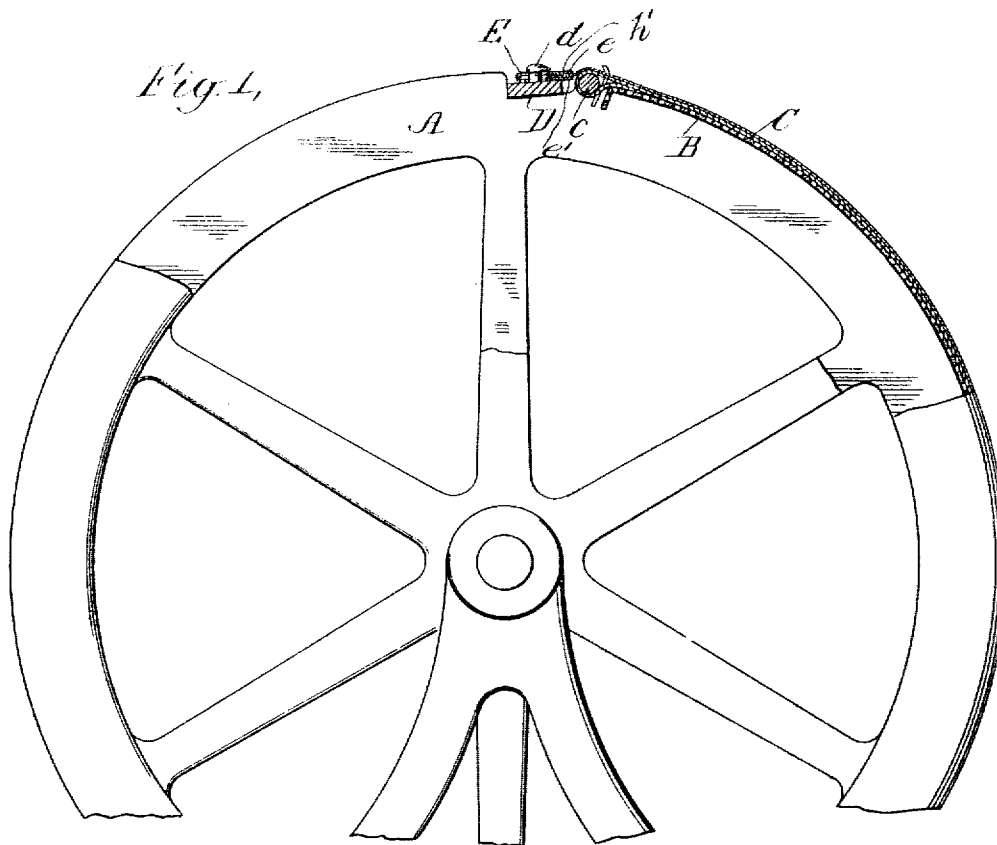
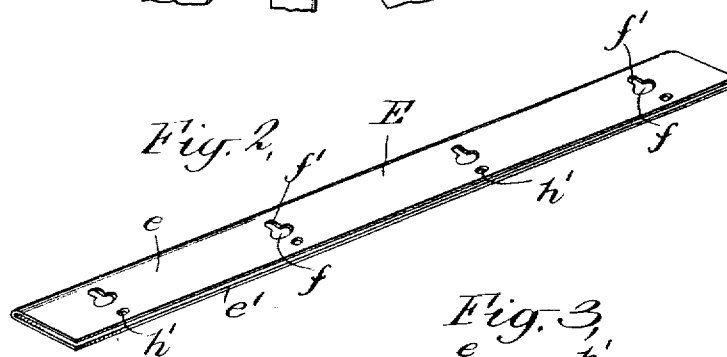
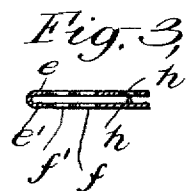


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A. B. DICK.
STENCIL DUPLICATING APPARATUS.
APPLICATION FILED MAY 10, 1904.



WITNESSES:
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STENCIL-DUPLICATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 783,824, dated February 28, 1905.

Application filed May 10, 1904. Serial No. 207,283.

To all whom it may concern:

Be it known that I, ALBERT B. DICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Stencil-Duplicating Apparatus, of which the following is a specification.

The present invention concerns generally apparatus for the duplication of autographic or type-written matter by means of a stencil-sheet, and particularly that type of such apparatus in which is employed a drum upon the periphery whereof the stencil-sheet is supported.

The object of the invention is to provide a ready and convenient means for securing the stencil-sheet in position upon such a drum.

A further object is to embody such means in the form of a detachable stencil-stub formed separately from both the stencil and drum, but capable of having the stencil conveniently attached thereto, and, further, capable of ready and easy attachment of both said means and the attached stencil to the drum of the machine.

To clearly disclose the invention, I shall describe the same in connection with that type of duplicating apparatus in which is employed a rotary (or oscillating) drum provided with a "button-bar," comprising a metallic bar or strip bearing upon its upper surface buttons or projections constituting the securing media for the stencil-sheet. In connection with such a button-bar I employ a thin sheet or strip, preferably of aluminium, steel, or other suitable material, and this is folded along the line of its greater diameter into parallel halves, forming a detachable stub, adapted not only for attachment to a machine of the character described, but also for securing in position the end of a stencil-sheet designed to operate on the periphery of the drum. In a preferred form the forward edge of the stub so fashioned—i. e., the edge nearest the fold—is provided with a series of orifices adapted to coact with the projections or buttons upon a button-bar, such as that above referred to. Such orifices may be formed in both thicknesses of the material. The other edge of the stub is

provided with a stencil clamping or securing device, taking the form in a preferred embodiment of the invention of pins or other projections extending upwardly from the lower member of the stub and depressions or orifices formed in the upper member of the stub and registering with such pins or projections, the purpose being that after the edge of the stencil-sheet has been introduced between the two members of such stub said members may be clamped together to hold such stencil-sheet firmly in position.

