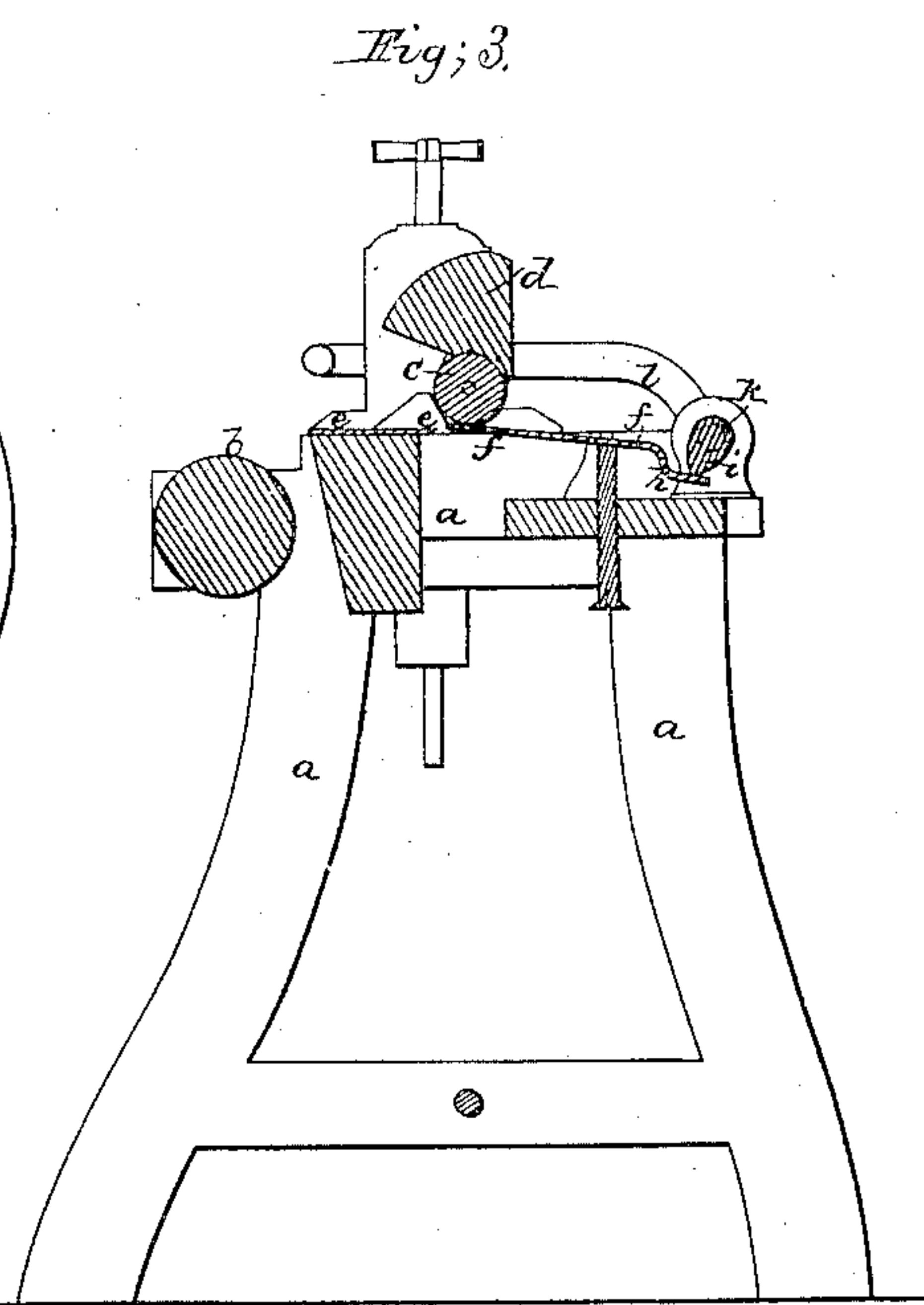
