

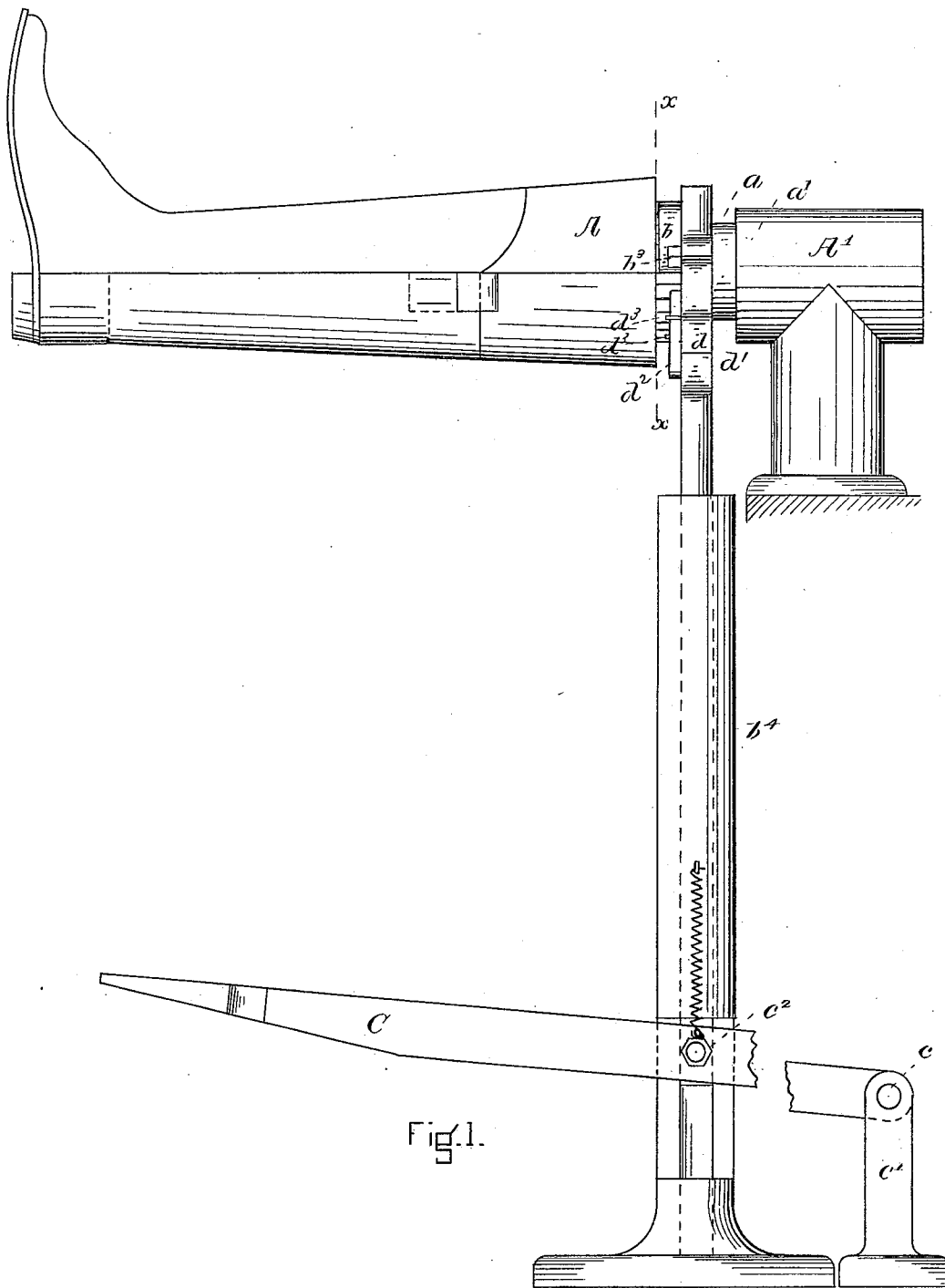
(No Model.)

2 Sheets—Sheet 1.

E. F. GRANDY.
Boot Treeing Machine.

No. 234,401.

Patented Nov. 16, 1880.



WITNESSES

A. J. Dettinger
Geo. H. Walker

INVENTOR

INVENTOR
Edward F. Gray
By his attys
Clark & Raymond

(No Model.)

