J. WALDEN & G. PLATTS.

Machines for Beading and Folding Leather.

No. 158,190. Patented Dec. 29, 1874.

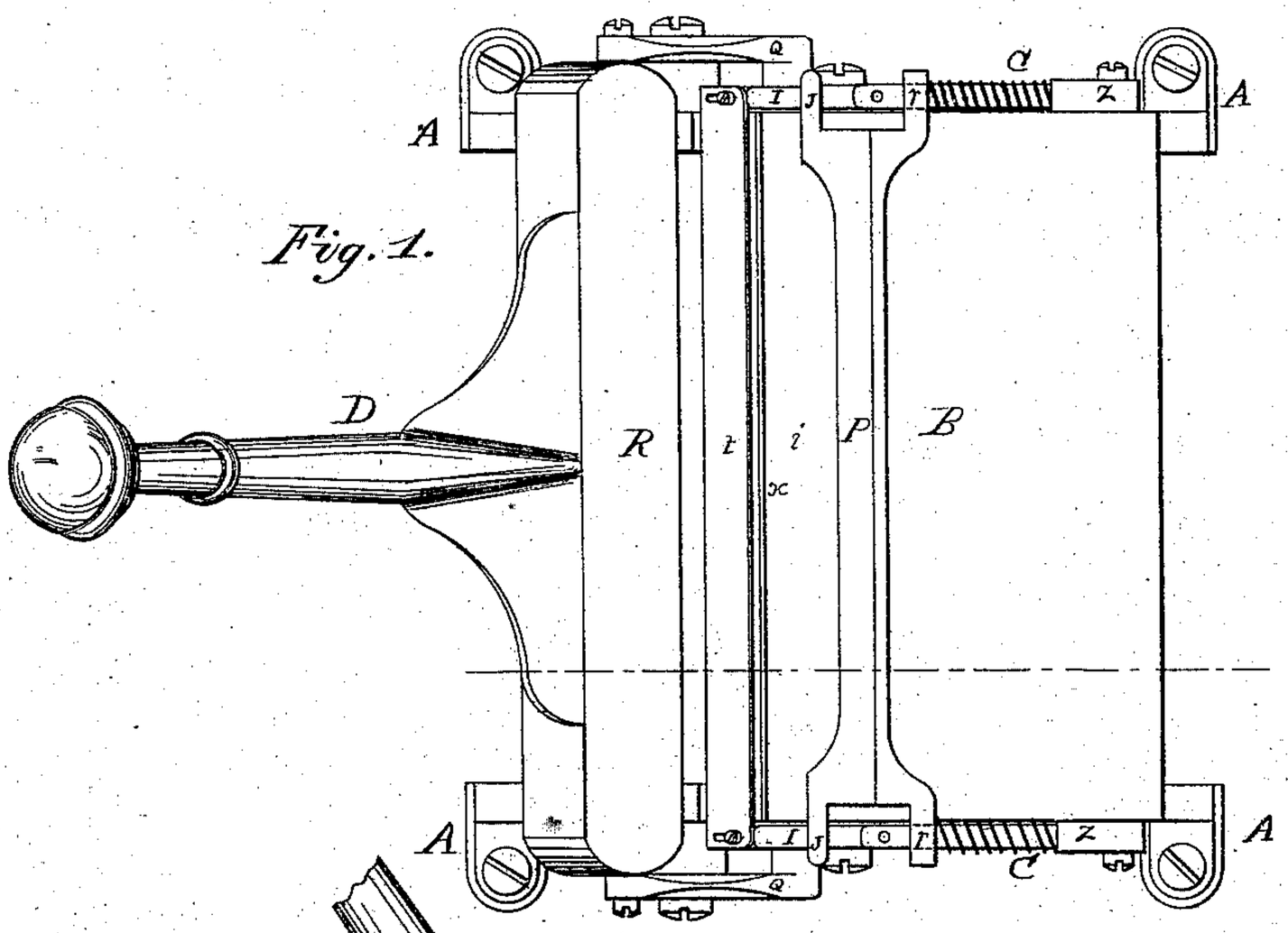

Fig. 1.

