H. SECK.

MACHINES FOR PURIFYING SEMOLINO.

No. 172,506. Patented Jan. 18, 1876.

Fig. 1.

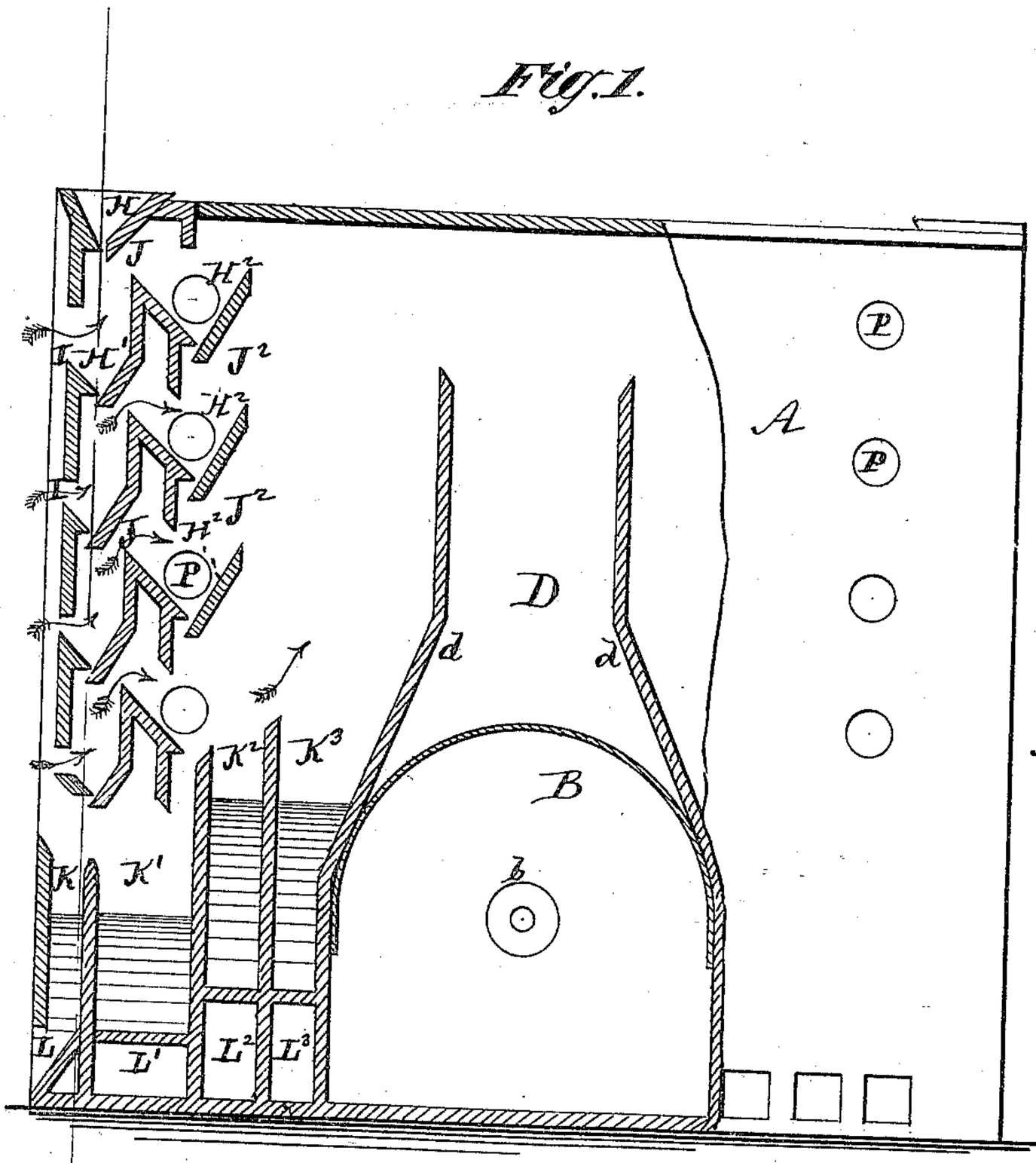


Fig. 2.

