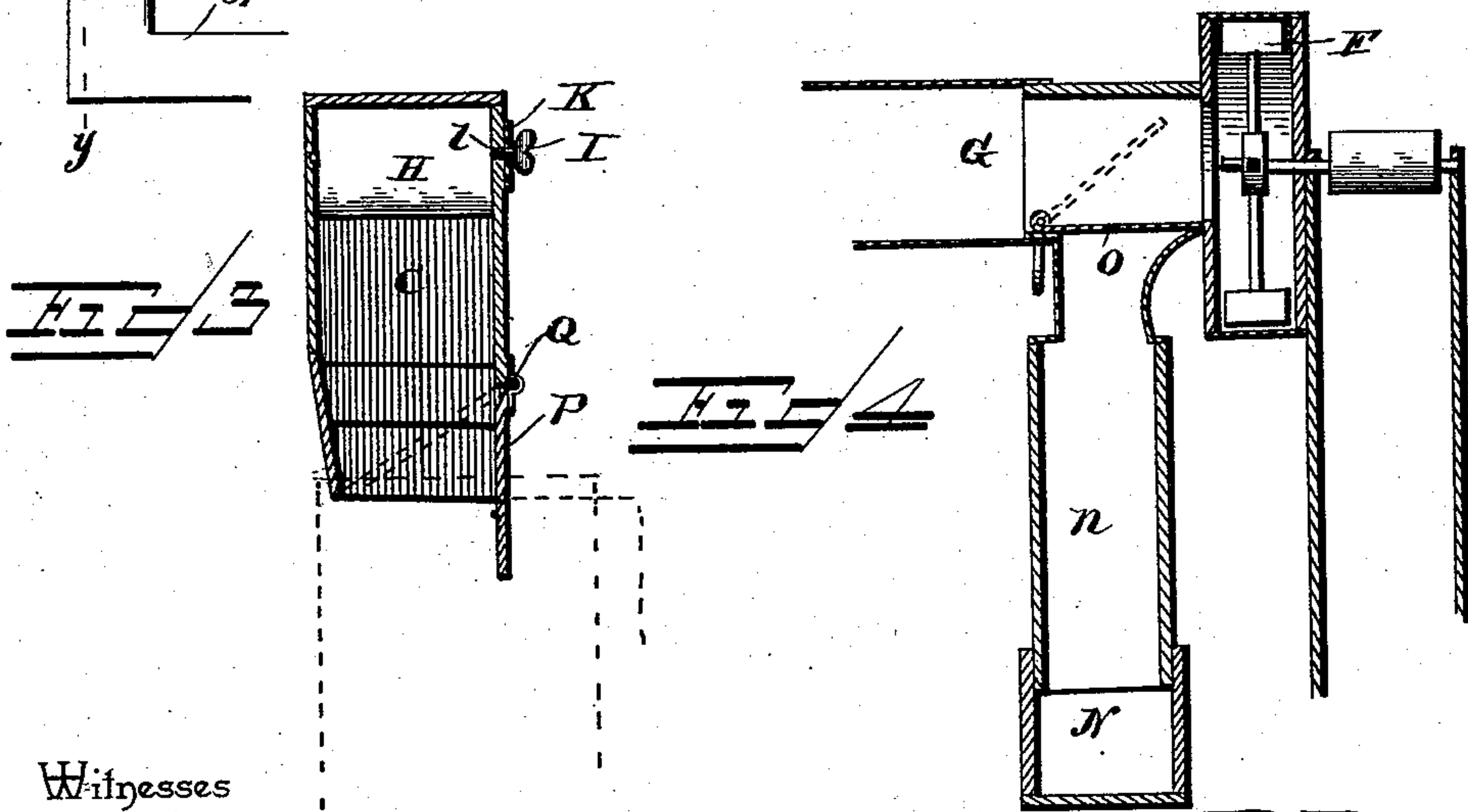
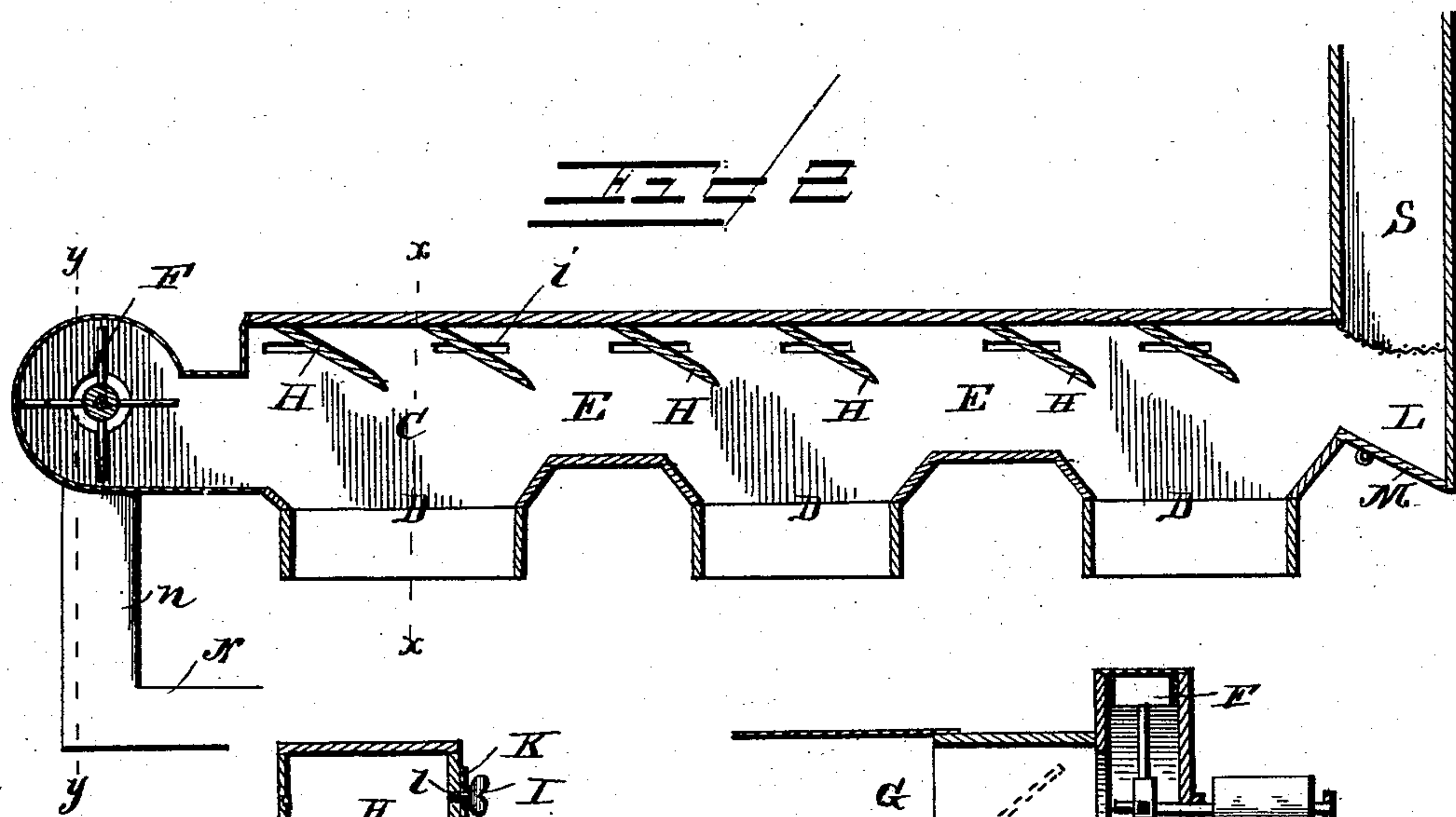
