

J. C. Touzet,

Upper Machine.

N^o 85,492.

Fig. 1. Patented Dec. 29, 1868.

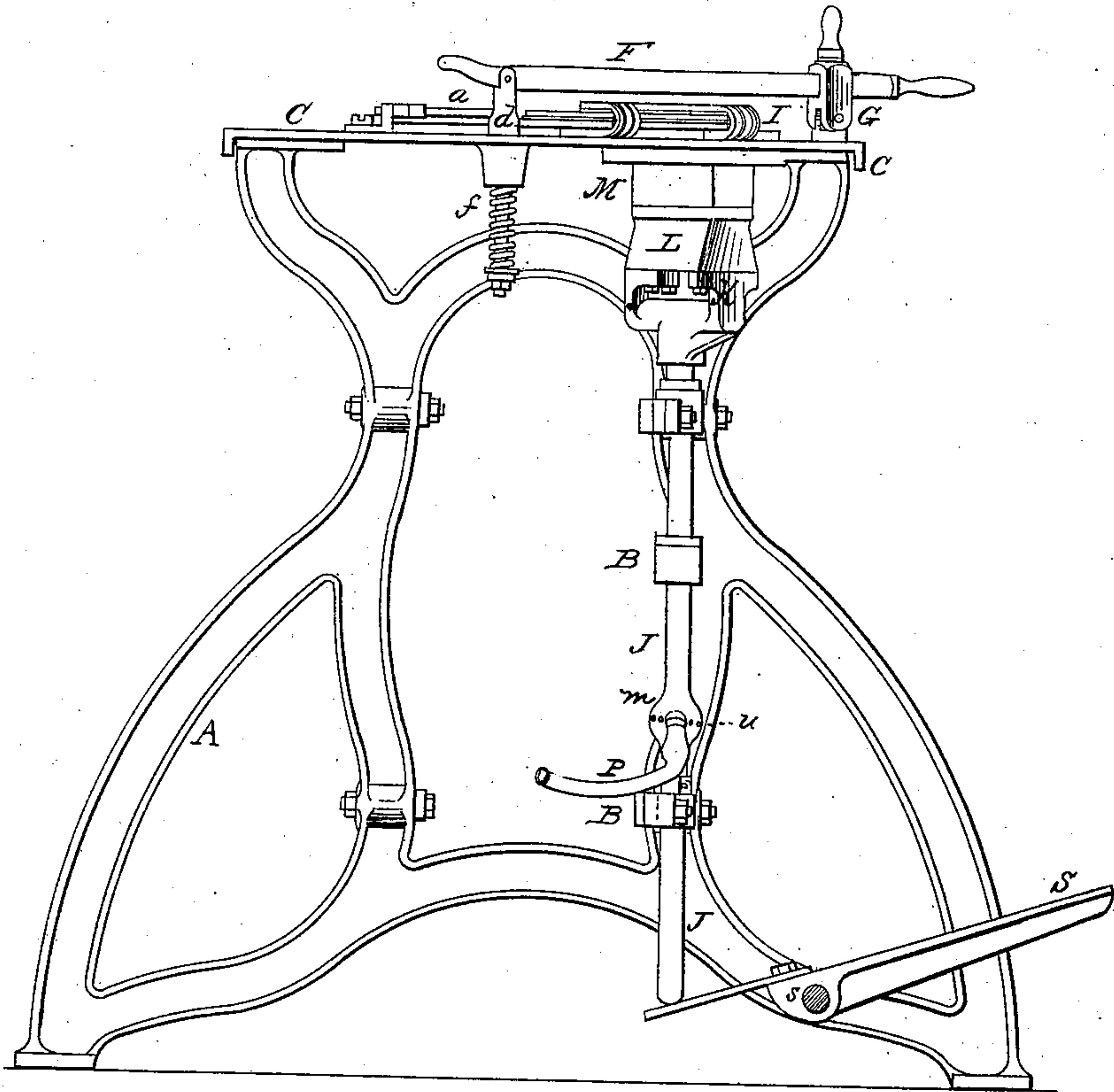
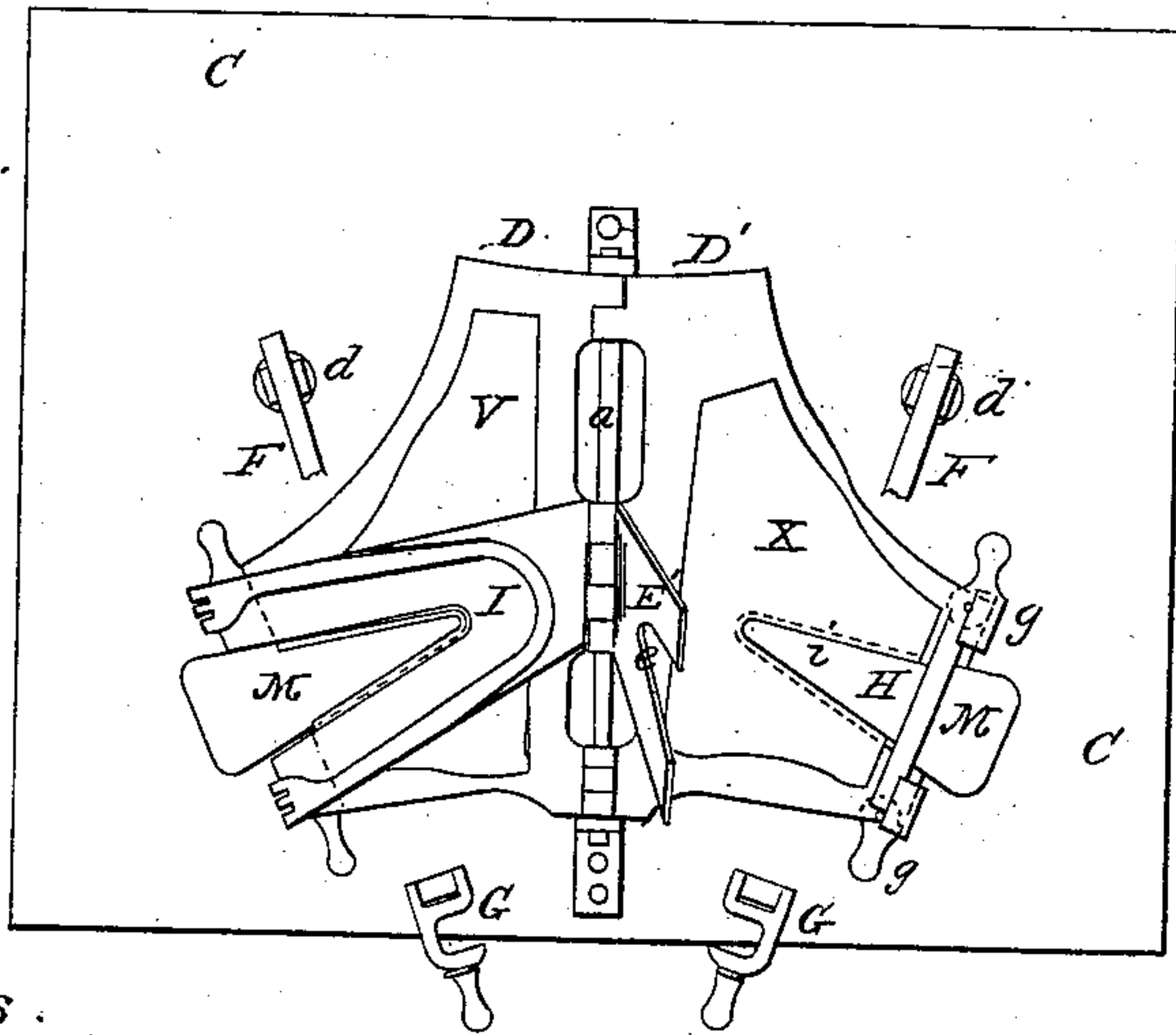


