

W. G. Hyndman

ROTARY BLOWER

No. 122,118.

Fig. 1

Patented Dec. 26, 1871.

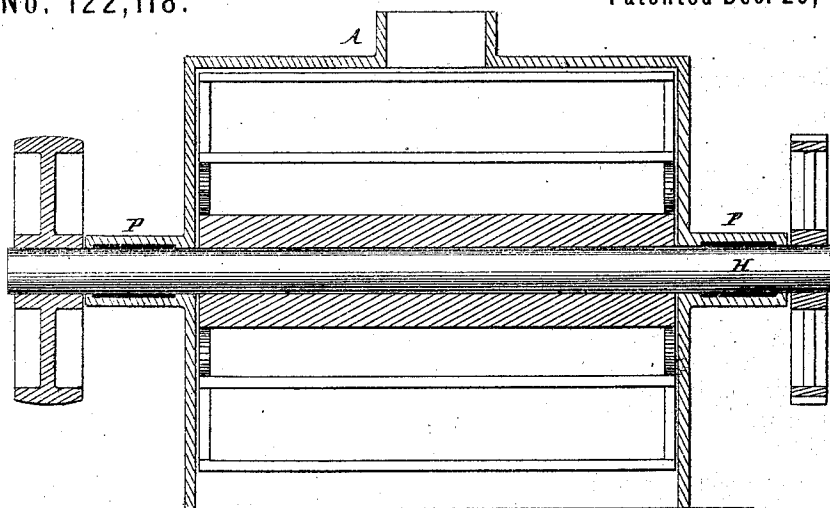
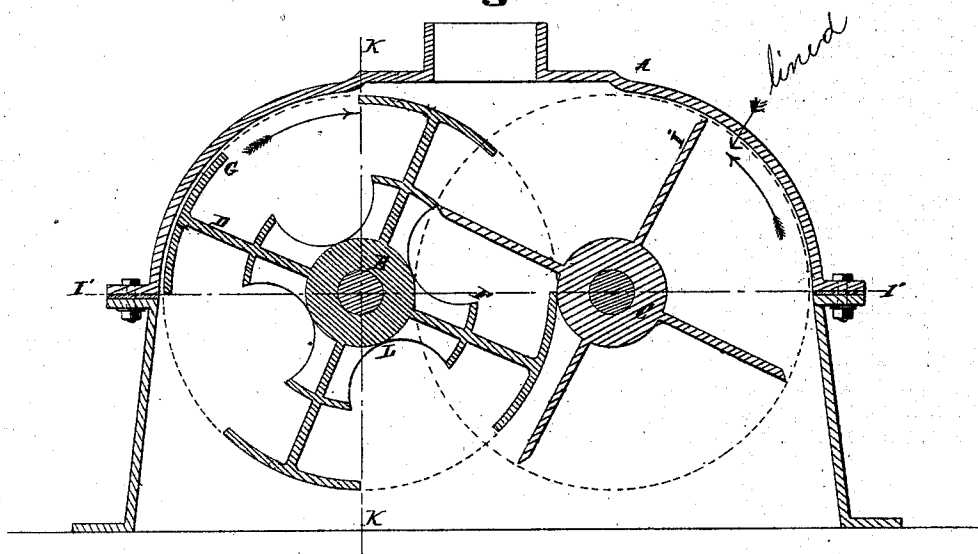


Fig. 2



Attest

J. Bode.
Roman Merrell.

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM G. HYNDMAN, OF CINCINNATI, OHIO.

IMPROVEMENT IN ROTARY BLOWERS.

Specification forming part of Letters Patent No. 122,118, dated December 26, 1871.

I, WILLIAM G. HYNDMAN, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain Improvements in Rotary Blowers, of which the following is a specification:

Nature and Objects of the Invention.

The nature of my invention consists: First, in the peculiar construction of the two dissimilar coacting fan-pistons which form the abutments of the rotary blower. Second, in lining or finishing the case and pistons with material composed of glycerine and litharge.

Description of the Accompanying Drawings.

Figure 1 is a longitudinal vertical sectional view, through the line *kk* of Fig. 2, of a machine embodying my invention. Fig. 2 is a vertical cross-section of the same.

General Description.

A is the case, which is constructed as described in Letters Patent granted me August 9, 1870, No. 106,165, except the material for lining, and upon which this invention is an improvement. B C are revolving fan-pistons, which, as they revolve in the direction indicated by the arrows, compress and drive the air between the approaching blades D I. The fan-piston B is composed of several parts, usually cast in skeleton. The center or cylinder, with the wings D, guards F, and segmental wings G, are iron, cast in one piece, and the spaces forming the boundaries of the concavities L are filled with suitable lining or cement, as described in my former patent, hereinbefore referred to. The fan-piston C is composed of the center cylinder and the blades I, drawn to an edge, so as to have but one point of contact, which allows cinders or any other substance which

may have fallen or been drawn in to pass through between the fans without injury to the blower. The center is finished to fit and abut the segmental wing G of the fan B.

By constructing the fans B C in the manner shown I dispense with the shaping of but one piston, and still produce all the results described in my said previous patent.

I line the case and fit the fan-pistons in the following manner: I take glycerine and mix it with litharge until it is of the consistency of soft putty, or such a consistency as will enable it to be worked by a sweep or mold, when I apply it in the usual manner of lining blower-cases.

I find by experience that the above-described mixture makes a hard, adhesive, and much more durable lining, at a less expense, than any other substances hitherto used.

Various modifications may be made in the mixing and applying this finishing material without affecting its character or impairing its efficiency.

Claim.

I claim as my invention—

1. The piston B, composed substantially of the parts D, F, and G, in combination with the skeleton fan C having blades I with knife-edge ends, when arranged with the case A so as to form coacting pistons, and to allow cinders or other substances to pass between the fans without injury to the blower, substantially as herein set forth.

2. The case A, when fitted to receive the pistons by coating its interior with a mixture of glycerine and litharge, all as herein set forth.

W. G. HYNDMAN.

Witnesses:

E. E. WOOD,
J. BODE.

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