(No Model.)

J. McCOLLOUGH.

STRAW STACKER.

No. 529,400. Patented Nov. 20, 1894.

Fig. 1.

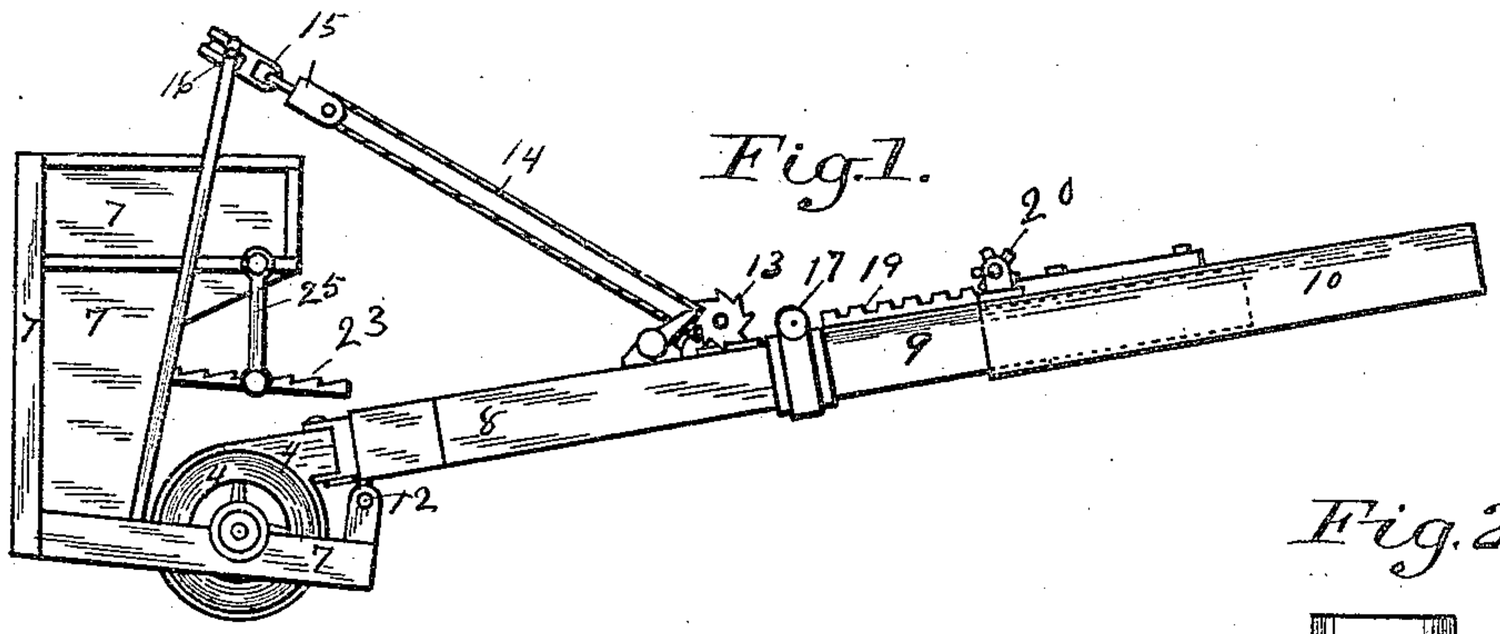


Fig. 2.

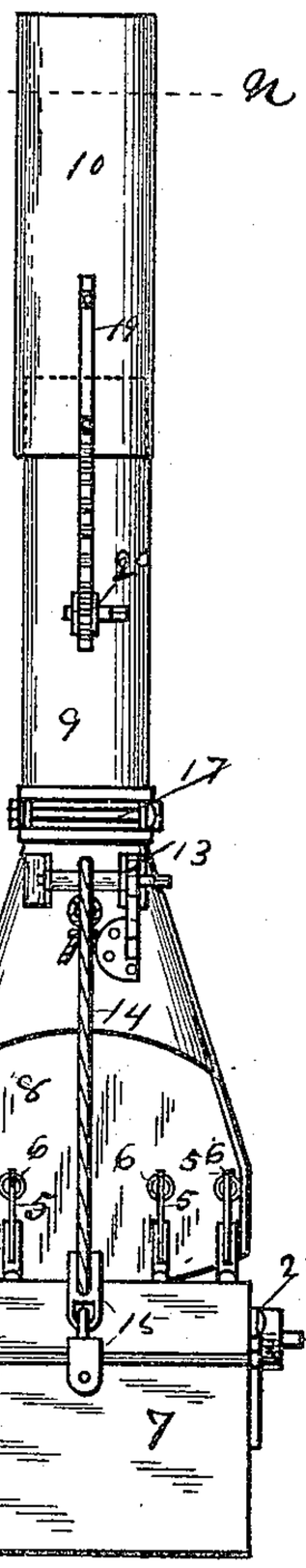


Fig. 8.

