

(No Model.)

J. A. AMBLER.
Boot Treeing Apparatus.

No. 230,601.

Patented Aug. 3, 1880.

Fig:1.

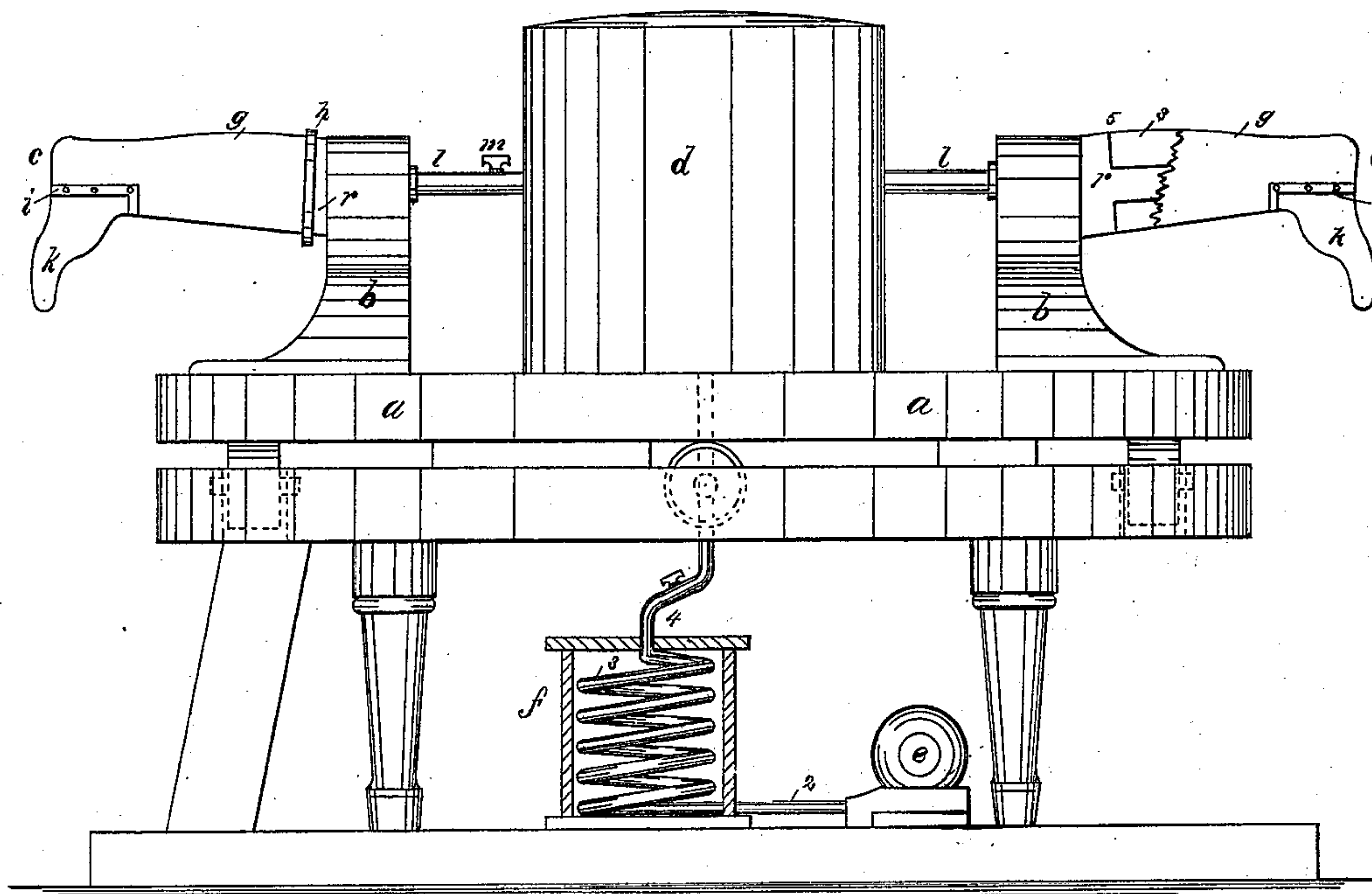


Fig:2.

