

No. 810,774.

PATENTED JAN. 23, 1906.

E. KYLLONEN.
THRESHING MACHINE.
APPLICATION FILED MAY 31, 1905.

Fig. 1.

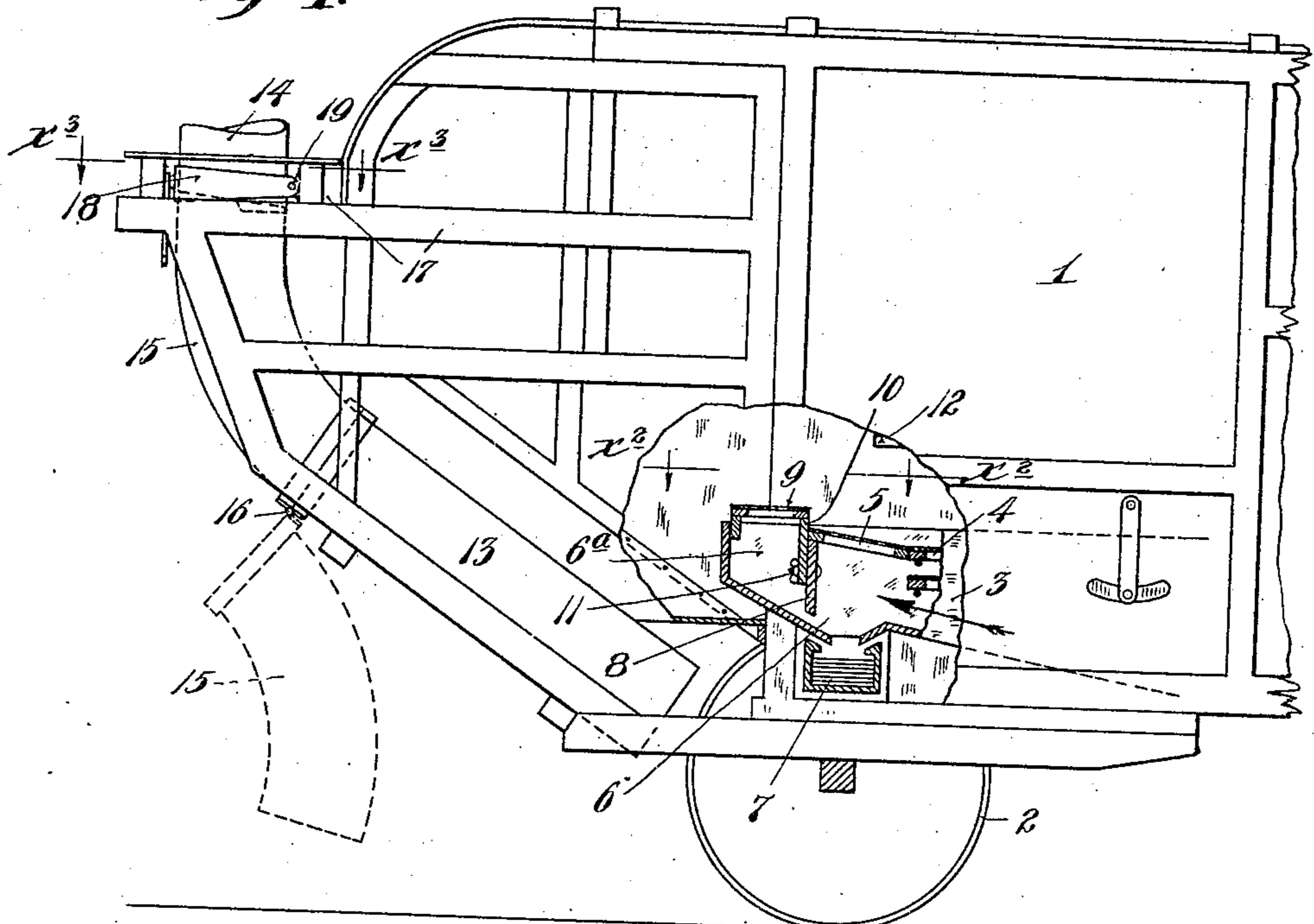


Fig. 3.