In the drawings, Figure 1 is a sectional view of a portion of the drum of a stencil-duplicating machine, having the stencil-stub of the present invention applied thereto. Fig. 2 is an enlarged view of said stub detached, and Fig. 3 is an enlarged cross-section of the stub shown in Fig. 2.

Referring to the drawings, in which similar letters of reference denote corresponding parts, A designates one of the drumheads; B, a portion of the perforated stencil-carrier, forming the periphery of said drum; C, the ink-pad, the end whereof is secured in position by means of the rod *c*, and D a button-bar, here shown as comprising a metallic bar or strip extending between and connecting the heads A and provided on its upper surface with a series of buttons or projections *d*, having enlarged heads supported upon shanks of less diameter.

E designates the stencil-stub, comprising the upper member *e* and lower member *e'*. If desired, these two members may be secured together at one edge in any suitable manner; but I prefer for practical reasons to form said stub from a rectangular blank of aluminium, steel, or other suitable material and to then fold the same substantially in half along the greater diameter of the blank. Where the stub is designed for coaction with a button-bar of the character described herein, I provide both members of the stub E with orifices of such shape as to coact therewith. Thus in the present instance said orifices are shown as comprising enlarged approximately circular portions *f* of such a size as to coact with the enlarged heads of the buttons *d* and slots

f' of such size as to coact with the shanks of said buttons. Due to the folding of the blanks or to the method of securing the members thereof together if a single integral blank be not used there will be a tendency of the two members $e e'$ to separate. On securing the stub to the button-bar, however, this operation involving the passage of the buttons through the orifices f in both members of the stub the forward edges of said members are drawn together, so as to securely clamp therein the edge of the stencil-sheet G . If desired, however, I may provide additional means for securely holding the forward edge of such stencil-sheet—such, for instance, as the means shown in the drawings and which comprise a series of teeth or projections h , extending upwardly from the inner surface of the lower member e' and, coacting therewith, a series of depressions or orifices h' , formed in the upper member e of the stub and registering with said pins or projections.

As will be readily understood, the edge of the stencil-sheet may be introduced between the open ends of the members $e e'$ of the stub and then said members pressed together and the stub applied to the button-bar of a duplicating-machine, whereupon, due to the coaction of the buttons with the orifices in said stub, the two members will be locked firmly together to hold the edge of the stencil-sheet against displacement during the duplicating operation.

I do not desire to limit myself herein to the exact details of construction above described, for the reason that it is obvious the same may be varied without departing from the spirit of the invention. Thus, for instance, it is not absolutely essential that the orifices in the stub extend through both members thereof, as, if desired, the same may extend through but one member—the lower member e' —and additional means be employed for binding the two members of the stub together after the edge of the stencil-sheet has been introduced between the same. These and other modifications will readily suggest themselves in practice.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. In stencil-duplicating apparatus, the combination with a drum, of a securing device and a two-part clamp detachably coacting with said device, the members of said clamp being resilient and lying in substantially parallel planes, substantially as set forth.

2. In stencil-duplicating apparatus, the combination with a drum, of a securing device, and a stencil-stub having means for detachable engagement with said securing device and pro-

vided with clamping mechanism automatically operated by such engagement for coaction with a stencil-sheet, substantially as set forth.

3. In stencil-duplicating apparatus, the combination with a drum, of a securing device having projections, and a two-part stencil-stub provided with perforations adapted to engage with said projections, such engagement binding the two parts of said stub firmly together, substantially as set forth.

4. In stencil-duplicating apparatus, the combination with a drum, of a securing device having projections, a two-part stencil-stub the members whereof are normally separated, and orifices formed in said stub for coaction with said projections, the members of said stub being clamped firmly together by the engagement of said projections with said orifices, substantially as set forth.

5. In stencil-duplicating apparatus, the combination with a drum, of a securing device, and a detachable stencil-stub coacting therewith, said stub including a two-part stencil-clamp the members whereof are movable relatively to each other, said clamp having coacting projections and depressions for engagement with a stencil-sheet, substantially as set forth.

6. In stencil-duplicating apparatus, the combination with a drum, of a button-bar provided with projections, and a two-part stencil-stub provided with orifices coacting with said projections, said orifices being arranged adjacent to the forward edge of said stub, the rearward edge of said stub being provided with clamping mechanism including projections carried by the lower member of said clamp and coacting depressions or orifices formed in the upper member of said clamp, substantially as set forth.

7. In stencil-duplicating apparatus, the combination with a drum, a securing device thereon and a stencil-sheet, of a two-part stub, the members whereof lie in substantially parallel planes, said stub coacting on one side with said securing device and on the other side with said stencil-sheet, substantially as set forth.

8. In stencil-duplicating apparatus, the combination with a drum, a securing device thereon and a stencil-sheet, of a stub comprising a plurality of members lying in substantially parallel planes, said stub coacting on one side with said securing device and on the other side with said stencil-sheet, substantially as set forth.

This specification signed and witnessed this 3d day of May, 1904.

ALBERT B. DICK.

Witnesses:

S. O. EDMONDS,
W. G. ARNOLD.