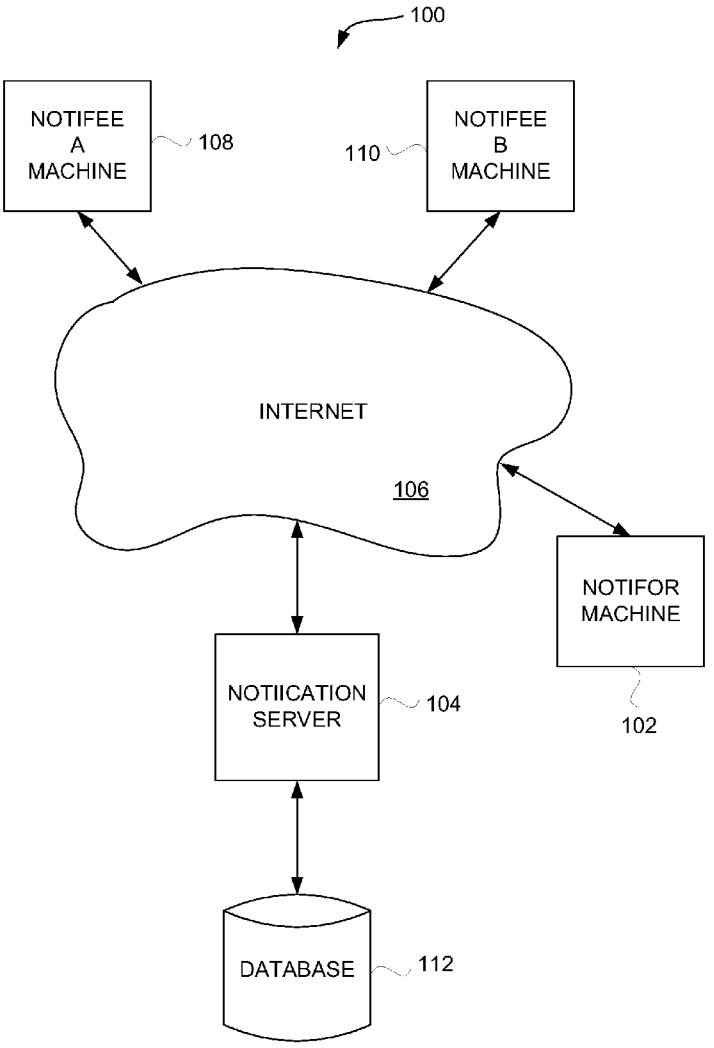
**Publication Classification**

(51) **Int. Cl.**
*G06Q 30/02* (2006.01)

(52) **U.S. Cl.**
CPC ..... ***G06Q 30/0269*** (2013.01)
USPC ..... **705/14.66**

(57) **ABSTRACT**

Improved approaches to notifying others of publications are disclosed. These improved approaches enable notifications to be timely and reliably made. In one embodiment, a notifor requests notification of certain publications be performed in an automated and controlled manner, and then notifications for such certain publications are automatically prepared and electronically transmitted to one or more notifees.