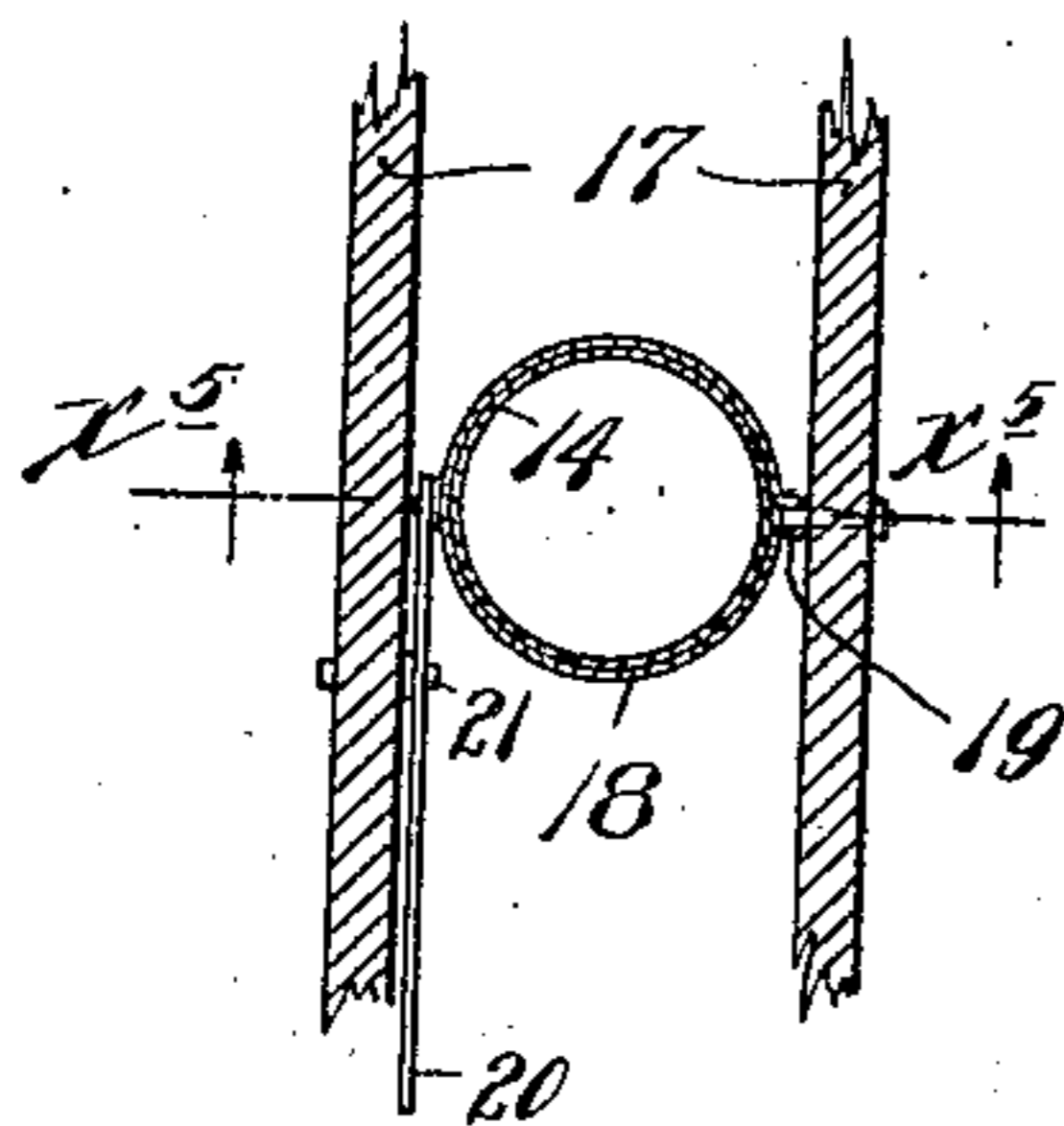


Fig. 2.

