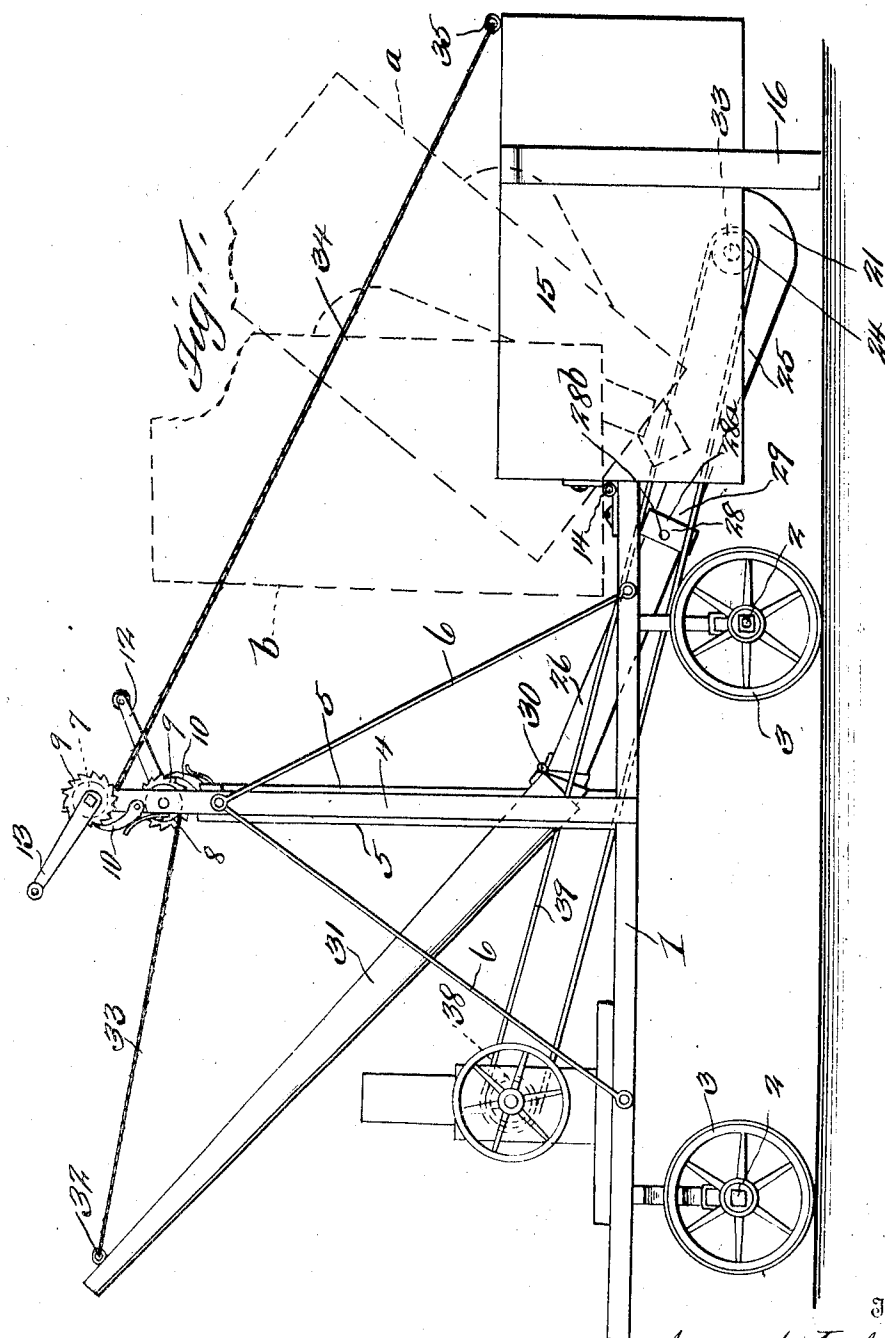


1,058,455.

A. J. MULLER.
GRAIN ELEVATOR.
APPLICATION FILED JUNE 8, 1912.

Patented Apr. 8, 1913.

