

(No Model.)

W. B. LEWIS.  
STEREOTYPE CASTING BOX.

No. 461,141.

Patented Oct. 13, 1891.

Fig. 2.

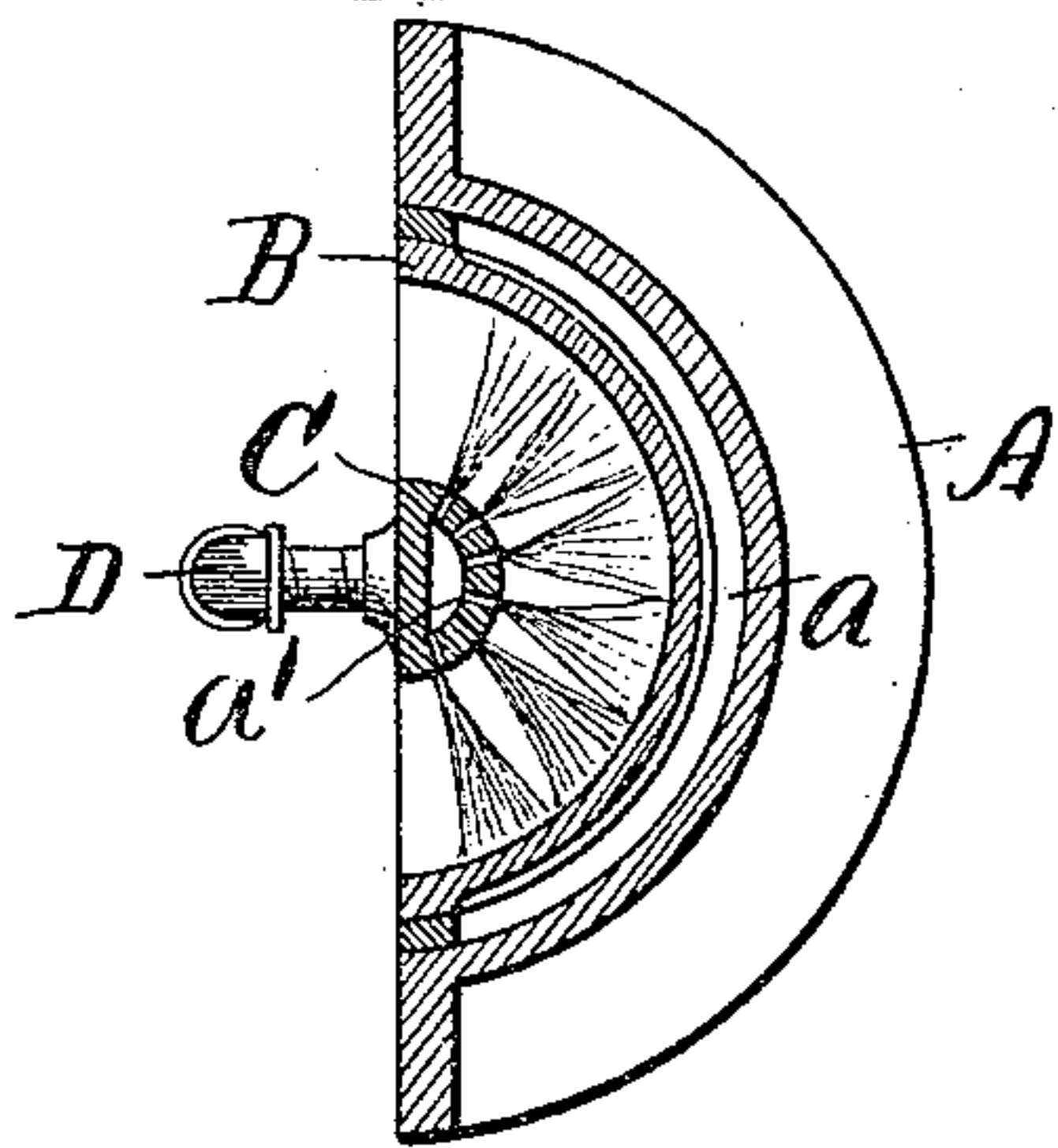
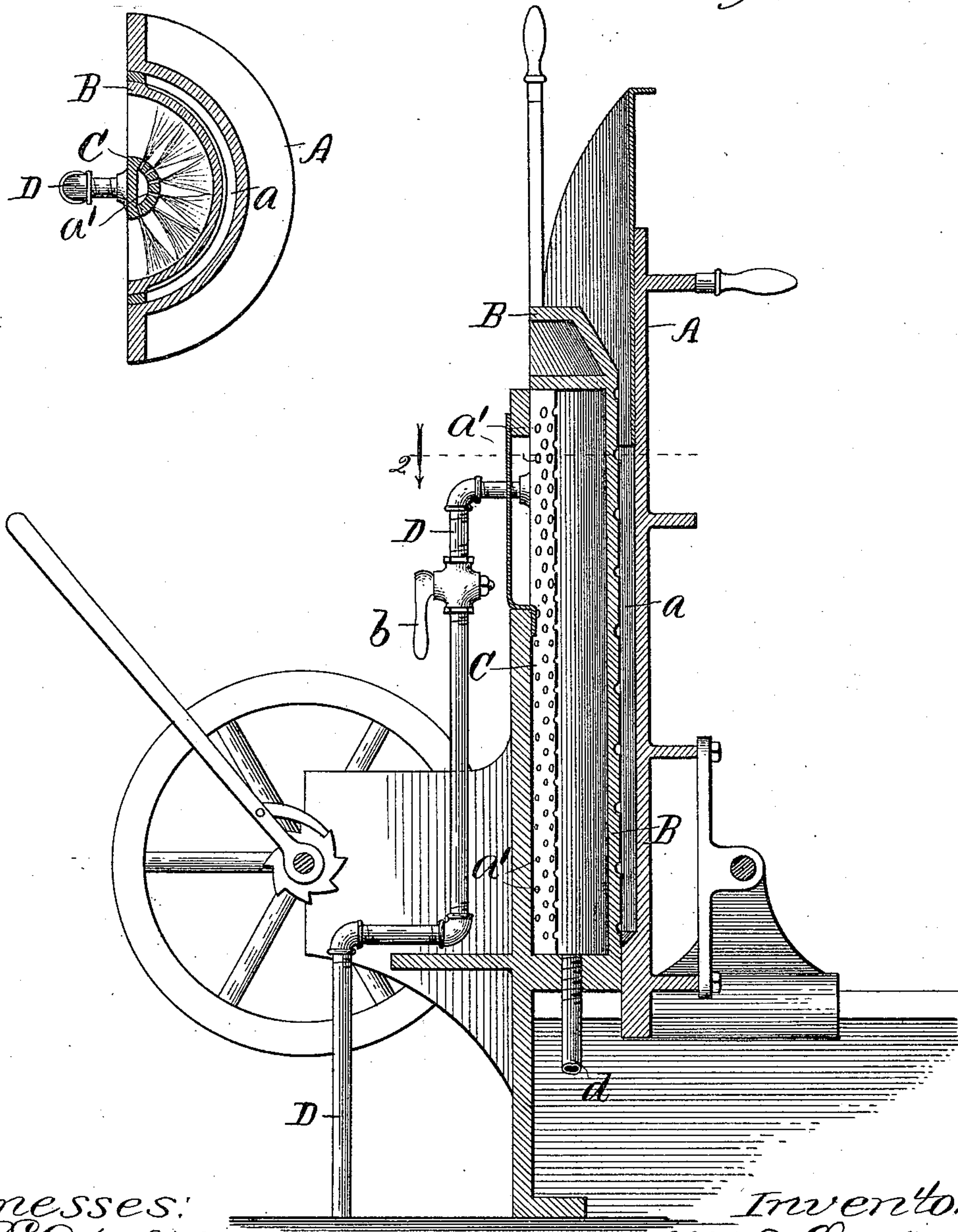


