(No Model.)

J. F. HANSON.

THRASHING MACHINE.

No. 356,121. Patented Jan. 18, 1887.

Fig. 1.

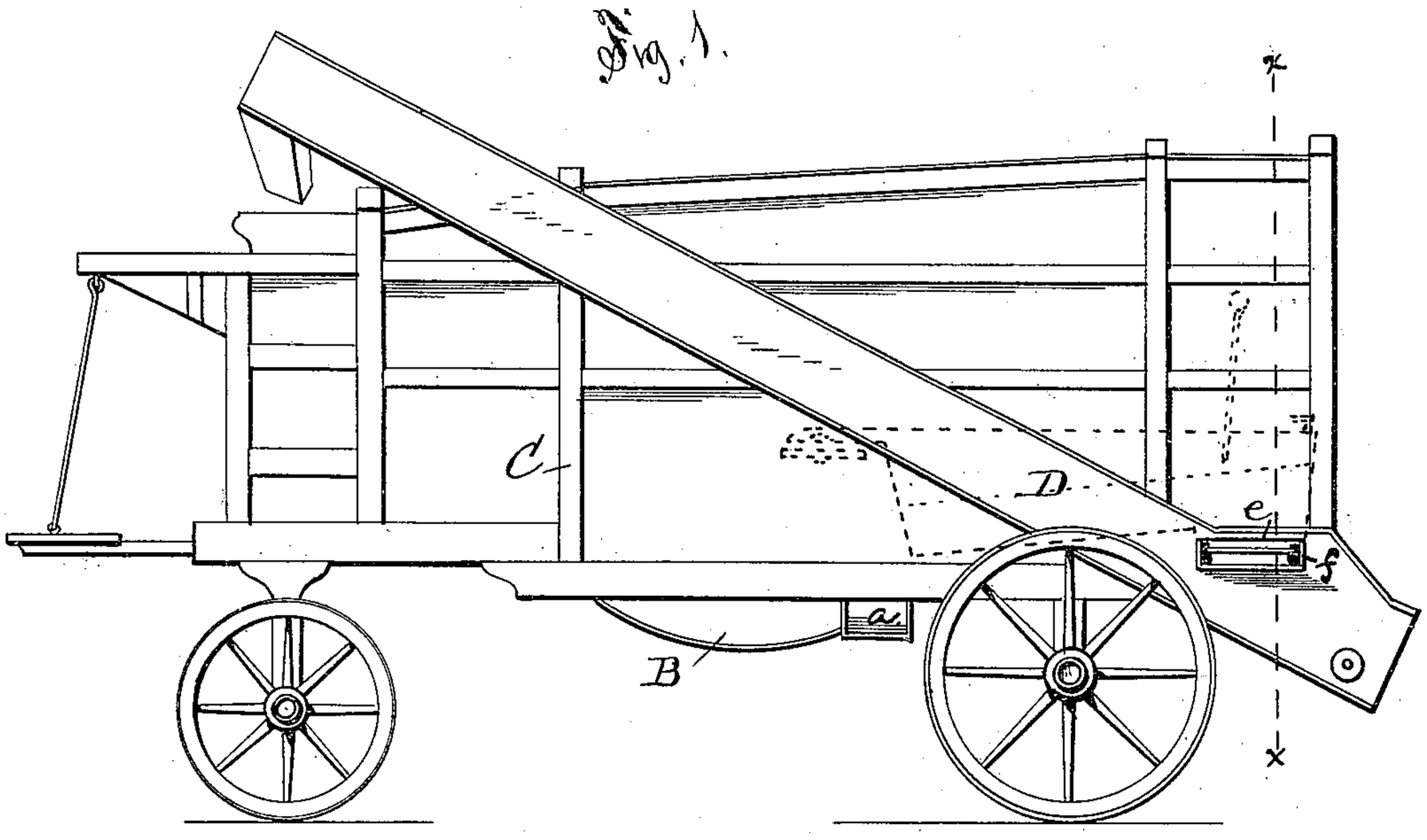


Fig. 2.

