

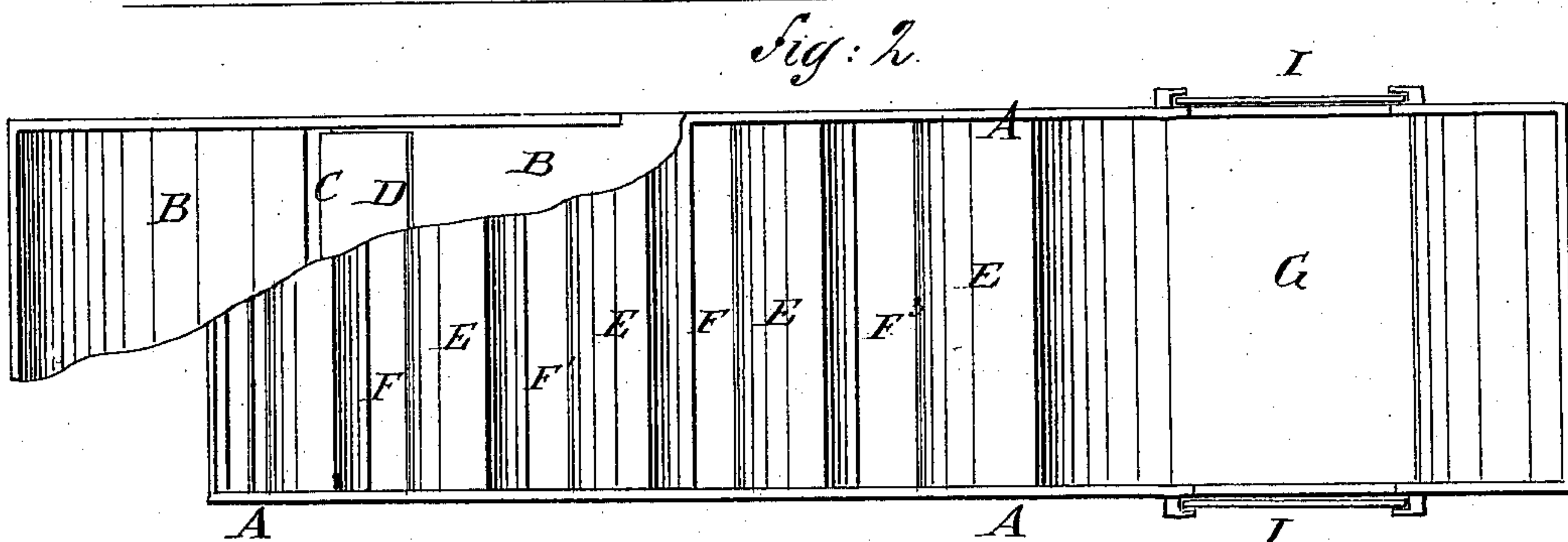
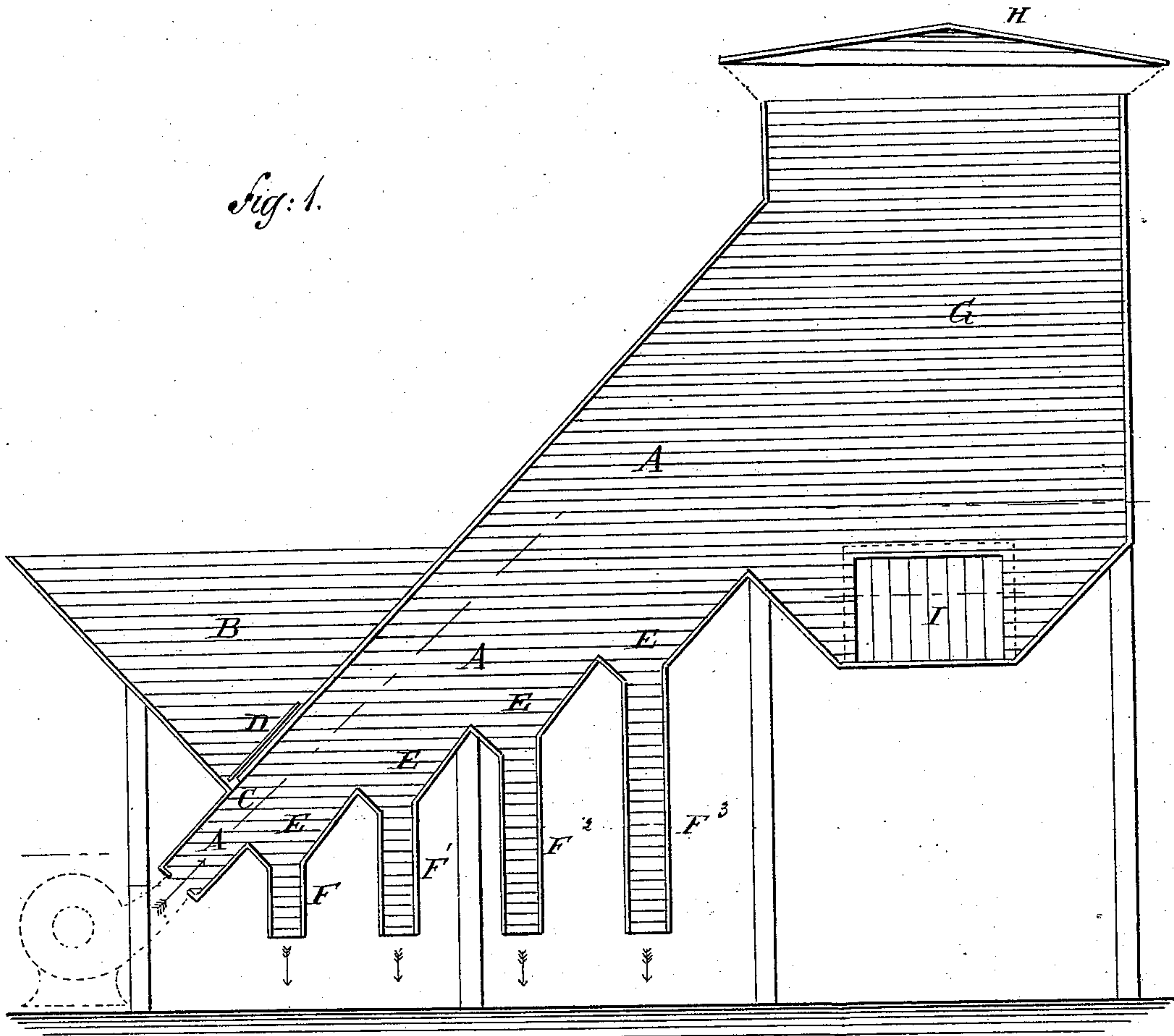
(No Model.)

