No. 780,330. PATENTED JAN. 17, 1905.

F. EGERT.

BRONZE BLOWING TOOL.

APPLICATION FILED OCT. 7, 1903.

FIG. 1.

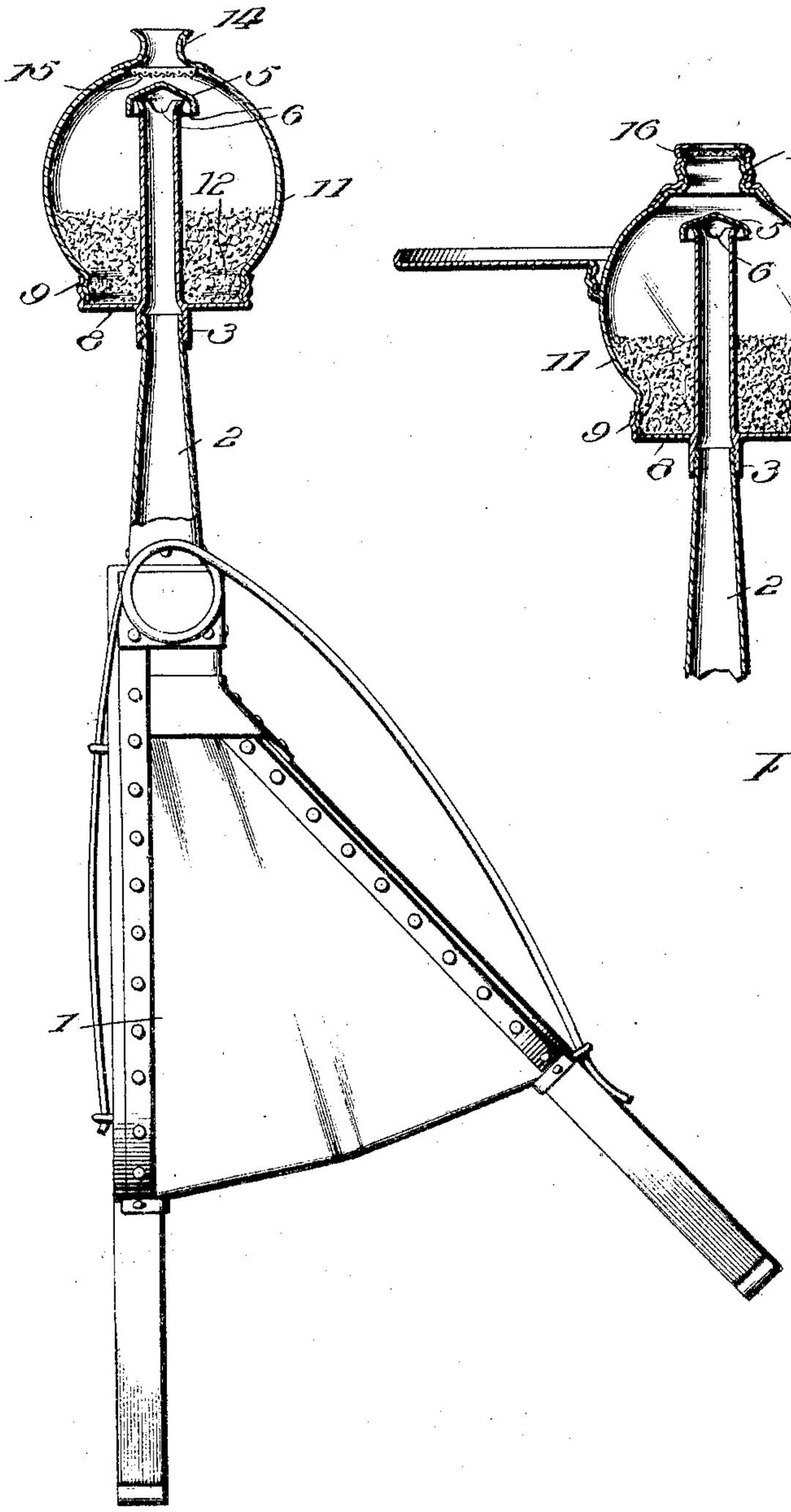

FIG. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK EGERT, OF HARRISBURG, PENNSYLVANIA.

BRONZE-BLOWING TOOL.

SPECIFICATION forming part of Letters Patent No. 780,330, dated January 17, 1905.

Application filed October 7, 1903. Serial No. 176,123.

To all whom it may concern:

Be it known that I, FREDERICK EGERT, a citizen of the United States of America, and a resident of Harrisburg, in the county of Dauphin, in the State of Pennsylvania, have invented certain new and useful Improvements in Bronze-Blowing Tools, of which the following is a specification.

This invention relates to improvements in apparatus designed for bronzing; and the object of my invention is to provide a device that will enable one to quickly force the bronze from a suitable reservoir or receptacle onto the article being treated. Although I have designed my apparatus especially for use with bronze, it is obvious that it may be used for other purposes.

With this brief statement my invention consists in the peculiar construction, arrangement, and combinations of parts, as will be hereinafter more particularly described and then definitely claimed at the end hereof.

In the drawings accompanying and forming part of this application, Figure 1 represents a side elevation with the novel parts in section of the preferred embodiment of my invention. Fig. 2 represents a vertical central section through a modified form of reservoir and nozzle with a disk attached to catch the surplus material.

