2 Sheets—Sheet 1.

FOSTER & JONES.

Thrashing Machine.

No. 4,815.

Patented Oct. 17, 1846.

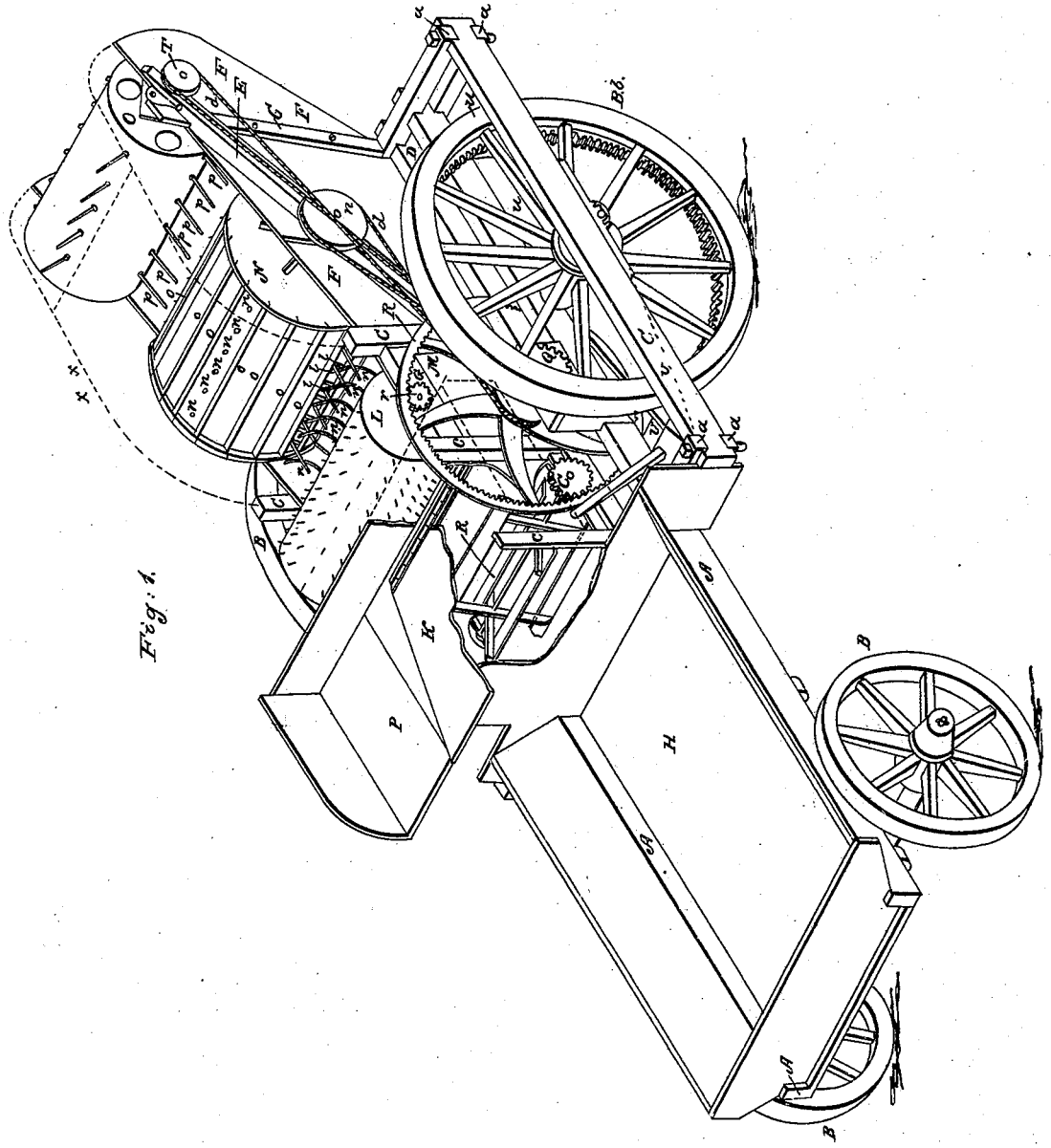

Fig. 1.

2 Sheets—Sheet 2.

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Fig: 2.

