Aug. 22, 1939. C. W. BRENN 2,169,994

MANIFOLDING

Filed Jan. 13, 1936

Fig. 1

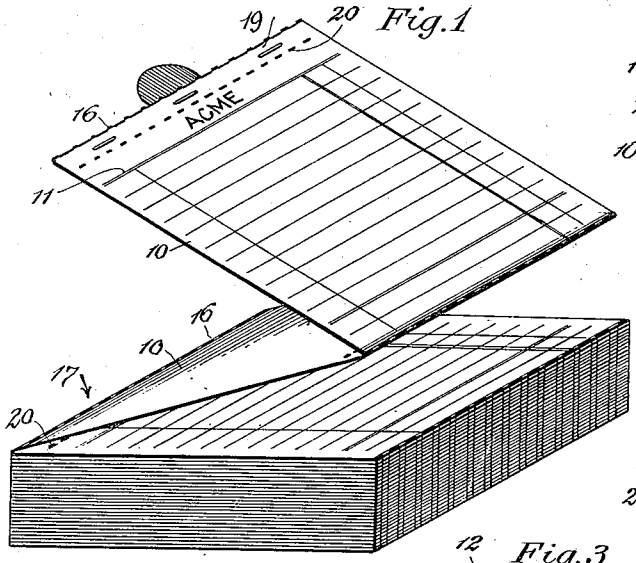


Fig. 2

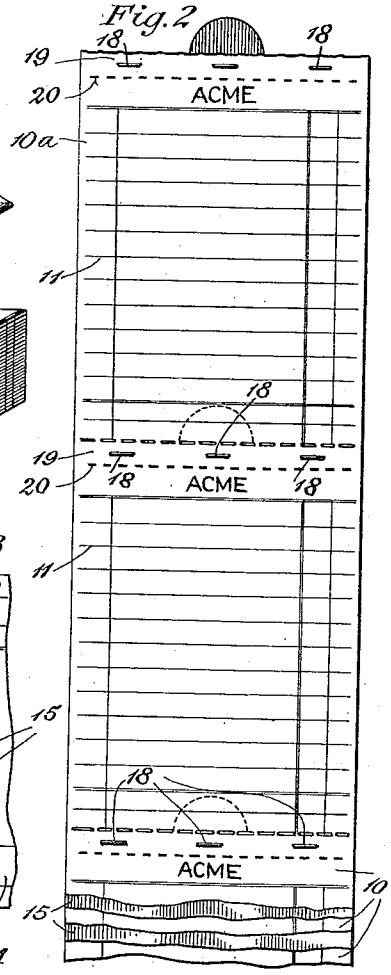


Fig. 3

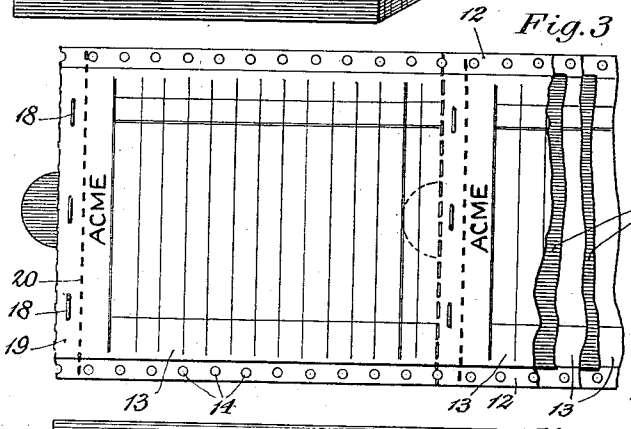


Fig. 4

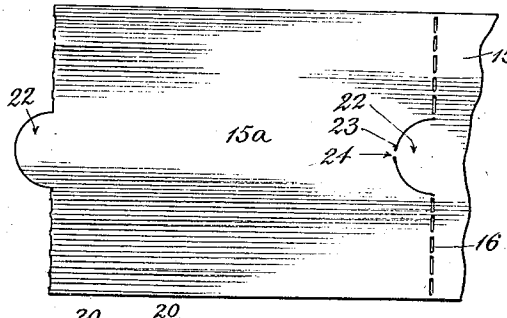


Fig. 5

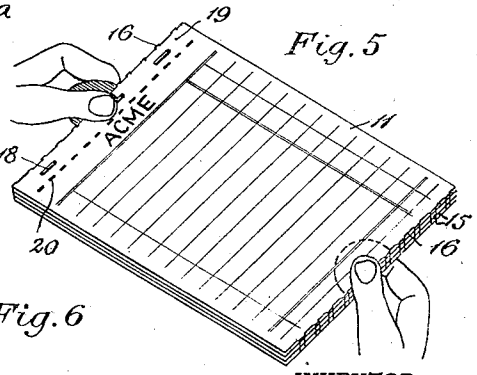
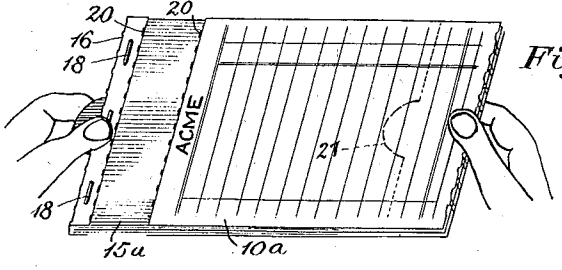


Fig. 6



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MANIFOLDING

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Application January 13, 1936, Serial No. 58,863

1 Claim. (Cl. 282—12)

This invention relates to manifolding, and more particularly, to a pack of continuous strips which may be easily divided into bound sets of superposed record and transfer sheets so that entries may be made in corresponding designated spaces on all the record sheets.

An object of this invention is to provide means for facilitating the stripping of the carbon sheets from the records after the entries are made and the record sheets are to be separated and distributed to various places.

Heretofore, it was proposed to secure the continuous record and carbon strips together at transverse stub-like marginal portions of the records so that a severed superposed set of sheets may be held together at one end by the fingers of one hand while the record sheets are torn one after another from the stub along weakening severance lines.

According to the present invention, provision is made for separating all of the records simultaneously from the stub portion. For this purpose, the carbon sheets, at their transverse margins opposite the stub portion, are provided with grip-escape apertures or spaces so that the record sheets may all be gripped together by the fingers of one hand to be pulled or snapped simultaneously from the stub portion which retains the carbon sheets.

According to this invention, these grip-escape spaces are produced as the result of the operation of tearing one set of forms from the continuous pile, for the lines of severance in the continuous carbon strips have divergent segments extending into the next adjacent form and defining a tab which is removed from the next adjacent form when the written form is severed from the pile. Consequently, during the writing on the form, the tab remains in place and transfers to the underlying record strip matter produced over it on the upper strip.

