June 10, 1941. C. E. WYRICK ET AL 2,244,819

CARBON FOLDER FOR SPEED-FEED MANIFOLDING DEVICES

Filed July 24, 1939 2 Sheets-Shect 1

FIG. 1

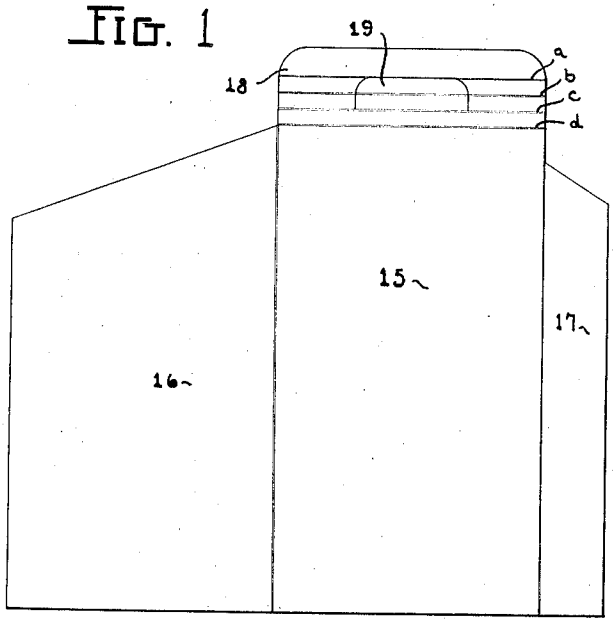


FIG. 2

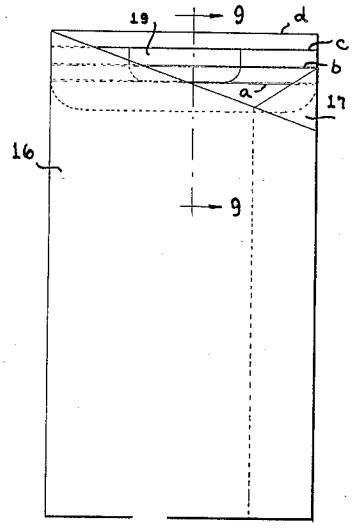


FIG. 3

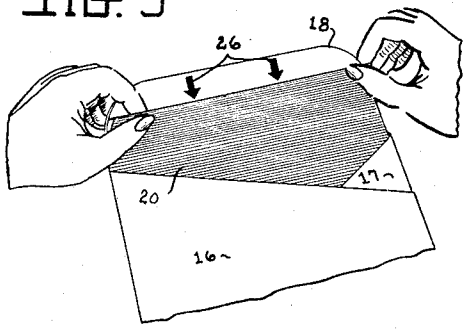


FIG. 5

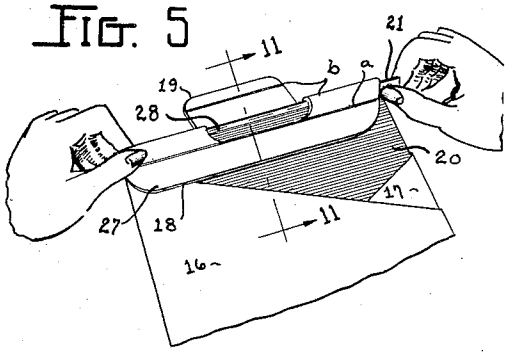


FIG. 4

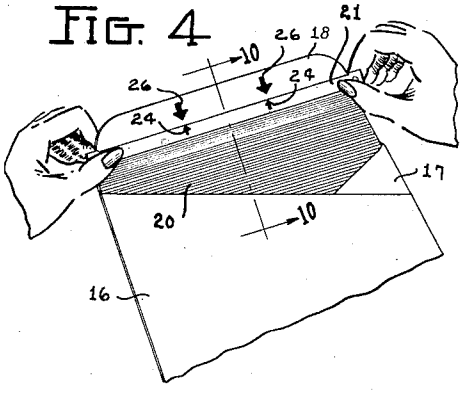
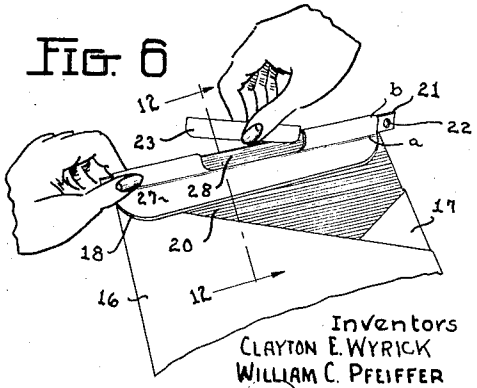


