

(No Model.)

2 Sheets—Sheet 1.

W. H. MURDOCH.
PICTURE MATTING CUTTER.

No. 571,677.

Patented Nov. 17, 1896.

Fig. 2.

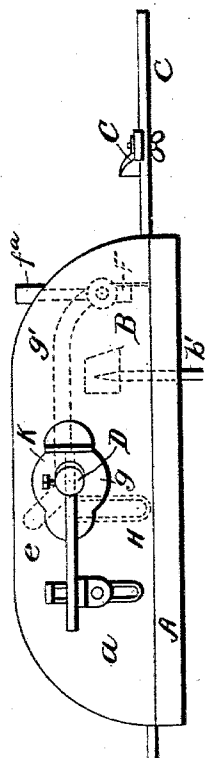
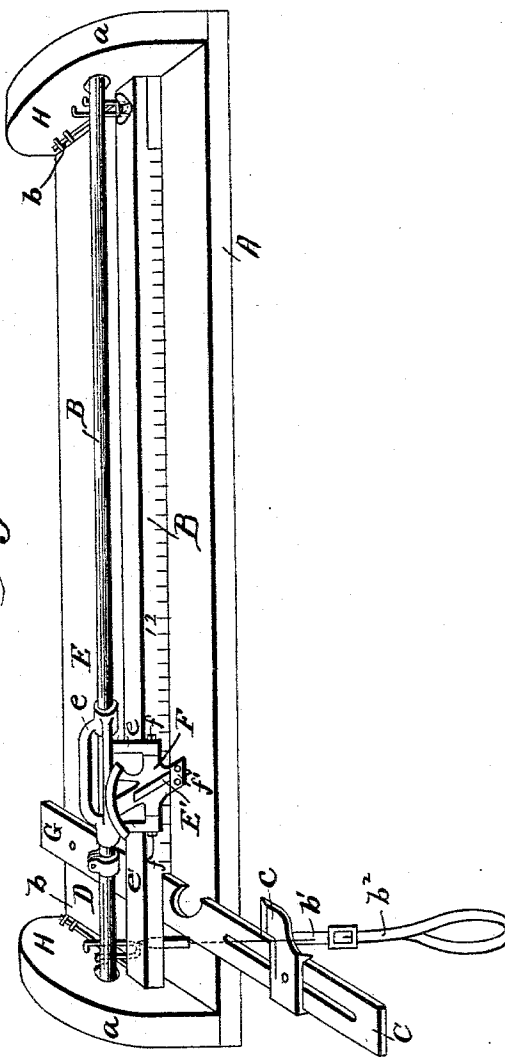


Fig. 1.



WITNESSES

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Fig. 4.

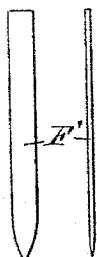
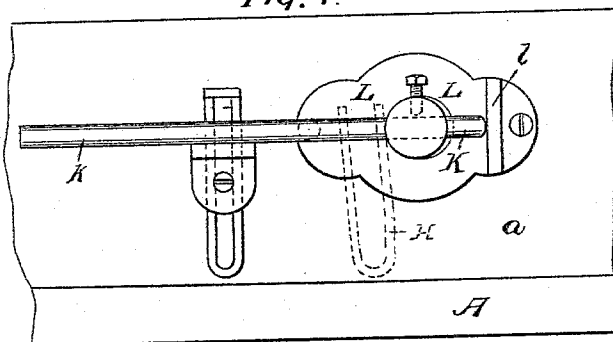


Fig. 7.

Fig. 6.

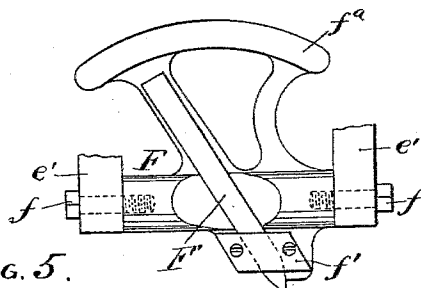


Fig. 5.

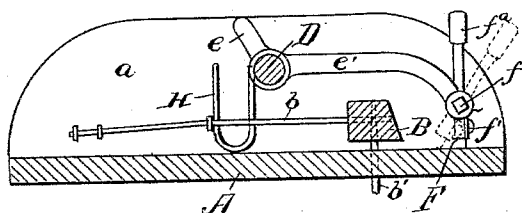


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM H. MURDOCH, OF YOUNGSTOWN, OHIO.

PICTURE-MATTING CUTTER.

SPECIFICATION forming part of Letters Patent No. 571,677, dated November 17, 1896.

Application filed April 11, 1893. Serial No. 469,976. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MURDOCH, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Picture-Matting Cutters; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

The object of this invention is to provide a device by the use of which openings may be rapidly cut in picture-matting on perfect right and uniform lines and at any angle or bevel desired and to operate which will not require skilled labor. This object is accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is a side elevation of the same with certain parts shown in dotted lines. Fig. 3 is a transverse section showing in dotted lines the knife inclined. Fig. 4 is an enlarged view of part of one end of the device. Fig. 5 is an enlarged detail view of the knife-seat, knife, and part of the knife-carriage. Fig. 6 is an edge view of the same. Fig. 7 is a detail in side and edge view of the knife.

