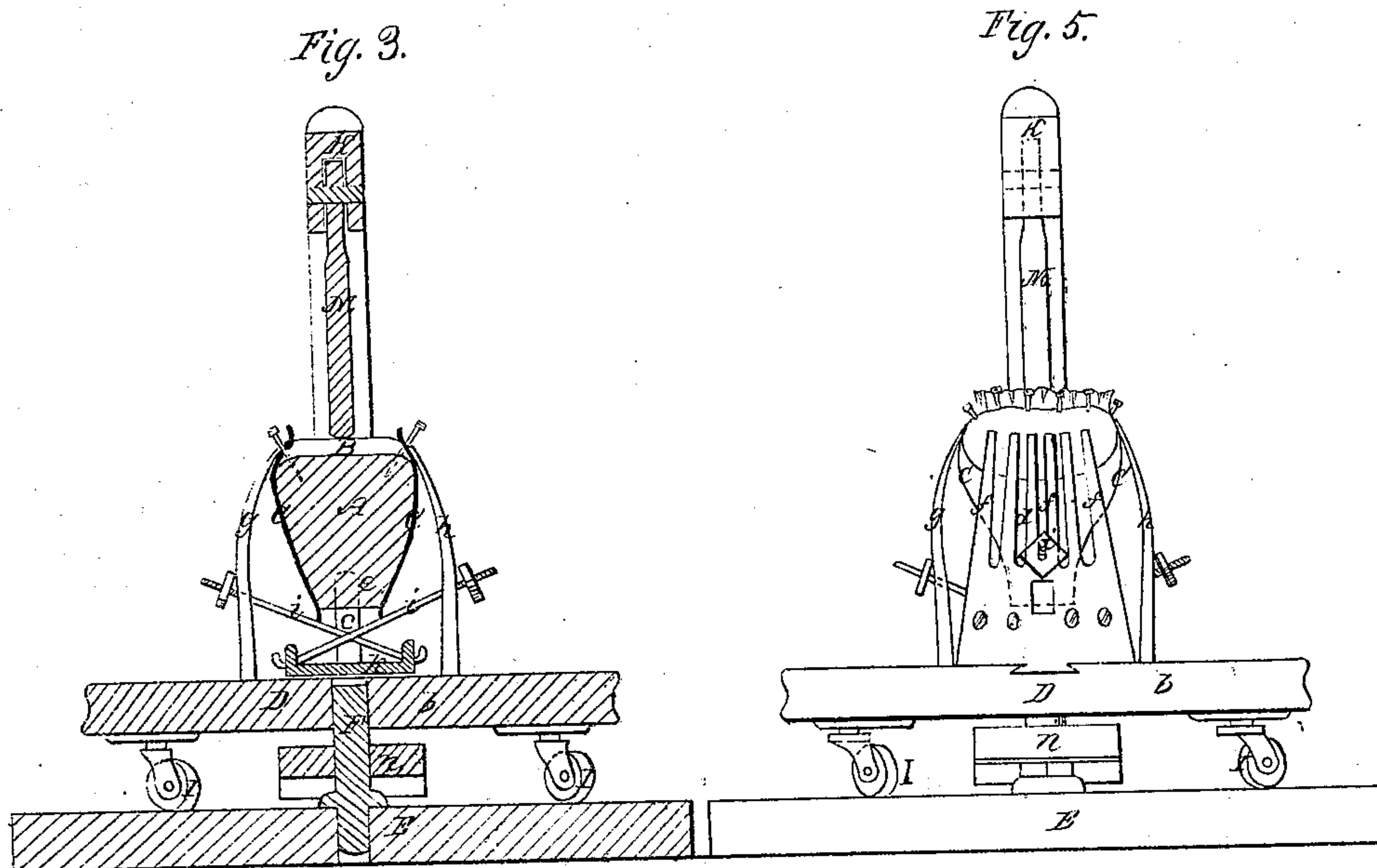
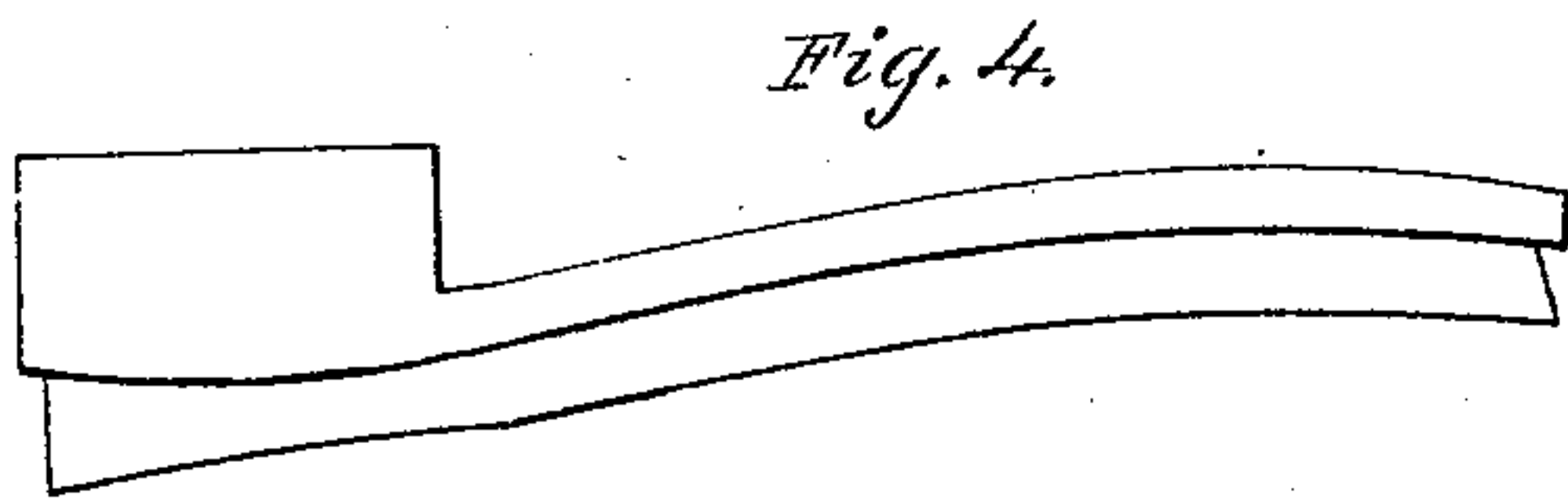
