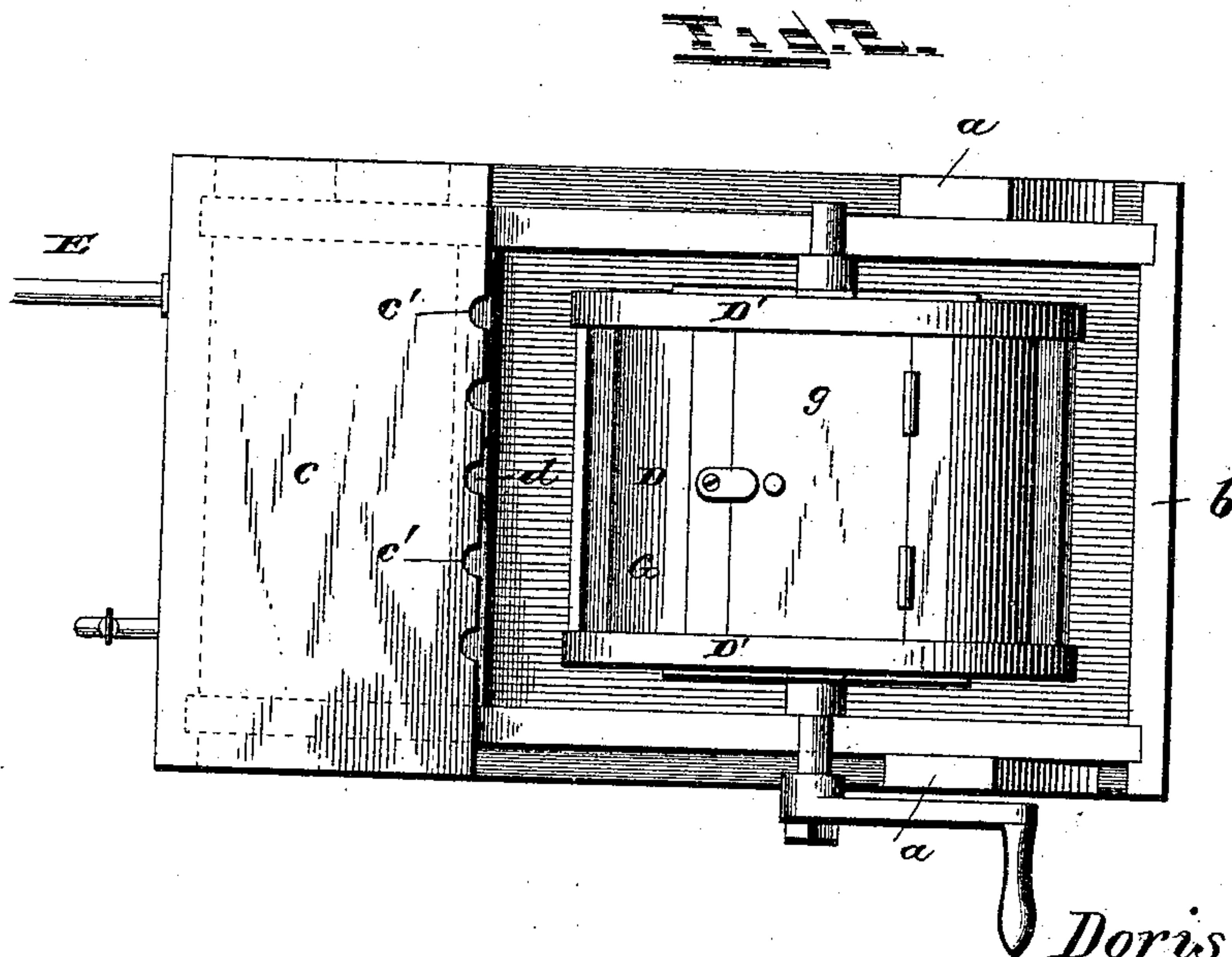