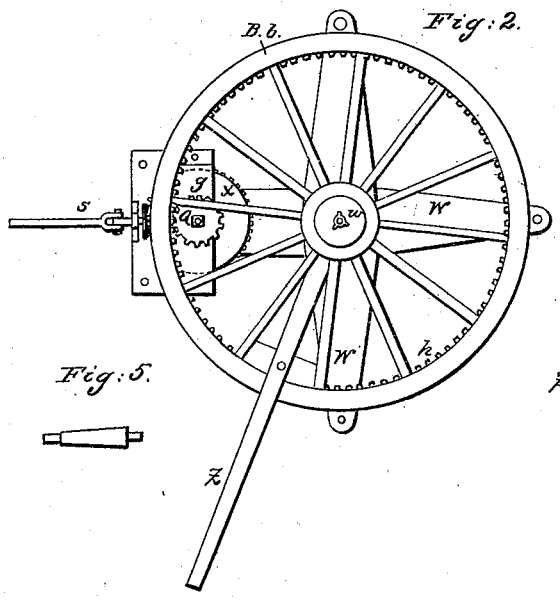


Fig: 3.

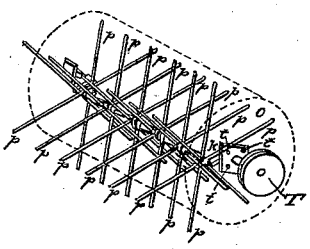
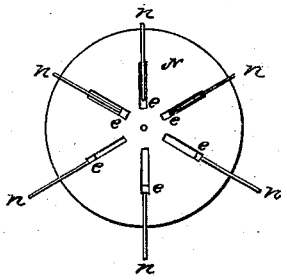


Fig: 5.

Fig: 4.



UNITED STATES PATENT OFFICE.

CLINTON FOSTER AND LEVI JONES, OF LAPORTE COUNTY, INDIANA.

THRESHING-MACHINE.

Specification of Letters Patent No. 4,815, dated October 17, 1846.

To all whom it may concern:

Be it known that we, CLINTON FOSTER and LEVI JONES, of the county of Laporte, State of Indiana, have invented a new and useful Machine for Threshing Grain of all Kinds, which we call a "Traveling and Stationary Thresher," and we do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view of the whole machine as a "Traveling Thresher." Fig. 2, is a view of the stationary power, with a part of the connecting rod. Fig. 3, is a section of the interior construction of the cylinder O. Fig. 4, is a section of the interior construction of the cylinder N. Fig. 5 is an axle that can be removed whenever the traveling thresher is to be used as a stationary one.

In Fig. 1 A, A, are two frame pieces extending the whole length of the machine. C, C, are two pieces outside of the hind-wheels and running parallel with A A, *a a a a*, &c, are cross pieces connecting A, A, with C C, and secured by bolts.

D, is a piece running parallel with, and between A, A.

c c c c, &c., are upright pieces which with the parts, described, constitutes the pincipal frame work.

B B B B are the wheels of the carriage one of which (marked B b.) has upon its felly, an iron concave cog wheel *h*.

E E, are inclined braces in which the axles of the cylinders N and O revolve.

F, F, are boards inclosing the machine.

G G are horizontal pieces to support the axles of the thresher or drum.

H, is a box to receive the sheaves.

I is a table by the side of the hopper K, also for the sheaves to be laid upon. L, the thresher or drum, the axle of which rests upon G G.

l l l, &c., are crooked iron rods that pass up behind the thresher, to receive the straw, allowing the grain to fall through, between them.

M, M, &c., are narrow pieces (not shown in the drawing,) across, underneath the thresher, wide enough apart for the grain to fall through, one of which has the rods *l* &c., secured into it.

N, is a cylinder, having within it, several sliding rows of teeth, *n n*, &c., to remove the straw from the rods *l*, &c., which teeth, are secured into pieces *e e e*, &c., running the whole length, and sliding in grooves at each end of the cylinder, to and from the center sufficiently to give them a projection far enough in passing between the rods *l*, &c., to catch the straw. Upon the said cylinder and much inclined to its surface, are longitudinal ledges *o o o*, &c., running its whole length, to receive any grain that may be brought over in the straw.

