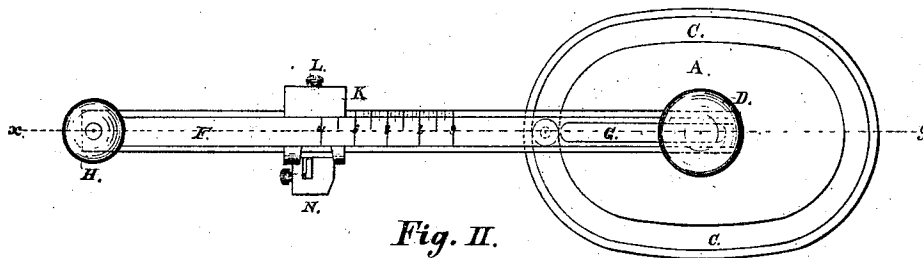
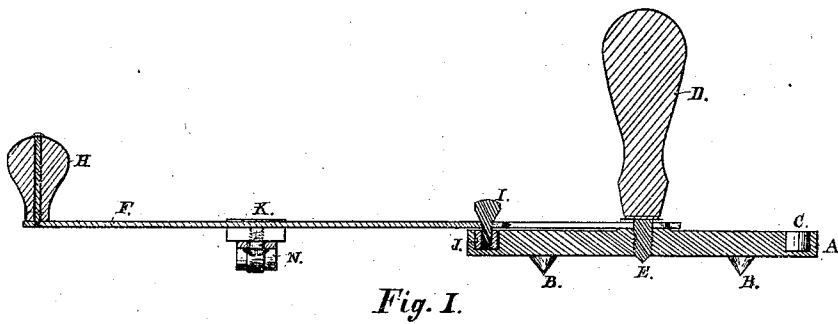
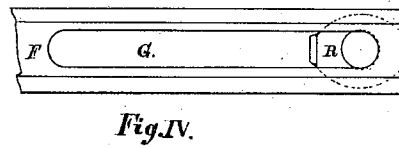
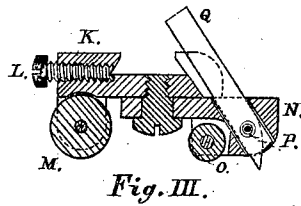


H. McADAMS.

MACHINES FOR CUTTING OVALS.

No. 179,039.

Patented June 20, 1876.



WITNESSES

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UNITED STATES PATENT OFFICE.

HUGH McADAMS, OF TORONTO, CANADA.

IMPROVEMENT IN MACHINES FOR CUTTING OVALS.

Specification forming part of Letters Patent No. **179,039**, dated June 20, 1876; application filed April 13, 1876.

To all whom it may concern:

Be it known that I, HUGH McADAMS, of the city of Toronto, in the county of York and Province of Ontario, Dominion of Canada, manufacturer, have invented a certain new and useful Machine by which Circles, Ovals, and Irregular Figures can be marked or cut out with rapidity; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to produce a portable cheap machine by which circles, ovals, and irregular figures can be marked or cut out with rapidity and accuracy; and consists in a bar of steel or other suitable material, having at one end a handle, and at the other a longitudinal slot, through which a pin passes, which secures the said bar to a metallic plate, having cut in its surface a groove, oval, or such other shape as may be desired to mark or cut out, within which groove fits a steel pin secured to the bar referred to, which is also provided with an adjustable swivel-head containing a pencil or knife, as hereafter more particularly described.

Figure I is a sectional elevation through x y of Fig. II. Fig. II is a plan. Fig. III is a detail of adjustable head. Fig. IV is a detail of a clip.

A is a plate, having on its bottom face two or more bits, B, which are forced into the material to be operated upon, in order to prevent the said plate A revolving thereon. C is a groove cut in the top face of the plate A, which groove is either oval, as shown in drawing, or such other shape representing the figure desired to be marked or cut out of the material to be operated upon. D is a handle, having a shank, E, which is screwed or otherwise fastened into the center of the plate A. F is a bar, having beveled edges and divisions of inches marked upon its face, as shown. G is a slot cut longitudinally in the bar F. H is a handle attached to the end of the bar F opposite to that through which the slot G is cut. Through this slot the shank E passes, thereby connecting the bar F to the plate A, as shown. I is a stud-pin, screwed or other-

wise fastened to the bar F, and projecting through the bottom side thereof, holding a friction-roller, J, which fits and works within the groove C. K is a carriage-head, having a dovetail groove cut in its face, as shown, through which passes the bar F, the bevel edges of which correspond with the said dovetail groove. L is a set-screw for pinching against the bar F, and thus tightening the head K upon the said bar, upon which it will otherwise slide longitudinally. This carriage is provided with a roller, M. N is a swivel knife-head, pivoted to the carriage-head K, and provided with a roller, O, and set-screw P. Q is a knife or pencil passing through a slotted knifeway in the head N. This knife Q passes between jaws provided at one end of the carriage K, which jaws prevent the head N from swiveling more than is required.

Having now described the general construction of my machine, very few words will suffice to explain its operation. Having placed the plate A upon the material I wish to mark or cut up, and pressed the bits B into the said material, to prevent the plate A from revolving thereon, I seize the handle D in one hand, and with the other take hold of the handle H, by which I propel the bar F around the plate A; and as the head N, holding the knife Q, is properly set upon the bar F, which is connected to plate A, as before described, a figure corresponding to the groove C is made upon the material. When it is desired to mark a circle, the stud-piece I is removed, and the clip R, which at other times acts merely as a washer, is turned so as to project over the end of the bar F, as shown in Fig. IV.

What I claim as my invention is—

1. The slotted bar F, pivoted to the plate A, and provided with a stud-pin, I, and roller J, in combination with the plate provided with groove C, as and for the purpose specified.

2. The carriage-head K, fitted to the bar F, and provided with a roller, M, in combination with a pivoted head, N, provided with a knife, Q, arranged as and for the purpose specified.

Witnesses: HUGH McADAMS.

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