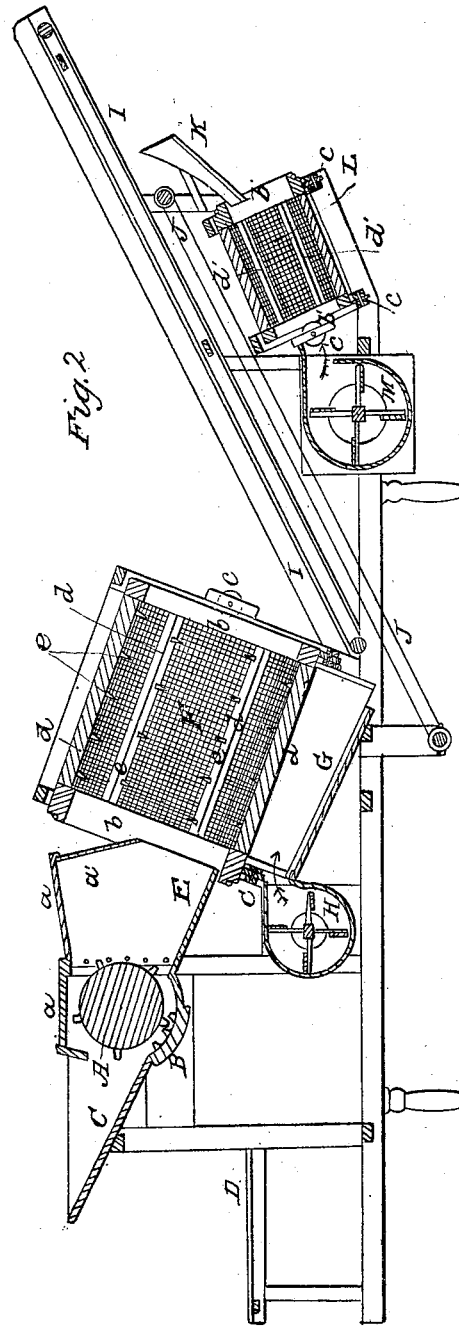
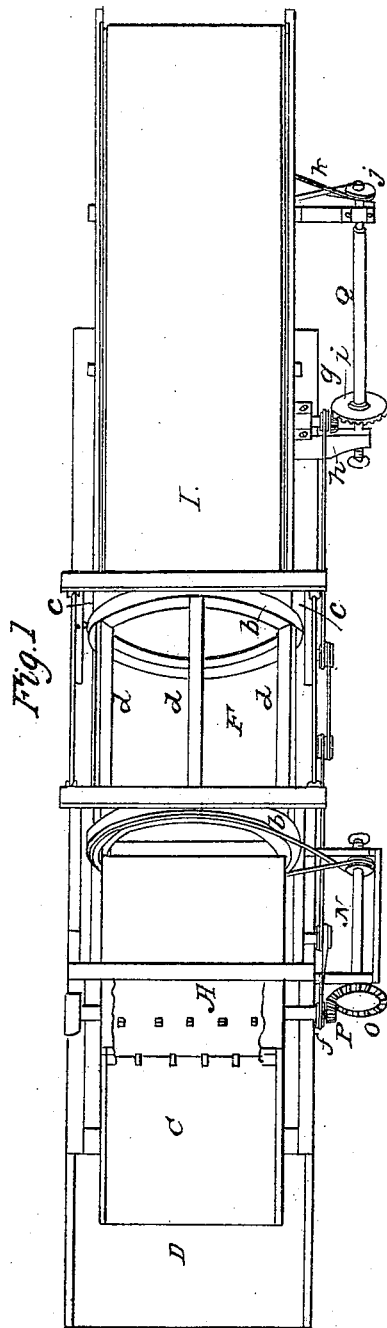


P. WELLER.

Thrashing and Cleaning Grain.

No. 4,398.

Patented March 7, 1846.



UNITED STATES PATENT OFFICE.