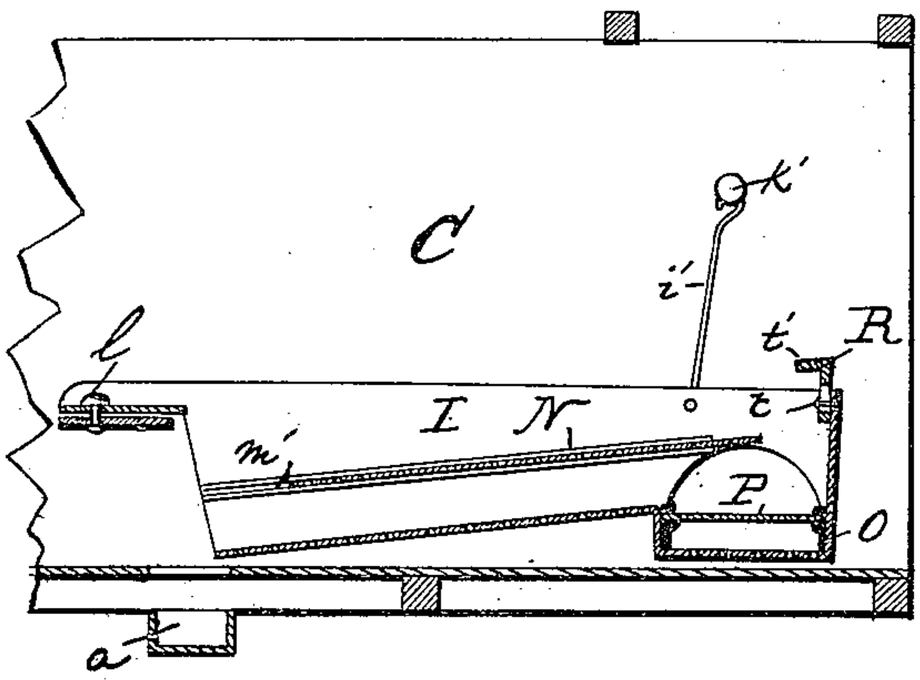
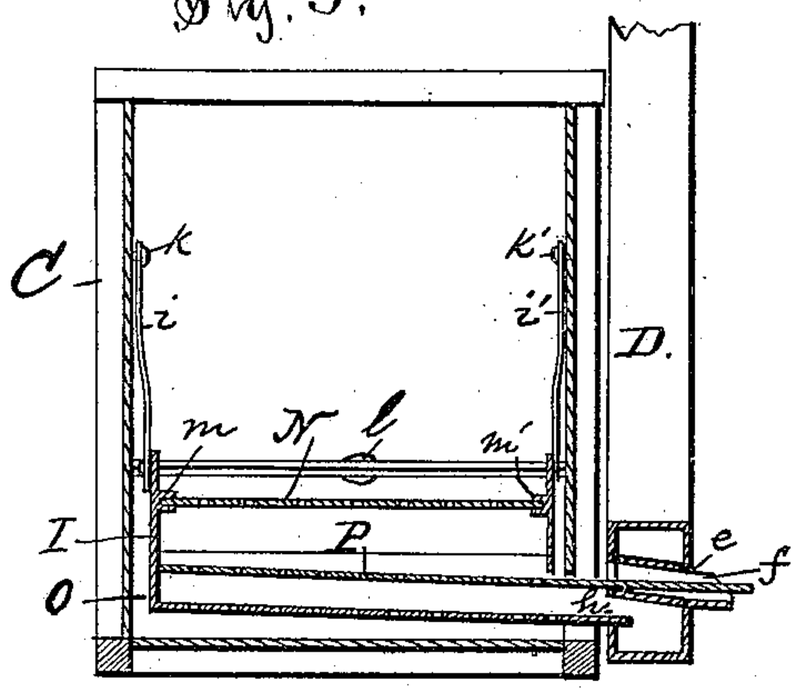


Fig. 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN FRANCIS HANSON, OF NEW ORLEANS, LOUISIANA.

THRASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 356,121, dated January 18, 1887.

Application filed April 5, 1886. Serial No. 197,882. (No model.)

To all whom it may concern:

Be it known that I, JOHN FRANCIS HANSON, a citizen of the United States, and a resident of New Orleans, parish of Orleans, State of Louisiana, have invented new and useful Improvements in Thrashing-Machines, of which the following is a full and exact description, reference being had to the accompanying drawings, making part of this specification.

