J. M., F. W. & C. V. HERMAN.

Grain-Separators.

No. 202,727. Patented April 23, 1878.

Fig. 1.

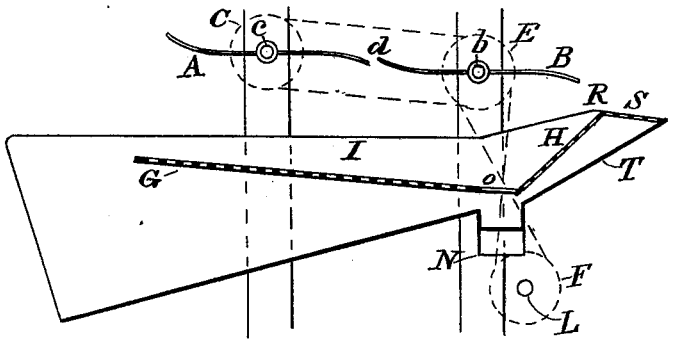
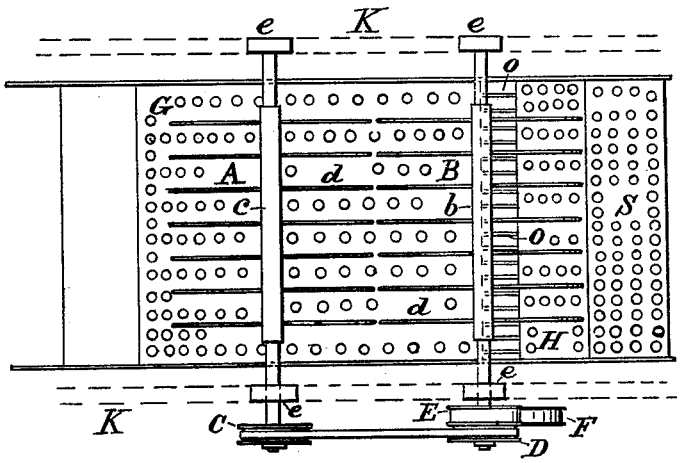


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN M. HERMAN, FREDERICK W. HERMAN, AND CHARLES V. HERMAN, OF LINCOLN CENTRE, KANSAS.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **202,727**, dated April 23, 1878; application filed March 19, 1878.

To all whom it may concern:

Be it known that we, JOHN M. HERMAN, FREDERICK W. HERMAN, and CHAS. V. HERMAN, of Lincoln Centre, in the county of Lincoln and State of Kansas, have invented certain new and useful Improvements in Thrashing-Machines; and we do hereby declare that the following is a full, clear, and exact description of our invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a sectional elevation, and Fig. 2 is a plan view of that portion of a thrashing-machine embodying the improvements of our invention.

This invention has relation to improvements in thrashing-machines; and it consists in the construction of a shoe having a horizontal screen terminated at its outer end by a projecting screen, which arrests the grain ordinarily carried out by the straw, and causes it to pass through the elevated projecting screen, and thence outward by a chute from the machine.

Our invention further consists in the employment, in connection with the shoe above described, of a revolving shaft armed with pickers, which removes, at the same time, the chaff from the horizontal and elevated screens.

In the accompanying drawing, similar letters of reference indicate like parts of the invention.

Where the riddle G is constructed in the ordinary manner, the time and attention of one man are taken to keep the meshes clear of chaff, to permit the grain to be separated from it, and to prevent waste.

The ordinary shoe employed at the front of the riddle is very little higher than the riddle itself, and consequently a considerable quantity of grain is carried away to the stack, and is there lost. Our improvements obviate these defects and save the labor of one man.

Two revolving pickers, A and B, consisting of the shafts *b* and *c*, provided with slightly-curved or S-shaped teeth *d*, are supported in bearings in the sides K of the frame of the thrashing-machine, directly over the riddle G, so that when revolved the teeth *d* will clear the meshes of the riddle G of the chaff, which would otherwise clog it and permit the grain to fall through.

Washers *e* are secured to the shafts *b c* to prevent lateral motion of said shafts in their bearings in the sides K of the thrasher-frame.

The shaft *b* is provided at one end with the pulleys D E, and the shaft *c* with the pulley C. The stacker-shaft L has a pulley, F, from which a crossed belt leads to the pulley E. A belt, M, also leads from the pulley D on shaft *c*, so that power is communicated from the stacker-shaft L to the revolving pickers A B.

A chute, N, is placed beneath the riddle-frame. Directly at the front of the riddle G are fingers O, extending from the front of the riddle G over the chute N, and quite near to the inclined portion H of the elevated extension-riddle R, for the purpose of preventing straw, &c., from falling into the chute N.

A portion, S, of the elevated extension-riddle is horizontal, as shown, and the lower front portion T of the riddle-frame inclines downward to the upper front edge of the chute N, for the purpose of carrying the grain that falls through the extension-riddle back to the chute N. This elevated extension-riddle R provides a means for saving all the grain that has been heretofore blown over the ordinary shoe used at the front of the ordinary riddle and carried away by the straw, and the grain thus lost has amounted to bushels in each stack thrashed.

The operation of the invention is very plain and simple.

The revolving pickers clear and keep clear the meshes of the riddle, and thus save the labor of one man, while the elevated extension-riddle R, the inclined portion H of which is so located as to have its meshes cleaned by the revolving picker B, saves the grain that has heretofore been blown over the shoe and carried by the straw to the stack.

Having thus described our invention, and the manner of operating the same, what we claim as new and useful, and desire to secure by Letters Patent, is—

1. In a thrashing-machine, a shoe provided

with the horizontal screen G, elevated screen S H, rods *o*, and chute N, as herein specified.

2. In combination with a shoe having the horizontal screen G and elevated screen S H, the revolving pickers B operating both on the horizontal and elevated screens, as herein specified.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JOHN M. HERMAN.
FREDERICK W. HERMAN.
CHARLES VERGEL HERMAN.

Witnesses:
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A. C. SPRINGER.