

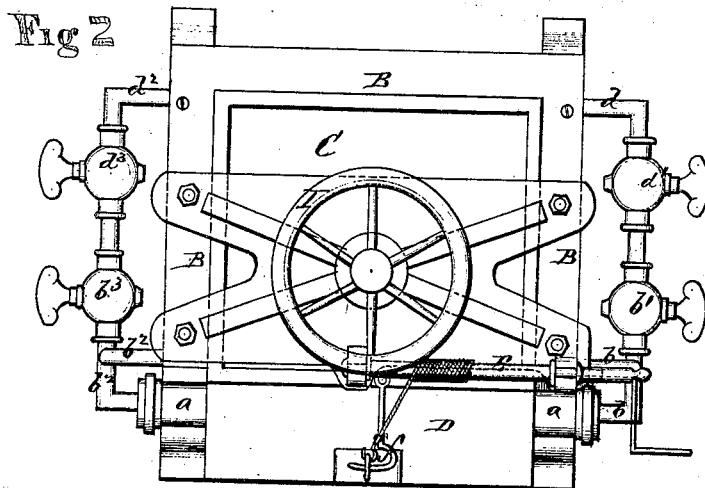
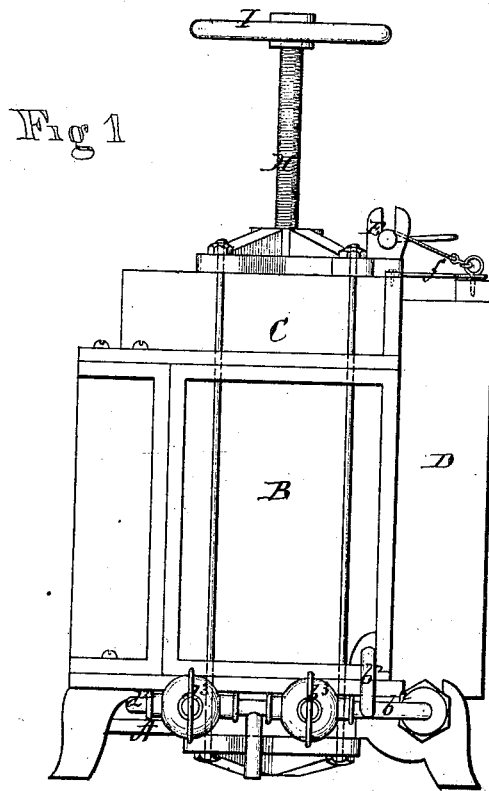
H. W. Weicker,

2. Sheets, Sheet 1.

Vulcanizing Appar.

No. 112,755.

Patented Mar. 14. 1871.



Witnesses
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Edw. C. Mass.

Inventor.
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2. Sheets. Sheet. 2.

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Fig. 3.

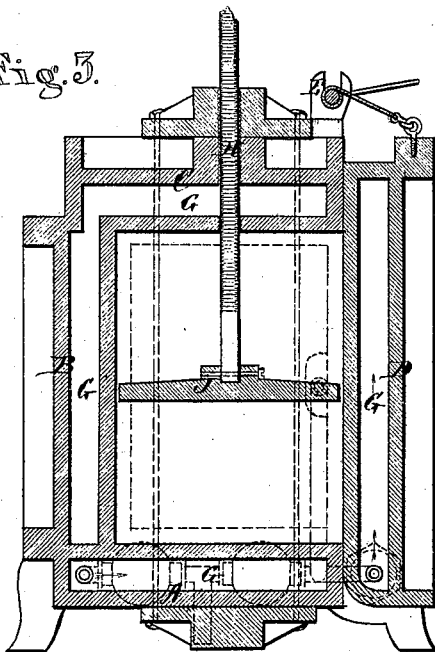
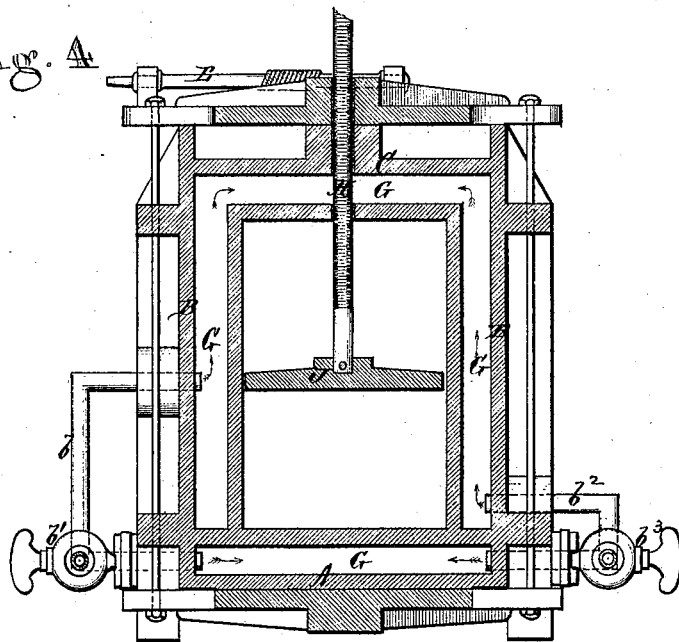


