May 12, 1942. H. W. ROTHERICK 2,282,610

CARBON AND COPY SHEET UNIT

Filed May 15, 1941

Fig. 1

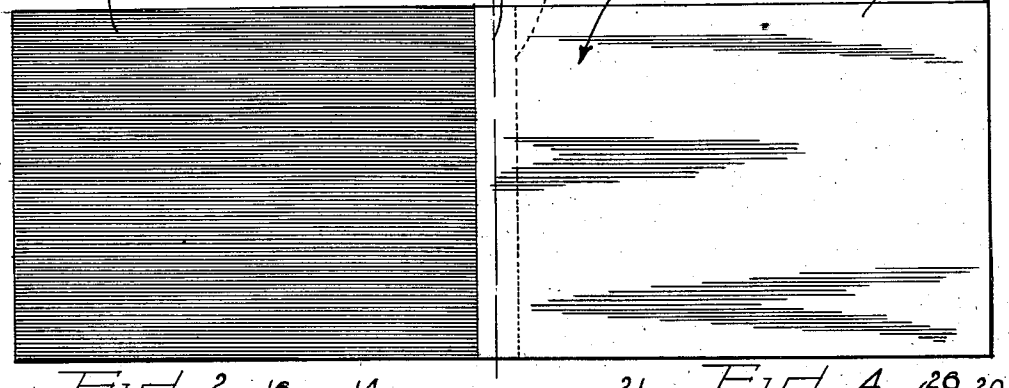



Fig. 2

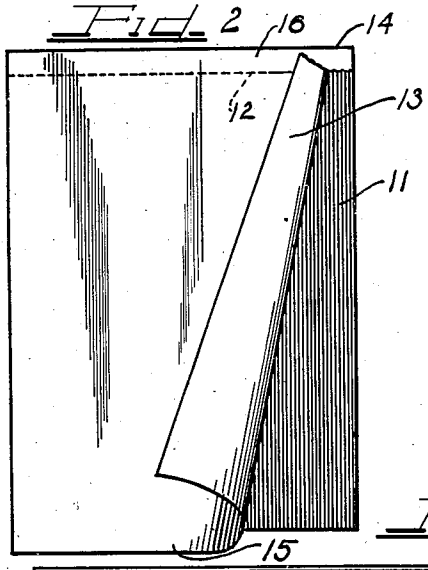



Fig. 4

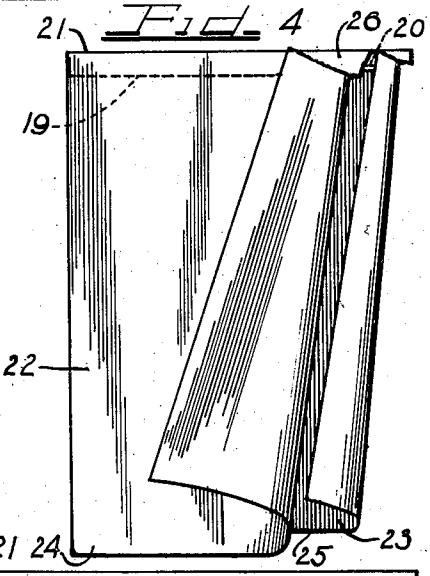
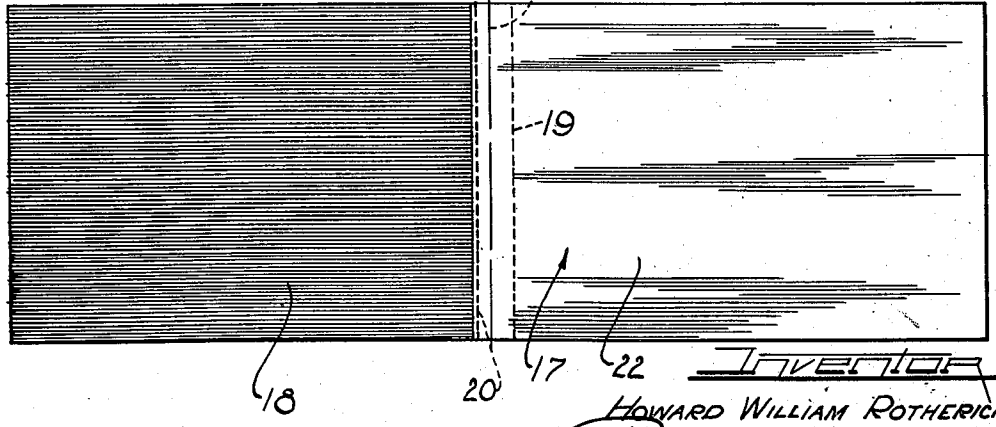



Fig. 3




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2,282,610

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2,282,610

## CARBON AND COPY SHEET UNIT

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Application May 15, 1941, Serial No. 393,525

4 Claims. (Cl. 282—26)

This invention relates to carbon and copy sheet unit, and more particularly to a one-piece combination transfer and copy sheet.

