No. 753,444. PATENTED MAR. 1, 1904.

A. M. STICKNEY.

KNIFE CARRIER FOR MACHINES FOR CUTTING IRREGULAR FORMS.

APPLICATION FILED MAR. 13, 1901.

NO MODEL.

Fig 1.

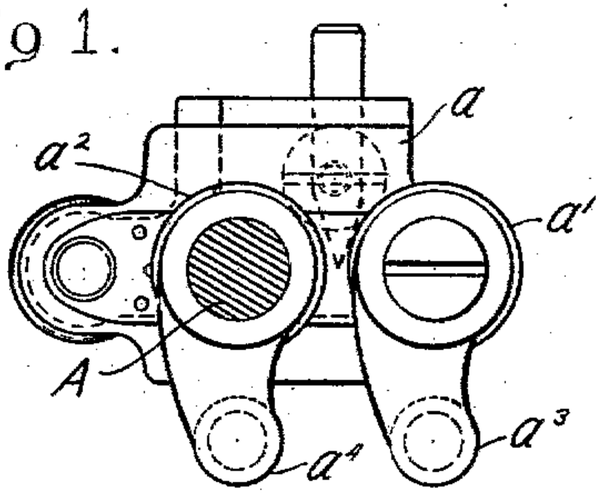


Fig 4.

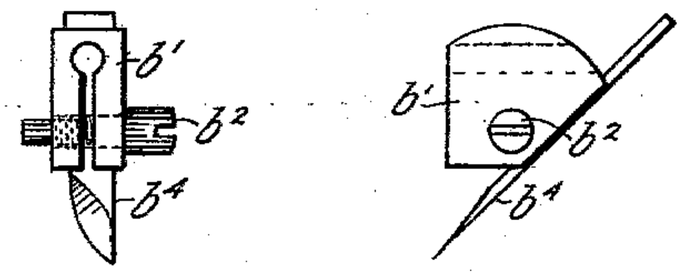


Fig. 5.

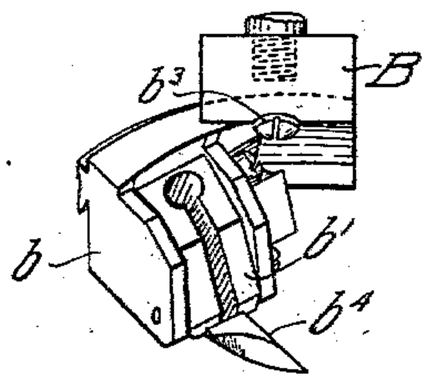


Fig. 6.

