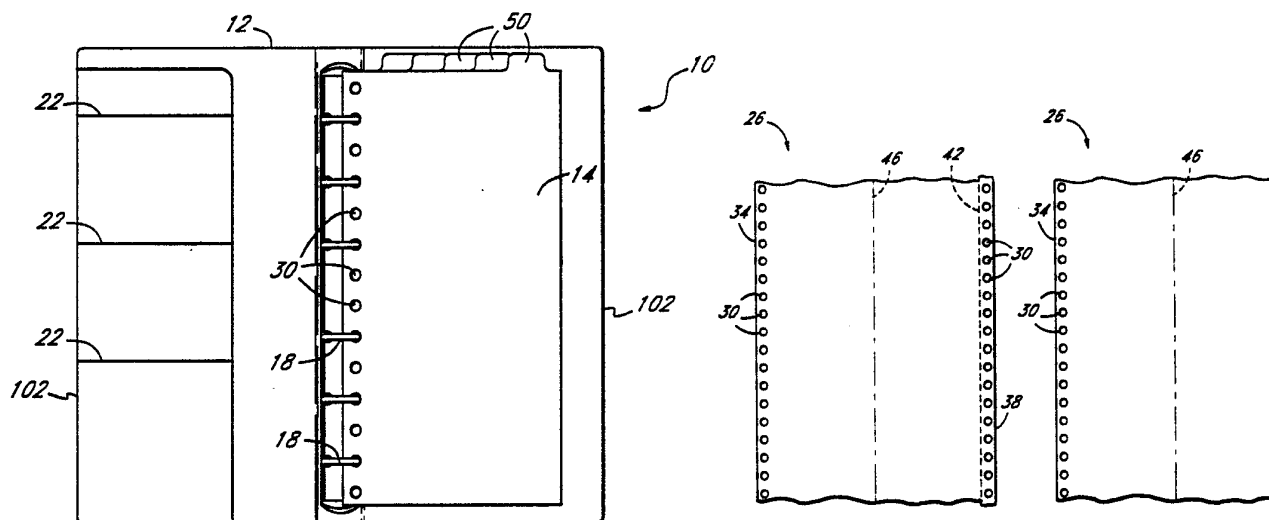




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(54) Title: INFORMATION MANAGEMENT SYSTEM**(57) Abstract**

Information is recorded, organized, and formatted using a computer, and printed onto paper (26) provided with track-feed holes (30) which are used both for feeding through a printer and for mounting the paper (26) on ring elements (18) of a binder (12). On one side (38) of the paper, a tear line (42) is formed for permitting a strip of paper containing one column of holes (30) to be easily separated, and on the other side (34) no tear line is formed adjacent to the other column of holes which is used for mounting the sheet in a binder. Typical applications include loose-leaf notebooks produced by a computer.

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INFORMATION MANAGEMENT SYSTEMField of the Invention

5 The present invention relates to an information management system, incorporating a loose-leaf notebook and computer printing paper, and a system for recording and organizing time and events in the notebook. The invention also relates to a system for utilizing computer printing pages for "desk-top" publishing.

Background of the Invention

10 Various time, work, and event inventory systems are available for both commercial and private applications. Such systems typically take the form of calendars, address books, time organizers, work/time entry logs, or various combinations of same. Generally, such systems are either computer-based in
15 that they are implemented by a computer program and accessed via a computer, or are paper-based in that they involve recording information in a formatted manner on paper. All systems attempt to provide a user with a systematic and organized means for readily recording and accessing
20 information.

 Computer information management systems have the advantage of powerful software-implemented data organizational, display, and manipulation capabilities. Such advantages are particularly important with respect to large
25 quantities of data and with regard to changing or modifying data and information already recorded. Conversely, such systems have the disadvantages of requiring a computer both to record and access information, involve added time in accessing a computer system (i.e. signing on and off the computer,
30 calling up the appropriate software, etc.), and present difficult problems of portability, particularly with regard to out-of-office users.

 Manual or paper-based information management systems have the advantage of being portable and most can be carried and
35 used anywhere by a user. Moreover, information can be quickly and easily recorded and accessed by a user without regard to the availability of a computer. However, information recorded

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on such a manual information management system is difficult to manipulate or reorganize once recorded. In addition, changing such information is inconvenient and is likely to result in an unorganized and aesthetically unpleasing product.

5 A disadvantage of information management systems in general is that they are inflexible. More particularly, a user is limited to the organization and configuration of the product as purchased. Such systems do not provide for tailoring to the specific organizational needs of the individual user. Consequently, such systems are cluttered with extraneous and unneeded features and such systems do not have the capability to be adapted by the user to include additional features. A need exists for an improved system.

Summary of the Invention

15 The present invention is for an improved, flexible information management system for recording, organizing, and accessing information. The present information management system combines the advantages of a computer information management system with the advantages of a manual information management system. Further, the present invention provides an information management system which is flexible so that it may be individually tailored to the needs of each user.

20 A binder is provided with pages having a main leaf and spaced holes for mounting on binder rings. The pages also have a foldout leaf that may be folded against the main leaf or unfolded so that a foldout leaf extends beyond an outer edge of the binder. Information on the foldout leaf is thus visible while the notebook is turned to a different page. Also disclosed is a step-indexing system wherein a plurality of pages are mounted in the binder incrementally stepped below adjacent pages so that the top portions or headings of numerous pages are visible at one time.

30 The pages which are mounted into the binder have information printed thereon using a printer and a computer. Information is initially entered into the computer and is organized and formatted using appropriate customized or commercially available software. The information is then

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printed onto one of a variety of possible paper types. Either continuous form track-feed printers or sheet-fed printers may be used to print out the formatted information. Holes spaced for use with standard track-feed printers are provided along both margins of the paper. Once the formatted information has been printed, the right margin of the paper is torn off along a perforation line. The left margin has no perforation and thus remains intact so that the holes thereon may be used for mounting the paper in the binder. The same paper may also be used with sheet-fed printers, in which case holes may only be provided along the left margin for binder mounting. In other paper designs, additional fold lines, perforations, or columns of holes may be provided in various configurations to accommodate different user needs.

The present system is flexible to the individual needs of the user by allowing user-directed organization and formatting of information using the computer, and by allowing a user to design and format his own time management features.

For desk-top publishing, copy paper is provided having pre-punched holes sized and located on the left edge like track feed holes so as to be mountable in a binder having rings so sized and spaced. For printing in publications having smaller sized pages, the sizes are selected so that even multiples of those pages will fit on a regular copy machine without paper waste. For example, four pages sized 4-1/2 x 5-1/2 inches can be obtained from a sheet 8-1/2 x 11 inches and four pages of 4-1/4 x 7 inches can be obtained from a sheet 8-1/2 x 14 inches, which is also a standard copy paper size. Such sheets are formed with the necessary tear lines and an additional column of binder mounting holes just to the right of a tear line halfway between the side edges of the sheet. Thus, after the printing, the pages may be separated along the tear lines to provide four sheets for mounting in a loose-leaf publication.

Brief Description of the Drawings

Figure 1 illustrates a notebook incorporating the information management system of the present invention.

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Figure 2 shows a piece of printing paper having track-feed holes on a left margin and on a right margin.

Figure 3 shows the piece of paper in Fig. 2 with the right margin torn off along a perforation.

5 Figure 4 shows a weekly calendar section of the notebook in Fig. 1 and shows step-indexed pages.

Figure 5 shows the weekly calendar section shown in Fig. 4 with a foldout leaf unfolded.

10 Figure 6 shows an unscheduled to-do's section of the notebook in Fig. 1 with a foldout leaf unfolded to the left and the foldout leaf shown in Fig. 5 visible to the right.

Figure 7 shows a piece of paper having an added horizontal perforation line.

15 Figure 8 shows a piece of paper separable into two individual pieces of paper mountable in a binder.

Figure 9 shows a piece of paper having a combination of different paper design features.

Figure 10 shows a piece of paper having a central strip and which is separable into two separate pieces of paper.

20 Figure 11 shows a piece of paper having three foldable panels.

Figure 12 shows a sheet of paper of standard copy machine size marked to provide four pages pre-punched for mounting in a binder.

