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APPLICATION FILED JULY $22,1920$.
1,404,363.
Patented Jan. 24, 1922.
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# UNITED STATES PATENT OFFICE. 

EDWARD GRIMSRUD AND TORBJORN T. TEITEN, OF WILDROSE, NORTH DAKOTA.

WILD-OATS ATTACHMENT FOR FANNING MILLS.
$1,404,363$.
Specification of Letters Patent. Patented Jan. 24, 1922.
Application fled July 22, 1920. Serial No. $398,084$.

To all whom it may concern:
Be it known that we, Edward Grmasmod and Torbionn T. Teifen, citizens of the United States, residing at Willrose in the county of Williams, State of North Dakota, have invented a neir and useful Wild-Oats Attachment for Fanning Mills, of which the following is a specification.

This invention aims to provide novel an whereby wild may be removed from grain, after the grain has passed through a fanning mill.
It is within the province of the disclosure to improve generally and to enhance the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combina0 tion and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the inrention 5 shown can be made without departing from the spirit of the inrention.

In the accompanying drawings:-
Figure 1 shows in side elevation, a device constructed in accordance with the inven0 tion, parts being broken away; Figure 2 is a top plan; Figure 3 is an end elevation; and Figure 4 is a longitudinal sectional detail. showing a portion of the belt:

In carrying out the invention there is provided a frame including posts 1 which may be part of a fanning mill 2 having a discharge chute 3 , the posts 1 being united by a beam 4. Inclined supports 5 are attached to the posts 1. Braces 6 extend between the supports 5 and the posts 1. A shaft 7 is mounted in the supports 5 near to the lower ends thereof, the shaft carrying a pulley 8 located between the supports. A shaft 9 is journaled for rotation in the supports 5 ad10 being secuper therewith, the pulley 10 being of considerably larger diameter than the pulley 8. About the pulleys 8 and 10 is extended a 50 belt 11, the belt operating between the supports 5 . The belt 11 comprises a body 12 made of cotton flannel or some other material having a nap. The body 12 of the belt is reinforced by edge binders. 14 which may
of the belt 11 , the ends of the reinforcements 15 being engaged between one flange of each of the binders 14 and the body 12 a detail which will be understood readily when Fig- 60 ure 4 of the drawings is examined. Adjacent to the pulley 10 , a pronounced angle is fashioned in the upper run of the belt 11.

The means for forming the angle in the upper run of the belt 11 comprises a pair 65 of arms 16 pivoted at their upper ends, as shown at 17, to the members 6. Braces 18 are provided, the lower ends of the braces 18 being pivoted at 19 to the lower ends of the arms 16. The braces 18 are provided with seats 20 adapted to be engaged with projections on the members 6. The arms 16 are supplied with seats 22 , in any of which an axle 23 may be received, the axle. 23 carrying rollers 24 engaging the edge binders 14 of the belt 11 . Clearly, the axle 23, may be shifted with respect to the rertical in the seats 22 of the arms 16 , the rollers 24 being raised and lowered accordingly. The arms 16 may be swung forwardly or 80 reartardly, by engaging the projections 21 in the seats 20 of the braces 18 . The conveyor belt 11 thus may be tightened, and the angle may be fashioned in the upper run of the conveyor belt.

A pulley 25 is secured to one end of the shatt 9 and is engaged by a driving belt 26 passed around a wheel 27 on one of the posts 1 , the belt being passed around an idler 28 on the said post. The wheel 27 is 90 the driving element, and, ordinarily, constitutes a part of the fanning mill 2 .

The numeral 29 denotes a transverse rod mounted at its ends in the supports 5 . Links 30 are mounted to swing on the rod 29 , the lower ends of the links being piroted to the sides of a receiver 31 , the intake end of which is disposed relatively near to the angle which exists in the upper run of the conveyor belt 11. The rear end of the receiver 31 is slidably mounted upon a chute 32 carried by one of the supports 5 and discharging laterally beyond the frame work of the machine, as indicated in Figure 3 of the drawings. The receiver 31 discharges 105 into the chute 32. The forward ends of pitmen 33 are piroted to the sides of the receiver 31 , the forward ends of the pitmen being supplied with straps 34 cooperating with eccentrics 35 on the shaft 9.

Arms 36 are attached to the supports 5. The numeral 37 denotes a scraper located
below the pulley 10 and cooperating with the lower run of the belt 11. The scraper 37 is provided intermediate its upper and lower edges with pirot elements 38 mounted
5 to rock in the forward ends of the arms 36 . At its ends and adjacent to its lower edge, the scraper 87 is supplied with lateral extensions 39) connected with the supports 5 by adjusting devices 40 , of any desired sort 10 such as turn buckles.

In practical operation, the wheat is discharged from the fanning mill 2 through the chute 3 on the upper run of the belt 11. Practically all of the wheat will slide off 5 the upper run of the belt 11 , in the clirection of the arrow $\mathbf{A}$ in Figure 1. The wild oats, which have a considerable buri, will adhere to the belt 11 , because the body 12 of the belt is provided with a pronounced
20 nap. The wild oats will be carried upwardly and forwardly, on the upper rum of the belt and will accumulate in the angle which is formed in the upper run of the belt. . Should any small quantity of the
25 grain be carried up, along with the wild oats, the grain will tend to work out of the wild oats and to fall into the receiver 31. A reciprocating movement is imparted to the receiver 31 , owing to the presence
30 of the pitmen 33 and the eccentrics 35 on the shaft 9 . The grain which thus is segregated from the wild oats, passes from the receiver 31 into the chute 32 , and from the chute, out of the machine.
35 The wild oats are carried upwardly around the pulley 10 , by the belt 11 , and come ultimately into contact with the scraper 37 , the oats being removed from the belt 11. The position of the working end
40 of the scraper 37 with respect to the belt 11 and the periphery of the pulley 10 may, of course be adjusted through the instru-
mentality of the parts shown at 40 , the scraper being, in effect, fulcrumed intermediate its ends on the elements 38 .

So far as the drives are concerned, it will be obvious that from the wheel 27 , motion is transmitted to the pulley 25 and the shate 9 , by way of the belt 26 , the belt 11 being operated by the pulley 10 , from the 50 shaft 9 . The eccentrics 35 impart movement to the pitmen 33 , the pitmen working a reciprocation of the receiver 31.

Having thus described the invention, what is claimed is:-

1. In a device of the class described, a conveyor belt; means for forming an angle in the upper run of the conveyor belt; a receiver disposed adjacent to the angle of the conveyor belt; and means for imparting 60 reciprocation to the receiver.
2. In a device of the class described, a conveyor belt; means for forming an angle in the upper run of the conveyor belt; and a receiving and conveying member disposed 65 adjacent to the angle of the conveyor belt.
3. In a device of the class described, a conveyor belt; means for forming an angle in the upper run of the conveyor belt; a receiver disposed adjacent to the angle in 70 the conveyor belt; means for imparting reciprocatory movement to the receiver; a scraper coacting with the lower run of the conveyor belt; and means for adjusting the position of the scraper with respect to said 75 rum of the belt.
In testimony that we claim the foregoing as our own, we have hereto affixed our sig-
natures in the presence of two witnesses.
natures in the presence of two witne
TORBJORN T. TEITEN.
Witnesses:
J. C. Helle,
S. Olson.
