

(No Model.)

2 Sheets—Sheet 1.

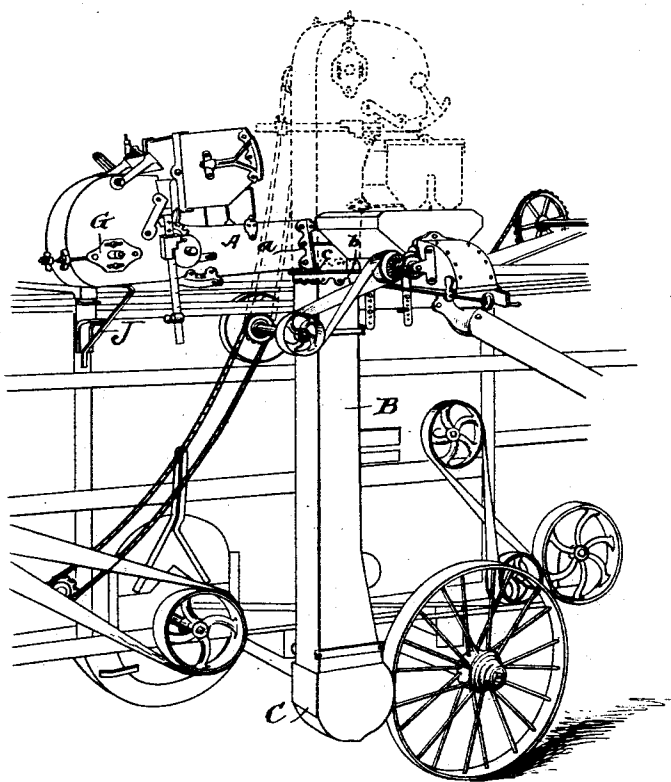
J. R. HARRISON.

GRAIN ELEVATOR FOR THRASHING MACHINES.

No. 520,185.

Patented May 22, 1894.

Fig. 1.



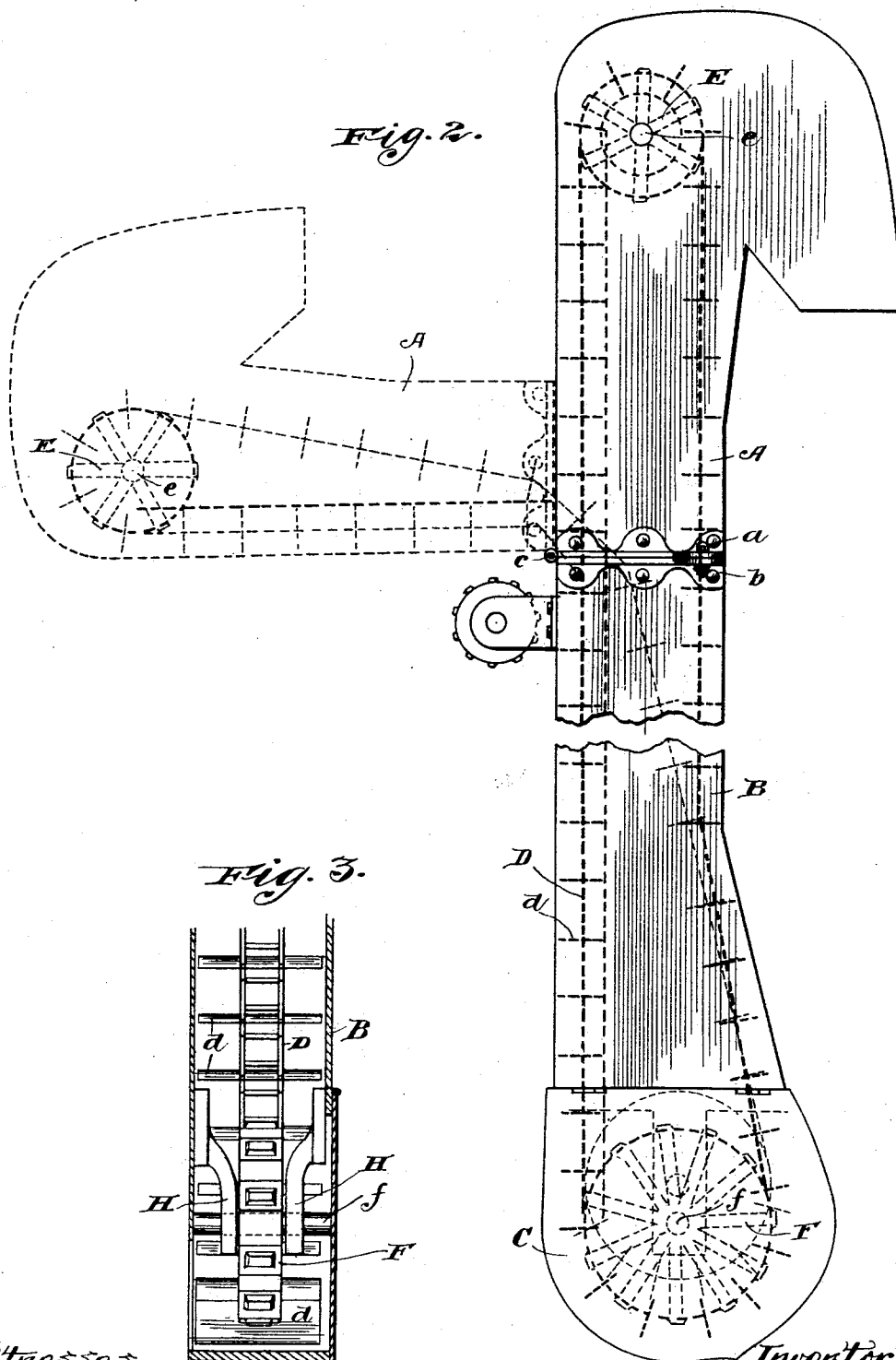
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GRAIN ELEVATOR FOR THRASHING MACHINES.