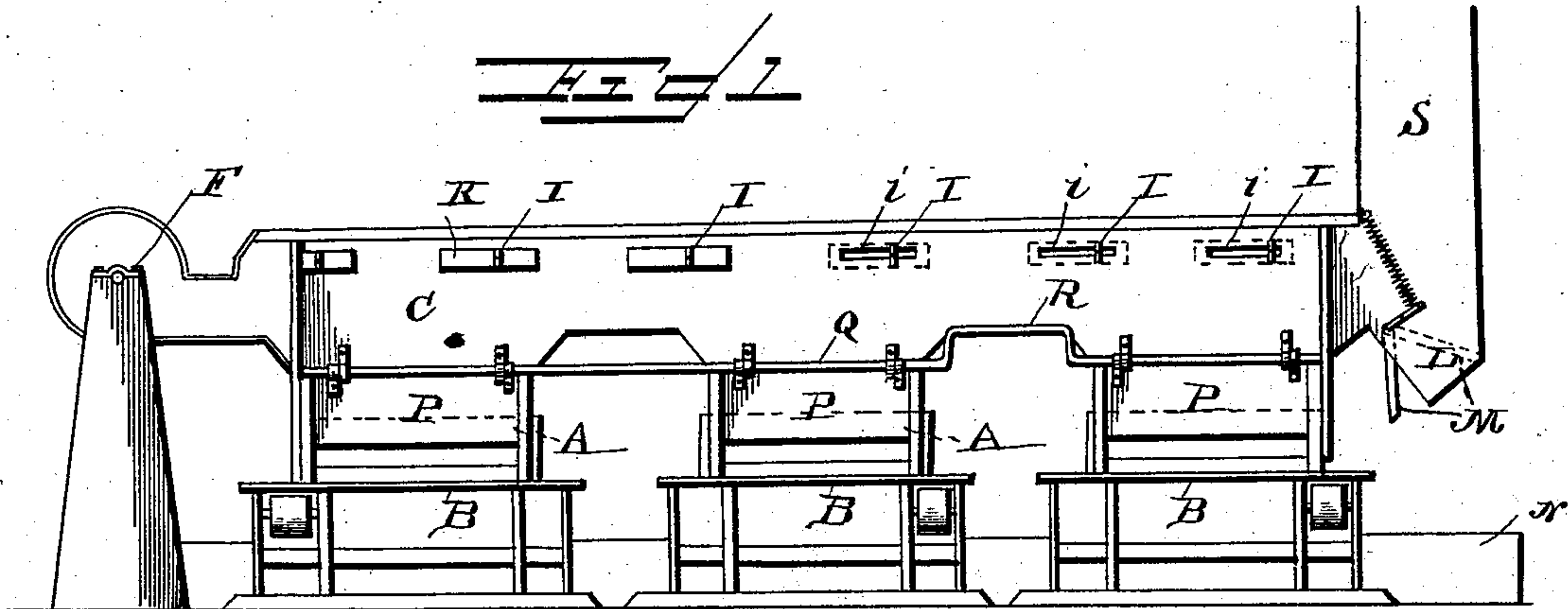


