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MANIFOLDING ASSEMBLY

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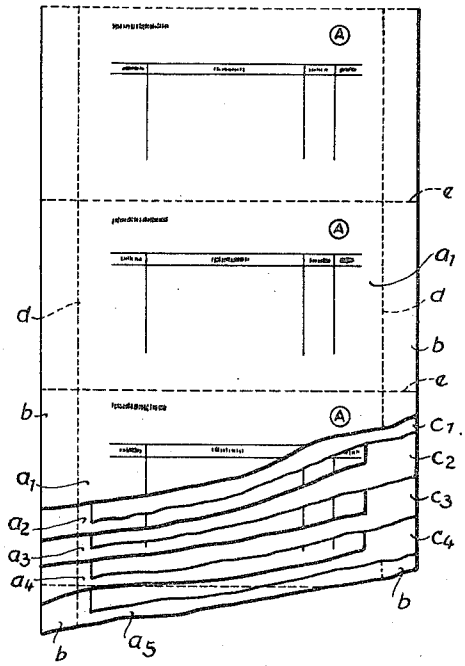


FIG. 1

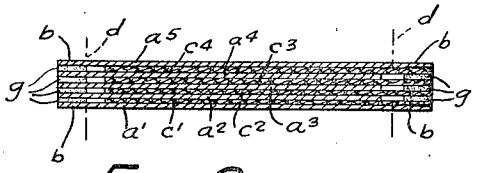


FIG. 2

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MANIFOLDING ASSEMBLY

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1 Claim. (Cl. 282—11.5)

This invention relates to typing copy sets which consist of letter or form sheets and interleaved sheets of carbon paper or the like in which the paper sheets forming one set are detachably united with each other to form a block, and in particular to a form of construction of the typing copy set or block of this kind in which the individual sets or blocks are united along one edge, preferably along the lower edge of one set and the upper edge of the next succeeding set.

The writing of a number of letter or form sheets with the same text is substantially simplified by the employment of typing copy sets. These generally consist of a series of writing and carbon paper sheets arranged in alternate sequence. The writing sheets of one set are, in order that they shall always lie accurately superposed, usually joined together at their upper transverse edges by gluing, stapling or the like. The interleaved sheets of carbon paper project at one free edge from the block of the writing paper sheets so that they may be quickly removed from the writing paper sheets after the text has been written.

In order to save time consuming work in clipping each individual set of forms into the typing or book-keeping machine these sets are also arranged to form long strips of paper, the lower transverse edge of one set being detachably connected with the upper edge of the next following set in each strip. The series of successive sets are generally supplied and employed assembled in zig-zag fashion and may be readily separated from each other by means of a heavy perforation or the like extending through all the sheets.

Even with this arrangement in sequence of the typing copy sets a connection between the superimposed sheets is desirable in order effectively to prevent relative longitudinal displacement of the sheets with irregular feeding in the typewriter or book-keeping machine or the like. The connection of the individual papers, sheets or strips employed hitherto in various forms of construction presents however, a number of disadvantages.

The invention, which has for its object to avoid the disadvantages of the typing copying sets employed hitherto with alternating writing and carbon paper sheets, arranged in sequence at their transverse edges, consists in that the first and last writing sheet of each set has at each of its two longitudinal edges a special strip or extension, this strip being connected at one edge with corresponding strips of the other writing sheets, arranged on one side only, and at the opposite edge with the part of the carbon paper sheets projecting from the block of the writing sheets, the connection being made in any suitable manner, preferably by gluing or the like.

According to the invention the fixing strips are detachably formed at the edges of all the writing sheets, for example with a perforation going through all sheets or with superimposed perforations.

The individual sets can be very rapidly and simply taken apart after typing and separation from the assembled strip, in the case of a strip of successively arranged typing

copy sets constructed in the manner described. It is necessary for this purpose only to tear off the strips of the first and last writing sheet at the fixing edge for the carbon paper along a perforation whereby all the carbon papers are simultaneously separated from the paper sheets. The writing sheets are then still connected with each other through the fixing strip at the other edge and can be separated by tearing away this strip also.

The connection of the superimposed sheets of writing and carbon papers along the lateral fixing strips can be effected in various ways. The gluing preferred in accordance with the invention is advantageous since in this way the lateral edges of the block have a uniform thickness so that the passage of the sets through the typing or book-keeping machine is not hindered. Moreover at the left hand and the right hand edge there are, apart from the first and last writing sheets only the superimposed copy or carbon paper sheets, i. e. practically only half as many sheets as in the middle part of the strip of sets of forms.

A further characteristic of the invention consists in connecting the superimposed fixing strips by means of staggered points secured with glue or the like in such a way that in longitudinal sequence the first strip is glued at intervals to the second and then the second with the third and so on.

The drawing illustrates an example of construction of the invention.

