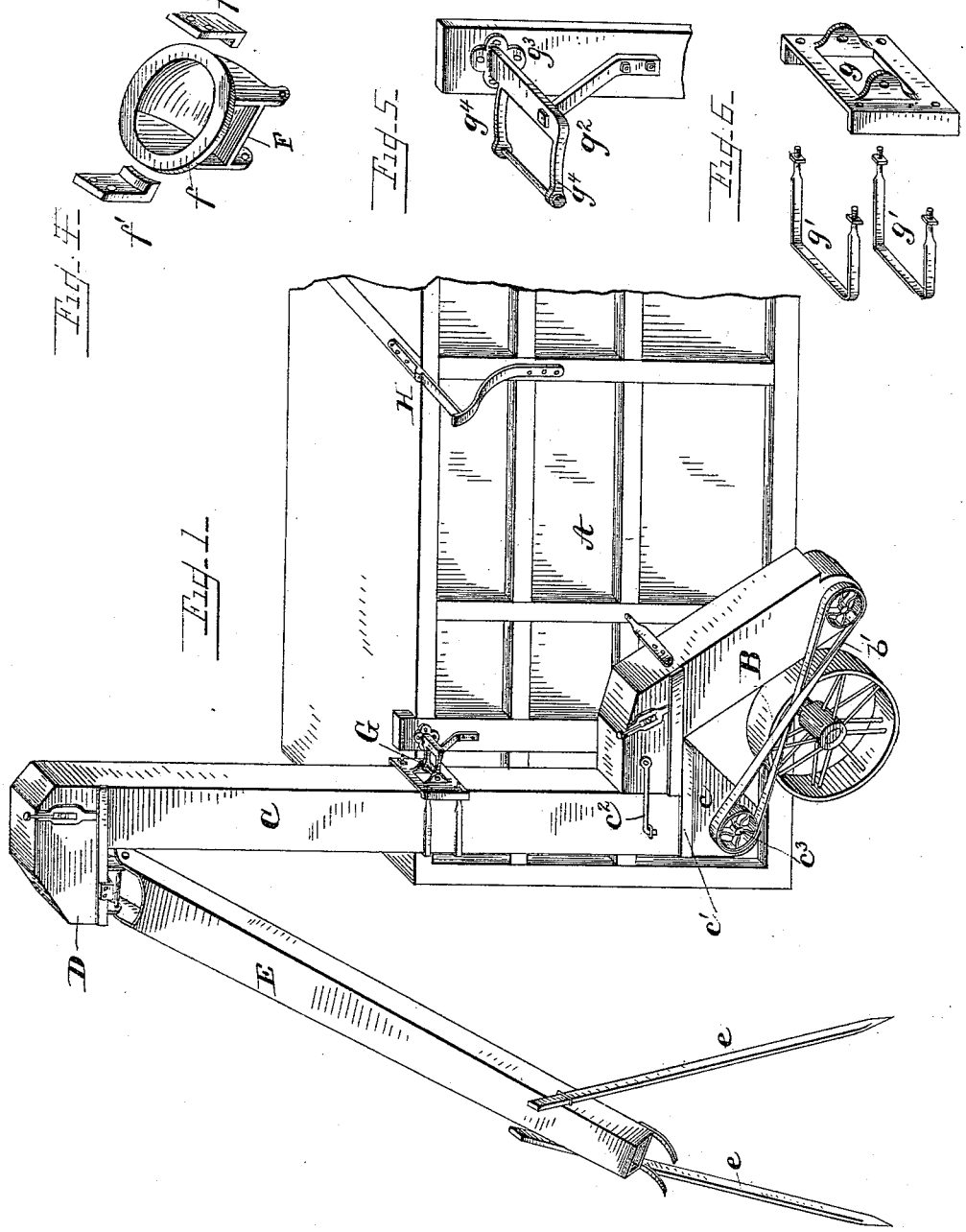
(No Model.) 2 Sheets—Sheet 1.

J. WALRATH.

ELEVATOR FOR THRASHING MACHINES.

No. 420,131. Patented Jan. 28, 1890.



Witnesses.

