

No. 869,095.

PATENTED OCT. 22, 1907.

M. KLACZKO.
FLAT MIMEOGRAPH.
APPLICATION FILED APR. 5, 1907.

Fig.1

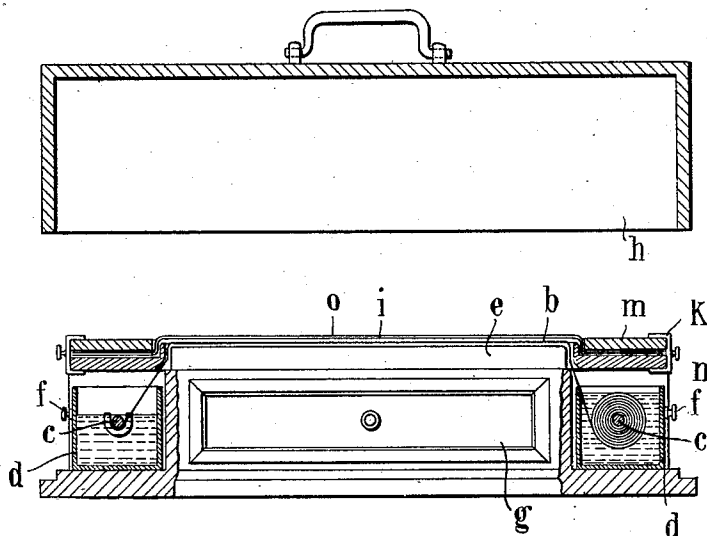


Fig.2

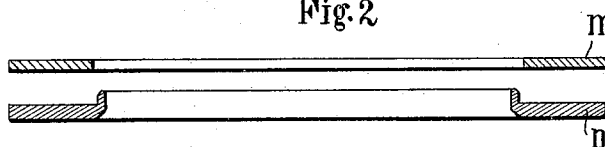


Fig.3

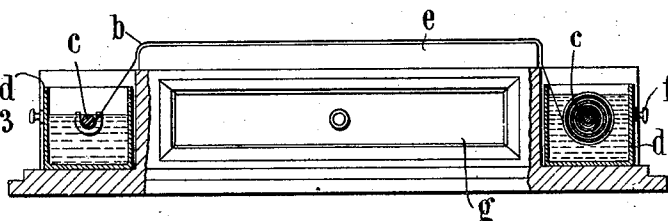
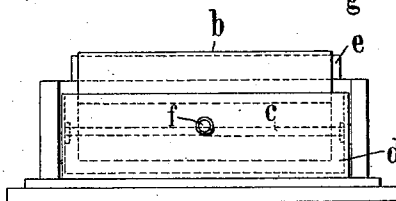


Fig.4



Witnesses:

J. B. Keeler

Chas. Keeler

Inventor

Max Klaczko

By

James H. Norris

Atty.

UNITED STATES PATENT OFFICE.

MAX KLACZKO, OF RIGA, RUSSIA.

FLAT MIMEOGRAPH.

No. 869,095.

Specification of Letters Patent.

Patented Oct. 22, 1907.

Application filed April 5, 1907. Serial No. 366,639.

To all whom it may concern:

Be it known that I, MAX KLACZKO, manufacturer, and resident of 19 Scheunenstrasse, Riga, Russia, have invented certain new and useful Improvements in Flat Mimeographs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a flat mimeograph and according thereto the printing is effected by means of a ribbon which is furnished with a suitable ink and which can be variously adjusted in relation to the printing bed. The ribbon may be so moved over two rollers which are secured on two opposite sides of the mimeograph as to unwind from the one roller and to wind around the other. To avoid the necessity of having to use a ribbon which has previously been provided with ink, or to insure that the ribbon is always sufficiently supplied with ink, the rollers may, as heretofore, be so arranged in relation to suitable ink reservoirs as to become thoroughly impregnated with ink when wound up and unwound.

The accompanying drawings represent an apparatus in accordance with this invention, wherein

Figure 1 is a vertical section through the mimeograph showing the cover removed therefrom. Fig. 2 is a vertical section through the lower and upper frames, for maintaining the stencil in position. Fig. 3 is an elevation of the mimeograph parallel in vertical section with the frame removed, and Fig. 4 is an end elevation thereof.

The flat mimeograph consists of the printing bed *e* and the ink ribbon *b* which is moved on rollers *c* the axes of which are mounted in any suitable manner on opposite sides of the apparatus.

To avoid the necessity of having to use previously prepared ribbons and to insure that the ribbon is always sufficiently supplied with ink the roller *c* may, however, as has heretofore been usual, be arranged in ink receptacles which are suitably supplied with the ink. These receptacles are furnished with studs *f* by means of which they can be conveniently removed and put back again. A piece of silk gauze or the like *i* together with the wax stencil *o*, is held rigidly in position between the two frames *m* and *n* which are firmly clamped together by means of clamping pieces *k*. There is provided a drawer *g*, wherein the necessary accessories can be kept and a cover *h*.

The apparatus is used by impregnating the ribbon *b* with any suitable ink such, for instance, as mimeograph or roneo ink and then placing it lightly upon

the printing bed whereupon the wax stencil *o*, which is to be used, is placed upon the ribbon and held there by means of the frames *m n* and the piece of silk gauze *i*. The copying is then effected as heretofore usual by placing the sheet on which the impression is to be made on top and pressing it firmly by means of a printing roller. Should the ink on that part of the ribbon of which use is made be somewhat faint, the ribbon is turned a little further whereby a fresh part not yet used is brought in contact with the printing bed.

In consequence of the fact that one and the same stencil is always placed upon a fresh part of the inking ribbon, the number of copies obtainable is limited only by the length of the ribbon. The apparatus, moreover, renders it possible to produce differently colored copies by previously providing the ribbon with the colors it is desired to employ. To prevent the different colored inks from running into each other, the parts of the ribbon of different colors are separated by a neutral strip which may be impregnated with a liquid that is impermeable by the various inks.

The receptacles *d* which are supplied with the inks to be used, are employed only when inks that flow freely, such for instance, as roneo inks, are used. Viscous inks, such as those known as mimeograph inks, are applied to the ribbon by means of a brush and are, as heretofore, mixed on an ink block. If inks of different colors are employed the two receptacles *d* may be supplied with the corresponding inks.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a duplicator, the combination of a casing, a printing bed, a sheet of silk, a stencil, a frame for holding said silk and stencil together over the printing bed, ink reservoirs mounted at each end of the casing, delivery and take-up rolls mounted in said reservoirs, and a ribbon carried by said rolls adapted to travel over said bed beneath the stencil.

2. In a duplicator, the combination of a casing, a printing bed, a sheet of silk, a stencil, a sectional frame for holding said silk and stencil together over the printing bed, clamping means at each end of the frame, ink reservoirs mounted at each end of the casing, delivery and take-up rolls mounted in said reservoirs, and a ribbon carried by said rolls adapted to travel over said bed beneath the stencil.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MAX KLACZKO.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.