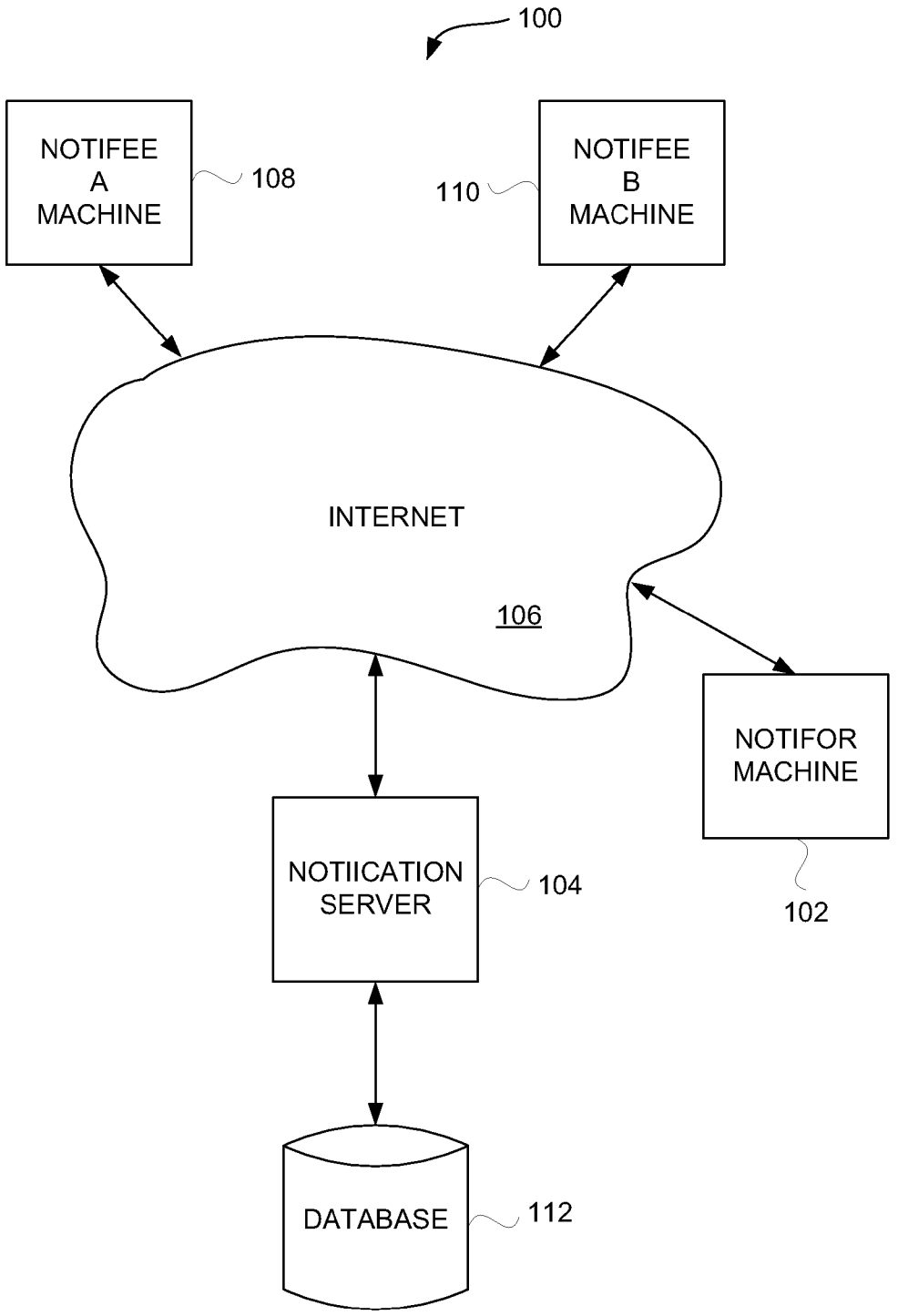

100
NOTIFEE A MACHINE
108
110
NOTIFEE B MACHINE
INTERNET
106
NOTIFOR MACHINE
102
NOTIICATION SERVER
104
DATABASE
112

FIG. 1

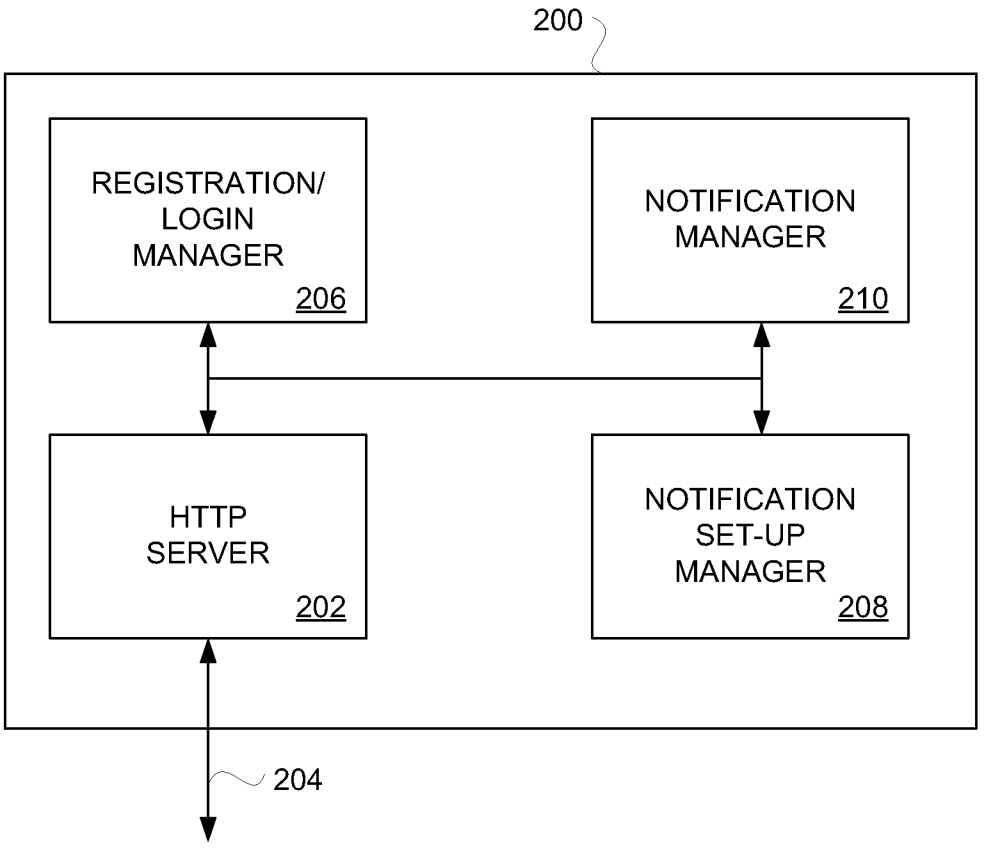

200
REGISTRATION/
LOGIN
MANAGER
206
NOTIFICATION
MANAGER
210
HTTP
SERVER
202
NOTIFICATION
SET-UP
MANAGER
208
204

FIG. 2

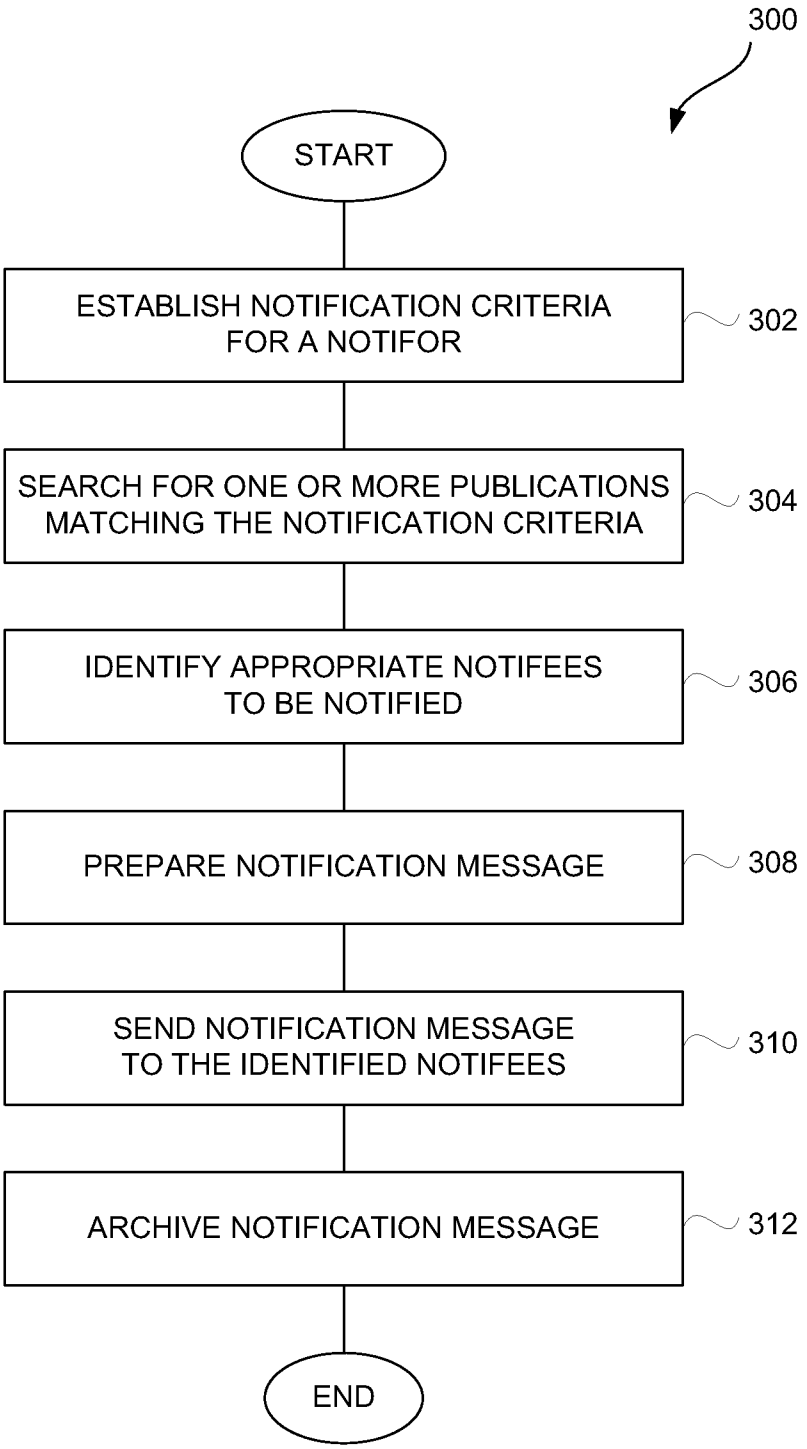

300
START
ESTABLISH NOTIFICATION CRITERIA FOR A NOTIFOR
302
SEARCH FOR ONE OR MORE PUBLICATIONS MATCHING THE NOTIFICATION CRITERIA
304
IDENTIFY APPROPRIATE NOTIFEES TO BE NOTIFIED
306
PREPARE NOTIFICATION MESSAGE
308
SEND NOTIFICATION MESSAGE TO THE IDENTIFIED NOTIFEES
310
ARCHIVE NOTIFICATION MESSAGE
312
END

FIG. 3

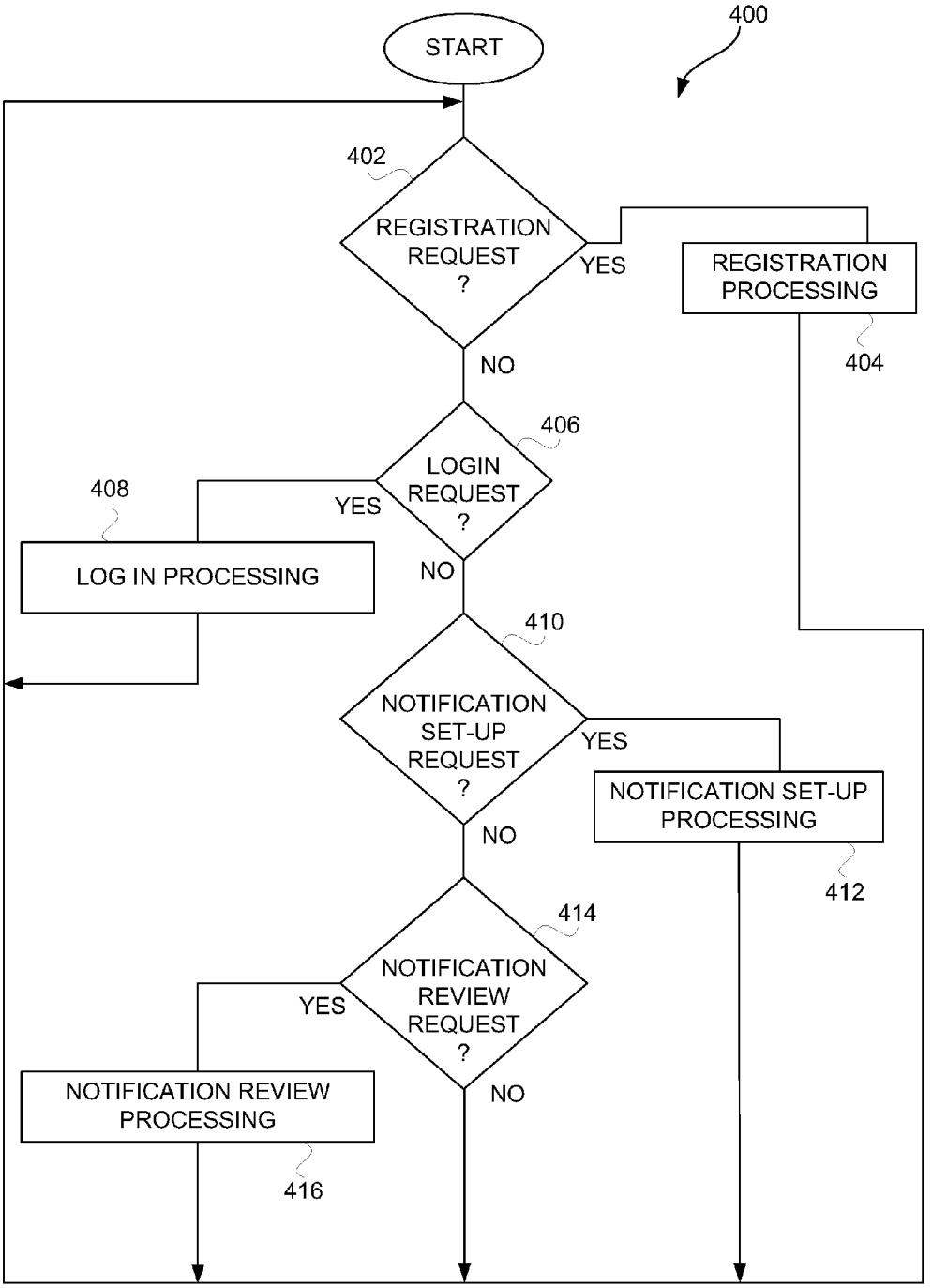

400
START
402
REGISTRATION REQUEST ?
YES
REGISTRATION PROCESSING
404
NO
406
LOGIN REQUEST ?
YES
408
LOG IN PROCESSING
NO
410
NOTIFICATION SET-UP REQUEST ?
YES
NOTIFICATION SET-UP PROCESSING
412
NO
414
NOTIFICATION REVIEW REQUEST ?
YES
NOTIFICATION REVIEW PROCESSING
416
NO

