Sept. 8, 1942. C. V. GUTENSOHN 2,295,210

ILLUMINATED PLATEN

Filed Feb. 21, 1940

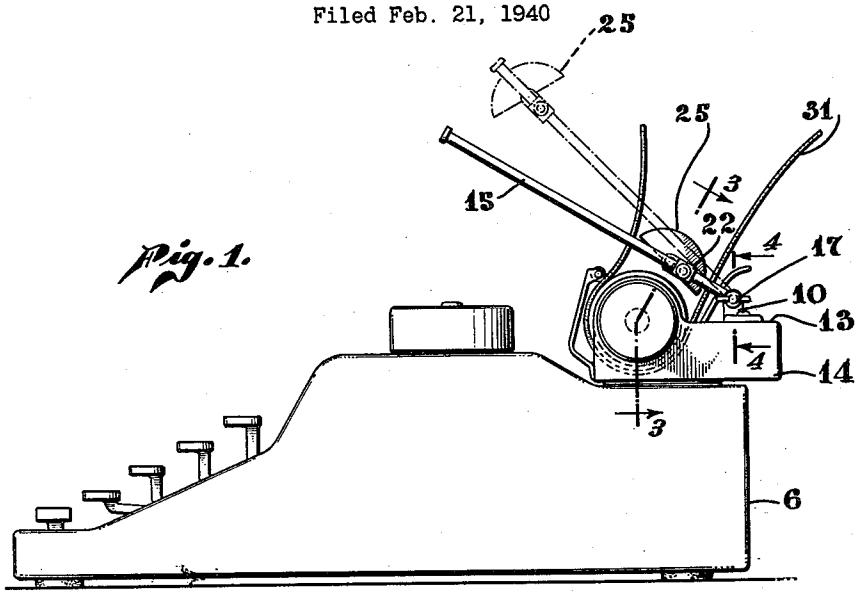


Fig. 1.

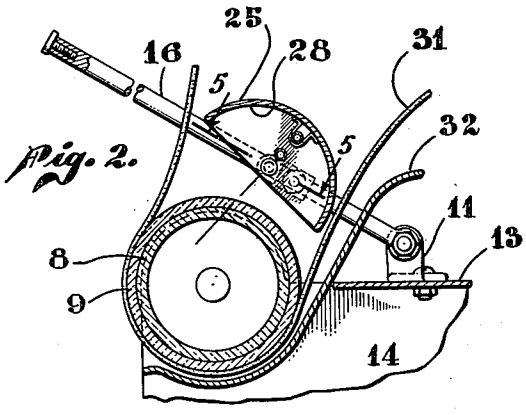


Fig. 2.

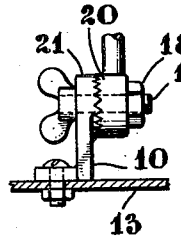


Fig. 4.

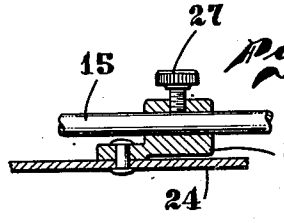


Fig. 5.

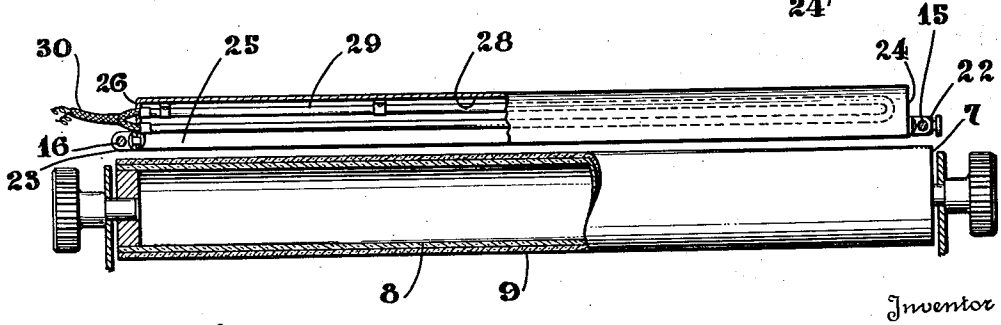


Fig. 3.