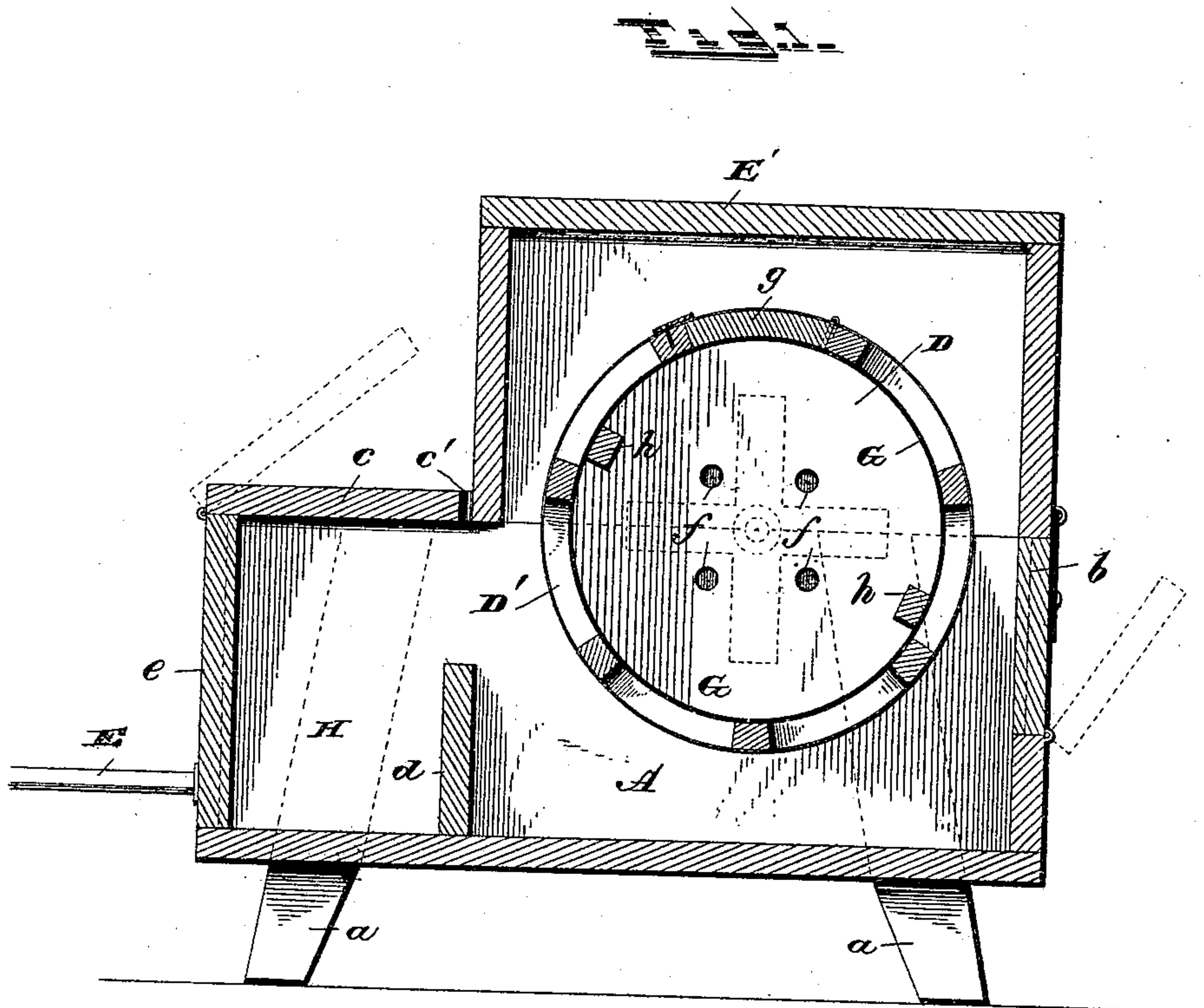