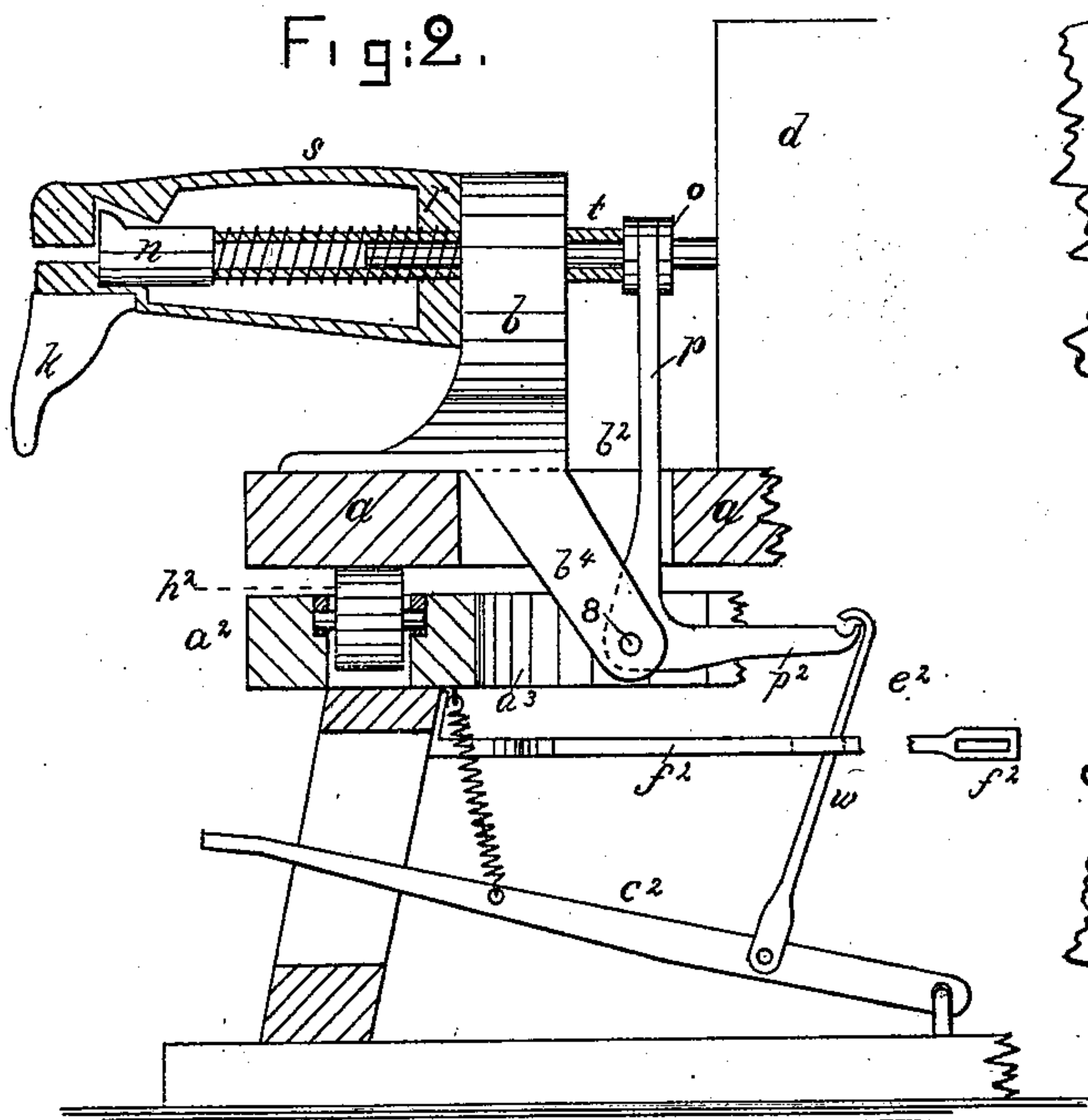