FIG. 4A

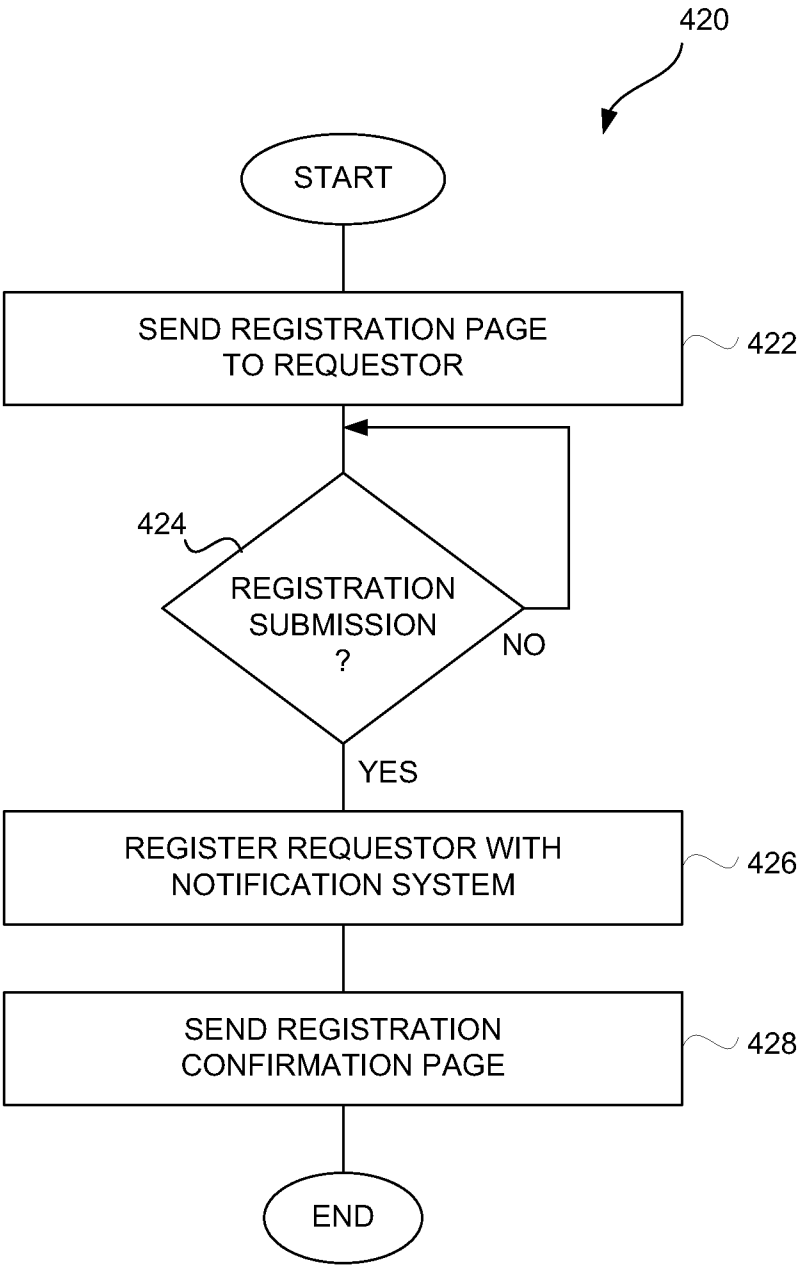

420
START
SEND REGISTRATION PAGE TO REQUESTOR
422
424
REGISTRATION SUBMISSION ?
NO
YES
REGISTER REQUESTOR WITH NOTIFICATION SYSTEM
426
SEND REGISTRATION CONFIRMATION PAGE
428
END

FIG. 4B

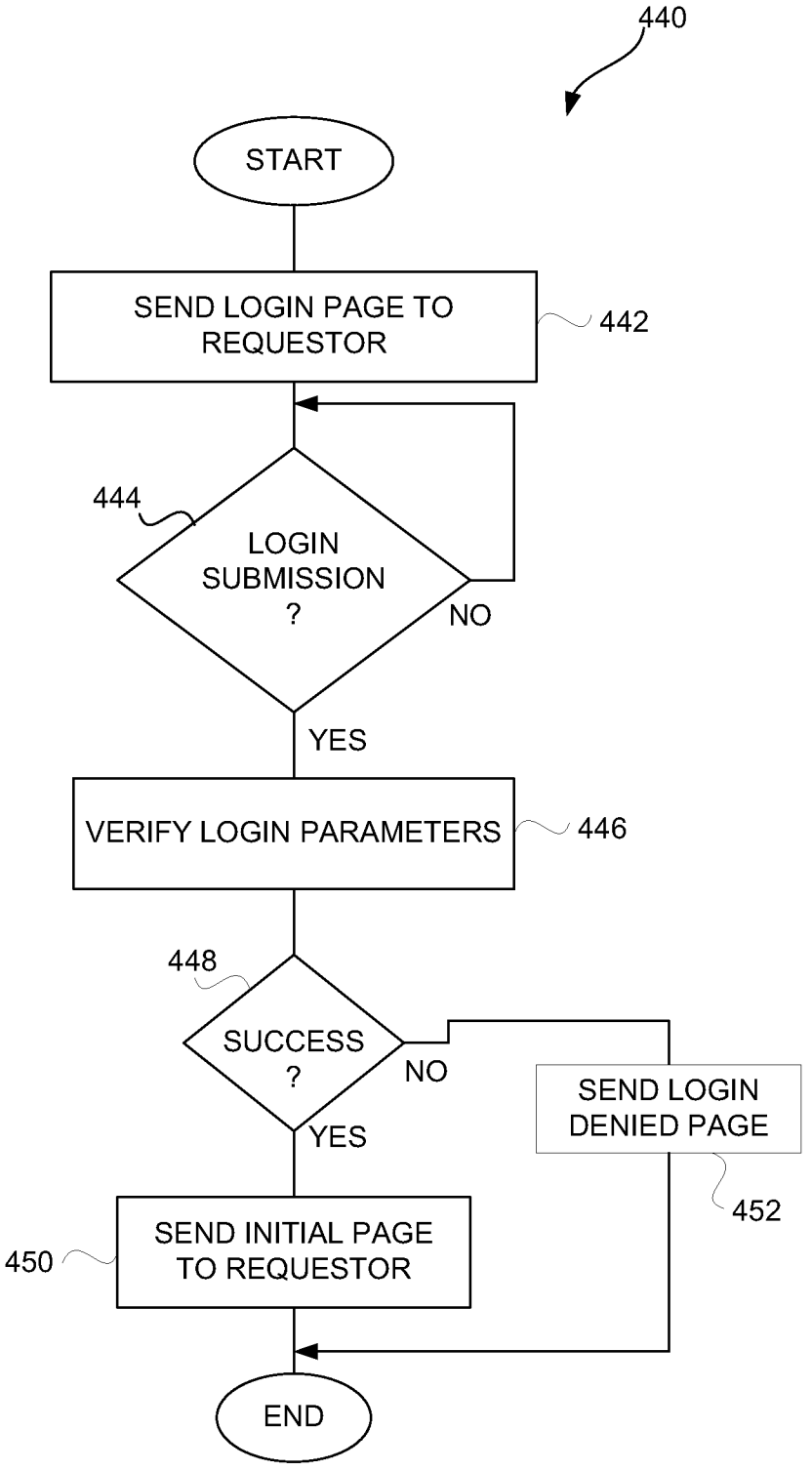

440
START
SEND LOGIN PAGE TO REQUESTOR
442
444
LOGIN SUBMISSION ?
NO
YES
VERIFY LOGIN PARAMETERS
446
448
SUCCESS ?
NO
YES
SEND LOGIN DENIED PAGE
452
SEND INITIAL PAGE TO REQUESTOR
450
END

