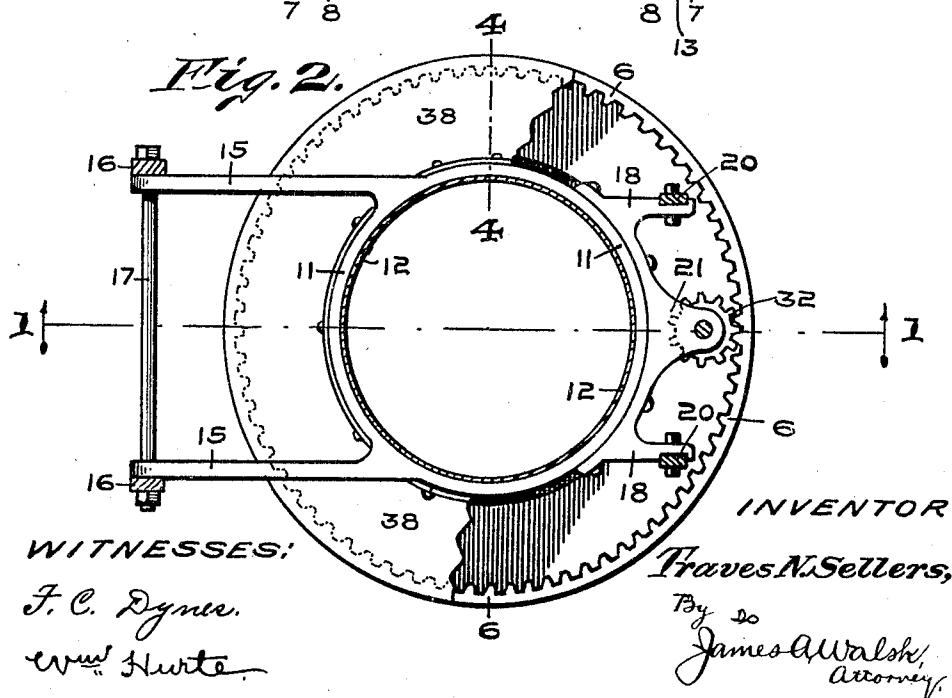
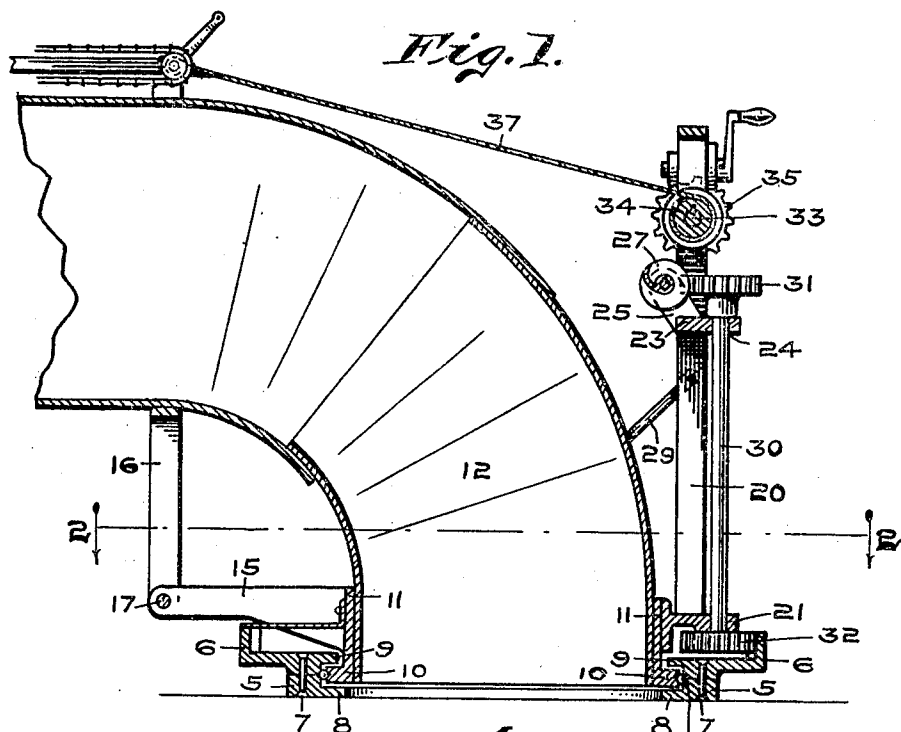


No. 856,609.

PATENTED JUNE 11, 1907.

