Dec. 31, 1940. R. J. O'BRIEN 2,226,574

MANIFOLD FORM

Filed April 5, 1938 2 Sheets-Sheet 1

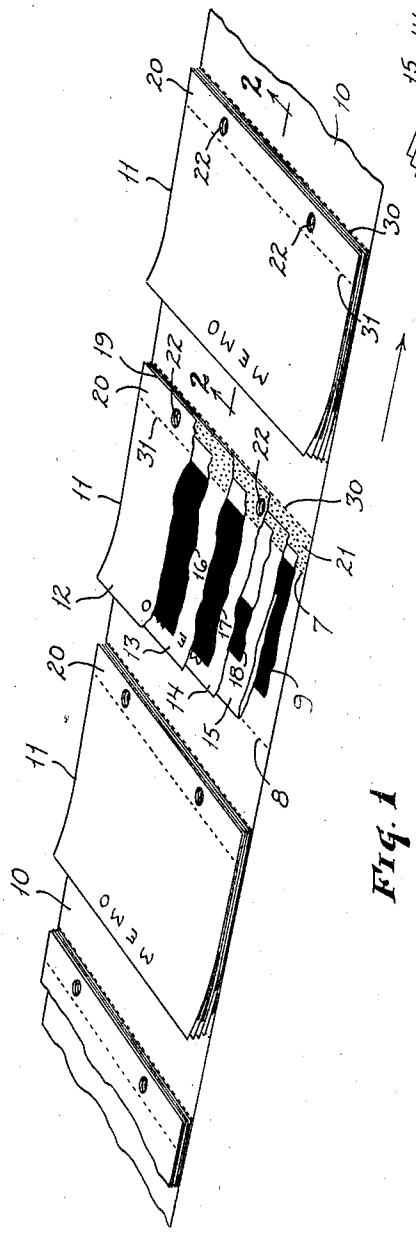


Fig. 1

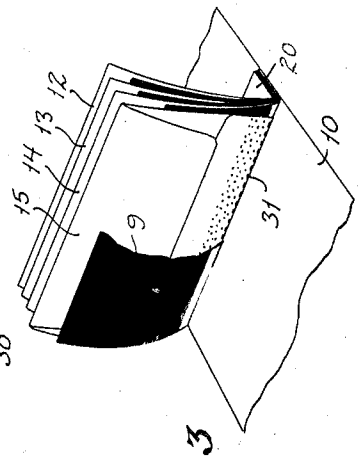


Fig. 3

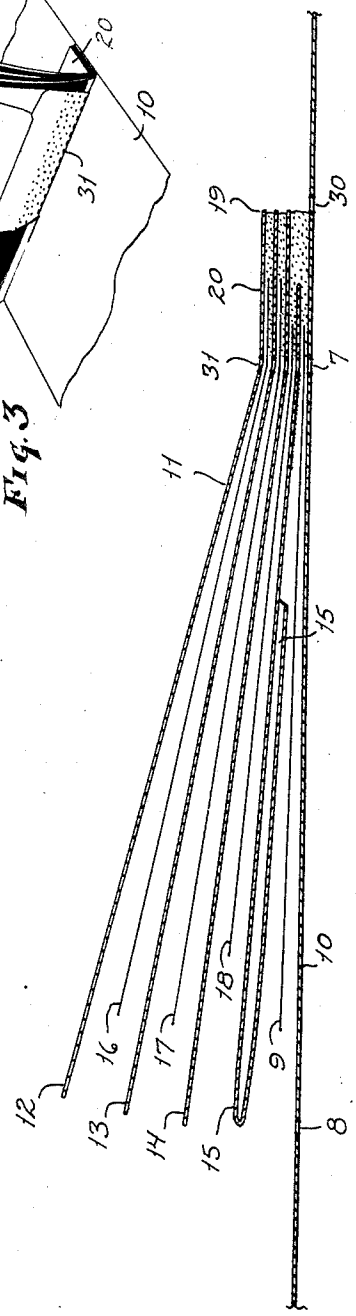


Fig. 2

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Filed April 5, 1938 2 Sheets-Sheet 2