FIG. 4C

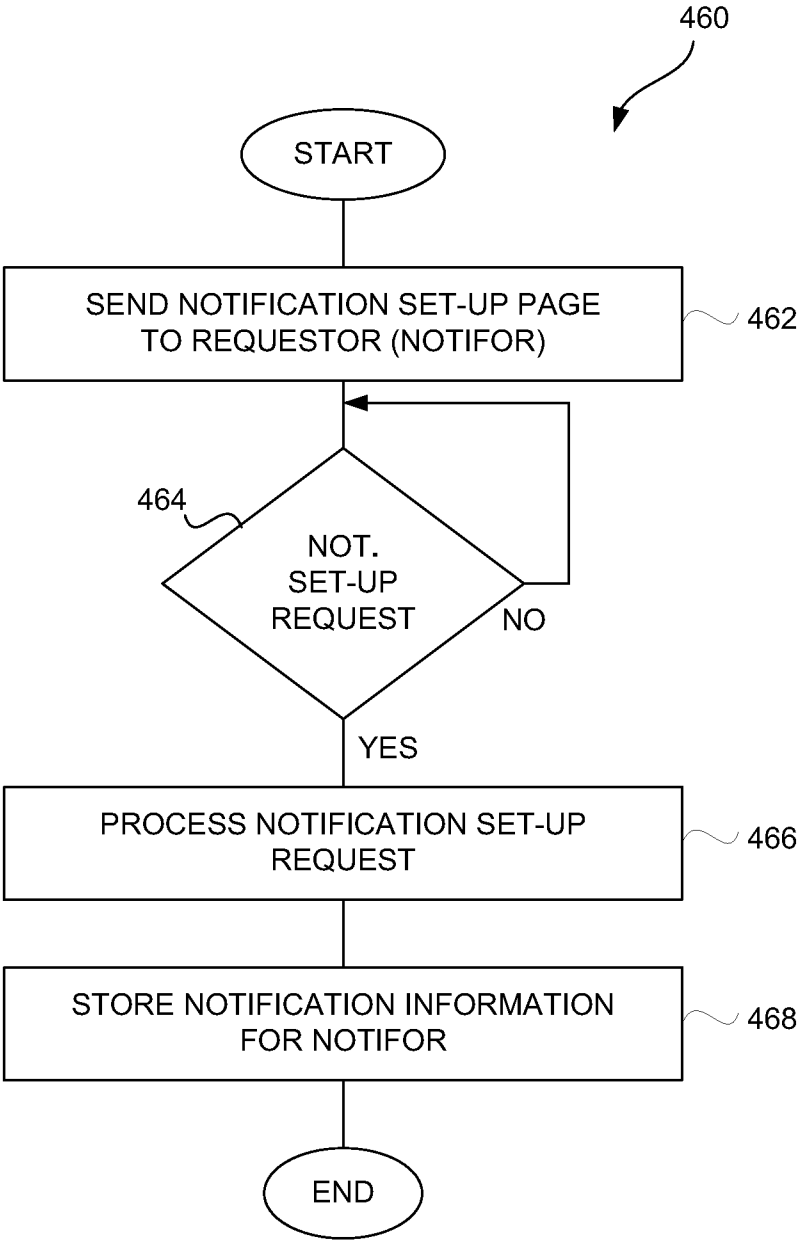

460
START
SEND NOTIFICATION SET-UP PAGE TO REQUESTOR (NOTIFOR)
462
464
NOT. SET-UP REQUEST
NO
YES
PROCESS NOTIFICATION SET-UP REQUEST
466
STORE NOTIFICATION INFORMATION FOR NOTIFOR
468
END

FIG. 4D

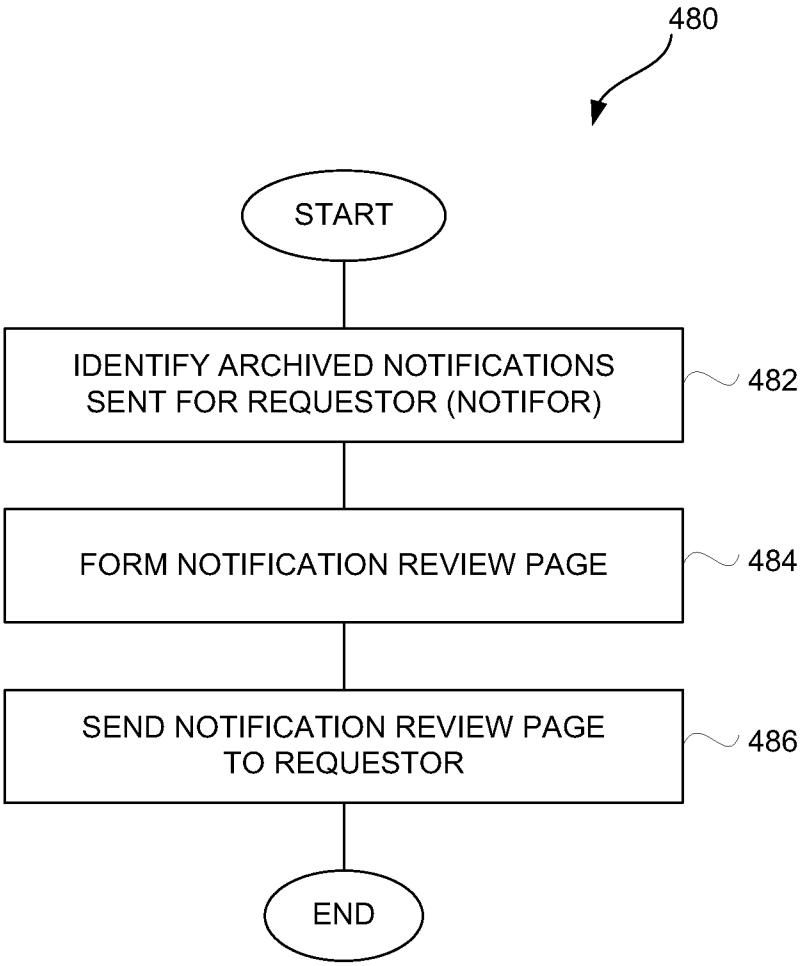

480
START
IDENTIFY ARCHIVED NOTIFICATIONS SENT FOR REQUESTOR (NOTIFOR)
482
FORM NOTIFICATION REVIEW PAGE
484
SEND NOTIFICATION REVIEW PAGE TO REQUESTOR
486
END

FIG. 4E

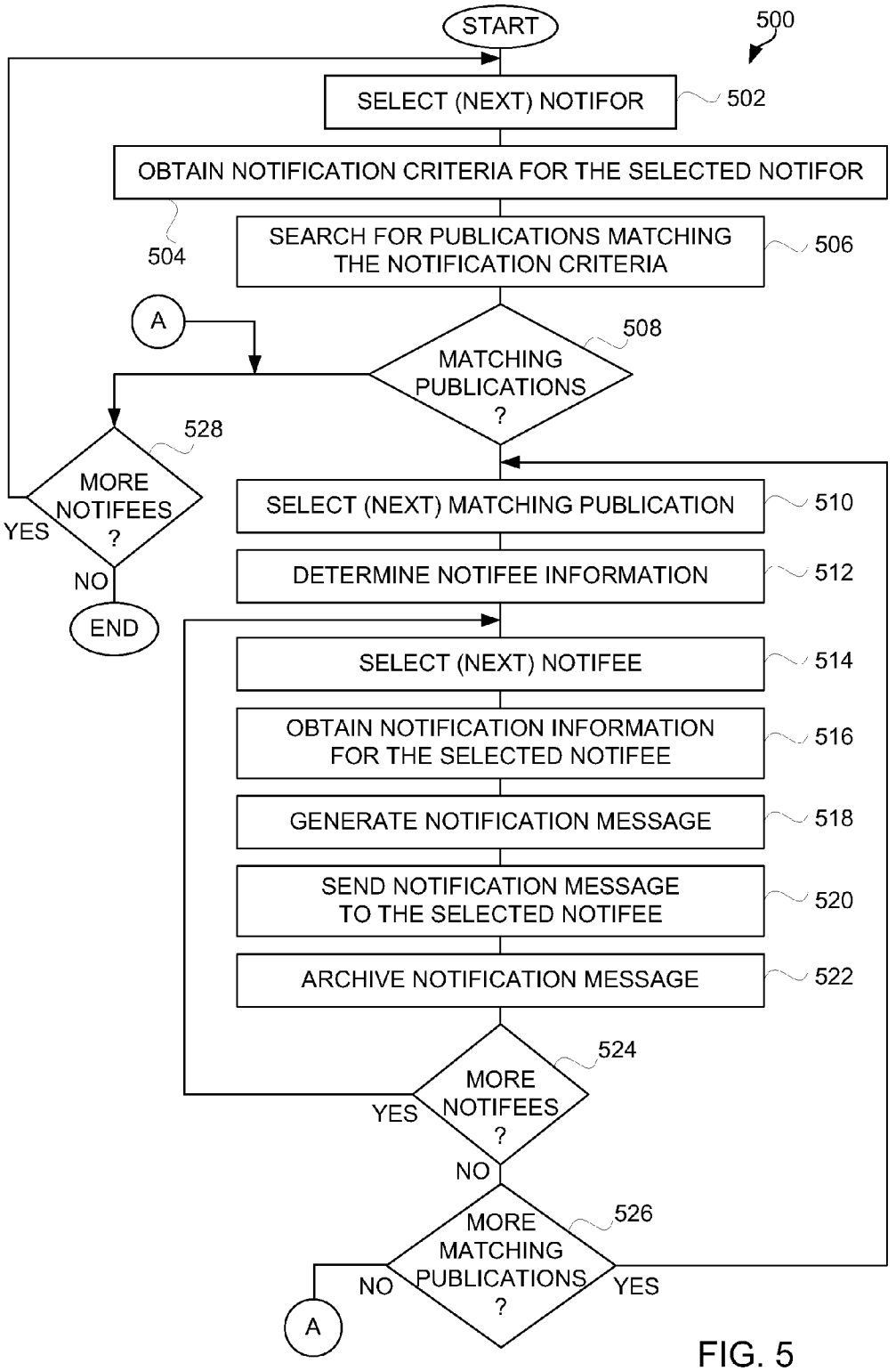

START
500
SELECT (NEXT) NOTIFOR
502
OBTAIN NOTIFICATION CRITERIA FOR THE SELECTED NOTIFOR
504
SEARCH FOR PUBLICATIONS MATCHING THE NOTIFICATION CRITERIA
506
A
MATCHING PUBLICATIONS ?
508
528
MORE NOTIFEES ?
YES
NO
END
SELECT (NEXT) MATCHING PUBLICATION
510
DETERMINE NOTIFEE INFORMATION
512
SELECT (NEXT) NOTIFEE
514
OBTAIN NOTIFICATION INFORMATION FOR THE SELECTED NOTIFEE
516
GENERATE NOTIFICATION MESSAGE
518
SEND NOTIFICATION MESSAGE TO THE SELECTED NOTIFEE
520
ARCHIVE NOTIFICATION MESSAGE
522
524
MORE NOTIFEES ?
YES
NO
526
MORE MATCHING PUBLICATIONS ?
NO
YES
A