3 SHEETS-SHEET 1.



Witnesses

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3 SHEETS-SHEET 2.

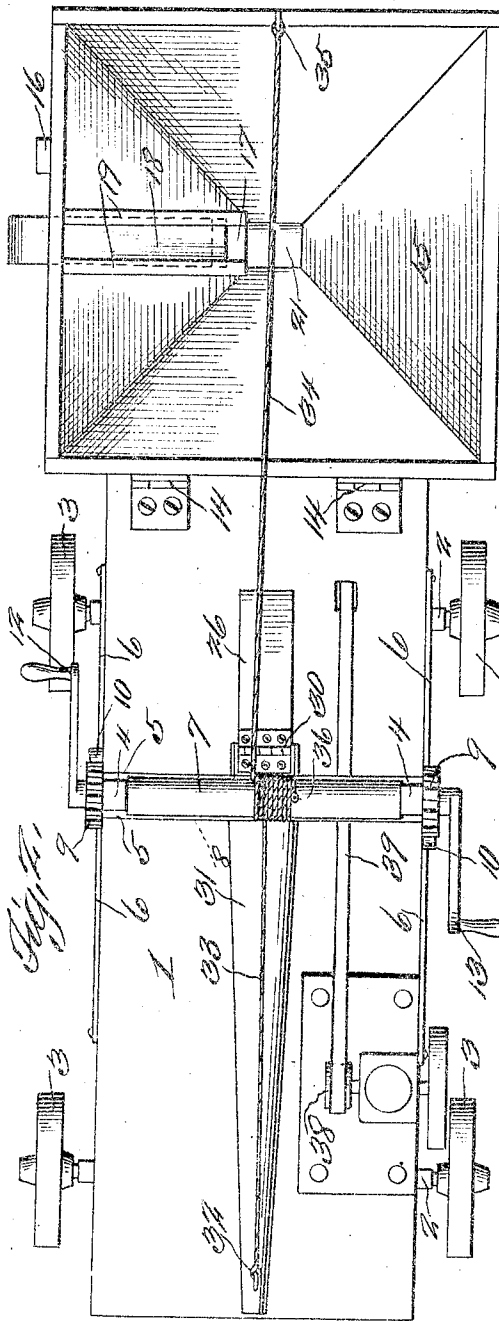


Fig. 1.

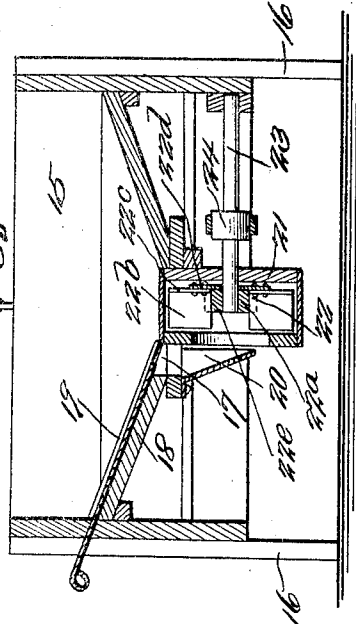


Fig. 2.

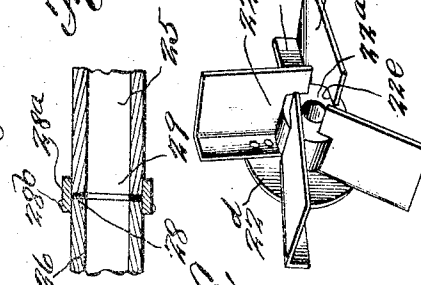


Fig. 3.