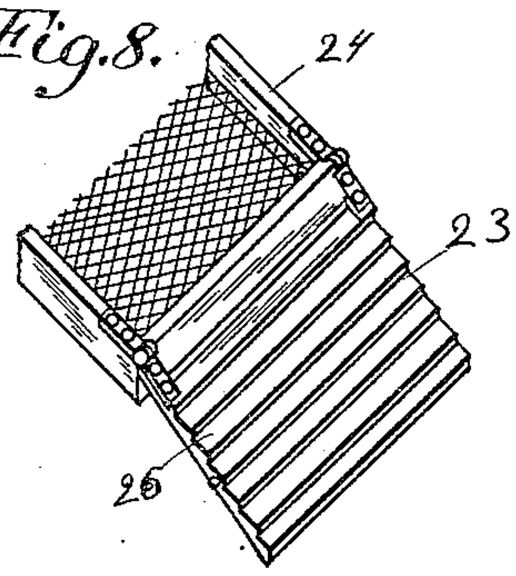


Fig. 7.

Fig. 6.

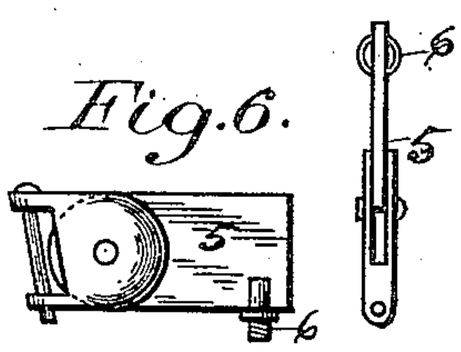


Fig. 5.

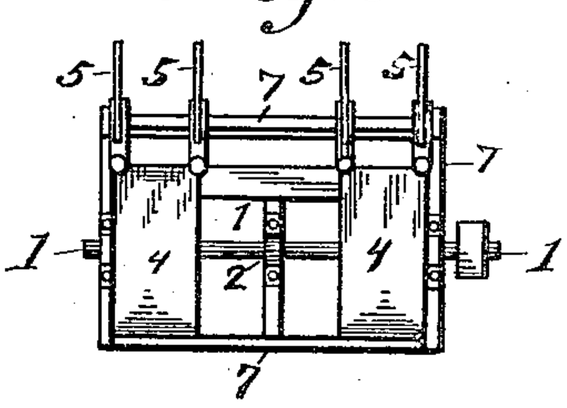


Fig. 4.

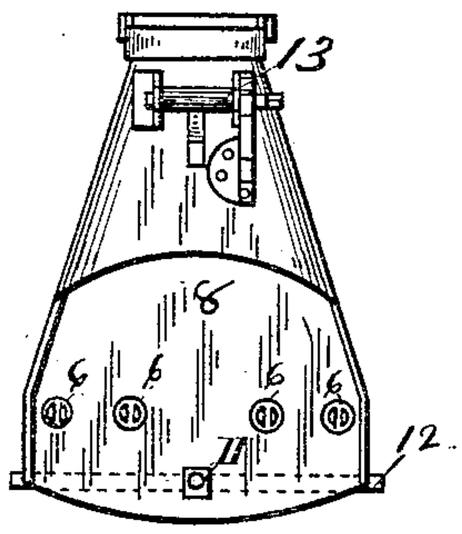


Fig. 3.

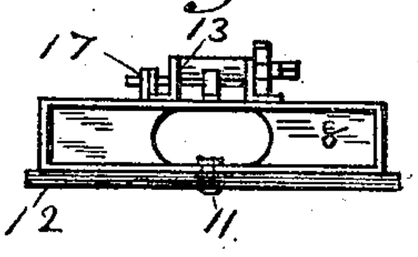


Fig. 10.

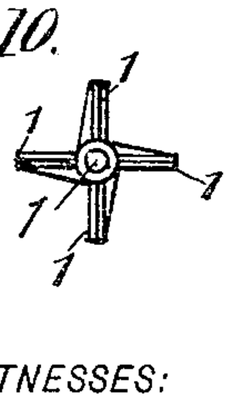


Fig. 9.

