

F. N. DU BOIS.
Machine for Making Plumbers' Traps.

No. 233,337.

Patented Oct. 19, 1880.

Fig. 1.

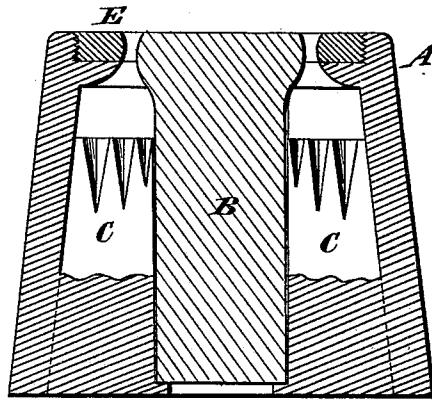


Fig. 2.

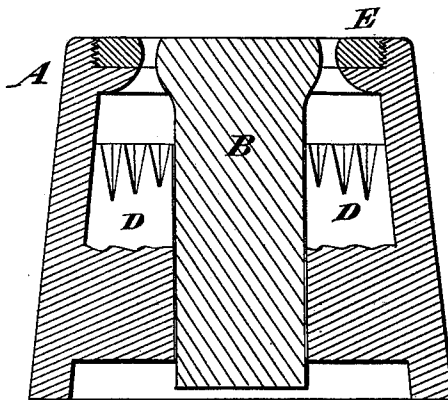
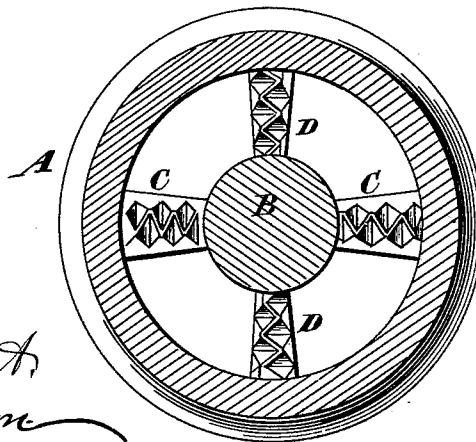


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

FREDERIC N. DU BOIS, OF NEW YORK, N. Y.

MACHINE FOR MAKING PLUMBERS' TRAPS.

SPECIFICATION forming part of Letters Patent No. 233,337, dated October 19, 1880.

Application filed December 3, 1879. Patented in England October 20, 1875, in Canada November 12, 1875, in Belgium November 30, 1875, and in France June 15, 1876.

To all whom it may concern:

Be it known that I, FREDERIC N. DU BOIS, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Machines for Making Plumbers' Traps, (Case B;) 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 of reference marked thereon, which form a part of this specification.

This invention relates to improvements in a machine for working a process patented by me on the 24th day of August, 1875, in United States Letters Patent No. 167,076, and the feature which I desire to make the subject of this specification was covered by Letters Patent No. 3,646, issued in Great Britain for a term of fourteen years, bearing date the 20th of October, 1875, and sealed December 20, 1875, as applied to the upper edges of certain partitions therein shown, which divided converging streams of lead until they had reached a point near the orifice by which the pipe was formed. The same features are incorporated in a patent issued by the Dominion of Canada for fifteen years, bearing date the 12th day of November, 1875, and numbered 5,387; also, in Letters Patent taken out in Belgium on the 30th day of November, A. D. 1875, and in France on the 15th day of June, A. D. 1876.

In the annexed drawings, making a part of this specification, Figure 1 is a longitudinal section of the nozzle of a trap-machine. Fig. 2 is a section on a plane at right angles thereto. Fig. 3 is a longitudinal section.

The same letters are employed in all the figures for the indication of identical parts.

Other features shown in the drawings were not included nor shown in any of said foreign applications, and they are made the subject of claim in Division A of this application filed March 16, 1878, to which reference is made for a more full description.

A is the nozzle, through which two streams of lead are made to pass from independent chambers opening respectively into opposite sides of the partition C, above which the streams join to form a pipe around the internal core B, the thickness of the pipe being de-

termined by the space left between the central core and the annular die E.

In order to strengthen the core B and hold it rigidly against pressures of different degrees of force on opposite sides of the partition C, intermediate partitions, D D, are placed on opposite sides of the core B and intermediate between the partitions C C.

It is a well-known principle in the operation of lead-pipe machines that an emerging stream of lead which, although cooled sufficiently to be set, is still very hot may be divided, and the surfaces being brought together under great pressure will reunite, so as to make under the most favorable circumstances an entirely seamless pipe; but while this is the case, in practice it often occurs that the reunion of the parts is not perfect.

These dividing posts or partitions have heretofore been made with straight edges, which leave the surfaces when they come together for reunion smooth, and therefore liable to leave longitudinal slits, through which leakage will occur when the pipes are used. To avoid this and make a more perfect union of the parts I cut away the edges of the partitions C and D on opposite sides, as shown in the drawings, so as to form a sharp zigzag edge. The effect of this is to give to the passing stream of metal reversely-grooved surfaces, which, when brought together, fit into one another like alternately-placed wedges, and so when the pressure is applied as the pipe emerges a more perfect union of the parts is secured.

As the other features of my invention will be protected by the claims made in Division A of this application, no further reference thereto need be made in this division.

What I claim as my invention, and desire to secure by Letters Patent, is—

The nozzle of a lead-trap machine the partitions C D of which are formed with zigzag edges, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of November, 1879.

FREDERIC N. DU BOIS.

Witnesses:

A. VAN ANTWERP,
CHAS. G. KOSS.