No. 696,812. Patented Apr. 1, 1902.

# A. HAGEMEISTER.

## STRAW STACKER.

(Application filed July 6, 1901.)

(No Model.)

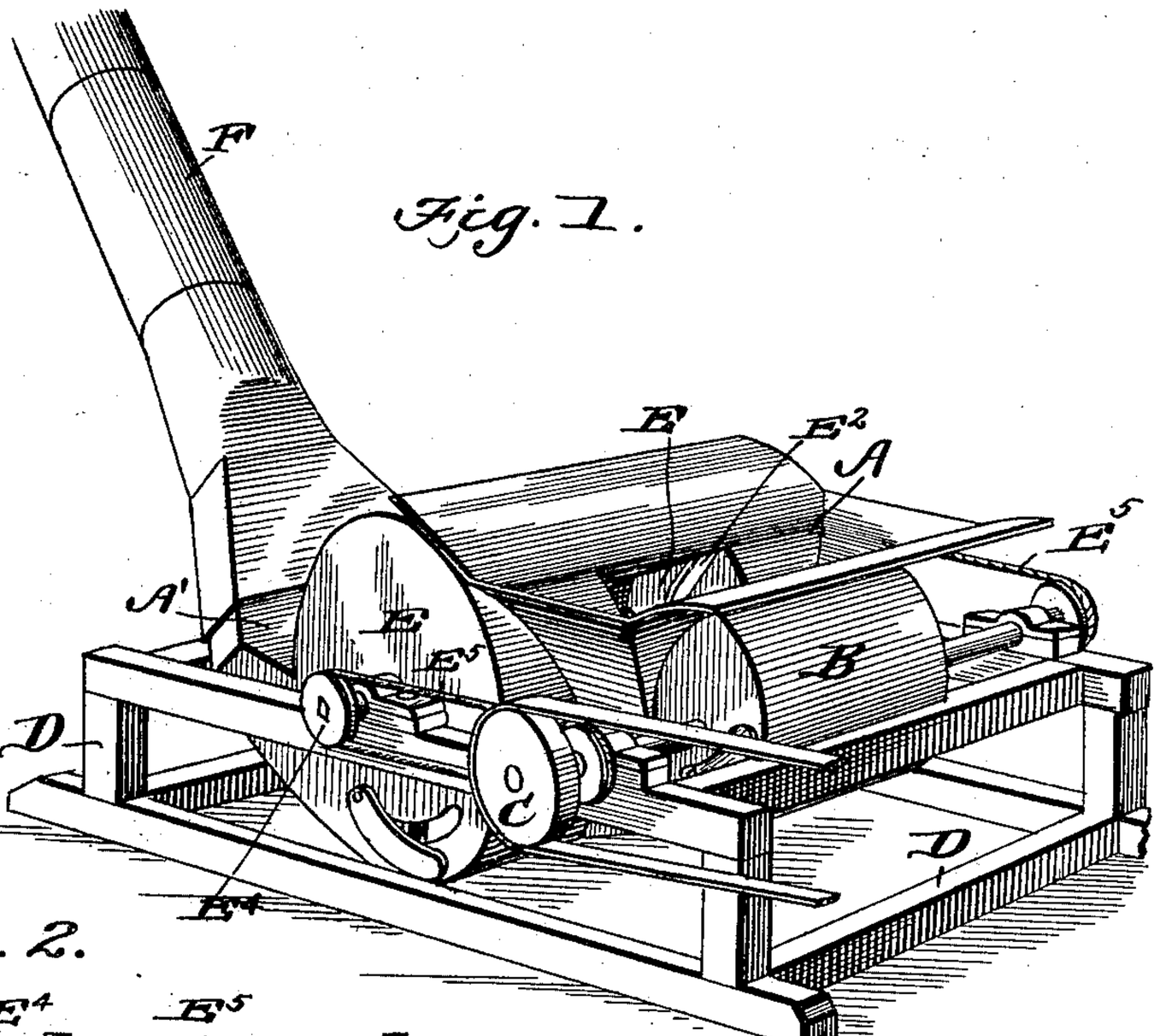



Fig. 1.

Fig. 2.