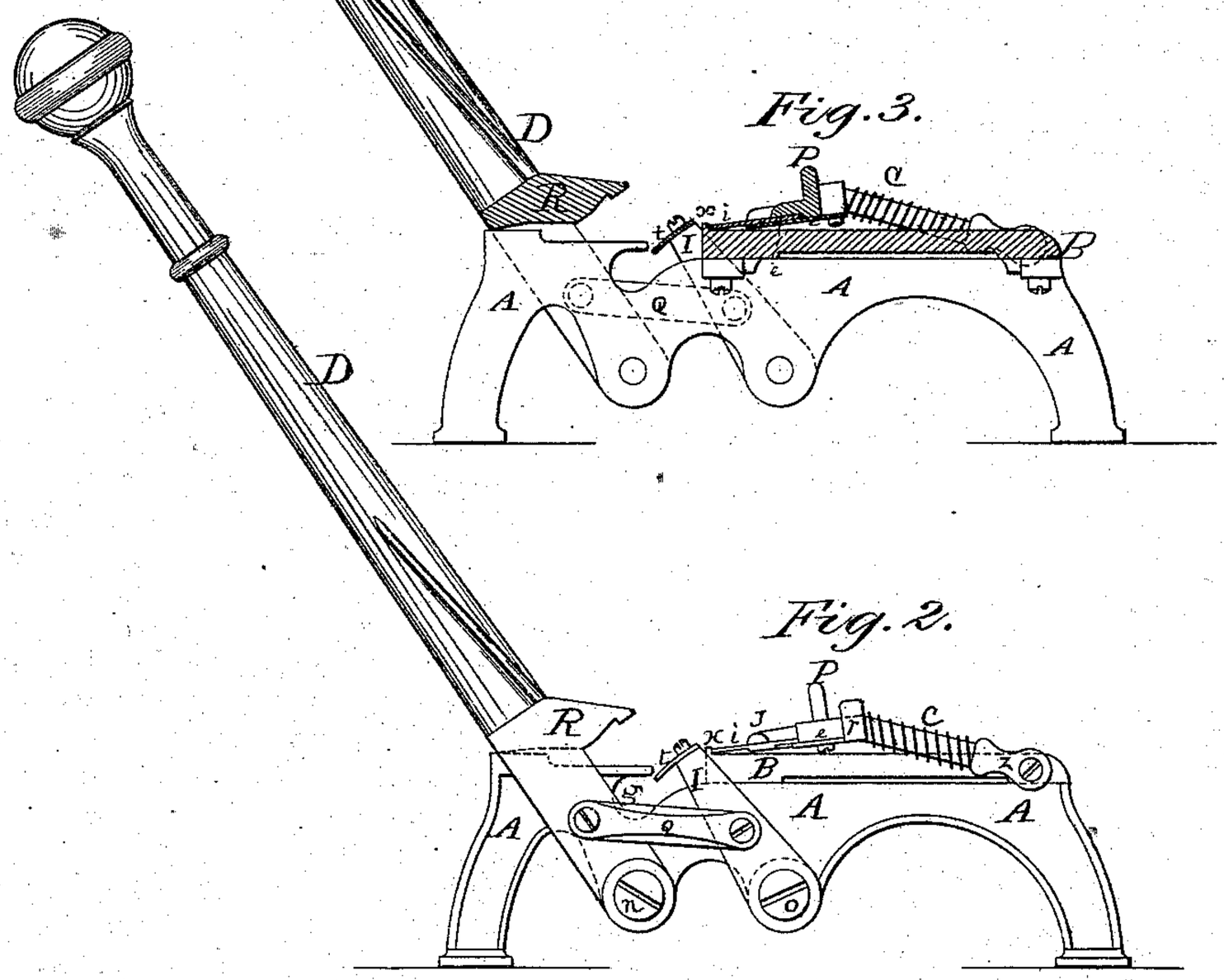

Fig. 3.

Fig. 2.

Witnesses.

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IMPROVEMENT IN MACHINES FOR BEADING AND FOLDING LEATHER.

