F. A. STUART.

Thrashing Machine.

No. 3,620. Patented June 5, 1844.

Fig: 2.

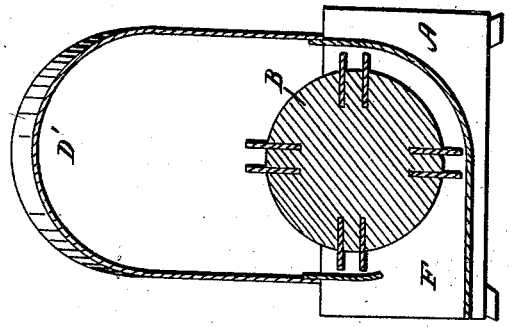
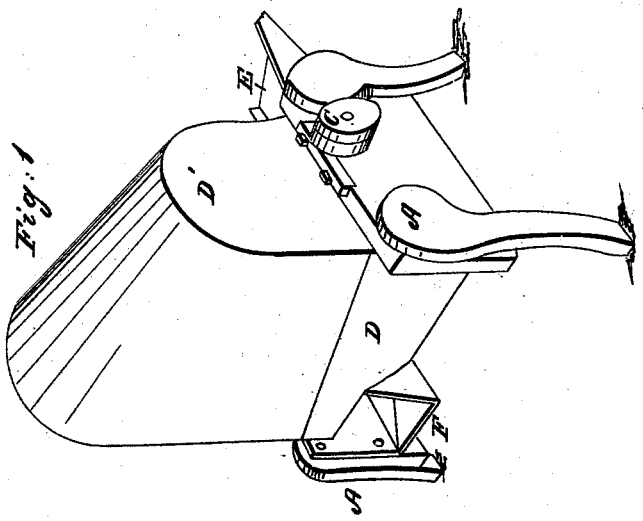


Fig: 1



UNITED STATES PATENT OFFICE.

FREDK. A. STUART, OF CATHARINE, NEW YORK.

THRESHING-MACHINE.

Specification of Letters Patent No. 3,620, dated June 5, 1844.

To all whom it may concern:

Be it known that I, FREDERICK A. STUART, of Catharine, in the county of Chemung and State of New York, have invented a new and useful Improvement in Machines for Separating Grain from Straw, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view, Fig. 2 is a vertical transverse section.

The nature of this invention and improvement consists in inclining the cylinder and surrounding it with a tight case larger at one end than at the other for confining the straw and grain while under the operation of the threshing cylinder having an opening in each end through which the axle of the cylinder passes and an opening in one side into which the feeding hopper is inserted and an opening in the opposite side for the discharging spout.

The frame A spiked cylinder B and driving pulley C are made in the usual manner, except that they are made to stand in an inclined position by making two of the legs of the frame shorter than the opposite pair next the driving pulley.

The case D D′ in which the cylinder revolves is made in two sections—the lower section D being somewhat more than a semicircle made smooth inside and provided on one side with a feeding hopper E and on the other side with a discharging spout F and flanges for securing it to the frame and of greater diameter than the cylinder revolving therein.

The cap or upper section D′ of said case which corresponds with and fits over the edges of the lower sections is made larger at one end than at the other. Its ends being made straight and smooth and its sides straight about one third its height the remaining portion is curved—as a section of a cylinder forming a concave space over the cylinder greater at one end than at the other—the larger end being directly over the discharging spout and the smaller end over the feeding hopper—the top standing at an angle of about ten or fifteen degrees with a horizontal plane, forming a space over the cylinder increasing in size gradually from one end to the other to give room for the straw to move so as to shift or alter its position while being acted on by the teeth of the cylinder.

The bundles of straw to be threshed for separating the grain therefrom are first untied and then introduced to the threshing cylinder through the feeding hopper and the cylinder being in rapid motion the straw is carried around it in a spiral direction in the case with great velocity until the grain is completely separated therefrom when the whole is discharged through the spout F at the lower or discharging end to be subjected to the action of the winnowing machine for cleaning the grain of the chaff, &c., which is performed in the usual manner.

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

The before described mode of separating grain from straw by subjecting it to the action of an inclined revolving cylinder of teeth within a smooth case made larger at one end than at the other for the purpose of allowing the straw and grain to have a spiral movement downward and around the cylinder from the feeding toward the discharging end by which it is subjected to the action of the revolving teeth at every revolution of the cylinder without the danger of the machine clogging, and without the use of any concave of the ordinary construction provided with teeth, said concave being constructed and arranged as before described.

FREDERICK A. STUART.

Witnesses:

WM. P. ELLIOT,

ALBERT E. JOHNSON.