(No Model.)

E. F. FREEMAN.

SAND BLOWER.

No. 346,650. Patented Aug. 3, 1886.

Fig. 1.

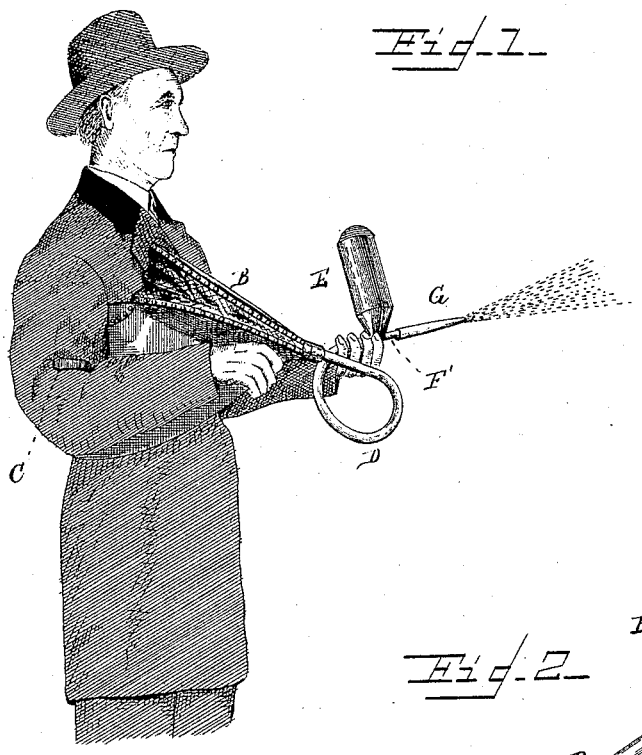

Fig. 2.

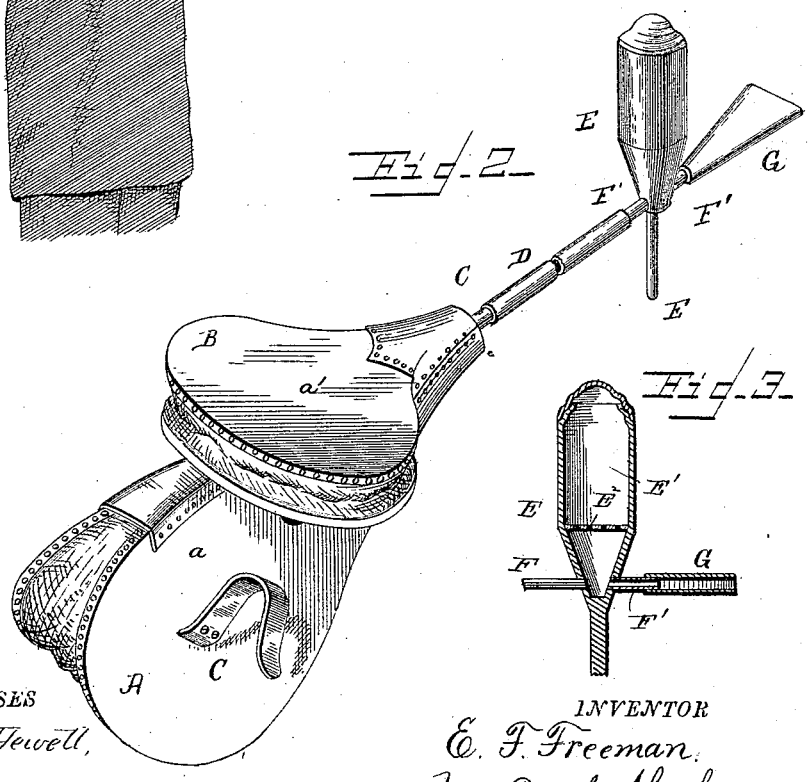

Fig. 3.

WITNESSES

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EDWARD F. FREEMAN, OF BRYAN, OHIO, ASSIGNOR OF ONE-HALF TO FREDERICK YUNCK, OF SAME PLACE.

SAND-BLOWER.

SPECIFICATION forming part of Letters Patent No. 346,650, dated August 3, 1886.

Application filed December 30, 1885. Serial No. 187,106. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. FREEMAN, a citizen of the United States, residing at Bryan, in the county of Williams and State of Ohio, have invented certain new and useful Improvements in Sanding Devices; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a representation of my invention as used by the operator. Fig. 2 is a perspective view of my improved device. Fig. 3 is a sectional detail showing the sand-box, its spreader, and the supplementary tube with the sifting-diaphragm.

This invention relates to bellows to which sand-boxes are attached for the use of painters in "sanding" their work; and my object is to create or produce a constant blast on the general principle of the Scotch "bag-pipe," in the following manner, reference being had to the annexed drawings.

In carrying out my new improvement I employ two bellows, A and B. The bellows A is constructed with an arm hook and rest, C, adapted to be actuated by the movements of the arm, for the purpose of pumping air into the bellows B. Both bellows are constructed alike with air-induction flap-valves, A being the primary or air-supply bellows, and B the secondary air-receiver. By these means a continuous air-blast can be ejected through the pipe C of the secondary bellows B. The primary and secondary bellows constitute a compound air-forcing pump, which is constructed and especially adapted for affording a continuous blast by the movements of the arm to which the device is attached by the hook C, as above described.

For convenience of application to the body of the operator, the valve-board *a* of the primary bellows A is perpendicular to the top board of the secondary bellows and rigidly fixed thereto. The vibrating board *a'* is suitably hinged to the bottom board of the secondary bellows, and between the two bellows thus newly arranged is a flap or "bellows" valve. (Not shown in the drawings.)

E designates a sand-box, which may be constructed in the usual well-known manner for sand-blowers. This box (shown clearly in Fig. 3, in diametrical section) consists of a reservoir for sand, having a perforated diaphragm, E^2, and a supplementary tubular sand-receiver, E', axially arranged with respect to the reservoir E, and also arranged at right angles to the main air-blast tubes F F'.

G designates a flat tubular spreader or nozzle, removable from the discharge-tube F', and designed for scattering the sand against a painted surface.

D designates a flexible tube, which may be of any desired length, and which is the air-communication between my improved continuous air-forcing engine and the sand-feeder, and which is designed to allow a free manipulation of the sand-box and its nozzle-spreader.

It will be seen from the above description that I so combine two bellows—a primary and a secondary bellows—that a strong continuous air-current can be forcibly ejected through the tubes C D F, and past the column of sand fed from the box E, and thence ejected from the spreading-nozzle G in a continuous stream. This is done by a simple easy movement of the arm of the operator.

Having described my invention, I claim—

1. In a sand-blast instrument, the combination of the primary bellows, the secondary bellows connected therewith, as described, and a sand-box provided with an ejecting nozzle or spreader, substantially as described.

2. The combination, in a painter's "sand-blast," of the primary blast-bellows provided with an arm hook or rest, the secondary or air-receiving bellows, a sand-box and its ejecting-nozzle, and a flexible tubular connection between the sand-box and secondary bellows, substantially as described.

3. The combination of a primary and a secondary bellows, the under side of the former being connected to the upper forward edge of the latter, and an arm-hook secured to the outer side of the primary bellows, substantially in the manner and for the purposes described.

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

EDWARD F. FREEMAN.

Witnesses:

OLIVER LONGANECKER,

WILLIAM FETZER.