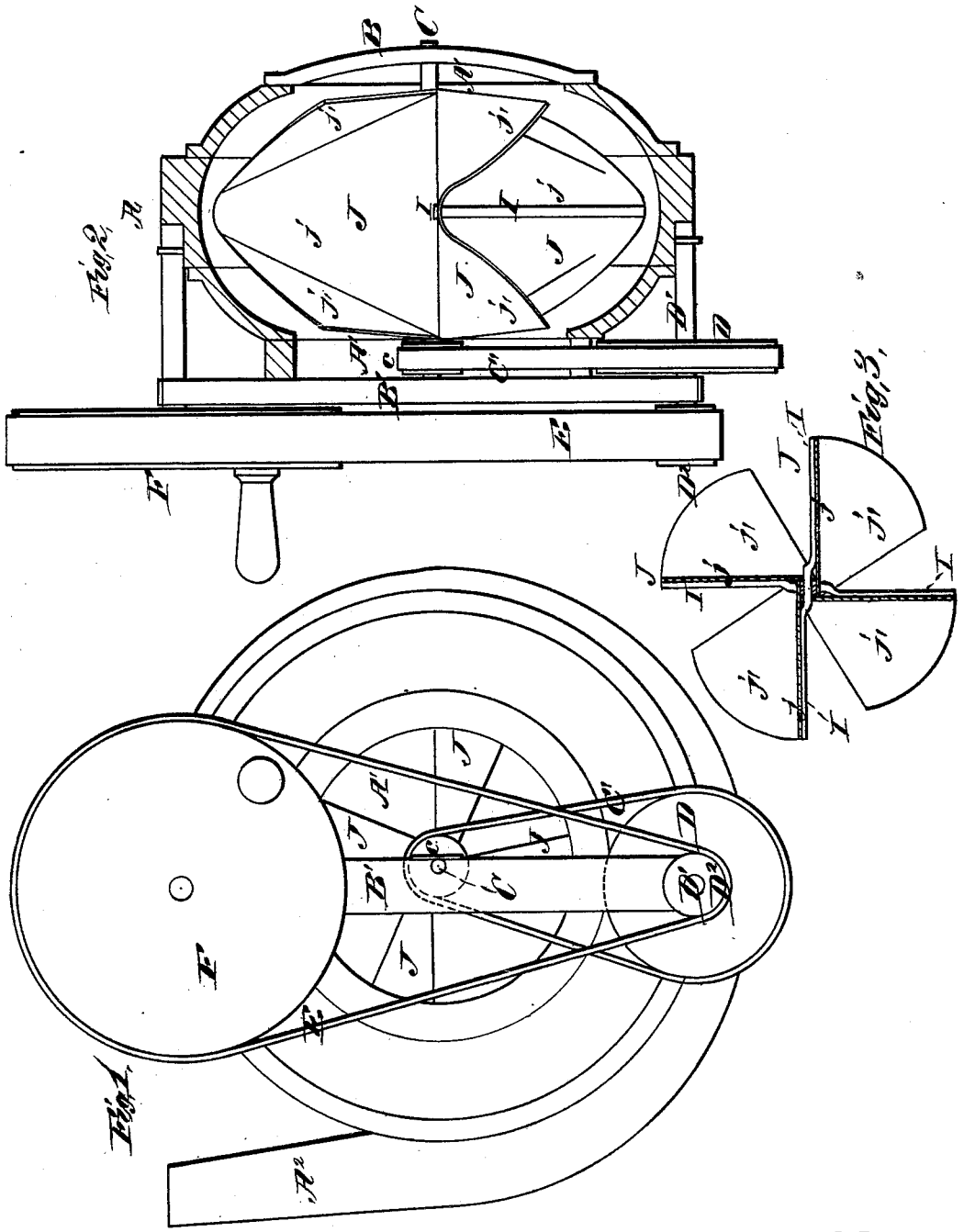
J. C. OVERSTREET.

BLOWER.

No. 185,953. Patented Jan. 2, 1877.



WITNESSES

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JOSEPH C. OVERSTREET, OF PLEASANT PLAINS, ARKANSAS.

IMPROVEMENT IN BLOWERS.

Specification forming part of Letters Patent No. **185,953**, dated January 2, 1877; application filed October 21, 1876.

To all whom it may concern:

Be it known that I, JOSEPH C. OVERSTREET, of Pleasant Plains, in the county of Independence and State of Arkansas, have invented a new and valuable Improvement in Blowers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my blower, and Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a detail view of the fan.

This invention relates to rotary fans or blowers; and it consists, mainly, in the peculiar construction of the fans or blades of said blowers, whereby a considerable body of air is discharged through a small outlet. It also consists in auxiliary devices hereinafter particularly described.

In the annexed drawings, A designates the casing of a rotary blower, which casing is provided with side openings A^1 A^1 for the admission of air, and with a discharge-tube, A^2, for the expulsion thereof. B B′ are bridges (B′ being the larger of the two) which extend across induction-openings A^1 A^1, and are secured by both ends to casing A. In said bridges the blower-shaft C has its bearings. Said shaft is provided with a small pulley, *c*, from which a belt, C′, extends to a pulley, D, which turns on a shaft, D^1, that has its bearings in said casing A and one of the extended ends of bridge B′. Said shaft D^1 carries a smaller pulley, D^2, which is connected, by means of a belt, E, with a crank-wheel, F, which is journaled to the other end of said bridge B′ and to said casing A.

The above-described construction causes the operating gearing to occupy but a very small space, belt E being almost directly in front of belt C′. When crank-wheel F is rotated shaft C is turned. Said shaft is provided with radial rods I I, which carry and brace vanes or blades J J. Said vanes are preferably constructed of sheet metal. They each consist of a flat base, *j*, shaped like a truncated inverted **V**, tapering outwardly, and of two corresponding side flanges, *j′ j′*, which slightly diverge from said plate *j*. As a whole, each one of said blades or vanes is shaped somewhat like half a funnel, the broadest part being nearest the shaft C, and the narrowest part being farthest therefrom. This shape enables said blades, as they are revolved, to gather a considerable quantity of air and discharge it with violence through narrow discharge-tube A^2.

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

1. A blade or vane, J, for a rotary blower, consisting of truncated inverted **V**-shaped base *j*, brace-rods I I, passing through the axis, and side flanges *j′ j′*, substantially as set forth.

2. The combination of casing A, shaft C, provided with blades or vanes J, constructed as described, and gearing *c* C′, D D^2, E and F, all connected with the bridge B′, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH C. OVERSTREET.

Witnesses:

GEO. L. CHEEK,

GEO. MCCAULEY.