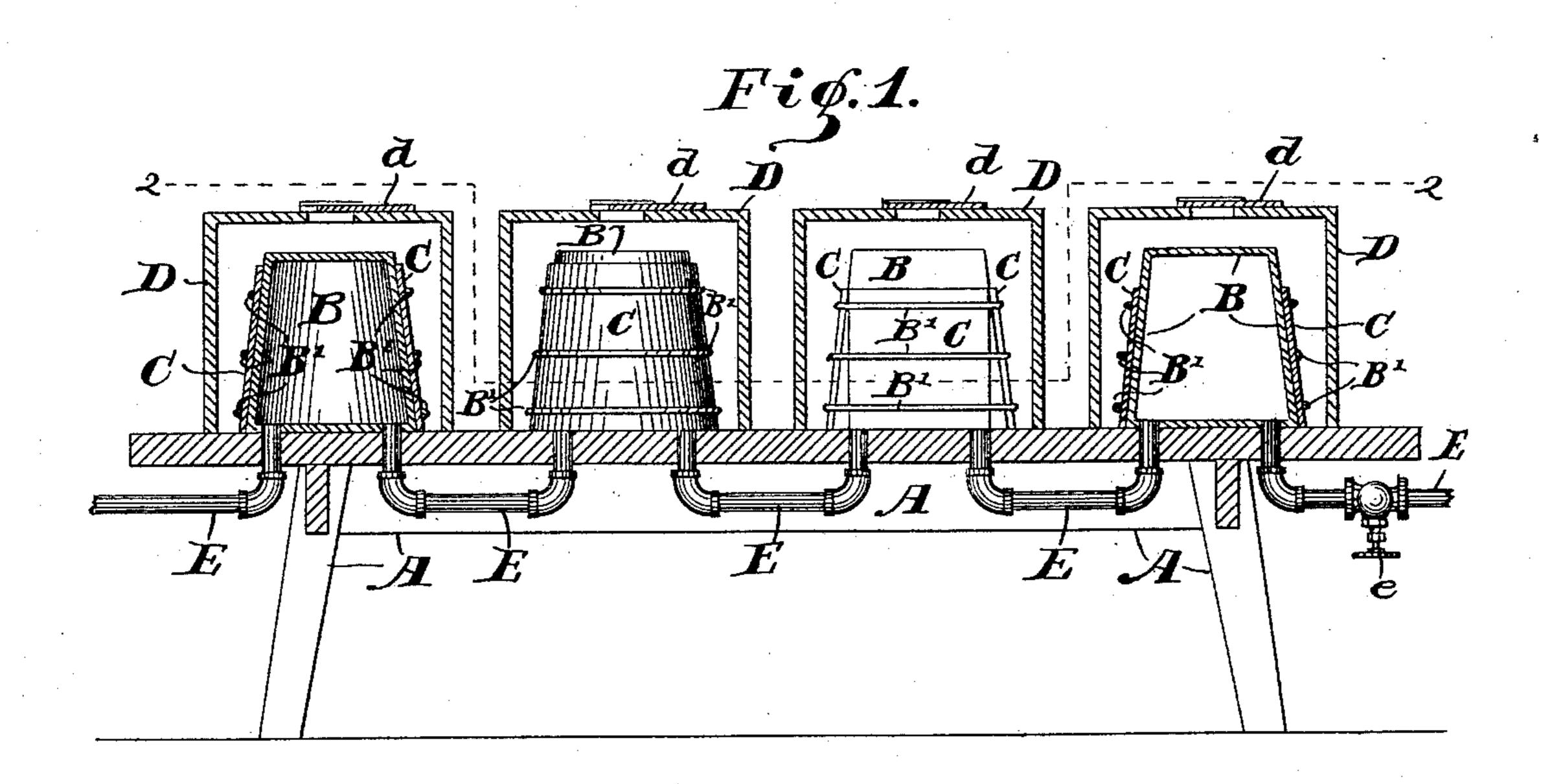
(No Model.)

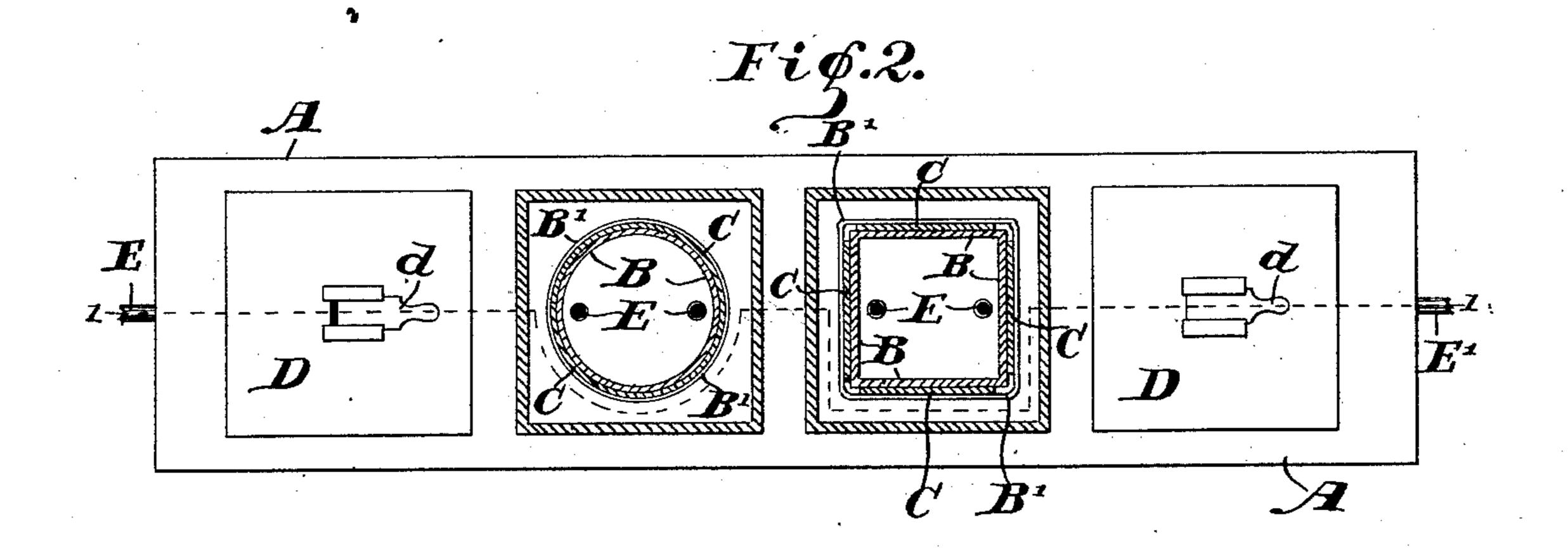
## I. HOGELAND.