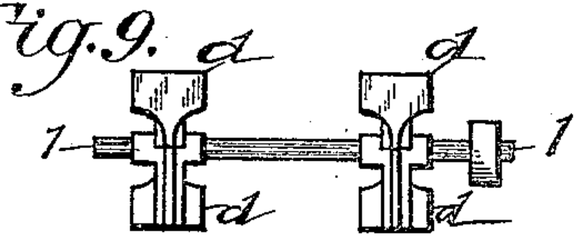
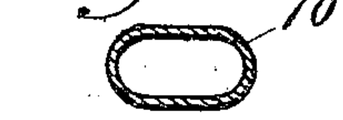


Fig. 11.



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JOHN McCOLLOUGH, OF CRAWFORDSVILLE, INDIANA.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 529,400, dated November 20, 1894.

Application filed September 25, 1893. Serial No. 486,500. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCCOLLOUGH, a citizen of the United States, residing at Crawfordsville, in the county of Montgomery and State of Indiana, have invented a new and useful Improvement in Straw-Stackers, of which the following is a specification.

My invention relates particularly to a class of straw-stackers known as wind-blast or cyclone stackers and has for its object in general the production of a new and useful wind-blast stacker for blowing straw and chaff directly from the rear end of a thrashing machine to the desired point of delivery on the stack; and to this end my invention consists in the peculiar construction, combination, and arrangement of the several parts as will be more fully pointed out in the following description and claims.

Referring to the accompanying drawings forming a part of this specification, Figure 1 is a side elevation of my invention attached at the rear end of a thrashing machine. Fig. 2 is a top plan of the same. Fig. 3 is an end view of the chute-like lower section 8 as seen from the inner end. Fig. 4 is a top plan of the chute-like lower section 8. Fig. 5 is a top plan of the rear end of the thrasher-frame and fan housings provided with a revoluble blast fan and wind shifting boards hinged and pivoted at the blast openings of said housing. Fig. 6 is a side elevation of one of the wind-shifting boards 5. Fig. 7 is a top plan view of the same. Fig. 8 is a detail view of the hinged rectangular tail-board 23 and vibrating rack 24. Figs. 9 and 10 are, respectively, a side view and an end view of the revoluble blast-fan. Fig. 11 is a cross section of the blast-pipe on the line M, N, Fig. 2.

Like numbers and letters of reference indicate corresponding parts throughout the several views.

In the construction of my invention I use a revoluble shaft having a center bearing and a blast-fan mounted upon each end of said shaft and a suitable housing inclosing the revoluble shaft and blast-fans at the rear end of the thrasher frame, an ovoid metallic blast-pipe pivoted at the rear end of the thrasher frame adjacent the fan housing, and suitable appliances as hereinafter described for adjusting the blast-pipe vertically or longitudinally as may be desired by the operator when stacking.

The revoluble shaft 1 having a blast-fan *d* mounted upon each end thereof in a suitable housing 4 upon the overblast principle for throwing its current upward and backward into the blast-pipe, is provided with a center bearing 2 effectually preventing any springing of the revoluble shaft 1, and a consequent beating of the blast fans *d* for throwing a regular and powerful current into the blast pipe to clear it completely of straw and chaff while thrashing. The fan housings 4 are provided at the blast openings with a pair of wind shifting boards 5, hinged and pivoted at their inner ends so as to be swung either vertically or horizontally at their free ends, the free ends being set in slotted standards 6 mounted securely upon the lower section of the blast-pipe for directing the current or blast at all times parallel with the movement of the pipe.

7 refers to the rear end of the thrasher-frame.

The metallic blast pipe being essentially ovoid in shape, has a plane upper and lower side, and consists of three sections, a pivoted chute-like lower section 8, a hinged middle section 9, and an outer telescoping section 10. The lower section 8, being chute-like, forms a receptacle for receiving the straw and chaff as it falls from the delivery end of the thrasher, and is pivoted at 11 on its roller 12 journaled securely in the rear end of the thrasher frame, permitting the blast pipe to be operated either vertically or horizontally, as may be desired by the operator. Said section 8 is also provided with a windlass-like mechanism consisting of a revoluble roller 13 mounted in a suitable frame near the outer end of the chute-like lower section, a pair of linked sheaves 15 mounted movably upon a horizontal rod 16 of the thrasher frame and adapted to travel longitudinally thereon, and a rope or cable 14 having an end securely fastened near the outer end of the chute-like lower section and passed around the suspended sheave 15 of the movably mounted pair of linked sheaves 15 of the thrasher frame and its free end mounted securely upon the revoluble roller 13 provided with an ordinary ratchet wheel and

pawl to lock it after being manipulated to adjust the blast-pipe vertically.