Fig. 2.



Witnesses.
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Fig. 3.

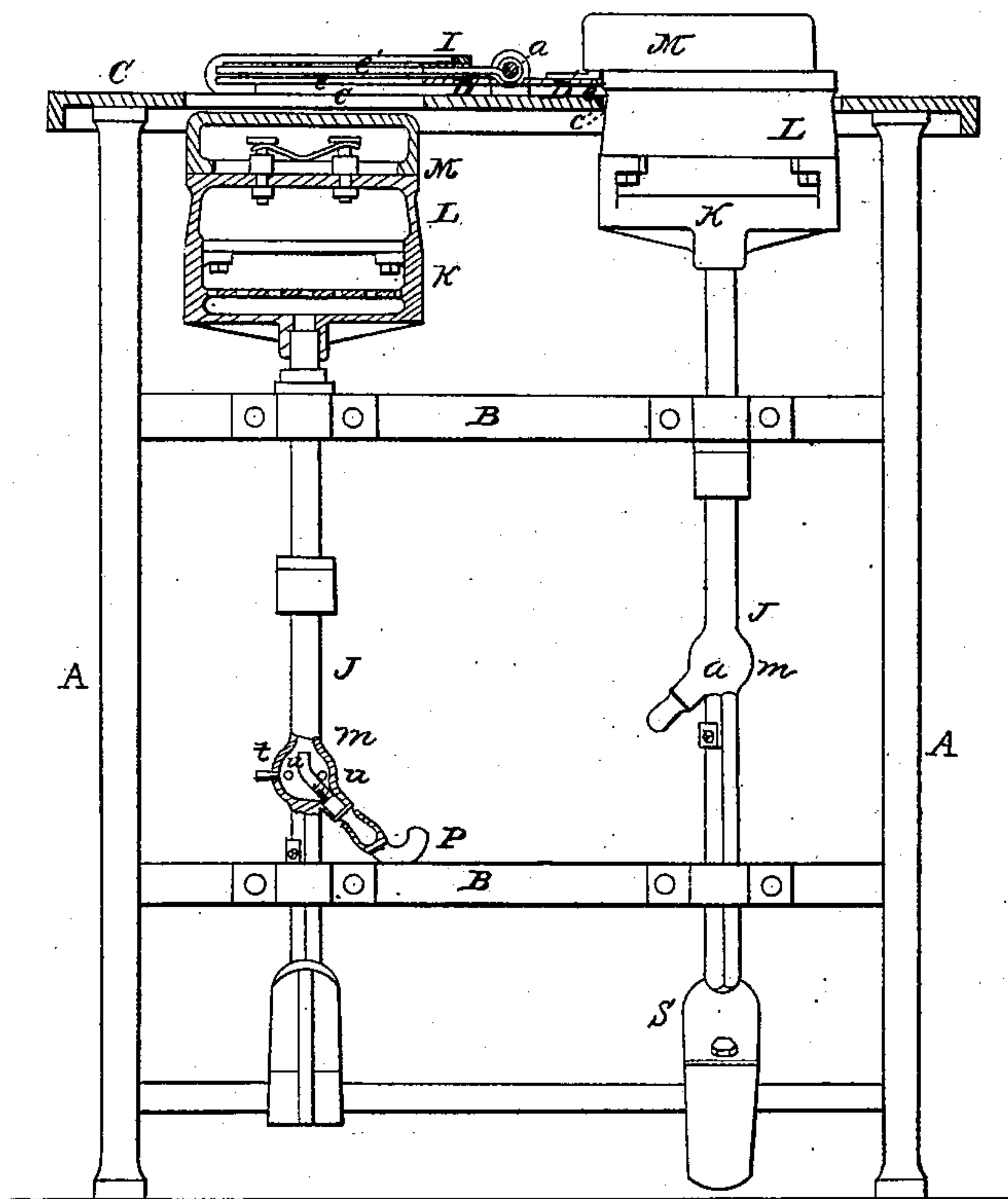


Fig 4



Witnesses

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JULES CONSTANT TOUZET, OF PARIS, FRANCE.

Letters Patent No. 85,492, dated December 29, 1868.

IMPROVED APPARATUS FOR MANUFACTURING SHOES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JULES CONSTANT TOUZET, of Paris, France, have invented an Apparatus for Manufacturing Shoes, Gaiters, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of mechanism, fully described hereafter, for performing certain operations in the manufacture of gaiters, &c., that have hitherto been performed by hand.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1, Sheet No. 1, is a side elevation, partly in section, of my apparatus;

Figure 2, a plan view;

Figure 3, Sheet No. 2, a front elevation, partly in section; and

Figure 4, a detached view.

The two side-frames A A of the apparatus are connected by cross-pieces B B, and support a top or platform, C, to a rod, *a*, on the upper side of which are jointed two plates or leaves, D D', and two smaller plates or clamps, E E'.

In the top, C, are two triangular openings, *c c'*, fig. 3, and in the plates D D', E E' are triangular recesses, *e e'*, which (when the said plates are folded down upon the top, C,) are directly above and correspond to the openings *c c'*.

Through the top, C, passes a rod, *d*, a shoulder on which limits its downward movement, and on the rod, below the top, is coiled a spring, *f*, which is confined between nuts on the lower end of the rod and the top, C, and to the upper end of this rod is jointed a lever, F.

Near the edge of the top is jointed an adjustable catch, G, for the reception of the lever F, as described hereafter.

To the recess *e'*, in the plate D, is adapted a detachable guide, H, at the edge of which is a recess, *i*, (fig. 4,) and to the plate D' are hung clamps, *g*, by which the plate E' may be secured to the plate D', after being turned down upon the same.