T. N. SELLERS.  
PNEUMATIC STRAW STACKER.  
APPLICATION FILED MAY 18, 1906.

2 SHEETS—SHEET 1.

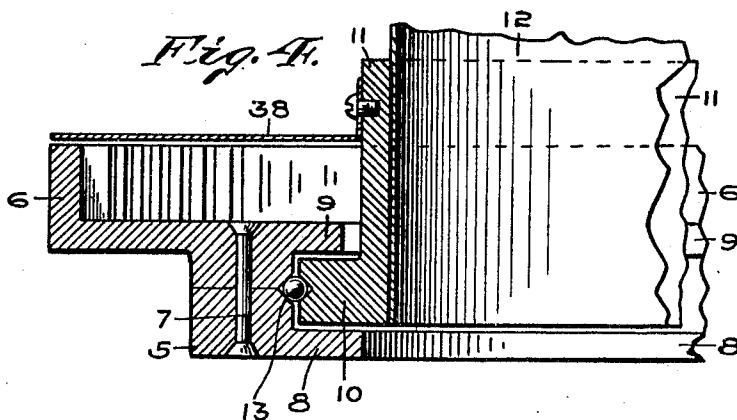
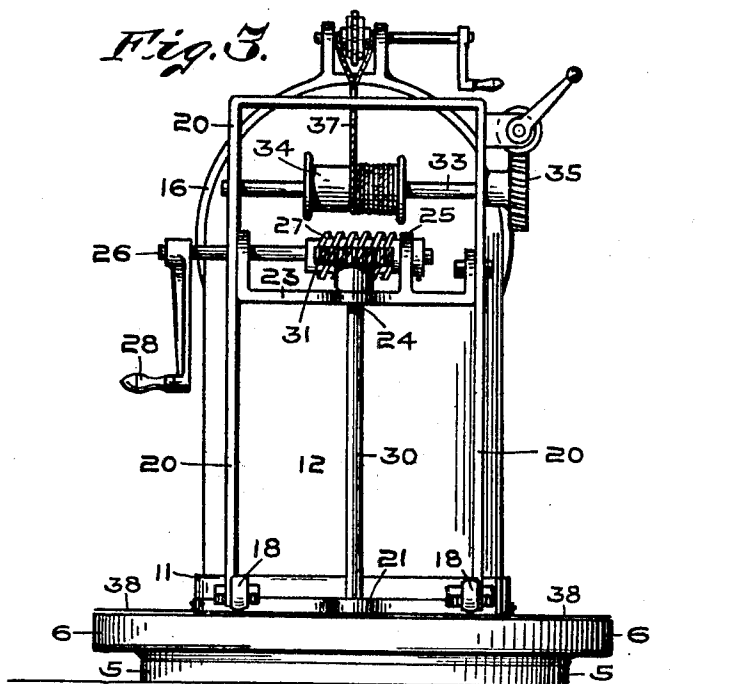


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2 SHEETS—SHEET 2.



WITNESSES:

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INVENTOR

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# UNITED STATES PATENT OFFICE.

TRAVES N. SELLERS, OF MUNRO, ONTARIO, CANADA, ASSIGNOR TO THE INDIANA MANUFACTURING COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF WEST VIRGINIA.

## PNEUMATIC STRAW-STACKER.

No. 856,609.

Specification of Letters Patent.

Patented June 11, 1907.

Application filed May 18, 1906. Serial No. 317,640.

*To all whom it may concern:*

Be it known that I, TRAVES N. SELLERS, a subject of the King of Great Britain, residing at Munro, in the county of Perth, Province of Ontario, Canada, have invented certain new and useful Improvements in Pneumatic Straw-Stackers, of which the following is a specification.

My invention consists in improvements in pneumatic straw stackers, and relates more particularly to means for laterally swinging the discharge chute thereof, which I accomplish by simple and efficient mechanism by which such stacker chute is readily swung from side to side, or completely revolved, and positively held at any desired point so that displacement thereof by action of the wind or otherwise is prevented.

In the accompanying drawings, which are made a part hereof, and in which similar reference characters indicate similar parts, Figure 1 is a central vertical sectional view of that portion of a stacker to which my invention is applicable, as seen from the dotted line 1—1 in Fig. 2; Fig. 2 is a horizontal cross section on the dotted line 2—2 in Fig. 1; Fig. 3 is a rear elevation of the structure; and Fig. 4, a fragmentary detail view in cross section on a somewhat enlarged scale showing the connection between the internal gear ring and associated parts, as seen from the dotted line 4—4 in Fig. 2.

This stacker revolving mechanism is preferably composed of an annular base plate suitably secured to the stacker frame or separator, upon which plate is mounted an internal gear ring 6 by means of pins 7 or otherwise. Between flanges 8 and 9 of said plate and gear ring, respectively, is secured the flanged lower end 10 of the collar 11 which surrounds the stacker chute 12. I may also interpose ball or other antifriction bearings between these engaging members in any desirable manner, the preferred construction being ball bearings, as 13, shown in Fig. 1.

