2 Sheets—Sheet 1.

J. ROBERTS.

Fanning Mill.

No. 7,400.

Patented May 28, 1850.

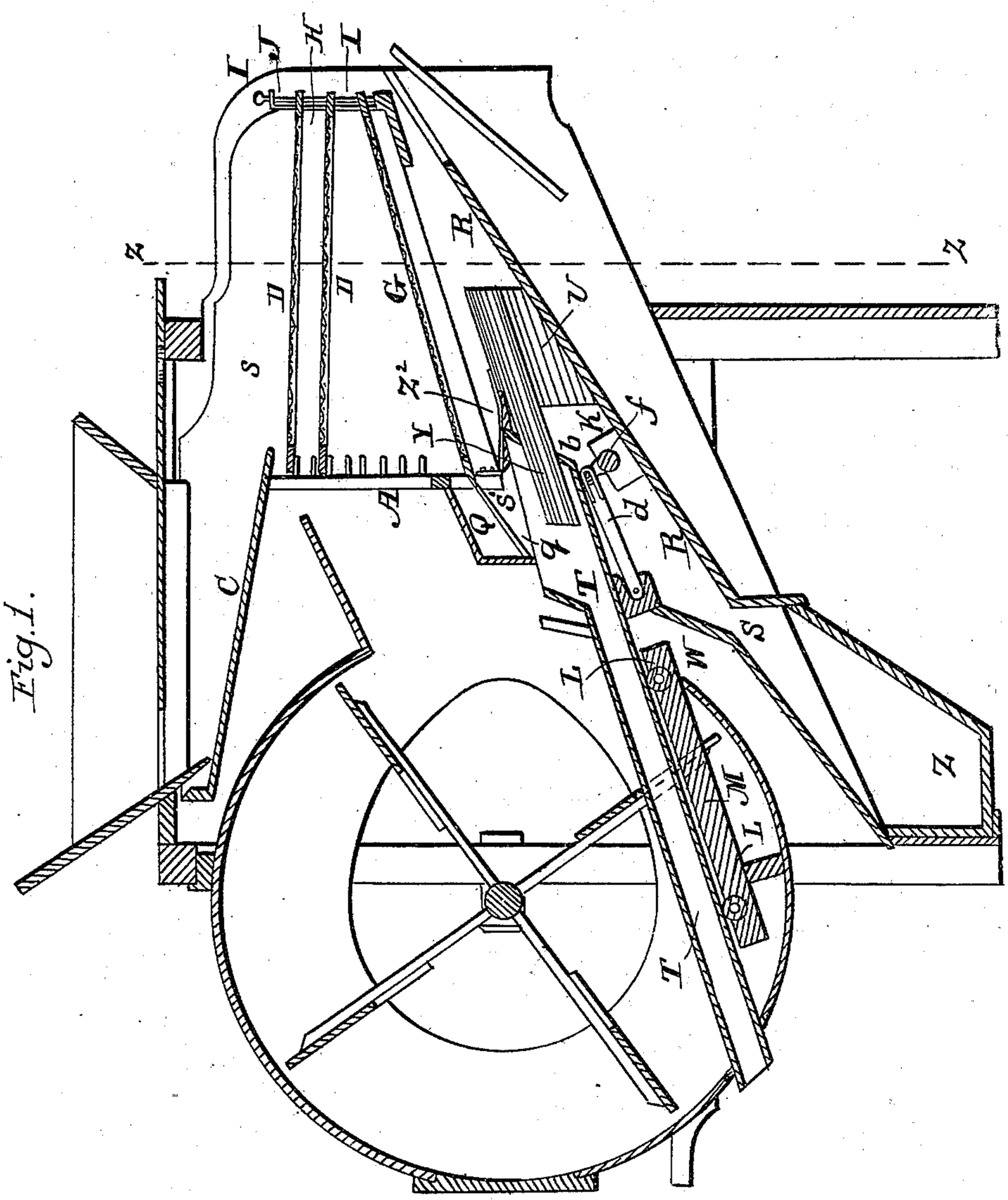

Fig. 1.

2 Sheets—Sheet 2.

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Fig. 2.

