Nov. 6, 1923. 1,473,521

H. B. RUBIN

MULTIPLE MITERING ATTACHMENT

Filed Aug. 10, 1922 2 Sheets-Sheet 1

Fig. 1.

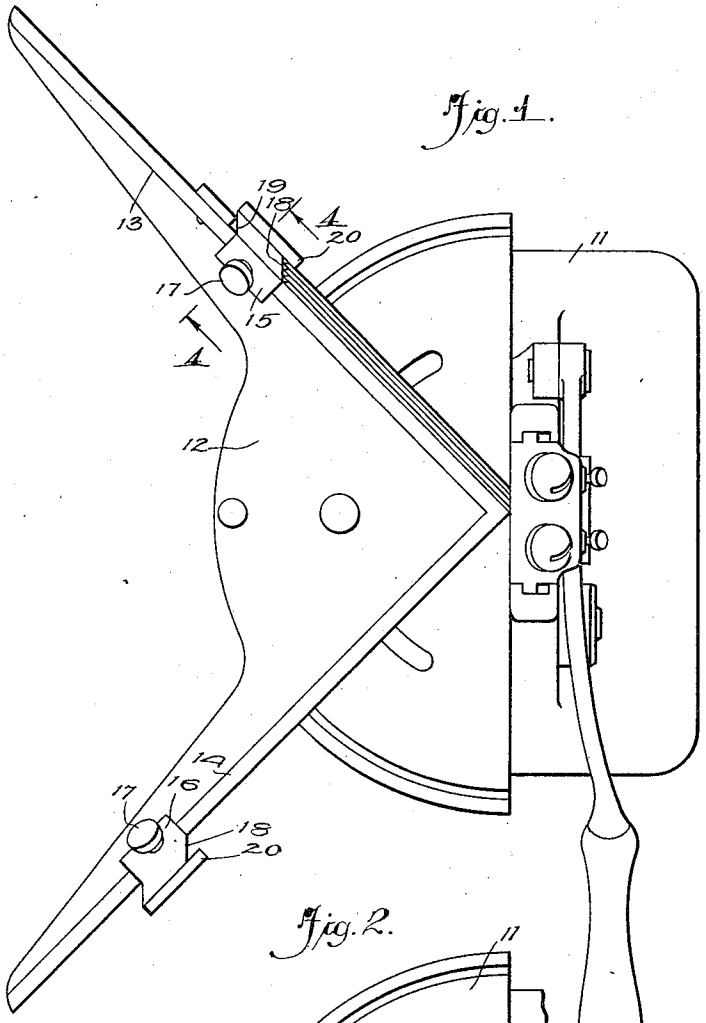
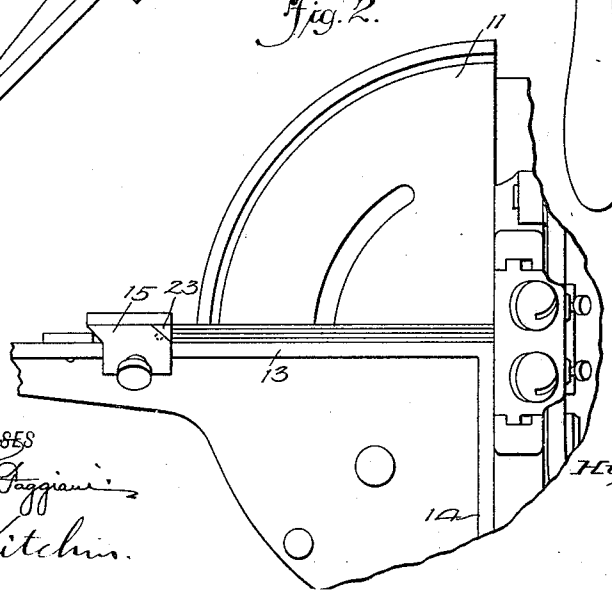


Fig. 2.



WITNESSES

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Fig. 3.

