H. CLARK.

Thrashing Machine.

No. 14,444. Patented March 18, 1856.

Fig: 1.

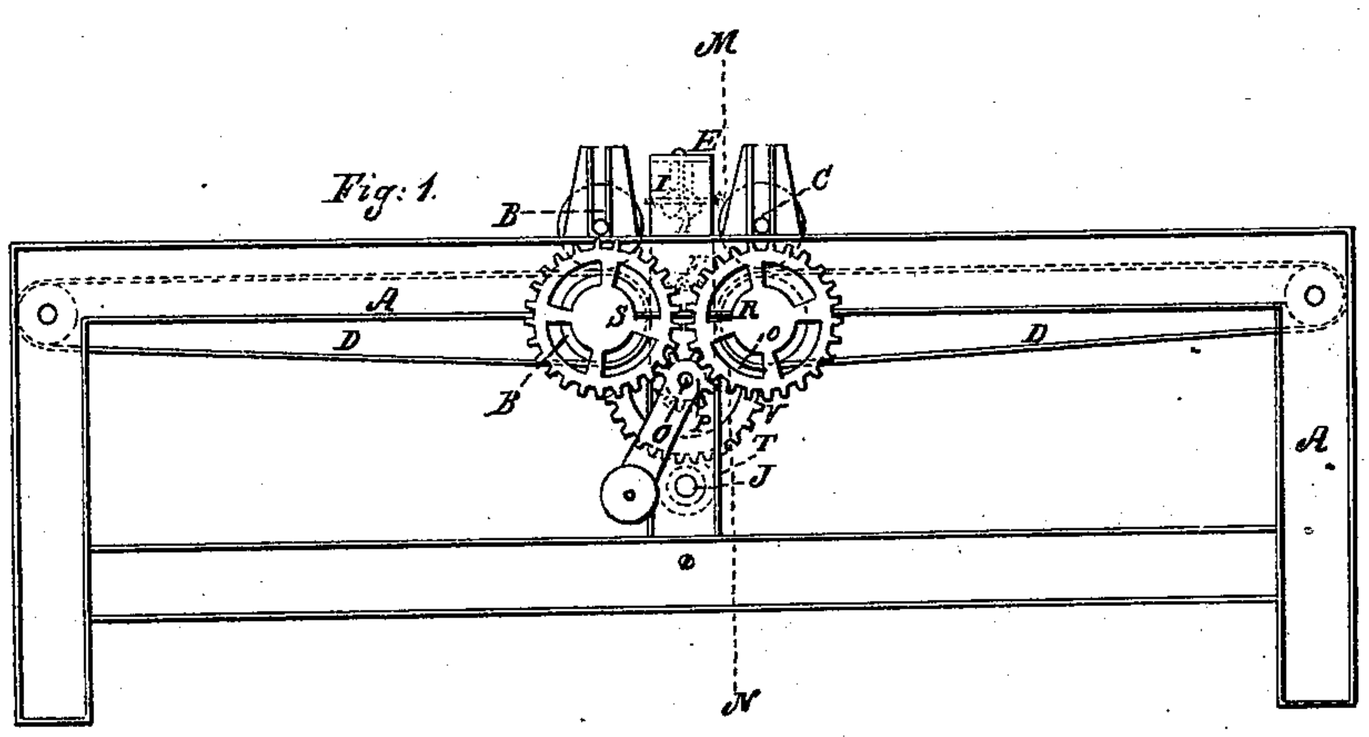


Fig: 2.

