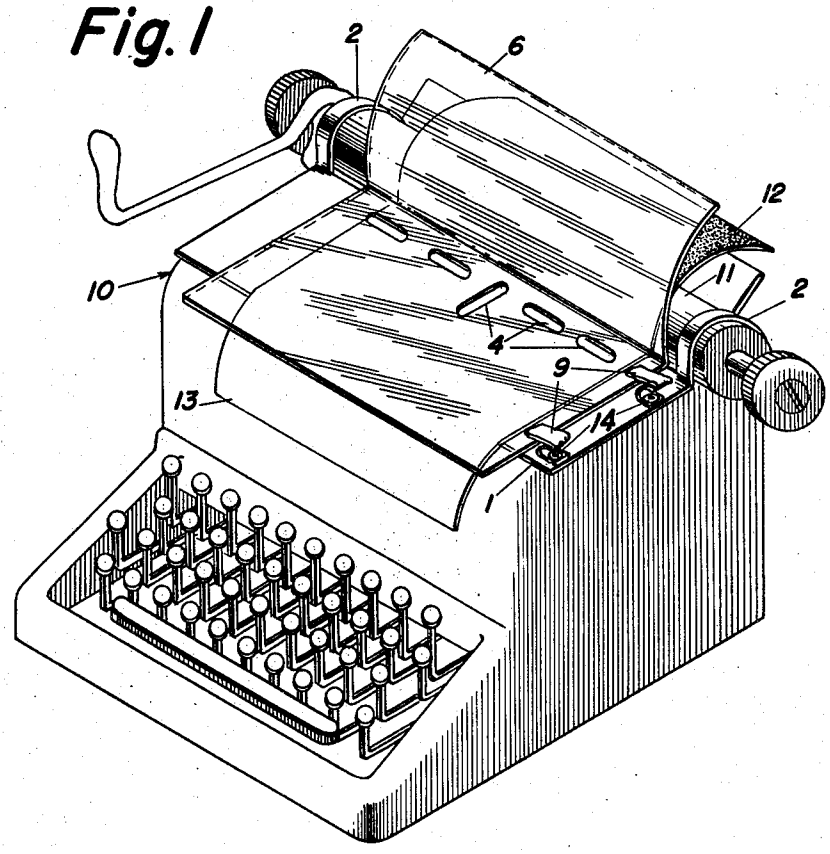
Oct. 10, 1950 R. V. BOWMAN 2,525,063

ERASURE ATTACHMENT FOR TYPEWRITERS

Filed May 17, 1949 2 Sheets-Sheet 1

Fig. 1



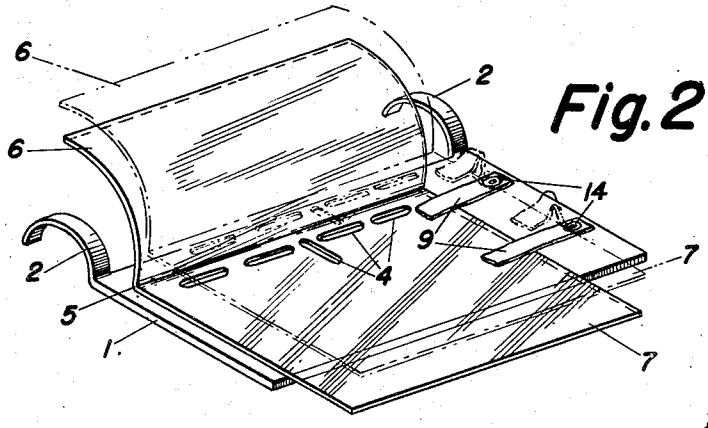


Fig. 2

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Fig. 3

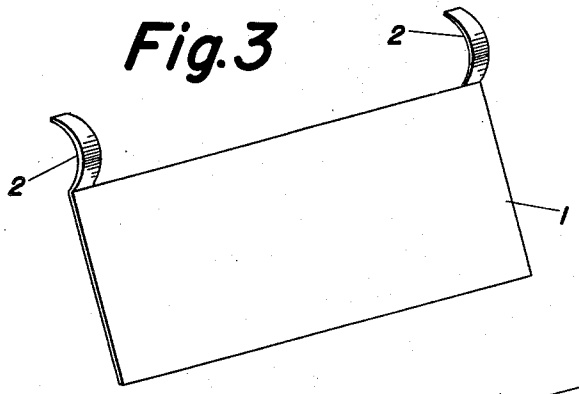


Fig. 4

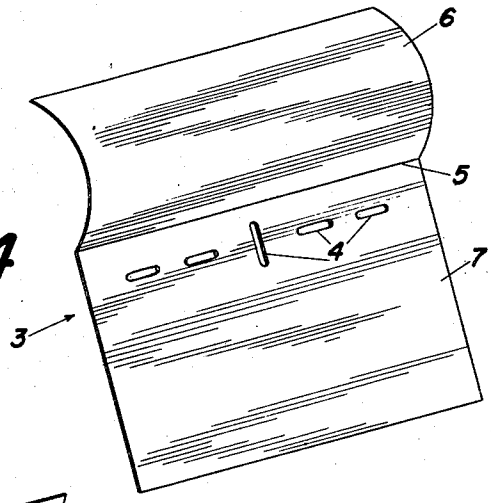
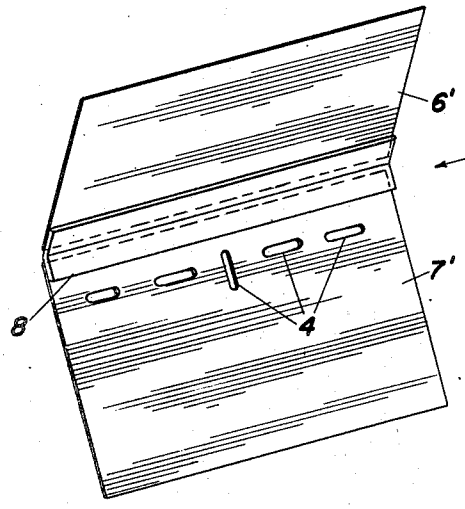


Fig. 5



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ERASURE ATTACHMENT FOR TYPEWRITERS

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Application May 17, 1949, Serial No. 93,737

12 Claims. (Cl. 197—181)

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This invention relates to an erasure device adapted to be attached directly to a typewriter machine to effect erasures on typed material contained in the typewriter, and is particularly useful in making erasures on master copies of typed material prepared according to a typing method wherein the typed characters appear on the reverse side of the master sheet, thus making it impossible to use the typewriter platen as a support during an erasure operation.

According to one widely used method of preparing such master copies, a typing set is employed comprising a sheet of carbon paper and a master typing sheet to the latter of which the typed characters are applied. The carbon paper used in this method is not the familiar graphite coated paper commonly used to prepare a limited number of copies on a typewriter, but, rather, is a sheet of paper coated with a highly concentrated, readily transferable, pigment or dye. In the typing operation, the two sheets just described are placed in the typewriter in such a way that the carbon paper has its coated surface adjacent the master sheet and the master sheet receives the direct impact of the type, the typed character being thus transferred in reverse sense to the back side of the master sheet. After the master sheet has been thus prepared, the desired number of copies thereof may be obtained by transferring the characters from the master sheet to the copy sheets by an offset operation which need not be described here inasmuch as the duplicating procedure per se does not form any part of the present invention.

Inasmuch as the typed characters appear on the reverse side of the master sheet during the typing operation, erasures thereon may be performed while it is in the typewriter only when the master sheet is first bent forward (toward the operator), thereby exposing the typed characters. Since, as pointed out above, the pigment or dye with which the carbon paper is coated is necessarily highly concentrated and readily transferred from the surface of the carbon paper as well as from the typed characters of the master sheet, when erasures have been made on typed master sheets in the past the operator was exposed to such surfaces and invariably transferred sufficient quantities of the dye to her person or clothing to render the erasure operation an exceedingly distasteful and untidy one.

