H. Sweetapple,

Fan Blower.

No. 29,417. Patented July 31, 1860.

Fig. 1.

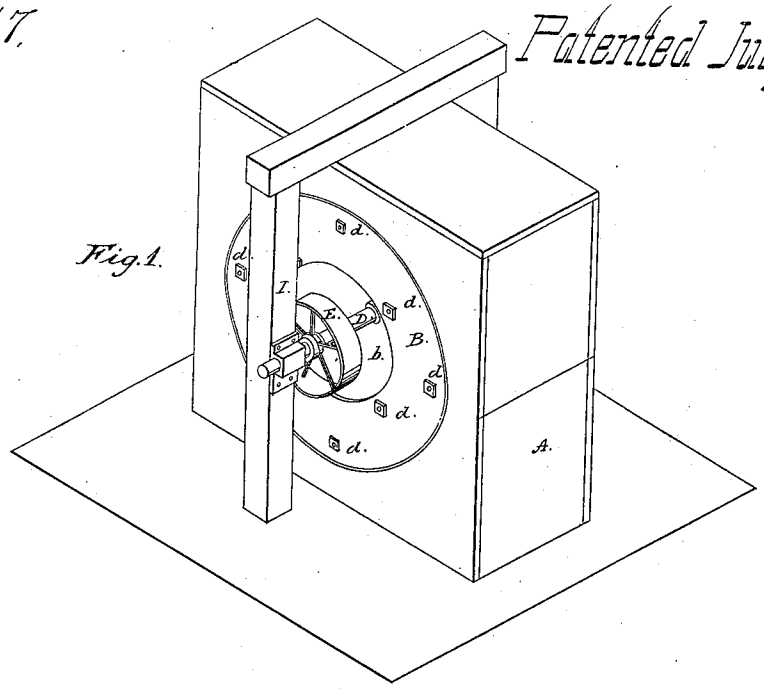
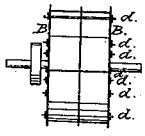


Fig. 2.



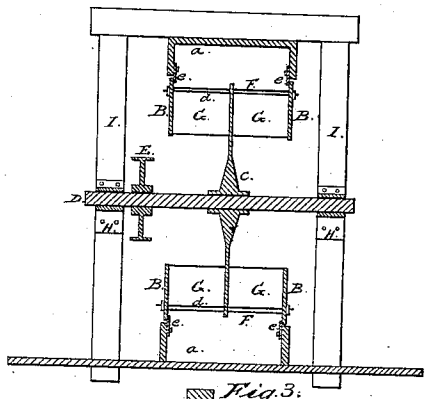
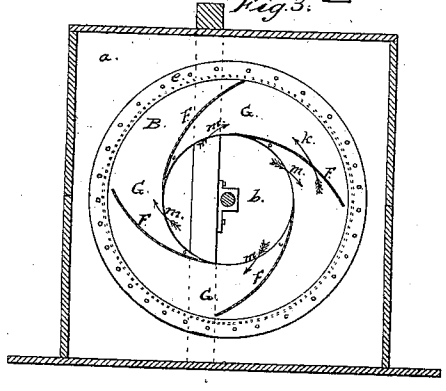


Fig. 3.



Witnesses;
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Inventor;
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UNITED STATES PATENT OFFICE.

HENRY SWEETAPPLE, OF NAPA, CALIFORNIA.

FAN-BLOWER.

Specification of Letters Patent No. 29,417, dated July 31, 1860.

To all whom it may concern:

Be it known that I, HENRY SWEETAPPLE, of the city and county of Napa and State of California, have invented a new and useful Improvement for a Fan, which I call "Sweetapple's Improved Fan;" 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, in which—

Figure 1, is a perspective view; Fig. 2, is a vertical cross section; Fig. 3, is a vertical longitudinal section; Fig. 4, is a view of the fan.

A, is a rectangular box, in two parts, in which box the fan works. The fan is formed of the flanges B, and the circular center piece or wheel C, with the blades F, the whole bolted together by the bolts *d;* D, is the shaft for driving the fan and is keyed to the center wheel C, running in the boxes H, attached to the frame I, and is driven by means of a pulley E; the fan is so placed in the box A, that the inside of the flanges B, shall be nearly flush with the inside of the box, so that the strip or ring of leather or other flexible material as represented by *e*, being fastened to the inside of the box A, (as shown in Figs. 2, and 3) to keep the air from escaping from the air chamber *a*, when the fan is in motion, the strip of leather, or other material closing the opening, between the periphery of the flange and the box, in the manner of a valve; G, represents the openings between the blades of the fan; *b*, represents the openings in the ends of the fan; the area of the openings *b*, should exceed the sum of the areas of the openings G; the arrow *k*, shows the direction of the movement of the fan; the arrows *m*, show the direction of the air in its passage into the air chamber *a*. The openings *b*, should be so arranged with covers, so as to present more or less of an opening as may be required.

Mode of operation: The fan being driven at great speed in the direction as indicated by the arrow *k*, creates a vacuum, by reason of which the air passes through the openings *b*, in the ends of the fan, passing into the air chamber *a*, in the direction of the arrows *m*, filling the air chamber with compressed air; from the air chamber, an outlet or outlets may be made at any point or points, conveying the current of air wherever desired.

Having described my invention, what I claim therein as new and desire to secure by Letters Patent, is—

The combination of two rings *e*, *e*, of flexible material with the air chamber *a*, and the sides B, B, of a fan blower constructed as above set forth, in the manner and for the purpose described.

HENRY SWEETAPPLE.

Witnesses:

G. W. TOWLE,

C. B. WINES.