Aug. 4, 1942. J. H. McALVIN 2,292,343

CARBON PACK

Filed April 17, 1941

Fig. 1.

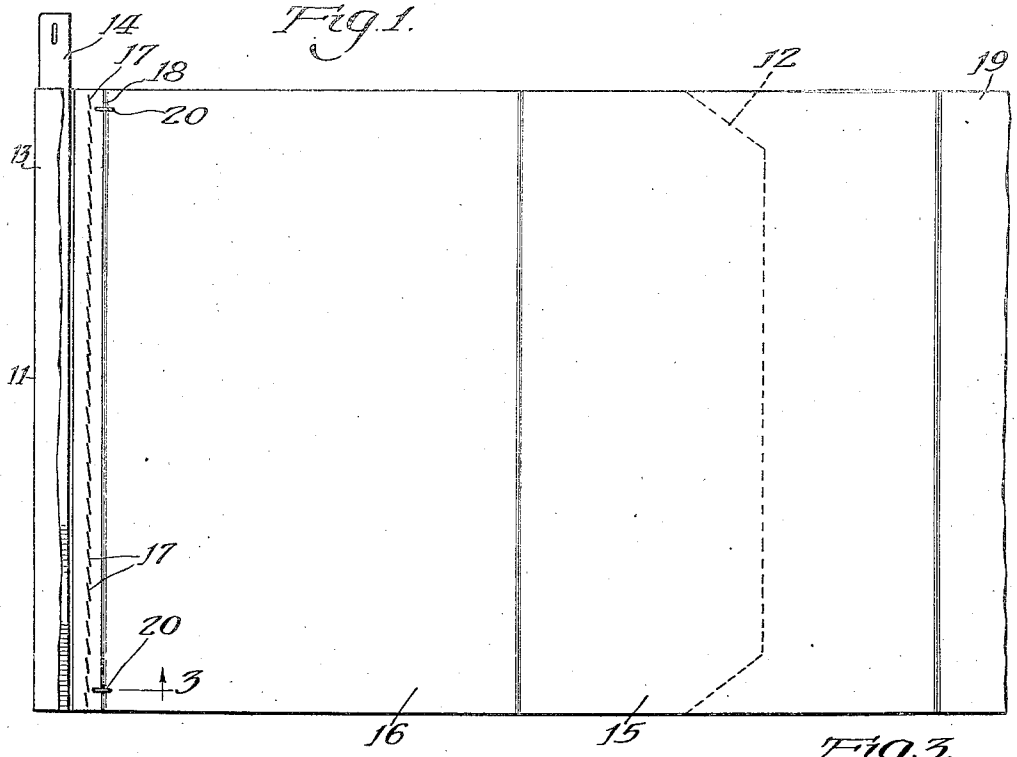


Fig. 3.

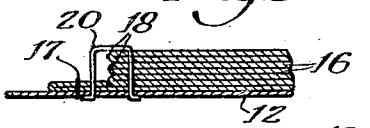


Fig. 2.

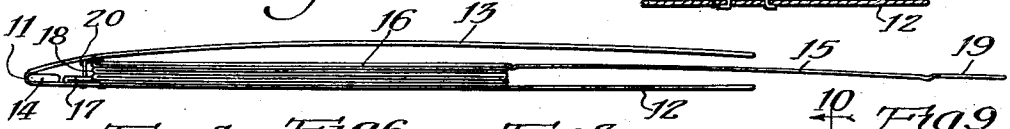


Fig. 4.

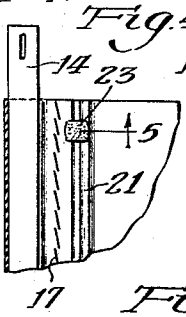


Fig. 6.

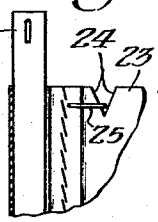


Fig. 7.

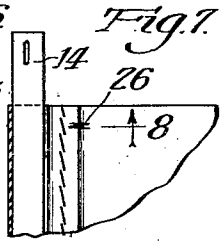


Fig. 9.

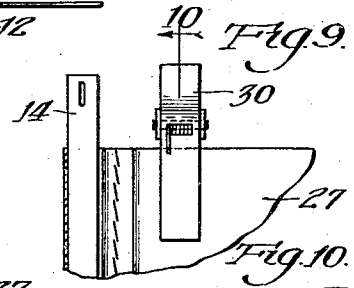


Fig. 10.