25 Description of the Preferred Embodiment

The information management system of the present invention provides unique features and combinations of features which result in an easy-to-use and efficient information recording, organizing and retrieval system.

30 A. Overall Structure

Referring to Fig. 1, an information management loose leaf notebook 10 is shown which includes a binder 12 and index pages 14. The binder 12 is provided with ring elements 18 which may be opened to receive pages having appropriately spaced holes 30 along one margin. The binders 12 may be
35 provided in any desired size; for example, the binder 12 may be a small, easily portable, pocket-sized binder or a full-

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sized desk binder. The size (e.g., length and width) of the binder 12 is dictated by the desired user application and is not limited by the present invention. The binder 12 may be provided with pockets 22 on the inside covers to conveniently hold money, credit cards, or other such small items.

Referring to Fig. 2, a section of paper 26 is shown which is used to make pages for use in the notebook 10. The paper is provided with pre-punched holes 30 along a left margin 34 wherein the holes 30 are spaced to be received by the ring elements 18 in the binder. In accordance with one feature of the present invention, the pre-punched holes 30 are sized and spaced to fit and operate with standard track-feed printing devices, for example the Apple Imagewriter II printer manufactured by Apple Computers of Cupertino, California. To this end, both the left margin 34 and a right margin 38 of the paper are provided with the pre-punched holes 30 so that the paper will feed through the track-feed printer. As another feature of the present invention, a tear-perforation line 42 is provided on the right margin 38 slightly inward of the right margin holes 30 while no perforation or tear line is provided on the left side. This allows the right margin 38 to be easily torn off along the tear-perforation line 42 (see Fig. 3), while the holes 30 along the left margin 34 remain intact to be used for mounting the paper on the ring elements 18 of the binder 12. The hole 30 spacing for standard track-feed printers is about 1/2 inch between the hole centers. The spacing of the holes 30 along the margins 34 and 38 is determined by the track-feed configuration of the printer (e.g., 1/2 inch apart). Although the holes are spaced 1/2 inch apart, the ring elements 18 may be spaced 1 inch apart so that the ring elements 18 mount only into every other hole 30. The diameter of the holes is preferably no greater than 5/32 inch. The distance between the edges of the sheets and the closest edge of the holes is about 1/8 inch.

A fold line 46 may be provided approximately midway along the width of the paper 26 so that the paper 26 may be easily folded along the fold line 46 after printing. The fold line

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46 is perforated so that it will normally remain rigidly attached as part of the paper 26, even when the paper 26 is folded. However, the paper 26 may also be torn or burst apart along the fold line 46 if desired. Finally, in addition to its advantageous use with a track-feed printer, the paper 26 as described is equally capable of use with non-track-feed printers such as sheet-fed printers.

The index pages 14 of the loose leaf notebook 10 each include an index tab 50 (at the top thereof) which preferably projects above a top margin 54 (Fig. 4) of the pages. In alternative designs, index tabs 50 could be disposed to project from the side of an index page or to project below the bottom of an index page. The index pages 14 and tabs 50 are used to separate and mark various sections of the present information management system and to allow a user to easily and quickly locate same.

B. Step-Indexing

Referring now to Fig. 4, the loose leaf notebook 10 of the present invention is shown open to a Weekly Calendar Section. In this section, a day page 75 is provided for each day of the week. In accordance with one feature of the present invention, the pages of the notebook 10 are configured in a stepped fashion such that the top margin 54 of a given page (e.g., the MONDAY day page) is positioned slightly below the level of the top margin 54 of the page below (e.g., the TUESDAY day page). In this manner, a page header 83 at the top of the page below may be viewed while referring to the contents of the page above. This is referred to as step-indexing. Preferably, the pages in each section of the notebook 10 are step-indexed in relation to each other so that the page headers 83 at the top of several pages in that section are visible to the user at one time. In Fig. 4, for example, the respective day pages 75 (e.g., Monday - Friday) of the Weekly Calendar Section are step-indexed so that the respective page headers 83 printed at the top of each of those pages 75, wherein each header includes the day of the week 87, week number 89, and date 91, are all simultaneously visible.

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This advantageously enables the user to rapidly locate and turn to the particular page the user is seeking once having turned to the appropriate section.

In order to effect step-indexed pages, the aforementioned paper sections 26 are cut or perforated in predetermined page lengths such that each page will fit within the binder 12 below the level of a subsequent page. As seen, the step-indexed pages are shorter top-to-bottom than the length of the binder 12 so that each step-indexed page will fit within the binder 12 without protruding from the edges of the binder 12. It will also be noted that because the spacing of standard track-feed printers requires the pages to have short pre-punched hole 30 spacings (approximately 1/2 inch), the pages may be mounted on the ring elements 18 in short, stepped-down increments so as to allow numerous pages to be step-indexed in relation to each other within a given section of the binder 12.

C. Page Folding

In accordance with another advantageous feature of the information management system of the present invention, the pages in the loose leaf notebook 10 are provided with folds 95, as seen in Fig. 5, so that they may be folded within the binder 12 or unfolded for more writing space. A Monday day page 99 (shown folded in Fig. 4) is unfolded such that a foldout leaf 101 projects outward beyond a side edge 102 of the binder 12. The foldout leaf 101 provides additional space for recording additional information. If no such additional space is needed, the foldout leaf 101 will remain folded and unused. The width of an unfolded page, such as the page 99 shown in Fig. 5, is dictated only by the binder 12 size and by the desired application of the present system. In one embodiment, for example, the width of an unfolded page may be 7 inches while the width of the same page folded is approximately 3-5/8 inches.

Because a folded page constitutes only a single page of paper, only a single outer margin 105 results when the page is folded within the binder 12. This advantageously reduces the

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number of actual pages within the notebook 10 while providing a relatively large quantity of available writing space. The smaller amount of outer page margins 105 increases the ease with which desired pages may be quickly located because a user
5 will need to flip through less pages to find the desired page.

In the preferred application of the present invention, as illustrated in Fig. 5, the front side of a main leaf 109 is used to record scheduled daily events, meetings, etc. using time slots 113 and adjacent entries 115. The front side of
10 the foldout leaf 101 is used to record daily objectives 119 ("Must Do Today") which represent things which should be accomplished on that day but which are not required or scheduled to be done at a particular time. Further, a back side 123 of each page in the binder 12 provides additional
15 space which may be advantageously used to record additional detail as to any of the events recorded on the front side or for any other desired use.

An important additional advantage of having foldable pages is the ability to view information recorded on the
20 foldout leaf 101 while the notebook 10 is turned to a different page in the same or a different section. As illustrated in Fig. 6, the foldout leaf 101 of the Monday day page 99 is still visible while the notebook 10 is turned to a different page in an altogether different section (e.g., an
25 "Unscheduled To-Do's" section). In this manner, information from the foldout leaf 101 may be easily referenced while turned to the other page. This facilitates quick and simple coordination of information on different pages, or copying of information from the foldout leaf 101 to the other page or
30 visa versa. It will also be noted that two foldout leaves may be viewed simultaneously, as seen in Fig. 6 which shows the Monday day page foldout leaf 101 and an Unscheduled To-Do's foldout page 150 both being visible. Thus, it is possible to view information on three different pages simultaneously:
35 namely, information recorded on a first foldout leaf 101 protruding from the right side of the notebook 10, information on a second foldout leaf 150 protruding from the left side of

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the notebook 10, and information on a folded third page 154.

Yet a further important advantage is realized by the page folding feature of the present invention. A single foldable page may be folded and mounted in a small, pocket-sized binder such as the binder 12 shown in Figs. 4-6. The same page, or an identical print-out thereof, may also be mounted in a wider, full-sized desk binder. In the full-sized binder, the page may be kept unfolded or folded as desired. This aspect is particularly advantageous as it allows the user to simultaneously maintain two notebooks or logs wherein the first notebook is pocket-sized to be carried by the user out of the office, and wherein the second notebook is the desk-sized notebook for in-office use. Since the identical pages may be used in both notebooks, the second notebook may be maintained with almost no additional effort.

