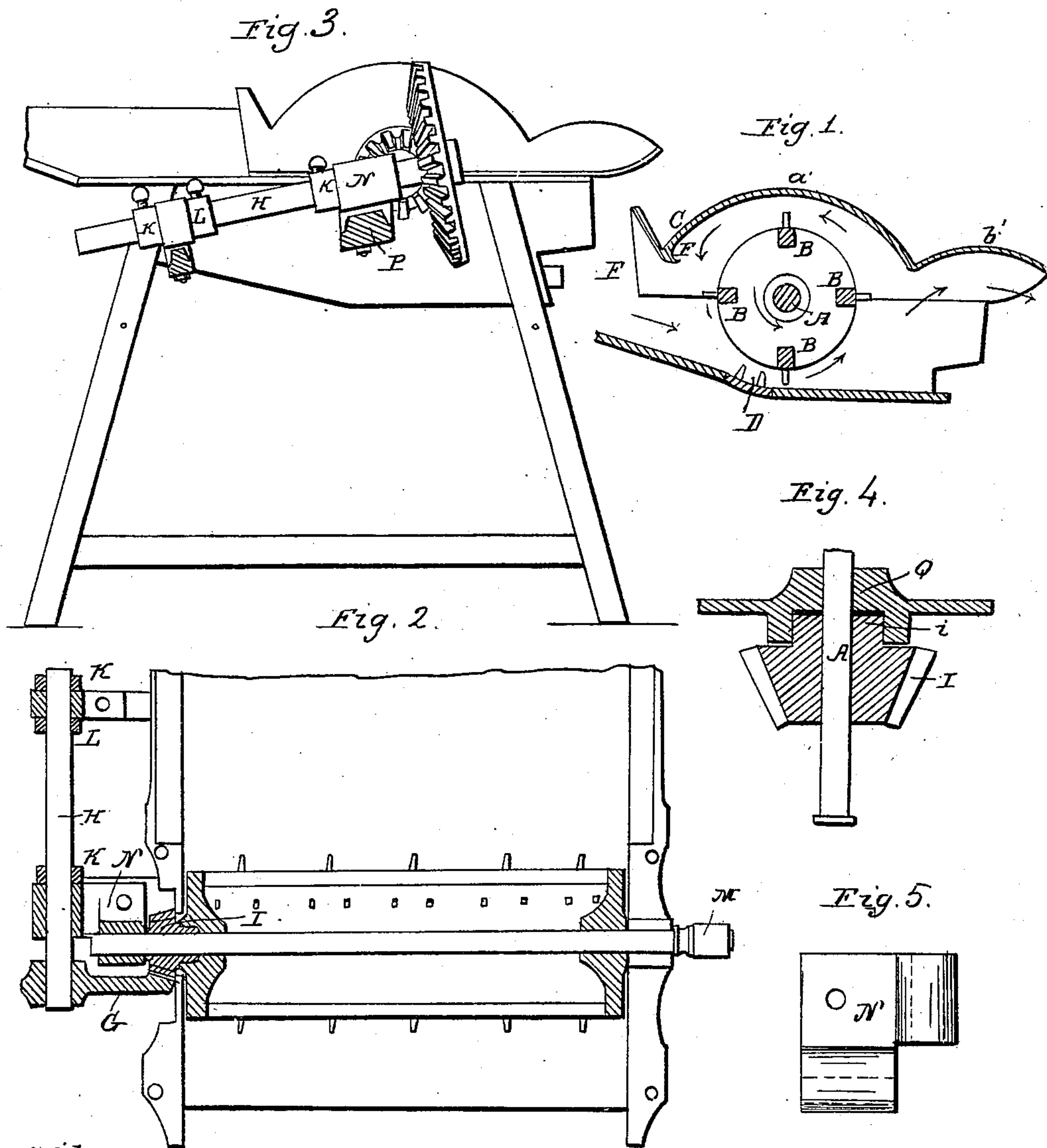


W. W. DINGEE.
Thrashing Machine.

No. 29,254.

Patented July 24, 1860.



Witnesses:
John F. Fisher
George W. Hutton

Inventor:
W. W. Dingee

UNITED STATES PATENT OFFICE.

WM. W. DINGEE, OF YORK, PENNSYLVANIA.

