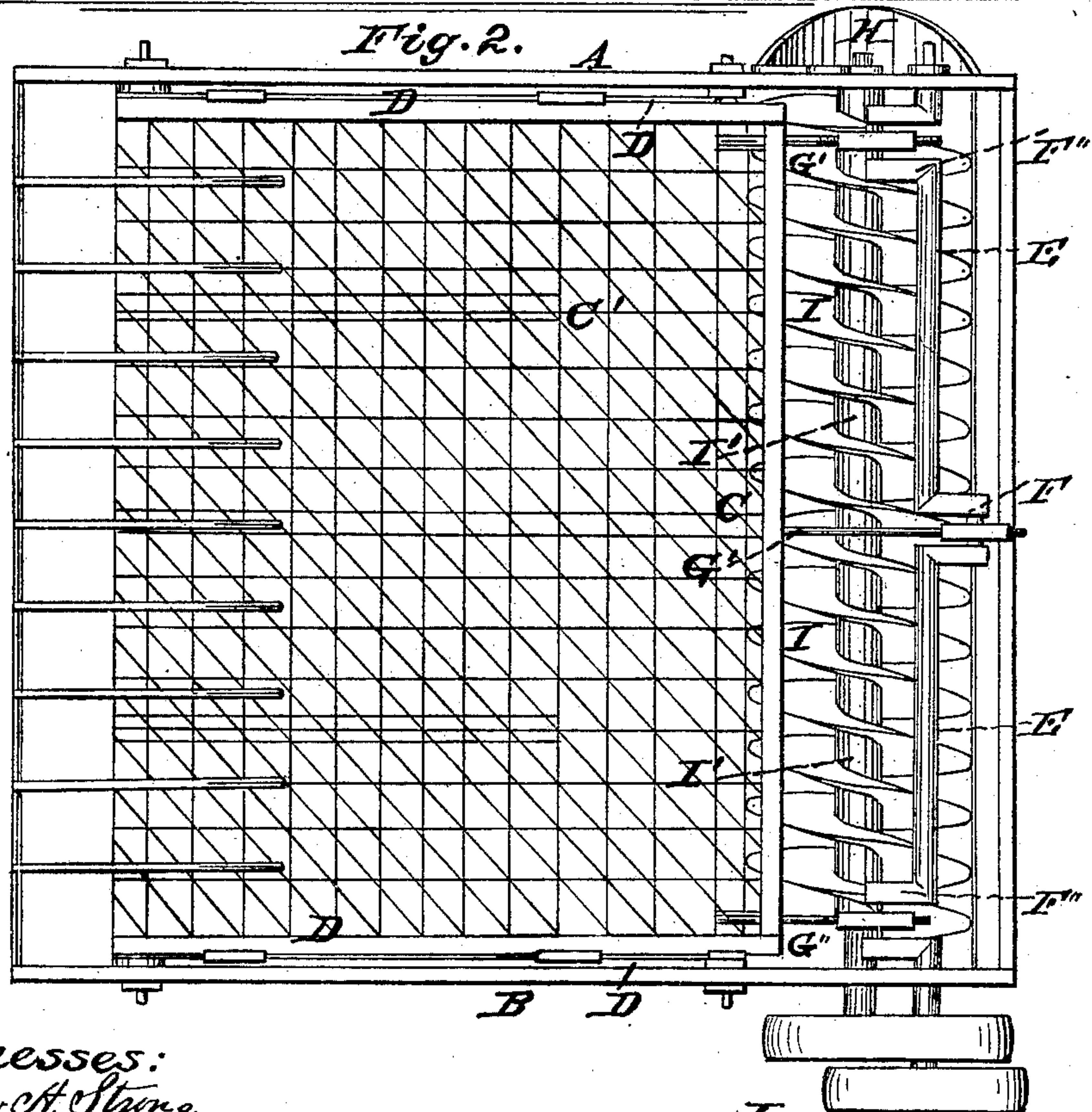
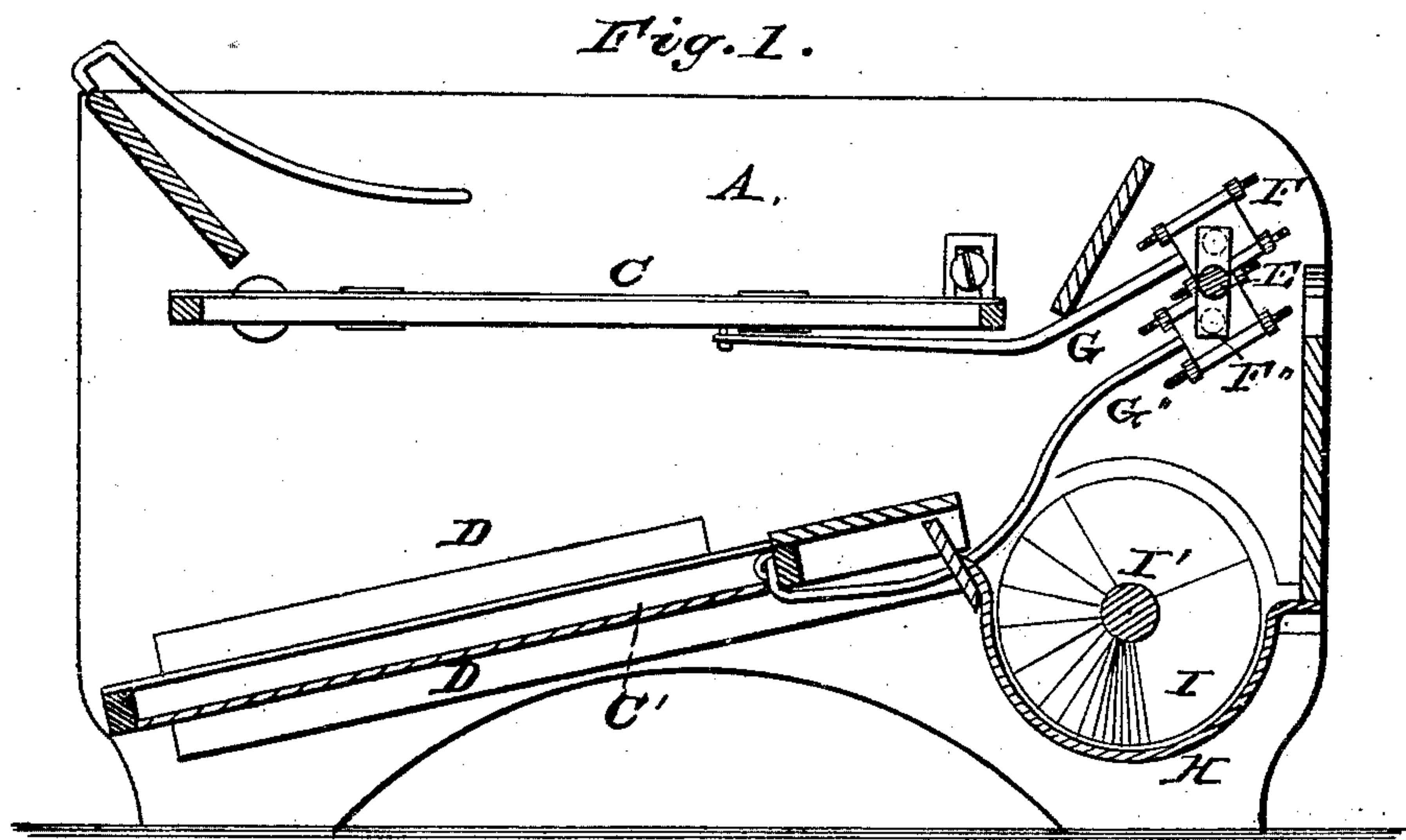