Fig. 4



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HENRY W. WEICKER, OF WOONSOCKET, ASSIGNOR TO HIMSELF AND
GEORGE W. MILLER, OF SMITHFIELD, RHODE ISLAND.

Letters Patent No. 112,755, dated March 14, 1871.

IMPROVEMENT IN APPARATUS FOR VULCANIZING RUBBER.

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, HENRY W. WEICKER, of Woonsocket, in the county of Providence and State of Rhode Island, have invented a new and valuable Improvement in Compact Steam-Heating Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my press, in side elevation;

Figure 2 is a plan view;

Figure 3, a transverse vertical section; and

Figure 4, a longitudinal vertical section of the same.

The nature of my invention consists in the construction and arrangement of a compact steam-heating press for vulcanizing rubber or any other substance where a dry, hot heat is required.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing.

A represents the bottom;

B B, the sides;

C, the top; and

D, the door of the press-box, all of which are hollow, as shown.

The press may have one or two doors, as required, hinged at their lower edges by means of hollow journals *a*, and closed by the aid of a windlass, E, at the top of the press.

The entire box is composed of two walls, there being at the bottom, top, and on each side, including the door, a space, G, varying in size to the size of the press compartments, completely hidden from view, in which are placed the steam-pipes *b* and *d*, all connected together.

The pipes *b* conduct the steam to the hollow sides and top, and also to the door, through one of the hollow journals.

The pipe *d* conducts the steam to the bottom of the press alone.

These pipes, with their respective cocks, *b*¹ *d*¹, are on one side of the press, while on the other side are corresponding pipes, *b*² *d*², with cocks *b*³ *d*³, for discharging this condensed steam.

When the cocks *b*¹ *d*¹ are open they admit of the full capacity of the pipes *b* *d* to conduct the steam into all the air-chambers, thereby heating each side of the press, including top and bottom, alike.

When desirable, the steam may be shut off from the door, each side and top, leaving all the force of the heat of the steam on the bottom, which is desired in

vulcanizing boot-heels, where they are to be very hard on the bottom and raw on the top, by turning stop-cock *b*¹.

If the heat is required on the sides and top, and not on the bottom, then turn cock *d*¹, and the press will be heated in every part except the bottom.

Stop-cock *b*³ lets off the condensed steam from stop-cock *b*¹, and stop-cock *d*³ that from the cock *d*¹.

The whole press is to be made of iron, securely bolted and fastened. There may be a door on the front and back, if desired, each door to be raised or closed by a windlass, and fastened into position by a hook, *f*.

The rubber is compressed or kept in shape by means of a screw, H, with a wheel, I, on the top, and a follower, J, at the bottom, which comes in contact with the forms or molds in which the rubber is placed for vulcanizing.

The outside of the outer wall of the press is to be covered with some substance or composition which is a non-conductor of heat, said non-conductor to be covered on the outside to keep it in its place, thereby preventing the heat from escaping and retarding the condensing of the steam. This non-conducting material is to be put on the outside of the sides, including the door, and also on the top and bottom.

It will be noticed that the steam never enters the chamber where the rubber is, but always leaves this chamber perfectly dry.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. A steam-heating press-box for vulcanizing rubber or other substances, having hollow sides, top, and bottom for the admission of steam into the same, substantially as herein set forth.

2. One or more hollow doors hinged upon hollow journals to a steam-heating press-box, having hollow sides, top, and bottom, substantially as and for the purposes herein set forth.

3. A steam-heating press-box, constructed with hollow sides, top, bottom, and door or doors, having its entire outer surface covered with non-conducting substance, held in place by any suitable means, substantially as and for the purposes herein set forth.

4. In combination with the steam-heating press-box herein described, the arrangement of pipes and stop-cocks, as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY W. WEICKER.

Witnesses:

GEORGE H. WILBUR,
GEORGE W. MILLER.