

(No Model.)

J. L. YOUNG.

TYPE WRITER FOR STENCIL MAKING.

No. 486,059.

Patented Nov. 8, 1892.



Fig. 1.

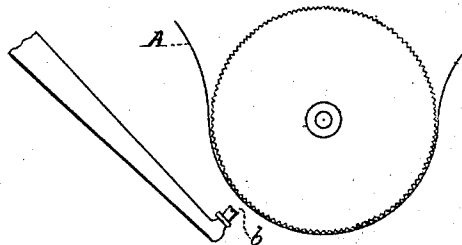


Fig. 2.

Fig. 3.

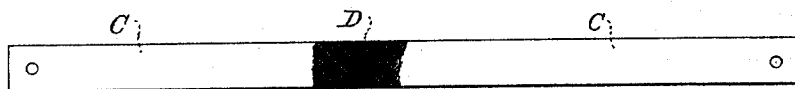


Fig. 4.

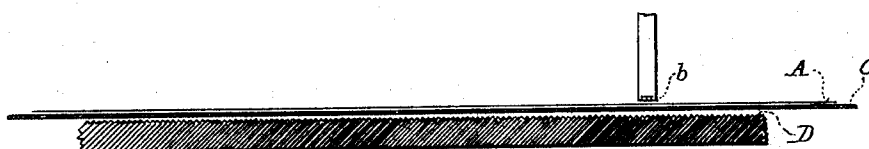


Fig. 5.

WITNESSES:

H. G. Knapp
J. H. Sepp.

Josiah L. Young INVENTOR

UNITED STATES PATENT OFFICE.

JOSIAH L. YOUNG, OF TARRYTOWN, ASSIGNOR TO CHARLES H. EDGAR,
TRUSTEE, OF BROOKLYN, NEW YORK.

TYPE-WRITER FOR STENCIL-MAKING.

SPECIFICATION forming part of Letters Patent No. 486,059, dated November 8, 1892.

Application filed July 19, 1886. Serial No. 208,474. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH L. YOUNG, of Tarrytown, county of Westchester, and State of New York, have invented an Improvement in Type-Writers for Stencil-Making, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of part of an ordinary cylindrical type-writer platen the surface of which has been roughened according to my invention. Fig. 2 is an end outline view of Fig. 1 and also of a sheet of paper. Fig. 3 is a side elevation of a type-letter mounted on an ordinary type-bar and in position to strike against said paper superimposed on said roughened backing, as shown in Fig. 2. Fig. 4 is a plan view of a flat platen roughened or provided with a surface of fine points and upon which has been superimposed an elastic strip C, broken away at D. Fig. 5 is a sectional view of a flat platen like that shown in Fig. 4, of elastic strip, of superimposed paper, and of a type-letter ready to strike the same.

The object of my invention is to produce on a type-writer by the use of its ordinary type or hard flat-faced type-letters what may be called a "stencil" or a "printed sheet," the printed letters or contents of which shall be pervious, while the remainder of the sheet is impervious, to ink, whereby duplicate prints thereof may be made.

My invention relates to a method of producing such a stencil by means of pressing the types or letters upon a sheet placed on a type-writer platen having a surface of fine points set closely together, or a roughened surface, as shown in Figs. 1 and 2.

Fig. 3 illustrates the method of preparing the stencil, with the type *b* ready to be pressed upon the paper A and upon the roughened surface. Over the roughened or pointed surface, in cases where it is required to feed or draw the paper thereover, may be placed a rubber or other elastic cover stretched firmly on the points or roughened surface, as illustrated in Figs. 4 and 5, C being the elastic band, a portion of which in Fig. 4 is removed, showing the roughened surface, while in Fig. 5, giving a sectional view, A is the paper, C

the elastic, D the pointed surface, and *b* the type. The paper may thus pass over the pointed surface without catching.

In the act of printing or forming a stencil of the letter or type the paper or sheet is placed over the above-described impression-surface and the type is forced against the same. The rubber cushion yields as the type presses against it and the fixed points beneath perforate the paper, after which the resilience of the rubber tends to throw off the paper and to provide a smooth-surfaced bed for the paper to lie on, so that it can be drawn over that surface freely as it is fed under the type in the manner shown, for instance, in the specification of Letters Patent No. 289,489, granted to me December 4, 1883, for improvement in type-writing machines. In cases, however, in which the paper in feeding it forward relatively to the types is not moved or drawn over the roughened surface of the platen—as, for instance, in type-writing machines provided with cylindrical or roller platens such as Figs. 1 and 2—the elastic band or rubber sheet may be entirely dispensed with, as the platen-surface is in such type-writers fed or moved forward simultaneously with the paper to be stenciled by being rotated therewith, and in the use of my invention in such cases as illustrated in Figs. 1 and 2 I have accordingly omitted to show the elastic band.

The forcing or blow of the smooth hard flat type-faces upon the paper or sheet resting upon its roughened backing will result in partly bruising and partly perforating or macerating the fiber of the paper substantially coextensive with the area of the type-face, the more prominent points of the roughness usually perforating completely the paper and the paper being variously crushed or macerated in the intervening depressions. At the same time, owing to the roughness or uneven surface of the backing, neither the faces nor the angular edges of the type-letters will be thrust or cut entirely through the paper or sheet to such an extent as to cut out therefrom any portion thereof required to give each letter its proper shape—as, for instance, the inner disk of paper contained in the letter "O." On printing from such a stencil the ink will pass readily through the perforated parts and

will be absorbed into and create an inking-pad in the macerated and bruised parts, so that the letter printed therefrom, instead of presenting a series of dots, will conform to its usual conventional shape or outline. The degree of roughness required in the backing will in each case depend upon the quality of the paper or sheet used to make the stencil. So will the sharpness and fineness of the points if a pointed instead of a roughened surface be used. So will the hardness of the backing.

A paper of loose fiber, the surface of which has been waxed or soaped, so as to be impervious to the ink, except where struck against the rough backing by the type, I find best adapted to produce a desirable stencil by my method. Where such paper which is soft and flexible is used, having a loose weak fiber, a very slight roughness in the backing is sufficient, merely enough being required to prevent the type-face from completely contacting throughout its whole extent with the backing, and thus wholly cutting out any of the inner portions of the letters.

In producing stencils by the use of the means I have described it will be understood that the roughened backing having been applied to the platen in any convenient manner the sheet to be stenciled is placed in the type-writer in the same way as an ordinary sheet to be printed upon. The types are then manipulated in the usual way. The sheet thus printed upon is withdrawn from the type-writer and being superimposed upon the pa-

per to be printed a print is made by pressing ink through those portions of the stenciled sheet which have been affected by the combined action of the rough backing and the type-faces, as hereinbefore described, and prints may be repeated from the stencil until the latter is worn out. On removing the rough backing from the platen the type-writer is ready for ordinary use again.

I have not described any particular form of "type-writer" (as the method is adapted to all type-writers) nor the shape of the pointed surface or the manner of securing it in position under or against the type.

Having thus described my invention, I desire to secure the following:

1. In a type-writer, the platen having a surface D, composed of fine and closely-proximate penetrating-points, in combination with a hard type-letter adapted to be forced down upon the sheet and upon the points, substantially as set forth.

2. In a type-writing machine, the combination, with the type-letters, of a platen having a hard roughened surface, substantially as and for the purpose described.

3. In a type-writing machine, the combination, with the type-letters, of a platen having a roughened surface, substantially as and for the purpose described.

JOSIAH L. YOUNG.

Witnesses:

J. H. SIPP,

H. G. KNAPP.