Witnesses

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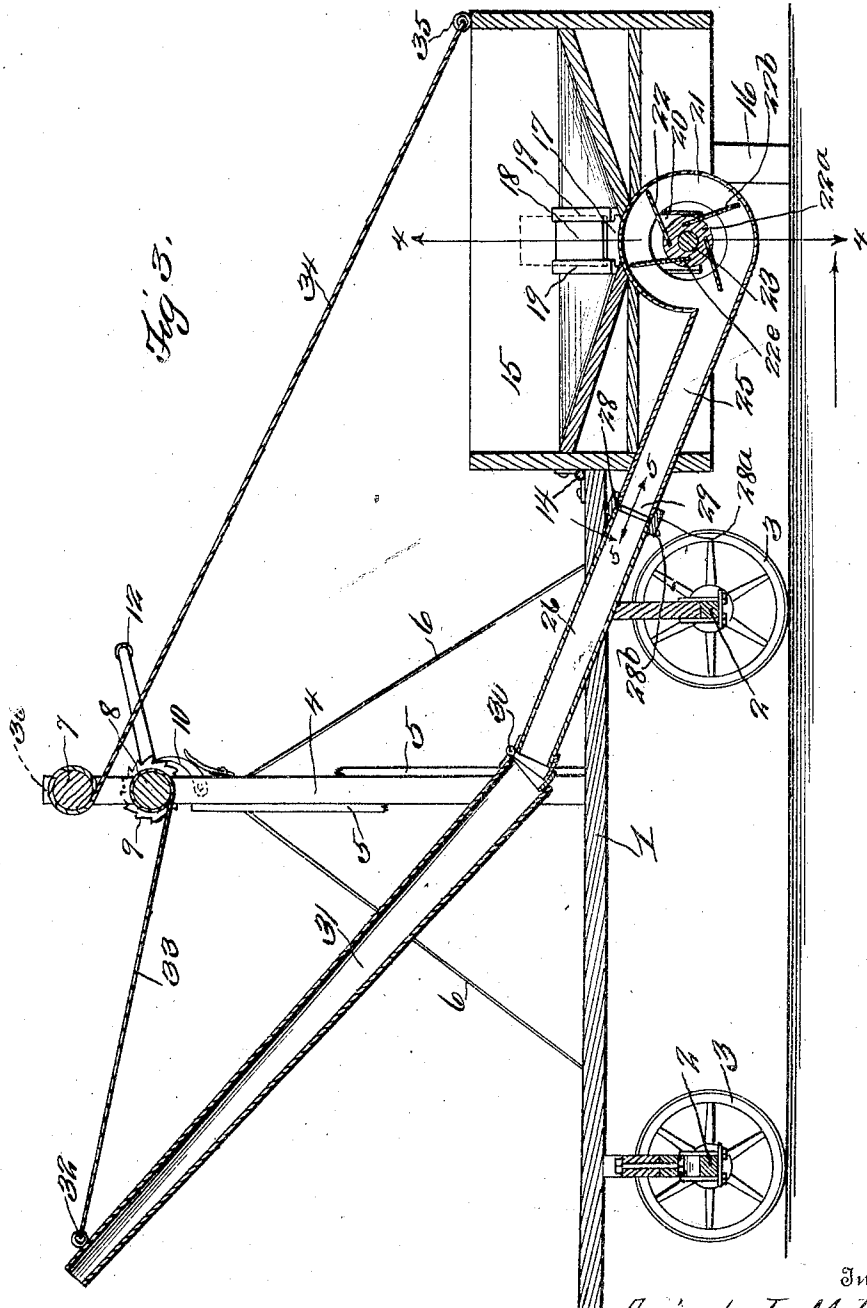
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

AUGUST J. MULLER, OF GACKLE, NORTH DAKOTA.

GRAIN-ELEVATOR.

1,058,455.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed June 8, 1912. Serial No. 702,516.

To all whom it may concern:

Be it known that I, AUGUST J. MULLER, a citizen of the United States, residing at Gackle, in the county of Logan and State of North Dakota, have invented a new and useful Grain-Elevator; 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.

This invention relates to a new and useful pneumatic grain elevator.

It is the primary object of this invention to provide a device of this nature, in which various essential and desirable features of construction are involved.