D. Indexed Sections

In accordance with another feature of the present invention, the notebook 10 is organized and divided into a plurality of sections. Division of the notebook 10 into sections provides the maximum in flexibility to user needs and in efficient organization of information. Several preferred sections are described below as examples. The respective pages within each section are step-indexed relative to each other so that the page headers 83 at the top of several pages in a given section may be viewed together at a glance.

Referring again to Fig. 4, the Weekly Calendar Section is employed to efficiently schedule activities and events during the period of a single week. In addition to the individual day pages 75 provided for recording the scheduled and unscheduled events for each day of the week 87, a full-sized week page 79 may be provided for recording events or goals to occur at some unspecified time during that week, general information, a work/time, etc. Additional detailed information regarding recorded entries 115 may be placed on the back side 123 of the week page 79. A new set of Weekly Calendar Section pages are printed out using a computer and printer at the beginning of each week and mounted in the

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Weekly Calendar Section of the notebook 10 while at the same time removing the old calendar pages.

Referring now to Fig. 6, an Unscheduled To-Do's Section is shown. This section is used for recording tasks and objectives that need to be done but which cannot be currently scheduled. Preferably, separate step-indexed pages are provided for any number of desired categories, topics, etc. The user may simply record on the appropriate page a task to be done and may, if desired, schedule the task in the Weekly Calendar Section at a later date using the foldout leaf 101 of the appropriate day page 75. Lengthy detail pertaining to a given entry 115 may be recorded on the back side 123 of the page on which that entry 115 was made.

A To Be Discussed Section (not shown) is also employed in the preferred embodiment. This section provides a number of step-indexed pages wherein each page is devoted to a particular individual who has sufficiently frequent contact or interaction with the user to warrant an individual page. The pages in this section are used to record items or topics to be discussed, details of a meeting or conversation with that person, or other information or data related to that individual. As with the Unscheduled To-Do's Section, information may be transferred to the Weekly Calendar Section at the user's option to schedule appropriate events.

A Goals and Values Section (not shown) may be used for recording individual or company general goals, values, objectives, etc. These items may be referred to and considered before making important decisions. In addition, having organized goals and objectives promotes good time management practices.

An Address and Phone Directory Section is provided for recording names, addresses and phone numbers of desired persons, companies, etc. Further, a Monthly Calendar Section may be provided for recording and viewing scheduled events over an entire month. A calendar may also be provided for any number of months in advance, as well as yearly calendars, according to the desires and needs of the user. Finally,

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items such as customer lists, price lists, inventory lists, etc. may be easily maintained on the computer and then be periodically printed and mounted into the binder 12.

E. Task Oriented

5 As can be seen, the information management system of the present invention may optionally be designed and formatted to be task-oriented. If such a format is desired, it will be necessary to provide sections which organize information relative to tasks or objectives rather than with respect to
10 chronological units such as hours, days, weeks, etc. In this manner, a user will be able to record, organize, and retrieve information about a particular topic, task or person quickly. For example, in the particular organizational format described herein, the Unscheduled To-Do's Section organizes information
15 in terms of task-oriented topics. Sample topics shown in Fig. 6 are work project 158, wedding 160, vacation 162 and miscellaneous 164. Thus, all events and tasks pertaining to one of those topics are listed together in order to be able to quickly ascertain all ongoing or upcoming events related to
20 that topic. This gives the user, in effect, a complete status report on matters relating to that topic. As also shown in Fig. 6, entries 115 on an Unscheduled To-Do's page may be scheduled for a particular week, day or time on the Weekly Calendar Section, as described previously, via use of the
25 foldout leaf 101 feature of the present invention. The task-oriented focus of the present invention is also demonstrated by the To Be Discussed Section which is directed toward organizing information and subjects discussed or to be discussed pertaining to a particular individual. The task-
30 oriented system makes management and access of information and data pertaining to specific topics or individuals much more easy and efficient than if such information were solely recorded in an unorganized fashion on the pages of a calendar or time log.

35 F. Paper

In accordance with another aspect of the present invention, a wide variety of paper designs may be used to

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implement the present time management system. The paper shown in Figs. 2 and 3 discloses merely one type of paper that may be used. Figures 7-11 illustrate various other advantageous paper configurations for use with the present invention.

5 Referring now to Fig. 7, a paper configuration is shown which is similar to that shown in Fig. 2, but having in addition a horizontal perforation line 170 spaced slightly from the top of the paper 26 and extending across the width of a right panel 176 defined between a centrally positioned fold
10 line 46 and a perforation line 42 along the right margin 38. A left panel 174 is also defined between the fold line 46 and a left margin 34. Once the paper 26 has been printed on, a horizontal strip 172 of paper defined by the horizontal perforation line 170 may be torn off and discarded. In this
15 manner, any printed matter, such as a heading, which is printed at the top of the left panel 174 of the paper 26 will be visible if the right panel 176 of the paper 26 is folded over the left panel 174 along the fold line 46.

In Fig. 8, a paper configuration is illustrated having a
20 vertical center perforation line 178 formed half way between the left margin 34 and the right margin 38. In addition, a vertical column of holes 30 is formed proximal and slightly to the right of the center of the paper 26. After printing, the paper 26 may be torn in half along the center perforation line
25 178 so that the left panel 174 and right panel 176 form separate and distinct pieces of paper which may be mounted into the binder 12. It should be noted that since this particular configuration does not have holes 30 along the right margin 38, the paper 26 may not be used with a track-feed printer but must be used with a sheet fed printer. It is
30 possible, however, to form holes 30 along the right margin 38 as in Fig. 7 for use with a track-feed printer.

In the additional paper embodiment of Fig. 9, both a center column of holes 30 as well as a column of holes 30
35 along the right margin 38 are provided. A center perforation line 178 is also provided. The left panel 174 and right panel 176 may be torn apart for separate use, or they may remain

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attached and the center perforation line 178 used for folding the right panel 176 against the left panel 174. Further, a pair of horizontal perforation lines 170 are formed proximal the bottom of the paper 26. These may optionally be torn, such as discussed above, either so that a shorter page length may be achieved to facilitate step-indexing or so that a bottom heading will be visible upon folding the right panel 176 over the left panel 174.

Referring to Fig. 10, a paper design is illustrated having a vertical center strip 180 defined between two parallel, centrally formed perforation lines 178. The perforation lines 178 are appropriately located to define a left panel 174 and right panel 176 having desired widths. After printing, the left panel 174 and right panel 176 are torn away from the center strip 189, which is discarded, and the panels 174 and 176 are mounted independently into the binder 12. In the configuration shown, no perforation line is provided along the right margin 38 since the holes 30 on that side of the paper 26 are used for mounting on the ring elements 18 of the binder 12.

Finally, Fig. 11 shows a wider paper design having a first vertical perforation line 182 and a second vertical perforation line 184 located to the right of the first perforation line 182. The left margin 34 and the first perforation line 182 define a left panel 174 therebetween. The first perforation line 182 and the second perforation line 184 define a center panel 186 therebetween. The second perforation line 184 and the right margin 38 define a right panel 176 therebetween. Preferably, the left panel 174 is slightly wider than each of the other two panels 186 and 176, while the center panel 186 is wider than the right panel 176. This allows the right panel 176 to fold against the center panel 186 and for the center panel 186 to then fold against the left panel 174. Thus, after printing, the paper 26 may be mounted in a binder 12 and all three panels 174, 186 and 176 may be folded together in the binder 12 as a single page.

It should be noted here that the particular system

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organization, page layouts, and page formats described herein and illustrated in the drawings define only a preferred few of the many possible embodiments of the present invention. The possible organization and formats that may be used in
5 implementing the present invention are virtually limitless and may be determined by each user according to his or her business or personal requirements.

G. Computer-Implemented Flexibility

In accordance with a primary aspect of the present
10 invention, the information management system disclosed herein is designed for optional use in conjunction with a computer. In this regard, a user will preferably have available a computer, for example a personal computer, having the capability of running computer software. The computer is used
15 for inputting and organizing information and for printing out such information in a desired and organized format. Standard commercially available word processing and desk top publishing software, for example, WordPerfect 5.1 by WordPerfect, Inc., may be employed for this purpose. In addition, computer
20 programs may be custom-developed to print out pages in formats specified or designed by the user. Word processing programs and the like for organizing information on a page are well-known in the art, and one skilled in the art of programming would be able to custom-create a program for such a purpose.
25 Such a program would permit a user to custom-tailor page formats to the user's own needs.

