United States Patent [19]

Jaffe

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[45] **March 20, 1973**

[54] APPARATUS FOR COMPOSING DOCUMENTS

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[52] **U.S. Cl.** **95/85,** 355/75

[51] **Int. Cl.** **G03b 27/02**

[58] **Field of Search** 95/85; 355/75; 33/184.5

[56] **References Cited**

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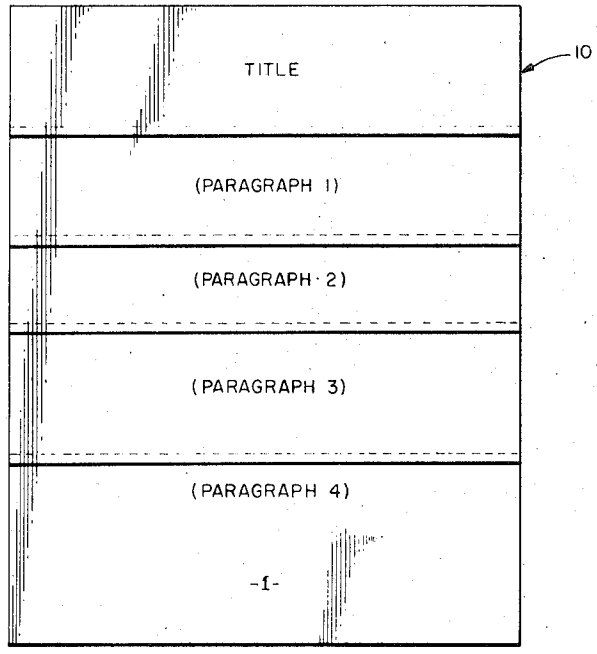
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[57] **ABSTRACT**

Each paragraph of a document is separately typed to define a master strip. An identical distance is maintained between the printed matter and the top of each strip, and a second distance is maintained between the printed matter and the bottom of each strip. The several master strips are placed in a document carrier. The carrier is in turn placed in a composition board for visual alignment of the individual paragraphs. Static electricity is applied to maintain the master strips in alignment with each other. Copies of the composite document are then made.

2 Claims, 6 Drawing Figures



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SHEET 1 OF 2

FIG. 1.

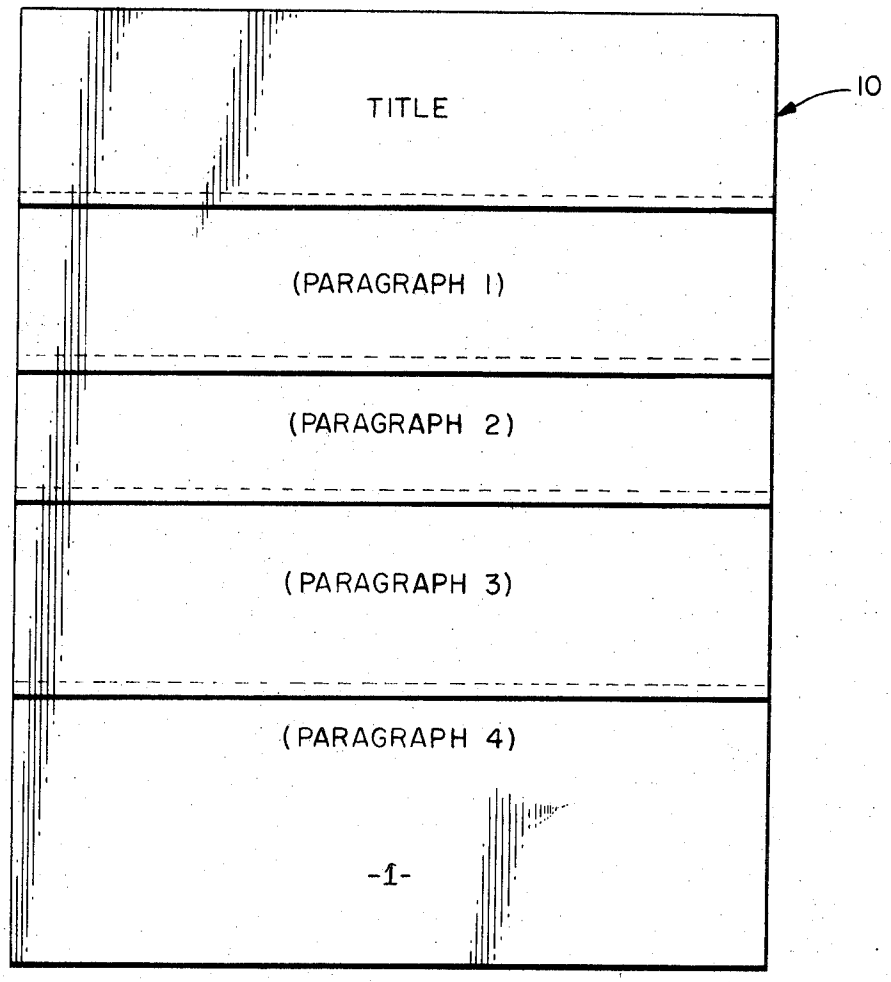
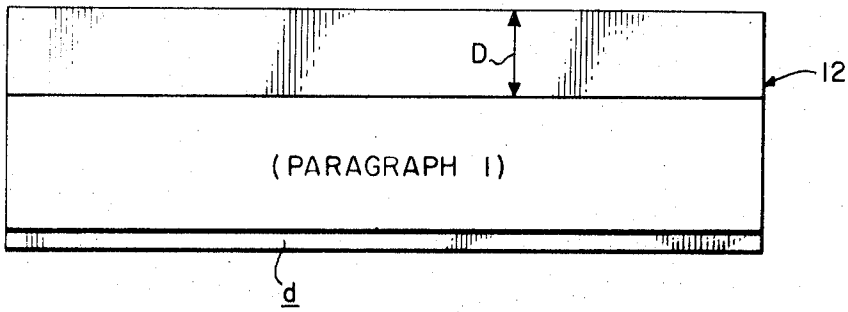