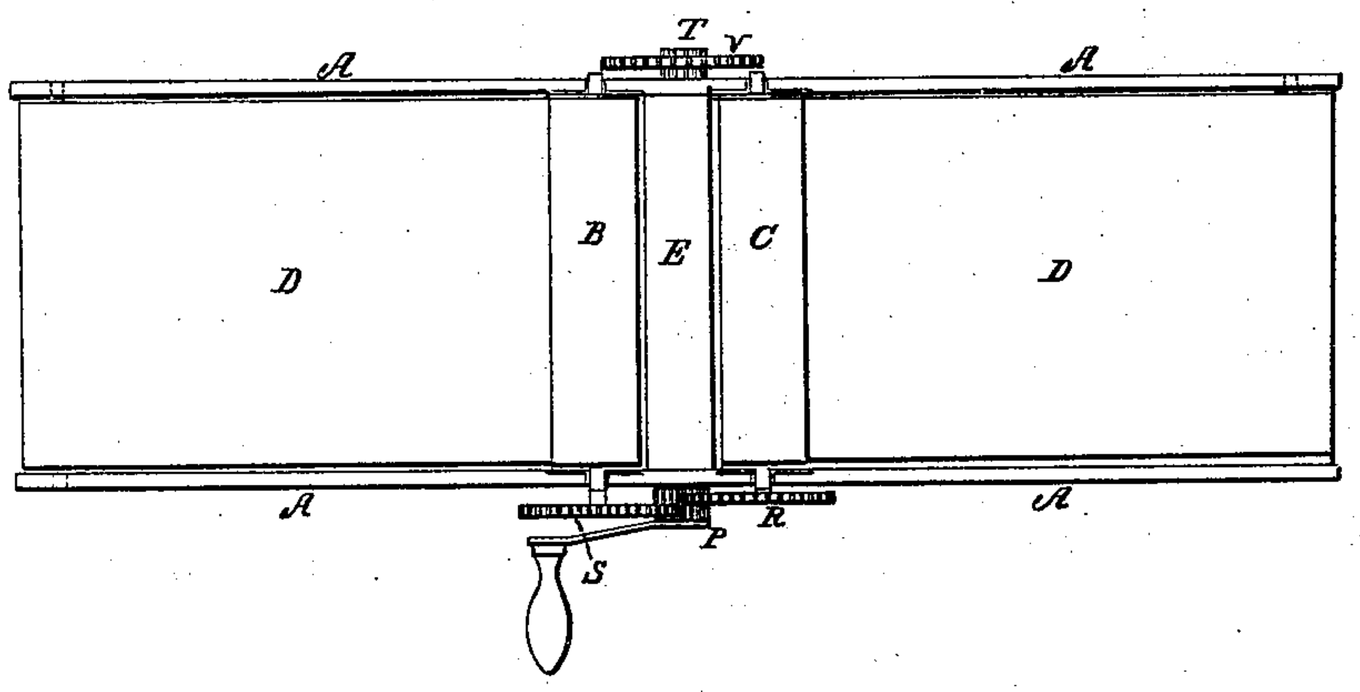


Fig: 3.

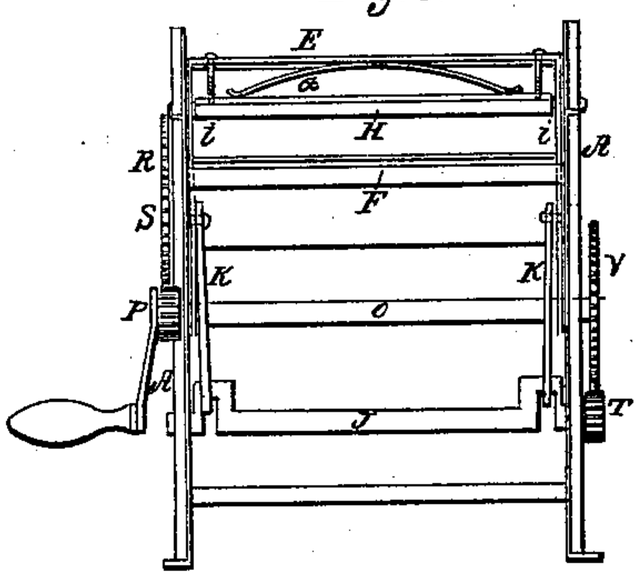
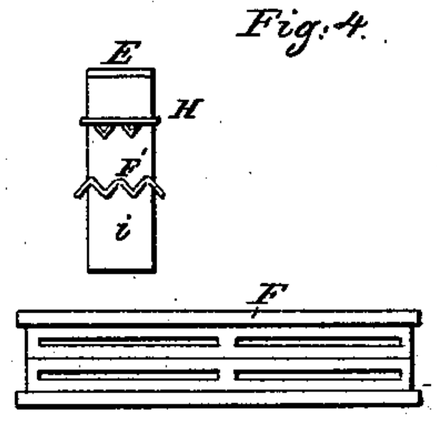