The linked sheaves 15, being adapted to travel longitudinally upon the horizontal rod 16 mounted securely above the thrasher frame, allow the blast-pipe to be easily operated horizontally and to describe a circular path in stacking the straw. The middle section 9 is hinged at 17 to the chute-like lower section for the purpose of being folded over against the top of the thrasher while traveling. The outer telescoping section 10 fits snugly over the middle section 9 and is longitudinally adjustable thereon by means of a cog-faced rod 19 being mounted securely upon its upper side and extending over the middle section about half the length of the telescoping section so as to be impelled longitudinally in either direction by the manipulation of a cog-geared appliance consisting of a cog-wheel 20 securely mounted upon a revoluble shaft working in a suitable frame centrally fixed upon the middle section 9. The cog-wheel 20 meshes with the rack-faced rod 19 of the telescoping section for impelling and setting said section inward or outward at the desired point of delivery. An ordinary crank is used to operate the shaft of the cog-wheel 20 and the shaft of the revoluble roller 13.

In order to effectually carry chaff and tailings over into the receptacle of the chute-like lower section of the blast-pipe I have provided a rectangular tail-board 23 hinged at its inner end to the vibrating rack 24 of the thrasher and suspended at the outer end by a pair of pivoted hangers 25. Said board is formed on the upper side with a series of grooves 26 substantially as shown in the drawings adapted to feed the chaff and tailings over into the blast-pipe receptacle.

My invention is operated as follows: The blast-pipe is operated horizontally by pushing it in the desired direction and adjusted vertically for raising the delivery end of the pipe to the height desired by manipulating the windlass like mechanism of its lower section. The outer telescoping section is adjusted longitudinally for setting it at the desired point of delivery by manipulating the cog-geared appliance of the middle section. In traveling the telescoping section is run inward on the middle section and the middle section folded over against the top of the thrasher and fastened thereto as may be desired.

Having thus fully described my invention and set forth the operation and advantages thereof, what I claim as new, and desire to secure by Letters Patent, is—

1. A straw-stacker adapted to be attached at the delivery end of a thrashing machine, the same comprising a revoluble shaft having a center bearing, a blast-fan mounted upon each end of said shaft, a suitable housing inclosing the blast-fans, and wind shifting boards hinged and pivoted at their inner ends at the blast openings of said housing and set at their free ends in slotted standards rigidly mounted upon the chute-like lower section of the blast-pipe for directing the blast parallel with the movement of said pipe, and an ovoid metallic blast-pipe, substantially as specified.

2. A straw-stacker adapted to be attached at the delivery end of a thrashing machine, the same comprising a vibrating rack, a grooved rectangular tail board hinged to the vibrating rack, a revoluble shaft having a center-bearing, a blast-fan mounted upon each end of said shaft, a suitable housing at the rear end of the thrasher-frame inclosing the revoluble shaft and blast-fans securely mounted therein, and hinged and pivoted wind shifting boards at the blast-openings, substantially as specified.

3. The combination of an ovoid metallic blast-pipe embracing three sections, a chute-like lower section forming a receptacle for the reception of the straw and chaff as it falls from the delivery end of the thrasher, pivoted at its inner end upon a pivotal roller journaled securely in the rear end of the thrasher frame, a middle section hinged to said lower section so as to be folded over against the top of the thrasher when traveling, and an outer telescoping section fitting snugly over the middle section and adapted to be adjusted longitudinally thereon for being set at the desired point of delivery, a cog-geared appliance made in the manner and for the purpose set forth, and a windlass like mechanism comprising a revoluble roller mounted in a suitable frame at the outer end of the chute-like lower section, a rope or cable having one end securely mounted upon the revoluble roller and passing around a suspended sheave of the linked pair of sheaves adapted to travel longitudinally upon the rod mounted securely above the thrasher frame and securely fastened at the other end to the chute-like lower section, a pair of linked sheaves mounted movably upon a horizontal rod above the rear end of the thrasher frame for allowing the blast-pipe to be operated horizontally, and an ordinary ratchet wheel and pawl for catching the revoluble shaft after being manipulated to set the blast-pipe vertically at the desired point of delivery, substantially as specified.

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