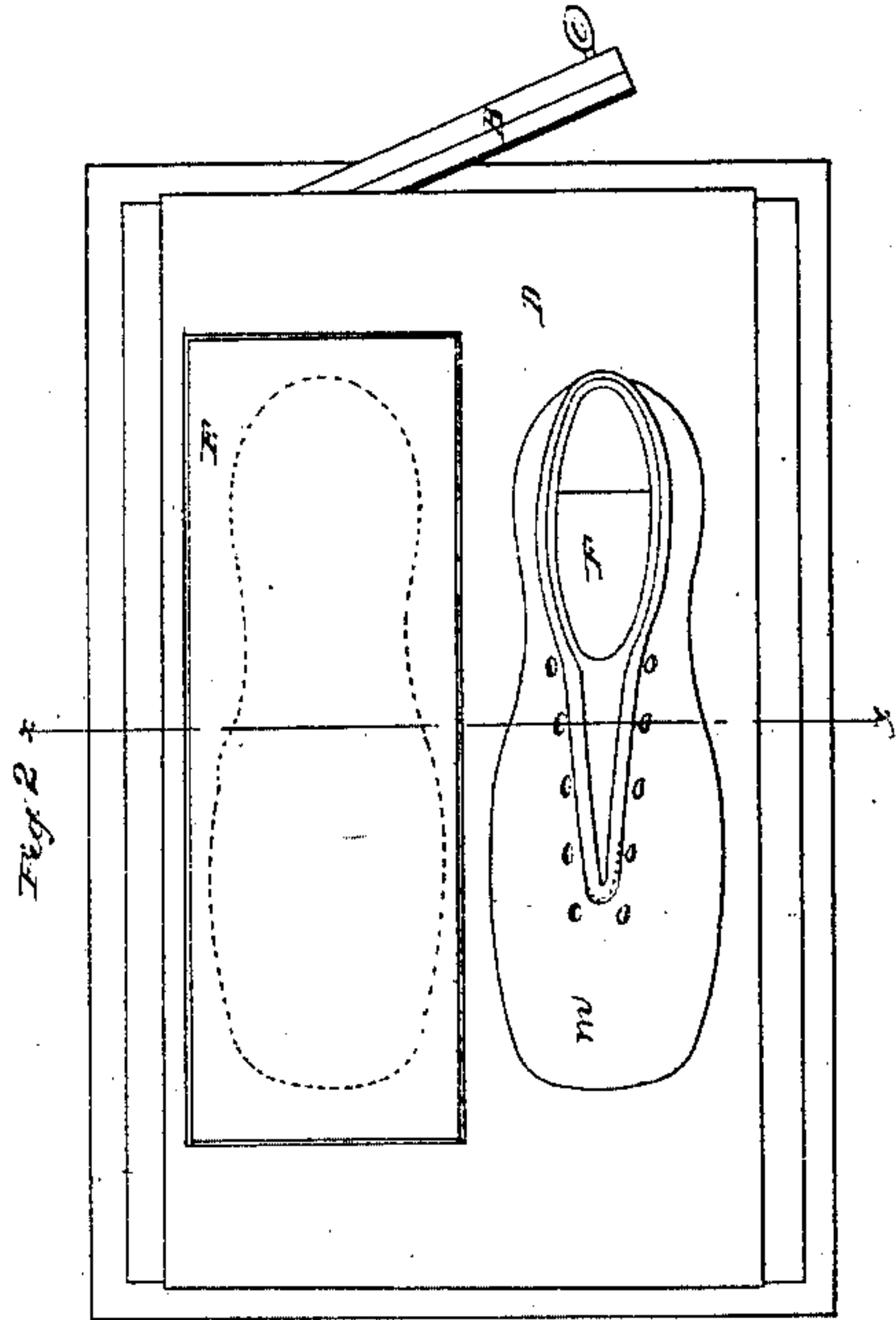