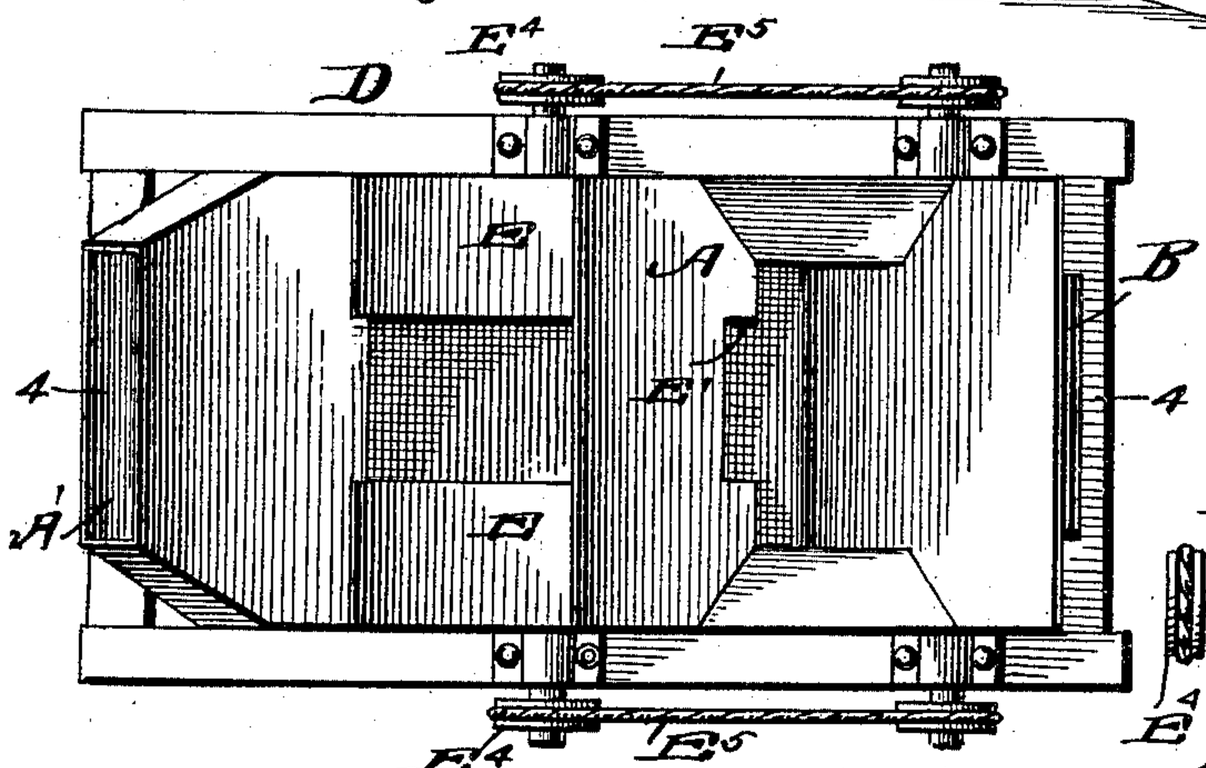



Fig. 3.