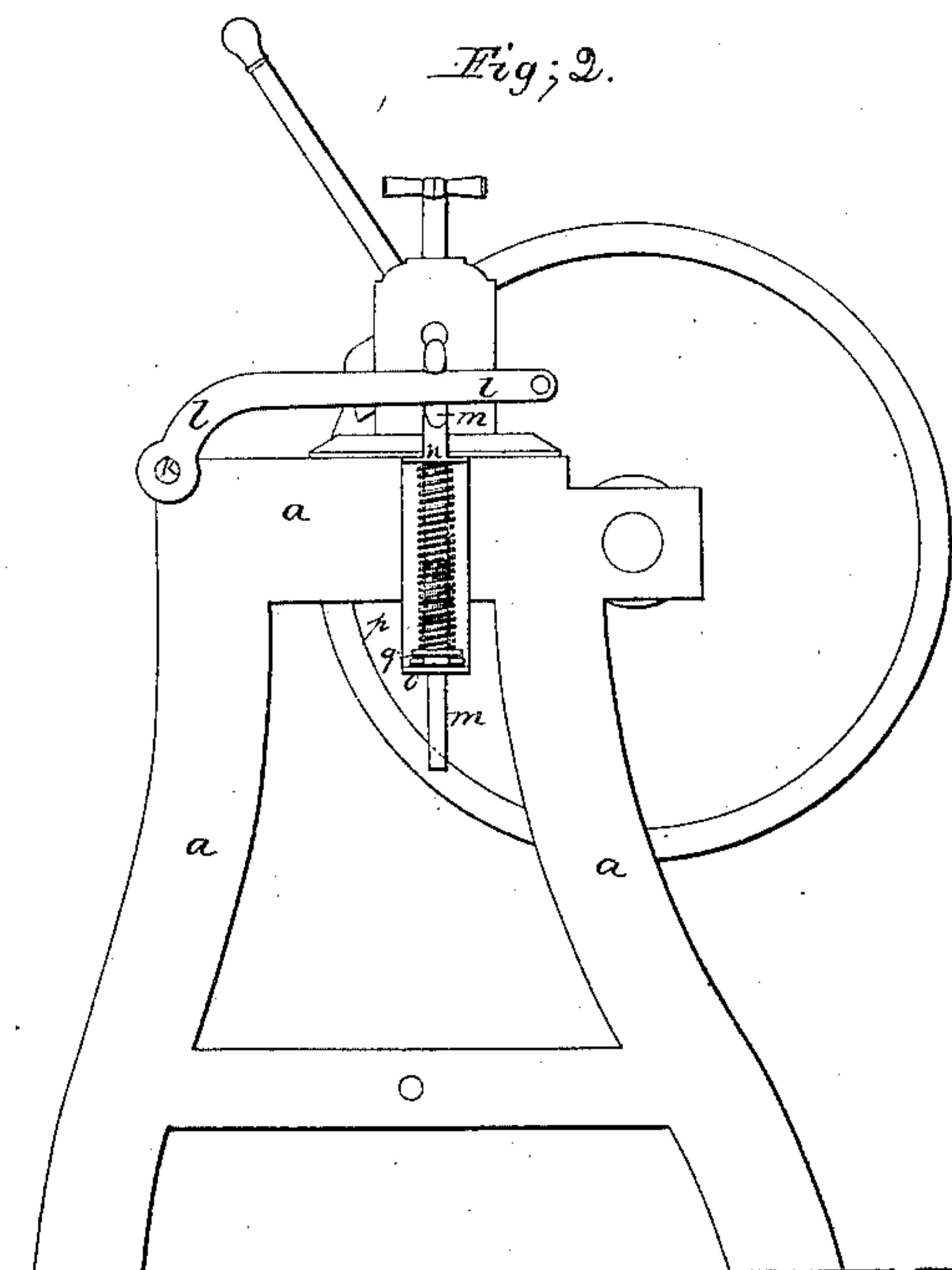
