H. S. ADAMS.

GRAIN SEPARATOR.

APPLICATION FILED AUG. 5, 1909.

956,617.

Patented May 3, 1910.

2 SHEETS—SHEET 1.

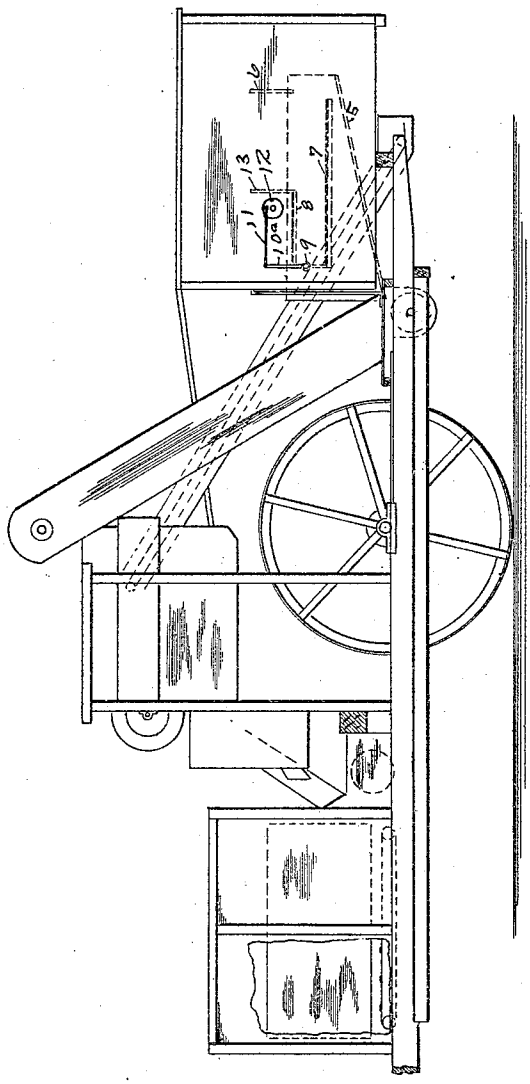

Fig. 1.

Witnesses
E. H. Schmidt.
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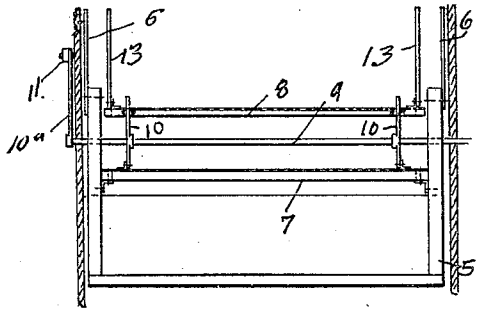

Fig. 2.

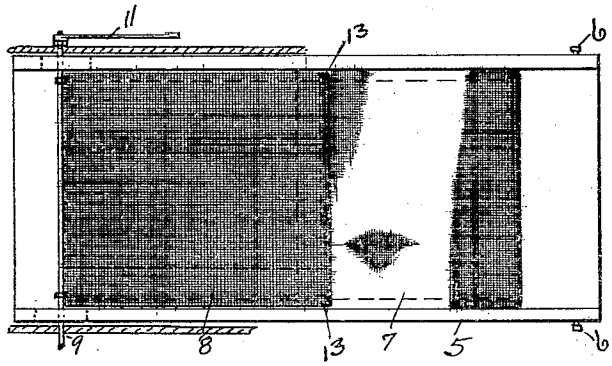

Fig. 3.

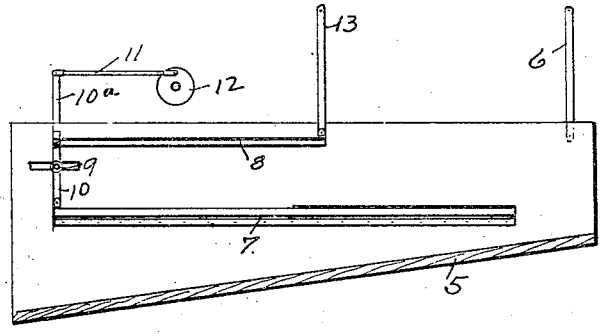

Fig 4.

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UNITED STATES PATENT OFFICE.

HUSTON S. ADAMS, OF HARRINGTON, WASHINGTON.

GRAIN-SEPARATOR.

956,617. Specification of Letters Patent. Patented May 3, 1910.

Application filed August 5, 1909. Serial No. 511,296.

To all whom it may concern:

Be it known that I, HUSTON S. ADAMS, a citizen of the United States, residing at Harrington, in the county of Lincoln and State of Washington, have invented certain new and useful Improvements in Grain-Separators, of which the following is a specification.

This invention relates more particularly to the grain shoe and screens of separators or threshers, and it has for its object to provide the shoe with a pair of superposed screens which are operated in opposite directions, and also to provide improved means for supporting and operating the screens.

With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the drawings hereto annexed, in which—

Figure 1 is a side elevation of a portion of the machine showing the application of the invention. Fig. 2 is an end view, Fig. 3 a plan view, and Fig. 4 a longitudinal section of the grain shoe and screens.

As shown in Fig. 1 of the drawings, the invention is applied to a traveling thresher, also stationary threshers the structure of which, except as hereinafter provided, is immaterial, in view of which a detailed description thereof will not be entered into.

At 5 is indicated the grain shoe of the machine, said shoe comprising a bottom and side walls. The shoe is supported at its rear end by hangers 6 connected to the frame of the machine. The shoe contains superposed screens 7 and 8, respectively, the former being the lower one, and the latter the upper one. The two screens are mounted between the side walls of the shoe, the screen 7 being rigidly secured to said walls, so that the shoe will swing with said screen. The screen 8 is not made fast to the shoe, but swings independent thereof, and it is also shorter than the screen 7, so that it may discharge thereonto from its rear end. Mounted on the side walls of the machine, and extending between and through slots in the side walls of the shoe, near its front end, is a rock shaft 9 on which are fastened intermediate their ends, levers 10, which are connected on opposite sides of the rock shaft to the screens 7 and 8 at their front ends and near their opposite edges. On the rock shaft is made fast an arm 10^a which is connected by a pitman 11 to a crank wheel 12, which is operatively connected to the driving mechanism of the machine. The rear end of the screen 8 is supported by hangers 13 connected to the frame of the machine.

By the connections herein described, it will be evident that when the shaft 9 is rocked, the screens 7 and 8 will receive a shaking motion in opposite directions, and as the screen 7 is made fast to the shoe 5, the latter will swing therewith. By this construction a most effective separation is had, and the grain which does not pass through the screen 8 works to the rear end thereof and drops down on the screen 7 below to receive another treatment.

I claim—

In a grain separator, a grain shoe, hangers supporting one of the ends thereof, superposed screens in the shoe, one of the screens being made fast to the shoe, and the other screen swinging independent thereof, a rock shaft mounted in the walls of the separator, and passing loosely through the walls of the shoe, levers fastened to rock shaft intermediate their ends, and connected on opposite sides of the rock shaft to one of the ends of the screens, hangers supporting the other end of the independently swinging screen, and means for operating the rock shaft.

In testimony whereof I affix my signature in presence of two witnesses.

HUSTON S. ADAMS.

Witnesses:

W. J. HALL,

F. W. SCHANDONEY.