FIG. 6



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CARBON FOLDER FOR SPEED-FEED MANIFOLDING DEVICES

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FIG. 7

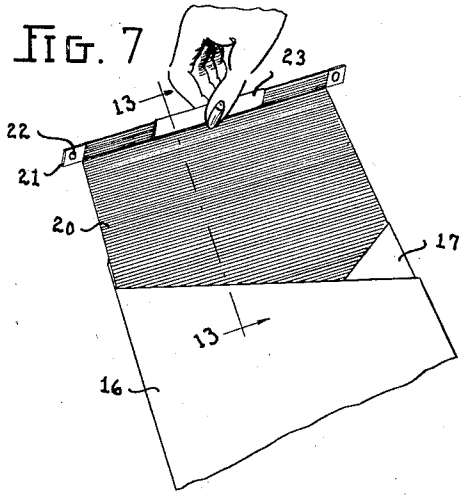


FIG. 8

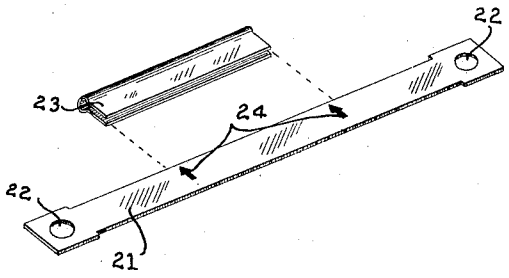


FIG. 9

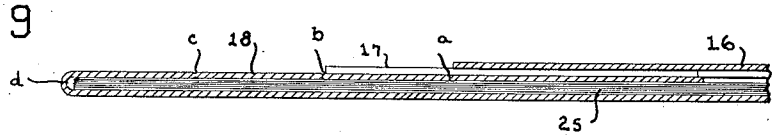


FIG. 10

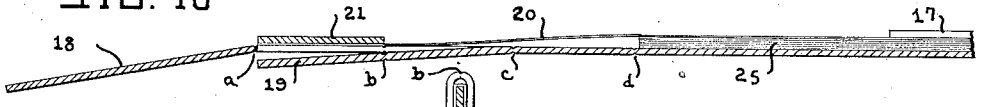


FIG. 11

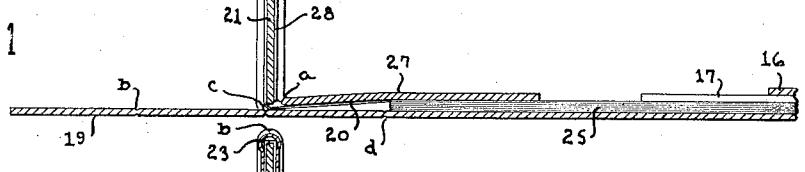


FIG. 12

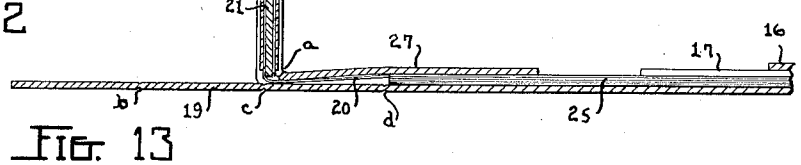
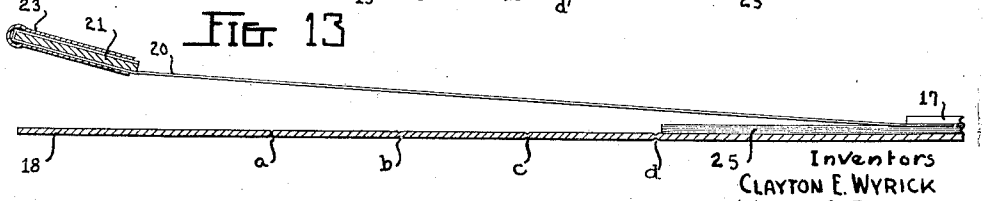


FIG. 13



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CARBON FOLDER FOR SPEED-FEED MANIFOLDING DEVICES

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Application July 24, 1939, Serial No. 286,050

11 Claims. (Cl. 282—29)

This invention relates to improvements in carbon sheet packages or folders therefor, and the method of loading webs or sheets of carbon in manifolding mechanism such as typewriters, billing machines, autographic registers and similar types of machines.