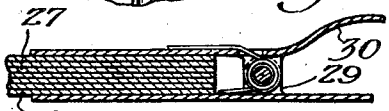


Fig. 5.

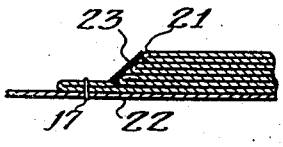
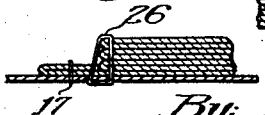


Fig. 8.



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Patented Aug. 4, 1942

2,292,343

UNITED STATES PATENT OFFICE

2,292,343

CARBON PACK

James H. McAlvin, Chicago, Ill.

Application April 17, 1941, Serial No. 389,071

8 Claims. (Cl. 282—19)

This invention relates particularly to a manifolding packet of transfer material, such as carbon paper, which may be interleaved between strips of stationery, which is advanced to writing position with respect to the platen of a machine.

The primary object of the invention is to provide an improved arrangement of the carbon strip whereby a reserve supply of carbon may be stored between the stationery strips and be readily available for use whenever the forwardly extending free end of the strip has become worn out and must be discarded.

Heretofore, it has been proposed to provide rolls of continuous carbon adjacent to the stationery strips so that it may be drawn into interleaved relation with the stationery. More recently a flatly wound packet has been wound on a flat core and held on the anchoring bar by the machines using this type of stationery. The use of round carbon rolls, as explained above, requires special apparatus, and when flat rolls of carbon are used, it is necessary to remove the supply from the stationery strips in order to unwind a fresh length of transfer material.

One of the principal objects of the present invention is to provide a supply of transfer material in a carrier member wherein the carbon is zigzag folded to form an accordion pleat, so that when additional carbon is desired, it is unnecessary to remove the supply from its interleaved position in the stationery and the operator need only pull forward an additional length, which will be twice the width of the accordion pleat.

A further object of the invention is to provide simple methods of detachably securing the rear folds of the accordion pleat to a carrier member so that there is no danger of the carbon pulling out before the operator desires a fresh length.

Another object of the invention is to provide a simple and inexpensive zigzag folded supply of carbon, which may be secured to a carbon-holding bar extending between the strips of stationery, which may be either separate superposed strips or fanfold strips, i. e., stationery wherein the superposed strips are connected by a line of folding at one edge.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a broken plan view showing how the improved pack may be anchored to the holding bar of a manifolding machine; Figure 2, a side elevational view of the same; Figure 3, a fragmentary sectional view, taken as indicated at line 3 of Figure 1; Figure 4, a fragmentary plan view showing a modified form of fastening device employing an adhesive; Figure 5, a fragmentary sectional view, taken as indicated at line 5 of Figure 4; Figure 6, a fragmentary plan view showing another way of fastening the rear folds by means of a staple; Figure 7, a fragmentary plan view showing the rear folds secured by stitching; Figure 8, a fragmentary sectional view, taken as indicated at line 8 of Figure 7; Figure 9, a fragmentary plan view showing how the rear folds of the carbon may be held with a mechanical clip; and Figure 10, a sectional view, taken as indicated at line 10 of Figure 9.

In the embodiment illustrated in Figures 1 to 3, a carrier member, preferably made of waxed paper or "glassene" paper, is folded, as indicated at 11, forming a body sheet 12 and a cover or flap portion 13. The fold forms a pocket at the rear end which is adapted to be engaged by a carbon-holding bar 14 which may be made of sheet metal and is part of an attachment for a typewriter adapted to use this type of stationery.

It will be understood that the packet is interleaved between two strips of stationery, not shown, which would be drawn forwardly from left to right, as viewed in Figure 1, to writing position.

A long continuous-strip of transfer material, such as carbon paper 15, is zigzag folded to provide a wide accordion pleated section 16 having its rear folds in close proximity to the fold 11 in the carrier member and the main reserve body of the transfer material disposed between the body and flap portions of the carrier member. The rear end of the carbon sheet is shown secured to the body portion of the carrier by stitching 17. This connection may be made directly to the end of the carbon sheet, or if preferred, a short uncarbonized link or coupling strip may be employed. However, it is desirable to have the connection close to the fold 11, and if the rear folds 18 are disposed slightly in front of where the bar 14 will fit, there will be less bulkiness around the bar and accordingly less interference with the forward advance of the stationery during a stripping operation.

It will be understood that the free end 19 of the carbon strip may be pulled out forwardly under the flap 13 and extended into manifolding relation with the adjacent stationery strip.