(No Model.)

D. B. YOUNG.
STARCHING MACHINE.

No. 407,502.

Patented July 23, 1889.



Witnesses

G. S. Elliott,
E. W. Johnson

Doris B. Young.
Inventor

By his Attorneys

Inven

UNITED STATES PATENT OFFICE.

DORIS B. YOUNG, OF EAST DOUGLAS, MASSACHUSETTS.

STARCHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 407,502, dated July 23, 1889.

Application filed April 19, 1889. Serial No. 307 839. (No model.)

To all whom it may concern:

Be it known that I, DORIS B. YOUNG, a citizen of the United States of America, residing at East Douglas, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Starching-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in starching-machines.

The object of my invention is to provide an apparatus or machine in which starch can be prepared for use and applied to clothes; and it consists in an apparatus the construction of which will be hereinafter fully set forth, and particularly claimed.

In the accompanying drawings, Figure 1 is a longitudinal section of a starching-machine constructed in accordance with my invention. Fig. 2 is a plan view, the cylinder-covering section being removed.

The apparatus is made up of a lower box or receptacle A, which is provided with suitable supporting-legs *a a* and hinged end or door *b* and a hinged top *c*.

d refers to a transverse partition, which is rigidly secured within the box A and extends upwardly about half-way the depth of said box, and the lower edge of the end *e* is provided with an opening, into which passes the end of a steam-pipe E. This end is also provided with an opening in which is secured a cock of ordinary construction for drawing off the contents of the tank. The top *c* is provided at its free end or edge with notches or perforations *c'*, and the upper edge of the box has secured thereto suitable bearings for a cylinder D, mounted within the box.

E' refers to a cover, which is adapted to cover the cylinder and be attached above the box A to form steam-tight connections between the lower edges thereof and the upper edges of the box A.

The cylinder D is made up of circular end

pieces D', to which stub-shafts are attached which work in the bearings hereinbefore referred to, one of these stub-shafts having means for securing thereto a crank-handle, by means of which the cylinder can be rotated or oscillated, as may be desired. The ends of the cylinders are provided near their centers with perforations *f f*, and to the edges of the circular disks or end pieces of the cylinder is secured a zinc plate G, having a hinged door *g*. On the outside of the zinc plate are located suitable cross-bars for connecting the disks to each other, and within the cylinder are wooden cross-pieces *h*. The door of the cylinder is hinged and provided with a suitable turn-button for holding the same closed.

In using the hereinbefore-described device the starch may be first placed in the compartment H, formed at one end of the box by the partition *d*, and steam admitted in said compartment through the pipe E. The moisture and heat of the steam will properly prepare the starch for use, and after it has been properly cooked it is transferred from the compartment H to the interior of the cylinder in which the clothes or articles to be starched are placed. The box being closed, with the exception of the perforation *c'*, the live steam will enter the perforations *f f* and pass into the cylinder to keep the starch within the cylinder at the proper condition as to heat and thickness. The steam contacting with the zinc plate will keep the sides of the cylinder warm. While the clothes are in the cylinder it should be kept moving either by oscillating or rotating the same.

In practice I have found that by employing a zinc plate much better results are attained than by the use of any other material known to me.

In practice I may use one or more steam-pipes, one of the pipes being adapted to supply wet steam, while the other supplies dry steam, and by admitting the proper kind of steam the heat as well as the thickness of the starch can be regulated.

The perforations or openings *c'* in the hinged cover *c* will permit a portion of the steam to escape, so that a circulation can be kept up within the receptacle A.

When it is desired to place the clothes

within the cylinder, it can be done by simply lowering the hinged door *b* and opening the door *G* of the cylinder.

Having thus described my invention, what
5 I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in an apparatus for starching clothes, of a receptacle *A*, provided with a top and containing a partition forming
10 two compartments communicating with each other over the upper edge of the partition beneath the receptacle-top, a steam-pipe communicating with one compartment, and a revoluble cylinder mounted in the other, provided with a door and having its ends perforated, substantially as set forth.

2. The combination, in an apparatus for

starching clothes, of a receptacle *A*, having a compartment *H* formed in one end thereof, a cylinder mounted near the opposite end of the
20 receptacle, said cylinder having a hinged door *g*, adapted to be brought opposite the hinged door *b* at the end of the receptacle *A*, a hinged cover *c* above the compartment *H*, a cover *E'*, and a steam-pipe leading into the compartment *H*, the parts being organized substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DORIS B. YOUNG.

Witnesses:

T. P. WIXTED,
A. F. BROWN.