In order to faciiitate proper positioning of carbon sheets between the strips of paper in manifolding devices it has been necessary heretofore to print guide lines or other indicia on the machine and to punch holes or markings on the carbon sheets. This processing of the carbon paper and machine is expensive and involves considerable waste.

It is an object of this invention to eliminate the need for processing manifolding machine parts or the carbon sheets and to provide an improved folder for retaining a suitable supply of carbon webs which is equipped with means whereby as each sheet is withdrawn for use it can be rapidly and accurately folded and placed in a suitable carbon sheet holder preparatory to inserting in the machine.

Another object is to provide an improved container for carbon sheets, strips or webs which is designed so that the carbon strips can be readily removed therefrom and attached to the holder in one operation.

Another object is to devise a package for retaining a pack of carbon sheets which package is provided with means whereby the carbon paper members can be folded in accurate alignment with the holder and simultaneously clamped thereto so that it can be readily placed in the manifolding device.

It is a further object to provide an improved method of quickly loading carbon sheets on suitable holders without the use of holes or markings on the carbon sheet.

It is a further object to provide an improved mechanism and method for loading webs of duplicator members on holders using the ordinary carbon paper sheets or webs.

A still further object is to provide an improved packet or folder for carbon sheets for use in machines of the character mentioned wherein said sheets are devoid of alignment markings and whereby the webs of carbon may be fastened to the holder at either the top or bottom portion of the sheet during use.

Although this invention is described with particular reference to carbon paper, it will be understood that this invention is applicable for use with various types of sheets or webs of material in devices or mechanisms of this general nature.

These and other objects will appear from the following description taken in connection with the drawings.

In the drawings:

Figure 1 is a plan view of the unfolded packet or folder of this invention shown in position for receiving a plurality of carbon sheets;

Figure 2 is a similar view showing the folder in a closed position;

Figures 3, 4, 5, 6 and 7 illustrate pictorially the method for extracting carbon sheets from a pack and attaching it to the carbon holder member preparatory to inserting the same into a manifolding machine;

Figure 8 is a perspective view of a carbon sheet holder and clamping means for securing the carbon sheet thereto;

Figure 9 is a sectional view taken on the line 9—9 of Figure 2;

Figure 10 is a similar sectional view taken on the line 10—10 of Figure 4;

Figure 11 is a sectional view taken on the line 11—11 of Figure 5;

Figure 12 is a sectional view taken on the line 12—12 of Figure 6;

Figure 13 is a similar sectional view taken on the line 13—13 of Figure 7.

Referring to the drawings in detail, in Figures 1 and 2 there is illustrated a carbon sheet folder which may be made of any suitable material, such as cardboard, heavy paper, metal, wood or the like. Preferably the folder is made of heavy paper or other pliable inexpensive material which can be creased and folded to the desired shape.

The folder comprises a central backing member 15 which is of the proper width to accommodate the particular size carbon sheet or web desired and has hinged to the side and end portions the flap members 16, 17 and 18, respectively, as shown in Figure 1. The side flaps 16 and 17 are of different width so that they may be overlapped to provide a suitable enclosure as illustrated in Figure 2.

The uppermost end portions of the flaps 16 and 17 are diagonally cut away so as to permit easy access to the carbon sheets after the flap 18 is lifted out of the folder. The upper flap portion 18 is provided with transverse score lines *a*, *b*, *c*, *d* and a central flap member 19 which is cut away between the score sections *a* and *c* for the purpose hereinafter described.

Method of loading carbon sheets

Referring to Figures 3 to 13 inclusive, it will be noted that in use the carbon sheets **20** are individually mounted on a holder member **21** and then positioned between sheets of paper in a manifolding machine. As shown in Figure 8 the holder **21** consists of a tape or strip, made of any suitable material, which is provided with holes **22** in the ends for positioning the holder in the manifolding device. In order to fasten the carbon sheet to the holder there is provided a spring clamp means **23** which is applied over the holder **21** after one end of the carbon sheet has been folded therearound so as to pin it securely thereto. Arrows or other suitable markings **24** are placed on the holder in order to aid the operator in properly positioning the holder laterally with respect to the carbon sheet.

