

1,050,540.

Fig. 1.

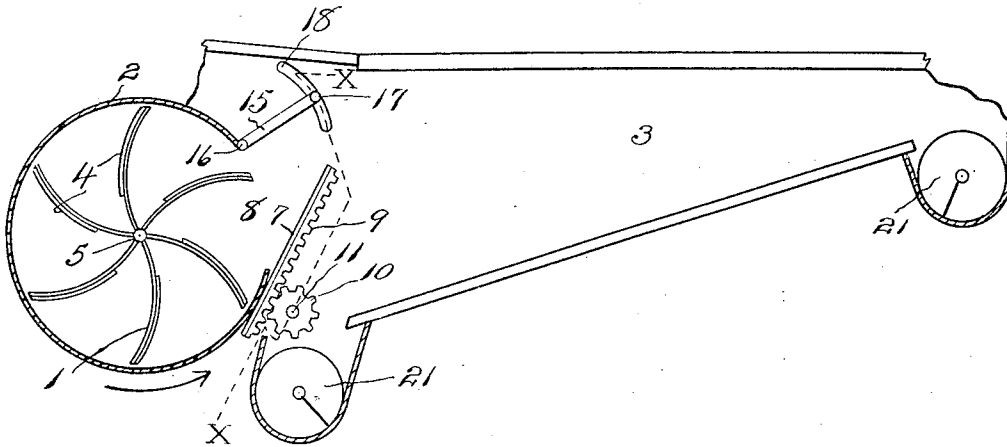
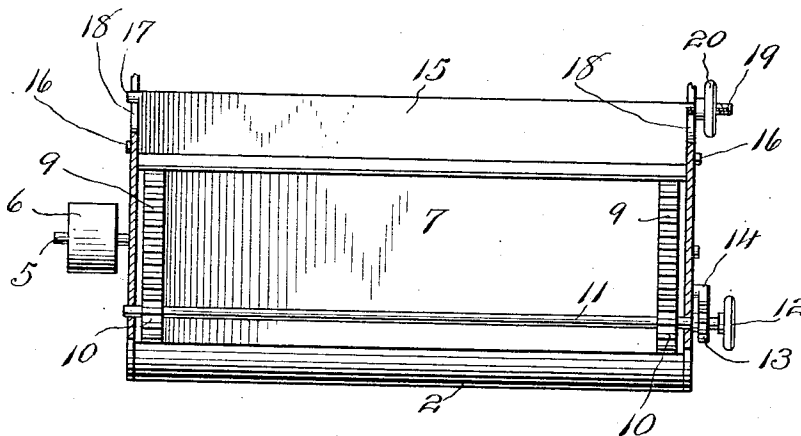


Fig. 2.



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THRESHING-MACHINE.

1,050,540.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed May 10, 1911. Serial No. 626,150.

To all whom it may concern:

Be it known that I, FREDRICK A. HOHMAN, a citizen of the United States, residing at Cornelius, in the county of Washington and State of Oregon, have invented certain new and useful Improvements in Threshing-Machines; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in threshing machines.

The invention has for its object to aid the operation of cleaning the grain as it is received upon, and agitated by the riddles or screens, more especially in directing the blast or air-currents and controlling the delivery thereof to the screens, riddles or grain.

A further object is to provide for suitably adjusting the blast or air-current controlling means as circumstances or conditions may require.

A still further object is to carry out these purposes in a simple, economical and effective manner.

The invention consists of certain instrumentalities and features substantially as hereinafter fully disclosed and defined by the claim.

The plan or idea underlying this invention, principally, is regulating the volume and direction of air leaving the fan and coming in contact with the riddles or screens; and secondarily providing for causing an under-blast current instead of an over-blast current, the latter being employed in connection with all previous machines of this general character. In thus applying the blast it tends to shoot up through the screens in somewhat of a half circle having the effect to lift the chaff from the screens which allows the grain to settle, the blast or air-current carrying the chaff along to the end of the screens to meet the suction of the wind-stacker when the grain will drop through the screens instead of being carried along and over the end of the screens as is the case more or less in using the overblast current. The actuation of the ordinary fan as in producing the over-

blast current permits the latter to engage the screens in substantially a horizontal direction carrying the chaff and grain along and over the screens, but does not lift the chaff as would an under-blast current, as above indicated the regulation of the direction of the delivery and the quantity of the air blast delivered will be later disclosed.