Fig. 1.



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# UNITED STATES PATENT OFFICE.

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## STEREOTYPE CASTING-BOX.

SPECIFICATION forming part of Letters Patent No. 461,141, dated October 13, 1891.

Application filed March 17, 1891. Serial No. 385,356. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. LEWIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Stereotype Casting-Box, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to an improved cooling attachment for stereotype casting-boxes.

The object is to insure a uniform cooling of the cast plate and at the same time do it very quickly, as the saving of time in a newspaper office is of the greatest importance.

In the drawings, Figure 1 is part elevation and part section of a casting-box embodying my improved features; and Fig. 2, a transverse section of a casting-box in plane 2, Fig. 1, looking in the direction indicated by the arrow.

The casting-box shown in the illustration is one of the ordinary style. Reference will therefore only be made to the improved attachment and the parts to which it more nearly relates.

Referring to the drawings, A represents the back, and B the plunger or core, forming the casting-box proper. These parts are separable from each other, and in the process of casting the back is moved rearward far enough to clear the plunger and then turned down on its trunnions to a horizontal position to remove the plate cast. The plunger remains stationary in the vertical position shown.

The box parts are of a semicircular form and are shown in their proper relative position to receive a charge of metal. The matrix and casting-chamber *a* is between the concave surface of the back and the convex surface of the plunger. The concave or exterior face of the plunger forms the cooling-surface and against which the water is sprayed.

The perforated tubular body C is placed rigidly in a vertical position at the opposite side of the cooling-chamber from the concave surface of the plunger. This tubular body is of a semicircular form and presents a spraying-surface corresponding to the cooling-surface of the plunger.

The many minute perforations *a'* are disposed over the entire convex surface of the body C, so that the streams of water are injected in different directions and cover every part of the concave cooling-surface.

Water is supplied to the tubular body C through the pipe D, connected thereto, the supply being controlled by the cock *b*. The drip is discharged through the pipe *d*, inserted in the bottom of the cooling-chamber.

The instant the casting-chamber is filled with the molten metal in casting the plate the water is let on, and owing to the rounded perforated surface of the body C every part of the cooling-surface of the plunger is covered with water at the same time and the stereotype-plate uniformly cooled and may be removed from the casting-box at once, thus greatly facilitating the process and preventing the plates from warping. By this arrangement the plates may be cast as fast as the mechanism can be handled, with but little liability of having to recast any imperfect plates, thus saving much valuable time.

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

In a stereotype casting-box, the combination, with the plunger, of the perforated tubular body C, arranged centrally with reference to said plunger and adapted to spray the entire cooling-surface thereof, and the supply-pipe connected with said tubular body, substantially as set forth.

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Witnesses:

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