In one possible application, the present system will provide a means for users of computer-based time management systems or calendars to output the information stored in such
30 systems onto paper in a preferred format and for then conveniently placing the paper output into a binder for easy portability and reference. In this case, the present system acts merely as a supplement to the computer-based time management system already maintained by the user. In another
35 application, users of paper-based time management systems will be provided with a unique and customized system. Rather than merely manually recording information in a conventional

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calendar or log, such users will use a computer and appropriate software for inputting and organizing information and for printout out that information onto pages and then mounting the pages in a binder. Such users may be provided
5 with customized paper and software for implementing the inventive system. Finally, in a broader application of the present invention, the system teaches a means for outputting computer stored information of any kind (i.e., desk-top publishing) and for then mounting and/or organizing such
10 output into a binder for convenient storage, access and portability.

In day-to-day use of the present information management system, a user will record information in one of two ways depending on the type and timing of the information. First,
15 with regard to information known sufficiently in advance of a task or event, it is desirable to record such information in the computer using appropriate software as discussed above. This recorded information may be easily erased, moved, modified, supplemented or reorganized at a later time using
20 the computer.

For example, an appointment known two weeks in advance is recorded in the computer in the Weekly Calendar Section for the day of the appointment. Other events for the same week are also so recorded as they become known. At the beginning
25 of the subject week, the user will print out the calendar pages 75 for that week which include all entries 115 made to date. The printed calendar pages 75 are then mounted in the binder 12, while the pages from the previous week are removed. At this point, further modifications and additions are made
30 manually directly to the calendar pages as necessary.

The method of day-to-day use described above also applies to other sections of the notebook 10 depending on the type of sections fashioned and used by the user and the individual practices of the user. Thus, Unscheduled To-Do's may be
35 entered into the computer by the user as they become known and pages printed periodically as desired or needed. Again, additions or modifications after printing are made manually

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directly to the appropriate pages.

Use of the information management capabilities of a computer in conjunction with the notebook 10 provides a number of important advantages. First, large amounts of information may be easily placed and stored within the notebook 10 using the computer. For example, documents such as menus, price lists, product sales presentations, instructions, work books, manuscripts, address lists, etc. may all be easily maintained on the computer by appropriate software and then printed onto pages and mounted in the binder 12 as necessary. In this manner, large amounts of information may be easily modified and supplemented on the computer without manually erasing or rewriting information.

Further, the present system permits easy condensation of data onto a page, as well as organization of data on the page in any desired format. The computer allows a user to choose from any of a large number of fonts and font sizes commonly available on most dot matrix and laser printers. Using a very small print, for example 9-point print, allows a large quantity of information to be printed onto a page in a neat and organized fashion.

Finally, it will be noted that the present system allows and even promotes a high degree of flexibility with the information management and calendaring needs of the user. The user has control over which types of information management sections the user employs in the notebook 10 and is not forced to include sections which the user does not need. The pages of each section may also be formatted according to the individual preferences or needs of the individual user and the capabilities of the software. Page formats are stored for repeated use.

It should be noted that utilizing the track feed holes for mounting pages in a binder is a paper saver feature over earlier systems that discard the track feed holes and punch additional holes. Also, the track feed holes are closer to the edge of a sheet than the holes in a standard 2-hole or 3-hole loose leaf notebook system. This smaller margin

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maximizes the available information recording space. Less margin is required for track feed holes mounted in a binder because the load at the paper mounting holes is distributed over more holes.

5 Having described the invention in connection with certain specific embodiments thereof, it is to be understood that further modifications as well as organizational and formatting designs may now suggest themselves to those skilled in the art, and it is intended to include such modifications as fall
10 within the scope of the appended claims.

H. Desk-Top Publishing

 In a broader application of the present invention, the system teaches a convenient desk-top publishing arrangement wherein computer-stored information is printed on specialized
15 sheets and/or copied on special sheets. The sheets are standard size copy paper that have been prepared to be separated into even multiples of smaller pages. They are also pre-punched with track feed printer type holes to facilitate mounting in binders having suitable ring elements spaced in
20 the necessary manner to receive such pages. Such techniques may be particularly useful for preparing loose leaf booklets wherein frequent replacement of updated pages is needed.

 For example, a standard size sheet of 8-1/2 x 14 paper which will fit within a standard bin on a copy machine is prepared as shown in Figure 12 divided by perforation or tear
25 lines 192 and 194 into four pages sized 4-1/4 x 7 inches. Similarly, four pages 4-1/4 x 6-1/2 inches or 4-1/4 x 5-1/2 inches can be obtained from a single sheet of standard 8-1/2 x 13 or 11 inch paper respectively, thereby eliminating any
30 waste. Of course the same no waste technique can likewise be used with other standard copy machine sizes such as A4 and A3. The longitudinal 192 line is of course halfway between the left margin 34 and the right margin 38 and the transverse line 194 is halfway between the upper and lower edges.

35 A vertical column of holes 30 is formed near the left margin having sizing and spacing of track feed holes, and a second column of holes 30 is formed slightly to the right of

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the longitudinal tear line 192. With that arrangement, the desired format may be obtained from the output of a printer and then copied on a copy machine to obtain the desired quantity of sheets. The sheets are then separated along the tear lines and placed in a binder. The sheets of the desired configuration may alternatively be provided in whatever quantities desired direct from a sheet feed printer. Also, such an arrangement can be provided from a track feed printer by employing another column of holes on the right edge of a sheet together with an adjacent perforation or tear line, as shown in Figure 9, for removing that column of holes.

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WHAT IS CLAIMED IS:

1. A method of utilizing a loose-leaf notebook information management system comprising the steps of providing a sheet of paper with a column of holes along each side edge to fit a track feed printer; and forming a tear line on one side of the paper for permitting a strip of paper containing one column of holes to be easily separated from the sheet, the method being characterized by no tear line being formed adjacent the other column of holes, so that after a user of the sheet tears said strip from said sheet, the sheet may be mounted in a binder having ring elements spaced and sized to fit said remaining column of holes.
2. The method of Claim 1, including the steps of recording information onto a computer memory device; organizing said information using software run by said device; formatting said information into desired printing format; and printing said formatted information onto said sheet utilizing the two columns of holes for feeding the paper through the printer.
3. The method of Claim 2, wherein said sheet has a fold line generally parallel to and positioned between said columns, including the steps of maintaining a first time management notebook by mounting a plurality of said sheets into said binder and folding each of said sheets along its fold line so that the folded sheet fits within the confines of said binder and wherein an unfolded sheet projects beyond a side edge of said binder.
4. The method of Claim 3, including the step of maintaining a second time management notebook by mounting substantially equivalent copies of said sheets into a second binder, said second binder being wider than said first binder so that said copies which are unfolded fit within the confines of said second binder and do not project beyond a side edge of said second binder.
5. The method of Claim 1, including the step of tearing said strip from said sheet and mounting the sheet in said binder utilizing said remaining column of holes, said binder

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having ring elements spaced to fit said remaining column of holes.

5 6. The method of Claim 1, including forming a tear line on said sheet essentially parallel to the side edges of said sheet halfway between said tear line, and the edge of said sheet adjacent to said remaining column of holes.

7. The method of Claim 6, including forming a tear line on said sheet halfway between upper and lower edges of said sheet.

10 8. The method of Claim 1, including forming a fold line halfway between said tear line and said one side of the sheet.

9. The method of Claim 1, including the steps of providing a plurality of sheets in a notebook including said binder, separating said sheets into a plurality of sections using indexes; and step-indexing sheets in a section such that
15 a substantial portion of a lower sheet is visible while covered by a sheet above said lower sheet.

10. A method of Claim 1, comprising:

20 providing said sheet with a vertical tear line parallel to the side edges of said sheet halfway between said formed tear line on one side of the sheet and the opposite edge of said sheet;

25 forming a horizontal tear line parallel to and positioned halfway between the top and bottom edges of said sheet; and

 providing a column of track feed sized and spaced holes immediately to the right of said center tear line.