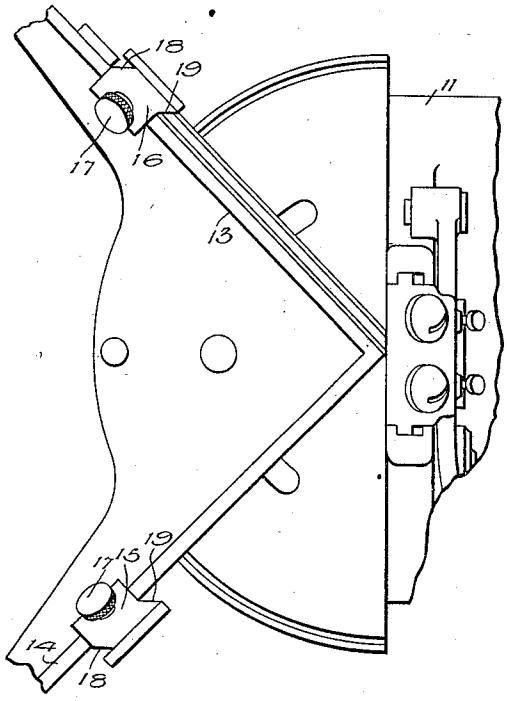


Fig. 4.

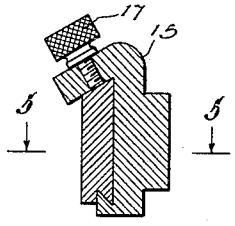


Fig. 5.

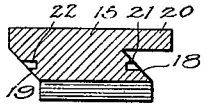


Fig. 6.

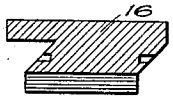


Fig. 7.

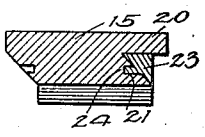


Fig. 8.

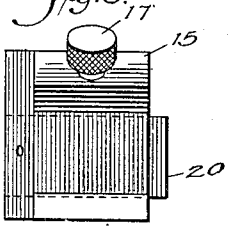


Fig. 9.

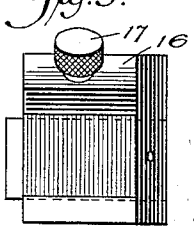


Fig. 10.

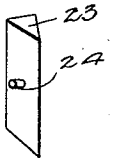


Fig. 11.

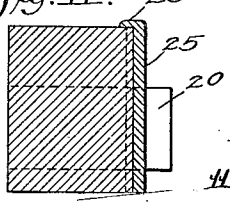
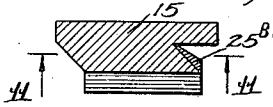


Fig. 12.



WITNESSES

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Patented Nov. 6, 1923. 1,473,521

UNITED STATES PATENT OFFICE.

HYMAN B. RUBIN, OF NEW YORK, N. Y.

MULTIPLE-MITERING ATTACHMENT.

Application filed August 10, 1922. Serial No. 580,978.

To all whom it may concern:

Be it known that I, HYMAN B. RUBIN, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county of Bronx and State of New York, have invented a new and Improved Multiple-Mitering Attachment, of which the following is a full, clear, and exact description.

This invention relates to attachments for mitering machines and has for an object to provide an improved construction wherein a multiple number of printers' rules may be mitered at the same time.

Another object of the invention is to provide an attachment for mitering machines wherein a plurality of rules may be mitered at the desired angle simultaneously or cut off square as preferred.

A still further object of the invention is to provide an attachment for mitering machines which may be readily applied and removed and adjusted for different lengths of rules, the attachment being capable of receiving one or a large number of rules at one time.

In the accompanying drawings—

Figure 1 is a top plan view of a mitering machine of a conventional type, showing an attachment embodying the invention applied thereto.

Figure 2 is a fragmentary view of the machine shown in Figure 1 and disclosing a modified structure of attachment.

Figure 3 is a fragmentary top plan view of the machine shown in Figure 1 with a further modified form of the invention shown applied thereto.

Figure 4 is an enlarged fragmentary sectional view through Figure 1 approximately on line 4—4.

Figure 5 is a sectional view through the attachment shown in Figure 4, the same being taken approximately on line 5—5.

Figure 6 is a view similar to Figure 5 but showing a reverse angle.

Figure 7 is a view similar to Figure 5 but showing a filler or liner.

Figure 8 is an elevation of the attachment shown in Figure 4.

Figure 9 is an elevation of the attachment shown in Figure 6.

Figure 10 is a perspective view of the liner or filler block shown in Figure 7.

Figure 11 is a sectional view through Figure 12 on line 11—11.

Figure 12 is a view similar to Figure 7 but showing a modified form of filler block.