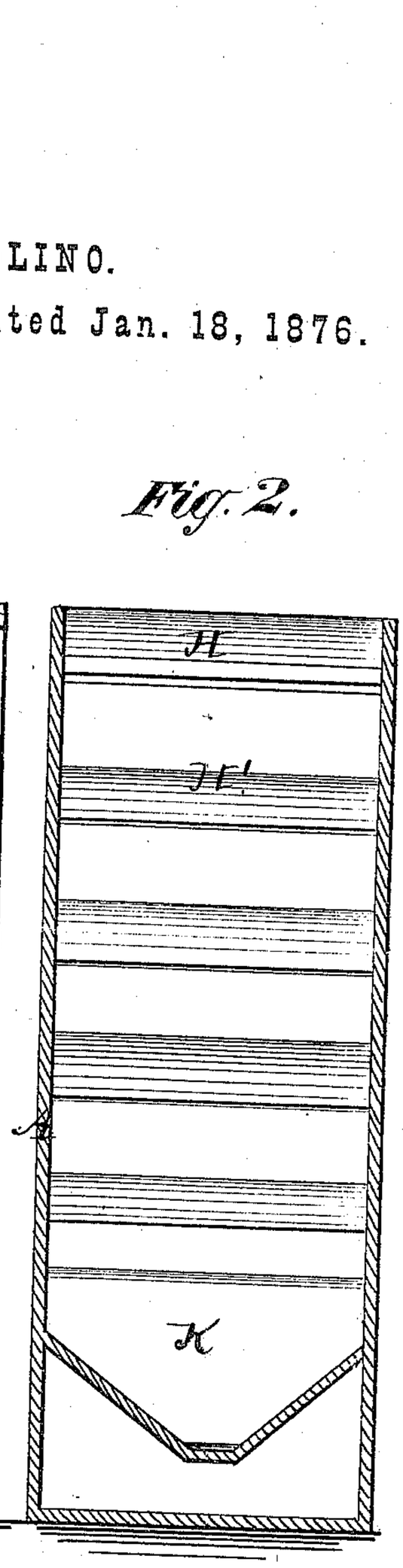
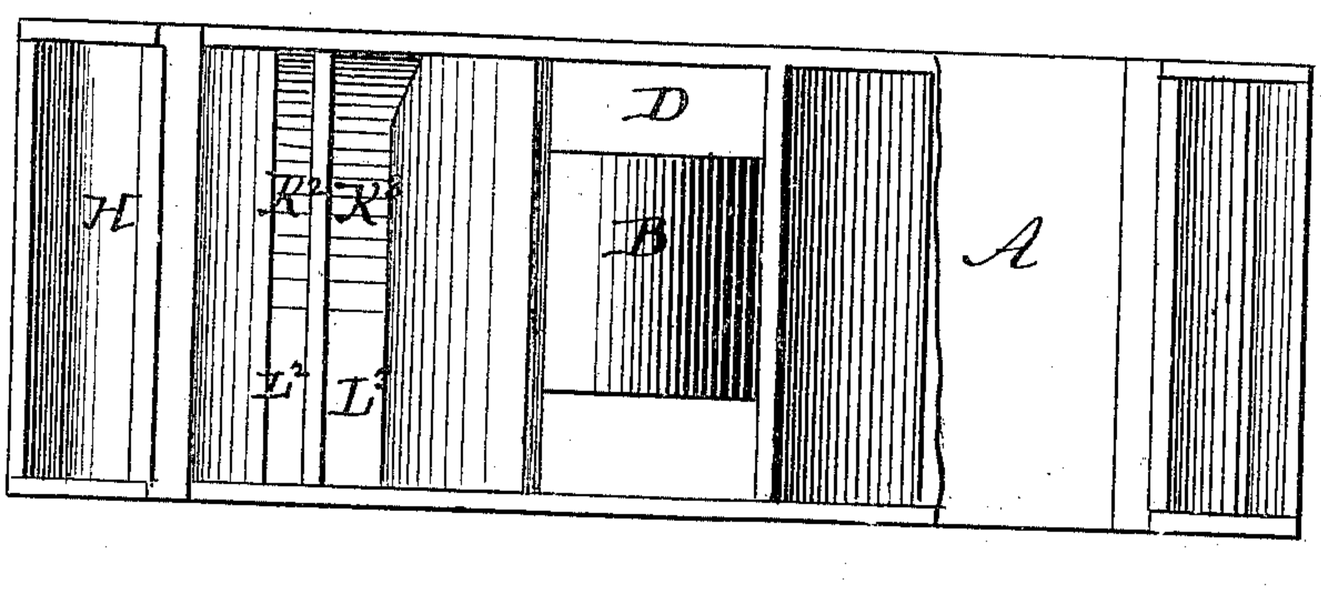


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE

HEINRICH SECK, OF FRANKFORT-ON-THE-MAIN, GERMANY.