The same letters of reference designate the same parts in the several figures.

A designates the base-piece, having end walls *a a*.

In practice this device is to be attached to a suitable table, so as to be stationary thereon, and therefore the base-piece will preferably be provided with suitable attaching devices for this purpose.

B designates a binding-bar which extends longitudinally of the platform and serves as a clamp for holding the matting to be cut properly upon the base-piece. This binding-bar is held normally elevated a slight distance above the base-piece by means of springs *b b*, one end of each of which is secured to the bar and the other end to the adjacent wall *a*, as shown in Fig. 1. In order that the binding-bar may be depressed and held down onto the matting, I prefer to use a strap *b'*, having

a stirrup *b²* at its lower end to receive the foot of the operator. The forward longitudinal side of the binding-bar is preferably provided with a scale in order that the cut may be of precisely the desired length and in the desired place upon the sheet of matting, and said forward side is preferably beveled, so that the scale will be exposed to the view of the operator.

C designates a cleat which is attached to the base near one end thereof and extends through a recess formed in the lower part of one end of the binding-bar. This cleat extends at exact right angles with the longitudinal line of the cut to be made, and against it rests the end of the matting, whereby all lines of cuts will be at right angles and parallel with the outer edge of the matting. To further insure that the lines of cuts will be as described, the device is provided with a guide-piece, such as is indicated at *c*, which is adjustable longitudinally of the transverse cleat and engages the edge of the matting adjacent to a corner thereof.

Located suitably higher than and rearward of the binding-bar B and extending, preferably, parallel therewith is a guide-rod D, the ends of which project through openings in the end walls *a a*, that are larger than the diameter of said rod; and movable longitudinally upon said rod is the knife-carriage E, which is provided at its upper end with a handle *e* for convenience in operating it, and is further provided with forwardly and downwardly extending arms *e' e'*, to which is secured the knife-seat F. This knife-seat is of any suitable construction and is preferably so attached to the arms *e' e'* that it may be adjusted to and held in any desired angle to produce cuts having walls of any desired bevel. The means preferred by me for holding it adjustably to said arms consist of threaded bolts *f*, passing through openings in the arms *e'* into threaded openings in said knife-seat. The knife-seat is also preferably provided with a handle *f^a* for turning it to the required angle. The knife F' is a long slim blade edged for cutting in its extreme lower portion and at the point held in diagonal position against its seat by a suitable clamp *f'*.

Upon the guide-rod D are one or two ad-

justable stops G for confining the movement of the carriage upon the rod to the length of the cut to be made.

II H designate springs which impinge 5 against the ends of the guide-rod and tend to force the same toward one side of the openings in the end walls *a a*, and K designates cams on the ends of said rod, which are designed to engage projections *l* of plates L and 10 force the rod laterally against the action of said springs. Said cams may be of any suitable construction, and one of them is provided with a handle *k* for convenience in operation.

15 When the knife F' is out of engagement with the matting, the springs H force the rod D against the forward parts of the openings in the end walls *a a*. When, however, the knife F' in its inclined position is forced 20 through the matting, it is necessary, in order to get a clean incision, that the knife move downwardly and also slightly rearwardly, and this rearward movement is permitted by the enlarged openings in the end walls. The 25 knife, its carriage, and the rod D are therefore moved slightly backward against the force of the springs H by the downward plunge of the knife through the matting. Now it is obvious that if the rod D is not 30 locked in the position it has thus assumed, as soon as the carriage is moved the pressure of the springs H will tend to force the rod forward and with it the knife. The cut therefore will not be in alinement with the first 35 incision. As soon therefore as the first incision is made the cams K are caused to engage the projections *l* of plates L, and until they are disengaged the rod D can have no forward movement by the action of the 40 springs H.

While I have described the invention as a device for cutting picture-matting, it obviously is adapted for application to other arts

where it is desired to produce cuts upon right lines.

Having thus described the invention, what I claim is—

1. In a device for cutting picture-matting, the combination with a knife-carriage and knife, of a guide-bar upon which said knife- 50 carriage is movable, a spring for pressing said guide-bar in one direction, a cam upon the end of said guide-bar, and a plate engaged by said cam, substantially as described and for the purpose set forth. 55

2. In a device for cutting picture-matting, the combination of the rod for guiding the cutting device, a spring for pressing said rod in one direction, and means for forcing and locking said rod against the action of said 60 spring, substantially as described.

3. In a device for cutting picture-matting, the combination of the knife-carriage, the knife adjustably supported thereby, a guide-rod upon which said carriage travels, springs 65 for forcing said guide-rod in one direction, and means for locking said rod against the action of said springs, substantially as described.

4. In a device for cutting picture-matting, 70 the combination with the frame, having end walls formed with openings; plates secured to said end walls and formed with projections adjacent to said openings; a spring-pressed guide-rod, extending loosely through said 75 openings and provided with cams for engaging said projections; a handle for said rod; and cutting means guided by said rods, substantially as shown and described.

In testimony whereof I hereunto affix my 80 signature in the presence of two witnesses.

WILLIAM H. MURDOCH.

Witnesses:

C. L. BALDWIN,
J. ROSS.