J. H. BALDWIN.

METHOD FOR ERASING TYPE WRITTEN MATTER.

APPLICATION FILED MAY 15, 1916.

1,222,592. Patented Apr. 17, 1917.

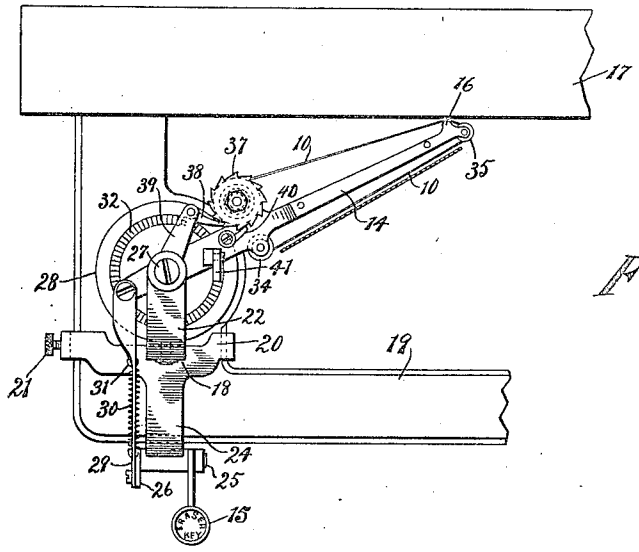


Fig. 1.

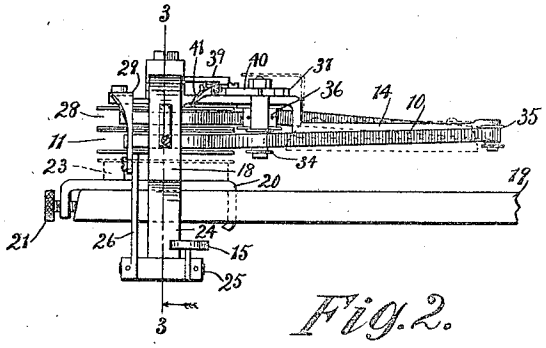


Fig. 2.

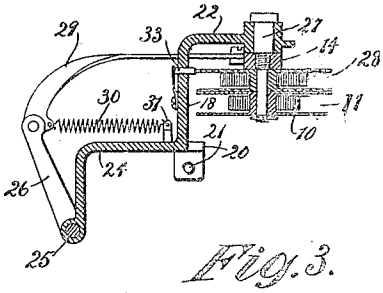


Fig. 3.



Fig. 4.

Inventor:
John H. Baldwin.
By Gilson & Gilson.
Attys.

UNITED STATES PATENT OFFICE.

JOHN H. BALDWIN, OF SPRINGFIELD, MISSOURI.

METHOD FOR ERASING TYPE-WRITTEN MATTER.

1,222,592. Specification of Letters Patent. Patented Apr. 17, 1917.

Original application filed August 12, 1915, Serial No. 45,101. Divided and this application filed May 15, 1916. Serial No. 97,671.

To all whom it may concern:

Be it known that I, JOHN H. BALDWIN, a citizen of the United States, and resident of Springfield, county of Greene, and State of Missouri, have invented certain new and useful Improvements in Methods of Erasing Type-Written Matter, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to an improved method of erasing typewritten matter and is disclosed in my patent upon erasing attachment for writing machines No. 1,183,424, May 16, 1916. The invention contemplates a forcible application of an adhesive substance directly to the surface of the paper at the place where the erasure is to be made, the erasure being effected by the adhesion of the surface fibers of the paper to the adhesive substance and their removal from the body of the paper when the adhesive substance is withdrawn. The object of the invention is to provide an effective method of erasing typewritten matter which may be employed while the paper is retained in the writing machine and without material interruption of the writing operation. One form of apparatus which may be employed for carrying out the improved method consists of an attachment to be applied to writing machines now in common use.

In the accompanying drawings,

Figure 1 is a plan view showing details of the frame and platen of a writing machine with the said attachment applied thereto, some parts being shown in section;

Fig. 2 is a detail front elevation of the apparatus illustrated in Fig. 1, the parts shown in section in Fig. 1 being omitted and the location of one of the ribbon spools of the writing machine being indicated by dotted lines,

Fig. 3 is a detail sectional view taken on the line 3—3 of Fig. 2, and

Fig. 4 is a detail perspective view showing a form of adhesive material which may be used with the said attachment.

While the invention is not limited with respect to the form of adhesive substance employed, a tape 10, which is adhesive upon one side, is conveniently used. As this tape will preferably be supplied upon spools, as 11, the edges 12 and 13 of the tape are desirably folded over upon the adhesive surface to prevent adhesion of adjacent turns of the tape when wound upon the said spool.