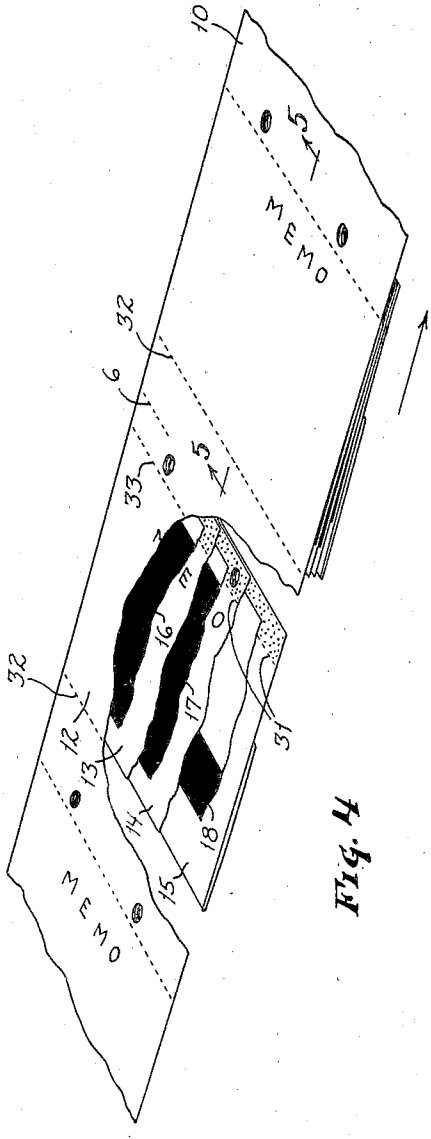


Fig. 4

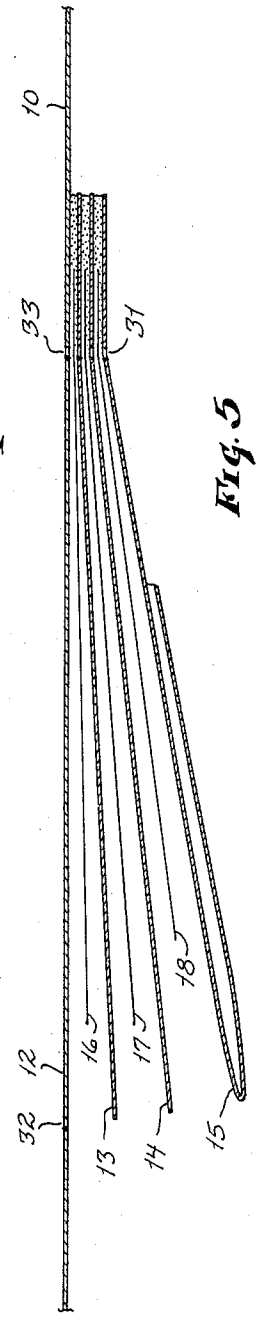


Fig. 5

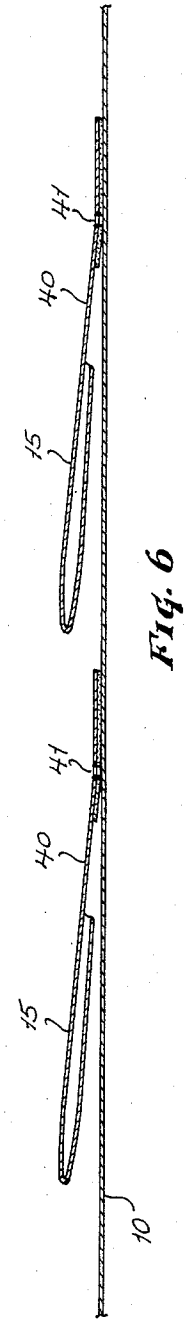


Fig. 6

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UNITED STATES PATENT OFFICE

2,226,574

MANIFOLD FORM

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Application April 5, 1938, Serial No. 200,100

2 Claims. (Cl. 229—69)

This invention relates to manifold forms and particularly to those which are arranged in the form of a pack and fed on a long continuous web into a typewriting machine. This method of handling packs of forms is advantageous but where some of the information appearing on the forms must be written upon an envelope in which one of the forms is placed, it is necessary to type the envelopes from the information contained on the forms in another machine so as not to disturb the setting of the succeeding forms in the first machine. The objection to such procedure is the liability of error in copying the information and in the time required to duplicate the effort.

An object of my invention therefore is to overcome the foregoing objections by incorporating an envelope in the packs so that any desired information may be written thereon at the same time the forms are typed.

If desired, transfer strips may be used with the forms in interleaved relationship and in such case, I prefer to make the strips shorter than the forms whereby a finger grip portion is provided by means of which the forms can be readily separated from the transfer strips.

The invention additionally may be used for feeding envelopes into an addressing machine and to accomplish this, I contemplate the use of a traveler web to which the envelopes are attached at regular intervals, thus obviating the necessity for handling each envelope individually.

My invention possesses additional utility in that forms of different lengths may readily be attached to a traveler web which is provided with regularly spaced apertures that are used for feeding the web at the time of the assembly operation. The distance between the apertures is determined in the first instance by the spacing of the feeding pins in the assembly machine, and so an additional advantage of my invention is the fact that any length of form within the limits of the space between the apertures can be attached to the web in a convenient manner.

Referring now to the drawings Fig. 1 is a top perspective view of a manifold form assembly embodying my invention; Fig. 2 is a section taken on the line 2—2 in Fig. 1 but on a scale larger than that shown in Fig. 1; Fig. 3 is a perspective view of the assembly showing the forms and envelope that make up the pack; Fig. 4 is a bottom perspective view of a modified construction of the assembly pack; Fig. 5 is a section taken on the line 5—5 in Fig. 4, but on a scale larger than that used in Fig. 4, and Fig. 6 is a side view of a traveler web having envelopes only attached thereto at regular intervals.