(No Model.)

M. R. DAVIS.
COTTON DISTRIBUTER FOR GIN FEEDERS.

No. 506,771.

Patented Oct. 17, 1893.



Witnesses

Inventor

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UNITED STATES PATENT OFFICE.

MICAJAH R. DAVIS, OF BELL'S, TEXAS.

COTTON-DISTRIBUTER FOR GIN-FEEDERS.

SPECIFICATION forming part of Letters Patent No. 506,771, dated October 17, 1893.

Application filed May 20, 1893. Serial No. 474,928. (No model.)

To all whom it may concern:

Be it known that I, MICAJAH R. DAVIS, a citizen of the United States, residing at Bell's, in the county of Grayson and State of Texas, have invented a new and useful Cotton-Distributor for Gin-Feeders, of which the following is a specification.

This invention relates to cotton distributors for gin feeders; and it has for its object to provide an improved apparatus of this character whereby cotton from the wagon, storehouse, bin, or other receptacle can be evenly and rapidly distributed, simultaneously, to a number of gin feeders arranged in series over the ordinary gin stands.

To this end the main and primary object of the present invention is to provide certain improvements in pneumatic seed cotton distributors, whereby the feeding and distribution of cotton to gins can be quickly and inexpensively effected.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of a cotton distributor constructed in accordance with this invention and arranged over a series of gins. Fig. 2 is a central vertical longitudinal sectional view of the apparatus. Fig. 3 is a vertical transverse sectional view on the line $x-x$ of Fig. 2. Fig. 4 is a similar view on the line $y-y$ of Fig. 2.

Referring to the accompanying drawings, A represents the gin feeders disposed directly over the ordinary gin stands B, and arranged in a series one after the other in the ordinary manner.

Suitably mounted in position over the line of gin feeders A, is the elongated closed feed flue C. The feed flue C, is entirely inclosed at its top and sides and is constructed in a suitable length, in order to span the entire series of gin feeders, and is provided at regular intervals with the enlarged bottom feed pockets D, which are disposed directly over each gin feeder, and project into the top thereof. The elongated closed feed flue C, is further provided, intermediate of the feed pock-

ets and between the gin feeders, with the contracted blast passages E, in which the blast is concentrated as will be hereinafter referred to, and to one end of said flue is connected the feeding fan F, to the inlet of which is connected the off-standing receiving spout G, which spout is suitably connected with the cotton wagon, bin or other receptacle, so that the fan will suck such cotton into the casing, and impel it through the flue C, over the entire series of gin feeders.

Over each of the enlarged bottom feed pockets D, formed in the feed flue, are arranged pairs of inclined adjustable deflecting wings H. The wings H, are pivoted between the sides of the flue, and are disposed at the proper angle so as to deflect the cotton into the feed pockets by means of the adjusting thumb screws I, attached to one edge thereof and projecting through the horizontal slots i at one side of said flue. The said screws also hold in position the horizontal slot strips K, which serve to close said slots to prevent the escape of air from the flue. It will be further observed that by reason of the slots i , the deflecting wings H, can be adjusted to and from each other, according to the needs of the work, and in order to regulate the quantity of cotton to be deflected into the feed pockets, and therefore into the gin feeders under such feed pockets.