G. W. Tauberschmidt.

L. B. Whitaker

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Whitaker & Duval

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

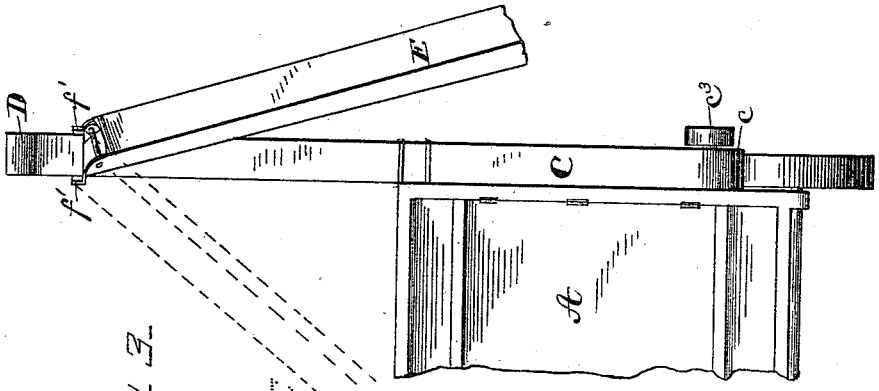
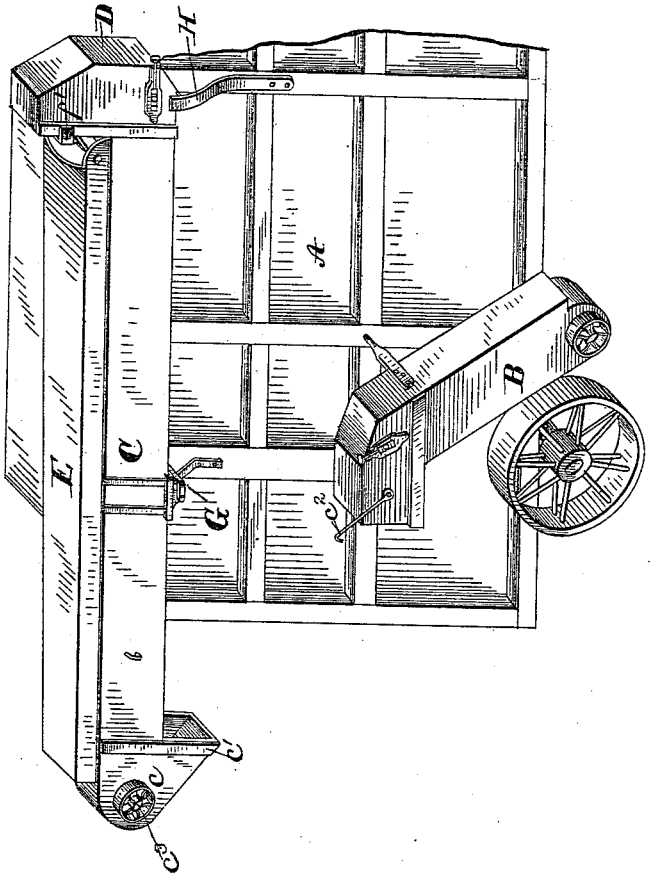


Fig. 1.



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UNITED STATES PATENT OFFICE.

JESSE WALRATH, OF RACINE, WISCONSIN.

ELEVATOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 420,131, dated January 28, 1890.

Application filed April 27, 1888. Serial No. 272,075. (No model.)

To all whom it may concern:

Be it known that I, JESSE WALRATH, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Elevators for Thrashing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to grain-elevators for thrashing-machines, and has for its object to provide a construction whereby the grain as it leaves the machine may be delivered at any convenient height on either side of the machine, and which may be folded to occupy very little space upon the machine when not in use or for transportation.

I have illustrated my invention in the accompanying drawings, which form a part of this specification, and said invention is fully disclosed in the following description and claims.

In the drawings, Figure 1 is a perspective view of a part of a grain separator or thrasher with my improved grain-elevator attached thereto. Fig. 2 is a similar view showing the elevator folded. Fig. 3 is a rear elevation of a thrasher or separator with the elevator attached. Figs. 4, 5, and 6 are detail views of parts of the mechanism.

A is a thrashing-machine or grain-separator provided with the bagger B. The bagger consists of a short elevator, which receives the grain from the spout of the machine and delivers it downwardly from a hood at the upper extremity of the elevator. This hood is at a sufficient distance from the ground to permit of a bag being placed under it and filled, when desired, and is of any of the ordinary and well-known constructions.

C is the main body or casing of the grain-elevator, and consists of a hollow wooden tube provided at each end with pulleys, over which runs an endless belt or chain provided with cups or other suitable means for elevating the grain.

The elevator-casing is supported by means of the hinge G to the machine in proper position to permit its lower end to engage the hood of the bagger B. The casing C is provided with the casting g, which consists of a plate provided with perforated ears bolted to the elevator by means of the staple-bolts g'. Upon a suitable portion of the frame of the machine is secured the casting g^2, which consists of the bracket g^3, provided with horizontal arms g^4, which are perforated at their ends. A bolt passes through the apertures of the ears on casting g and the arms g^4, forming a hinge-connection supporting the elevator-casing.

