I. H. MALLIN.

CARBON SHEET.

APPLICATION FILED AUG. 19, 1910.

1,032,918. **Patented July 16, 1912.**

Fig. 1.

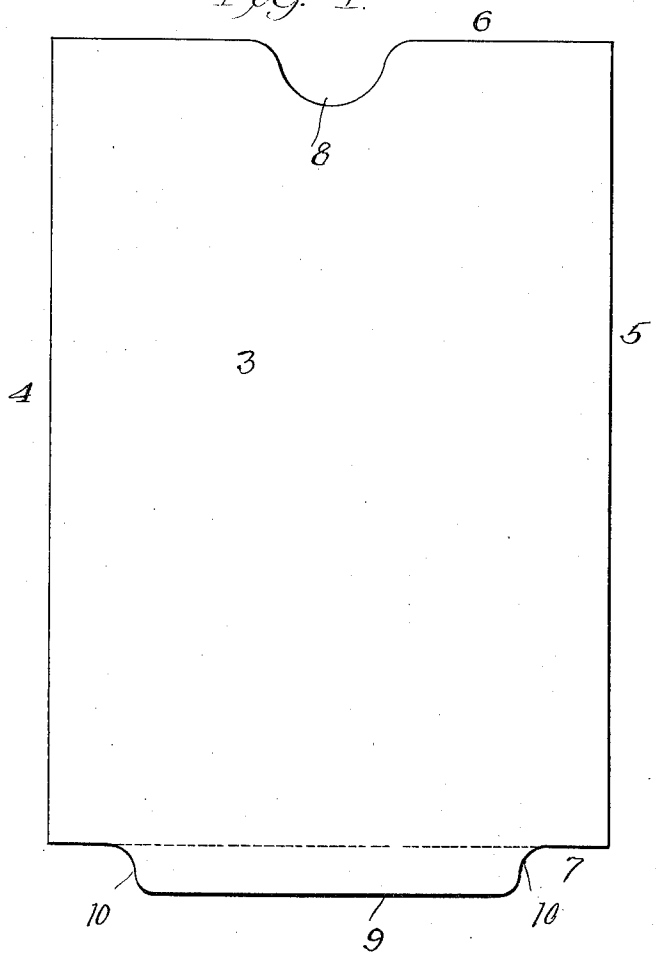
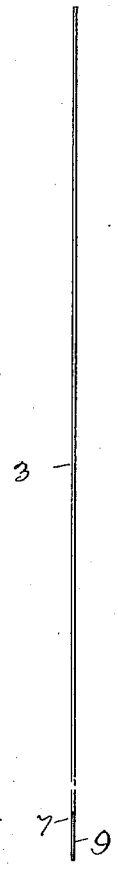


Fig. 2.



Witnesses:
H. B. & L. White.
R. A. White.

Inventor:
Isaac H. Mallin
By Jno. G. Elliott
Atty

UNITED STATES PATENT OFFICE.

ISAAC H. MALLIN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO THOMAS W. McDOUGAL, OF CHICAGO, ILLINOIS.

CARBON-SHEET.

1,032,918. Specification of Letters Patent. Patented July 16, 1912.

Application filed August 19, 1910. Serial No. 577,967.

To all whom it may concern:

Be it known that I, ISAAC H. MALLIN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Carbon-Sheets, of which the following is a full, clear, and exact specification.

My invention relates to improvements in carbon sheets which as ordinarily constructed are of rectangular, square or other form for adapting them for use to different sizes and forms of paper to receive the carbon impressions therefrom.

Carbon sheets adhere more or less to the sheets of paper upon which their impress is taken, with the result that before my invention their separation required that they must be pulled or peeled apart by the use of the thumbs and fingers of the operator to such a disarrangement that both must be rearranged for subsequent use on the one hand and convenient inspection on the other hand, and with an objectionable loss of time and exertion increasing with the number of copies simultaneously taken, and aggravated when there is a necessity for quick and hurried work on the part of the operator of a typewriter in which carbon sheets are extensively used and in enormous numbers.

The object of my invention is a carbon sheet so constructed that a separation between the adhering carbon sheets and paper sheets may be instantly and simultaneously effected with ease and without any disarrangement of either, and whereby, when separated, both the carbon sheets and the paper sheets, however many duplicates there may be of the same impress, will be retained in their operative position for further use and subsequent inspection.