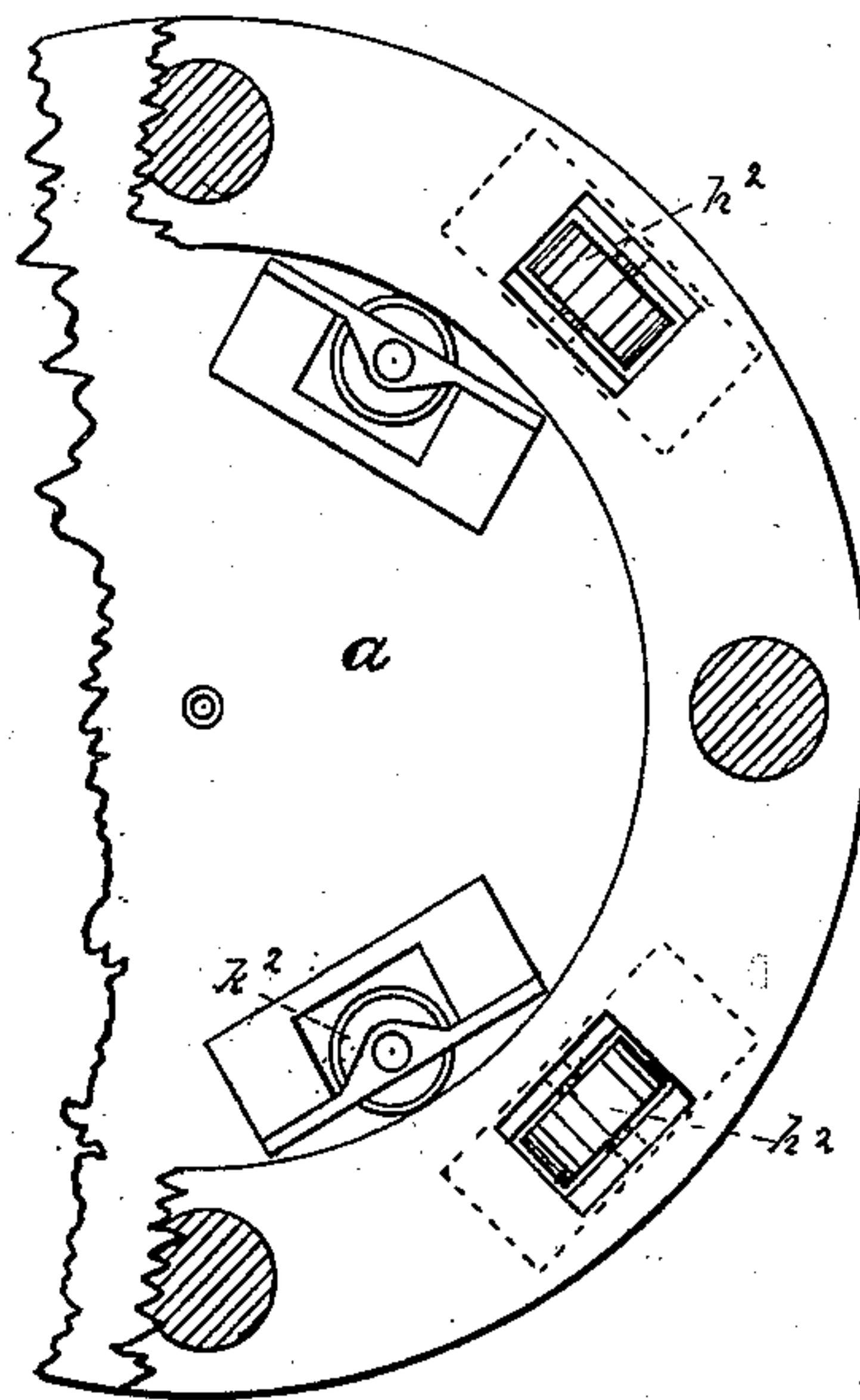


