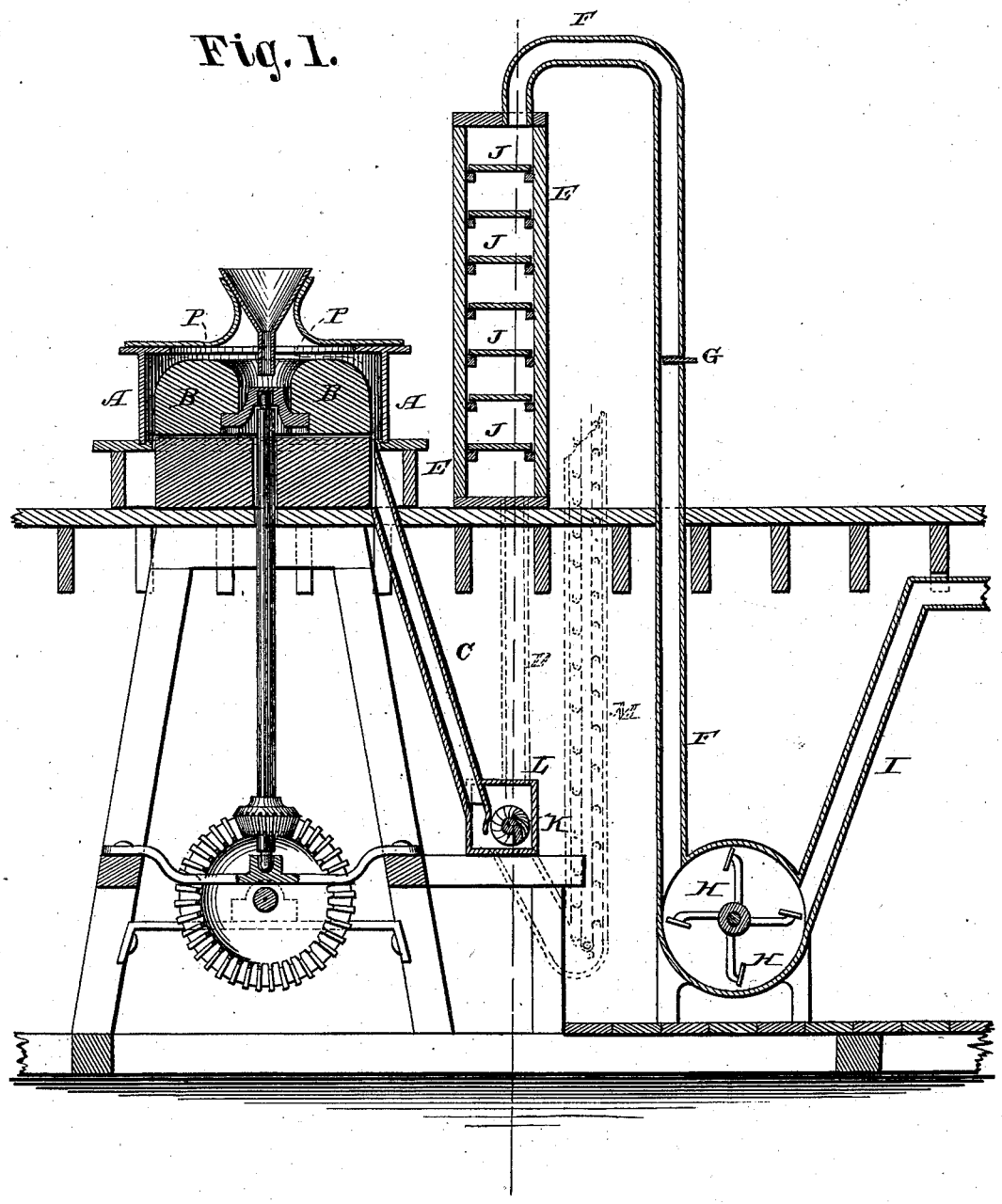
2 Sheets—Sheet 1.

D. BRUBAKER.

Millstone Exhaust.

No. 199,688. Patented Jan. 29, 1878.

Fig. 1.



Witnesses:

P. C. Dieterich

Inventor:

Daniel Brubaker.

Per C. H. Watson & Co. Attorneys.