A primary object of the present invention, therefore, is to provide an erasure device capable of attachment to a typewriter which will afford not only a smooth and firm support on which erasures may be made, but also a shield to protect the operator against contact with the exposed color on both the carbon paper and the typed master sheet.

Another object of the invention is to provide

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an erasure shield of novel construction through which erasures on a typed master sheet may be made while the same is still contained in the typewriter and, at the same time, afford complete protection to the operator against contact with the exposed color on both the typed master sheet and the carbon paper.

An additional object of the invention is the provision of an erasure support capable of attachment to a typewriter to provide a firm, smooth erasing surface forward of the typewriter platen.

The above and other objects of the invention and the means of their attainment will become more apparent from a study of the following detailed description taken in connection with the accompanying drawings illustrating a preferred embodiment of my invention, and in which:

Fig. 1 is a perspective diagrammatic view of a typewriter having attached thereto an erasure device of the present invention in operative position over a typing set on which an erasure is to be made;

Fig. 2 is a perspective assembly view of the erasure device alone;

Fig. 3 is a perspective detail view of the erasure platform of the present invention;

Fig. 4 is a perspective detail view of one form of erasure shield of the present invention; and

Fig. 5 is a perspective detail view of a modified form of erasure shield.

Like numerals refer to like parts throughout the specification and drawings.

Referring more particularly to the drawings, the erasure device of the present invention comprises a platform 1 having a pair of curved hook members or brackets 2 fixed thereto and projecting perpendicularly from one edge of the platform, the curvature of the hooks conforming substantially to the curved profile of a typewriter platen and adapted to accommodate the same snugly when the platform is attached to the typewriter, whereby the platform is prevented from moving perpendicularly relative to the axis of the platen. The hooks 2 are spaced apart, as shown, so as to allow a sheet of paper of desired width to pass therebetween, and the hooks are disposed immediately adjacent the edge of the platform 1 to position the platform closely to the platen. As shown in Figs. 1 to 3 I prefer to employ a rectangular platform having one dimension longer than the other, and with the hooks 2 carried by the platform on one of the long edges thereof, since that construction lends itself most favorably to the accomplishment of its intended purpose.

A transparent erasing shield shown generally at 3, preferably of plastic material, is used with the supporting platform, the shield being provided with a plurality of perforations 4 of any

desired shape preferably arranged in a single row thereacross substantially midway between the top and bottom edges of the shield. In my preferred embodiment, the shield is scored, as at 5, adjacent the perforations to form two areas 6 and 7, the area 6 being imperforate to provide the maximum protection to the operator against contact with the exposed dye or pigment of the carbon paper, as will appear hereinafter. If desired, the erasure shield may consist of two individual flexible transparent plates 6' and 7' hinged together by any desirable means, such as a length of adhesive tape 8, as shown in Fig. 5. The hinge or score just described contributes substantially to the facility and effectiveness with which the shield may be used in making erasures, for it forms a line about which the two areas of the shie'd may conveniently rotate, and if the area 7 of the shield is aligned squarely with the typewriter platen, the score or hinge will cause the area 6 of the shield when held against the platen to align itself squarely with the paper threaded through the typewriter. Moreover, such hinge or score defines a corner in the shield permitting the latter to be placed into close engagement with the corner defined by the platform 1 and the typewriter platen, whereby the perforations 4 may be positioned close to the platen while the area 7 is maintained flat against the platform 1.

By containing all of the perforations within a relatively narrow area extending across the shield substantially midway between the top and bottom edges thereof, as shown in Fig. 4, large imperforate areas are preserved above and below the perforations for effective protection to the operator against contact with the dye on the carbon paper and the typed master sheet. When the shield is scored or hinged adjacent the row of perforations, the greater part of area 7 of the shield is that between the perforations and the free end thereof, and such greater area is imperforate.