IMPROVEMENT IN MACHINES FOR PURIFYING SEMOLINO.

Specification forming part of Letters Patent No. **172,506**, dated January 18, 1876; application filed October 22, 1875.

To all whom it may concern:

Be it known that I, HEINRICH SECK, of Frankfort-on-the-Main, Germany, have invented certain Improvements in Machines for Purifying Semolino; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in a novel construction and arrangement of a series of conducting troughs or hoppers, and a series of receiving-chambers, in connection with a fan-chamber, whereby the semolino is separated from the bran and deposited in the receiving-chambers by means of a current of air.

The semolino falls vertically through a series of troughs or hoppers, arranged one above another, and an upward current of air is passed through the descending stream, by which means the semolino is assorted into different grades or qualities, and deposited in the receiving-chambers, and the bran is carried off through the fan-chamber.

The accompanying drawing represents a machine constructed according to my invention.

Figure 1 is a vertical sectional view. Fig. 2 is a transverse section, and Fig. 3 a top view.

The various parts of the machine are inclosed in a box or casing, A, about the center of which is a fan-chamber, B. The width of the fan-chamber is considerably less than the width of the casing A, and has central openings *b* on opposite sides, surrounding the axis of the fan or blower. Between the fan-chamber and the ends of the casing are two partitions, *d d*, which, with the sides of the casing, form a chamber, D, surrounding the fan-chamber, and extending above it in a flue-like shape to within a certain distance of the top of the casing, which distance may be increased or diminished by means of movable doors or slides. The conducting troughs or hoppers, the receiving-chambers, and the apertures for the passage of the air-current are arranged in two sets at opposite ends of the casing, with the chamber D midway between them, and both sets are alike in their construction and operation. Each set is constructed and arranged as follows: In the upper part of the casing, near the end, is a hopper or trough, H, the two inclined sides of which do not come in actual contact at their lower edges, but have a slot or opening between them for the passage of the semolino. Immediately under this trough are a number of troughs, H^1, of similar construction, arranged one above another, so as to receive the stream of semolino falling from the trough H. Between the troughs H^1 and the chamber D is another series of troughs, H^2, arranged side by side with the troughs H^1, but somewhat higher. In the casing A are openings for the admission of air. Each of these openings I is on a level with the upper edge of the outer side of the trough H^1, and at the upper edge of the inner side of each trough H^1 is a similar opening, J, communicating with the trough H^2, which has at the upper edge of its inner side an opening, J^2, communicating with the space outside of the chamber D. At the bottom of the casing a series of receiving-chambers, K K^1 K^2 K^3, are arranged immediately under the troughs H^1 H^2. These chambers are provided with outlet-apertures L L^1 L^2 L^3. The openings I J J^2 may be provided with slides for regulating the quantity of air passing through them. The casing A may be provided with windows P, through which the operation may be inspected. The fan-chamber B is provided with a fan or blower of any suitable construction and mode of operation.

The apparatus may be provided with an oscillating or vibrating sieve, arranged above the casing A, and conducting the semolino to the trough H in any suitable manner.

The operation is as follows: The fan or blower being in operation, a draft or current of air is created, and caused to pass through the machine, as indicated by the arrows. This current passes through the stream of semolino issuing from the trough H and falling through the troughs H^1, and extracts therefrom the semola, or bran, and the lighter grains or particles of semolino, carrying them through the openings J, where the lighter particles of semolino are allowed to drop through the troughs H^2, while the semola, or bran, is carried through the openings J^2, and into and down through the flue or chamber D, escaping through the fan-chamber B. The semolino, which falls in two streams from the

troughs H^1 H^2, is, by the air-current, subdivided into four grades or degrees of quality or fineness. The best or finest falls into the receiving-chamber K, the next grade into the chamber K^1, and the third and fourth grades into the chambers K^2 and K^3, respectively, while the bran is carried through the machine, as before described.

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

1. The combination, with the casing A and fan B, of the two series of troughs H^1 and H^2, the air-induction apertures of the latter being located at a point above the air-induction apertures of the former, in such manner as to cause the air to take an upward course through the first series, substantially as described.

2. The combination, with the casing A, fan B, and troughs H^1 H^2, of the receptacles K, K^1, K^2, and K^3, for measuring the different grades of semolino, substantially as described.

HEINRICH SECK.

Witnesses:
PETER PARTNEL,
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