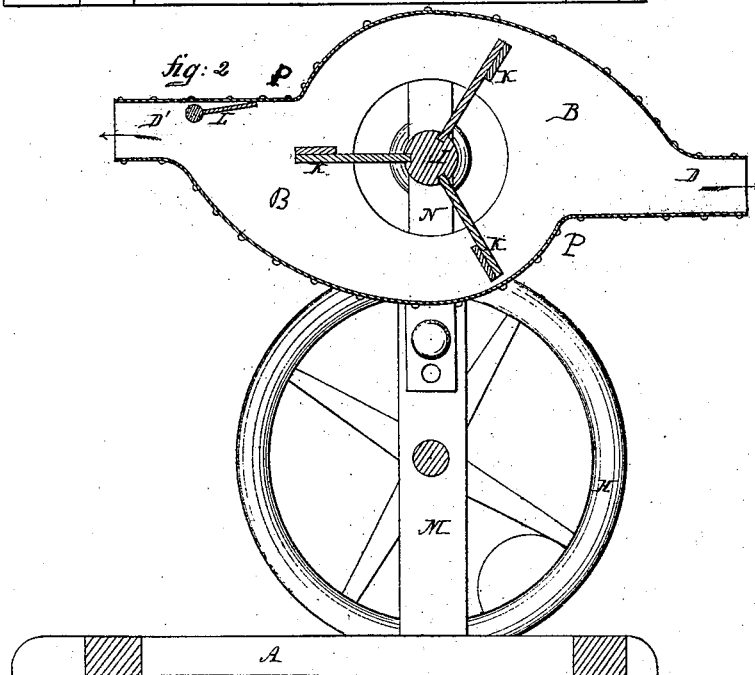
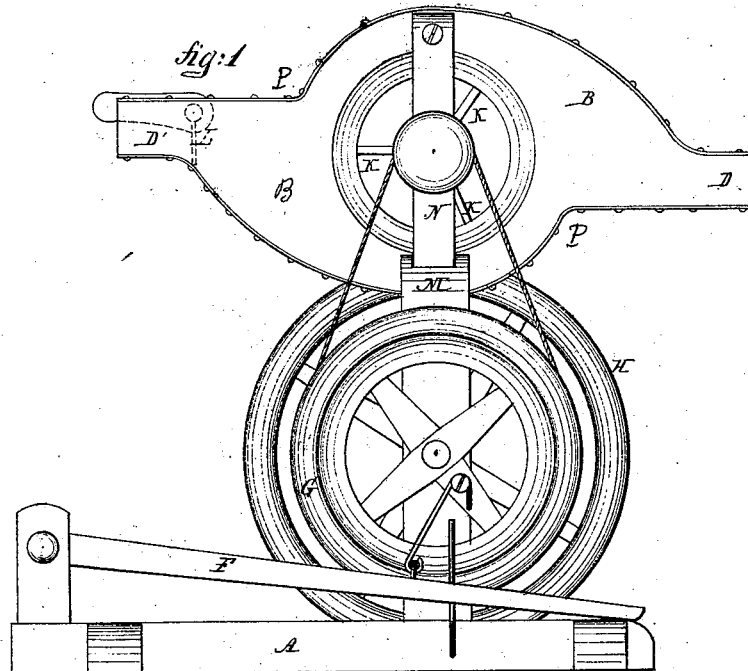


*Dustin v Sledge,*

*Fan Blower.*

*No. 107,167.*

*Patented Sept. 6. 1870.*



*Witnesses*

*Joseph W. Dustin*  
*George W. Dustin*

*Inventors*

*Lindsay Dustin*  
*Benjamin Sledge*

# United States Patent Office.

LINDSAY DUSKIN AND BENJAMIN SLEDGE, OF THOMASVILLE, NORTH CAROLINA;  
SAID DUSKIN ASSIGNS HIS RIGHT TO WILLIAM DICKSON AND J. D. DELAP, OF  
SAME PLACE.

*Letters Patent No. 107,167, dated September 6, 1870.*

## IMPROVEMENT IN FAN-BLOWERS FOR SMITHS' FORGES.

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

### *To all whom it may concern:*

Be it known that we, LINDSAY DUSKIN and BENJAMIN SLEDGE, of Thomasville, in the county of Davidson and State of North Carolina, have invented a new and improved "Fan-Mill for Blacksmiths' Forges;" and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 represents a side elevation thereof.

Figure 2, a longitudinal vertical section through the center.

The nature of our invention consists in a fan or blower-chamber, having two discharge apertures, so arranged that two or more forges may be simultaneously supplied with the necessary currents of air from one and the same fan, while the object of our invention is to provide an apparatus, cheap and simple in construction, not liable to get out of order, and that may be operated by any suitable power.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation, premising, however, that the fan-mill is supposed to be stationed between the forges to be operated.

A represents the frame-work or base of the machine.

B, the fan or blower-chamber.

D D', the discharge-apertures.

F, a treadle connected with the wheel G, when it is designed to operate the machine by the foot.

H, a larger driving-wheel, which may be propelled by hand, horse, or other power.

I, the fan-shaft.

K, the fans.

L, a valve to shut, when desired, the discharge D'.

M, uprights supporting the case, and are so grooved or channeled as to admit the case-supports N to slide up or down, thus elevating or lowering the case, at pleasure.

The casing of the fan-wheel is constructed in the form shown in figs. 1 and 2, the radius of curvature increasing from the highest and lowest points toward the orifices D and D', so as to form large blast-chambers B B.

The fans are arranged so that the angle between each vane is the third part of four right angles. Then, as each vane or fan reaches the part of the case where the curvature begins to increase, the preceding fan will have reached the shoulder P.

The blast-chambers B B serve to give a steady continuous blast.

Having thus fully described our invention,

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

1. The double fan-blower herein described, having the case of varying curvature, so as to form blast-chambers B B, as described.

2. The three-fan wheel, in combination with the case, of the form shown in figs. 1 and 2.

LINDSAY DUSKIN.

BENJAMIN SLEDGE.

Witnesses:

JOSEPH W. DUSKIN,

GEORGE W. DUSKIN.