I provide supporting arms 15 (Fig. 2) on either side of the stacker chute, which are preferably integrally formed with, or secured to, the collar 11, to which arms the yoke 16 is pivotally secured by the rod 17 or in any other suitable manner, this form of yoke and arms being a common construction for supporting stacker chutes. Arms 18 are bolted

to collar 11 upon which arms I mount a frame consisting of the standards 20 between the lower ends of which is a shaft-bearing 21 which is integrally formed with said arms 18. As will be readily understood, collar 11, arms 15 and 18, and shaft-bearing 21, may be formed integrally, in which case the employment of bolts or other securing means is unnecessary. Above said bearing I place connecting bar 23 provided with a bearing 24, said bar 23 being provided with an arm 25 between which arm and one of the standards is mounted a shaft 26 bearing a worm gear 27, to which shaft a crank 28 is attached. I may also provide braces 29 connecting the collar and standards, thus insuring a perfectly rigid structure.

A shaft 30 is mounted in bearings 21 and 24, the upper end of said shaft being provided with a pinion 31 which engages with worm gear 27, and has a pinion 32 also at its lower end which engages with the internal gear ring 6. Near the upper ends of standards 20 is secured a shaft 33 upon which is mounted a drum 34, said shaft being provided with a pinion 35 which engages with a crank-operated worm-wheel by the turning of which crank 28 the cable 37 is wound or unwound to raise or lower the stacker chute.

To prevent chaff and dust from entering the turn-table I provide the plate 38 (indicated by broken lines, Fig. 2) which is suitably secured to collar 11 or otherwise and which covers the gear ring 6, said cover moving around with the chute when revolved.

In operation, when it is desired to swing the stacker chute from side to side, or completely revolve it, crank 28 is turned, causing worm 27 and pinion 31 to impart rotary motion to shaft 30 and pinion 32, which latter pinion, engaging with internal gear ring 6 is caused to travel about said ring, thereby carrying with it the stacker chute and parts connected therewith, the worm and pinion insuring that the revolution of the stacker chute will cease at any point upon the discontinuance of the manipulation of the crank, in which position it will remain without the employment of any other retaining means. It will be apparent, therefore, that the operator has unobstructed control of the complete revolution of the stacker chute, there being no projecting or adjacent mechanism

in the path of travel of the chute, which is an objection common to various constructions of stackers by reason of cranks, hand-wheels, pulleys and the like, for operating the turn-  
 5 tables, being permanently located in such positions as to be crossed by the stacker chute while revolving, thereby interfering with the convenient operation of such mechanisms by the operator; while with my device the revolving structure has a clear and  
 10 uninterrupted path of travel, as well as being a simple and efficient device for the purpose, and one which insures positive revolution of the chute without lost motion or liability of becoming impaired.

I claim as my invention:

1. In a pneumatic stacker, the combination with the discharge chute, of a collar, a gear ring engaging said collar, a closure for  
 20 said gear ring, driving mechanism engaging said gear ring, and means for driving said mechanism.

2. In a pneumatic stacker, the combination, with the discharge chute, of driving  
 25 mechanism composed of a gear ring, a framework, a shaft supporting member in said framework, a shaft, a pinion on the lower end of said shaft, a pinion at the upper end of said shaft, and a worm gear engaging said  
 30 upper pinion.

3. A revolving mechanism for stackers composed of a gear ring, a collar provided with supports and a shaft bearing, standards having a shaft bearing therebetween mounted  
 35 on said supports, a shaft mounted in said bearings having pinions at its lower and upper ends which engage respectively with said internal gear ring and a worm gear, and means for operating said worm gear.

40 4. A revolving mechanism for stackers

consisting of a base-plate, an internal gear-ring mounted thereon, a collar revolubly mounted therebetween, a closure for said internal gear-ring, and driving mechanism connected to said collar and engaging said gear-  
 45 ring which mechanism when operated revolves with said collar within said internal gear ring.

5. A revolving mechanism for pneumatic stacker chutes comprising a base-plate provided with an upwardly extending flange, a gear-ring mounted thereon having an inwardly extending flange, means for rigidly connecting said base-plate and said gear-  
 55 ring, a flanged collar seated between said base-plate and said gear-ring, a closure connected to said collar and covering said gear-ring, driving mechanism connected to said collar and engaging said gear-ring, and means for driving said mechanism whereby  
 60 said collar with said mechanism is revolved.

6. The combination, with a discharge chute, of a collar surrounding said chute, an internal gear-ring engaging said collar, a closure connected to said collar and covering  
 65 said internal gear-ring, supports and a shaft-bearing on said collar, standards mounted on said supports, a cross-member between said standards provided with a shaft bearing, a shaft supported between said bearings, a pin-  
 70 ion on the lower end of said shaft and engaging said gear-ring, and means for driving said shaft, whereby said discharge chute with its driving mechanism is revolved about said internal gear-ring.

TRAVES N. SELLERS.

Witnesses:

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