FIG. 2.



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FIG. 3.

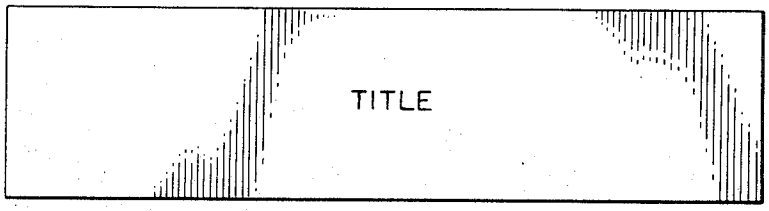


FIG. 4.

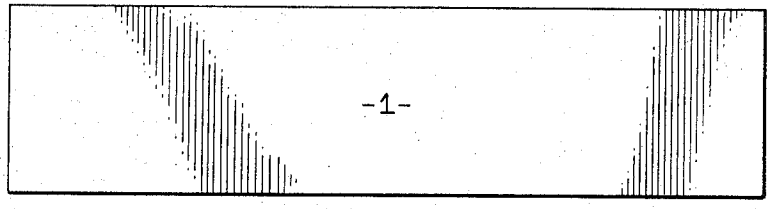


FIG. 6.

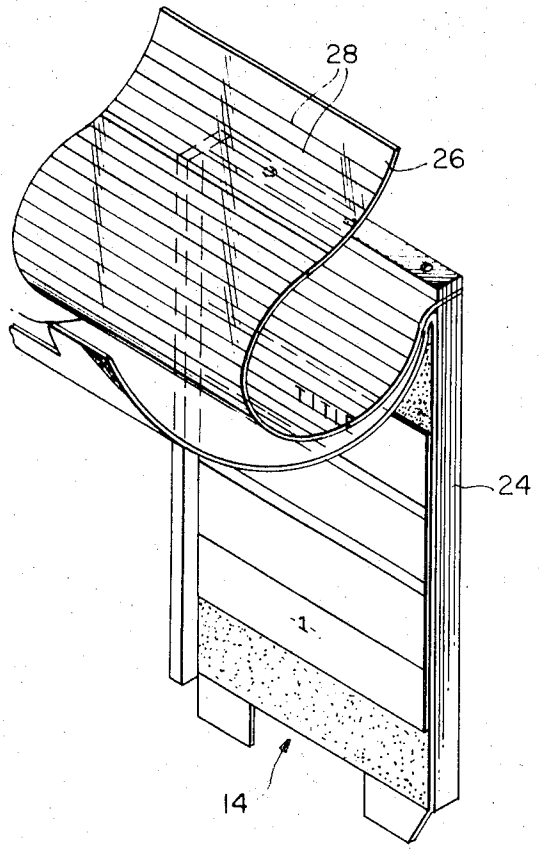
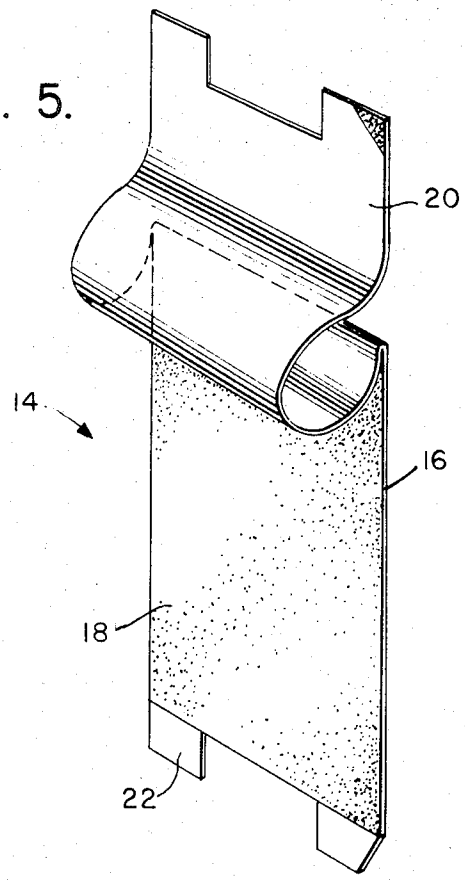