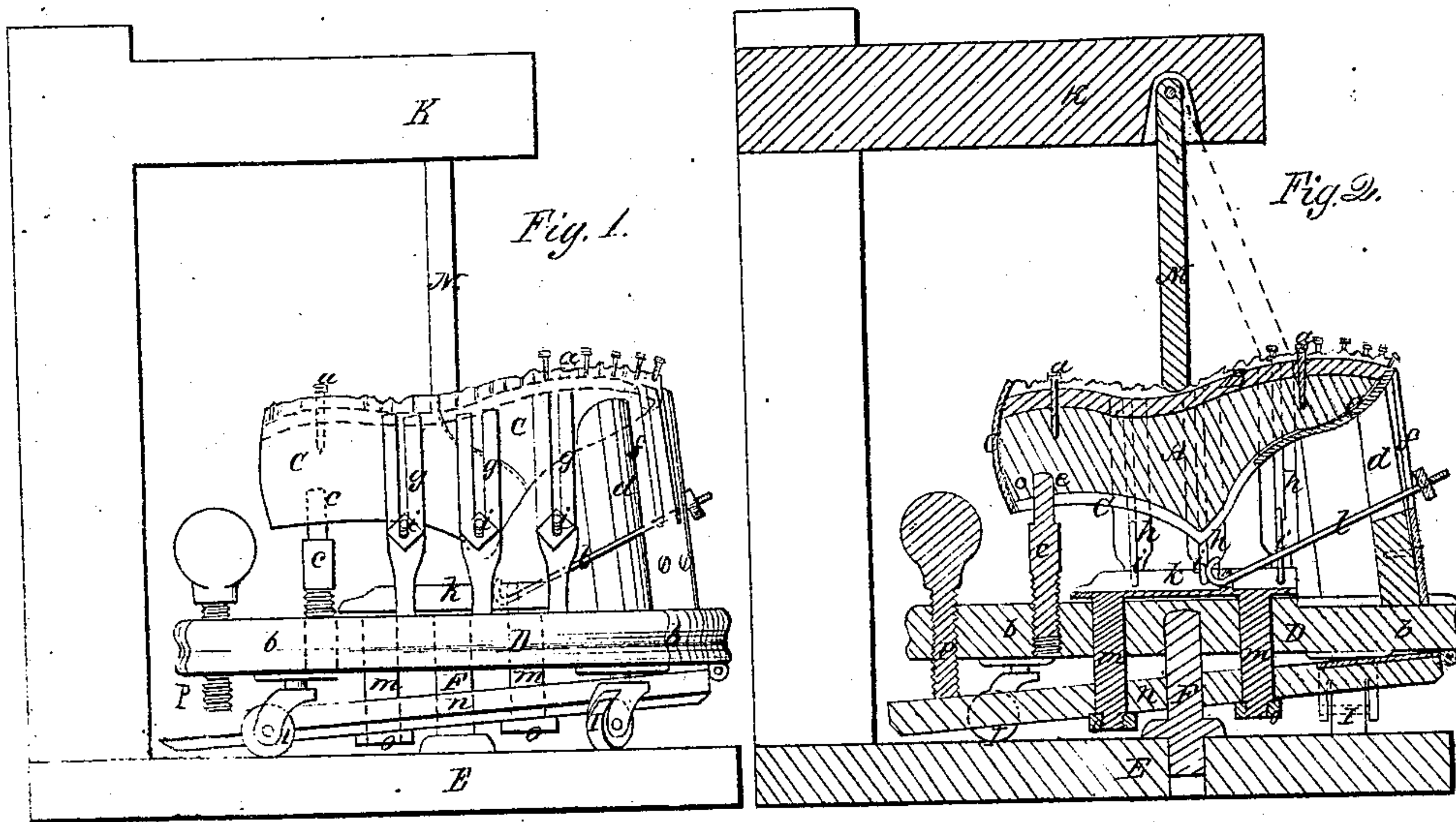