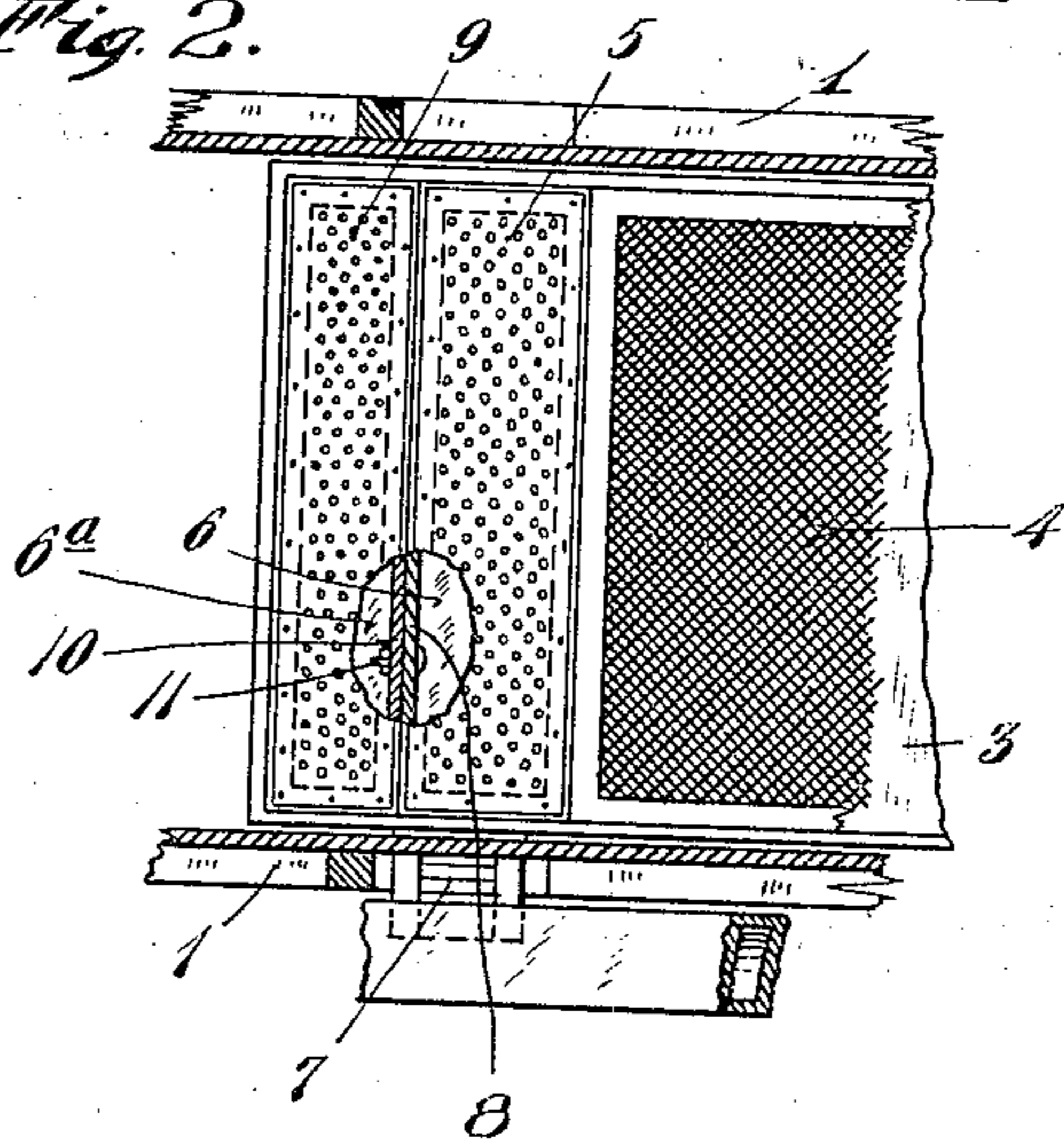


Fig. 4.

