Feb. 12, 1924. 1,483,659

C. F. GREEN

PRINTING MEMBER FOR TYPE DUPLICATING MACHINES

Filed Oct. 20, 1922

Fig. 1.

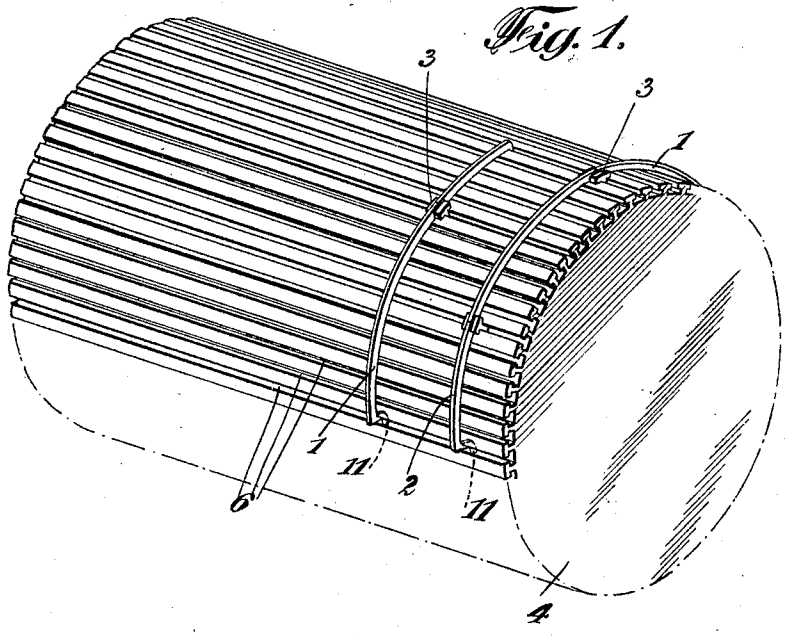


Fig. 2.

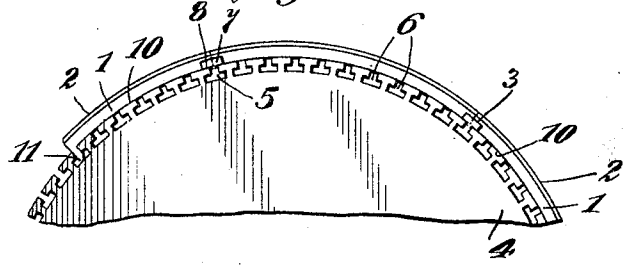
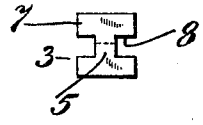


Fig. 3.



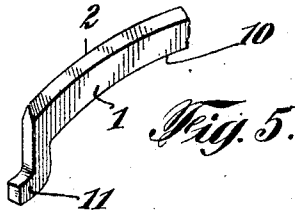


Fig. 5.

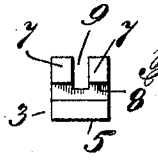


Fig. 4.

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UNITED STATES PATENT OFFICE.

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PRINTING MEMBER FOR TYPE-DUPLICATING MACHINES.

Application filed October 20, 1922. Serial No. 595,733.

To all whom it may concern:

Be it known that I, CHARLES FREDERICK GREEN, a subject of the King of Great Britain, residing at Roneo Works, Hornchurch Road, Romford, Essex, England, have invented certain new and useful Improvements in Printing Members for Type Duplicating Machines, of which the following is a specification.

This invention relates to improvements in printing members for rotary type duplicating and like printing machines of the nature wherein individual types are set up in a channelled printing cylinder or on a form which is secured to the drum or cylinder, and has special reference to means for printing vertical lines for columns or tabular work.

One of the aims of my invention is to provide a construction whereby the vertical lines can meet the horizontal lines more closely than has been possible hitherto. Another object of my invention is to provide a construction whereby the tendency for broken vertical lines appearing is considerably lessened. Other objects will be in part obvious and in part pointed out hereinafter.

In accordance with my invention, curved lines or rules are formed from strips of metal which are held in position in slots formed in blocks so shaped as to engage into the inverted T-shaped slots or channels of the form or cylinder.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings forming part of my application and illustrating one possible embodiment of my invention. Referring to the drawings, Fig. 1 is a perspective view of a channelled printing cylinder having printing members positioned thereon; Fig. 2 is a side plan view of a fragment of the cylinder and printing members thereon; Fig. 3 is a side plan view of a block for holding a printing member; Fig. 4 is an end plan view of the same; and Fig. 5 is a perspective view of a fragment of a printing member, having integral attaching means formed at one end thereof. Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring to the drawings, in one manner of carrying the invention into effect metal strips 1 are fashioned with a printing surface 2. Blocks 3, preferably of brass, or similar material, are provided for maintaining lines 1 upon the cylinder 4. Blocks 3 have their lower portions 5 shaped to engage in the usual channels 6 of the form and with upper portions 7 arranged to rest upon the outer circumference of the cylinder, as at 8. Each block 3 is provided with a central slot 9, preferably extending somewhat below the outer circumference of the cylinder, so that when the curved rule or line 1 is pressed into the slots 9 of the blocks 3, the upper or printing surface 2 of the curved rule 1 is of type height, while the lower surface rests firmly upon the outer circumference of the cylinder as at 10.

Preferably the slots 9, formed in the blocks 3, are so fashioned that a tight spring fit or grip is occasioned to the sides of the curved line or rule 1 when it is sprung into the slots.

Should the slot 9 in a block 3 become too wide to ensure a tight fit with the sides of the rule 1, the width may be reduced by pinching the sides of the block with pliers or a similar implement.

The curved rules or lines and grooved blocks may be used with the usual flexible forms for type duplicating machines, the forms being channelled for the reception of the loose single types, and adapted for mounting on the cylinder.

If desired, the forward end of the line or rule may be provided with a hook or projection 11, shaped for engagement in a type channel 6 of the cylinder or form, thereby preventing any possibility of the rule becoming detached therefrom through the action of the pressure roller or platen (not shown).

In positioning one or more lines on the cylinder or form, one or more blocks 3 are inserted into the proper grooves 6 of the form or cylinder and the line or lines then are engaged in the block or blocks. By adjusting the lines on the blocks and by adjusting the blocks on the form or cylinder the lines may be brought into the desired position. Preferably the top 7 of each block is wide enough to hold the inserted ends of two adjacent lines, thus permitting two lines to be placed very close together. Obviously the curved lines or rules may be formed in various lengths, and as few or as

many blocks, as may be desired, may be used for mounting the lines on the form or cylinder. When a form is used the lines may be placed thereon either before or after the form is attached to the cylinder.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What I claim is:—

1. In printing devices, the combination with a member having type channels, of a line printing strip having at one end an integral projection shaped for engagement in one of said type channels, and a block recessed to receive and hold said strip in the recess, the lower portion of said block conforming with the cross-sectional shape of said type channels and being engageable therein to hold said strip in position on said member.

2. In printing devices, a member having type channels of T-shape in cross-section, a metallic strip having a printing surface, a block having a T-shaped lower portion conforming with the shape of said channels and adjustably engageable therein, said block, when so engaged, having an upper portion overlapping the top of said channel member on both sides of the channel, a slot for said strip in said block extending below the top of the channel, said block being arranged to removably hold a strip in said slot resting against the outer surface of said channel member.

This specification signed this 5th day of October, 1922.

CHARLES FREDERICK GREEN.