FIG. 5.



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APPARATUS FOR COMPOSING DOCUMENTS

This invention relates to a method and apparatus for composing documents. The documents may be of a diverse character, such as legal documents, letters, advertising material, books and the like. The invention displays particular utility in the composition of documents which are apt to be changed over the course of time although not in their entirety. The invention permits the composition of documents having a certain content but whose content may easily be changed.

According to the practice of the invention, each paragraph of a document is separately typed. The individual paragraphs are then placed upon a document carrier for subsequent alignment and positioning. The paragraphs are then placed in copying relationship with a duplicating machine, such as a Xerox machine.

In the drawings,

FIG. 1 is a view of a completed page after it has been copied by a duplicating machine.

FIG. 2 illustrates a typical master strip defined by a typed paragraph on a sheet of paper.

FIGS. 3 and 4 each illustrate master strips for, respectively, a title and a page number.

FIG. 5 is a perspective view of the document carrier of this invention.

FIG. 6 is a perspective view showing the document carrier of FIG. 5 in position with respect to a composer board support, and also showing various paragraphs in position with respect to the document carrier.

Referring now to the drawings, the numeral **10** at FIG. 1 denotes generally a typical page of a completed document composed by the technique of this invention. The title is at the top of the page and several paragraphs which may be of different sizes fill the page. At the very bottom the number of the page appears. The dashed lines indicate the locations of the master strips (FIG. 2) which will overlap or underlap, as will be described later.

Referring to FIG. 2, a typical master strip **12** is illustrated. To make such a master strip, each paragraph of a document is typed in the usual fashion except that the paragraph always begins at a fixed distance from the top of the sheet. This distance is arbitrarily fixed but should be the desired distance between the top of the sheet and the first paragraph of a page of the document. This distance may be referred to as the underlap because it represents that portion of each master strip which lies underneath its upper, adjacent master strip. In FIG. 2 of the drawings it is denoted by D. When the typist completes the paragraph, the sheet is cut as by a paper cutter with the distance from the bottom of the last line in the paragraph to the bottom of the master strip **12** being approximately one-half of the height of the uppercase letters. This is denoted by d of FIG. 2. If the paragraph is unusually long, it may be divided into two or more parts, always observing the above-outlined cutting procedure. It is important that each master strip **12** have an underlap at the top and the distance d from the bottom as indicated. The underlap insures the distance of the printed material from the top of any page will be equal to D, since after final composition of a page any particular strip may find its location as the first paragraph of the page. Whenever it is practical to do so, the paragraphs are given headings or titles rather than numbers. If numbers are required, they are placed on separate master strips. These steps are illustrated at FIGS. 3 and 4 of the drawings.