FIG. 5

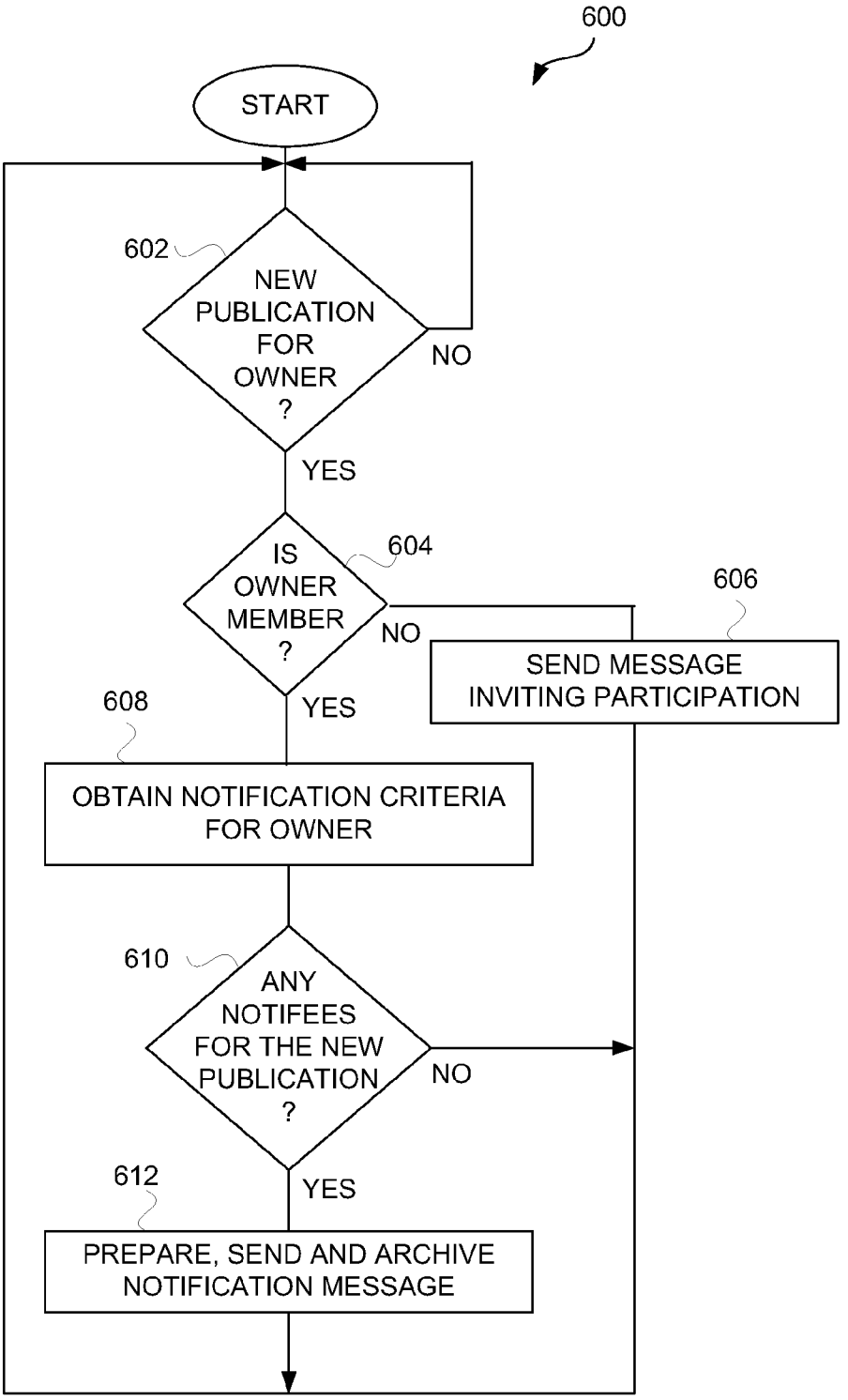

600
START
602
NEW PUBLICATION FOR OWNER ?
NO
YES
IS OWNER MEMBER ?
604
606
NO
SEND MESSAGE INVITING PARTICIPATION
608
YES
OBTAIN NOTIFICATION CRITERIA FOR OWNER
610
ANY NOTIFEES FOR THE NEW PUBLICATION ?
NO
612
YES
PREPARE, SEND AND ARCHIVE NOTIFICATION MESSAGE

FIG. 6

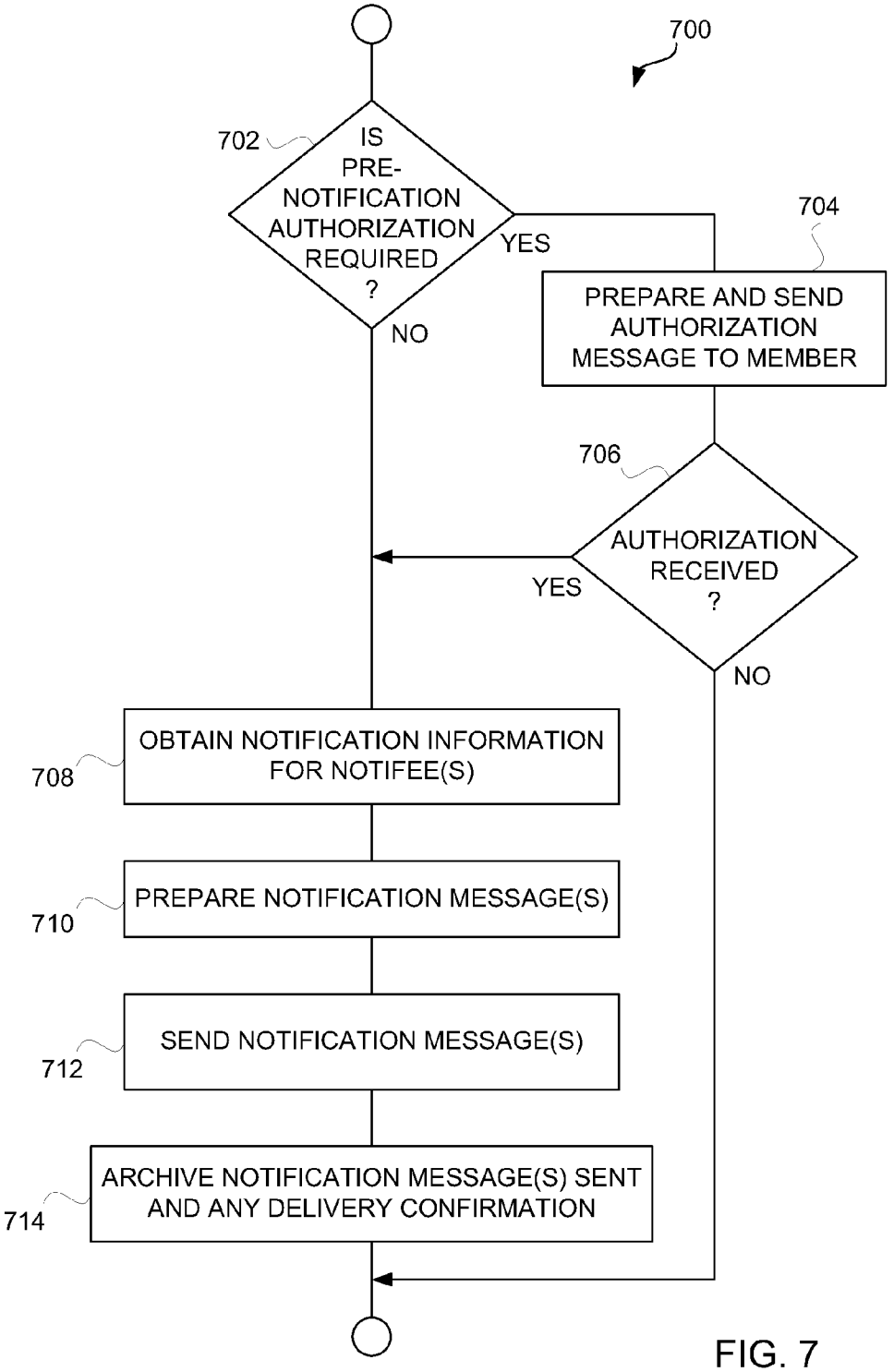

700
702
IS PRE-NOTIFICATION AUTHORIZATION REQUIRED ?
YES
NO
704
PREPARE AND SEND AUTHORIZATION MESSAGE TO MEMBER
706
AUTHORIZATION RECEIVED ?
YES
NO
708
OBTAIN NOTIFICATION INFORMATION FOR NOTIFEE(S)
710
PREPARE NOTIFICATION MESSAGE(S)
712
SEND NOTIFICATION MESSAGE(S)
714
ARCHIVE NOTIFICATION MESSAGE(S) SENT AND ANY DELIVERY CONFIRMATION

FIG. 7

# METHOD AND SYSTEM FOR PROVIDING NOTIFICATION OF PUBLICATIONS

## CROSS REFERENCE TO RELATED APPLICATIONS

**[0001]** This application is a continuation of U.S. application Ser. No. 09/969,049, filed Oct. 1, 2001, and entitled "METHOD AND SYSTEM FOR PROVIDING NOTIFICATION OF PUBLICATIONS," which is hereby incorporated herein by reference, which in turn claims priority benefit of U.S. Provisional Patent Application No. 60/238,565, filed Oct. 7, 2000, and which is hereby incorporated herein by reference.

