

R. SPRENKEL.
GRAIN-SEPARATORS.

No. 194,624.

Patented Aug. 28, 1877.

Fig. 1

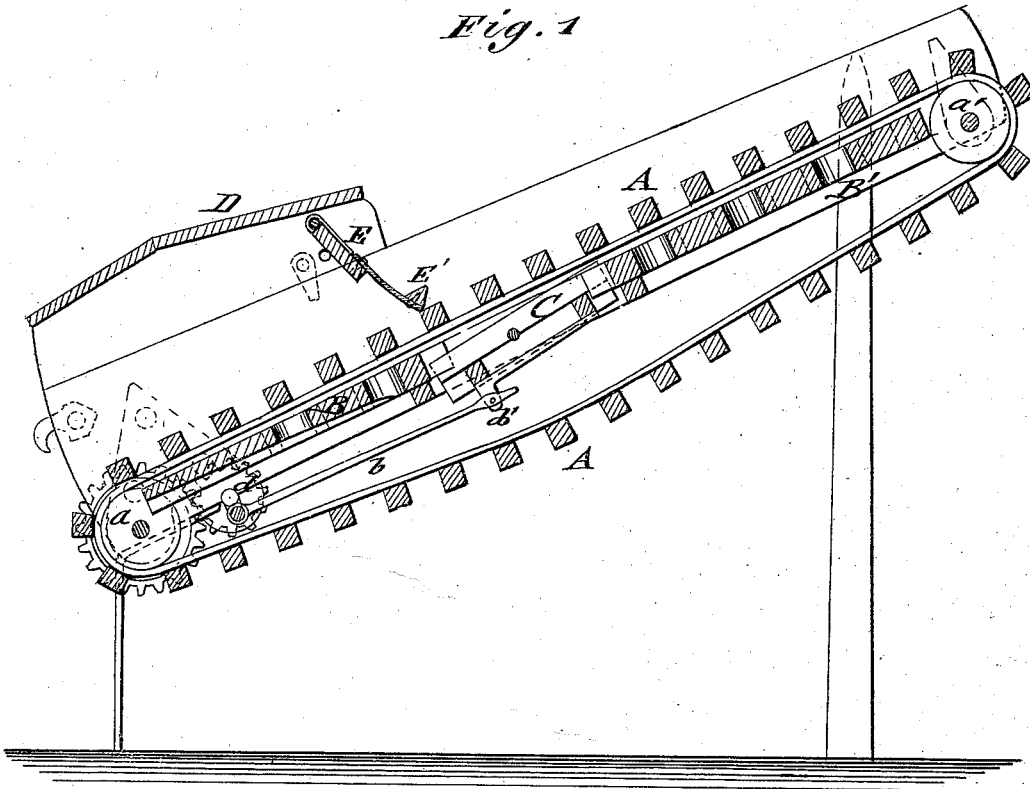
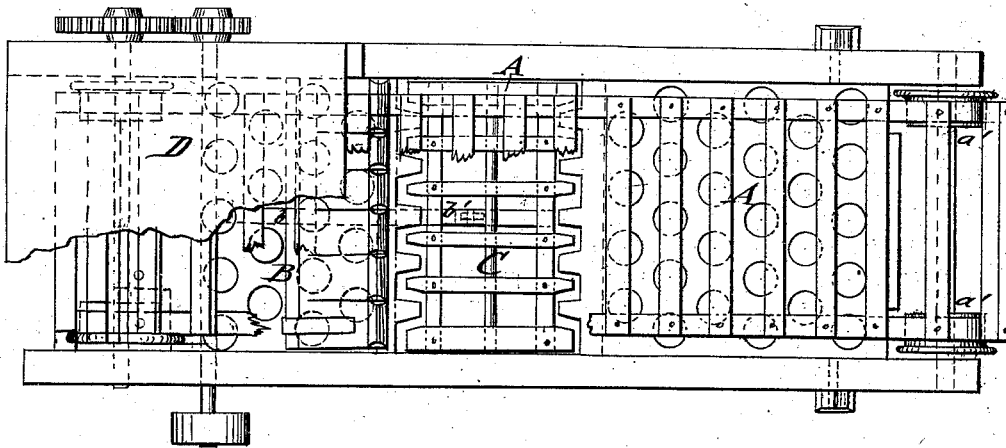


Fig. 2



WITNESSES:

C. Newell
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UNITED STATES PATENT OFFICE.

REUBEN SPRENKEL, OF YORK, PENNSYLVANIA.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. 194,624, dated August 28, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, REUBEN SPRENKEL, of York, in the county of York and State of Pennsylvania, have invented a new and Improved Grain-Shaker, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of my improved grain-shaker, and Fig. 2 is a top view of the same with parts broken off.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the drawing, A represents an endless carrier-belt, made in the customary manner of leather bands with cross-slats, by which the straw is taken up and conducted forward after leaving the thrasher. The endless carrier A is supported at suitable inclination, and stretched tightly over driving-rollers *a* at the lower end, and tension-rollers *a'* at the upper end.

Below the upper section of the carrier A is arranged a perforated board, B, and a similarly-perforated board, B', at the upper part of the carrier, and between the upper and lower boards is placed an oscillating rocker, C. The rocker C swings on a central pivot-shaft, and is operated by a crank-rod, *b*, that is pivoted to an arm, *b'*, of the rocker, either at the center or side of the same, and connected to the driving crank-shaft *d*, which revolves by cog-wheel connection the shaft of the driving-roller of the carrier.

The oscillating rocker C is made of a number of longitudinal slats, that are secured to end cross-slats, and extended to swing in recesses of the adjoining boards B B', the whole forming a grating that extends from side to side of the machine.

By attaching the connecting crank-rod nearer to or farther from the oscillating rocker or arm *b'*, the oscillations of the rocking frame may be made shorter or longer, so as to exert a lighter or stronger shaking motion on the carrier as required by the grain to be separated.

The action of the rocker on the carrier shakes the grain in effective manner out of the straw as it is conveyed up by the carrier, the grain being collected below the carrier in any suitable manner.

A cap, D, is arranged on the top part of the lower shaker end, so as to close the machine and prevent the flying away of the grain.

To the cap D is hinged a door, E, which is opened and closed by a sheaf or larger quantity of straw, being provided with a series of leather straps, E', that extend down on the carrier and have small blocks of wood or other material at the lower ends that exert a light pressure on the straw. The leather straps rise and fall with the passage of the straw, but prevent the return of any grain, so as to compel it to pass on with the straw to the rocker to be exposed to the action of the same.

The carrier-shaft runs slower than the rocker operating-shaft, giving thereby the rocker a chance to take out all the grain. The straw passes slowly over the machine, being thoroughly agitated by the quick beats of the rocker, without throwing any grain off the shaker. The machine runs without jarring, and takes the straw as fast as it is fed from the cylinder, so as to obviate the choking of the same.

The shaker is secured by end hooks to eye-bolts of the thrasher, and readily connected or detached from the same, it being also so supported as to be raised or lowered at the upper end to provide for the condition of the straw.

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

The combination, with the endless carrier, of the perforated floor and oscillating rocker, said rocker being constructed as a grating or portion of said floor, as and for the purpose specified.

REUBEN SPRENKEL.

Witnesses:

JNO. A. McZILL,
GEO. A. HECKERT.