Other features and advantages will hereinafter appear.

In the accompanying drawing which illustrates several forms of the invention—

Figure 1 is a perspective view of a pile of record and carbon strips made according to this invention.

Fig. 2 is a plan view of a portion of the pile of strips.

Fig. 3 is a plan view of a modification of the pile of strips shown in Figs. 1 and 2 in which the record strips are provided with marginal feeding bands apertured to engage pin-wheel feeding devices.

Fig. 4 is a plan view of the carbon strip employed in the forms of the invention shown in Figs. 2 and 3.

Fig. 5 is a perspective view showing a severed bound set of record and carbon sheets being gripped at opposite ends for stripping purposes.

Fig. 6 is a similar view but showing the record strips as having been snapped away from the stub portions of the bound set of sheets.

As shown in the accompanying drawing, the pack of the present invention comprises a plurality of continuous runner record strips 10 which are usually provided with printed matter 11 providing delineated spaces to receive notations. The margins of the record strips 10 are sometimes plain, as shown in Figs. 1 and 2, but they may, if desired, be provided with feeding bands 12 at one or both sides of the strips, as shown on the record strips 13 illustrated in Fig. 3. The feeding bands usually have holes or apertures 14 to engage pin-wheel feeding devices on the typewriter or other machine in which the paper supply is used.

Between each two record strips there is provided a continuous runner carbon strip 15, which may be as wide as the record strips as shown in Figs. 1 and 2, or which may be narrower than the record strips so as to leave the feeding bands 12 free of interposed carbon, as shown in Fig. 3.

The carbon strips are provided so that data filled in on the uppermost strip will be reproduced on the lower strips.