Specification forming part of Letters Patent No. **158,190**, dated December 29, 1874; application filed November 11, 1874.

To all whom it may concern:

Be it known that we, JOSEPH WALDEN and GEORGE PLATTS, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Machine for Beading and Folding Leather; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a top view of our said invention; Fig. 2, a vertical cross-section taken on the dotted line shown in Fig. 1; and Fig. 3 is an end or side elevation thereof.

Similar letters of reference on the drawing represent corresponding parts of the different figures thereof.

The object of this invention is more especially to fold or bead the edge of the leather around the gore-opening in Congress gaiters; but it is, of course, applicable to folding or "beading" the edges of leather used in the manufacture of any article where such beading or folding may be desirable.

The machine composing this invention consists of a platform, on which the leather is laid to be folded or beaded, a clamp to hold it in position, a blade to fold it, and a jaw to force up the bead or fold.

The construction, combination, and operation of these several parts are as follows:

The platform is a plain piece of pot metal, shown in the drawing by B. It is bolted to a suitable frame, shown in the drawing by A. This platform has also a rib raised or formed along its back upper edge, against which the leather is pressed in forming the bead, as shown by *x*. The clamp is arranged upon this platform. It consists of a bar, P, which reaches across the platform from end to end lengthwise. This bar has upon each end of it two prongs, shown in the drawing by J *r*. In the under side of the prong *r* a recess is made to fit upon the rods *c*, which rods are pivoted upon each end of the platform at *z*, and upon this rod *c* a spiral spring is also fitted to bear against the back side of the prong, and a shoulder made on the rod, as shown in the drawing.

The purpose of this spring will be explained when the operation of the clamp comes to be described.

This clamp further consists of a thin plate, shown in the drawings by *e*, Figs. 2 and 3, by which the upper ends of the two rods *c c* are united, and to which it is firmly riveted in the manner shown; and said clamp further consists of a thin plate, *i*, riveted to the under side of the bar P, a tongue being made on the ends of this plate to fold over the ends of the plate *e*, so arranged as to slide freely back and forth when the machine is in operation.

The folding-blade is shown in the drawing by *t;* it consists of a thin piece of metal stretched across the machine at the rear side of the platform, and is fixed to the ends of the levers I I, which it unites in the manner shown in Fig. 1. This blade is made adjustable, upon the ends of these levers, that it may be set forward or backward, as the case may require, there being an open space made in the frame, shown by *g*, to receive the blade when the levers fall back.

The folding or beading jaw is shown in the drawing by R. It consists of metal formed somewhat in the shape of a fork, substantially as shown by the drawing, the lower prongs being pivoted to the frame at *n*, and the handle or lever by which the jaw, and indeed the whole machine, is operated is shown by D. The fork end of the jaw is connected to the levers I I by means of links Q, by which the folding-blade is made to move simultaneously with the jaw, the levers I being pivoted to the frame at Q.

The operation is as follows: Let the clamp be raised up, and a piece of leather laid on the platform, and the edge thereof be shoved back as far over the side as may be necessary to make the fold. The clamp is now let down on the leather, by which a crease is made between the clamp and the rib *x*, the edge of the leather being raised up by the clamp, which forces it down in the angle formed by the rib with the platform. The jaw is now brought forward, which also brings the folding-blade forward in advance of it, the blade catching the elevated edge of the leather and folding it over the plate *i*, and keeping it in

that position until the jaw strikes it, when the levers I strike the prongs *j* on the bar P and force the plate *i* back from between the fold of the leather, the folding-blade also moving forward to make room for the jaw to force the fold down hard upon the platform. The jaw is then thrown back, the clamp raised up, and the leather discharged, which completes the operation.

We claim as our invention—

1. The clamp and platform, made substantially as described, and combined together to gripe and turn up the edge of the leather preparatory to the folding and beading thereof.

2. The folding-blade, platform, and clamp, when made and combined with each other, to fold over the edge of the leather, as shown and described.

3. The jaw and folding-blade, when made and combined together, to turn and force down the fold, as shown and described.

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Witnesses:

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