Referring now to the details of the drawings by numerals, 1 designates a bellows, the outlet 2 of which is preferably screw-threaded for the purpose of entering into a socket formed on my attachment. The bellows may be of any desired construction; but I much prefer to use one like that shown in my drawings, which, as will be seen from an inspection of Fig. 1, is provided with a spring adapted to normally hold the bellows open. With this construction all that is necessary to do is for the operator to press together the handles of the bellows and then release them, when the spring will perform the opening action. While, as I have above stated, I prefer this attachment on the bellows, it will be obvious that other forms are equally applicable to my invention.

To the outlet 2 of the bellows I screw what may best be termed a "nozzle" and which in its preferred form comprises a tube formed with a screw-threaded socket 3 at one end and a hood 5 at the opposite end. This nozzle is of course formed hollow, and as the air from the bellows is pumped through it it strikes against the wall of the hood 5, and in order to escape, the air must necessarily be diverted and pass out of the openings 6 between the nozzle and the hood 5. The nozzle is also provided with a base-plate 8, formed with a threaded flange 9, to which may be secured any form of reservoir or receptacle for the bronze or similar material to be used. In its preferred form this reservoir or receptacle 11 is formed with a screw-threaded bottom 12, which fits within the flange 9 of the base 8, and at the opposite end of the reservoir or receptacle is a suitable outlet. This outlet may be of a variety of forms, as illustrated in my drawings. As shown in Fig. 1, it consists of nothing more than a curved outlet 14, protected by a screen 15, while in Fig. 2 the outlet 14^a is screw-threaded to receive a cap 16, between which cap and outlet may be secured any preferred form of screen. The advantage of this last form is that I may use screens of different mesh for the purpose of working with fine or coarse bronzes.

The apparatus as so far described is sufficient for use in ordinary positions; but in order to use the device in a vertical position, as it is necessary to do in bronzing ceilings, I form the reservoir or receptacle 11 with an annular screw-threaded ring 18, to which may be secured whenever necessary a large disk 20, with an upturned outer rim 21. This disk is made large enough to catch and retain any bronze that may fall from the place operated on.

My device is so simple that it is believed the operation is obvious from the drawings, and hence it will be sufficient to state that in use it is only necessary to fill the reservoir with the bronze or other material being used and then hold the apparatus in the proper position to direct the material from the outlet onto the material being treated, and then the bellows may be worked in the usual manner. As the air is pumped from the bellows it is deflected by the hood 5 out of the openings

6 and acts upon the bronze, so as to drive it, with the air, through the outlet 16 onto the work being treated.

I have illustrated the preferred embodiment of my apparatus; but it is obvious that changes and modifications may be made without departing from the lines of my invention.

What I claim as new is—

1. In a device of the character described; a suitable reservoir or receptacle; an outlet therefor at one end thereof; a nozzle or air-tube entering said reservoir or receptacle at the opposite end and extending almost to the aforesaid outlet; and a hood or deflector carried by and coacting with said nozzle or tube and having deflecting-surfaces formed at an oblique angle to the bottom or base of said reservoir or receptacle deflecting the air back from the point where it leaves said nozzle in a direction almost opposite to that in which the air passes through said nozzle, whereby material in the lower end of said reservoir or receptacle is acted upon by the projected air-currents, substantially as described.

2. In a device of the character described; a suitable reservoir or receptacle; an outlet therefor at one end thereof; a nozzle or air-tube entering said reservoir or receptacle at the opposite end and extending almost to the aforesaid outlet, said nozzle or air-tube having an open end; and a hood or deflector carried by and coacting with said open-ended nozzle or tube and arranged between said outlet and said nozzle or tube and having deflecting-surfaces formed at an oblique angle to the bottom or base of said reservoir or receptacle for deflecting the air back from the point where it leaves said nozzle in a direction almost opposite to that in which the air passes through the nozzle; whereby material in the lower end of said reservoir or receptacle is acted upon by the projected air-currents, substantially as described.

3. In a device of the character described; a base-plate having a screw-threaded flange; a reservoir or receptacle having a screw-threaded portion arranged to screw onto said screw-threaded flange; an outlet at the end of said reservoir or receptacle opposite said base-plate; a tube projecting from said base-plate almost to said outlet, and a hood or deflector arranged between said tube and said outlet and having its deflecting-surfaces formed at an oblique angle to said base-plate and thereby deflecting the air back toward the base-plate, substantially as described.

4. In a device of the character described; a suitable reservoir or receptacle; means for forcing air therein; an outlet therefor; and a hood or deflector within the receptacle deflecting the air on its passage to said outlet; and means on the exterior of the reservoir or receptacle for catching the surplus material; substantially as described.

5. In a device of the character described; a suitable reservoir or receptacle; means for forcing air therein; an outlet therefor; and a hood or deflector within the receptacle deflecting the air on its passage to said outlet; and detachably-connected means on the exterior of the reservoir or receptacle for catching the surplus material; substantially as described.

6. In a device of the character described; a suitable reservoir or receptacle having a screw-threaded base at one end and an outlet at the other end; a base-plate screwed to one end of said reservoir or receptacle; a tube passing through said base-plate; a hood or deflector within said reservoir at the opposite end of said tube, said hood or deflector deflecting the air on its passage to said outlet; and means on the exterior of the reservoir or receptacle for catching the surplus material; substantially as described.

Signed by me at Harrisburg this 3d day of October, 1903.

FREDERICK EGERT.

Witnesses:
R. REESE,
CHAS. ELOFF.