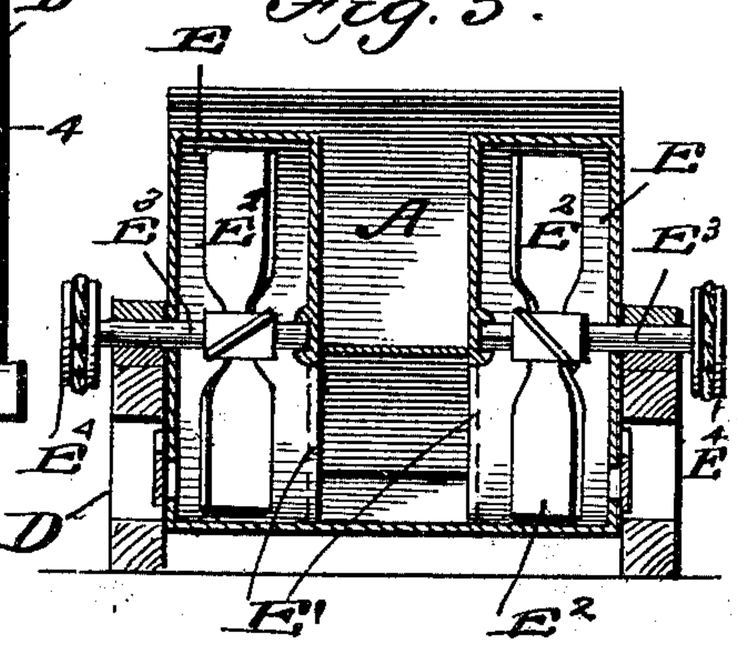
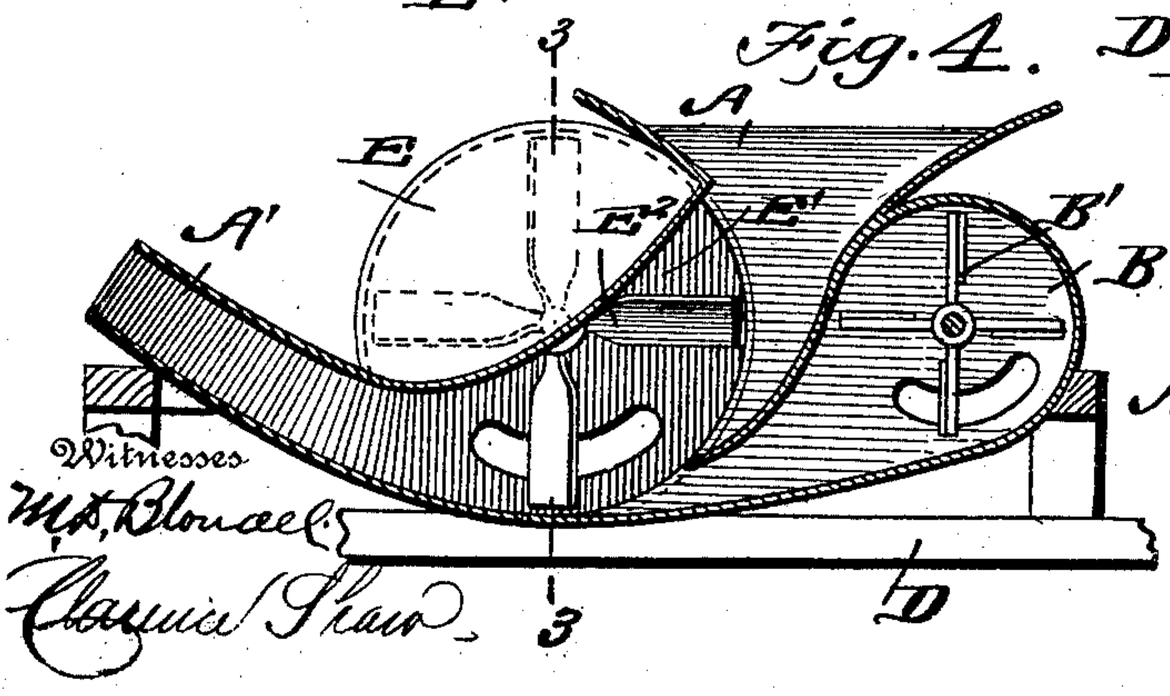



Fig. 4.

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# UNITED STATES PATENT OFFICE.

AMOS HAGEMEISTER, OF ABSARAKA, NORTH DAKOTA.

## STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 696,812, dated April 1, 1902.

Application filed July 6, 1901. Serial No. 67,317. (No model.)

*To all whom it may concern:*

Be it known that I, AMOS HAGEMEISTER, a citizen of the United States, residing at Absaraka, in the county of Cass and State of North Dakota, have invented a new and useful Straw-Stacker, of which the following is a specification.

This invention is a pneumatic straw-stacker adapted to elevate and discharge straw by means of a blast or current of air.

Heretofore straw-stackers have been arranged in connection with endless elevator-aprons and similar appliances; but the object of the present invention is to provide a straw-stacker which can be used in connection with any form of straw-delivering device, the straw being fed to the hopper by any suitable means wherein it receives its impetus from a blast or current of air.

Another object of the invention is to provide a straw-stacking device in which the straw while being subjected to the action of the current of air will be kept from contact with the fan-blades.

With these objects in view the invention consists in the peculiar construction of the various parts and their novel combination or arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view showing the practical application of my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a section on the line 3 3 of Fig. 4, and Fig. 4 is a vertical longitudinal section on the line 4 4 of Fig. 2.