11. The method of Claim 10, including:

30 printing information on said sheet;

 tearing said strip from said sheet;

 tearing said sheet along said, vertical and horizontal tear lines to create four separate pages; and mounting said pages in a binder having rings spaced and sized to fit said holes.

35 12. The method of Claim 10, wherein said sheet is initially formed without a column of holes on the side of the sheet having the tear line on said one side, whereby said one

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side is at said tear line such that there is no strip to remove.

13. A method utilizing a loose-leaf notebook information management system comprising providing a sheet of paper with
5 a column of holes along one side edge, the holes being sized and spaced to fit a track feed printer; and forming tear lines in said sheet characterized by:

forming a tear line extending from the top to the bottom edge of said sheet, spaced halfway between and
10 parallel to side edges of said sheet;

forming a tear line halfway between and parallel to top and bottom edges of said sheet and extending between the side edges of said sheet; and

forming a column of holes of the track feed printer size and spacing immediately to the right of said tear
15 line situated halfway between the side edges of the sheet, said sheet being one of the standard sizes of copy paper handled by ordinary copying machines, so that four smaller sheets with said binder mounting holes can be
20 formed without waste.

14. A loose-leaf notebook information management system comprising a sheet of paper for receiving printing in a track feed printer, said paper having a left margin with a column of
25 track feed holes and having no tear line adjacent to said holes; and a right margin having track feed holes and having a tear line adjacent to said right margin holes such that a strip of said sheet containing said right margin holes may be torn from said sheet along said tear line.

15. The system of Claim 14, including a binder having a
30 column of ring elements based to coincide with said holes on said left margin, said sheet being positioned in said binder with said ring elements extending through said holes on said left margin.

16. The system of Claim 14, including a fold line
35 between said left margin and said right margin line.

17. The system of Claim 16, including a second vertical fold line positioned so that said fold lines define a center

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panel therebetween.

18. The system of Claim 17, including a plurality of said sheets mounted in said binder, each of said sheets having a fold line forming a main leaf which fits within the confines of a top cover of said binder and a fold-out leaf extending outward beyond an outer edge of said cover, each of said fold-out leafs being folded along said fold lines against said main leafs.

19. The system of Claim 17, including a plurality of said sheets which are step-indexed relative to each other so that a substantial portion of a first sheet is visible when covered by a second sheet.

20. The system of Claim 19, wherein said visible portion is the top portion of said first sheet, said top portion containing visible information for identifying the contents of said first sheet.

21. The system of Claim 21, wherein said sheets are separated into a plurality of sections by indexes, and at least some of the sheets in each of said sections are step-indexed relative to each other.

22. The system of Claim 14, wherein the center of each of said holes is spaced about 1/2 inch from the center of the adjacent holes, the distance between the edges of the sheet and the closest edge of each of said holes is about 1/8 inch, and the diameter of said holes is about 5/32 inch.

23. The system of Claim 14, wherein said paper has a longitudinal tear line extending parallel to and halfway between said left margin and said tear line adjacent to said right margin, a transverse tear line extending parallel to and halfway between top and bottom edges of said sheet, and a column of track feed holes extending parallel to and adjacent to said longitudinal tear line on the side of longitudinal tear line remote from said left margin.

24. A loose-leaf notebook information management system comprising:

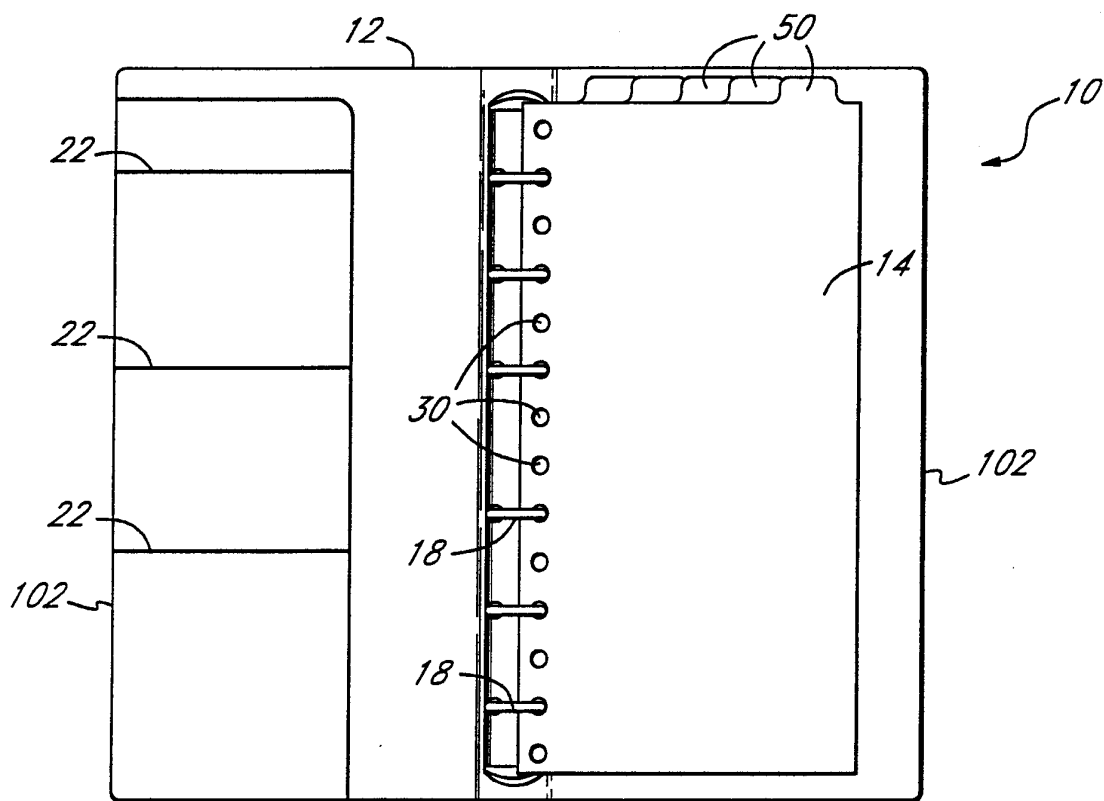
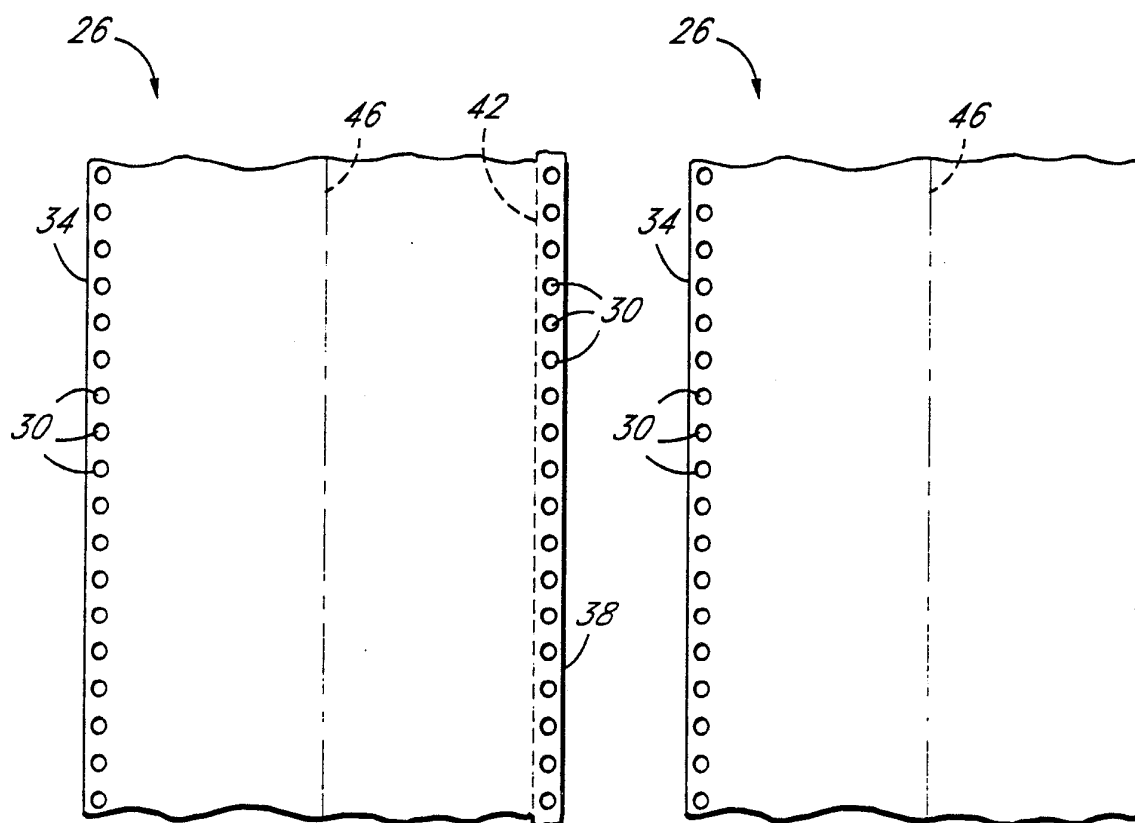
a sheet of paper sized to fit one of the standard copy paper bins for standard copying machines, said sheet