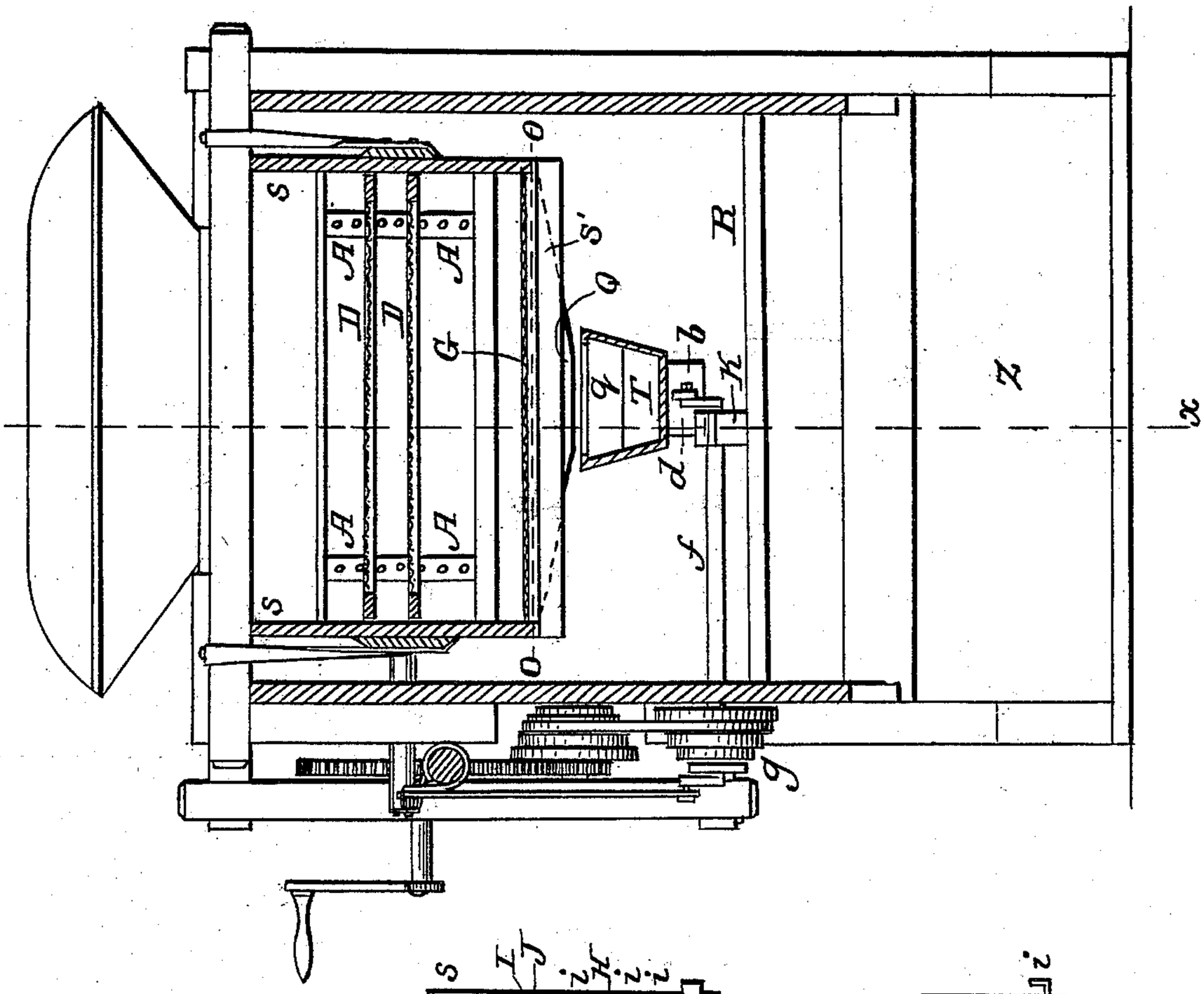


Fig. 4.