Now it will be apparent that as the apparatus is in operation, the blast of air will carry the cotton throughout the entire length of the feed flue. The angle disposition of the deflecting wings H, necessarily interrupts the blast and a certain quantity of cotton carried thereby, and causes the same to drop into the feed pockets under said wings, but it will be further observed that the blast together with the cotton is necessarily concentrated somewhat in the contracted passages E, so that as the same enters into the widened spaces formed by the pockets between said contracted passages, the force of the blast is necessarily somewhat reduced, so as not to be capable of holding in suspension all the cotton carried therewith. Therefore a certain quantity of the cotton will drop in the pockets independent of the deflecting wings. As the operation continues, the gin feeders one after the other fill up, and the surplus cotton

is carried to the discharge end of the flue at which end is arranged the discharge spout L, which spout is normally closed by the spring actuated door M. The spring actuated door
5 or gate M, will fall open after the cotton has accumulated slightly in the spout, and will allow it to fall onto the floor, or directly into the return branch flue N, which branch flue N, is connected by the pipe n, with the re-
10 ceiving spout G, and at the joint of said spout with the pipe n, is arranged the pivoted valve O, which may be controlled in order to connect the return branch flue directly with the fan or disconnect it therefrom.

15 At one lower side of the bottom feed pockets D, of the feed flue, and projecting into the top of the gin feeders are the hinged doors P, which doors are connected by a single longitudinal operating and hinge rod
20 Q, attached to one side of the feed flue and having the crank portion R, by means of which all the doors can be simultaneously moved to close the bottom openings of the feed pockets. These doors can be held closed
25 to prevent the escape of air into the gin room until a sufficient quantity of cotton has been collected to feed into the feeders. After the doors have been released, the same are free to be swung entirely out of the way by the
30 feeding devices in the feeders, which drag the cotton from the feed flue in the direction of the opening of the doors.

A screened air discharge pipe or flue S, arises from one end of the feed flue directly
35 over the discharge spout thereof.

From the foregoing it is thought that the construction, operation and many advantages of the herein-described cotton distributor will be readily apparent, and I will have it under-
40 stood that changes in the form, proportion and the minor details of construction as embraced within the scope of the appended claims, may be resorted to without departing from the principle or sacrificing any of the advantages of
45 this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a cotton distributor, an elongated
50 closed feed flue having a series of enlarged bottom discharge openings and horizontal slots in its sides, deflecting wings arranged in the flue above each discharge opening and having pivots engaging the horizontal slots of the casing
55 to provide for an angular and horizontal adjustment of the wings, means for holding the wings in any set position, and a feed or sup-

ply fan connected with one end of the flue, substantially as set forth.

2. In a cotton distributor, an elongated
60 closed feed flue adapted to be arranged over a number of gin feeders and having a series of enlarged bottom feed pockets, angularly adjustable deflecting wings pivotally mounted within the feed flue over each of its feed pock-
65 ets, said wings being also horizontally movable and adjustable and a feed fan connected with one end of said flues, substantially as set forth.

3. In a cotton distributor, the closed feed
70 flue having a series of enlarged door-inclosed feed pockets, an automatic discharge at one end of said flue, a feed fan at the other end of said flue, and a series of angularly adjustable deflecting wings pivotally mounted in
75 the feed flue over each of its feed pockets said wings being also horizontally movable and adjustable, substantially as set forth.

4. In a cotton distributor, the closed feed
80 flue having a series of enlarged separated bottom feed pockets, deflecting devices arranged in the flue, a feed fan connected with one end of said flue, a single operating and hinge rod arranged at one side of the flue and simulta-
85 neously controlled doors or gates secured at one edge to said operating and hinge rod at one lower side of the bottom feed pocket, sub-
stantially as set forth.

5. In a cotton distributor, the closed feed
90 flue having bottom discharge openings, a feed fan connected to one end of said flue, a screened air discharge connected to the opposite end of said flue, a discharge spout arranged under said air discharge, and a drop door inclosing said spout and actuated by the weight of cot-
95 ton, substantially as set forth.

6. In a cotton distributor, the combination of a feed flue having a discharge at one end, and a fan supply at its other end, an off-stand-
100 ing receiving spout connected with said fan supply, a return branch flue leading from a point near the discharge end of the feed flue to and connected with said receiving spout, and a pivoted valve arranged at the connec-
105 tion between said branch flue and the receiving spout, substantially as set forth.

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

MICAJAH R. DAVIS.

Witnesses:

T. I. SCOTT,
W. R. DAVIS.