In loading the carbon sheet on the member **21** it is essential that the sheet be mounted squarely thereon; otherwise the carbon sheet will be out of alignment with the paper webs between which it is placed in the manifolding machine. By the use of the improved carbon sheet folder of this invention the loading of the carbon sheets is readily and rapidly effected.

The procedure for doing this is illustrated in Figures 3 to 7 and comprises taking one of the folders in which a pack of carbon sheets **25** is enclosed, raising the cover **16** and lifting out the flap **18** exposing the upper edges of the carbon sheets. The cover **16** is then closed and with cover flaps **16** and **17** closed and the folder lying flat, a single carbon sheet is drawn forward over the flap section **18** until the top edge of the carbon sheet is even with the upper score line *a* and adjacent the arrow markings **26** on the flap **18**, as shown in Figure 3. By maintaining the carbon sheet folder or packet closed lateral movement of the carbon sheet with respect to the folder is prevented.

After the carbon sheet has been positioned over the flap a carbon holder strip **21** is then placed over the top edge of the carbon sheet so as to be superimposed over the space defined by the score lines *a* and *b* and having the markings **24** in register with the arrows or equivalent markings **26** on the flap **18**, as illustrated in Figure 4. The ends of the holder **21**, carbon sheet **20** and flap **18** are then grasped with both hands and folded over the score line *c*, and the folding is continued until the holder and flap sections disposed thereover are in perpendicular position with respect to the flap portion **27** forming the uppermost portion of the flap **18**, as shown in Figure 5. While holding the parts in this position the clip **23** is placed over the carbon sheet portion **28** exposed in the opening provided by the flap **19**, firmly securing the sheet to the supporting strip **21**, as illustrated in Figure 6.

After clamping the carbon sheet to its supporting member **21** the flap portion **18** is released and the holder and attached carbon sheet withdrawn from the pack, as illustrated in Figure 7. In this manner a carbon sheet squarely aligned on a support is provided which can be easily and rapidly positioned in the manifolding device. After use the carbon sheet may be detached from the holder by removing the clip **23** and returned to the packet for further use.

It will be understood that we desire to comprehended within this invention such modifications as may be necessary to adapt it to varying conditions and uses.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

1. As an article of manufacture, a package for retaining a pack of carbon sheets, said package comprising a central backing member with hinged side flap sections squarely folded relative to said backing member, said flap sections being of different width so that they may be overlapped to provide an enclosure for said carbon sheets and an uppermost flap section comprising a plurality of transverse score lines for facilitating the loading of the carbon sheet onto a holder, said uppermost flap containing a smaller flap concentric therewith.

2. As an article of manufacture, a carbon sheet container for holding carbon sheet material from which individual sheets are to be withdrawn and mounted on a holder, comprising a backing member of substantially the same size as said carbon sheet material, means comprising an uppermost multiple flap section having folding scored sections thereon and squarely folded side flaps whereby as each sheet is withdrawn from said container it can be maintained in substantial alignment along the edges of said container, said scored flap section forming an extension of said backing member and arranged whereby said sheet material can be squarely folded and attached to said holding supporting member.

3. An improved method of loading sheet material on a support, comprising partially withdrawing the sheet material from a container for a measured distance while maintaining the axis of said sheet in alignment with the corresponding axis of said container, positioning the forward edge of said sheet material in register with a score line on said container, placing said support across the uppermost portion of said sheet and at right angles to the longitudinal axis thereof and folding a portion of the container with said sheet material around said support attaching the sheet firmly to the support while maintaining a portion of the container over said sheet material.

4. An improved method of loading carbon sheet material on to a support preparatory to inserting the same in a manifolding machine, comprising the steps of partially withdrawing a carbon sheet from a container for a measured distance while maintaining said sheet in alignment with the sides of said container, positioning the forward edge portion of said carbon sheet in register with a score line on said container, placing said support means transversely of the uppermost portion of said sheet and at right angles to the longitudinal axis thereof and aligning said support laterally with respect to means on said container, and squarely folding simultaneously a portion of the container and carbon sheet over said support means and then fastening said carbon sheet firmly to said support and finally removing the carbon sheet attached to said support from said container.