With these ends in view, my invention finds embodiment in certain features of novelty in the construction, combination and arrangement of parts by which said objects and certain other objects hereinafter appearing are obtained, all as fully described with reference to the accompanying drawing and more particularly pointed out in the claims.

In said drawing: Figure 1 illustrates a plan view of a carbon sheet embodying my invention; and Fig. 2 a side elevation of the same.

Similar characters of reference indicate similar parts in both figures of the drawing.

3 indicates a carbon sheet provided with parallel side edges 4 and 5, but instead of having parallel end edges 6 and 7 as before provided, one end edge is interrupted by a notch 8, and the opposite end edge by a tongue, 9. The notch 8 is preferably located centrally of the width and is of such form and size as to permit the passage of the thumb and finger without contact with the carbon sheet, while the tongue 9 projects beyond the impression surface of the carbon sheet and terminates at a point removed from the side edges of the sheet. The ends of the tongue 9 slope to their juncture with the sheet as indicated at 10—10 and preferably on reversibly-curved lines 10—10, first—for the purpose of reducing its liability to be torn from the carbon sheet; second, to reduce its tendency to crease; and, third, to adapt the corners so formed for grasping close up to the carbon sheet a sheet of letter paper on a line diagonal to both for promoting their separation by a torsional strain upon each.

For the purposes of impression, a carbon sheet of my invention need not be carbonized throughout its surface, including the tongue, but preferably is for reasons of economy, in that it will require less expense to carbonize the whole sheet than to omit a coating of carbon at any particular point thereon.

In operation, when it is desirable to simultaneously take one or more carbon sheets of a typewritten letter, the letter sheets and carbon sheets, however many there may be, are alternately laid one upon the other with the letter sheet projecting across the notch 8, but not over the tongue 9, and are maintained in this position during the typewriting thereon and their removal from the typewriting machine. It will now be seen that if while in this position after removal, the several sheets of letter paper, extending across the notch, are firmly grasped between the thumb and index finger of one hand, and the tongues of the carbon sheets are likewise grasped by the operator, the carbon sheets and the letter sheets, in any number either may be, will be simultaneously separated by pulling them in opposite directions, and without, in any manner, disturb-

ing the arrangement of either set of sheets. This undisturbed arrangement of the separated carbon sheets maintains the letter sheets in the best possible position for inspection and subsequent assorting, and the carbon sheets piled one upon the other in the best possible position for subsequent use, and this, however many letter sheets and carbon sheets may have been simultaneously used in the single operation of the typewriting machine.

When carbon sheets are reversed end for end, as must be done in order to utilize their entire surface, the letter sheets are shifted so that the type of the typewriting machine will strike between the used spaces of the carbon sheet, and for this purpose the last sheets are projected partly over upon the tongue of the carbon sheets, but not sufficiently to prevent clasping the ends of the carbon sheets and at the same time the letter sheets at the notch for their separation.

When separating them in the manner last above described, it should be observed that on taking hold of the carbon sheets diagonally opposite the point where the letter sheets are grasped adjacent one end or the other of the tongue, a torsional or frictional strain will be exerted on the adhering surfaces facilitating their separation, and, in this connection, it may also be observed that when very fresh carbon sheets or those which have quite sticky surfaces are employed, the letter sheets may be arranged as last described with reference to reversed carbon sheets.

It should be understood that my invention is not limited to the exact form of the notch or the tongue nor to their relative location so long as they, or either of them are of such form and arrangement that carbon sheets of any number may be simultaneously separated without disturbing the operative position of either the separated carbon sheets or letter sheets.

Having described my invention, what I claim and desire to secure by Letters Patent is:—

1. A carbon sheet the opposite ends of which are respectively provided with a tongue and a notch whereby letter sheets and the carbon sheets of any number may be simultaneously separated without disturbing the operative arrangement of either the separated carbon sheets or letter sheets.

2. A carbon sheet provided at opposite ends respectively with a notch centrally thereof and a tongue the ends of which terminate equi-distant from the adjacent side edges of the sheet.

3. A carbon sheet provided at its opposite ends respectively with a tongue and a notch on a longitudinal line central of the width of said sheet, substantially as, and for the purpose described.

In witness whereof, I have hereunto set my hand and affixed my seal, this 16th day of August A. D. 1910.

ISAAC H. MALLIN. [L. S.]

Witnesses:
F. E. Brom,
Jno. G. Elliott.