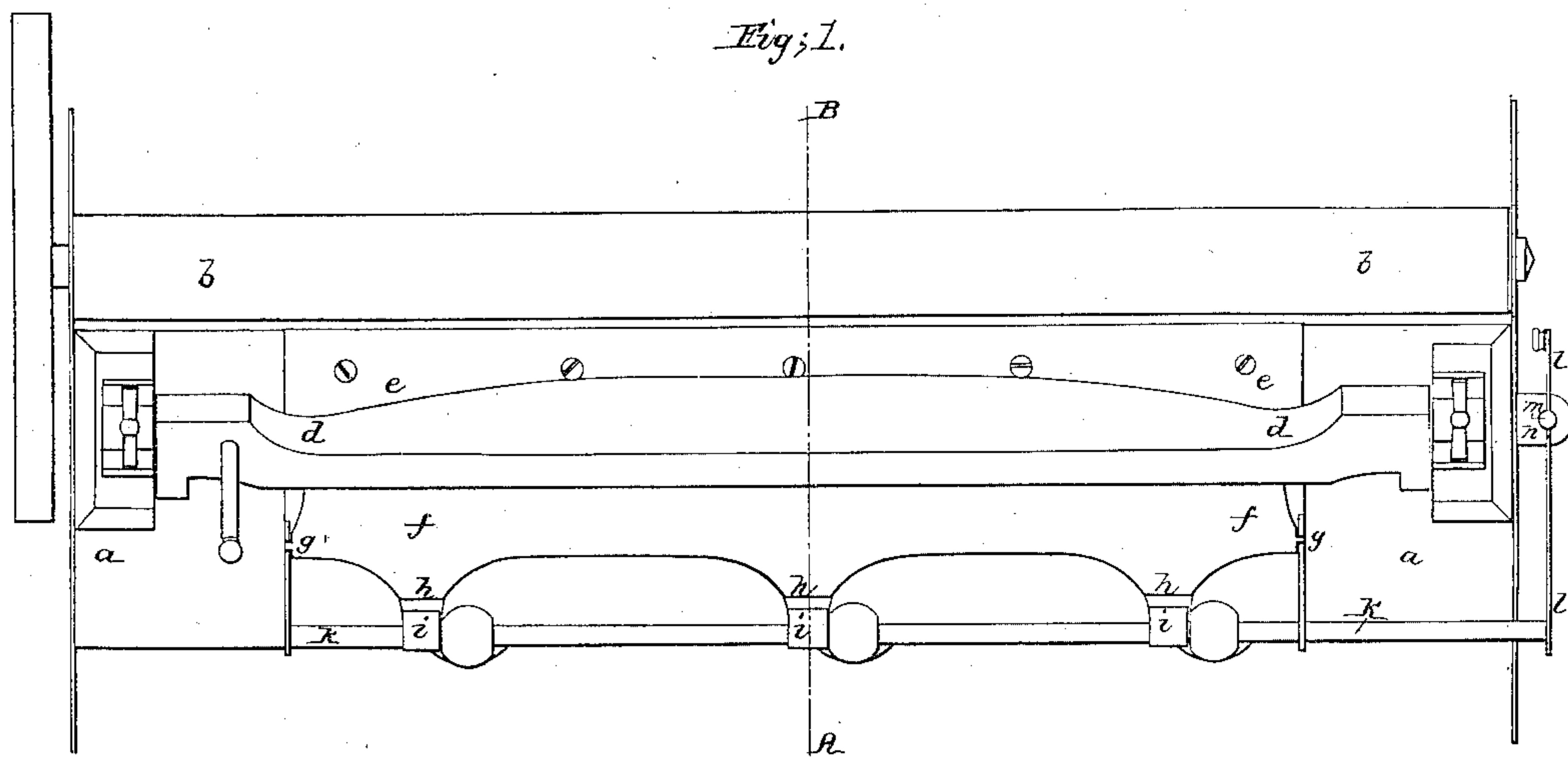