## BACKGROUND OF THE INVENTION

**[0002]** 1. Field of the Invention

**[0003]** The present invention relates to notifications and, more particularly, to methods and systems for notifying persons of certain publications.

**[0004]** 2. Description of the Related Art

**[0005]** Today, publications occur frequently and often. As a result, it is difficult to manage and monitor those of the publications that are of interest. Conventionally, key word searches are performed to locate publications of interest. Recently, services have been available to periodically perform searches of publications and notify the requestor of the results (i.e., the matching publications). Such searches are used with trademark searches (i.e., trademark watching), patent searches (i.e., patent watching), or court opinion searches.

**[0006]** Beyond identification of publications through searches, notice of certain publications can have legal ramifications. The notification of others of the existence of these publications is normally performed one-by-one. Often these notifications are letters that are prepared and send by postal or courier mail service or facsimile. Hence, the conventional approaches to notifying others of publications is inefficient and relatively burdensome. Still further, these conventional approaches to providing notifications are often neglected such that no notifications are performed.

**[0007]** Thus, there is a need for improved approaches to notify others of publications.

## SUMMARY

**[0008]** Broadly speaking, the invention relates to improved approaches to notifying others of publications. These improved approaches enable notifications to be timely and reliably made. In one embodiment, a notifor requests notification of certain publications be performed in an automated and controlled manner, and then notifications for such certain publications are automatically prepared and electronically transmitted to one or more notifees.

**[0009]** The invention can be implemented in numerous ways, including as a method, system, device, user interface, and computer readable medium. Several embodiments of the invention are discussed below.

**[0010]** As a computer-implemented method for notifying notifees of publications, one embodiment of the invention includes at least the acts of: identifying for a publication matching predetermined notification criteria; identifying an appropriate notifee to be notified of the publication matching predetermined notification criteria; preparing a notification message; and sending the notification message to the appropriate notifee.

**[0011]** As a computer-implemented method for notifying notifees of publications, one embodiment of the invention includes at least the acts of: identifying a publication; obtaining notification information pertaining to a notifor; identifying a notifee that is to be notified of the publication based on the notification information for the notifor; preparing a notification message; and transmitting the notification message to the notifee.

**[0012]** As a computer-implemented method for a notification system that notifies notifees of publications, one embodiment of the invention includes at least the acts of: identifying a publication; determining whether the publication is associated with a notifor that has previously provided notification information, including at least notification criteria and notifee information, to the notification system for notifications with respect to at least those publications associated with the notifor; and transmitting a first message to the notifor inviting the notifor to participate with the notification system when it is determined that the notifor has not previously provided notification information to the notification system. When it is determined that the notifor has previously provided notification information to the notification system, the embodiment of the invention further includes at least the acts of: identifying a notifee that is to be notified of the publication based on the notifee information; preparing a notification message; and transmitting the notification message to the notifee.

**[0013]** As a notification system, one embodiment of the invention includes at least a database for storing notification send criteria and notification sent data, and a notification server operatively connected to the database. The notification server operates to automatically send notifications of publications that satisfy the notification send criteria and to create the notification sent data pertaining to the notifications of publications.

**[0014]** As a computer readable medium including at least computer program code for notifying notifees of publications, one embodiment of the invention includes at least: computer program code for identifying a publication matching predetermined notification criteria; computer program code for identifying an appropriate notifee to be notified of the publication matching predetermined notification criteria; computer program code for preparing a notification message; and computer program code for sending the notification message to the appropriate notifee.

**[0015]** Other aspects and advantages of the invention will become apparent from the following detailed description taken in conjunction with the accompanying drawings which illustrate, by way of example, the principles of the invention.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0016]** The invention will be readily understood by the following detailed description in conjunction with the accompanying drawings, wherein like reference numerals designate like structural elements, and in which:

**[0017]** FIG. **1** is a block diagram of a notification system according to one embodiment of the invention.

**[0018]** FIG. **2** is a block diagram of a notification server according to one embodiment of the invention.

**[0019]** FIG. **3** is a flow diagram of basic notification processing according to one embodiment of the invention.

**[0020]** FIG. **4**A is a flow diagram of notification management processing according to one embodiment of the invention.

**[0021]** FIG. **4**B is a flow diagram of registration processing according to one embodiment of the invention.

**[0022]** FIG. **4**C is a flow diagram of login processing according to one embodiment of the invention.

**[0023]** FIG. **4**D is a flow diagram of notification set-up processing according to one embodiment of the invention.

**[0024]** FIG. **4**E is a flow diagram of notification review processing according to one embodiment of the invention.

**[0025]** FIG. **5** is a flow diagram of detailed notification processing according to one embodiment of the invention.

**[0026]** FIG. **6** is a flow diagram of notification processing according to one embodiment of the invention.

**[0027]** FIG. **7** is a flow diagram of notification message send processing according to one embodiment of the invention.

## DETAILED DESCRIPTION

**[0028]** The invention relates to notifying others of publications. These improved approaches enable notifications to be timely and reliably made. In one embodiment, a notifor requests notification of certain publications be performed in an automated and controlled manner, and then notifications for such certain publications are automatically prepared and electronically transmitted to one or more notifees.

**[0029]** Embodiments of this aspect of the invention are discussed below with reference to FIGS. **1**-**7**. However, those skilled in the art will readily appreciate that the detailed description given herein with respect to these figures is for explanatory purposes as the invention extends beyond these limited embodiments.

**[0030]** FIG. **1** is a block diagram of a notification system **100** according to one embodiment of the invention. The notification system **100** includes a notifor machine **102** that interacts with a notification server **104** through the Internet **106**. The Internet **106** is a network of interconnected computers. The notifor machine **102** is a computing device that couples to the Internet **106**. In one embodiment, the notifor machine **102** couples to the Internet **106** through an Internet Service Provider (ISP). The notification server **104** also couples to the Internet **106**. The notification server **104** is a computer system, referred to as a server or web server.

**[0031]** The notification system **100** also includes a notifee A machine **108** and a notifee B machine **110**. The notifee machines **108** and **110** are computing devices that couple to the Internet **106**. The notification system **100** operates to automatically notify one or more notifees via the notifee machines **108** and **110**. The notification server **104** provides such notifications to the appropriate notifees based on instructions provided by the notifor machine **102** to the notification server **104**. The notification server **104** also interacts with a database **112** such that the automatic notifications can be sent to the appropriate notifees. Typically, the notifications to particular notifees are requested by particular notifors.

**[0032]** Although the notification system **100** uses the Internet **106** to provide data transfer, it should be understood that other data networks (wired or wireless) can likewise be used. The data transfer can also be achieved through various different interconnected networks.

**[0033]** FIG. **2** is a block diagram of a notification server **200** according to one embodiment of the invention. The notification server **200** is, for example, a representative detailed embodiment of the notification server **104** illustrated in FIG. **1**.

**[0034]** The notification server **200** includes an HTTP server **202** that couples to a network (e.g., the Internet **106**) via a communication link **204**. The HTTP server **202** can interact with a registration/log-in manager **206**, a notification set-up manager **208**, and a notification manager **210**. The registration/log-in manager **206** operates to facilitate either the registration or log-in of a particular user to the notification system. The user can, for example, be a notifor or a notifee. The notification set-up manager **208** is primarily utilized by a notifor to set up the particular types of notifications they desire to automatically deliver to particular notifees. The notification manager **210** operates to identify when and what notifications need to be delivered and then operates to deliver the notifications to appropriate notifees.

**[0035]** In one embodiment, the notifications pertain to certain publications. Notifors often desire to have notifees informed of such publications. Thus, the notification system can automatically notify notifees of publications (e.g., often the publications are associated with the notifors). The notification system documents the notifications and provides historical or archive type storage for prior notifications. Typically, the registration/log-in manager **206**, the notification set-up manager **208**, and the notification manager **210** store data to and retrieve data from a database (database **112** in FIG. **1**).

**[0036]** FIG. **3** is a flow diagram of basic notification processing **300** according to one embodiment of the invention. The basic notification processing **300** is, for example, performed by the notification server **104** illustrated in FIG. **1** or the notification server **200** illustrated in FIG. **2**.