Figure 1 shows in vertical plan a portion of a strip consisting of a number of sets of forms arranged in sequence, each set consisting of five sheets of writing paper and four sheets of carbon paper alternating therewith. Figure 2 is a transverse sectional view of Figure 1. In order to illustrate the relation between the various strips these are made visible at the lower edge, each strip being made somewhat shorter than the immediately following strip.

Of the writing paper sheets a_1 to a_5 the first, a_1 as well as the last, a_5, are provided at both longitudinal edges with fixing strips b. The interposed writing paper sheets a_2, a_3, a_4, merely have corresponding fixing strips at the left hand edge only. The carbon paper sheets c_1 to c_4 extend at the right hand edge in a part which is preferably not coated, with which they engage between the fixing strips b at the right hand edge of the writing paper sheets a_1, a_5.

The fixing strips b on the writing paper sheets a_1 to a_5 are limited by a perforation d and are therefore capable of being readily removed by themselves. Similarly the individual sets may be readily removed from the strip by tearing along the transverse perforation e. All the superimposed fixing strips and the uncoated lateral edges of the carbon paper sheets are united the one with the other by continuous or intermittent gluing g. By removing the carbon paper sheets from the writing paper sheets, none of the latter are loosened because to separate the carbon paper sheets, it is necessary to tear off but two strips of the cover sheets. On the other hand, to separate the writing sheets from the assembly, it is necessary to tear off as many strips as there are writing sheets in the manifold. Since the number of writing paper sheets in the manifold is always greater than the number of carbon sheets, it will be seen that, on pulling the strips to which the carbon papers are connected, they only will be separated, and the writing paper sheets will remain attached to one another.

After the writing and separation of an individual set the sheets of carbon paper may be readily removed by simply tearing off the first and last writing sheets of the right hand fixing strips. The sheets of writing paper can be separated from each other by tearing off the left hand strip. Thus, it will be seen that copying sets are provided arranged like chains in a row. Consequently, the type-

writer and booking machine does not require any special studs, cogs, or the like for guiding the sheets. In other words, the sheets are guided in the conventional manner by the smooth rollers of the typewriter with the result that no special typewriter or machine will be required for this operation. To obtain these desired objects, the sheets are provided at the left hand with a projecting end portion or margin and the carbon papers with a projecting portion or margin at the right hand, which are glued together as at *g* shown in Figure 2. Thus, it will be seen that only the first and last sheets have projecting margins at both sides. By this arrangement, about half as many sheets are placed on each other at both end portions or margins than at the intermediate or central portions of the sets.

It will be noted that the improved manifold assembly among other features includes arranging the strips *d* along one adjacent longitudinal edge of the top and bottom writing sheets and the strips of the intermediate sheets superimposed and secured to each other. The width of the writing paper sheets between the cover sheets terminating short of the marginal strips at the other longitudinal edges of the top and bottom sheets so as to provide free end portions. The carbon paper sheets are of substantially the same width as the intermediate writing paper sheets and extend from the longitudinal edges of the cover sheets on the side of the manifold assembly opposite a longitudinal edge of the adjacent marginal strips so as to provide free end portions. The strips along the other adjacent longitudinal edges of the top and bottom writing sheets and the adjacent marginal portions of the carbon sheets are superimposed and secured to each other. Thus, it will be seen that the parts are constructed and arranged so that the carbon paper sheets remain attached to the adjacent detachable strips when the latter is separated from the writing paper sheets. Further, the writing paper sheets also remain attached to one another so that in a single operation the manifold assembly may be separated in two units, one of which includes all the writing paper sheets and the other all the carbon paper sheets.

I claim:

A manifold assembly of the class described, including form-copying sets arranged in a continuous sequence at

their transverse edges and having alternately arranged superposed writing paper sheets and interleaved carbon paper sheets, the top and bottom writing sheets providing cover sheets of substantially the same width and each having marginal strips detachably connected at opposite longitudinal edges thereof along a tear line, each of the writing paper sheets between the cover sheets having a marginal strip detachably connected thereto at one longitudinal edge thereof along a tear line, the strips along one adjacent longitudinal edge of the top and bottom writing sheets and the strips of the intermediate sheets being superimposed and secured to each other, the width of the writing paper sheets between the cover sheets terminating short of the marginal strips at the other longitudinal edges of said top and bottom sheets so as to provide free end portions, said carbon paper sheets being of substantially the same width as the intermediate writing paper sheets and extending from the longitudinal edges of the cover sheets on the side of the manifold assembly opposite said one longitudinal edge of the adjacent marginal strips so as to provide free end portions, and the strips along the other adjacent longitudinal edges of the top and bottom writing sheets and the adjacent marginal portions of the carbon sheets being superimposed and secured to each other, the parts being constructed and arranged so that the carbon paper sheets remain attached to the adjacent detachable strips when the latter is separated from the writing paper sheets, the writing paper sheets also remaining attached to one another so that in a single operation the manifold assembly may be separated in two units, one of which includes all the writing paper sheets and the other all the carbon paper sheets.

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