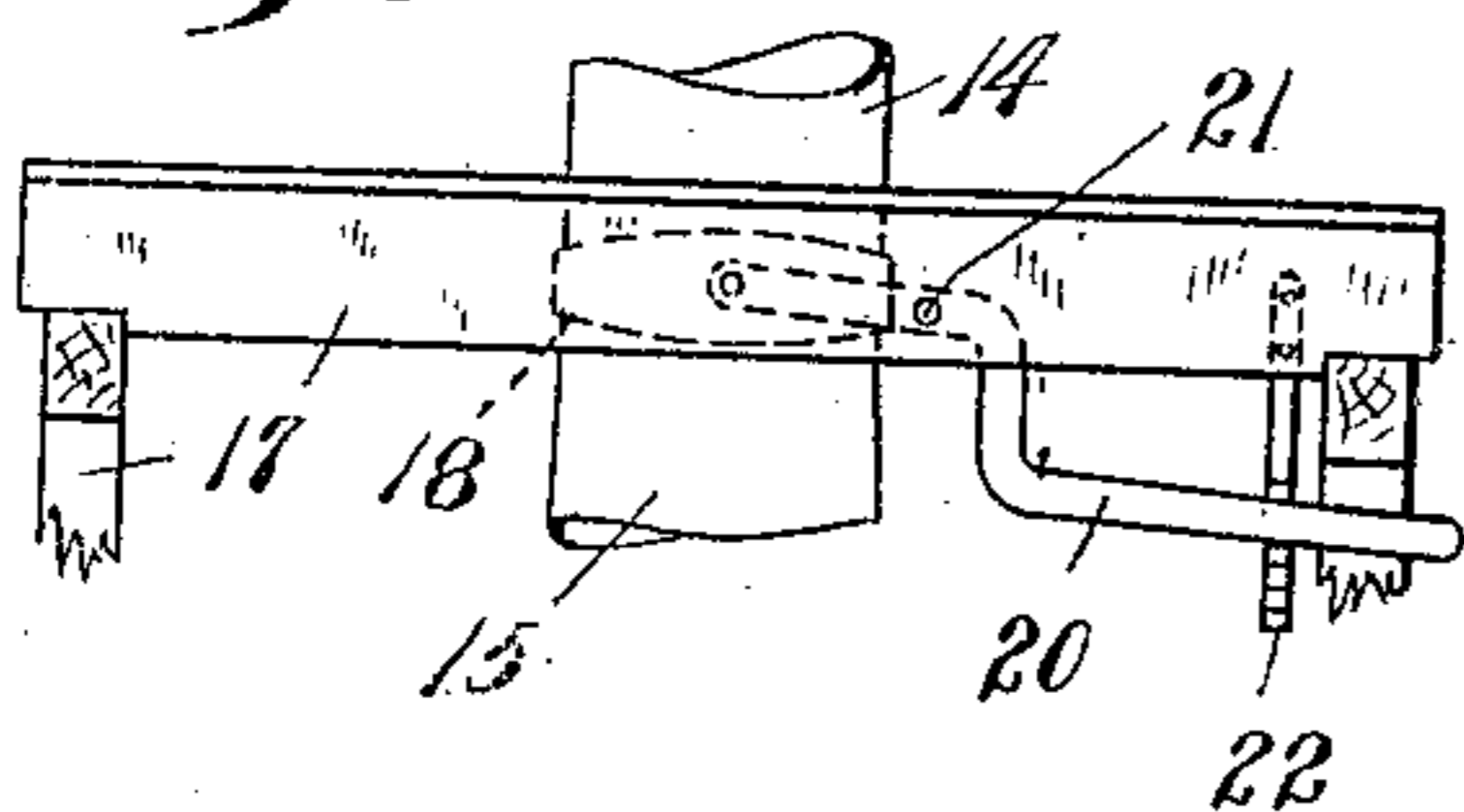
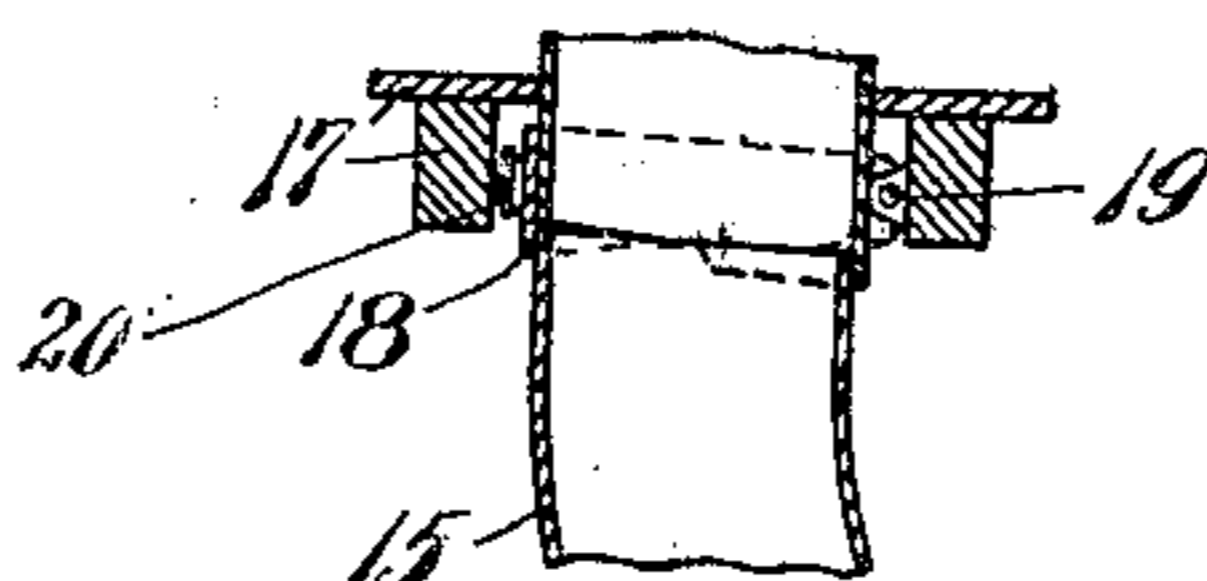