**[0037]** The basic notification processing **300** initially establishes **302** notification criteria for a notifor. The notification criteria, for example, identifies particular notifees or categories of industry that are to be notified when particular documents become published. Examples of categories of industry are: computer manufacturers; microprocessor companies; integrated circuit processing equipment companies; disk drive manufacturers; toy companies; bicycle manufacturers; semiconductor memory companies; oil companies; pharmaceutical companies; etc. The categories of industry can be predetermined or can be provided or established by a notifor.

**[0038]** Next, a search **304** is performed to identify one or more publications that match the notification criteria. For example, in one embodiment, the notification criteria might indicate that certain published U.S. patent applications of the notifor are to be selected. After the one or more publications that match the notification criteria have been identified, appropriate notifees to be notified are identified **306**. Typically, the notification criteria also indicates, or can be used to identify, the appropriate notifees. The appropriate notifees can be specific businesses or entities, can be specific individuals of businesses or entities, or can be those businesses or entities (or specific individuals therein) within an industrial group (category of industry). In general, the appropriate notifees can be specifically identified or can be associated with a selected category of industry. For example, if one or more categories of industry are indicated in the notification criteria, then the appropriate notifiees can include those companies (namely, identified representatives therefor) associated with the one or more categories of industry.

**[0039]** After the appropriate notifees have been identified **306**, a notification message is prepared **308**. The notification message that is prepared **308** can be the same or can be different for the different ones of the appropriate notifees. In one embodiment, the type of notification message can be selected by the requesting notifor. In any case, assuming that the notification message is substantially the same for each of the appropriate notifees (which need not be the case), the notification message is then sent **310** to the identified notifees.

**[0040]** After the notification message has been sent, the notification message can be archived **312**. By archiving the notification message, the notification server can log the sending of the message to the appropriate notifees such that the information regarding the sending of the notification messages (and optionally their receipt) can be subsequently retrieved. This provides a means to later prove that a notification message was sent and/or received.

**[0041]** FIG. **4**A is a flow diagram of notification management processing **400** according to one embodiment of the invention. The notification management processing **400** is, for example, performed by the notification server **104** illustrated in FIG. **1** or the notification server **200** illustrated in FIG. **2**.

**[0042]** The notification management processing **400** begins with a decision **402** that determines whether a registration request has been received. Here, the notification server can receive various types of requests from users (e.g., notifors). When a decision **402** determines that a registration request has been received, a registration processing **404** is performed. On the other hand, when the decision **402** determines that a registration request has not been received, then a decision **406** determines whether a login request has been received. When the decision **406** determines that a login request has been received, then login processing **408** is performed.

**[0043]** Alternatively, when the decision **406** determines that a login request has not been received, then a decision **410** determines whether a notification set-up request has been received. When the decision **410** determines that a notification set-up request has been received, then notification set-up processing **412** is performed. Alternatively, when the decision **410** determines that a notification set-up request has not been received, then a decision **414** determines whether a notification review request has been received. When the decision **414** determines that a notification review request has been received, then notification review processing **416** is performed.

**[0044]** Following the decision **414** when a notification review request has not been received, as well as following the operations **404**, **408**, **412** and **416**, the notification management processing **400** then returns to repeat the decision **402** and subsequent operations so that the notification server is continuously available to receive various different requests and process those requests as required.

**[0045]** FIG. **4**B is a flow diagram of registration processing **420** according to one embodiment of the invention. The registration processing **420** details the operations performed by the registration processing **404** illustrated in FIG. **4**A.

**[0046]** The registration processing **420** initially sends **422** a registration page to a requestor. The requestor is, for example, a notifor or a notifee seeking to register for use of the notification system. Then, a decision **424** determines whether a registration submission has been received. When a decision **424** determines that a registration submission has not yet been received, the decision **424** causes the registration processing **420** to await such a submission. Once the decision **424** determines that a registration submission has been received, the requestor is registered **426** with the notification system. After the requestor has been registered **426** with the notification system, a registration confirmation page is sent **428** to the requestor. Following the operation **428**, a registration processing **420** is complete and ends.

**[0047]** FIG. **4**C is a flow diagram of login processing **440** according to one embodiment of the invention. The login processing **440** details the operations performed by the login processing **408** illustrated in FIG. **4**A.

**[0048]** The login processing **440** initially sends **442** a login page to a requestor. The requestor is, for example, a notifor or a notifee seeking to utilize the notification system. Then, a decision **444** determines whether a login submission has been received. When the decision **444** determines that a login submission has not yet been received, the login processing **440** awaits such a submission. Once the decision **444** determines that a login submission has been received, login parameters provided with the login submission are verified **446**. Here, the login parameters are verified against previously stored information at the notification server. For example, login parameters might include a user name and password that are previously assigned and stored in a database associated with the notification server during a registration process. Hence, during the login verification, the login parameters provided with the login submission can be verified against the previously stored values within the database.

**[0049]** In any event, after the login parameters are verified **446**, a decision **448** determines whether the login verification was successful. When the decision **448** determines that the login verification was successful, then an initial page is sent **450** to the requestor, thereby providing the requestor with access to restricted areas (e.g., web pages) of the notification server. Alternatively, when the decision **448** determines that the login request was not successful, then a login denied page is sent **452** to the requestor. Following the operation **450** and the operation **452**, the login processing **440** is complete and ends.

**[0050]** FIG. **4**D is a flow diagram of notification set-up processing **460** according to one embodiment of the invention. The notification set-up processing **460** details the operations performed by the notification set-up processing **412** illustrated in FIG. **4**A. The notification set-up processing **460** assumes that the requestor is already properly logged in.

**[0051]** The notification set-up processing **460** initially sends **462** a notification set-up page to a requestor. The requestor is a notifor that is setting up the notifications to be provided on their behalf by the notification system. Then, a decision **464** determines whether a notification set-up request has been received. When a decision **464** determines that a notification set-up request has not yet been received, the decision **464** causes the notification set-up processing **460** to await such a submission. Once the decision **464** determines that a notification set-up request has been received, the notification set-up request is processed **466** to acquire notification information. Thereafter, the notification information for the notifor can be stored **468**. Typically, the notification information is stored in a database, such as the database **112** shown in FIG. **1**. Following the operation **468**, the notification set-up processing **460** is complete and ends.

**[0052]** FIG. **4**E is a flow diagram of notification review processing **480** according to one embodiment of the inven-

tion. The notification review processing **480** details the operations performed by the notification review processing **416** illustrated in FIG. **4**A. The notification review processing **480** assumes that the requestor is already properly logged in.

**[0053]** The notification review processing **480** initially identifies **482** archived notifications sent for the requestor. The requestor is a notifor that is access the notification system to retrieve and view the notifications that have been provided by the notification system on their behalf. Typically, the archived notifications are retrieved from a database, such as the database **112** shown in FIG. **1**. Next, a notification review page is formed **484**. Then, the notification review page is sent **486** to the requestor. Following the operation **484**, the notification review processing **480** is complete and ends.

**[0054]** FIG. **5** is a flow diagram of detailed notification processing **500** according to one embodiment of the invention. The detailed notification processing **500** is, for example, performed by the notification server **104** illustrated in FIG. **1** or the notification server **200** illustrated in FIG. **2**. The detailed notification processing **500** can be performed periodically or after pertinent publication events.

**[0055]** The detailed notification processing **500** initially selects **502** a notifor. Then, notification criteria for the selected notifor is obtained **504**. Then, a search **506** for those publications that match the notification criteria is performed. A decision **508** then determines whether one or more matching publications have been identified by the search **506**. When the decision **508** determines that one or more matching publications have been identified, then a matching publication is selected **510**. Then, notifee information is then determined **512**. Among other things, the notifee information can identify one or more notifees that are to be notified with respect to a matching publication.

**[0056]** Next, one of the notifees is selected **514**. After the notifee is selected **514**, notification information for the selected notifee is obtained **516**. As an example, the notification information for the selected notifee can indicate how the selected notifee is to be notified. For example, for the selected notifee, the notification information could provide the notification type, the electronic mail address, and name, title and associated organization. A notification message is then generated **518**. Typically, the notification message that is generated **518** would be customized at least with respect to the information pertaining to the selected matching publication. As noted previously, different notifees can also receive different types of messages. The notification message is then sent **520** to the selected notifor. Typically, the notification information provides the electronic mail address of the selected notifee such that the notification message can be sent **520** electronically to the selected notifee as an electronic mail message. After the notification message has been sent **520**, the notification message is archived **522**. In one embodiment, the sent notification messages can be archived in a database associated with the notification server.

**[0057]** Next, a decision **524** determines whether there are more notifees that are to be notified with respect to the selected matching publication. When the decision **524** determines that there are more notifees to be notified, then the detailed notification processing **500** returns to repeat the operation **514** and subsequent operations for a next notifee.

**[0058]** Alternatively, when the decision **524** determines that there are no more notifees for the selected matching publications, a decision **526** determines whether there are more matching publications to be processed. When a decision **526** determines that there are more matching publications to be processed, the detailed notification processing **500** returns to repeat the operation **510** and subsequent operations for a next matching publication.