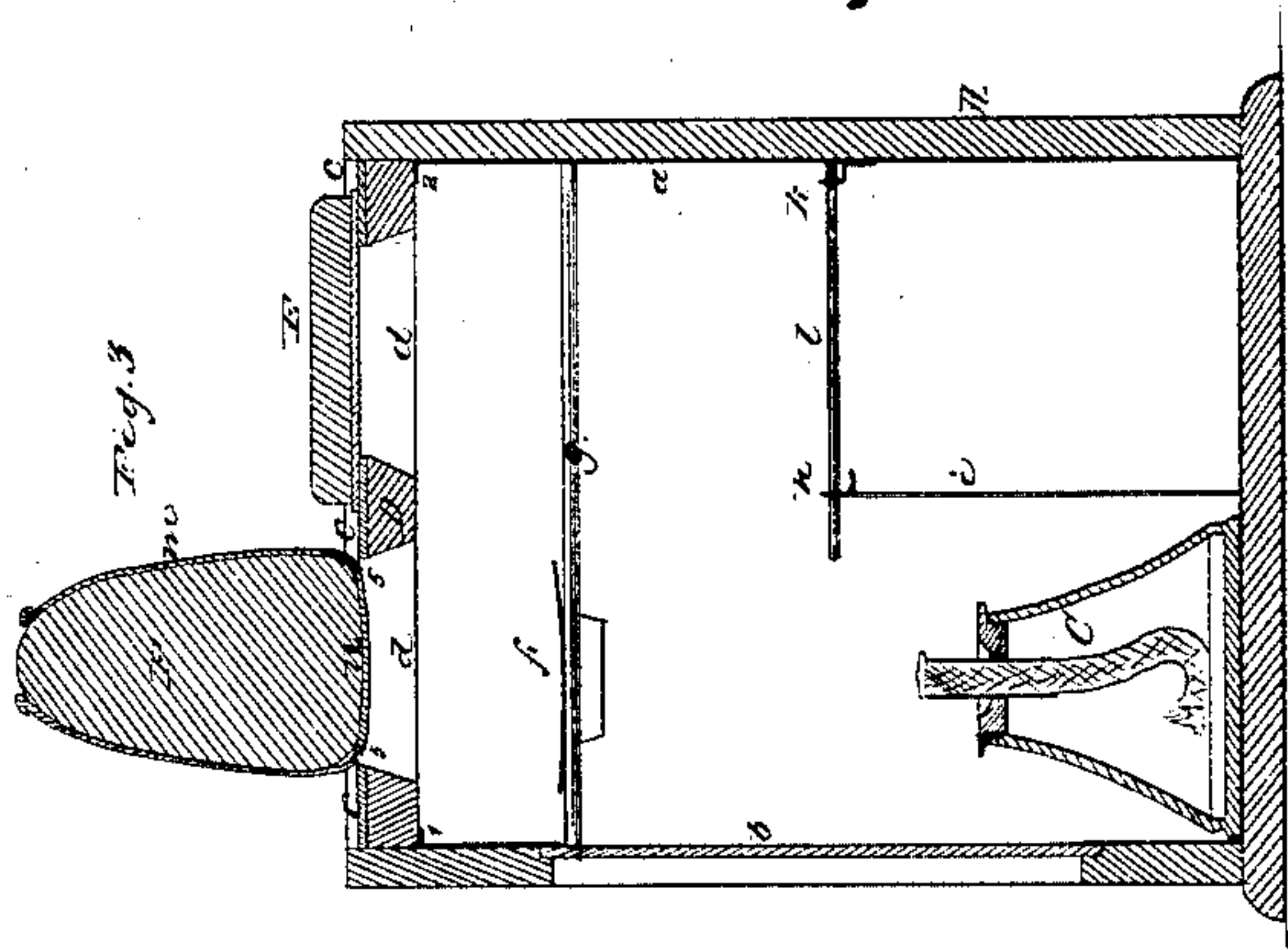