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

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THRESHING-MACHINE.

No. 810,774.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed May 31, 1905. Serial No. 263,032.

To all whom it may concern:

Be it known that I, ERIK KYLLONEN, a citizen of the United States, residing at Enterprise, in the county of Nelson and State of North Dakota, have invented certain new and useful Improvements in Threshing-Machines; 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.

My invention relates to threshing-machines, and has for its object to improve the same in the several particulars hereinafter noted.

The invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

In the accompanying drawings, which illustrate my invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation with some parts broken away and some parts shown in sections and illustrating my invention applied to a threshing-machine having a pneumatic stacker. Fig. 2 is a horizontal section on the line $x^2 x^2$ of Fig. 1, some parts being broken away. Fig. 3 is a horizontal section on the line $x^3 x^3$ of Fig. 1, some parts being broken away. Fig. 4 is a detail in rear elevation, showing substantially the same parts that are shown in detail in Fig. 3; and Fig. 5 is a vertical section on the line $x^5 x^5$ of Fig. 3.

The numeral 1 indicates the case of the threshing-machine, which threshing-machine, except as hereinafter particularly noted, may be of standard construction.

The numeral 2 indicates diagrammatically one of the rear wheels of the machine.

The numeral 3 indicates the vibrating sieve-shoe, which is provided with shoes 4 and 5 and with a discharge-hopper 6 at its rear end. The discharge-hopper 6 discharges into a transversely-extended grain-spout 7 of the usual construction. Depending from the rear edge of the sieve 5 is a vertical partition 8, that is rigidly secured to the sides of the shoe 3 and terminates at its lower edge slightly above the bottom of the hopper 6. The compartment 6^a is thus formed in the rear end of the vibrating shoe 3, which compartment extends completely across said shoe. Extending over the open top of the compartment 6^a of the hopper 6 is a coarse

sieve 9, which is rigidly secured to a frame 10, having a depending flange that is adjustably secured to the partition 8, as shown, by means of short nutted bolts 11. This sieve 9 may therefore be set in different vertical adjustments with respect to the sieve 5.