Although the erasure shield need not be physically attached to the platform for satisfactory utilization of the present invention, I prefer to attach these members together by means of hinges 9 along corresponding edges thereof, as shown in Figs. 1 and 2, so that the shield may be swung at will into and out of covering position relative to the platform, the hinges tentatively aligning the shield with the platform when these members are placed in super-position in preparation for effecting an erasure. Inasmuch as the effectiveness of the shield when used for erasing is dependent upon alignment of the character to be erased with one of the perforations of the shield, I prefer hinges 9 to be flexible to permit limited relative universal movement between the platform and the shield so that at least one of the perforations 4 will be capable of placement over the typed character to be erased regardless of the position of that character on the erasure support. Fig. 2 shows, in phantom view, one of a plurality of positions attainable by the shield 3 with respect to the platform 1 by reason of the universal relative movement permitted by the flexible tapes which I prefer to employ for my hinges 9. In the construction shown, the tapes are fixed to the platform by means of conventional snaps 14, and to the area 7 of the shield by means of an adhesive. It will be understood, of course, that other flexible hinges may be employed for this purpose, if desired.

For a brief description of the manner in which the erasure device is used, reference is made particularly to Fig. 1 wherein the illustrated typewriter is provided with a cover portion, shown generally at 10, adjacent to and forward of the typewriter platen 11. In most typewriters in present use the cover 10 is disposed substantially horizontally and extends a considerable distance from the platen toward the operator, and it is in combination with typewriters of this construction that the present invention may most advantageously be used. A typing set comprising a carbon paper 12 and a master sheet 13 is threaded through the typewriter with the carbon paper between the typewriter platen and the master sheet, the reverse side of the master sheet being in contact with the coated side of the carbon paper. With this arrangement it will be apparent that the master sheet receives the impact of the type during a typing operation and the typed characters are thus transferred to the back side of the master sheet in reverse sense.

Assuming a mistake in typing has been made, the operator first attaches the supporting platform 1 to the top of the typewriter, placing the hooks 2 over the typewriter platen 11 as shown, thereby providing a firm erasing support since the platform rests firmly on the cover 10 of the typewriter. The master sheet 13 is then bent forward over the platform 1, after which the erasing shield 3 is placed over the master sheet, one of the perforations 4 being aligned with the character to be erased. With the shield 3 in this position, the entire area 6 thereof is disposed between the operator and the coated side of the carbon paper. Thus, the operator may effect the erasure without fear of contacting any of the dye on either the carbon paper or the master sheet, except for the insignificant typed areas of the master sheet which may be exposed through the other perforations 4.

The erasure having been made, the operator simply swings the erasure shield 3 out of covering position with respect to the master sheet 13, returns the master sheet to its position adjacent the carbon paper and, by turning the platen 11 in the direction to return the typing set back into position to retype the charatcer erased, is ready to complete the correction.

What I desire to claim is:

1. An erasure support for effecting erasures on typed material contained in a typewriter, comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform on one of the long edges thereof and extending substantially perpendicularly from said edge, said hook members being spaced apart by a distance to permit passage of a sheet of said typed material therebetween, said hook members being adapted to accommodate snugly the curved profile of a typewriter platen.

2. An erasure support for effecting erasures on typed material contained in a typewriter, comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform and projecting therefrom beyond one of the long edges thereof, said hook members being spaced apart by a distance to permit passage of a sheet of said typed material therebetween, said hook members being adapted to accommodate snugly the curved profile of a typewriter platen.

3. An erasure shield comprising a sheet of flexible transparent material, said sheet being

scored to divide the sheet into two areas, one of said areas being imperforate, said sheet containing in the other of said areas a plurality of perforations arranged transversely thereof adjacent said score.

