## J. ELLAM.

STENCIL SHEET ATTACHMENT DEVICE FOR CIRCULAR OR OTHER

DUPLICATING MACHINES.

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FIG. 3.

FIG. 4

FIG.5. e'a b c d

F1G.6.

 $e^{\frac{a}{c^2}}$ 

Witnesses A.M. Kuchul John a. Percual.

Tames Ellam

ATTO. FNEXS

## VITED STATES PATENT OFFICE.

JAMES ELLAM, OF CHEAPSIDE, LONDON, ENGLAND.

STENCIL-SHEET ATTACHMENT DEVICE FOR CIRCULAR OR OTHER DUPLICATING-MACHINES.

No. 807,446.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed September 17, 1904. Serial No. 224,850.

To all whom it may concern:

Be it known that I, James Ellam, manufacturer, a subject of the King of Great Britain, residing at 12 King street, Cheapside, in 5 the city of London, England, have invented certain new and useful Improvements in Stencil-Sheet Attachment Devices for Circular or other Duplicating-Machines, of which the fol-

lowing is a specification.

My invention relates to means for securing or attaching one end of the stencil-sheet to rotary circular and other duplicating apparatus. Hitherto such machines or apparatus have been provided with a slotted bar to which 15 one end of the stencil-sheet has been attached by passing the end thereof through the slot of the bar and doubling the sheet back upon itself, in which position it was secured by an adhesive.

The object of my invention is to provide a simple and effective device whereby to attach the stencil-sheet to the slotted bar; and it consists, essentially, of a pronged or tongued plate or bar which is adapted to be fitted to 25 said slotted bar and to engage the stencil by the prongs or tongues passing through open-

ings or slots formed in said stencil.

In the accompanying drawings, Figure 1 shows in perspective an attachment device of 30 the character set forth. Fig. 2 shows in perspective one end of a stencil-sheet. Figs. 3 and 4 are sections of a portion of a stencilsheet with reinforced ends. Fig. 5 is a sectional view of the slotted bar with my attach-35 ment device fitted thereto and engaging the stencil-sheet, and Fig. 6 is a similar view illustrating a modified construction of the attachment device.

a is a plate or bar formed with prongs or 40 tongues b and fashioned trough or \_ shaped,

with a side c and lower plate d.

The attachment device is fitted to the slotted bar e, Fig. 5, which is suitably connected to the machine by passing the lower plate d 45 through the slot e' of the bar e and partially rotating said attachment device, so as to bring the upper end of the side c against the edge of the slot e'. The edge of the lower plate dwill then abut against the flange or side  $e^2$  of 50 the slotted bar e, and the plate a will rest | for the stencil-sheets of said duplicating-ma- 100

upon or contiguous to the upper surface of

the bar e, as shown in Fig. 5.

The stencil-sheets f are formed with slots g or other shaped holes to engage over the prongs or tongues b, the slots or holes being 55 sometimes reinforced by doubling the sheet upon itself and securing by an adhesive, as illustrated in Fig. 3, or by means of a piece of paper, linen, or other material g', secured to the sheet, as illustrated in Fig. 4.

In some cases it may be found desirable to form the attachment device as an angular bar and provide the lower plate d thereof with tongues d', which may be bent with the fingers to embrace the lower edge of the flange 65 or side e<sup>2</sup> of the slotted bar e, as shown in

Fig. 6.

I claim—

1. An attachment device for stencil-sheets of duplicating-machines, consisting of a sub- 7° stantially trough-shaped plate formed with a plurality of tongues adapted to engage corresponding holes formed in the stencil-sheet, said tongues being in the same plane as the upper side of the trough-shaped plate.

2. An attachment device for stencil-sheets of duplicating-machines, consisting of a substantially trough-shaped plate, a plurality of tongues integral with said plate, said tongues being in the same plane as the upper side of 80 the trough-shaped plate, and means for fixing

said plate to the machine.

3. In combination with the slotted bar of duplicating-machines, an attachment device for stencil-sheets of said duplicating-machines, 85 consisting of a plate, a plurality of tongues integral with said plate, and means for secur-

ing said plate to the slotted bar.

4. In combination with the slotted bar of duplicating-machines, an attachment device 90 for stencil-sheets of said duplicating-machines, consisting of a 

shaped bar, and a plurality of tongues integral with the upper plate, the lower plate and side of said bar being adapted to pass through the slot of the slotted bar 95 and the edge of the lower plate to abut against one flange of said slotted bar, as set forth.

5. In combination with the slotted bar of duplicating-machines, an attachment device chine, consisting of a bar of angular section adapted to engage in the slot of the slotted bar, a plurality of tongues integral with one edge of said angular bar, and a plurality of tongues integral with the other edge of said angular bar adapted to be bent under and engage one flange of said slotted bar, as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 10 nesses.

JAMES ELLAM.

Witnesses:

W. M. HARRIS, G. F. WARREN.