E. W. POSTON.

SAND EJECTOR.

No. 67,580. Patented Aug. 6, 1867.

Fig: 2.

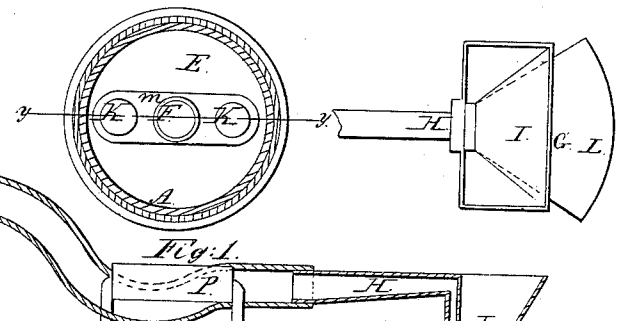
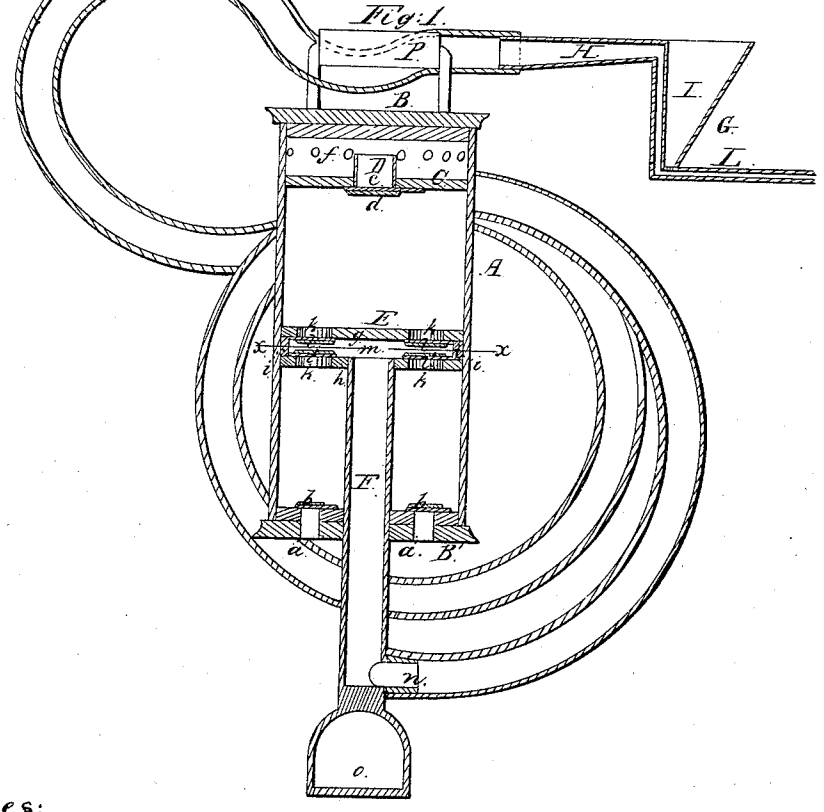



Fig: 1.




Witnesses;
A. F. Willson,
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# United States Patent Office.

ELISHA W. POSTON, OF FORT WAYNE, INDIANA.

*Letters Patent No.* 67,580, *dated August* 6, 1867; *antedated August* 1, 1867.

## IMPROVEMENT IN SAND-EJECTERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ELISHA W. POSTON, of Fort Wayne, in the county of Allen, and State of Indiana, have invented certain new and useful Improvements in Apparatus for Distributing Sand for painting purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon. In the drawings—

Figure 1 is a sectional view taken in line *y y*.

Figure 2 is a plan view, sectioned in line *x x*.

Like letters refer to like parts in the respective figures.

The nature of my invention consists in the construction of an apparatus for the purpose of projecting sand on to freshly painted surfaces, and evenly distributing the same.

To enable others skilled in the arts to make and use my invention, I will now proceed to describe its construction and operation.

A represents a metallic cylinder, of a suitable length and diameter.

B B′ are heads, which are fitted into the upper and lower ends of cylinder A. Head B′ is perforated at *a a*. Said perforations are provided with valves *b b* for the purpose of admitting and retaining air.

C is a disk, which fits snugly into the cylinder near the top of the same. This disk is also perforated at the centre *c*, and is provided with a valve, *d*, also for the purpose of admitting and retaining air.

D is a tube, which is inserted in perforation *c*, and extends upward a short distance, for the purpose of preventing sand from passing into the cylinder and causing friction on the packing. Air is admitted into the cylinder, above the disk C, through perforations *f*.

E represents a piston, which operates in the cylinder A. Said piston is composed of two disks, *g* and *h*, secured together, and having between them a ring of packing, *i*, so positioned as to completely prevent the passage of air. Each of said disks *g* and *h* is perforated, as seen at *k k k′ k′*, and is provided with valves *l l l′ l′*. When said disks are secured together they are so constructed as to form a chamber, *m*, into which the air passes through the valves when the piston is in operation.

F is a tube, which is secured to the piston-head and acts as a piston-rod. This rod or tube passes through the lower head, and connects with an elastic pipe at *n*, and also with a stirrup or foot-piece, *o*. Said tube, at its upper end, communicates with the air-chamber *m*, and allows the air, when compressed by the operation of the apparatus, to pass through the valves, and thence through the said piston-rod or tube, into the elastic tube to the sand-distributor, which operation is effected by the operator placing one foot in stirrup *o* and taking the handle P in his hand, and imparting a reciprocating motion to the cylinder, the piston-rod and head standing still.

G is the sand-distributor, which is made of sheet metal, as follows: H is a cylindrical tube, which connects with the elastic pipe, and conducts the air into the sand-distributor in a direction at right angles with the plates of the same. I is a hopper where the sand is held, and from whence the sand is fed to the distributor through small perforations at the bottom. L is the distributor, which consists of two plates of thin sheet metal, formed as seen in the drawings, so as to spread the sand as it is forced by the current of air between the plates.

When the apparatus is in operation, the blast enters the distributor vertically, and is then deflected at right angles between the plates, and thus scatters the sand equally in every direction permitted by the form of the distributor.

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

1. I claim cylinder A and heads B B′, in combination with piston E and piston-rod F, the whole being arranged and constructed in the manner and for the purpose described.

2. In combination with the above, I claim the bent tube H, in combination with the distributing-plates L and feeder I, all being constructed and arranged substantially as described and set forth.

E. W. POSTON.

Witnesses:

H. F. WILLSON,

WILLIAM L. GERARD.