PLINY WELLER, OF FOWLerville, NEW YORK.

THRESHING-MACHINE.

Specification of Letters Patent No. 4,398, dated March 7, 1846.

To all whom it may concern:

Be it known that I, PLINY WELLER, of Fowlerville, in the county of Livingston and State of New York, have invented certain new and useful Improvements in Machines for Threshing and Cleaning Grain; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing Figure 1 is a top view of my machine, and Fig. 2 a vertical section through its center from end to end. These drawings are made on a scale of three-fourths of an inch to the foot, taking an operating machine that I have constructed as a standard, and which machine has been found to answer the purpose perfectly well.

A is the cylinder B the concave of a threshing machine.

C is the feeding board and D a platform on which the person tending it may stand.

E is an inclined board down which the straw and grain descend from the threshing cylinder; the cylinder A and the inclined board E are surrounded by a casing *a a a'*.

F is a cylindrical sieve, or rolling screen which is open at both ends, and has its periphery formed of woven wire with meshes of such size as will allow the grain to pass through; this rolling screen is without a shaft, its rims *b b* being sustained by and running against friction rollers *c c*. The straw and grain pass into the screen F and as this screen revolves the ribs *d d* and the spikes *e e* lift the straw and cause it to turn over repeatedly in its passage. The grain which passes through the meshes of the screen falls into a trough G and in its passage is subjected to the action of a fan wheel H that separates a large portion of the chaff from it and blows it out on to an endless apron I, I, represented by red lines while the grain falls on to the endless apron J J represented also by red lines the straw from the screen F falls on to the endless apron I, I, and is carried up by it clear of the grain cleaning portion of the machine.

There may be slats, or ledges on these endless aprons but they are not absolutely necessary, more especially for the apron that

carries off the straw, but they serve to keep the aprons stretched widthwise.

The grain, partially cleaned, that falls on to the apron J, is carried up by it and falls from it into a hopper or chute K by which it is delivered into a second rolling screen L inclined back as represented in the drawing. This screen like that first described is without a shaft, has both ends open and is sustained by friction rollers *c c* bearing against its rims *b', b'*.

M is a second fan wheel the wind from which blows in a strong current through the screen L and carries the chaff and every thing that is lighter than the sound grain out at the rear end of the screen while the grain descending to its fore end falls on to the floor or into a bin as may be desired.

The grain as it descends in the screen L is carried up and turned over by the ribs *d' d'* and is consequently fully and repeatedly acted upon by the wind. The meshes of the screen L are of such size as not to allow the wheat or other grain to pass through while the cockle and other small seeds are screened out by it as effectually as by the use of the cleaning apparatus used in the flouring mills.

The proper motion may be given to the respective parts of this machine in various ways. I have employed the following. N, Fig. 1 is a shaft to which the motive power may be applied; this carries a beveled wheel *o* that meshes into a beveled pinion P on the shaft of the threshing cylinder. The shaft N also carries a band, that passing around the rim of the rolling screen F causes it to revolve; from a whirl *f* on the shaft of the threshing machine, a band passes so as to embrace whirls on the two fan wheels and on the rollers of the endless aprons; *g* is a whirl on the shaft of the fan M which shaft also carries a pinion *h* that meshes into the wheel *i* on the shaft Q giving motion to the whirl *j* and this by the band *k* causes the screen L to revolve.

Having thus fully described the manner in which I combine and arrange the respective parts of my machine, and shown the operation thereof, I do hereby declare that I do not claim to be the inventor of the

threshing apparatus, or of the revolving screens or of either of the parts thereof taken separately; but

What I do claim as new and wish to secure by Letters Patent is—

The manner in which I have combined and arranged these parts so as to produce a new and useful effect; that is to say, I claim the combining of the two rolling

screens F and L with the two endless 10 aprons I, and J, so as to effect the separation and cleaning of the grain in the manner set forth.

PHINY WELLER.

Witnesses:

THOS. P. JONES,

EDWIN L. BRUNDAGE.