M. LAUFENBURGE.
Shoe for Grain Separator.

No. 78,597.

Patented June 2, 1868.



Witnesses:
Geo. H. Strong
J. L. Boone

Inventor:
M. Laufenberg
By his Atty's Dury & Co

United States Patent Office.

MICHAEL LAUFENBURGE, OF TWO ROCKS, CALIFORNIA.

Letters Patent No. 78,597, dated June 2, 1868.

IMPROVED SHOE FOR SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MICHAEL LAUFENBURGE, of Tow Rock, county of Sonoma, State of California, have invented an Improved Shoe for Threshing-Machines; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention is intended to be used as a substitute for that part of a threshing-machine called the shoe, and consists in placing the sieves in the frame at an incline, where they are driven to and fro on ways, by means of rods attached to a horizontal eccentric driving-shaft. Beneath the shaft is a horizontal screw, which conveys the tailings to elevators in a uniform manner.

To more fully illustrate and describe my invention, reference is had to the accompanying drawings, and letters marked thereon, of which—

Figure 1 is a side sectional elevation.

Figure 2 is a plan.

A and B are the two sides of the frame, in which the sieves or screens C C' operate, moving on ways D D.

The lower sieve is placed at an angle in the frame of about forty-five degrees, while the upper sieve, C, is placed at a less angle, and inclines in an opposite direction, towards the driving-shaft. These sieves are connected, by curved rods, to a horizontal driving-shaft, E, which has three eccentrics, F F' F'', upon it. The upper sieve is connected to the shaft by the rod G, and the lower sieve by the rods G' G''; the eccentrics F' and F'' being placed on the shaft in an opposite direction to that of F, so that when the lower screen is drawn in one direction, the upper one is moving in an opposite direction, and so on alternately.

At one end of the machine, beneath the driving-shaft, is placed a half oval trough, H, in which revolves a screw or auger, I, upon a shaft, I', which is connected by a belt to the driving-shaft above.

The grain that does not pass through as it falls upon the top sieve, is carried, by the shaking motion imparted by the eccentric-shaft, to the edge of the screens, and falls down into the oval trough, and is carried out by the rotating screw, through an opening made in the end of the trough into an elevator.

By this means a device for shaking the sieves, without creating any jars on the frame of the machine, is had, and the whole space between the sides of the frame occupied, and thus the capacity of the sieves for cleaning grain is increased, which is not the case when a to-and-fro combined with a side motion is imparted, as in ordinary shoes.

The auger or screw conveys the tailings into the elevators in a very uniform manner, and will not choke up when damp grain is being threshed, as is invariably the case when small troughs are employed; also my machine is set over work in much less time than other machines are, as it requires no staking and bracing.

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

The combination of the screw I with the two inclined sieves C and C', vibrating in alternation, substantially in the manner and for the purposes herein described.

In witness whereof, I have hereunto set my hand and seal.

MICHAEL LAUFENBURGE. [L. S.]

Witnesses:

J. CHANDLER,

E. COLE.