To the plate D is adapted a detachable clamping-plate, I, in which is a triangular recess corresponding to the recess *e'* in the said plate D.

To shafts J, which slide, without turning, in guides on the cross-pieces B B, are secured hollow frames, K, perforated at the top, and having lugs, to which are secured boxes, L, and on the latter rest "irons," M, which are so secured as to have a limited lateral movement, in any direction, independent of the boxes.

The upper portion of each end J is hollow, and near the lower end it is enlarged in diameter to form a hollow sphere, *m*, the latter communicating, through the hollow shaft, with the box K, and into this sphere (to openings, *w*, in which are adapted detachable stoppers,

t), extends an inclined tube, *n*, the inner end of which is bent upward, its outer end being connected to a flexible gas-pipe, P.

To a rod, *s*, extending between the two side-frames, are hung two treadles, S, each of which extends beneath the lower end of one of the shafts J.

Gas is admitted to the tube *n*, and, flowing upward in the hollow portion of the shaft J, creates a current, which causes the air to pass into the opening *w*, and upwards with the gas, the mixture of air and gas being ignited where it passes from the openings in the frame K, so that the box L, above the frame, and the iron, M, upon this box, are quickly heated, and are maintained at a uniform temperature.

By regulating the admission of gas, and the amount of air which passes into the sphere *m*, such a uniform mixture of the gases may be obtained as will insure a complete combustion, and produce a flame of any required degree of intensity, and without the emission of smoke, or injurious or disagreeable vapors or odors.

Operation.

The plates D and D' are folded down to the position shown in fig. 2, the guide H is introduced into the recess in the plate D', and the "vamp" X, of leather or other material, is applied to the plate, the edges of the usual angular opening in the side of the vamp bearing against the edges of the recess *i* in the guide.

The plate E' is now turned down on to the vamp, and is secured in its place by the clamps *g g*, after which the guide H is withdrawn, leaving the vamp clamped between the two plates, its edges extending a slight distance beyond the edges of the openings *e e'* in the plates.

A piece of cloth, Y, which forms the lining of the shoe, is now placed on the plate D, so that the edges of the notch or opening in the lining shall extend a slight distance beyond the edges of the opening *e* in the plate D. The plate E is then turned down on to the cloth, and the guide I is applied, as shown in fig. 2.

The shafts J are now raised by means of the pedals, when the irons M will be passed upwards through the openings in the top of the stand, and in the plates D D', E E', and in the guide I, the edges of the pieces of cloth and leather projecting beyond the edges of the plates, into openings *e e'*, being turned up as the irons are raised.

When the irons reach the limit of their upward movements, they are moved laterally, so as to fold down the projecting edges of the material upon the plates, after which the guide I is removed, a triangular piece of elastic cloth, gummed at the edges, is applied to the triangular opening in the lining Y, and the plates D' and E', carrying the leather vamp between them, are turned over until the folded edge of the vamp is brought to bear upon the edge of the elastic cloth.

The lever F is now brought against the top of the

plate D', so as to compress the plates D D' together, and bring the edges of the two pieces X Y, and of the elastic piece, into close contact, the lever being secured by the catch G, and maintaining the pressure upon the plates until the heat of the adjacent iron has dried the paste, when the pieces of material are removed, and others are applied to the plates, and operated upon in a like manner.

It will be seen that the spring *f* will permit the inner end of the lever to rise to a limited extent, when the material between the plates is of unusual thickness.

Without confining myself to the precise construction and arrangement of parts shown and described,

I claim as my invention, and desire to secure by Letters Patent—

1. A clamp, (consisting of recessed plates, adapted for the reception of the vamp or lining of a shoe,) in combination with an iron, corresponding in form to the recesses in the said plates, and so arranged as to be carried upwards through the said openings, and laterally over the plates, all substantially as and for the purpose described.

2. Recessed plates D D', hinged to a table or platform, having openings *c c*, and adapted for the recep-

tion of guides H I and clamps E E', in combination with irons M M, corresponding to the openings in the platform, and operating to turn down the edges of the leather or fabric, all substantially as and for the purpose described.

3. The combination of the platform C, plates D D', E E', catches G, and the lever E, hung to a stud on the platform, substantially as and for the purpose described.

4. The boxes L, heated as described, in combination with irons M, so secured to the said boxes as to have a limited lateral motion independently of the same, for the purpose described.

5. The hollow shaft J, with its enlargement *m*, openings *w*, and perforations at the upper end, in combination with the gas-tube *n*, arranged substantially as set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

J. TOUZET.

Witnesses:

F. OLCOTT,
G. RICHARDS.