No. 520,185.

Patented May 22, 1894.



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UNITED STATES PATENT OFFICE.

JAMES R. HARRISON, OF PEORIA, ILLINOIS, ASSIGNOR TO WILLIAM HARRISON, OF SAME PLACE, AND VALINTIN WEBER, OF PRINCEVILLE, ILLINOIS.

GRAIN-ELEVATOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 520,185, dated May 22, 1894.

Application filed September 11, 1893. Serial No. 485,286. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. HARRISON, of Peoria, Illinois, have invented certain new and useful Improvements in Grain-Elevators for Thrashing-Machines, of which the following is a specification.

This invention relates to certain improvements in the construction of elevators which are employed for elevating grain from the spout at the bottom of a thrashing machine to a hopper or conveyer having a spout at the top of the machine, from whence it is discharged into wagons or other receptacles.

Elevators of this type have been before used, and are usually constructed without capability of adjustment as to height, although such elevators have been constructed in sections telescoping into each other so that the height of the elevator may be varied to adapt it to pass under bridges or into barns without interference. The telescoping construction has not been successful; and my improvements relate to an elevator having its leg constructed in two sections hinged together in or about the plane of the top of the separator.

In constructing an elevator leg with a hinged section provision must be made to prevent disarrangement of the elevator belt by means of which the grain is lifted; and a feature of my improvement relates to such a provision as will permit the upper end of the elevator leg to be swung on its hinge without disconnecting the belt carrying the buckets or cups from its driving sprockets.

In the accompanying drawings, Figure 1 is a perspective view showing a grain elevator with attached weigher and a conveyer mounted upon a separator, the latter broken away. Fig. 2 is a side elevation of the elevator leg showing by dotted lines the conveyer belt and driving sprockets and the position of the folding member of the leg being also indicated by dotted lines. Fig. 3 is a transverse sectional elevation of the boot and lower end of the leg showing the elevator belt with its buckets and driving sprocket in edge view.

In the drawings, A, B, respectively, represent the upper and lower sections of the leg of the elevator which is provided at its bottom

with a boot C. The sections A and B have at their meeting ends, which are in or about the plane of the top of the separator, the flanged castings *a, b*, which are hinged together at *c*, and are held together by nuts or spring keys.

D represents the elevator belt and *d* buckets thereon. This belt is carried around the driving sprockets E, F, whose journals *e, f*, have their bearings at the respective ends of the elevator. The journal for the sprocket wheel E is preferably mounted in the vertically adjustable bearing G, particularly shown in Fig. 1. The journal *f*, as shown in Fig. 3, is in the form of a short shaft which passes through the hub of sprocket F, and hangers H, which hangers are on both sides of the sprocket and secured to the sides of the elevator leg and depending into the boot C. The shaft *f* has its bearings in transverse apertures in the hangers H and may be confined by the door I of the boot or by keys or cotter pins. When it is desired to lower the hinged end of the elevator, the shaft *f* is withdrawn from the hub of the sprocket F. Then the fastenings of the hinge members are loosened and the section A can be laid back as shown in the drawings. I provide the bracket J which is attached to the frame of the separator to support the hinged end of the elevator when lowered. In folding the section A the elevator belt will be deflected and the lower sprocket wheel will be raised, between the hangers H, and when the leg sections are in line the sprocket will move down to its place and the shaft *f* again inserted through its hub. If desired the upper sprocket may be loosened to permit the laying back of the hinged end of the elevator but I prefer to movably mount the lower sprocket. Obviously other means for securing the sprocket may be substituted for the particular means shown.

This construction adapts the separator for use in barns and for passing under structures in transportation without taking the elevator down, and the hinged leg section can be folded or restored to position in a moment's time.

Without limiting myself to precise details of construction, I claim—

The combination with a thrashing machine,

of a grain elevator therefor constructed in two sections hinged together in or about the plane of the top of the thrasher, a sprocket wheel for each of the hinged sections located
5 at their ends respectively opposite the hinge, perforated hangers for the lower sprocket and forming a slide way therefor, a removable axle adapted to be inserted through the perforations of the hangers and the bore of the hub,

an elevator belt carried around both of the sprockets, and a bracket secured to the side of the thrasher and adapted to support the hinged end of the elevator when the latter is lowered, substantially as described.

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