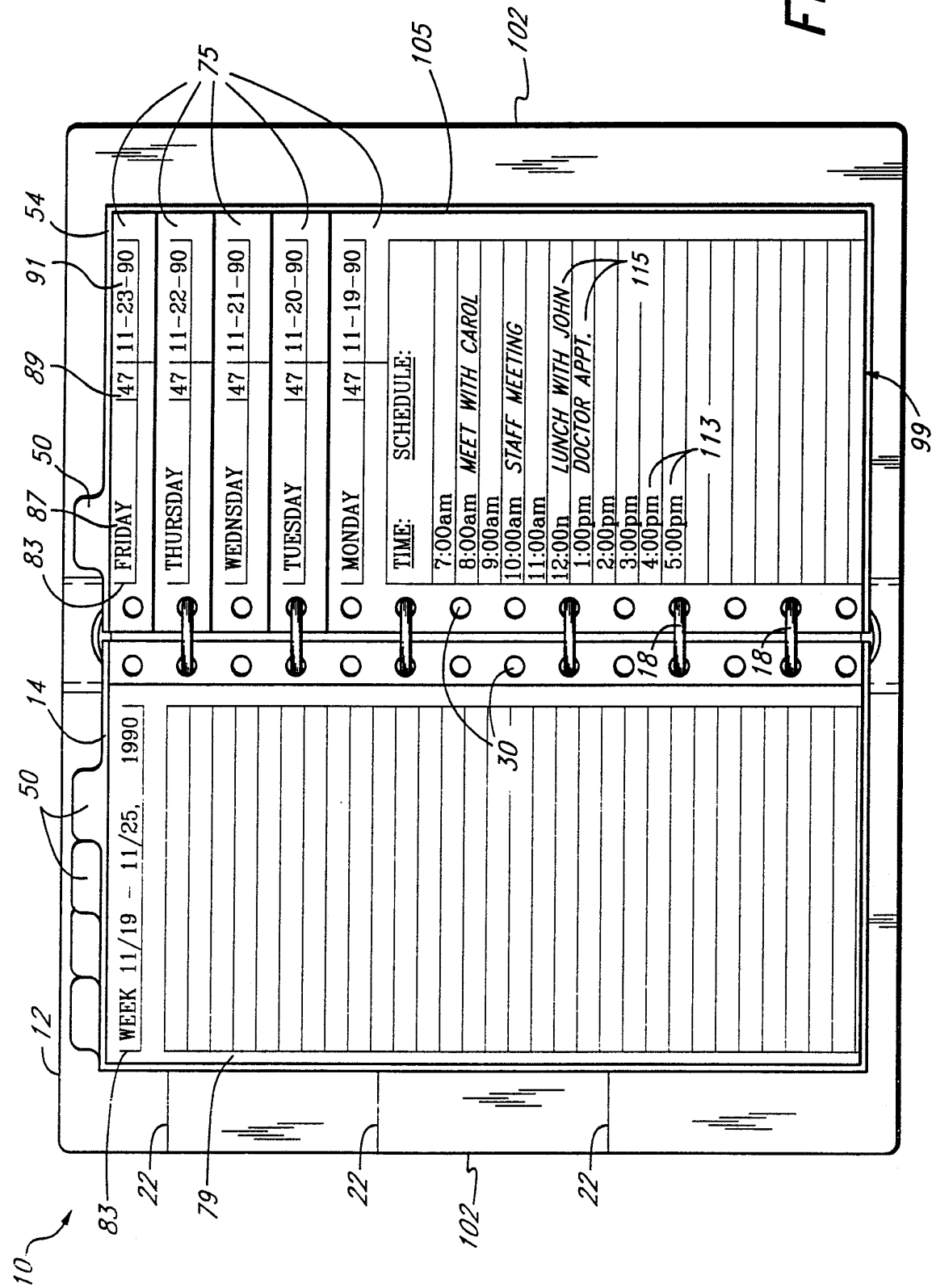
-23-

having a row of track feed printer holes on a left margin;

5 a longitudinal tear line extending parallel to and positioned halfway between side edges of said sheet and extending from the top and bottom edges of said sheet, a
transverse tear line extending parallel to and halfway
10 between the top and bottom edges of said sheet and extending from one side edge to the other side edge thereby creating four equal sized sheet segments that may be formed into four separate smaller sheets when the
sheet is separated along said tear lines, said sheet
15 further having a central column of track feed holes positioned immediately to the right of said longitudinal tear line whereby each of said smaller sheets has track feed printer holes on one edge for mounting the page in a binder having ring elements spaced to fit within said holes.

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**FIG. 1****FIG. 2****FIG. 3**