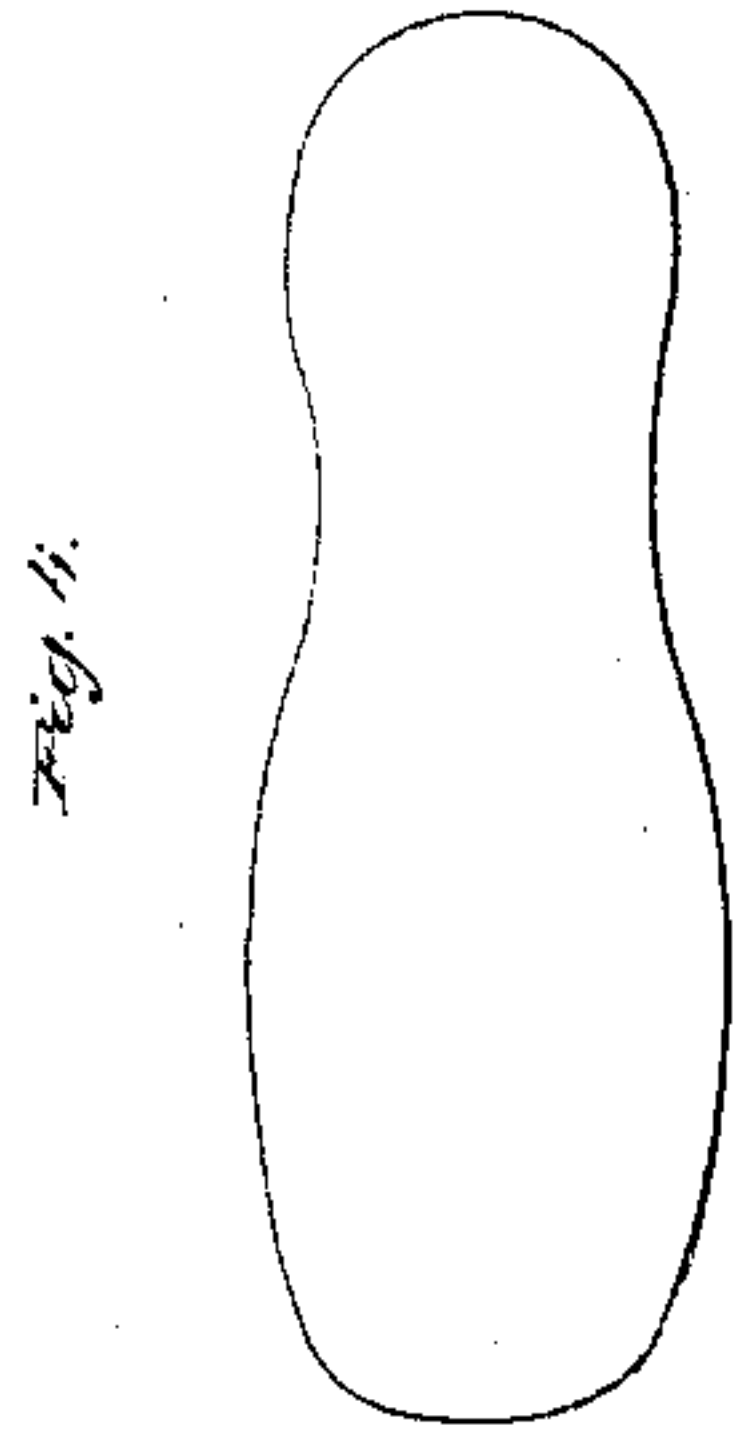