The invention is illustrated in Fig. 1 as having a long continuous traveler web 10 upon which packs 11 of manifold forms are attached at regular intervals. The packs may comprise any number of record forms such as 12, 13 and 14 and an envelope 15 together with interleaved transfer strips 16, 17 and 18. The strips and forms including the envelope are connected together as by adhesive along a strip adjacent the leading edge 19 so as to form a stub 20 and the stub in turn is connected as by adhesive to the web along the strip 21. To assist in the assembly of the pack upon the web, I utilize apertures 22.

In the illustration of Figs. 1 and 2, the forms are intended for use on a flat bed typewriting machine in which case, the envelope is next to the traveler web while the information that is typed onto the envelope appears thereon in such manner as to position the flap at the bottom of the envelope. It may not be feasible to make a legible impression through the envelope and therefore, the traveler web need not constitute a record form. If the envelope, however, is sufficiently thin that legible impressions may be made through it, then the traveler web may constitute a record form. In such case, an additional sheet 9 of transfer material may be inserted between the envelope and the web.

In Figs. 4 and 5 I have illustrated an arrangement for use in a typewriting machine having a cylindrical platen and in such instance, the traveler web constitutes the original record form 12 while the envelope 15 occurs at the bottom of the pack. By using the web as one of the record forms, then the web supports the forms during the passage into the machine, otherwise the forms would hang loosely from the web and would be liable to catch on any projecting part of the equipment. Where the envelope is intended to contain only part of the information which is typed onto the forms then the transfer strip 18 need be coated only in the region where the transfer is to be made.

To facilitate detachment of the forms in the arrangement of Fig. 1, I utilize weakening lines 30 which extend transversely of the web at spaced intervals preferably in registration with the leading edge 19 of each pack and I employ registering weakening lines 31 in the forms 12, 13 and 14 and in the flap of the envelope 15. The weakening lines however, do not occur in the preferred arrangement in the transfer strips, and inasmuch as the transfer strips are shorter than the forms,

the separation may be accomplished by holding the stub in one hand, and the free ends of the forms in the other hand. The forms in the strips can then be torn apart thus leaving the forms in one hand and the stub containing the transfer strips and part of the traveler web in the other hand.

If the traveler web is to constitute a record form in a flat bed type of machine then the web may be provided with weakening lines 8 in registration with the trailing edges of the forms, and with additional weakening lines 7 in registration with those indicated at 31 in the forms. Where the length of the forms utilizes the entire space on the web for receiving them, the trailing edge of each set will be substantially contiguous to the leading edge 19 of the succeeding set of forms, in which case, the weakening line 30 will be in registration with the trailing edge, thus obviating the necessity for using the weakening lines 8.

Where the forms are intended for use in a typewriting machine having a cylindrical platen then I utilize two weakening lines 32 and 33 in the traveler web. The line 32 is in registration with the free ends of the forms, while the line 33 is in registration with lines 31 on the forms so that upon separation, all of the forms will be of the same size.

In Fig. 4 the weakening line 32 is spaced from the receiving or leading edge of the forms because of the fact that the forms are shorter than the available space on the web. If, however, one desires to use all of the available space on the web for typing purposes then the weakening line 32 may be placed adjacent the leading edge of the forms, as indicated at 6 in Fig. 4.

With existing equipment, business forms can most satisfactorily be made in lengths which vary by ⅛ of an inch. The present invention, however is well suited for accommodating forms of any length within predetermined maximum limits, because the space available between the apertures on the web may accommodate any length desired. If the forms are shorter than the space available on the webs, then there will be a slight excess of material left on the web upon severance of the forms, but this amount is negligible insofar as the cost of the product is concerned.

In Fig. 6, I have shown a modification of the invention wherein the forms are not used. Instead, the web is provided with envelopes at regular intervals which are attached in any suitable manner such as by means of adhesive thereto. Preferably the flaps 40 of the envelopes are each provided with a weakening line 41 by means of which they can be readily detached from the web. With this arrangement therefore the envelopes can be fed rapidly into a machine, without necessitating individual handling at the time of use.

An advantage of my invention is the fact that an envelope may be simultaneously typed with the record forms, but whenever desired, the typing on the envelope may be omitted. In such instance it is only necessary to omit the strip 18 of transfer material which normally would be contiguous to the envelope. The envelope however would be available for instant use by the operator in case some special information must be typed thereon that should not appear on the other forms.

I claim:

1. In combination, a long continuous traveler web having envelopes attached thereto at regular intervals, the envelopes being substantially the same in one dimension as the transverse dimension of the web and each envelope having a flap and an adhesive strip thereon extending transversely thereof and adjacent its edge, and each having a weakening line extending through the strip transversely of the flap and dividing the same into a plurality of adhesive portions, that portion of the adhesive between the weakening line and the marginal edge of the flap only being attached to the web whereby when the envelope is severed on said weakening line, the flap contains an unmarred adhesive strip extending across the marginal portion of the flap.

2. In combination, a long continuous traveler web having envelopes attached thereto at regular intervals and in non-overlapping relationship and each envelope having an extended flap and having an adhesive strip on one side thereof, the flap also having a weakening line dividing the strip into two portions, one of which is attached to the web for holding the envelope in adjusted position thereon and the other portion being adapted for sealing the envelope upon severance of it along said weakening line.

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