Fig: 4.



UNITED STATES PATENT OFFICE.

HIRAM CLARK, OF PRINCETON, MASSACHUSETTS.

THRESHING-MACHINE.

Specification of Letters Patent No. 14,444, dated March 18, 1856.

To all whom it may concern:

Be it known that I, HIRAM CLARK, of Princeton, in the county of Worcester and State of Massachusetts, have invented certain 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 drawings herewith presented and to the letters of reference marked thereon, in which drawings—

Figure 1 is a side elevation, Fig. 2 is a top view, Fig. 3 is a transverse section through M N, Fig. 4 shows some parts of the same.

My improved thresher for which I claim a patent differs from the old forms both in not using a rubbing or tearing stroke, and in delivering the straw straight as when put in only giving it a succession of strokes similar to the use of the flail, giving them with a mathematical accuracy on all parts insuring the separation of all the grain.

A great objection to the use of the old threshers is the breaking or tearing of the straw so that it is for most purposes comparatively worthless; this is entirely obviated by my improvement by which the straw is preserved almost entire and as straight as necessary to preserve its quality.

To construct my improved thresher I make a frame A A with the feed rolls B B C C and endless aprons D D. Between the two sets of feed rolls fasten the piece F of which a section is shown at F′ Fig. 4 it being composed of a series of elevations and depressions the latter having openings through to allow the grain to fall, above which place the piece H of similar construction except that it needs no openings, its ridges fitting into the hollows in the lower one, this piece H attach to the crosspiece E and between them place the spring G so that the piece H will move with E except when it meets resistance to overcome the spring G which then yielding allows E to make its regular motion. The piece E is attached to the slides I I which receive motion from the crank shaft J through the connecting rods K K, the shaft J and the rolls B and C receiving motion from the driving shaft O by means of the gear P, R, S, V, and T, the proportion of the motion being such that the strokes of the piece H strike sufficiently near to each other to separate the grain entirely from the heads passed through. To operate the machine give motion to the shaft O and place the straw containing the grain on the apron running in, and it is carried between the rolls and passed over the piece F receiving the repeated strokes of the piece H the action of which by slightly bending the straw or heads loosens all the grain and shakes it out allowing it to fall. The straw being caught by the other feed rolls is delivered on the other apron, from whence it may be removed by an attendant. If it is such as it is desirable to keep straight, the other kinds may be allowed to fall at the end of the machine and be removed at leisure. The action of the spring G being such as to allow the inequalities of the straw while it insures the action of the slightest quantity.

The use of cams or similar mechanical device may be substituted for the cranks and other parts of the machine varied as the pieces H and F be changed giving motion to the lower one and the spring G applied to either without departing from my principles of operation.

I do not claim the precise form of any of the parts nor the use of feed rolls and aprons in threshing machines as I am aware such have been used, but

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

1. I claim the use of the pieces H and F for separating the grain by an action similar to that of a flail in connection with the rolls and aprons or similar device, when constructed and operating in the manner and for the purposes as above set forth and described.

In witness whereof I have hereunto set my hand this fifteenth day of February A. D. 1856 in the presence of two witnesses.

HIRAM CLARK.

Witnesses:

ABRAM H. WILSON,

ADALINE L. CLARK.