It is an object of the present invention to provide a simple and economical unit which includes a transfer sheet and a copy sheet which are integral with each other.

Another object of the present invention is to provide a novel transfer and copy sheet unit comprising a single piece of paper arranged to be folded transversely of its length at substantially its middle and in which a portion of said paper on one side of said transverse fold is provided with a transfer medium thereon.

A further object of the present invention is to provide a novel one-piece combination record sheet and transfer sheet which is flexible throughout its extent and substantially equal in thickness at all parts thereof and in which there is no thick or unflexible stub portion or other part forming excess thickness which would interfere with the free use of the unit in typewriting machines or in other forms of writing machines.

A still further object of the present invention is to provide a novel one-piece combination transfer and copy sheet and a method of making the same.

Another and further object of the present invention is to provide a novel one-piece transfer and copy sheet unit in which the copy sheet portion has a transversely weakened line in proximity to the region where it merges into the transfer sheet to permit ready severance of the copy sheet from the unit.

Another and still further object of the present invention is to provide a novel one-piece combination transfer and copy sheet in which the copy sheet portion is folded back over the transfer sheet portion, and in which the copy sheet portion and the transfer sheet portion have weakened lines of severance in proximity to the fold and at different distances therefrom.

The novel features which I believe to be characteristic of my invention are set forth in particularity in the appended claims. My invention itself, however, both as to its manner of construction, organization, and method of operation, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in connection with the accompanying drawing, in which:

Figure 1 is a plan view of a single sheet of paper having a portion thereof carbonized to provide a transfer medium and which is arranged to be transversely folded to provide a one-piece combination transfer and copy sheet unit;

Figure 2 is a view of the sheet shown in Figure 1 after it has been folded to form the desired unit;

Figure 3 is a view similar to Figure 1 with the exception that two transversely weakened lines, one on either side of the line of fold, is provided instead of a single transversely weakened line, as is shown in Figure 1; and,

Figure 4 is a view of the paper shown in Figure 3 after it has been folded and showing how both the copy sheet and the transfer sheet may be torn along their respective transversely weakened lines.

Referring now to the first embodiment of the present invention which is illustrated in Figures 1 and 2 of the drawing, there is shown a single sheet of paper 10 which is carbonized or provided with some other suitable transfer medium as at 11. This carbonized portion 11 extends over slightly less than one-half of the length of the complete sheet 10. A transversely weakened line is provided as at 12 on the uncoated or uncarbonized portion 13 of the sheet 10. The unbroken line 14 indicates the line of fold or the point at which the uncarbonized portion 13 will be folded over the carbonized portion 11.

In Figure 2, it will be seen that the portion of the paper in Figure 1 to the right of the line of fold 14 is slightly longer than the portion of the paper to the left of the line of fold 14. This is for the purpose of enabling the copy sheet portion 13 to extend slightly below the bottom of the carbonized portion 11 as at 15.

The above unit provides an extremely simple and economical combination carbon sheet and copy sheet unit which may be employed particularly in typewriters for making carbon copies. It will furthermore be understood by those skilled in the art that the original record sheet may be of any weight of bond or other paper or materials as desired, since it is not integrally connected with the transfer sheet and the copy sheet. It will also be understood that any number of units such as that shown in Figure 2 may be employed in conjunction with the original record sheet in order that the desired number of carbon copies may be made.

It will further be understood by those skilled in the art that the above described unit may be used with either the back or uncarbonized side of the carbonized portion 11 against the original record sheet or with the back side of the copy sheet portion against the original

record sheet. The former case provides the conventional arrangement of the carbon sheet between the record and copy sheet, while the latter case is sometimes used where the copy sheet is of thin tissue.

After the record has been made on the copy sheet portion 13 of the unit shown in Figure 2, the copy sheet portion 13 may be quickly torn from the remaining portion of the unit by grasping the upper portion 16 of the unit in one hand and the lower edge 15 of the copy sheet portion in the other hand and then exerting a pull therebetween. A quick, sharp jerk upon the sheet will be sufficient to sever the copy sheet portion 13 along the weakened line 12 from the remainder of the unit.