No. 9,980.

PATENTED AUG. 30, 1853.

C. WESTON.
LEATHER SPLITTING MACHINE.



UNITED STATES PATENT OFFICE.

CHARLES WESTON, OF SALEM, MASSACHUSETTS.

MACHINE FOR SPLITTING LEATHER.

Specification of Letters Patent No. 9,980, dated August 30, 1853.

To all whom it may concern:

Be it known that I, CHARLES WESTON, of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Leather-Splitting Machines, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a plan or top view of my improved machine. Fig. 2 is an end view of the same. Fig. 3 is a central transverse vertical section, taken in the plane of the line A B, Fig. 1.

In the process of splitting leather a constant pressure upon the split is necessary in order to perform the operation successfully, this pressure being usually produced by a spring plate which yields a little to the inequalities of the leather. In the practical operation of leather splitting machines it has been found impossible to make a spring plate which would produce the desired effect and exert a constant pressure upon the different thicknesses of the leather, as a plate which will allow the thickest portion of the split to pass between it and the knife, will not be stiff enough to hold the thin part of the leather at the commencement of the operation. In most of these machines, as usually constructed, the spring plate turns upon bearings and is vertically adjusted for varying the thickness of the split, by cams operating upon the edge of the plate, the said cams being turned by an arm or lever which engages with a rack so as to fasten and hold the spring plate in any desired position.

My improvement consists in an arrangement for adjusting and holding the spring plate in a novel manner, by attaching the arm which operates the cams to a spring rack, so that the spring plate will not only be susceptible of adjustment for the dif-

ferent thicknesses of the split, and exert a constant and uniform pressure upon the same, but will also yield to the various inequalities of the hide, as it is drawn through the machine.

a a a in the drawings, represents the frame-work of the machine.

b b is the roll upon which the leather is wound, and by which it is drawn through the machine.

c c is the pressure roll, set in the turning bar *d d*.

e e is the stationary cutting knife.

f f is the spring plate turning upon journals *g g*.

The bent projections *h, h, h* of this plate bear against the cams *i, i, i*, attached to and turning with the shaft *k k* which has proper bearings in the framework of the machine. This shaft is attached to the arm *l l* which is held by the hasp or rack of the movable rod *m m*, having bearings in the projections *n, o* of the framework *a a a*. Around this rod *m m* is coiled a spiral spring *p p*, the top of which bears against the underside of the projections *n* and the bottom against a stationary stud *q* in the rod *m m*. By this arrangement it will be seen that when, as the hide is drawn through the machine, it becomes thicker, the front edge of the spring plate will be depressed, and, by its projections *h, h* will press against the cams *i, i*, turn the shaft *k k* and thus raise the arm *l l* which is held down with sufficient force, by the spring rack *m m*, to exert the requisite degree of pressure upon the leather.

From the above it will be seen, that while the spring plate exerts a constant pressure, it is also by the above arrangement of the holding arm and spring rack operating as above described, suffered to yield to any inequalities in the leather, thus securing the desideratum of a spring plate which will adapt itself to any thickness of hide.

In case a very rigid pressure is required upon the leather, the arm *l l* can be prevented from yielding, by inserting a pin in the rod *m m* immediately under its lower projection or bearing *o*.

Having thus described my improvements in leather splitting machines I shall state my claim as follows:

What I claim as my invention and desire to have secured to me by Letters Patent, is—

The arrangement herein above described for exerting a constant and uniform pressure upon the leather, and at the same time allowing the spring plate to yield to the inequalities of the hide,—the same consisting in a spring rack for holding the arm

which is connected to the spring plate, by the turning shaft and cams as above set forth.

CHARLES WESTON.

Witnesses:

JOSEPH GAVETT,

EZRA LINCOLN.