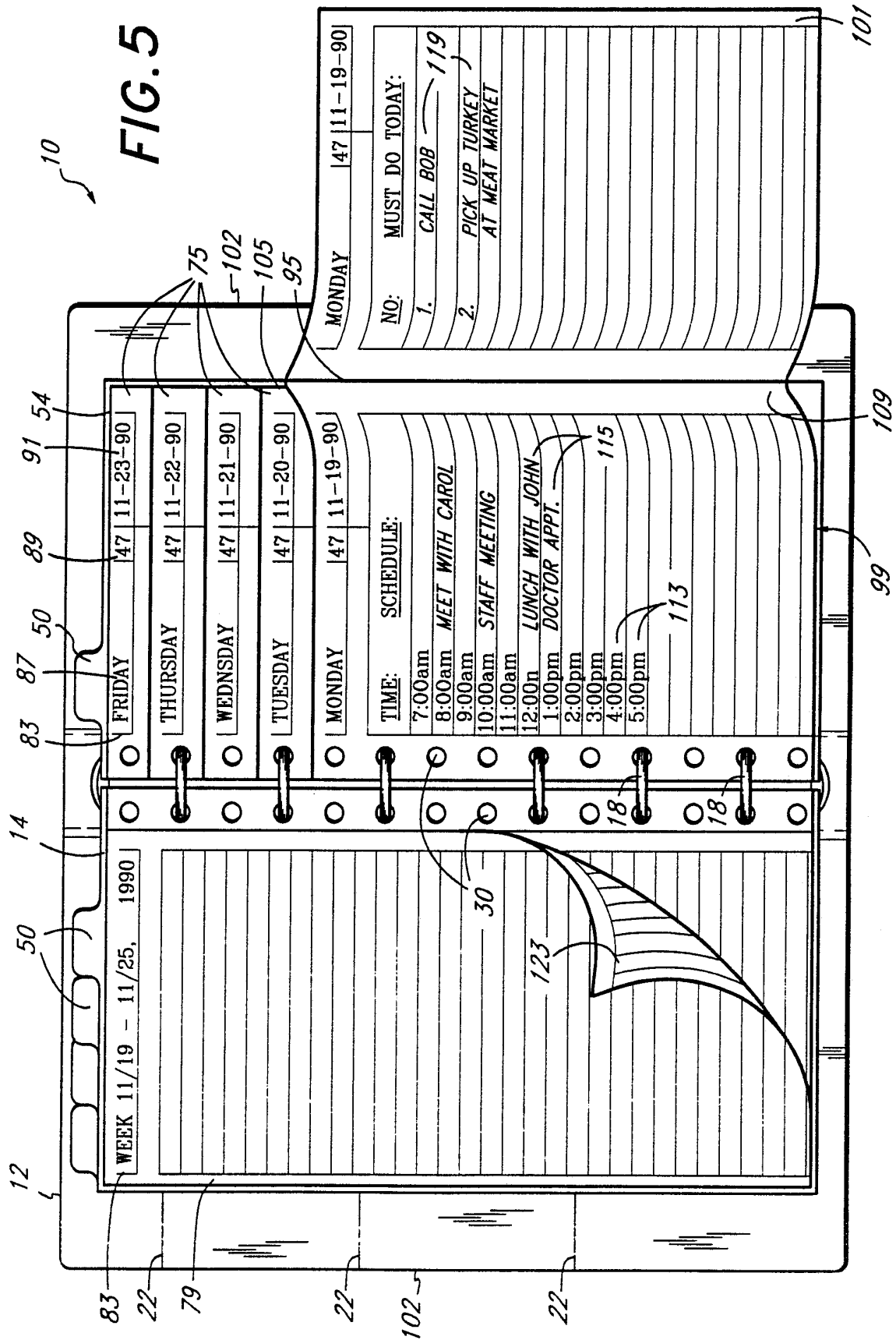
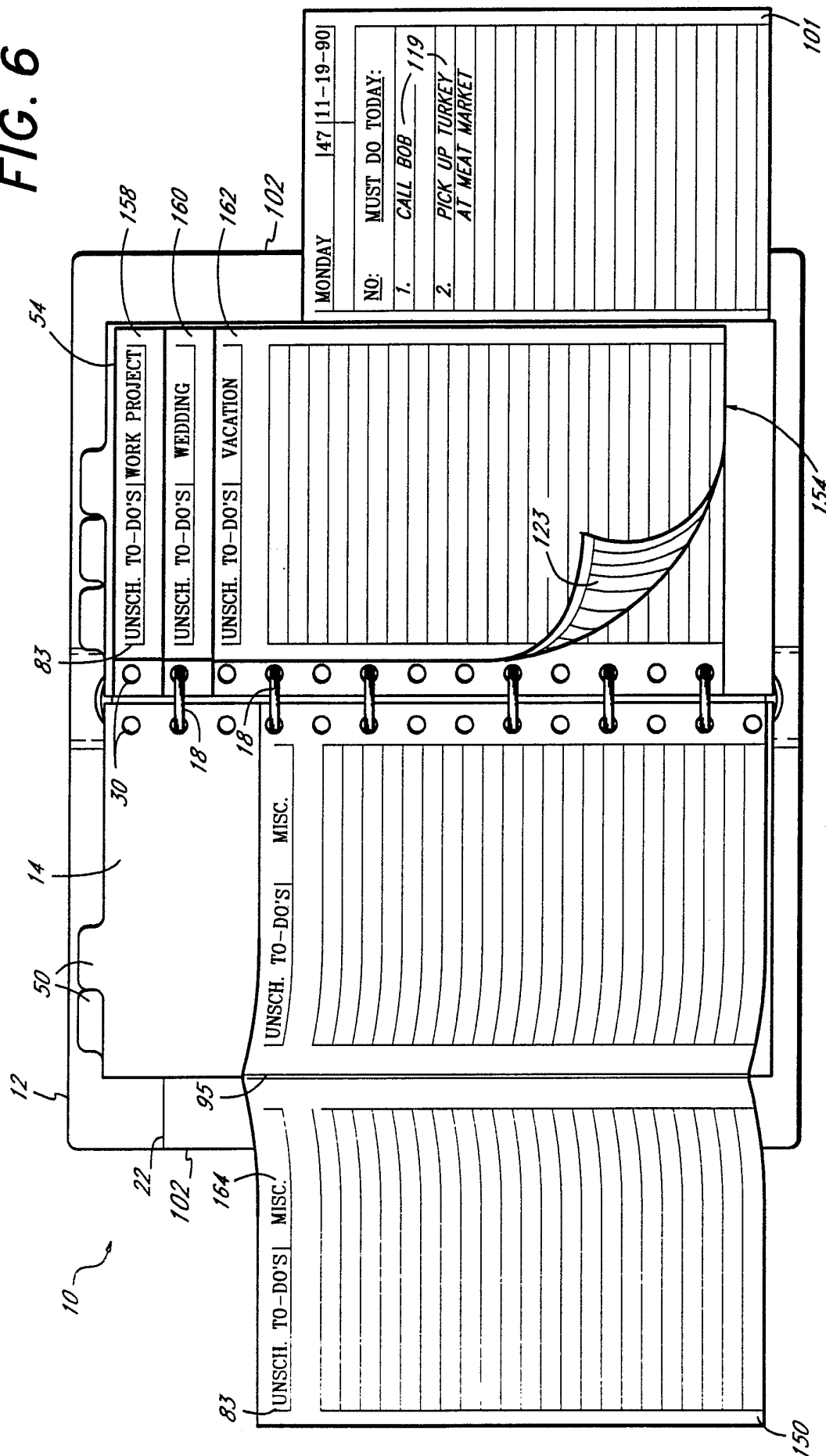
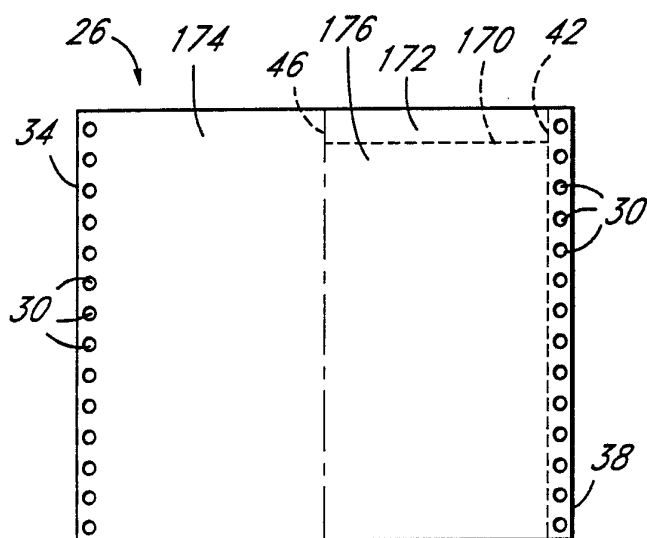
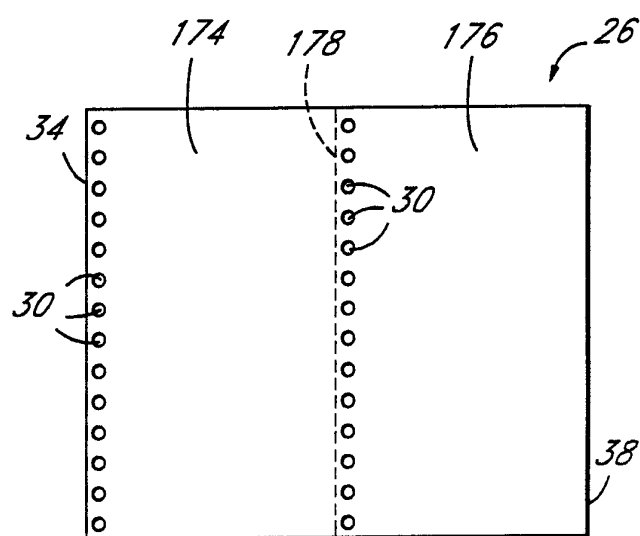
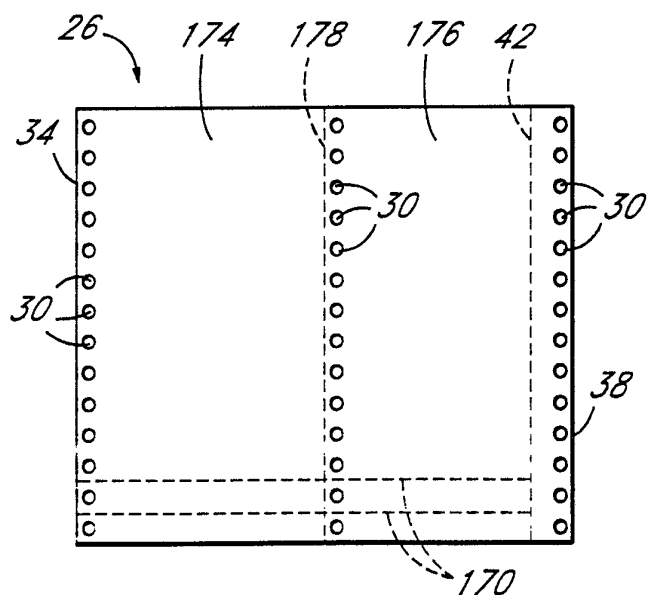
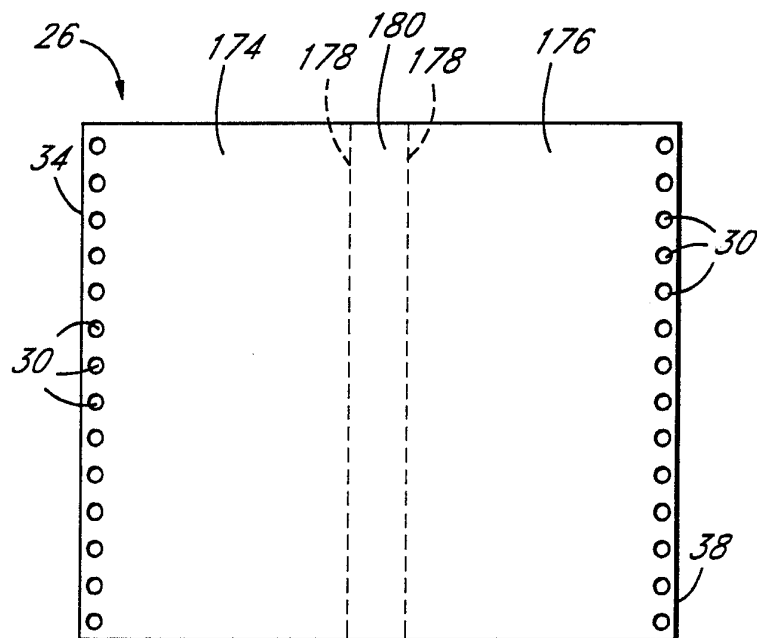
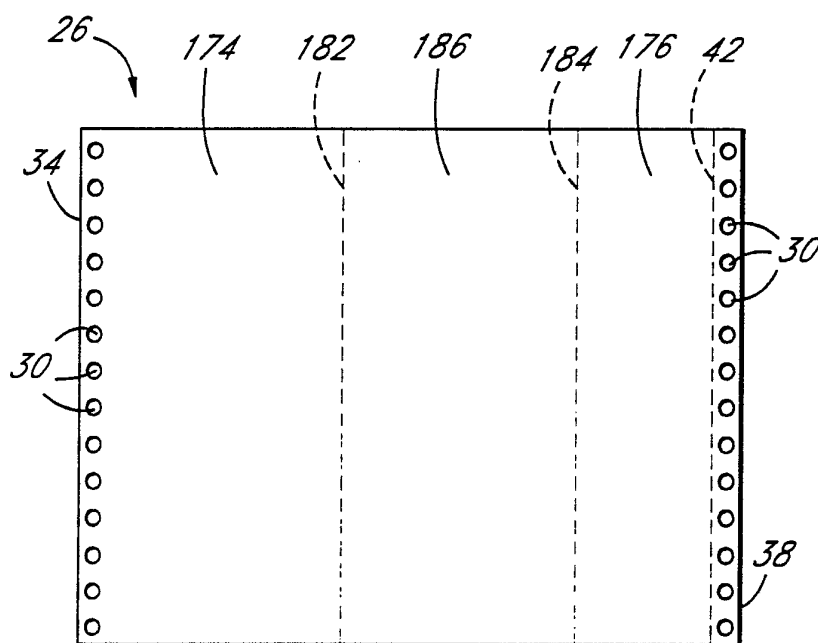