If the carbon strip is of sufficiently strong paper, it will be unnecessary to attach the rear folds of the pleat to the carrier strip. In some cases the zigzag folded carbon strip may be attached to the carbon blade and the carrier member omitted, although this is not the preferred

construction, because the carrier member protects the supply of carbon, is smooth and offers less resistance to the advance of the stationery.

In Figures 1 to 3, the rear folds 18 are loosely secured to the carrier member by means of a wire staple 20 which may have both legs impaling the pack of carbons, but preferably, as illustrated, only one leg passes through the pack of carbon and this is disposed very close to the fold 18, so that when the free end of the carbon 19 is given a sharp tug, the top fold in the carbon may tear away from the staple 20 while the remainder of the folds stay in position.

In the modification shown in Figures 4 and 5, the rear folds 21 of the accordion pack are detachably secured to the carrier 22 by means of a spot of glue 23 or an adhesive strip which will readily become detached when the carbon is pulled forwardly with a slight jerk.

In Figure 6, the zigzag folded pack of carbon 23 has a V-shaped notch 24 at its rear end and a staple 25 is positioned in said notch but does not impale the carbons. It will be understood that the strip may be pulled out in the same way without danger of tearing.

In Figures 7 and 8, stitching 26 with fine thread is provided.

In Figures 9 and 10, the rear portion of the accordion folded pack 27 is clamped against the carrier sheet 28 by means of a spring clip 29 having a handle portion 30 extending outwardly beyond the margins of the stationery. In this form the spring clips must be released before a fresh supply of carbon is drawn out of the pack.

Here again the carrier member might be omitted and the mechanical clip used to secure the zigzag folded strip directly to the carbon-holding bar 14.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom for some modifications will be obvious to those skilled in the art.

I claim:

1. A manifolding flat pack of transfer material, adapted to be anchored to a holding bar between superposed strips of fanfold stationery, comprising: a carrier member having a body portion, and a flap portion adapted to be folded over a holding bar to hold the carrier member against forward movement with respect to the stationery and protect the contents of the carrier; a single continuous strip of transfer material zigzag folded and creased crosswise of the stationery to form a wide accordion pleat on said carrier member, said strip having a free end adapted to extend forwardly with the stationery and the other end being fastened to the body of the carrier member in close proximity to the fold in said flap portion and the creases in said strip at the rear folds of the pleat serving also to resist unfolding of the transfer material when the free end is drawn forwardly between the strips of stationery.

2. A device as specified in claim 1, in which the flap portion of the carrier member is of sufficient length to extend beyond the folded edges of the pleats in the transfer strip.

3. A carbon supply pack, adapted to be held on a bar between superposed strips of continuous-form stationery, compriisng: a carrier member folded to form a body sheet and a cover flap, said fold being adapted for engagement with a holding bar to anchor the member between stationery strips; and a single continuous strip of carbon having one end secured to said body sheet, slightly in front of said fold, said strip being zigzag folded and creased crosswise of the stationery to form a wide accordion pleat on the body sheet beneath the cover flap with a plurality of rear folds close to the fold in the carrier member and having a free end adapted to extend forwardly from under the cover flap, said rear creased folds serving to resist unfolding of the pleats when the free end is drawn forwardly.

4. A carbon supply pack, adapted to be held on a bar between superposed strips of continuous-form stationery, comprising: a carrier member folded to form a body sheet and a cover flap, said fold being adapted for engagement with a holding bar to anchor the member between stationery strips; a continuous strip of carbon having one end secured to said body sheet, slightly in front of said fold, said strip being zigzag folded crosswise of the stationery to form a wide accordion pleat on the body sheet beneath the cover flap with a plurality of rear folds close to the fold in the carrier member and having a free end adapted to extend forwardly from under the cover flap; and means detachably securing the rear portion of the accordion pleats to the carrier member.

5. A carbon pack as specified in claim 4, in which the securing means comprises a wire staple impaling the carrier member.

6. A carbon pack as specified in claim 4, in which the securing means comprises a wire staple straddling said rear folds and loosely secured to the carrier member, one leg of said staple impaling all of the superposed layers of the accordion pleats in the carbon strip.

7. A carbon supply pack as specified in claim 4, in which the rear end of the transfer strip is secured to the carrier member by stitching, and small portions of the rear folds are loosely stitched to the said carrier member.

8. A carbon supply pack as specified in claim 4, in which the rear folds of the carbon strip are disposed in upwardly and forwardly stepped relation, and parts of the folded portions are interconnected by a strip of adhesive.

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