In the accompanying drawing illustrating the preferred embodiment of my invention wherein it will be understood that various changes and modifications as relates to the details of the construction and arrangement of the parts may be made without departing from the spirit thereof.

Figure 1 is a longitudinal vertical section of the invention, and Fig. 2 is a transverse section thereof taken on the line $x-x$ of Fig. 1.

In carrying out my invention, I provide as in suitably equipping a threshing machine of the ordinary or approved type, a fan-wheel 1 and a suitable housing or casing 2 for said wheel arranged in the usual way in connection with the general inclosure or casing 3 for the screens and other parts of the machine, not shown, not being necessary to disclose the principle or plan of my invention. The fan-wheel 1 is preferably constituted of a plurality of curved or arcuate blades 4 radiating from a central carrying shaft 5 hung centrally in the sides of the housing 2 with one end thereof projecting and provided with a pulley 6 for engagement with a driving or propelling belt, not shown, which fan-wheel, as relates more particularly to its action, will be referred to hereinafter.

Arranged to aid the control of the air-delivery or blast from the fan-wheel 1 is a gate or valve 7, the same standing obliquely or in an inclined position with its lower end opposed to the corresponding edge of the blast-delivery opening 8 of the housing 2 and so as to be adjustable to vary the delivery capacity of said opening. In order to effect the adjustment of the gate or valve 7 it is provided with racks 9 upon its forward surface, one being arranged near each end, with which racks are engaged spur-pinions 10 carried by a common shaft 11 suitably journaled in the sides of the casing 3 and suitably provided with a hand-wheel 12 for its convenient manipulation. Said shaft has also fixed thereto a ratchet-pinion 13 just inwardly from the hand-wheel 12,

and with said ratchet-pinion engages a detent or pawl 14 pivoted upon the casing 3 for the retention of the shaft 11 against rotation and accordingly the gate or valve at its point of adjustment.

A second or supplemental gate or valve 15 is arranged with relation to the blast-delivery opening to also aid the control of its delivery capacity, the lower end or edge of said gate or valve being arranged at the upper edge of said delivery opening, said gate or valve having its ends suitably pivoted as at 16 in the lateral portions of the casing 3 and whereby it may be adjusted for its intended purpose, as above indicated. The supplemental valve or gate 15 has also projecting from one of its ends a stud 17 received by one of the opposed arcuate or curved slots 18 in the sides of the casing 3, the opposite end of said supplemental valve or gate having a screw-threaded extension or projection 19 received by the other arcuate slot, said extension being provided with a hand-wheel-like nut 20, whereby by suitably manipulating said nut the supplemental valve or gate may be suitably adjusted for the purpose stated. Suitable conveyers 21, as usual, are provided within the casing 3 at its respective ends for the reception of the screenings from the riddles or screens and their disposition as well understood.

It will be noted that as suggested by the arrow shown in Fig. 1 the plane of rotation of the fan-wheel 1 is reversed from that of like contrivances as employed in all previous

machines of this general character, said fan-wheel being rotated to the right or so as to produce an upwardly generated blast whereby the same may be delivered from under, and upwardly through the screens or riddles to secure the results as above fully set forth and as will be readily appreciated.

It is clearly apparent from the foregoing that I have provided a machine for threshing grain, which, in addition to possessing the advantages and characteristics as already recited, is readily actuated while being adapted to carry out the purposes herein set forth in a simple, inexpensive and effective manner.

What I claim as new and desire to secure by Letters Patent of the United States is:—

A machine of the type described, including a fan-wheel-housing, a fan-wheel therein, a main valve with its lower end at the lower end of the blast-delivery opening of said fan-wheel-housing, means for actuating the valve, and a supplemental valve with its lower end pivoted near the upper end of said fan-wheel-housing, and the machine housing provided with curved slots receiving a stud and a screw-threaded extension from said supplemental valve, and a hand-wheel-like nut applied to said screw-threaded extension.

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

FREDRICK A. HOHMAN.

Witnesses:

ELIZA SHOREY,
JOHN M. WALL.