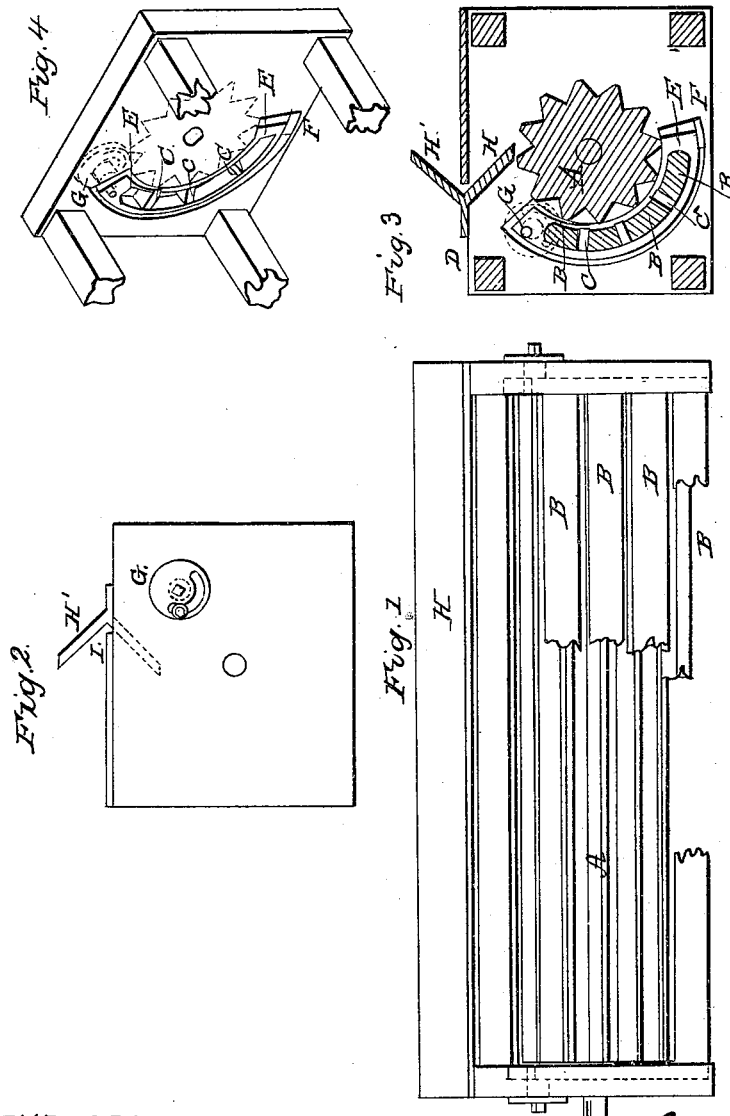


N. PALMER.  
Thrashing Machine.

No. 53,860.

Patented April 10, 1866.



WITNESSES  
G. C. Humphries  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

NELSON PALMER, OF HUDSON, NEW YORK.

## IMPROVEMENT IN THRASHING-MACHINES.

Specification forming part of Letters Patent No. 53,860, dated April 10, 1866.

*To all whom it may concern:*

Be it known that I, NELSON PALMER, of Hudson, in the county of Columbia and State of New York, have invented a new and useful Improvement in Thrashing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation with portions of the work broken away to show the thrashing-cylinder. Fig. 2 is an end elevation. Fig. 3 is a transverse vertical section; and Fig. 4 is an isometrical projection of one end of the frame or casing, showing the inside thereof.

The same letters refer to identical parts.

This improvement relates to that class of machines in which the straw is fed to the machine sidewise, as contradistinguished from those machines in which the straw is fed endwise.

A is the thrashing-cylinder with longitudinal ribs running the length of the cylinder.

B is a concave, between which and the cylinder the straw passes in being thrashed. This concave may be composed of bars, as shown, or may be made of one piece perforated with holes, through which the grains will drop on being separated from the straw. This concave is secured at each end to a segment, E, which rests in a chamber corresponding to its form in the ends of the frame or casing, and upon elastic pads or cushions F. These are to be yielding enough to permit the passage of any hard substance that may be among the straw. When the concave is composed of bars, as shown, they are separated by india-rubber or other elastic cushions C C.

G is an eccentric bolt, attached at its center on the outside of the frame, controlled by a pin working in a slot near its rim, and on the inside attached by an eccentric projection to

the segments on the ends of the concave. Similar bolts are attached to each end of the concave, and, by their eccentric operation, control the relations of the concave to the thrashing-cylinder.

H is a board extending lengthwise with the cylinder across the machine, for the purpose of preventing the straw from being carried over by the cylinder, and also to prevent the dust from passing out through the opening D, through which the straw is introduced, into the faces of the men operating and attending the machine.

I is an opening extending across the machine in the upper casing, through which the dust passes and is directed, by the slanting board H', also extending across the machine, away from the faces of the men feeding the machine.

Having thus fully described my improvements, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The eccentric bolts G, or their equivalents, to regulate the relations of the concave to the cylinder, substantially as set forth.

2. Springs of rubber or other material, when placed between the slats to give elasticity to the movements of the concave, substantially as and for the purpose set forth.

3. The board H, when used substantially as and for the purpose set forth.

4. The board H', when used in combination with the cylinder A and board H, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NELSON PALMER.

Witnesses:

JOHN KELSO,

JOHN HAYNES.