When the master strips of the individual paragraphs are made, they are typed without making any copies. If errors are made in typing, they need not be erased but may be covered up in a suitable manner, such as the use of a heavy white liquid. Several of such liquids are available in the market and one is sold under the trade name Liquid Paper distributed by the Liquid Paper Corp. of Dallas, Texas. Any slight discoloration attendant the use of such liquids is not reproduced on copying machines and accordingly the typist need not erase errors. After the application of such correction fluids, the rapid drying thereof allows the typist merely to type over the corrected portion. Normally, short paragraphs are typed and accordingly a whole paragraph may be discarded and rewritten if the errors are numerous. If a long paragraph is typed, it may be divided into several strips as indicated. This procedure assures that typing errors never require a full page to be retyped in order to make necessary corrections. In most cases, the errors can be obscured by the correction fluid. The same procedure will admit of revisions and additions to the context without the requirement of retyping. After all of the paragraphs or titles or numbers have been placed on the master strips, the various pages which will constitute each page of the document may be composed, as will now be described.

Referring to FIGS. 5 and 6 of the drawings, numeral **14** denotes generally a document carrier defined by a back flap portion **16** having a non-skid surface **18** and a top flap portion **20**. The flap **20** is flexible as indicated and may be composed of a clear acetate or other plastic material which is transparent.

The backing portion **16** and the flap **20** may be provided with integral tabs **22** to facilitate handling. The flap and backing elements may be integral and of the same material. Alternatively a separate non-skid surface sheet may be inserted in the carrier **14**, substituting for the surface **18** of flap **16**.

Referring now to FIG. 6 of the drawings, numeral **24** denotes a support or a board to which is attached at its upper portion thereof with a flexible and transparent member **26** having a plurality of parallel lines **28** imprinted, impressed, or otherwise associated therewith. The length of the flap **26** is such that when folded down it covers the entire portion or length of the board or support member **24**.

As indicated at FIG. 6, the individual master strips are placed on the document carrier **14**. The master strip paragraphs are inserted in the desired order and because of the underlap provided for each paragraph, the page may be to a certain extent expanded or contracted so that the paragraphs constituting a page will fill the page in a convenient and esthetic manner. The pages are numbered by the master strips which are inserted at the bottom or at the top and the various pages which have titles are formed in the same manner. After the various master strips have been placed in the document carrier **14** on top of the nonslide surface **18** in the desired relationship with each other, the flexible flap **20** is folded down on top of them. The document carrier **14** is then inserted into the support board as indicated at FIG. 6 and the flap **26** allowed to drop. The horizontal alignment of the text material on the master

strips may be checked by comparing it with the horizontal lines **28**. After this checking has been made and after any realignment has been made to assure proper horizontal alignment, the flap **26** is lifted and the outer surface of the sheet **20** is charged with static electricity. This may be done for example by the use of a blackboard eraser covered with a non-skid material as felt. The eraser is rubbed over the top of the sheet **20** to create enough static electricity to maintain the master strips in place. The particular document carrier **14** which is now complete may now be placed to one side for similar operations on other document carriers for the composition of still other pages in the completed document.

The support board **24** shown at FIG. **6** of the drawings is a convenient vehicle for checking the alignment of the material and the proper composition of an entire page of a document.

The master strips may be stored in a loose-leaf notebook provided with an acetate or mylar jacket for their reception. In addition, each of the paragraphs or master strips may be reproduced on a separate loose-leaf sheet which is then inserted into a loose-leaf notebook. These paragraphs may be appropriately numbered and labeled so that they may be quickly located. Copies of the master paragraphs in the loose-leaf notebooks may be referred to when a type-written document requires composition. Whenever additional or revised master paragraphs are required, master strips may be made as set out above and the strips later stored in the loose-leaf notebook after reproduction is made on loose-leaf pages.

What is claimed is:

1. A document carrier assembly including,

a backing sheet,

a non-slip material covering one planar side of said sheet,

a plurality of strips having side edges defining equal widths and each having a top edge and a bottom edge,

printed matter on each of said strips spaced a fixed and identical first distance from the top edge of each of said strips and a fixed and identical second distance from the bottom edge of each of said strips, said first distance defining an underlap portion of each of said strips and said second distance defining an overlap of each of said strips,

said strips disposed on said non-slip material in aligned relation with each other with the underlap underlying the overlap of its adjacent strip,

a transparent sheet overlying said strips and being of a material susceptible of accepting and holding a static charge of electricity and being integral with said backing sheet, to thereby attract the said strips and hold them in place relative to each other and the transparent sheet,

a composer board having means for positioning said backing sheet thereon,

said board also including means for visually determining the horizontal alignment of said strips, said aligning means defined by a transparent and flexible sheet having spaced and horizontal parallel lines thereon and placed over said first-mentioned transparent sheet.

2. The document carrier of claim **1** wherein said composer board is provided with a recess for positioning said backing sheet thereon.

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