THRESHING-MACHINE.

Specification of Letters Patent No. 29,254, dated July 24, 1860.

To all whom it may concern:

Be it known that I, WILLIAM W. DINGEE, of York, in the county of York and State of Pennsylvania, have invented new and useful Improvements in Threshing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, which makes a part of this specification, in which—

Figure 1, is a vertical section of the thresher. Fig. 2, is horizontal section, with the cover removed. Fig. 3, is an end view, showing the gearing and side of top. Fig. 4, is shaft A with cylinder head and pinion thereon. Fig. 5, is two boxes cast together in one piece.

The same letters are used to designate the same parts in each figure.

The machine stands upon four legs of wood the upper part being chiefly of iron.

In Fig. 1, A, is the shaft on which the cylinder revolves. B, B, B, B, are the bars into which the teeth are inserted. C, is a cast iron cover. D, is the concave, having teeth similar to those in the bars. E, is the feed table, from which the sheaves of grain are fed. The cylinder runs in the direction indicated by the arrows, the current of air caused thereby, is arrested by flange F, and turned into the open cylinder and assists in carrying off the straw behind the machine in the direction also shown by arrows. Were it not for the flange F, a current of aid and dust insupportable to the feeder would be driven out at the mouth of the machine. Unless the cylinder of a threshing machine is run at a high speed, there is difficulty in getting rid of the straw, which winds around the cylinder and clogs it. The objections to a high speed are, that it requires a greater power to drive the thresher, increase the liability to break the grain, and causes a much greater wear upon the machine. The curved shape of my cast iron cover corresponding as it does with the direction taken by the straw, when it is fed through a machine without a top, offers less resistance to the free passage of the straw, than when made in any other shape, thus allowing me to reduce the velocity of my cylinder fully one fourth, moreover this iron cover clasps the whole machine and when bolted down, adds greatly to its strength.

In Fig. 2, G is the bevel wheel secured to shaft H. I, is a pinion into which the bevel wheel gears. K, K, (in Fig. 3,) are movable collars secured to the shaft H, by set screws they prevent the bevel wheel from getting out of gear and can be moved as they wear thus keeping the cogs properly adjusted. L, is similar collar (also in Fig. 3) with a set screw which prevents the cogs from wearing on their ends, this collar is also used to hold the bevel wheel out of gear when the cylinder is driven by the pulley M. As a means of driving a thresher; gearing, is preferable to a strap and pulley, as it gives a stronger and more reliable motion, but owing to the rapid motion of the cylinder the gearing is always liable to be broken, therefore both the gearing described and also the pulley M, and strap are furnished on all my machines, the latter to be used in case of accident.

In Fig. 3, N, is a double box (shown also in Fig. 5) in which the end of the cylinder shaft A, and the bevel wheel shaft H, both run, these two boxes are cast together in one piece. O, is an end view of the support on which boxes N, rest, this support is cast as part of the side plate and is hollow. P, is a piece of wood fitted into the hollow of the support O and through which the bolts pass which secures the box N. The rapid motion of the gearing at this point, causes so great a jar, as to have a tendency to rattle loose the nuts and break the bolts, the wood being more yielding than iron lessens this tendency and the two boxes cast together can be more easily fastened and secured than if they were cast in separate pieces.

In Fig. 4, A, is a portion of the cylinder shaft. Q, is the cylinder head firmly secured thereto. I, is a bevel pinion, with a square projection *i*, cast upon it, fitting into a corresponding square socket cast in the cylinder head—this pinion wears rapidly, and when keyed upon the cylinder shaft in the common way, it is almost impossible for a farmer without appropriate tools to replace it with another, I therefore adopt this method of fitting a square projection to a socket so that it may be renewed by anyone at pleasure.

What I claim as my invention and desire to secure by Letters Patent is—

1. Forming the cast iron cover with the double concave as shown, and the peculiarly formed flange F, at the feed opening con-

structed and arranged as and for the purpose above specified.

2. The combination of the double boxes N, cast with the hollow support O, and filled
5 with the wood P, arranged substantially and for the purpose as set forth.

3. In connection with the above, securing

the bevel pinion I, to the cylinder head Q, as and for the purpose above described.

W. W. DINGEE.

Witnesses:

M. F. FISCHER,

GEORGE M. SELLER.