This invention relates to certain improvements in thrashing-machines, the nature of which will be understood from the following description, taken in connection with the drawings.

In the accompanying drawings, Figure 1 represents a side elevation of my improved machine. Fig. 2 is a vertical longitudinal section of the rear part of the machine, showing the shoe and improvements connected therewith; and Fig. 3 is a vertical cross-section through the line *x x'* of Fig. 1.

On the drawings, the letter C designates the frame of the machine, at one side of which is an elevator-casing, D, having a rectangular opening in the lower end thereof for the reception of a tubular boxing, *f*. Below this boxing the casing is provided, at its inner side, with an opening, *h*, the object of which will be duly described.

The thrashing and straw-separating mechanism, which are not shown, are of the ordinary character, and are adapted to operate within the frame C. In the lower rear portion of the frame is located a shoe, I, the rear end of which is suspended by a pair of rods, *i i'*, from pins *k k'*, located at opposite sides of the frame, and the forward end of the shoe is pivotally connected with a cross-bar, as shown at *l*. The inner sides of the shoe are provided with inclined grooves *m m'*, in which is fitted an adjustable perforated plate or riddle, N, and across the lower rear end of the shoe is an inclined trough or tailings-spout, O, the lower end of which is made to project beyond the side of the shoe through an opening in the adjacent side of the frame, and into the opening *h* of the elevator-casing D.

Through the boxing *f* a perforated plate or riddle, P, is inserted into grooves formed in the sides of the tailings-spout, so as to divide the said spout into an upper and lower section, as shown in Figs. 1 and 2.

The bottom of the shoe and tailings-spout are each provided with small perforations, for the exit of any fine trash or grass-seed which may find its way to same.

To the rear of the shoe is fitted a plate, R, the upper edge of which is provided with an inwardly-projecting flange, *t'*. This plate is made of any light material, and its vertical portion is provided with vertical slots for the reception of the bolts or rivets *t*, whereby it is adapted to be adjustably secured to the rear end of the shoe.

The object of the plate R is to prevent the trash from being blown over the end of the shoe, and to divert its course so that it shall move along the upper surface of the riddle P to the boxing in the lower end of the elevator-casing, and during this movement of the trash the grain not previously separated falls through the perforations in the riddle P to the lower section of the tailings-spout, by which it is discharged, with any refuse that has passed through the said riddle, into the elevator-casing, to be returned to the machine for another working.

As in ordinary thrashing-machines, the shoe is arranged in front of a fan-case, B, and provided with the requisite machinery for effecting the side-shake common with such devices. The dust and fine trash is blown out at the rear of the machine, and the clean grain is discharged into a trough or spout which is arranged in the bottom of the frame, immediately under the forward end of the shoe, as shown at *a*.

The operation of my invention is as follows: The grain and trash is deposited on the riddle N of the vibrating shoe I, where, with the aid of the blast from the fan-case B, it is separated. The grain passing through the perforations of the riddle falls on the bottom of the shoe, and thence down the incline of same into the spout *a*, from whence it is removed in any desired manner. The fine trash and dust which passes through the perforations of the riddle N, and also the small perforations in the bottom of the shoe, is driven outward at the rear end of the machine by the draft from the fan-case B. The riddle N, which, as before stated, is adjustable, is set sufficiently forward, as shown in Fig. 2, to allow the trash, which is driven by the air-current along its upper surface, to

fall over the rear end of same onto the riddle P of the tailings-spout, along which it is gradually moved, by the shaking of the shoe, to the boxing in the lower end of the elevator-casing and discharged at the outer end of the riddle P. Meanwhile the grain becomes separated from the said trash and falls through the perforations in the riddle P to the bottom of the tailings-spout, by which it is discharged into the elevator-casing to be returned to the machine for another working.

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

The combination of a separator-shoe, a tailings-spout, a riddle adapted to fit therein and project beyond the spout, an elevator-casing having a side opening to receive the discharge from the spout, and a transverse boxing through which the riddle discharges, substantially as set forth.

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

JOHN FRANCIS HANSON.

Witnesses:
ANDREW HERO, Jr.,
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