The main feature of the construction is the provision of a hinged grain box having a suction fan located adjacent the outlet of the box, by which as the grain leaves the box it is drawn into a casing about the fan, and forced through a tube, from which it is deposited into a grain bin or wagon or the like.

Another feature of the construction is the provision of means for tilting the grain box upon its hinged connections with a platform, which is provided with supporting wheels.

Another feature of the construction resides in the means for tilting the outlet portion of the grain tube.

The invention comprises further features and combination of parts, as hereinafter set forth, as shown in the drawings and claimed.

In the drawings:—Figure 1 is a view in side elevation of the improved grain elevator constructed in accordance with the invention. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view longitudinally through Fig. 2 on line 3—3. Fig. 4 is a transverse sectional view on line 4—4 of Fig. 3.

Referring to the drawings 1 designates the platform, which is provided with the usual forward and rear axles 2, on which are mounted the usual supporting wheels 3. Rising from the platform 1 is a vertical frame 4, which is braced by the brace bars 5, and stay wires 6. Journaled in bearings of the upper portion of the frame 4 are two windlass rollers 7 and 8, one end of each of which is provided with a ratchet 9; to be engaged by a pawl 10, there being a crank

handle for each roller whereby the same may be rotated. The crank handles are denoted by the numerals 12 and 13.

Hinged to the platform 1 as at 14 is a grain box 15 having supporting legs 16, to assist in supporting the box and to prevent the platform from being tilted rearwardly. The bottom of the grain box is inclined from all sides downwardly to its center, as shown in Fig. 3, adjacent which point an outlet opening 17 is formed. This opening 17 is closed by a slide door 18, which is mounted in guides 19. Located adjacent the opening 17, from which a spout 20 extends, is a fan casing 21, in which a suction fan 22 is arranged. This suction fan rotates with the shaft 23, on which a pulley 24 is mounted. This fan is designed to suck the grain into the fan casing, and force it through the tube 25, which forms a part of the casing 21. Extending angularly through and supported by the platform 1 is a tube 26, the end 27 of which terminates in a packed socket 28, which receives the end 29 of the tube 25, that is, when the grain box is in its lowermost position.

Hinged to the tube 26 as at 30 is a tube or spout 31. This tube 31 may be raised and lowered to different heights, to accommodate grain bins or wagons or the like of different heights. Connected at 32 to the tube or spout 31 is a rope 33, which in turn passes about and is connected to the windlass roller 8, so that when the roller is rotated the tube or spout 31 may be raised or lowered.

One end of a rope 34 is connected to the grain box as at 35, while the other end of the rope is connected at 36 to the windlass roller 7. By turning the crank of the roller 7, the grain box may be tilted to a position, as shown at (a) in dotted lines in Fig. 1, or disposed vertically as shown at (b) in dotted lines. The ratchets and pawls of the rollers 7 and 8 constitute means for holding the rollers adjusted, against unwinding of the ropes.

Mounted upon the platform 1 is the usual form of gas engine, which is provided with the drive pulley 38 having a belt connection 39 with the pulley 24, whereby power may be transmitted to the suction fan.

It will be observed that by the showing and description this grain elevator is portable.

The invention having been set forth, what is claimed as new and useful is:—

1. In a grain elevator, a portable platform having a grain tube extending angularly therethrough, a grain box having an outlet and a hinged connection with the platform, a fan casing carried by the grain box adjacent the outlet opening and including a suction fan, the casing having a tube to automatically connect with the angularly arranged tube when the box is lowered upon its hinges, a tube hinged to the angularly arranged tube, and mechanisms for raising and lowering the last named tube and the grain box independently.

2. In a grain elevator, a portable plat-

form having a grain tube extending angularly therethrough with a socket at one end and an outlet tube hinged to the other end, a grain box having an outlet opening hinged to the platform, a fan casing located adjacent the outlet opening and provided with a suction fan, the casing having an extension tube adapted to fit the socket when the grain box is in its lowermost position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST J. MULLER.

Witnesses:

R. S. MILLER,

J. S. PETERMAN.