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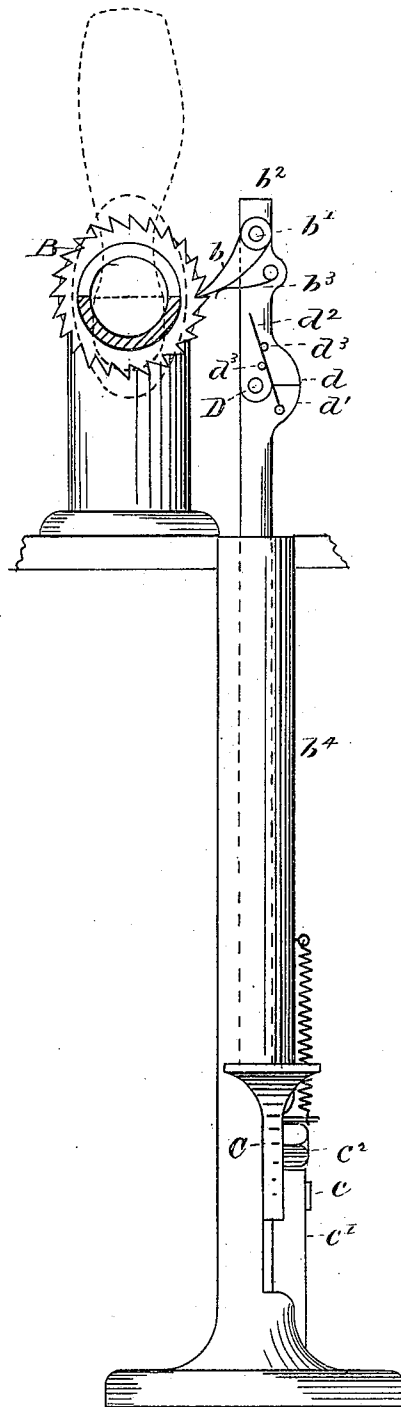


Fig. 2.

WITNESSES

A. J. Dettinger
Geo. J. Walker.

INVENTOR

Edward F. Grandy
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Charles H. Raymond

UNITED STATES PATENT OFFICE.

EDWARD F. GRANDY, OF BOSTON, MASS., ASSIGNOR TO THE COPELAND
BOOT-TREEING MACHINE COMPANY, OF HARTFORD, CONN.

BOOT-TREEING MACHINE.

SPECIFICATION forming part of Letters Patent No. 234,401, dated November 16, 1880.

Application filed September 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. GRANDY, of Boston, in the county of Suffolk, Massachusetts, have invented an Improvement in Boot-Treeing Machines, of which the following is a specification.

This invention relates to the following-described improvement in boot-treeing machines, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, and in which—

Figure 1 represents a side elevation of my machine, and Fig. 2 a front elevation of that portion of the machine behind the dotted line *xx* of Fig. 1.

It is very desirable, in some instances, to revolve boot-trees, during the treeing operation, by the foot. Particularly is this desirable where the boot-treeing mechanism is employed in factories unprovided with steam or other power.

The invention herein set forth is intended to provide means whereby a boot-tree can be readily revolved by the foot; and it also provides means whereby a number of boot-trees can be successively revolved by the same mechanism, and in this regard it is a very desirable accompaniment to the boot-treeing mechanism shown and described in the application for patent of George W. Copeland and Joseph E. Crisp, signed June 30, 1880, and now pending in the Patent Office, or to any other boot-treeing machine which is adapted to present a number of boot-trees in succession to the operator.

A represents the boot-tree. It may be of any desirable construction and may be heated if required. When heat is employed the construction described in the application for patent of George W. Copeland and Joseph E. Crisp, filed May 28, 1880, may be used.

The boot-tree is provided at its knee end with a portion, *a*, which enters the socket *a'* of the jack A. This method of holding the boot-tree at its knee end is described in the reissues to Crisp, numbered 9,124 and

9,055, dated March 23, 1880, and January 20, 1880.

Where a number of boot-trees are arranged to be successively presented to the operator, the jack may have a traversing movement like that described in said Copeland and Crisp application of June 30, or it may have a revolving movement like that described in the Crisp reissue, No. 9,124.

The boot-tree is further provided with the ratchet-wheel B, and the pawl *b*, pivoted at *b'* to the rod *b²*, is arranged to engage therewith and to operate the same in revolving the tree upon the movement of said rod.

A spring, *b³*, serves to keep the pawl constantly in contact with the ratchet. A vertical movement is given the arm herein described by means of the foot-treadle C, which is pivoted at *c* to the bracket *c'*, and which is attached to the rod *b²* at *c²*, the rod being arranged to reciprocate in the hollow post *b¹*, which furnishes a bearing therefor, and which is fastened to the floor or any other suitable support.

The upper part of the rod is provided with the hinge D, the shoulders *d d'*, the spring *d²*, and the pins *d³*, whereby the upper portion of the rod may be bent or turned downwardly sufficiently to allow the passage of a boot-tree over the pawl to the position shown in Fig. 2, when it will automatically resume its original place.

In lieu of hinging the rod in this manner it may be provided with a sufficient vertical movement to remove it from the path of the boot-trees as they are being moved by the jack into position in front of the operator.

Any mechanical equivalent for the ratchet-wheel B and the pawl *b* may be used without departing from the spirit of the invention.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a boot-tree provided with the ratchet or notched wheel B with the pawl *b*, the lever C, and connecting-rod *b²*,

all substantially as and for the purposes described.

2. In combination with a boot-tree, A, provided with the ratchet-wheel B, the spring-pawl b , and rod b^2 , treadle C and post b^4 , substantially as and for the purposes set forth.

3. In a boot-treeing machine, the combination of a boot-tree provided with a ratchet-

wheel, B, a pawl, b , adapted to be reciprocated in operating the ratchet-wheel by the rod b^2 , which is provided with the hinge D, all substantially as and for the purposes set forth.

EDWARD F. GRANDY.

Witnesses:

F. F. RAYMOND, 2d,

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