Inventor

CHARLES V. GUTENSOHN,

By Everett N. Curtis

Attorney

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UNITED STATES PATENT OFFICE

2,295,210

ILLUMINATED PLATEN

Charles V. Gutensohn, San Diego, Calif., assignor to Sherman Haynes, San Diego, Calif.

Application February 21, 1940, Serial No. 320,087

5 Claims. (Cl. 240—2)

My invention relates to illuminated platens, particularly transparent or semi-transparent platens when used in a typewriter for the purpose of making mimeograph stencils, and its objects are to provide an effective means of illumination located outside instead of inside the platen; to permit the easy adjustment of said means in any desired position for lighting the platen; to illuminate uniformly the platen throughout its entire length by rays of light coming directly from said illuminating means; to accomplish the ready disassociation of parts for cleaning, repair or replacement; to furnish a means for attachment of the device to any typewriter, and in general to simplify and render more effective the arrangement and operation of the several parts. Other objects and novel features will appear as illustrated in the drawing and as hereinafter described and claimed.

One of the chief difficulties experienced by a stenographer today in the usual practice of making mimeograph stencils is that he or she has no way of determining whether or not the type is cutting the stencil sufficiently to print clearly when operated to duplicate copies in the mimeograph machine. Such errors are not discovered until the removal of the stencil from the typewriter, at which time they are impossible of correction, and if material, the stencil must be rewritten in its entirety. With my improved device, however, the platen and stencil are so lighted up that errors will be immediately detected and opportunity afforded for their correction before removal of the stencil from the machine.

I am aware that attempts have heretofore been made to utilize for this purpose a transparent or translucent hollow platen which is illuminated by a lighting element introduced inside the same. This arrangement, however, is subject to the objections that such elements, being necessarily fragile, are likely to be shaken from position and easily disconnected, broken or damaged, are inaccessible for inspection and repair or replacement; and most important of all, such lighting elements are likely to generate and to transmit to the platen sufficient heat to injure the stencil, if not in fact to ruin it in whole or in part.

In my invention, however, while I preferably employ as a platen a cylindrical barrel, the body of which permits the passage of light therethrough, I do not locate the lighting element within such barrel, but entirely outside of the same, and by making said element adjustable to and from the platen, I am able at all times to secure exactly the amount of illumination required to bring about the best results. All parts of my invention are to be made strong and sturdy. Replacements of the lamp and connections can be easily made, without having to tear down or to remove the platen, as in former devices.

Attention is hereby directed to the accompanying drawing illustrating a preferred form of my invention, in which similar numerals refer to similar parts throughout the several views, and in which—

Figure 1 is a side elevation of a typewriter, showing my improved device attached thereto;

Figure 2 is an enlarged section through the platen and lamp construction;

Figure 3 is a section on line 3—3 of Figure 1 looking in the direction of the arrows;

Figure 4 is an enlarged section, partly in elevation, on line 4—4 of Figure 1 looking in the direction of the arrows, and showing detail of one of the adjusting nuts; and

Figure 5 is an enlarged section on line 5—5 of Figure 2 looking in the direction of the arrows, showing one of the lamp brackets and adjusting thumb screw.

Referring to the drawing—

In any form of modern typewriter 6, I install in the usual manner my specially constructed platen 7, having a barrel 8, preferably of glass or other material permitting the passage of light, said barrel being provided with a covering or jacket 9, which is preferably of some material serving both as a cushion and conductor of light, such as Elastiglass, transparent rubber, or other similar material. Other than such special type of barrel and jacket, my improved platen is constructed similar to the usual platen and so that the ends of any of the typewriter platens now on the market may be fitted thereto, and my said platen may easily be installed to replace the platen formerly used; or I may construct platens embodying my said improved features to fit any make of typewriter now on the market. If desired, the covering 9 may be dispensed with, and the wall of the barrel 8 alone employed, but in such case, I prefer to construct said wall of material which will, while permitting the passage of light, be of sufficient resilient character as readily to stand up under the impact of the type.