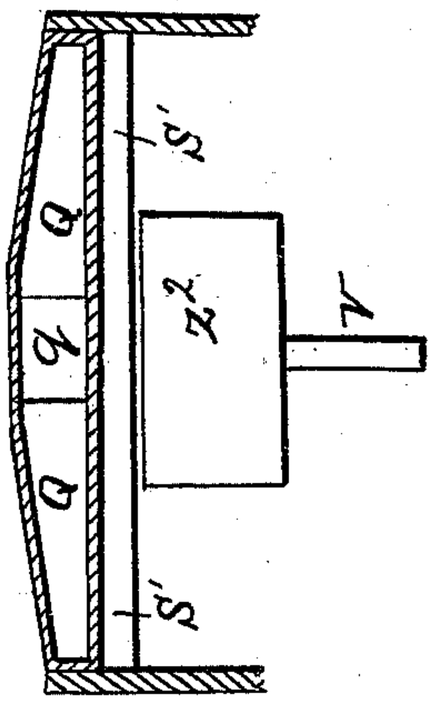


Fig. 3.

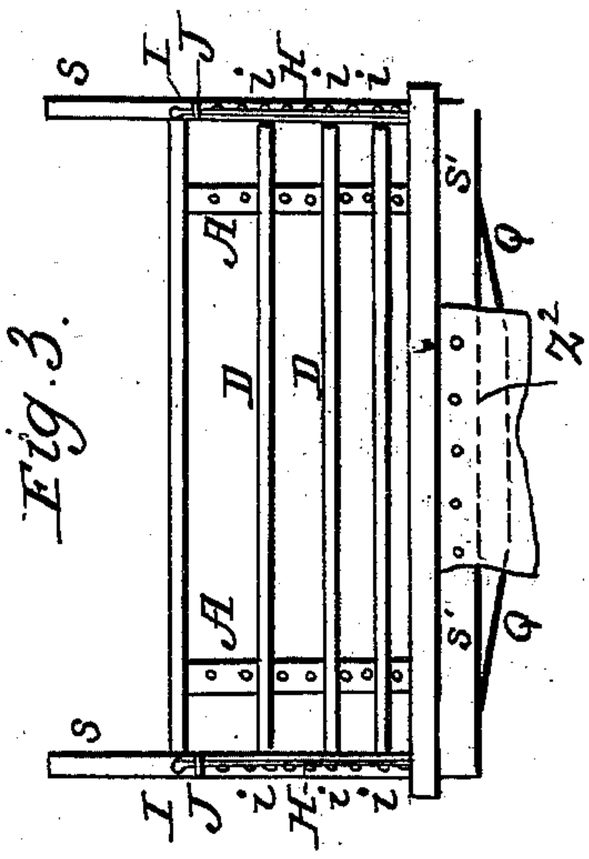
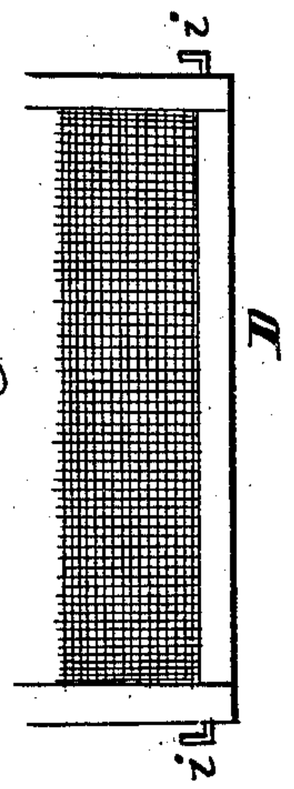


Fig. 5.



UNITED STATES PATENT OFFICE.

JESSE ROBERTS, OF PENNS SQUARE POST OFFICE, PENNSYLVANIA.

FANNING-MILL.

Specification of Letters Patent No. 7,400, dated May 28, 1850.

To all whom it may concern:

Be it known that I, JESSE ROBERTS, of Springtown, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement upon the Wheat-Fan; 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 annexed drawings, making a part of this specification.

Figure 1, is a vertical longitudinal section, through the center of the machine on the dotted line *x*, *x*, of Fig. 2. Fig. 2, is a vertical transverse section on the line *z*, *z*, of Fig. 1. Fig. 3, is an elevation of the tail end of the shoe, showing the racks, gage plates, hooks, confining rods, and ends of the screen and riddle. Fig. 4, is a horizontal section on the line *o*, *o*, of Fig. 2, showing the transverse trough, inclining from either side to the center for discharging the grain into the inclined central trough, and the apron Z^2. Fig. 5 is a plan of a section of one of the riddles, showing the hooks.