4. An erasure shield comprising a rectangular sheet of flexible transparent material, said sheet being scored along a line substantially parallel to one side thereof to divide said sheet into two portions, one of said portions being imperforate, said sheet containing in the other of said portions a plurality of perforations arranged transversely thereof adjacent said score, said other portion being imperforate between said perforations and the free end thereof opposite said score.

5. An erasure shield comprising a pair of flexible transparent substantially rectangular plates hingedly attached together, one of said plates being imperforate, the other of said plates containing a plurality of perforations arranged transversely thereof adjacent said hinge, the greater area of said other plate being that area between said perforations and the free end thereof opposite said hinge, said greater area being imperforate.

6. An erasure device for typewriters, comprising an erasure shield and a support for said shield, said support comprising a rigid platform and a hook member carried by said platform on one edge thereof and extending outwardly and substantially perpendicularly of said edge, said hook member being adapted to accommodate snugly the curved profile of a typewriter platen, said shield comprising a flexible transparent plate having a plurality of perforations arranged transversely thereof substantially intermediate the ends of said plate.

7. An erasure device for typewriters, comprising a rigid platform having a hook member fixed thereto on one edge thereof and extending substantially perpendicularly from said edge, said hook member being adapted to accommodate snugly the curved profile of a typewriter platen, an erasure shield and a hinge member coupling one side of said shield to said platform adjacent a side thereof perpendicular to said edge, whereby said shield may be swung into and out of covering position relative to said platform, said shield comprising a flexible transparent plate having a plurality of perforations arranged transversely thereof substantially intermediate the ends of said plate.

8. An erasure device for typewriters, comprising an erasure shield and a support for said shield, said support comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform and projecting therefrom beyond one of the long edges thereof, said hook members being adapted to accommodate snugly the curved profile of a typewriter platen, said shield comprising a sheet of flexible transparent material scored to divide said sheet into two portions, one of said portions being imperforate, the other of said portions containing a plurality of perforations arranged transversely thereof adjacent said score.

9. An erasure device for typewriters, comprising an erasure shield and a support for said shield, said support comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform

and projecting therefrom beyond one of the long edges thereof, said hook members being adapted to accommodate snugly the curved profile of a typewriter platen, said shield comprising a sheet of flexible transparent material scored to divide said sheet into two portions, one of said portions being imperforate, the other of said portions containing a plurality of perforations arranged transversely thereof adjacent said score, one side of said other portion of said sheet being hingedly coupled to said platform adjacent one of the short sides of the platform, whereby said shield may be swung into and out of covering position relative to said platform.

10. An erasure device for typewriters, comprising an erasure shield and a support for said shield, said support comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform and projecting therefrom beyond one of the long edges thereof, said hook members being adapted to accommodate snugly the curved profile of typewriter platen, said shield comprising a pair of flexible transparent substantially rectangular plates hingedly attached together, one of said plates being imperforate, the other of said plates containing a plurality of perforations arranged transversely thereof adjacent said hinge, the greater area of said other plate being that area between said perforations and the free end thereof opposite said hinge, said greater area being imperforate.

11. An erasure device for typewriters, comprising an erasure shield and a support for said shield, said support comprising a rigid substantially rectangular platform, said platform being longer in one dimension than the other, and a pair of hook members carried by said platform and projecting therefrom beyond one of the long edges thereof, said hook members being adapted to accommodate the curved profile of a typewriter platen, said shield comprising a pair of flexible transparent substantially rectangular plates hingedly attached together, one of said plates being imperforate, the other of said plates containing a plurality of perforations arranged transversely thereof adjacent said hinge, one side of said other plate being hingedly coupled to said platform adjacent one of the short sides of said platform, whereby said shield may be swung into and out of covering position relative to the platform.

12. The erasure device in accordance with claim 11 wherein the hinge for coupling said other plate to said platform is flexible, whereby said shield may be moved universally a limited predetermined distance relative to the platform.

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The following references are of record in the file of this patent:

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