A convenient means for forcibly applying the adhesive tape, as 10, to the paper (not shown) at the place where an erasure is to be made, comprises a swinging arm 14 which is actuated by the depression of a key, as 15. Preferably the arm 14 is formed with a contact shoe 16 at its free end and the tape 10 being extended over this shoe, is applied to the paper by a swinging movement of the arm 14 toward the platen roller 17 of the writing machine. For this purpose the arm 14 is preferably arranged to swing in a horizontal plane and is carried by a bracket 18 which may be removably clamped upon a part of the frame, as 19, of the writing machine. As shown, the bracket 18 comprises a base plate 20 constructed in the form of a clamp for embracing the said frame part 19 of the writing machine, and with one of the arms of the clamp equipped with a clamping screw 21.

The bracket 18 preferably also includes an arm 22 which projects upwardly and rearwardly from the base plate 20, over the adjacent typewriter ribbon spool indicated at 23, and an arm 24 which extends forwardly and downwardly in front of the typewriter frame member 19. A rock shaft 25, having the key 15 mounted upon one end of the same and also carrying an actuating lever 26 is journaled in the lower end of the bracket arm 24. A vertical pivot bolt 27 is mounted in the rear end of the bracket arm 22 and serves for pivotally supporting the arm 14 intermediate its ends.

A link 29 connects the actuating lever 26 with one end of the arm 14 and a spring 30 acts between the forward end of the link 29, and a fixed support, as a stud 31, mounted in the base plate 20, for swinging the other end of the arm 14 away from the typewriter platen roll 17.

The tape supply spool 11 and a winding spool 28 are both rotatably mounted upon the pivot bolt 27 below the arm 14. The winding spool 28 is preferably located above the supply spool 11 and is formed with an annular ratchet 32 upon its upper face. A spring pressed plunger 33 operates through an upright portion of the bracket arm 22 and

engages the rim of the winding spool 28 to provide frictional resistance against the turning of the same.

The tape 10 extends from the supply spool 11 over guide rollers 34, 35, one mounted upon the outer end of the arm 14, thence over the contact shoe 16 and over a feed roll 36 to the winding spool 28. In order that a fresh portion of the tape may be presented to the platen roll 17 at each forward movement of the arm 14, one of the rolls as the feed roll 36, is preferably roughened for firmly engaging the back of the tape, and provision is made for turning this roll at each forward movement of the arm. As shown, the spindle of the feed roll 36 extends upwardly through the arm 14 and carries a ratchet wheel 37 upon its upper end. As the arm 14 approaches the limit of its movement toward the platen roll 17, the ratchet wheel 37 is engaged by a pawl 38, preferably mounted upon a fixed support, as upon a rearward extension 39 of the bracket arm 22. A pawl 40 is carried by the arm 14 and engages with the ratchet wheel 37 to prevent rotation of the tape feeding roll 36 in the opposite direction. The winding spool 28 is rotated during the return movement of the arm 14, as by the engagement of a pawl 41 carried by the arm 14 with the annular ratchet 32.

A firm depression of the key 15 serves for forcibly projecting the free end of the arm 14 toward the platen roll 17, the contact shoe 16 thereby causing an engagement of the adhesive face of the tape 10 with the paper (not shown) at the place where an erasure is made. If the tape 10 is of the same character as the well known surgeons' tape its adhesive surface will adhere to the paper with such force that the removal of the tape from the paper, as by the outward movement of the arm 14 upon the release of the key 15, will remove a sufficient quantity of the surface fibers of the paper for making the erasure. New matter may then be written in the same place, if desired. Should a single engagement of the tape with the paper be insufficient to accomplish a complete obliteration of the matter which is to be erased, the key 15, may be depressed repeatedly until the desired result is secured. Under these circumstances the turning of the feed roll 36 at each forward movement of the arm 14 insures that a fresh portion of the tape 10 will be presented to the paper at each operation.

I claim as my invention,—

The improved method of erasing type-written matter upon paper which consists in removing the surface fiber of the paper upon which the matter to be erased is shown without effecting other parts of the surface of the paper by forcibly projecting an adhesive body against the paper while the latter is held against a firm support, each contact of the said adhesive body with the paper, thus obtained, being substantially confined to that part of the surface of the paper which is covered by a single character of the type-written matter to be erased, and by then removing the said adhesive body from the paper with the said surface fiber adhering thereto, there being a separate projection of the adhesive body against the paper and a removal of the same therefrom for each type-written character to be erased.

JOHN H. BALDWIN.