Similar letters refer to corresponding parts in the several figures of the drawings.

As this fanning machine in all its essential features is constructed in a manner very similar to the well known wheat fan, and is operated in a similar manner, and to avoid unnecessary prolixity, I shall confine my description to the parts of the machine that I have improved, and which will form the subjects of my claims.

A, A, are two vertical racks, secured to the inner end of the shoe, for supporting the inner ends of the riddles D, D, and screen G in such manner that they can be raised or lowered to any required level at pleasure. These racks are composed of two vertical parallel bars into which are inserted a number of horizontal pins upon which the riddles are to rest.

H, H, are two corresponding vertical gage plates arranged at the tail end of the same, and fastened thereto, for supporting the lower end of the riddles and screens. These plates are perforated with a number of holes to admit hooks *i* fastened to the riddles and screens for sustaining them at any required inclination.

I, I, are two vertical confining rods passed down through horizontal perforated plates J, fastened to the upper portions of the sides of the shoe behind the hooks, after these are inserted into the plates, to prevent them from becoming disengaged therefrom, before the rods are withdrawn,—the lower ends of the rods when inserted through the plates I, I, being secured in the outer cross timber of the shoe. The lower edge of the screen rests upon the inner lower cross timber of the shoe, so as to discharge the grain directly into the transverse trough.

When it becomes necessary to increase or diminish the angle of inclination of the riddles and screen the confining rods I must be withdrawn, and the hooks *i* changed to a higher or a lower level, and the rods again inserted to prevent the hooks from leaving the plates H by the motion of the shoe. This arrangement enables the operator to alter the inclination of the screen and riddles with great facility.

My second improvement consists in a combination and arrangement of inclined troughs, leading toward, and from, the center of the machine for collecting and discharging the cleaned grain into the measure or receiver, at the front, and above the level of the floor on which it stands.

T, is an inclined reciprocating grain trough for conducting the cleaned grain into the receiver. This trough is made of thin metal, or other suitable material and is placed in the center of the frame, upon two parallel transverse rollers L, whose gudgeons turn in inclined parallel side timbers M, secured to the frame, and moves back and forth in an opening in the fan case or drum. It is vibrated by connecting the trough T, to a crank *b*, by a rod *d;* which crank is on the end of the axle *f*, of the shaker pulley *g*. Said axle being extended to the center of the frame for that purpose, having its inner bearing in a block of wood *k*, secured to the frame.

Q is a transverse tin or sheet iron trough attached to the vibrating shoe immediately beneath the lower end of the cockle screen G inclining from either side to the center, having an opening *q*, in its bottom, directly over the mouth of the central longitudinal vibrating trough T through which the cleaned grain descends into said trough.

R is a stationary inclined board upon which falls the screenings from the screen G said board conveying the same to the opening S through which they descend into the box *z*.

In the uper end of the trough T is an

opening to admit a stationary guide board V attached to the upper surface of the inclined board R over which the trough vibrates during the operation of the machine.

v is a block connecting the guide V with the board R.

W, is an inclined board to prevent the screenings from passing over and beyond the opening S and scattering about the frame.

C, is the feed board within the shoe at the bottom of the hopper for conducting the grain to be screened to the screens D.

S is the shoe.

Z^2 is an apron attached to the center of the inner cross piece S′ and extending backward and resting upon the central guide board V, for the purpose of preventing the entrance of the screenings into the upper open end of the central longitudinal vibrating trough.

Having thus described the nature of my improvement in the machine for cleaning grain, and the operation of the same, what I claim as my invention and desire to secure by Letters Patent is,

1. The employment of the racks A—perforated gage plates H, hooks (*i*) and confining rods I in combination with the shoe (*s*) for confining and adjusting the riddles D, D, and screen G in the shoe in the manner described.

2. I also claim the arrangement of the vibrating longitudinal, inclined conducting trough T in combination with the transverse inclined conducting trough Q attached to the vibrating shoe for receiving the cleaned grain from the screen and conducting it directly into the measure or bag, as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

JESSE ROBERTS.

Witnesses:
WM. P. ELLIOT,
JOHN H. HARNER.