5. An improved method of loading carbon sheet material on to a support preparatory to inserting the same in a manifolding machine, comprising the steps of partially withdrawing a carbon sheet from a container for a measured distance while maintaining said sheet in alignment with the sides of said container, positioning the forward edge portion of said carbon sheet in register

with a score line on said container, placing said support means transversely of the uppermost portion of said sheet and at right angles to the longitudinal axis thereof and aligning said support laterally with respect to means on said container, and folding said uppermost portion of said carbon sheet together with a portion of said container around said support while maintaining it squarely with respect thereto releasing a portion of said folded container portion and fastening said carbon sheet to said support.

6. An improved method of loading carbon sheet material on to a support preparatory to inserting the same in a manifolding machine, comprising the steps of withdrawing a carbon sheet from a container for a measured distance while maintaining said sheet in alignment with the sides of said container, positioning the forward edge portion of said carbon sheet in register with a score line on said container, placing said support means transversely of the uppermost portion of said sheet and at right angles to the longitudinal axis thereof and aligning said support laterally with respect to means on said container, folding said uppermost portion of said carbon sheet with a portion of said container around said support while maintaining it squarely with respect thereto, releasing a part of said container portion from folded position while attaching said carbon sheet to said support, then releasing the remainder of said folded container portion from said support and removing the supported carbon sheet from said container, and removably attaching said carbon sheet to said support means.

7. As an article of manufacture, a container for holding carbon sheet material from which individual sheets can be readily withdrawn and mounted on a holder, comprising a backing member of substantially the same size as said carbon sheet material, side flap members attached to said backing member and foldable in overlapping engagement, and an uppermost flap section comprising a continuation of said backing member, said uppermost flap section containing a smaller cut-out flap section and having a plurality of score lines extending transversely across both flap portions and at right angles to the side flap folds for facilitating the loading of the carbon sheet onto a holder when said sheet is partially withdrawn from said container.

8. As an article of manufacture, a container for holding carbon sheet material from which individual sheets are to be withdrawn and mounted on a holder, comprising a backing member of substantially the same size as said carbon sheet material, side flap members attached to said backing member and foldable in overlapping engagement, and an uppermost flap section comprising scored portions about which said flap is foldable, said uppermost flap section including a smaller cut-out flap for facilitating the fastening of the carbon sheet to said holder preparatory to inserting in a manifolding mechanism.

9. As an article of manufacture, a package for retaining carbon sheets from which individual sheets are withdrawn and mounted on a holder, comprising a backing member having overlapping side flap portions and an uppermost flap section, means comprising score lines on said uppermost flap section which extend perpendicularly to the fold lines of said side flap portions, said uppermost flap comprising a central opening for facilitating the fastening of the carbon sheet to said holder preparatory to inserting in a manifolding mechanism, said side flap portions being squarely folded to provide a backing of substantially the same width as said carbon sheets and arranged so that the individual carbon sheets can be partially withdrawn from said package while maintained in accurate alignment with said package and squarely folded with respect to the edges of said carbon sheet.

10. As an article of manufacture, a package for containing carbon sheets, said package having a backing member of substantially the same size as the carbon sheets, and having overlapping side flap members and an uppermost flap portion whereby said sheets may be partially withdrawn from said package while being maintained in alignment with said backing member and squarely attached to a holder preparatory to positioning in a manifolding device, said uppermost flap portion comprising transverse scored sections along which the flap is squarely folded together with a partially withdrawn carbon sheet, said uppermost flap having an apertured portion therein for providing access to said folded carbon sheet and holder.

11. As an article of manufacture, an improved container for carbon sheets, strips or webs, said container being equipped with a backing member comprising parallel squarely folded side flaps and an uppermost flap section extending across the top and folding an extension of said backing member, a smaller sized flap portion cut out of said uppermost flap, means comprising score line portions on said uppermost and cut-out flaps which extend perpendicularly to the side fold flap portions whereby the carbon sheet material can be partially withdrawn from said container and rapidly and squarely folded along the upper edge and secured to a holder preparatory to placing said carbon sheet material in a manifolding mechanism.

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