O is another cylinder, occupying an inclined position, to, and in the rear of N, and for the like purpose, (of removing the straw,) but differing materially in its internal construction.

p p, &c., are teeth to catch the straw, attached to a stationary rod, or axle *k* in Fig. 3, which is cranked at both ends within the cylinder to project the teeth *p p* on one side, beyond the surface, while on the other side, they extend only to it.

P, is a fan under the thresher, to blow out the chaff.

h is a concave cog wheel attached to the felly of B b, and meshes into a pinion Q.

R, is a large concave cog wheel, upon the axle of 2, meshing into a pinion *r*, upon the axle of the thresher, and into a pinion *i*, upon the axle of the fan.

q q are pulleys, upon the axle of Q and R, and between them, around which bands, *d*, *d*, pass to pulleys *n'*, upon the axle of N, and to T, upon the axle of O.

U, is a large box under the fan, to receive the grain. *u*, a sliding gate from which the grain may be discharged.

V, is a lever upon a fulcrum between C, and D, having rods *v v*, attached to sliding blocks in which the axle of B b, works, and by means of which the concave cog wheel B b, may be thrown in, and out of gear at pleasure. X X caps (not shown in the drawings,) to cover the cylinders, which complete the machine a "traveling thresher."

The operation of the "traveling thresher," consists in attaching horses as to a common wagon, and by giving motion, the wheel B b, having the concave cog wheel *h*, and, meshing into the pinion Q, gives motion to R, which meshing into the pinions, *r*, and *i* gives motion to the thresher, and fan. Upon the axle of Q and R, the pulleys *q q*, have cords *d*, *d*, which pass around the pulleys,

N′ and T, by which the cylinders N and O, are put in motion. By the revolution of the cylinder N, the pieces *e*, *e*, &c., containing, the teeth, *n n*, &c., and sliding in grooves to and from the center, fall to the bottom of the groove alternately, as each row comes under the center, by which the teeth are projected, which projection they retain until brought above the center, they then alternately retire to the surface. In the cylinder O, the teeth revolve upon a cranked axle *k*. By the revolution of O, they are carried around, and the crank throwing the axle out of the center, the teeth are made to project in front and retire as they pass around with the cylinder.

Fig. 2 is a view of the machinery necessary to constitute it, a "stationary thresher," in which W W, are strong timbers fitted into each other and crossing at right angles to be secured to the ground by stakes.

W, is a vertical axle fitted and secured into the center of W, W, upon which the wheel B b, is to revolve horizontally.

X and Y, are two beveled wheels of unequal size, X (the larger) having a vertical axle, upon the top of which the pinion Q of the "traveling thresher," is to be placed into which *h*, of the wheel B b, meshes.

S is a rod, connecting the axles of Y and of Q, and R, in Fig. 1.

g, is a brace secured at each end to keep the axle of X, in a proper position.

G is a shaft or lever (or any number necessary) to be attached to B b, to which a horse or horses are to be hitched.

Fig. 3, is a view of the interior construction of O.

p p, &c., are teeth attached to the stationary rod, or axle *k*, cranked at both ends within the cylinder.

s, is a journal secured to one end of O by screws *t*, *t*, &c., upon which it turns, and hollow within, in which one end of *k* rests, while the other end of O revolves upon *k*, as a journal.

Fig. 4, exhibits an end view of N, showing the grooves in which *e*, &c., slide.

Fig. 5, shows the axle of B b, when used as a "traveling thresher."

The operation of the "stationary thresher," is performed by attaching a horse or horses to the shaft or shafts G, and giving motion, the wheel X, meshes into Y, which being connected with the axles of Q and R, by the rod S, gives motion to all the parts, as heretofore described in the "traveling thresher."

What we claim as our invention, and desire to secure by Letters Patent in the within described machine is—

The operation of the teeth in the cylinder N, for the purpose of removing the straw from the drum, each row by its own gravity sliding in the grooves, project the teeth far enough to catch the straw, which by its revolution is brought up over the cylinder, when they retire by their gravity and the straw is thrown from the machine.

CLINTON FOSTER.
LEVI JONES.

Witnesses as to signature of Foster:
J. BIGELOW,
S. A. PEUGH.
Witnesses as to signature of Jones:
W. B. GUSTINE,
C. B. KELSEY.