A vibrating grain-pan 12, which may be of usual construction and mounted and driven in the usual way, is so related to the sieves 5 and 9 that it will discharge chaff, light dust, and more or less grain directly onto the said two sieves.

By means of the usual separator-fan (not shown) a blast of air will be blown through the shoe 3 in the direction indicated by the arrow marked thereon in Fig. 1, and this blast will strike the partition 8 and be forced upward through the perforations of the coarse sieve 5 and will carry off the dust and light particles and will frequently also carry off more or less of the good grain. Such good grain and some of the broken straw and like foreign particles will fall from the blast onto the supplemental sieve 9, and such grain will freely fall through the perforations of the said sieve 9 and will fall under the action of gravity into the dead-air compartment 6^a of the hopper 6. As is evident, no perceptible amount of the air-blast will be passed into the said so-called "dead-air chamber" 6^a, hence will not impede the precipitation into the said compartment. From what has been said it will be understood that the addition to the sieve-shoe is in the nature of a grain-saving device, the intention being to catch and reclaim grain which is blown from the separator, together with the straw and other foreign materials.

Of the parts of the pneumatic stacker the numeral 12 indicates the fan-case, and the numerals 14 and 15 indicate sections of the discharge-stack, said sections 15 being a movable section which is pivoted at 16 to the discharge-neck of said fan-case. This pivoted stacker-section when dropped downward, as shown by dotted lines in Fig. 1, affords access to the interior of the stack and permits the removal of any straw which may have been caught within and clogged the stack. When the hinged section 15 is turned upward into an operative position, as shown by full lines in Fig. 1, its upper end registers with the lower end of the stack-sections 14, which stack-sections 14 of the fan-case 13 are secured to a supplemental framework 17, rig-

idly attached to the separator-case 1. Normally the upper end of the stack-sections 15 is secured in its operative position by a lock-ring or yoke 18, that surrounds the alined 5 and abutting ends of said two stack-sections, and is pivoted for vertical movements at 19. To the rear vertically-movable portion of the lock-ring 18 is pivotally attached an operating-lever 20, which lever in turn is pivoted to 10 the supplemental frame 17 at 21 and cooperates with a notched latch-bar 22, by means of which it is adapted to be set in either of two positions. When the lock-ring 18 is raised, it is moved clear of the upper end of the 15 hinge stack-sections 15, and said stack-sections may then be dropped downward into an inoperative position, as already stated. When the said lock-ring is lowered, it engages and securely holds the said hinge 20 stack-sections in its operative position, (shown by full lines in the drawings.) This device affords means for quickly and easily cleaning out a stack which has been clogged with straw.

25 The improved features of the construction described add but little to the cost of a machine and greatly improve the same. It will of course be understood the features of construction described are capable of modifica-

tion within the scope of my invention as here- 30 in set forth and claimed.

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

1. In a threshing-machine, the combina- 35 tion with a sieve-equipped shoe, having a live-air passage, and provided with a discharge-hopper formed at its rear with a dead-air chamber, and a vertically-adjustable sieve 40 overlying said dead-air chamber and independently adjustable with respect to said shoe-sieve, substantially as described.

2. In a threshing-machine, the combina- 45 tion with a sieve-shoe 3 provided with sieves 4 and 5, with a discharge-hopper 6, and with a partition 8, said partition affording a dead- 50 air chamber 6^a and terminating above the bottom of said discharge-hopper, of a vertically-adjustable sieve 9 overlying said dead-air chamber 6, and independently adjustable 50 with respect to said sieves 4 and 5, substantially as described.

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

ERIK KYLLONEN.

Witnesses:

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C. N. FRICH.