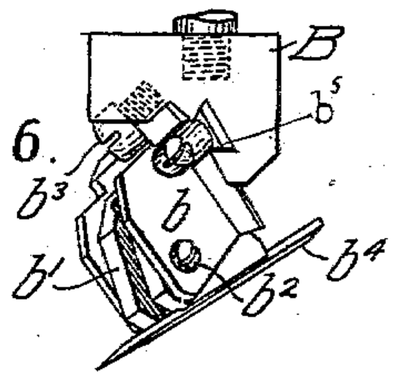


Fig 2

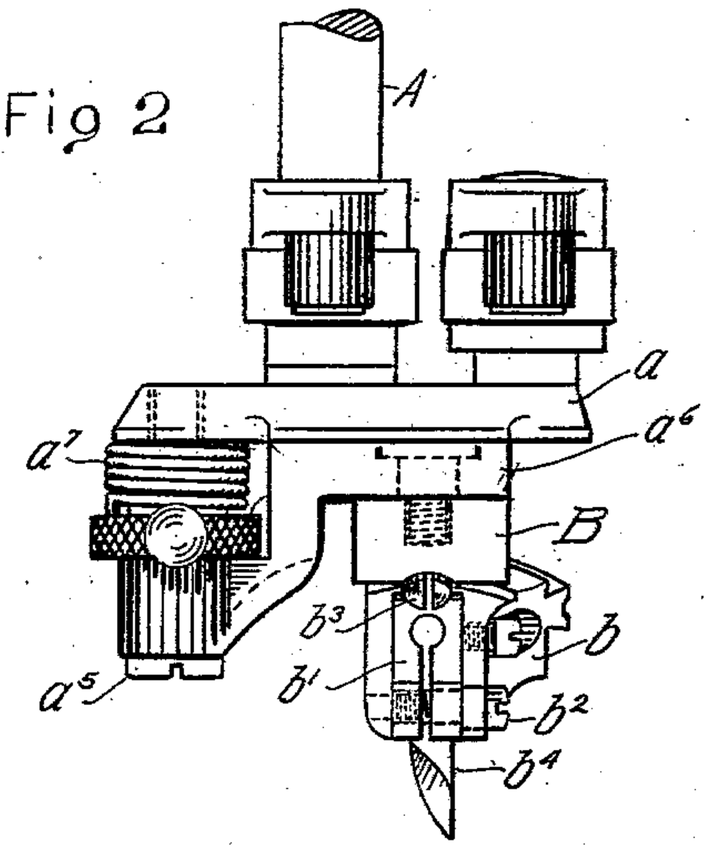
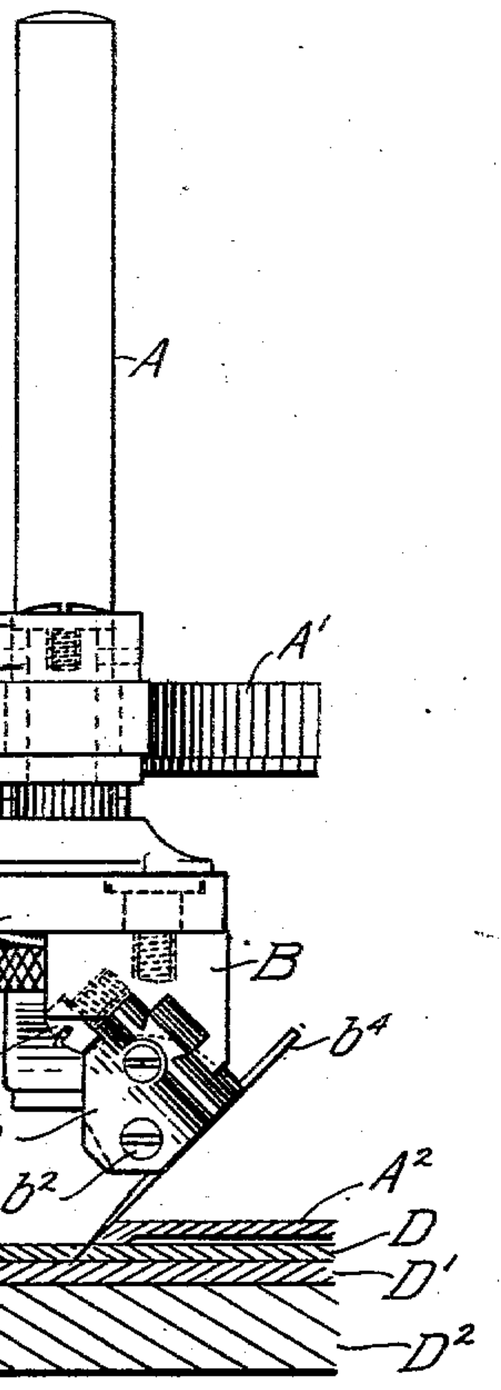


Fig 3.



WITNESSES:

G. A. Rockwell.

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No. 753,444. Patented March 1, 1904.

UNITED STATES PATENT OFFICE.

ALLISON MORRIS STICKNEY, OF MEDFORD, MASSACHUSETTS, ASSIGNOR TO WELLMAN SOLE CUTTING MACHINE COMPANY, OF MEDFORD, MASSACHUSETTS, A CORPORATION OF MAINE.

KNIFE-CARRIER FOR MACHINES FOR CUTTING IRREGULAR FORMS.