The lower end of the elevator-casing is provided with a hopper c, which receives the grain from the bagger B. This hopper is provided on its upper edges with plates c', which fit against similar plates on the lower edges of the discharge end of the bagger and form a tight joint. The bagger and hopper c are held together by means of hook c^2, or other suitable means. The hopper c has an exterior pulley c^3, rigidly mounted on the shaft of the pulley over which the endless elevator-belt runs, and power is applied to this pulley in any desired manner.

The upper end of the elevator-casing C is provided with a hood D, from which the grain is discharged into the delivery chute or spout E. This chute is pivotally secured to a casting F to permit the end of the spout to be adjusted to any desired height, where it is held by means of the supports e e, or in any other preferred manner. The casting F is provided with an inclined bottom to guide the grain into the mouth of the chute, and its upper portion is provided with a flange f, which is engaged by two or more lugs or clamps f', which are attached to the hood D, and these lugs permit the casting to revolve, thus allowing for any lateral adjustment of the chute.

In order that the elevator-casing when not in use may be placed in a position where it will not interfere with the operation of the bagger B, and where it will be compactly held for transportation, the hook c^2 or similar device is released, the belt removed from pulley c^3, and the hood of the elevator-casing depressed until it rests upon the brackets H and g^3, as shown in Fig. 2, where it will rest by its own weight, the bracket being provided, preferably, with lugs to prevent lateral move-

ment, or it may be secured in this position in any desired manner. When the elevator-casing is in a horizontal position, the chute E lies upon it, making a very compact arrangement of parts. The hinge G being constructed with the bracket g^3, it will be seen that when in a horizontal position the elevator-casing rests upon such bracket, thus taking all strain off of the hinge. With this construction of elevator the grain may be delivered at any height and on either side of the machine, as seen in Fig. 3. The object of this construction will be readily seen—as, for instance, in conducting grain to a bin, instead of carrying the receptacles as they are filled at the bagger B and emptying them into the bin, the elevator is employed and the grain conducted directly to the bin. In case the machine is used in the field, or for any reason it is desired to convey the grain away, either in bag or bulk in wagons, the chute may be adjusted to convey the grain and deliver it in the wagon itself, thereby avoiding the extra handling which would be necessary where the elevator is not used. It also possesses special advantages, as it can deliver grain on either side of the machine, the chute being adjustable to any angle. It will be seen that the position of the elevator-casing C will not permit the chute to swing forward of a line through the rear face of the elevator-casing.

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

1. The combination, with a thrashing-machine, of a grain-elevator extending from near the bottom of the machine to a point above the top of the same, said elevator being provided with a discharge-chute adapted to deliver grain at either side of the machine, and the said elevator being pivoted to the machine and the chute connected to the elevator by a universal-joint connection, whereby both can be thrown out of operation and be made to occupy a horizontal position, said chute folding upon the elevator, substantially as described.

2. The combination, with a thrashing-machine, of a grain-elevator extending from near the bottom of the machine to a point above the top of the same, and pivoted to the machine, and a support for the elevator attached to the machine in the path of the elevator when turned upon its pivot, whereby the elevator may be thrown out of operation and made to occupy a horizontal position for transportation with the thrashing-machine, substantially as described.

3. The combination, substantially as before set forth, of the thrashing-machine, the bagger, and the pivoted elevator.

4. The combination, with the thrashing-machine having a bagger rigidly connected therewith, of a grain-elevator pivoted near the top of the machine to a horizontal supporting-pivot, and adapted to receive cleaned grain from the bagger, said machine being also provided with a support for said elevator forward of the supporting-pivot in the plane of the same, whereby the elevator may be connected with the bagger or disconnected therefrom and supported in a horizontal position, substantially as described.

5. The combination, with a thrashing-machine provided with a bracket extending at right angles from the machine and having ears extending on one side in the plane of the top of the bracket, of an elevator pivoted to said ears, whereby the bracket is enabled to receive the weight of the elevator when turned to a horizontal position, substantially as described.

6. The device for pivotally attaching an elevator to a thrashing-machine, consisting of the bracket g^3, provided with the rearwardly-extending ears, the eared plate g, attaching means, and the connecting pivot-bolt, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JESSE WALRATH.

Witnesses:

CHARLES H. LEE,

H. CLINTON CASE.