Referring to the accompanying drawings by numeral, 11 indicates a mitering tool of any desired construction provided with a rule holder 12 having the usual 90° angle bars 13 and 14. The particular construction of the miter forms no part of the present invention except in combination with the attachments 15 and 16. These attachments are identical except that one is provided with reverse angles to the other as indicated particularly in Figures 5 and 6. The fitting 15 is slidingly fitted on the angle bar 13 by the dove-tail structure as indicated in Figure 4 and is locked against movement by a suitable thumb screw 17. This attachment is provided with parallel angle surfaces 18 and 19, the surface 18 being overlapped by a projection or lug 20 which extends at a 45° angle from the surface 18. Preferably, there are provided apertures 21 and 22 in the attachment 15 extending inwardly from the surfaces 18 and 19 whereby any suitable form of lug or block 23 may be used for varying the angle of the surfaces 18 and 19.

As shown in Figure 7, the filler block 23 is arranged with a pin 24 fitting snugly into the aperture 21, said block being formed to change the effective angle to a right angle to the angle bar 13 so that the rules may be cut off square as indicated in Figure 2. In some instances it might be desirable to miter the rules at a different angle from a 45° angle and when this is the case a filler block 25 may be provided to produce the desired angle of face superimposed on face 18, said filler block 25 having an overhanging lug 26 whereby it is supported in place temporarily while the rules are being mitered. The overhanging lug 26 is desirable because the blocks 25 are comparatively thin and would not readily support a pin 24 though when the blocks are thicker as shown in Figure 7, the pin is a preferable structure.

In operation, the attachments 15 and 16 may be slid into position on the angle bars 13 and 14 or may be slid therefrom as desired. When it is desired to miter rules of a certain length, one or more are arranged against the bar 14 and fitting against the face 18 of attachment 16. The cutter of the mitering tool 11 is then operated for securing the miter desired. The rules are then moved over to a position against the bar 13 as shown in Figure 1 and the mitered ends

of the rules are moved into engagement with the surface 18 of attachment 15. This will produce a stepped formation as clearly indicated in Figure 1. When the rules are thus properly arranged, the mitering instrument 11 is operated for securing the proper miter at the opposite end of the respective rules. In this way a large number of rules may be mitered at the same time and all the miters will be exactly alike as well as all of the rules will be exactly the same length. In case a group of rules is desired to form a frame or other purposes and the rules of the said group are of different lengths, the arrangement shown in Figure 3 is used, which is merely the transposing of the attachments so that the attachment 16 will be on the bar 13 and attachment 15 on bar 14.

Very often a combination border made up of two or more different rule faces is required and it is necessary that the miters be as perfect as is possible. When this is the case the group of rules is arranged against the bar 14 and one end mitered with the straight end fitting against the surface 19 of attachment 15. The rules are then reversed and arranged as shown in Figure 3 with the mitered ends fitting against the surface 19 of attachment 16 and the opposite ends mitered. This arrangement will provide as accurate a miter as though only single pieces of rule were mitered. It will be evident that the attachment may be used to miter a single rule but the desirable feature is the construction which will permit a number to be mitered at the same time.

In providing rules under the old method, each piece is mitered independently while according to the present invention several pieces of the same length can be mitered in one operation.

What I claim is:—

1. An attachment for mitering machines, comprising a body having parallel faces, said faces being arranged at an angle to the rule engaging the bar of the mitering machine and extending to a point in contact with said bar.

2. An attachment for mitering machines, comprising a body adapted to be removably mounted on the bar of a mitering machine, said body having a pair of parallel faces arranged at 45° angles from said bar, and a projection overhanging one of said faces, said projection being parallel with said bar.

3. An attachment for mitering machines, comprising a body provided with parallel faces, an overhanging shoulder overhanging one of said faces, and a filler block removably connected with the body and adapted to fit against either of said faces for presenting a different angle.

4. An attachment for mitering machines, comprising a body adapted to be removably clamped to one of the bars of the rule holder of a mitering machine, said body having a rule engaging face arranged at a 45° angle to said bar, and an overlapping projection overlapping said face and extending substantially parallel to said bar.

5. An attachment for mitering machines, comprising a body provided with a face arranged at a given angle for receiving the ends of printers' rules, and a block removably mounted on said face, said block being provided with an overhanging shoulder overhanging part of said face.

6. An attachment for mitering machines, comprising a body having a rule engaging surface arranged at a given angle, said body having an aperture, and a filling block adapted to engage said surface, said filling block being provided with a pin adapted to fit into said aperture.

HYMAN B. RUBIN.