The record and carbon strips are divided into sheet lengths 10*a* and 15*a* respectively of transverse lines by perforations 16 or other weakening severance lines. In bringing the strips together during the manufacture of the pile, the record sheets 10*a* and carbon sheets 15*a* are caused to be substantially superposed so that the lines of severance 16 in the record and carbon strips are in registration depthwise of the pile, and this makes it convenient to fold the strip zigzag to form a block or pack 17, as shown in Fig. 1. Usually, when one set of forms of sheet lengths 10*a* has been written upon, the superposed group of sheets 15*a* is severed from the remaining portion of the pile along the lines of severance 16 and the various sheets are distributed in devious ways.

However, it is sometimes desired to maintain the record sheets 10*a* and carbon sheets 15*a* together after the first writing operations have been performed so that subsequent entries made on the uppermost record sheet will be produced in the same place on the lower record sheet or

sheets. For this purpose, the record and carbon strips are secured together at form length intervals by staples 18, or other fastening means. As shown, three staples 18 are provided at the top of each group of sheet lengths and spaced somewhat from the transverse lines of severance 16. Accordingly, when the sheet lengths 10a and 15a are severed, they will be held together in registration.

When this is done, and the final entries have been made on the booklet of record and carbon sheets, it is desired to separate the records from the carbons and distribute the records to various places. This may be done of course by removing the staples and taking one record sheet after the other from the pile. It is preferable, however, for this purpose to provide a stub portion 19 for each group of sheets within which the staples 18 are located, and which is defined by transverse weakening lines 20 in the record sheets.

According to the present invention, transverse lines or perforations 20 are provided only in the record strips and are of such nature that all the record strips may be gripped together and snapped as a unit from the stub and the carbons being bound in the stub will remain with the latter.

To permit the records to be gripped together, and independent of the carbons, provision is made by the present invention whereby in each booklet of bound record and carbon sheets there is a grip-escape aperture 21, shown in dotted lines in Figs. 5 and 6, in the carbon sheets at the edge thereof opposite the stub 19. When the record strips are gripped over this grip-escape aperture 21 by the fingers of one hand, as shown in Fig. 5 and the stub portion 19 is gripped by the fingers of the other hand, and the two hands are drawn apart as shown in Fig. 6, the record sheets will be removed as a unit from the carbon sheets and the binding stub.

The grip-escape apertures 21 may be formed in the carbon strip by blanking out a segment of each carbon sheet, but if this were done it would leave a portion of each record beneath which there would be no transfer material. Accordingly, in manufacturing the carbon strip, as shown in Fig. 4, the line of severance 16 is interrupted by a cut 23 diverging from the transverse lines and providing a tab portion 22 on one carbon sheet 15a extending into the embryonic grip-escape aperture 21 in the next adjacent sheet length 15.

Hence, when the record and transfer strips 10a and 15a are severed along the lines of weakness 16, a tab 22 will project from one transverse margin of the booklet of sheets while the grip-escape aperture 21 will be located at the other end of the booklet of sheets. The cut 23 need not be continuous and may be interrupted by a tie 24 for holding the tab intact with the next adjacent form.

It will be seen that while in strip form portions of the record strips directly over the embryonic grip-escape aperture may be written upon, and that the writing will be reproduced on the lower strips because the carbon sheet is complete at that time, and that it is not until the set of forms is severed from the pile that the grip-escape opening 21 is produced.

Variations and modifications may be made within the scope of this invention, and portions of the improvements may be used without others.

I claim:

A manifolding pack comprising a plurality of continuous runner record strips; a continuous transfer strip interleaved between each two record strips in superposed relation, said strips being longer than a single form length and being provided at form length intervals with registered transverse weakening severance lines along which the strips may collectively be severed into form lengths to provide a set of record and transfer sheets, each form length of the transfer strip having a tab lying in a space in the next adjacent form length of the transfer strip to provide a grip-escape space at one margin of the transfer sheet of each severed set of form length record and transfer sheets as a result of the severing thereof; means securing each set of superposed form lengths of record and transfer sheets together along margins thereof transverse to the length of the pack, and transverse lines of severance in the record strips adjacent the first-named lines of severance but spaced from the latter beyond said securing means, said transverse lines of severance in the record strips defining stub portions over which the record sheets of a form length set of record and transfer sheets may be snapped when all the sheets of said set are held by the stub portion with the fingers of one hand while the record sheets of said set are gripped, separately from the transfer sheets and over the grip-escape spaces at the margin of the record sheets remote from the stub portion, with the fingers of the other hand.

CARL W. BRENN.