SPECIFICATION forming part of Letters Patent No. 753,444, dated March 1, 1904.

Application filed March 13, 1901. Serial No. 51,004. (No model.)

To all whom it may concern:

Be it known that I, ALLISON MORRIS STICKNEY, of Medford, in the county of Middlesex and State of Massachusetts, have invented an Improved Knife-Carrier for Machines for Cutting Irregular Forms, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of my knife-carrier. Figs. 2 and 3 are elevations ninety degrees apart. Fig. 4 shows two views of the knife-clamp detached. Figs. 5 and 6 show the knife-blade readjusted for a different bevel from that shown in Figs. 2 and 3, and also readjusted for a different slant of cutting edge from that shown in Figs. 2 and 3.

My Patents No. 529,883, dated November 27, 1894, and No. 647,888, dated April 17, 1900, describe a machine for cutting irregular forms, and my present invention is an improved knife-carrier for machines of that sort; and it consists in a knife-clamp for holding the knife, which clamp is adjustable on an axis parallel to the knife-blade, as usual in these machines; but that clamp is adjustable on an axis crosswise of the knife-blade, so that the angle of the cutting edge of the knife with relation to the surface of the sheet-stock can be adjusted without varying the bevel of the cut—that is, the bevel of the cut is varied by adjusting the knife-clamp on an axis parallel with the knife-blade, and the angular relation of the cutting edge of the knife and the surface of the stock is varied by adjusting the holder of the knife-clamp on an axis crosswise of the first axis. This is a matter of much practical importance, especially in cutting sheet-rubber, and so far as I have any reason to believe I am the first to provide for this adjustment.

In the drawings, A is the spindle fast to the usual plate *a*, and this spindle and plate are guided in the usual manner by form A′ through the usual rolls a' a^2 a^3 a^4. The plate *a* carries on stud a^5 the usual swinging arm a^6 and its spring a^7. The block B is attached to arm a^6 by the shoulder-screw (shown in dotted lines in Figs. 1, 2, and 3) and has a dovetail groove cut on its inclined face, as clearly shown in Fig. 3, to receive a dovetailed rib on the holder *b*, clearly shown in Fig. 2. This holder *b* carries the knife-clamp b', shown detached in Fig. 4, and this knife-clamp b' is held in holder *b* by the screw b^2 and locked in place by set-screw b^5 after adjustment of clamp b' in holder *b*. Clamp b' holds the blade b^4 in the usual way, as will be clear from the drawings. Holder *b* is locked in place by set-screw b^3 after holder *b* is properly adjusted in block *b*.

To change the bevel of blade b^4, set-screw b^5 is slacked and clamp b' swung on the axis of screw b^2 until the plane of blade b^4 stands at the desired angle to sheet D, which is the sheet material to be cut, and which in practice acts upon the sheet D′ of rag-stock or the like, these two sheets D and D′ being clamped between table D^2 and lower form A^2, as will be clear to all familiar with this class of machines.

For good work it is also necessary to adjust the blade b^4, so that its cutting edge will be in proper relation to the upper surface of the sheet D—that is, will tend to force sheet D toward sheet D′ and both toward table D^2. This is an adjustment of vital importance in many cases and wholly new to me, as above stated. The best mode in which I have contemplated applying this new principle is to form the rib in holder *b* and its groove on block B on a curve struck on an axis through the blade b^4 near its point, as clearly shown in Figs. 2 and 3. To change the slant of the knife-edge with relation to the surface of sheet D, the set-screw b^3 is slacked and holder is moved in its curved groove in block B until the knife-edge has its proper slant, (wholly distinct, of course, from the slant of the knife-blade to form the bevel.

What I claim as my invention is—

A knife-carrier for machines for cutting irregular forms comprising a knife-clamp for clamping the knife; a holder for the knife-clamp and a block for the holder; means for adjusting the clamp on an axis parallel with the knife-blade; and means for adjusting the holder on an axis at right angles with the plane of the knife-blade.

ALLISON MORRIS STICKNEY.

Witnesses:

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