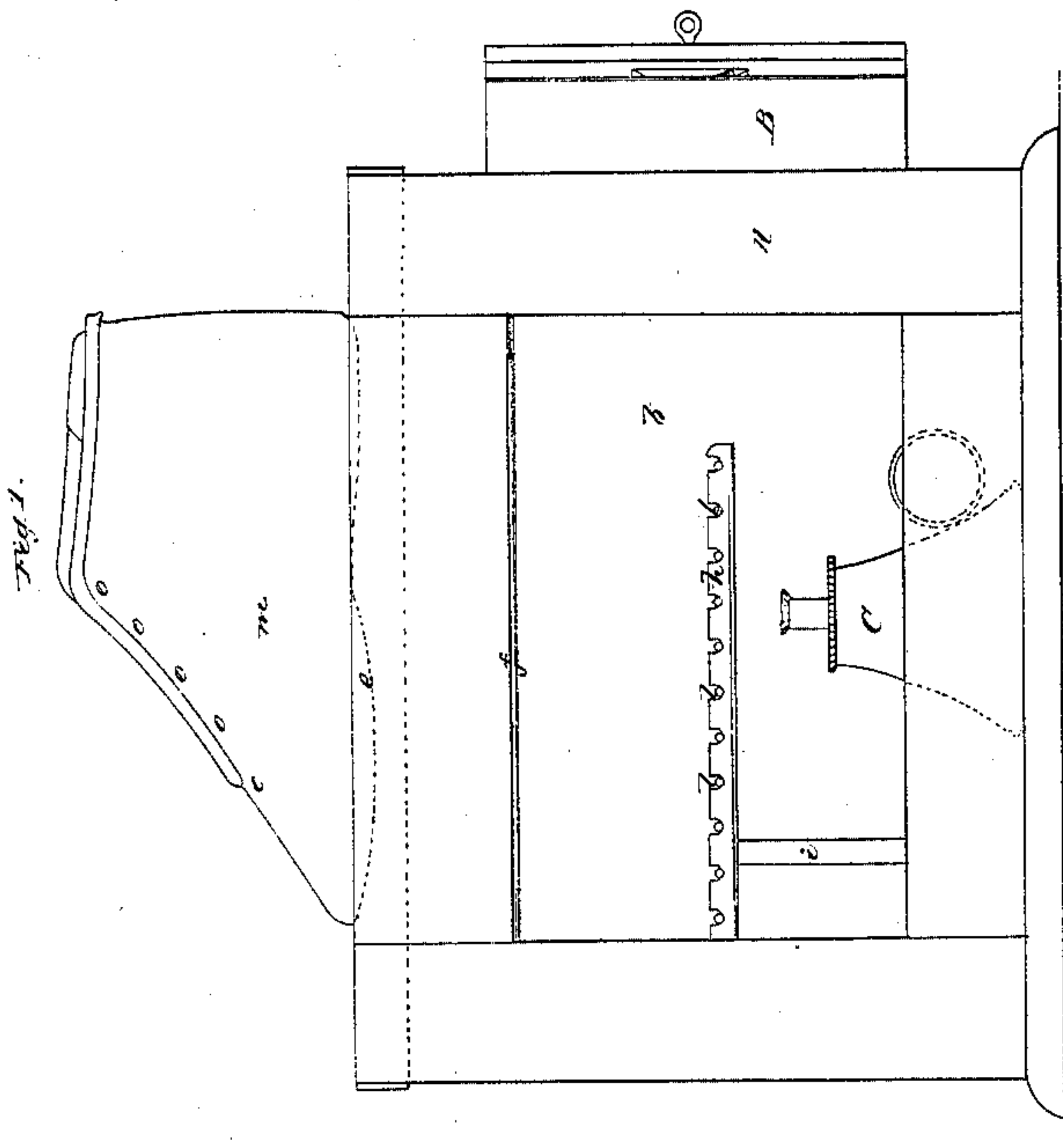