**[0059]** On the other hand, once the decision **526** determines that there are no more matching publications to be processed, the detailed notification processing **500** performs a decision **528**. Additionally, when the decision **508** determines that there are no matching publications, the detailed notification processing **500** also performs the decision **528**. In any case, the decision **528** determines whether there are more notifors to be processed. When the decision determines that there are more notifors to be processed, then the detailed notification processing **500** returns to repeat the operation **502** and subsequent operations so that other notifors can be similarly processed. However, once the decision **528** determines that there are no more notifors to be processed, the detail notification processing **500** is complete and ends.

**[0060]** FIG. **6** is a flow diagram of notification processing **600** according to one embodiment of the invention. The notification processing **600** is, for example, performed by the notification server **104** illustrated in FIG. **1** or the notification server **200** illustrated in FIG. **2**. The notification processing **600** can be performed periodically or after pertinent publication events.

**[0061]** The notification processing **600** begins with a decision **602** that determines whether a new publication for an owner is available. Owner refers, for example, to title holder, author or editor. When the decision **602** determines that a new publication is not available at this time, then the notification processing **600** awaits the availability of such a new publication. On the other hand, once the decision **602** determines that a new publication is available, the notification processing **600** continues. In effect, the notification processing **600** begins when a new publication becomes available.

**[0062]** When the notification processing **600** does continue, a decision **604** determines whether the owner of the publication is a member. Here, members are those businesses or individuals that are registered for notification service. In this embodiment, the owner has requested notification service of its publications. However, in general, third-party (i.e., non-owners) could also request notification service of publications of others in other embodiment. In any case, when the decision **604** determines that the owner is not a member, then the notification processing **600** can send **606** the owner a message inviting their utilization of the notification service. In one implementation, the message sent to the owner is an electronic mail message advising them of their new publication and offering to provide notification services.

**[0063]** Alternatively, when the decision **604** determines that the owner is a member, then the notification processing **600** obtains **608** notification criteria for the owner. The notification criteria specifies the criteria which determines which publication and which notifees are to be notified. In one embodiment, the notification criteria is obtained and stored through a registration or notification request process. Next, a decision **610** determines whether there are any notifees for the new publication. When the decision **610** determines that there are one or more notifees that are to be notified of the new publication, a notification message is prepared, sent and archived **612**. On the other hand, when the decision **610** determines that there are no notifees, then the operation **613** can be bypassed. Following the operation **612** as well as the decision **610** when there are no notifees, the notification

processing **600** returns to repeat the decision **602** and subsequent operations so that other new publications can be similarly processed.

**[0064]** The operation **612** of FIG. **6** can be implemented in a variety of ways. Typically, the message is an electronic message that is automatically prepared and electronically transmitted (i.e., electronic mail) to one or more notifees and then electronically archived. Documentation or evidence that the message was sent, delivered and confirmed can also be archived. The message can alternatively be electronically sent as a facsimile.

**[0065]** FIG. **7** is a flow diagram of notification message send processing **700** according to one embodiment of the invention. The notification message send processing **700** can, for example, represent processing associated with one embodiment of the operation **612** of FIG. **6**. The notification message send processing **700** can be used in place of operations **516-522** of FIG. **5**.

**[0066]** The notification message send processing **700** begins with a decision **702** that determines whether a pre-notification authorization is required. When the decision **702** determines that a pre-notification authorization is required, an authorization message is prepared and sent **704** to the member. Pre-notification authorization means that the notifor has requested (e.g., when registering) that the notifor be informed prior to sending out a notification message. Here, the authorization message permits the notifor to permit or decline the sending of the notification message to the notifee. The authorization can optionally also enable the notifor to preview the notification message before it is sent. Next, a decision **706** determines whether authorization has been is received. The authorization is, for example, a reply to the authorization message. In one implementation, the authorization message is an electronic mail message and the authorization is a reply to that electronic mail message. As another example, the authorization could be the notifor interacting with the notification server to provide the authorization. In one implementation, the electronic mail message could include a link (e.g., active link or hyperlink) to the notification server to facilitate the acquisition of the authorization. In any case, the authorization may take minutes, hours or days to be received following the sending the authorization message. Hence, the processing for this publication can wait for the authorization and then continue once received.

**[0067]** When the decision **706** determines that authorization has been received as well as following the decision **702** when no pre-authorization is required, notification information for the one or more notifees to receive the message is obtained **708**. One or more notification messages are then prepared **710**. Next, the one or more notification messages are sent **712**. In one implementation, the notification messages are sent as electronic mail messages. In an alternative implementation, the notification messages can be sent as facsimiles. After the one or more notification messages are sent **712**, the notification messages are archived **714**. Additionally, any delivery confirmation can also be archived **714**. For example, the delivery confirmation can be an indication that the notification message was received, an indication that the notification message was opened, or a reply to the notification message. Also, when the decision **706** determines that authorization is denied, then operations **708-714** are bypassed as notification message are not to be sent.

**[0068]** The notification messages utilized by the invention are generally predetermined but can also be customized by notifors. The different types of messages can provide notifors with an opportunity to use different messages in different situations. The notification messages can contain an active link to the publication. For example, the active line can be a hyperlink that, when selected, retrieves and displays the publication for the requestor (e.g., notifee). The notification messages can also contain active links to license information, an analysis of the publication in general or with respect to the notifee, or other documentation or presentations. The requesting notifor can be anonymous or identified in the notification messages.

**[0069]** The notification types can vary with implementation. In one embodiment, in which the publications are patent related, the notification types can include: (i) a mere patent information, (ii) patent information and license offer (non-aggressive), (iii) patent information and license offer (aggressive), and (iv) cease and desist infringement. Hence, the content or text of these notifications will vary with type. As an example, a notification of the "mere patent information" type might state the following:

**[0070]** You are hereby notified of U.S. patent application Ser. No. _____, which was published on [month, day, year], and thereby now enjoys provisional rights. The text of the published application can be obtained from various sources, including by selecting the following link to published application.

**[0071]** For Licensing opportunities, click here.

**[0072]** Here, this exemplary message includes not only the notification message to inform the recipient of the patent publication, but also optionally includes a hyperlink to the publication document and a hyperlink to access licensing information.

**[0073]** The invention provides notification of publications in an automated, computer-implemented way. The publications can be of various types. Some examples of particularly useful publications include published patent application and issued patents. The notification of these patent-related publications have legal consequences. Accordingly, the ability to affect notification in a reliable and automated way is a welcome advance to the state of the art.

**[0074]** The notification system according to one embodiment of the invention operates in a client-server environment. The clients are notifors or notifees, or their machines or network browsers operating on their machines. Typically, the notifor interacts with a network browser operating on a computing device to in turn interact with the notification server. The information provided to the notifor is then often a markup language document or page (e.g., web page). Notifees typically only need to access a computing device to receive electronic mail. The notifor may also need access to electronic mail.

**[0075]** The invention is preferably implemented in software, but can be implemented in hardware or a combination of hardware and software. The invention can also be embodied as computer readable code on a computer readable medium. The computer readable medium is any data storage device that can store data which can be thereafter be read by a computer system. Examples of the computer readable medium include read-only memory, random-access memory, CD-ROMs, magnetic tape, optical data storage devices, carrier waves. The computer readable medium can also be distributed over a network coupled computer systems so that the computer readable code is stored and executed in a distributed fashion.

**[0076]** The advantages of the invention are numerous. Different embodiments or implementations may yield one or more of the following advantages. One advantage of the invention is that notifications of publications can be efficiently scheduled and carried-out. Another advantage of the invention is that notifications that are performed are documented. Still another advantage of the invention is that it is network-based so that access is available whenever network access is available.

**[0077]** The many features and advantages of the present invention are apparent from the written description and, thus, it is intended by the appended claims to cover all such features and advantages of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, the invention should not be deemed limited to the exact construction and operation as illustrated and described. Hence, all suitable modifications and equivalents may be resorted to as falling within the scope of the invention.

What is claimed is:

**1**. A non-transitory computer readable medium including at least executable computer program code stored thereon for notifying notifees of publications, said computer readable medium comprises:

computer program code for obtaining predetermined notification information associated with a notifor to be utilized in notifying one or more particular notifees, the predetermined notification information includes notification criteria that serves to identify those publications of the notifor that are to be delivered to the one or more particular notifees, and the predetermined notification information further includes or serves to electronic mail addresses for the one or more particular notifees;

computer program code for automatically determining whether a publication of the notifor matches the predetermined notification criteria;

computer program code for determining, based on the predetermined notification criteria, an appropriate notifee to be notified of the publication matching the predetermined notification criteria, the appropriate notifee being one of the one or more particular notifees;

computer program code for sending an authorization request to the notifor;

computer program code for preparing an electronic notification message, the electronic notification message including or referencing the publication matching the predetermined notification criteria; and

computer program code for sending the electronic notification message to the appropriate notifee using the electronic mail address corresponding to the appropriate notifee if said computer program code for determining determines that the appropriate notifee is to be notified of the publication matching the predetermined notification criteria,

wherein said computer program code for sending the electronic notification message is performed only after receiving from the notifor an indication of authorization for the notification message to be sent.

* * * * *