Fig:3.



WITNESSES -

V. D. Dearborn.

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INVENTORS -

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by Crosby & Gregory Attys.

UNITED STATES PATENT OFFICE.

JAMES A. AMBLER, OF NATICK, MASSACHUSETTS.

BOOT-TREEING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 230,601, dated August 3, 1880.

Application filed April 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. AMBLER, of Natick, county of Middlesex, State of Massachusetts, have invented an Improvement in
5 Boot-Treeing Apparatus, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to boot-treeing apparatus, and has especial reference to the construction of the rotating tree-carrying table or bed
10 and its support, whereby the expanding-rods used to expand the trees may be operated or withdrawn at suitable times.

In this plan of my invention the rotating
15 table is shown as provided with depending ears to support the fulcrum of the levers, shown as elbow-levers, that withdraw the expanding-rods, and the support for the rotating table is slotted or cut out, so as to permit the mechanism for operating the expanding-rods to project below the table, travel with it during its
20 rotation, and be free to be engaged temporarily or otherwise when it is desired to operate the said mechanism and expand the tree.

25 In an application filed in the United States Patent Office March 15, 1880, by myself and E. L. Wires there is shown a rotating table carrying a series of trees.

The trees in this present application, and
30 the expanding devices within them, and means for introducing heated air or gas into the interior of the tree are and may be as in said application; so they need not be herein further described.

35 This present invention consists in such a construction of the table and its support as will readily permit the table to be rotated with the trees, and the expanding-rods to be drawn out by means of a treadle, lever, or other
40 equivalent device controlled by the hand or foot.

Figure 1 represents, in side elevation, a boot-treeing apparatus of the class described and shown in the application hereinbefore referred
45 to, it being selected by me as one upon which to apply my present improvements. Fig. 2 represents a portion of the apparatus shown in Fig. 1 with my improvements added; and Fig. 3, a detail under side view, representing a
50 part of the table-support and table and rolls.

The rotating table a has any suitable num-

ber of standards, b , to hold a suitable number of trees, g —such, for instance, as referred to in the said application.

The support a^2 for the table a is shown as a
55 bed cut away at its center, as at a^3 , to form an annular support, the space a^3 serving to receive within it and permit the movement therein, in unison with the movement of the table, of the devices or means instrumental in
60 operating the expanding-rods of the trees at the proper times. In this instance of my invention I have employed to operate the expanding-rods certain devices which are substantially like those now employed in ordinary boot-
65 trees for like purposes. These devices are a lever, b^2 , and a treadle, c^2 . This lever is pivoted upon a depending portion, b^4 , of the standard b , and this portion is extended into or below and so as to travel with the table a without interruption. This lever has its short arm
70 p^2 adapted to be engaged by a hooked or other suitable connecting-rod, e^2 , suitably controlled by a guide, f^2 , fixed with relation to the support a^2 , the said rod e^2 being shown as attached
75 to a treadle, c^2 . The rod e^2 is adapted to engage such lever p^2 only when the table in its rotation brings the lever opposite the said rod.

I have shown one form of lever or mechanism for withdrawing the tree-expanding rod; but
80 it is obvious that the same might be changed in form without departing from the essence of my invention.

The table is adapted to rest directly upon
85 rollers h^2 , having their journals held by the support a^2 , to facilitate its easy rotation, and attached to the under side of the table a (see Fig. 3) are suitable rollers h^2 on vertical axes, adapted to bear against and travel over the
90 inner wall of the annular support a^2 , to prevent lateral movement of the table a .

The upper end of the lever p is herein shown as forked to embrace a grooved collar, o , on the tubular expanding-rod t ; but instead of such collar I may employ a pin to be embraced
95 by the upper end of the said lever, it being properly shaped for that purpose.

I claim—

1. In a boot-treeing apparatus, the rotating tree-carrying table and connected devices to
100 operate the expanding-rod, combined with the support for the table, cut away, as described,

to permit the table and its attached tree-expanding devices to be freely rotated, for the purposes set forth.

2. In a boot-treeing apparatus, the rotating
5 tree-carrying table, devices connected therewith to operate the tree-expanding rod, and the support for the table, cut away to permit the movement of the said expanding devices, as set forth, combined with the interposed anti-
10 friction-rollers h^2 , substantially as described.

3. In a boot-treeing apparatus, the rotating tree-carrying table, attached devices to operate the expanding-rods, and the support for

the table, combined with a rod or link controlled by a guide and adapted to engage and
15 actuate the expanding-rod-operating devices when brought into position opposite the said rod, substantially as described.

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

JAMES A. AMBLER.

Witnesses:

G. W. GREGORY,
L. F. CONNOR.