FIG. 6



**FIG. 7****FIG. 8****FIG. 9**

**FIG. 10****FIG. 11**

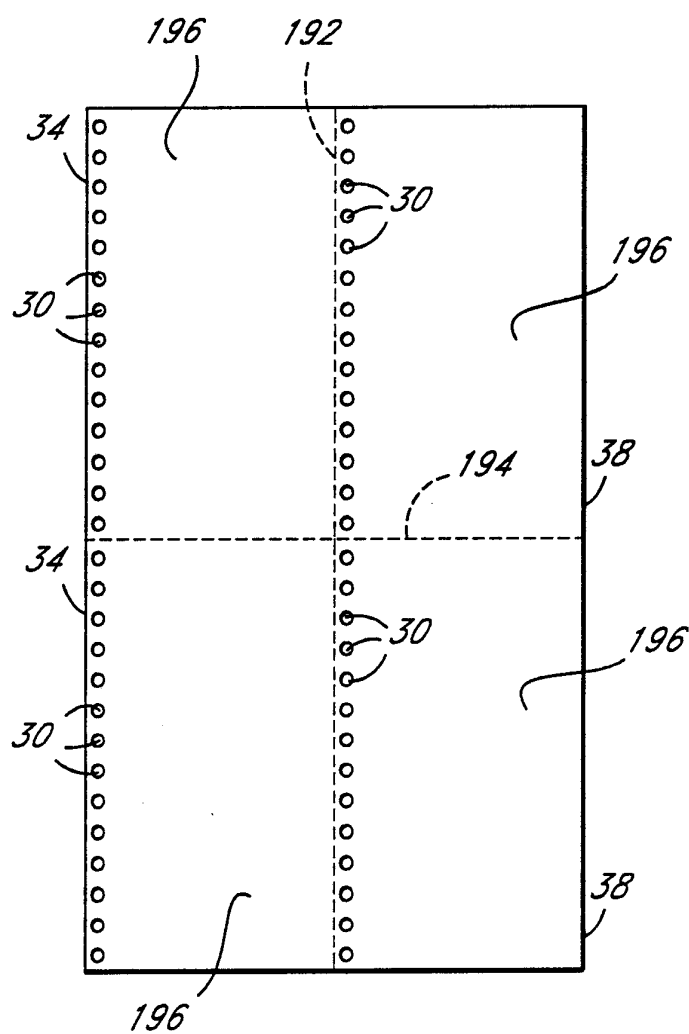
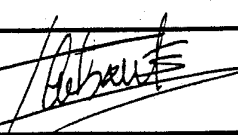


FIG. 12

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 92/02719

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC		
Int.Cl. 5 B42F3/00		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.Cl. 5	B42F ; B42D ; B41L	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category ¹⁰	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
Y	GB,A,2 184 062 (SHOWERING F.K.) 17 June 1987 see the whole document ---	1-24
Y	FR,A,2 609 939 (EYTAM I.) 29 July 1988 see page 3, line 15 - line 29; figures 1,2 ---	1-24
A	US,A,4 723 861 (MERCHANT L.A.) 9 February 1988 see abstract; figures 1,3 ---	3,16-18
A	US,A,2 377 348 (THE STANDARD REGISTER COMPANY) 5 June 1945 see figures ---	6-8,10,11,13
A	PATENT ABSTRACTS OF JAPAN vol. 6, no. 183 (P-143)(1061) 18 September 1982 & JP,A,57 098 082 (FUJITSU K.K.) 18 June 1982 see abstract --- -/--	9,19-21
¹⁰ Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
31 AUGUST 1992	24. 09. 92	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	THIBAUT E.E.G.C. 	

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claims No.
A	US,A,2 352 757 (UNITED AUTOGRAPHIC REGISTER CO.) 4 July 1944 ---	1,14

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO. US 9202719
SA 59788**

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information. 31/08/92

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB-A-2184062	17-06-87	US-A- 4773676	27-09-88
FR-A-2609939	29-07-88	None	
US-A-4723861	09-02-88	None	
US-A-2377348		None	
US-A-2352757		None	