2 Sheets—Sheet 2.

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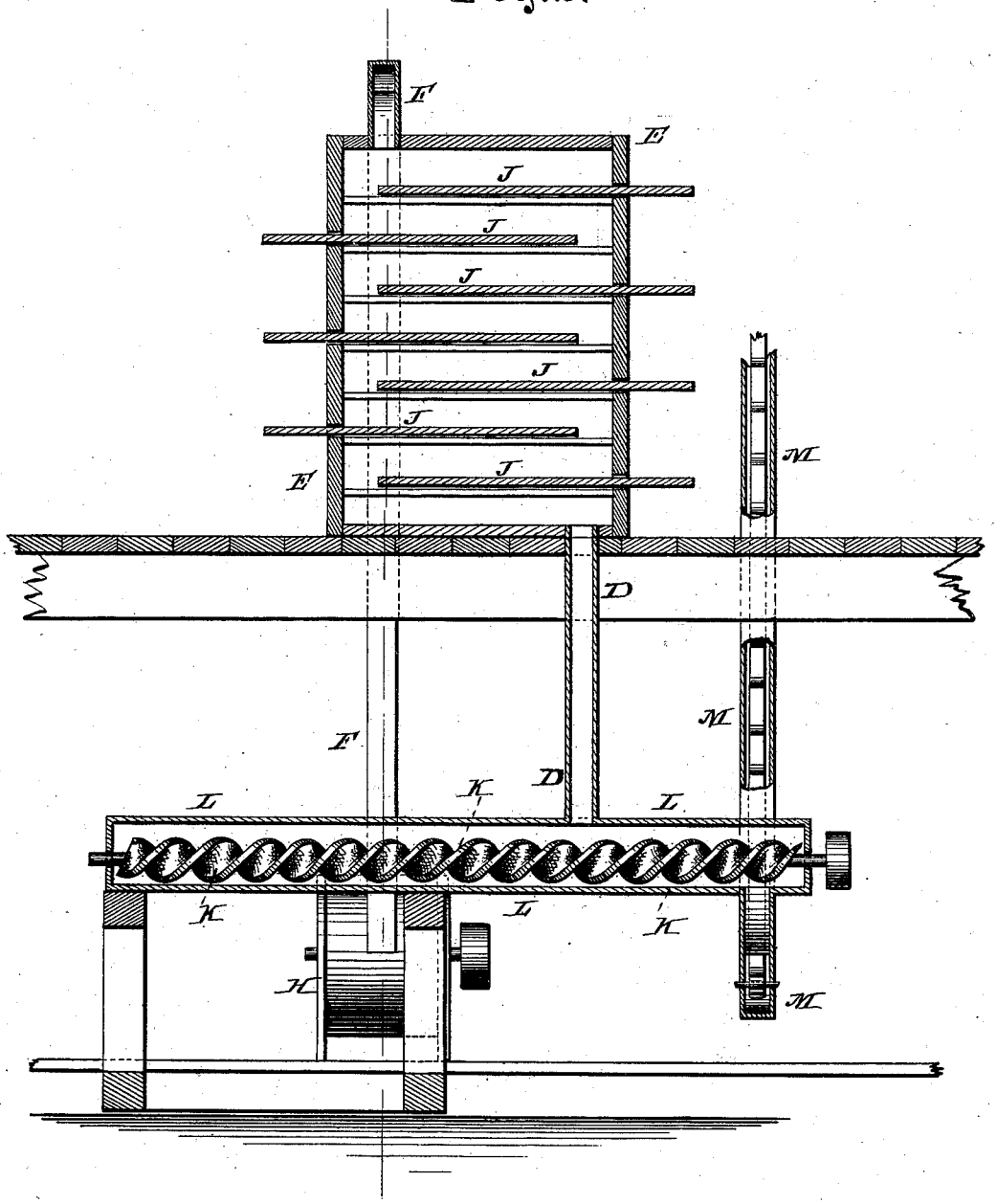
Fig. 2.



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Inventor:
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UNITED STATES PATENT OFFICE

DANIEL BRUBAKER, OF MANSFIELD, OHIO.

IMPROVEMENT IN MILLSTONE-EXHAUSTS.

Specification forming part of Letters Patent No. **199,688**, dated January 29, 1878; application filed December 12, 1877.

To all whom it may concern:

Be it known that I, DANIEL BRUBAKER, of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Hot-Air Condensers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of hot-air condensers in which are used suction fan and tubes for the purpose of converting hot air caused by friction into cold air, and has for its object to avoid the accumulation of dough made by hot air caused by friction of the millstone, to save flour, and to keep the flour at one temperature at all times.

The nature of my invention consists in the construction and combination of parts, as will be hereinafter more fully set forth.

In the annexed drawings, to which reference is made, and which fully illustrate my invention, Figure 1 is a longitudinal vertical section of my invention, and Fig. 2 is a transverse vertical section of the same.

B represents the millstone, with casing A and flour-discharge spout C. P is the cold-air inlet between the outer case A and the millstone B. The discharge-spout C leads to the conveyer K, which is arranged in an air-tight compartment, L, and from the same extends an air-tube, D, to the bottom of the air-regulating chest E. From the top of this chest extends a suction-tube, F, to the suction-fan H. In the chest E is a series of regulating-slides, J, and in the suction-tube F is a cut-off slide, G. I is the discharge-tube, and M the elevator.

When the millstones are grinding, the fan H is run at a sufficient velocity to cause a suction of cold air around the inner side of the case A and outer circumference of the millstone B. The cold air passes into the case A, around the opening on the upper side of the stone B, and under the projection of the case, which cold air comes into contact with the hot air caused by the friction of the millstone when grinding, thereby condensing the hot air into cold air. The air passing with the chop down the delivery-spout C into the conveyer-case, the chop is conveyed to the elevator M, and then carried to the bolts. The air leaves the chop in the conveyer-case, and passes up the tube D into the regulating-chest E. The dust or flour which is carried with the air into this chest is there separated from the air by the slides J, which cause the air to form an eddy at the end of each slide. The slides J are arranged alternately from opposite ends of the chest, as shown in Fig. 2. From the chest E the air passes through the tube F into the fan H, and from thence into the discharge-tube I, and into the open air.

The flour separated from the air when passing through the air-regulating chest E is returned to the conveyer K by closing the slide G, which cuts off the suction from the chest, and then, by removing the slides J, the flour falls back into the conveyer.

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

1. The fan H and tubes F, I, and D, in combination with the air-regulating chest E, air-tight conveyer-case L, conveyer K, and delivery-spout C, constructed and arranged for the purpose specified.

2. The regulating-chest E, with the adjustable slides J, in combination with the cold-air inlet P, tubes D, F, and I, and fan H, constructed and arranged for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL BRUBAKER.

Witnesses:
H. B. DIRLAM,
STEPHEN B. PRIEST.