APPARATUS FOR FORMING AND DRYING BARRELS.

No. 348,906.

Patented Sept. 7, 1886.





WITNESSES.

Challe Eonard,

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## United States Patent Office.

ISRAEL HOGELAND, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO GEORGE P. ANDERSON, OF SAME PLACE.

## APPARATUS FOR FORMING AND DRYING BARRELS.

SPECIFICATION forming part of Letters Patent No. 348,906, dated September 7, 1886.

Application fi'ed August 10, 1885. Serial No. 173,923. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL HOGELAND, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new 5 and useful Improvements in Apparatus for Drying and Forming Staves and Heading, of which the following is a specification.

My present invention consists in an improved construction of apparatus for shaping 10 and drying staves for wood or such like receptacles, (particularly the staves for "onestave buckets,") and also the blanks for the bottoms and covers or heads thereof, by the use of which they are quickly and accurately 15 formed, as will be hereinafter more particularly described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, 2c Figure 1 is a longitudinal vertical sectional view, looking upwardly from the dotted line 1 1 in Fig. 2; and Fig. 2 is a view partly in horizontal section, as seen when looking down-

wardly from the dotted line 2 2 in Fig. 1. In said drawings, the portions marked A represent the supporting frame-work of the apparatus; B, a hollow form or mold; B', hoops for securing the material around said form; C, said material; D, an inclosing-casing sur-30 rounding the forms, and E pipes communicating with and connecting the apparatus. The supporting-frame A is of any suitable construction, preferably in the form of a bench of a convenient height, as shown. The form B 35 is simply a hollow cylinder formed with inclined sides, and generally of substantially the shape of the receptacle to be produced. It is preferably formed inclosed at both top and bottom, thus forming an air or steam tight 40 chamber in its interior. It is mounted in proper position on the frame, and has two holes or openings in its bottom, one for the admission and one for the escape of steam or air, as will be presently described. The hoops 45 B' are any suitable hoops of a size a little larger than the form B, and are adapted to be forced down around said form after the material has been placed in position thereon, and clamp it in said position, conforming it to said form. 50 The material C is preferably wood, and is generally cut in the form of thick veneer. At l

the left of the drawings two round forms are shown for drying and shaping the blanks for the body of the bucket, and at the right are two square ones for drying and shaping blanks 55 out of which the bottoms or tops may be cut. The casing D is considerably larger than the form, leaving an air-space between them. It is simply in form an inverted box, provided with a slide-valve, d, in its top for the escape 60. of the products of evaporation during the process of drying. The pipes E are simply steam or hot-air pipes, leading from a boiler or furnace (not shown) to the interior of the forms B, and connecting the several forms, when sev- 65 eral are arranged in the same apparatus, as

shown in the drawings.

The operation of my invention is as follows: The material being cut into pieces of the required size and shape to form the staves of the 70 desired shape and size, such pieces are placed around the round forms B, after being steamed or while yet damp, and securely clamped and conformed thereto by pressing down the hoops B' around them. The blanks for the bottoms 75 and tops are also clamped to the square forms, one on each side thereof, in the same manner. The casings D are then put in place, and the steam or hot air introduced through the pipes E into the forms B, it passing from one to the 80 other, and finally out through the escape pipe E', as will be readily understood, a stop-cock, e, being provided in said end to control the escape, as desired. The form is thus kept hot, which also heats the space between it and the 85 casing D, thus operating to quickly dry the material on said form, and "set" it in substantially the desired shape. The blanks of course shrink during the process of drying, and care should be taken not to force the hoops 90 on tightly enough to cause them to split.

Having thus fully described my said invention, what I claim as new, and desire to secure

by Letters Patent, is—

1. In an apparatus for drying and forming 95 blanks for use in the manufacture of wooden receptacles, the combination of a hollow form, a casing inclosing said hollow form, hoops for securing the blanks to the hollow form, and pipes communicating with the interior of said 100 form, substantially as set forth. 2. An apparatus for drying and forming

blanks used in the manufacture of wooden receptacles, consisting, essentially, of hollow forms or molds of substantially the general shape of the receptacle to be produced, means of securing the blanks to said molds, a wall inclosing said molds, and pipes communicating with the interior of said molds, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, 10 this 5th day of August, A. D. 1885.

ISRAEL HOGELAND. [L. s.]

Witnesses:
C. Bradford,
CHarles L. Thurber.