J. Kimball,
Making Shoes with Wooden Soles & Leather
Upfers, *Patented Sept. 8, 1857.*
 No 18,152,



UNITED STATES PATENT OFFICE.

JOHN KIMBALL, OF BOSTON, MASSACHUSETTS.

MACHINE FOR LASTING BOOTS AND SHOES.

Specification of Letters Patent No. 18,152, dated September 8, 1857.

To all whom it may concern:

Be it known that I, JOHN KIMBALL, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new, and
5 useful machine to be used in manufacturing shoes having wooden soles and leather uppers or uppers made of any other suitable flexible material or materials; and I do hereby declare that the same is fully de-
10 scribed and represented in the following specification and the accompanying drawings, of which—

Figure 1 denotes a side elevation of the said machine; Fig. 2, a central, vertical and
15 longitudinal section of the machine. Fig. 3, a transverse and vertical section. Fig. 4, is a side view of a wooden sole as prepared to be applied to the last of the machine.

The particular object of my invention is
20 to enable a workman to properly last the upper of a boot or shoe, in order to prepare the said upper for the reception of a wooden sole, and also to fasten the said upper to the said sole.

25 In the drawings, A, denotes a last provided with a trimming block, B, which may be made of metal or other suitable material, and should correspond in thickness around its edges to the length of overlap of the
30 leather upper on the wooden sole, shown in Fig. 4. This trimming block may be fastened to the sole of the last, by one or more screws *a, a*. The last so provided and having a leather upper, C, placed upon it is
35 supported by a jack, D, which consists of a stationary or rotary table *b*, having a heel post, *c*, and a toe rest, *d*, raised upon it, the said heel post being made to enter a socket, *e*, of the last, while the said toe rest is made to
40 sustain the front end of the last and the upper leather thereon. The said toe rest should be so applied to the table, *b*, as to be able to slide on the same in a direction toward the heel post and it should have ap-
45 plied to it and in front of it, as shown in Figs. 1 and 2, as well as in Fig. 5, (which is a front view of the jack) a series of steel fingers or springs *f, f, f*, so arranged as to extend above it a short distance. Besides
50 the above there is applied to the jack, two series of bifurcated springs or clamps, as shown at *g, g, g*, and *h, h, h*, the same being arranged on opposite sides of the upper and last. Each of these clamps is connected by
55 an inclined rod *i*, to an attachment plate *k*, arranged underneath the last, as shown in

the drawings, the connecting rods of both series of bifurcated clamps being hooked to the plate and made to cross one another as shown in Fig. 3. This attachment plate, *k*,
60 is also similarly connected with the toe rest by means of a rod, *l*, arranged as shown in Fig. 2. By projections *m, m*, extended downward from the attachment plate, and through a lever, *n*, and having screws and
65 nuts on their lower ends as shown at *o, o*, in Fig. 2, the attachment plate is also connected with said lever, so that when the latter is forced downward by the action of a screw *p* extended through the jack, as
70 shown in Fig. 2 such attachment plate will be drawn downward, so as to pull each clamp *g*, and *h*, against the leather upper which may be on the last, the said upper being thereby confined to the last by the pres-
75 sure of the clamps against it. At the same time, the toe rests and its springs will be drawn toward the heel post, so as not only to confine the toe portion of the upper to the last, but produce a firm bearing of the
80 last and upper on the toe rest.

The above described mechanism is applied to a board bench or base plate E, and so as to be capable of being turned around freely
85 on a pin or journal, F, extended up therefrom, wheels or casters I, I, being applied to the jack in order to support it on the said base plate. A bent arm K, may extend up from the base plate and directly over the
90 last as shown in the drawings. To this arm a toggle, M, may be jointed directly over the center of the jack, the said toggle being applied in such manner as to enable it to be
95 turned from a vertical position to an inclined one as denoted by dotted lines in Fig. 2. This toggle should be long enough to rest on the wooden sole and hold it firmly on the last after it may have been placed thereon.

In operating with the above described machine, the upper, after having been lasted
100 and clamped to the last as above described is to be trimmed down even with the upper surface of the gage trimming block B. This having been accomplished, the trim-
105 ming block is to be removed from the last and the wooden sole applied to the sole of the last so that the leather may lap on the sole and lay within the grooved part there-
of to which it is to be nailed. Next the toggle should be turned down into a vertical
110 position, so as to press the sole firmly upon the last, all of which having been accom-

plished the workman or attendant should
next nail the leather to the wooden sole. In
the process of doing this he can turn the
jack around in order to bring the shoe into
5 such convenient positions as occasion may
require.

I claim—

Combining the toe rest and its clamp to
the attachment plate by means of an inclined
10 rod as described, so that both may be moved

together in order, at one and the same time
to clamp the upper to the toe of the last,
and move the toe rest toward the heel post
for the purpose described.

In testimony whereof, I have hereunto set 15
my signature.

JOHN KIMBALL.

Witnesses:

R. H. EDDY.

F. P. HALE, Jr.