

T. H. WALTON.

Improvement in Rotary Fan-Wheels.

No. 131,238.

Patented Sep. 10, 1872.

Fig. 1

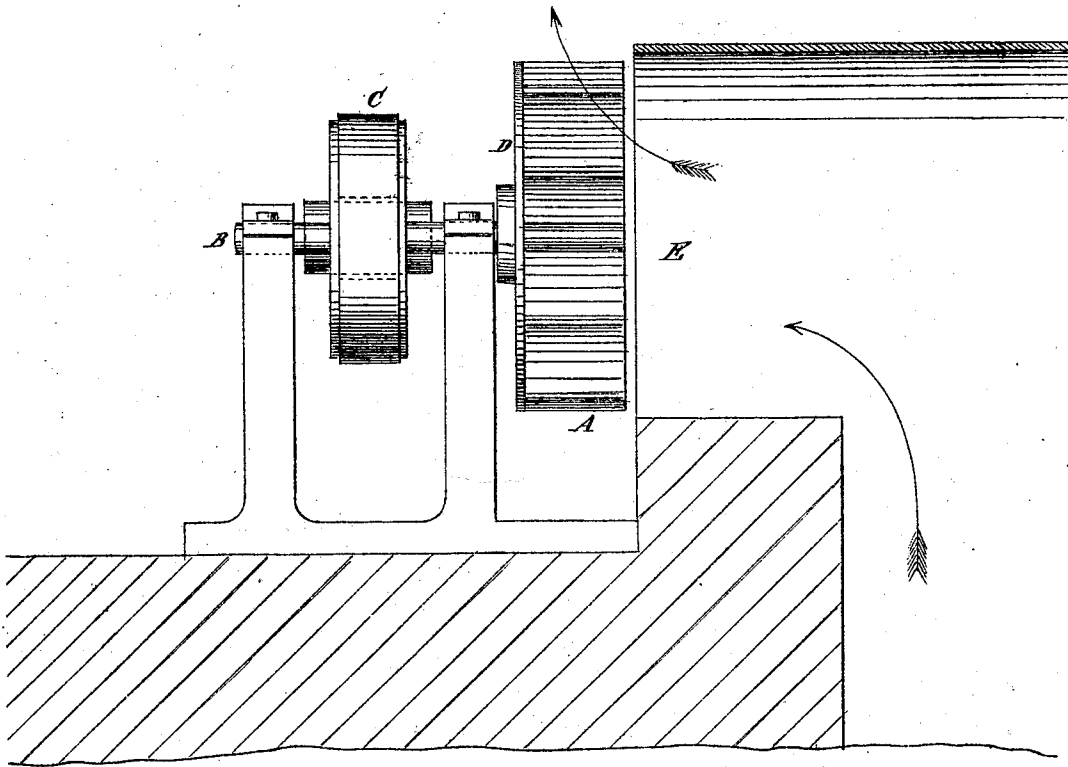
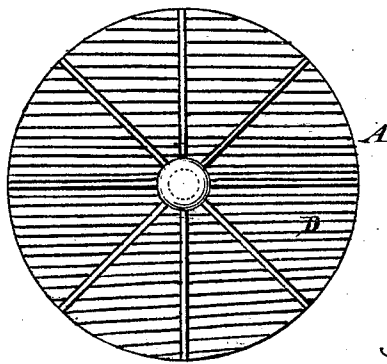


Fig. 2



Witnesses:

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Inventor:

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PER

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UNITED STATES PATENT OFFICE.

THOMAS H. WALTON, OF ASHLAND, PENNSYLVANIA.

IMPROVEMENT IN ROTARY FAN-WHEELS.

Specification forming part of Letters Patent No. 131,238, dated September 10, 1872.

CASE B.

Specification describing a new and useful Improvement in Rotary Fan-Wheel Exhausters, invented by THOMAS H. WALTON, of Ashland, in the county of Schuylkill and State of Pennsylvania.

This invention relates to a new and useful improvement in apparatus for exhausting air from coal and other mines, and for all the purposes for which it may be adapted; and it consists in the construction of the rotating wheel and wheel-plate, and arrangement thereof in regard to the opening which communicates with the mine or shaft of the mine, the arrangement being as hereinafter more fully described.

In the accompanying drawing, Figure 1 represents a sectional side elevation of my exhauster in connection with the opening to the mine. Fig. 2 is a face view of the rotary wheel detached.

Similar letters of reference indicate corresponding parts.

A is the wheel, which is fastened to the shaft B, and driven by means of a belt on the pulley C. In this example of my invention I attach a plate, D, to the back side of the wheel, but the plate may be separate from the wheel and remain stationary, but nearly in contact therewith. E represents the opening from the mines, shaft, or compartment from

which the air is to be exhausted. The wheel A is designated to be equal in diameter to the diameter of this opening, and the circumference of the wheel is open to the surrounding atmosphere. The air exhausted or drawn from the mine takes the course indicated by the arrows. If it is desired to conduct the air which is exhausted in any particular direction there may be a casing over the fan-wheel. The opening E to the mine may be less in diameter than that of the wheel; but to secure all of the advantages of the wheel those diameters should be equal. The paddles or vanes of the wheel should reach the shaft, as represented in the drawing.

I do not confine or limit myself to the precise form or arrangement of any of the parts described, as variations may be made without departing from my invention.

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

The fan-wheel A, having radial wings open on its periphery and next the shaft, but having plate D on one side, combined with shaft E, as and for the purpose described.

THOMAS HUNTER WALTON.

Witnesses:

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