In carrying out my invention I employ a hopper A, formed with flaring ends and sides, said hopper being curved rearwardly, as shown, and terminating in a delivery-chute A'. The rearward side of the hopper and the top of the delivery-chute are one and the same, while the front side of the hopper forms the rear side of a fan-chamber B, the bottom of said fan-chamber extending into and forming a part of the bottom of the delivery-chute, as most clearly shown in Fig. 4. The forward side of the hopper does not extend entirely to the bottom, thereby providing a contracted opening through which the air is forced from the fan-chamber B. This fan-chamber B has a rotary fan B' arranged therein, said fan being operated by means of a suitable drive-pulley C, the pulley-shafts being journaled in a suitable supporting-frame D.

Fan-chambers E are arranged upon opposite sides of the hopper and slightly in advance of the same, said fan-chambers communicating with the said hopper and discharge-chute, as most clearly shown in Figs. 3 and 4, through the openings E'. Each fan-chamber E has a rotary fan $E^2$ therein, each fan being mounted upon a separate shaft $E^3$, which is operated by a drive-pulley $E^4$, said pulleys being operated by means of a belt $E^5$, which receives its power from the shaft of the rotary fan B', located in front of the hopper, the fan-shafts $E^3$ being journaled in the frame D, as most clearly shown in Fig. 3.

A suitable delivery-tube F connects with the discharge-chute A' and carries off the straw to the point of delivery. The fan-chamber B in front and the fan-chambers E at the side are provided with the usual air-openings, and these air-openings can be closed when desired by means of a plate pivoted to the exterior of the case adjacent to the openings.

It will thus be seen that I dispense entirely with endless carriers or aprons, the straw being dropped in any suitable manner into the hopper A, and owing to the peculiar shape and formation of the said hopper and also owing to the fact that there is a rotary blast located at the rear of and beneath the hopper and also blasts at each side thereof the straw will be rapidly drawn through the hopper and discharge-chute and forced into the delivery-tube F. During this operation the straw has been kept free from contact with the fan-blades.

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

1. In a straw-stacker, a support, fan-casings mounted thereon, a hopper between said fans provided with an outlet extending beyond the said casings, the portion of the front wall of the hopper forming the rear wall of one of the fan-casings and terminating near the entrance to said outlet, a fan in each casing, and means for operating the same, substantially as described.

2. In a straw-stacker, a support, three fan-casings mounted thereon, two of which are at a distance from each other laterally, and the other one is located in front of and substantially on a line between the said two casings, a hopper between said casing and the two casings provided with an outlet which communicates with all of said casings, a fan in each casing and means for operating the same.

3. In a straw-stacker, a support, three casings mounted thereon, two of which are at a distance from each other laterally, and the other one is at a distance in front of and on a line between said two casings, a hopper between said casing and the two casings provided with an outlet which communicates with each of said casings, three shafts mounted upon said support, all of which extend into said two casings respectively, and the other one extends entirely through the front casing, a fan upon each shaft within its respective casing, pulleys upon said shafts and belting upon said pulleys operating said two shafts from the shaft through the front casing, substantially as described.

4. In a straw-stacker, the support, three fan-casings mounted thereon, one of which is in front of the other two, a hopper between said front casing and the two rear casings, a delivery-chute communicating with said hopper and the fan-casings the bottom wall of which is formed by an extension of the bottom of the front casing and the top intersects the adjacent walls of the two casings near the center and is joined to the rear wall of the hopper, a fan in each casing, and means for operating the same.

5. In a straw-stacker, a support, casings mounted thereon, two of which are at a distance from each other laterally, and each has substantially the lower half of its inner wall cut away and provided with a centrally-located bearing, and the other casing is in front of and substantially on a line between said two casings, a hopper between said front casing and the two rear casings, a portion of the front wall of which forms the rear wall of said casing and terminates with the space formed by said cut-away portions, a delivery-chute communicating with said hopper and casings, the lower wall of which is substantially an extension of the bottom of said forward casing, and the upper wall joins the edge of the cut-away portions of said inner walls, a fan in each casing, the shafts of the ones in said two casings being each journaled in the bearing on the inner wall of its respective casing, and the other shaft extending entirely through its casing, and means for operating the said two fans from the shaft of the one fan, substantially as described.

AMOS HAGEMEISTER.

Witnesses:
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