In making units of the type described above, a portion of the sheet 11 is carbonized, provided with a transversely weakened line, and folded. Because of the extreme simplicity of this unit, it will at once be apparent to those skilled in the art that an extremely economical article will result. While the nature of the transfer medium may vary through wide limits without departing from the spirit and scope of the present invention, it is preferable that the transfer medium be of the type known to the art as "a one time carbon."

In Figures 3 and 4 of the drawing, a modified form of the invention is illustrated, which provides a construction in which the carbon sheet portion may be reused, if desired. More particularly, as shown in Figure 3, a single sheet of paper 17 which is carbonized or provided with some other suitable transfer medium, as at 18. In this form of the invention, however, two transverse lines of severance 19 and 20 are provided instead of a single line of severance. One transverse line of severance 19 is provided to the right of the line of fold 21 while a second transverse line of severance 20 is provided to the left of the line of fold 21, and for reasons which will hereinafter be apparent, the two weakened lines 19 and 20 are spaced at different distances from the line of fold 21. As in the first form of the invention, the portion of the paper 17 to the right of the line of fold 21 provides a copy sheet portion 22.

In Figure 4 of the drawing, the paper 17 is shown after it has been folded to provide a copy sheet portion 22 and a transfer sheet portion 23. It will be observed that the line of fold 21 is positioned so that the lower edge 24 of the copy sheet portion 22 extends below the lower edge 25 of the carbon sheet portion 23. It will further be observed that the weakened line of tear 19 is spaced below the weakened line of tear 20 in the unit shown in Figure 4. This is for the purpose of permitting a person to grasp the top portion 26 of the unit a sufficient distance down from the fold so that he may tear only the copy sheet portion 22 from the unit, if he so desired. After the desired carbon record has been made on the copy sheet and the copy sheet removed from the unit, the carbon sheet may be torn from the top portion 26 along the weakened line of severance 20 and the carbon sheet portion 23 may then be reused in the ordinary and conventional manner.

While I have shown and described certain particular embodiments of my invention, it will, of course, be understood that I do not wish to be limited thereto, since many modifications may be made, and I, therefore, contemplate by the appended claims to cover all such modifications as fall within the true spirit and scope of my invention.

I claim as my invention:

1. A single sheet of paper having a single transverse line of fold spaced from the transverse center line thereof, a portion of said paper on one side of said fold being carbonized, the other portion on the opposite side of said fold extending beyond said carbonized portion and said paper being folded along said line of fold, said carbonized surface of said one portion lying opposite to and facing the portion of said paper on the opposite side of said line of fold, and one of said portions of said paper having a transversely weakened line in proximity to said line of fold.

2. A single sheet of paper having a single transverse line of fold, a portion of said paper on one side of said fold being carbonized, and said paper being folded along said line of fold, said carbonized surface of said one portion lying opposite to and facing the portion of said paper on the opposite side of said line of fold, said last mentioned portion of said paper having a transversely weakened line in proximity to said line of fold, and said carbonized portion of said paper also having a transversely weakened line in proximity to said line of fold but in more closely spaced relation thereto than the transversely weakened line of the other portion of the sheet.

3. A single sheet of paper having a single transverse line of fold, a portion of said paper on one side of said fold being carbonized, and said paper being folded along said line of fold, said carbonized surface of said one portion lying opposite to and facing the portion of said paper on the opposite side of said line of fold, said last mentioned portion of said paper having a transversely weakened line in proximity to said line of fold, and said carbonized portion of said paper also having a transversely weakened line in proximity to said line of fold, one of said transversely weakened lines being spaced at a greater distance from said line of fold than the other of said transversely weakened line.

4. A sheet of paper having a transverse line of fold spaced from the transverse center line thereof to provide portions of unequal length, said paper being folded along said line of fold whereby one of said portions extends beyond the other portion, the shorter of said portions having its inner surface carbonized to lie opposite and to face the other and longer portion of the paper on the opposite side of said line of fold, said shorter carbonized portion of the paper having a transversely weakened line in proximity to said line of fold, and said longer portion of the paper also having a transversely weakened line in proximity to said line of fold but spaced therefrom at a greater distance than the other weakened line on said shorter portion of the paper.

HOWARD WILLIAM ROTHERICK.