For the purpose of installing the lamp 25 in operative position, I employ a pair of brackets 10 and 11, each of which is secured by a bolt 12 to the deck 13 of the carriage 14, and which are

spaced apart preferably about the width of the platen 7. To each of said brackets is attached the end of one of the rods 15 and 16, by means of a bolt 17 and nut 19, the head of said bolt being in the form of a thumb screw. As will be observed, the face 20 of one side of the end of each rod is staggered or notched to fit the adjacent face 21 of the bracket, and to hold the rod against rotation. By loosening the thumb screw, however, the rod may be turned to the position desired, and again clamped in place.

Sliding upon the rods 15 and 16 are brackets 22 and 23, one of which, 22, is shown in Figure 5 riveted to the end 24 of the lamp 25, the other bracket 23 being riveted to the other end 26 of said lamp. To hold the bracket 22 in proper adjustment on rod 15, there is provided the adjusting thumb screw 27, the threaded shank of which engaging with a threaded opening leading to the rod 15 serves to contact the same and hold it in operative position. (See Figure 5.) By means of said brackets, the lamp 25 may be moved up and down the said rods to and from the platen 7 and adjusted in position as desired. Preferably, as will be seen from Fig. 3, the lamp 25 is made elongated and is substantially coextensive with the platen, so that all parts of the same nearest thereto are illuminated by direct rays of light coming from said lamp.

The lamp 25 is here shown having a cylindrically shaped hood 28, but such hood may be of any shape suitable for the purpose. Within such hood is here shown a neon or mercury tube 29, with electric connection 30. The lighting element, however, might well consist of the usual electric lamps, or other well-known lighting equipment; although I prefer to employ mercury vapor or neon tubes because less heat is generated than with other forms of equipment, and possible injury because of too close proximity of the lamp to the stencil is thereby avoided.

To operate my improved device, the stencil 31 is first placed in position as shown, then the lamp is adjusted upon the rods 15 and 16, so that sufficient light is thrown upon the platen to enable the operator to see the typing upon the platen and stencil at all times, and to intensify the impressions where required or to make necessary corrections. If desired, the lamp 25 may be used as a lighting means to illuminate ordinary typing, when my device is not used with a stencil, in which case the lamp might be adjusted in the position shown in dotted lines in Figure 1, or to any other desired position.

While I have in my preferred form of invention shown the platen to be of hollow construction, I do not, except as limited in the claims, desire to confine my invention to the use of such form of platen, for as is obvious, other forms could be employed, and if desired the platen could be made solid or semi-solid provided that light could pass therethrough.

By the word "transparent platen" as used in this specification and claims, I desire to be understood as meaning not only a platen through which objects could be visibly observed, but also a platen the substance of which was pervious to light or had the property of transmitting rays of light as opposed to opaque.

What I claim and desire to secure by Letters Patent is:

1. In a typewriter, the combination of a transparent platen mounted thereon, a pair of parallel rods pivotally mounted on opposite sides of said typewriter adjacent to said platen, and a lamp slidably mounted upon and extending between said rods and serving to illuminate said platen.

2. In a typewriter, the combination of a transparent hollow platen mounted upon the carriage thereof, a pair of adjustable parallel rods pivotally mounted on opposite sides of said carriage, and a lamp slidably and adjustably mounted upon and extending between said rods to move to and from said platen.

3. In a typewriter, the combination of an elongated transparent platen mounted thereon, a pair of parallel rods pivotally mounted on opposite sides of said typewriter, and a lamp slidably mounted upon and extending between said rods and substantially coextensive with said platen and serving uniformly to illuminate the same.

4. In a typewriter, the combination of an elongated transparent hollow platen mounted upon the carriage thereof, a pair of adjustable parallel rods pivotally mounted on opposite sides of said carriage, and a lamp slidably mounted upon and extending between said rods and substantially coextensive with said platen and serving uniformly to illuminate the same.

5. In a typewriter, the combination of a transparent cylindrical platen mounted thereon, an elongated lamp substantially parallel with and located outside of said platen to illuminate substantially uniformly the entire length of the same by rays of light coming directly from said lamp, and supporting means for the ends of said lamp, said means embodying adjustable means for disposing the lamp a substantial distance to the front of the platen as well as in close proximity to the top thereof, whereby any papers coming off the platen may pass, respectively, either behind or in front of the lamp.

CHARLES V. GUTENSOHN.