J. Jenkins,

Shoe-Sole Machine,

Nº 21,500,

Patented Sept. 14, 1858.



UNITED STATES PATENT OFFICE.

J. JENKINS, OF CHARLESTOWN, MASSACHUSETTS.

HEATING APPARATUS FOR THE MANUFACTURE OF CEMENTED-SOLE SHOES.

Specification of Letters Patent No. 21,500, dated September 14, 1858.

To all whom it may concern:

Be it known that I, JACOB JENKINS, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented
5 an Improved Heating Apparatus for the Use of Workmen in Applying Cemented Soles to Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying
10 drawings, making part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a plan; Fig. 3, a transverse vertical section on the line $x x$ of Fig. 2; Fig. 4, detail to
15 be referred to hereafter.

In the manufacture of those boots and shoes the soles of which are cemented to the uppers, and one sole to another, by a coating of "gutta percha" applied to the sole,
20 it has heretofore been customary after the boot or shoe was lasted to place it in an oven or stove raised to a sufficient temperature to soften the coating of gutta percha applied to the inner sole, and then to apply
25 the outer sole also similarly coated and heated, when by the application of pressure the two soles were made to adhere firmly together. It is found however that the heat required to soften the cement is injurious
30 to the stock of which the upper is composed.

To remedy this is the object of my present invention which consists in the employment of a simple heating apparatus so arranged that the required heat may be applied
35 to the surface of the inner sole after the boot or shoe is lasted without injury to the upper.

That others skilled in the art may understand and use my invention I will proceed to describe the manner in which I have
40 carried out the same.

In the drawings A is a box lined with tin as at a , Fig. 3. In one end is placed a door B, and in one side a pane of glass b , is inserted, that the workman may have the
45 benefit of the light from the lamp C, which is used for heating. The lid D of the box is made removable and rests on the ends of the box and on the tin lining, which is bent
50 over as at 1—2, Fig. 3, all the way around the top of it to cover the point. This lid is covered with stout cloth or felt as at c , Fig. 3, and has cut in it two holes of a size and form corresponding to the boots or shoes to

be made as shown dotted in Fig. 2 and at d ,
55 Fig. 3. The surface of the lid is also slightly undulating as dotted at e , Fig. 1, to conform more closely to the form of the edge of the sole. (A number of these lids may be kept
60 on hand with different sized holes.) When these holes or either of them is not occupied by a boot or shoe to be heated, it is covered with a block E, Figs. 2 and 3, made to fit
65 closely over it, which retains the heat in the box. A metal deflector f rests on two rods g which extend across the inside of the box near each end. This is placed over
70 the lamp C, to prevent the flame from striking with too much intensity on one part of the sole. It may be moved along on the rods
75 from one side to the other.

A strip of metal h having suitable notches in it is attached at one end to the lining a and is supported by a piece i rising from the bottom of the box. Another strip k is
75 attached to the side lining and has in it a series of holes corresponding to the notches in the strip h . Small rods l , are placed with one end in the holes in the strip h , and rest
80 in the notches in the strip k , thus forming a rack which is readily removable and which serves as a convenient place to lay the stock to be warmed (as the outer sole for instance). The lamp may be moved to any part of the
85 box as required.

F, represents the last with the upper m , on it and the inner sole n (Fig. 3) attached. After the inner sole has received a coating of gutta percha the shoe is placed over one of the holes in the lid, as shown in Fig. 3, to
90 be heated. At the same time the outer sole, Fig. 4, which has also been coated, may be placed on the rods l and be heated at the same time, ready for the operator to put
95 them together and finish the shoe. It will be perceived that the edge 5, of the upper fits closely to the cloth c around the hole d and prevents the heat from the lamp injuring the stock in the upper while the bottom of the sole is exposed to the required tempera-
100 ture.

This will be found to be an exceedingly convenient apparatus for the workman engaged in this branch of manufacture and will enable him to economize, as the lamp or
105 gas light required for him to work by in the evening will also serve to heat his stock, while it prevents his injuring the uppers by

subjecting them to too great a heat as he was liable to do where the whole shoe was placed in a heating apparatus.

I have sometimes found it convenient when heating the outer sole, Fig. 4, to place it with the cemented side down on one of the holes *d*. This allows the cement to be properly heated without drying and contracting the sole, as will be the case when put into the heater.

I have heretofore spoken of applying the necessary heat to the soles of shoes by means of a lamp or gas light, but it is evident that other methods of producing the required heat may be used without departing from the spirit of my invention, as for instance steam, hot air, or hot water may be led

through pipes passing through the box, or hot air may be admitted directly into the box itself.

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

An improved heating apparatus for the manufacture of cemented sole shoes, consisting of the box A, provided with door B, glass front *b*, deflector *f* as described, openings *d*, and lamp C, or its equivalent for heating, arranged and operating substantially as and for the purpose above set forth.

JACOB JENKINS.

Witnesses:

THOS. R. ROACH,
P. E. TESCHEMACHER.