L. A. GOBIN.

MACHINE FOR GRADING AND CLEANING COFFEE.

No. 287,823.

Patented Nov. 6, 1883.



WITNESSES:

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LEON A. GOBIN, OF NEW YORK, N. Y.

MACHINE FOR GRADING AND CLEANING COFFEE.

SPECIFICATION forming part of Letters Patent No. 287,823, dated November 6, 1883.

Application filed February 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, LEON ANDRÉ GOBIN, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Grading and Cleaning Coffee, Grain, and Seeds, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improvement. Fig. 2 is a plan view of the same, part of the hopper and of the inclined top of air-flue being removed.

The object of this invention is to facilitate the grading and cleaning of coffee, grain, and seeds; and to this end it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out the claim.

I will describe my improvement as applied to the grading and cleaning of coffee, but do not limit myself to that use, as it can be applied with equal advantage to the grading and cleaning of grain and seeds.

A represents an inclined air-flue, the lower end of which is made shallow and its upper end deep. With the lower end of the air-flue A is connected a powerful fan-blower, as indicated in dotted lines in Fig. 1.

To the lower part of the inclined upper side of the air-flue A is attached a hopper, B, from which the coffee falls into the air-flue A through an opening, C.

The size of the opening C, and consequently the thickness of the sheet of falling coffee, is regulated by a sliding gate, D, as shown in Fig. 1.

The lower side of the air-flue A is formed of a series of steps or offsets, E, the upper sides of which are parallel with the inclined upper side of the said flue, and each upper step is at a little greater distance from the inclined top of the said flue than the next preceding step, so that the flue will gradually increase in depth.

The lower sides of the steps E are about at right angles with the inclined upper side of the flue A, and in the angles of the said steps

are formed openings, with which are connected the upper ends of a series of pipes, F, F', F², F³, each of which should be about four inches in diameter and of any convenient length.

The lower pipe, F, should be nearly beneath the discharge-opening C of the hopper B, and all the said pipes should be about equidistant from each other.

The deep upper end of the air-flue A opens into a chamber, G, which may be built as a part of the machine, or may be a room in a building, as may be most convenient. In the former case the top of the chamber G is open, and is provided with a cap, H, to cover and protect the said chamber when the machine is not in use. In the latter case the room should be provided with a large window to allow the air to escape freely, and thus prevent back-pressure from the air.

The chamber G is provided with one or more openings in its lower part, through which its contents can be removed, and which are closed by gates or doors I.

In using the machine, as the blast of air strikes the sheet of falling coffee, the stones, pebbles, nails, and other heavy impurities fall into the pipe F and pass out of the machine. The large berries will be carried up the flue A for a short distance, and will fall into the second pipe, F'. The smaller berries will be carried up the flue A a little farther, and will fall into the third pipe, F². The broken berries will fall into the fourth pipe, F³, and the husks, shells, and other impurities will be carried into the chamber G. The dust and very light impurities will pass out of the chamber G with the air.

It will be observed that the gradual increase in depth of the air-flue A allows the air-blast to gradually decrease in force, so that the berries will fall through it into their proper discharge-pipes, and the grading and cleaning will be thoroughly done. The force of the air-blast must be regulated as the weight of the coffee, grain, or seeds being operated upon may require.

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

The combination, with the open-top cham-

ber G, provided with the gate I, of the inclined flue A, opening into the chamber G, and provided with the steps E, having their upper faces parallel with the top of the flue and
5 their lower sides at right angles thereto, each being at a little greater distance from the inclined top than the next preceding one, and having discharge-openings between them and the hopper B, secured to the lower end of the flue, with its discharge-opening over the low- 10
ermost discharge-opening, substantially as herein shown and described.

LEON ANDRÉ GOBIN.

Witnesses:

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