

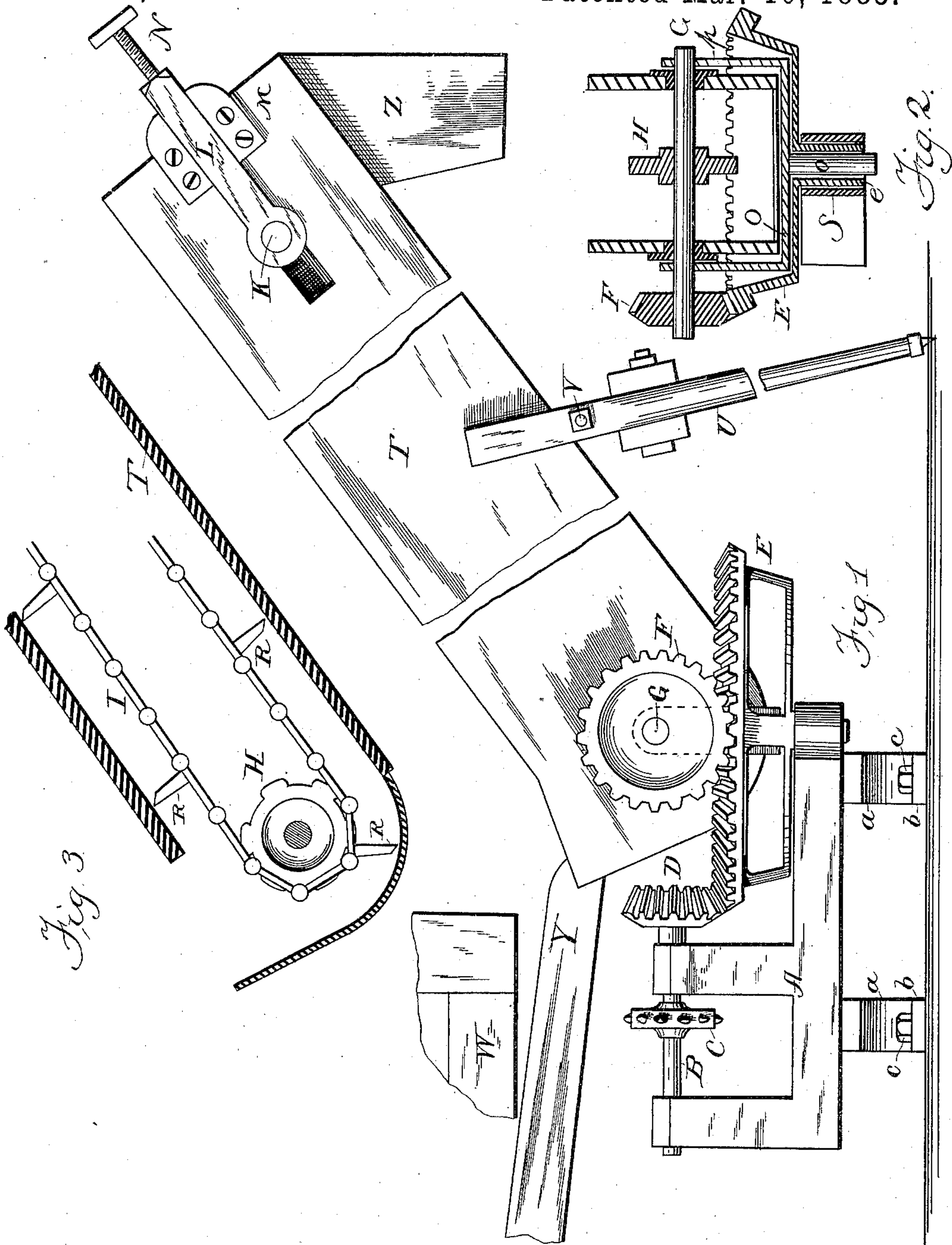
(No Model.)

A. E. PRESTON.


ELEVATOR FOR THRASHING MACHINES.

No. 313,767.

Patented Mar. 10, 1885.



Witnesses:
Wm. J. Rosenbain
M. A. Huntman

Inventor:
Almon E. Preston
by V. D. Stockbridge 
Attys

UNITED STATES PATENT OFFICE.

ALMON E. PRESTON, OF BATTLE CREEK, MICHIGAN.

ELEVATOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 313,767, dated March 10, 1885.

Application filed July 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALMON E. PRESTON, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Elevators for Thrashing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in devices for conveying grain after it is thrashed and cleaned from the spout of the thrashing-machine to a point where it is to be put up in bags and registered. The essential parts in the ordinary form of such devices are an elevator-leg through which the grain is carried, a series of flights or buckets borne on an endless belt or chain within the leg for lifting the grain to the point of delivery, and gearing for operating the said belts or chains with their attached flights or buckets.

My improvements consist in providing special means for rendering the elevator-leg capable of horizontal and vertical adjustment, in attaching the gear of the apparatus to a frame or jack, whereby the device is made a unit in itself and capable of attachment to any thrashing-machine or to either side of a given machine, and in various other points of construction, which will be more particularly pointed out in the claims.

In the drawings which accompany and form a part of this specification, Figure 1 is a side elevation of my apparatus. Fig. 2 is a transverse section through line *x x* of Fig. 1. Fig. 3 is a vertical section of a part of the elevator-leg, showing the parts contained within the lower portion of the same.

A jack or frame, A, is supported on legs *a a*, which are provided with flanges *b b*, perforated for receiving the bolts *c c*, by which the frame is held in place upon the ground or other support. The jack or frame A supports the driving-gear of the elevator.

B is the driving-shaft; C, the driving-pulley, and D a beveled pinion on the shaft B. The pinion D meshes with a bevel-wheel, E, and another pinion, F, on the shaft G also meshes with the same wheel. The shaft G

carries the sprocket-wheel H, which operates the sprocket-chain I within the elevator-leg T. The sprocket-chain also passes over another sprocket-wheel (not shown) on the shaft K, whose bearings are in the arms of the strap L. These arms move in the guides M, and may be operated by means of the screw N to take up the slack in the sprocket-chain I.

R R are flights or buckets for conveying the grain to the point of delivery. The elevator-leg is supported at the bottom on the shaft G.

The operation of the parts above described will be easily understood. When the shaft B is rotated by the application of power to the pulley C, the pinion D, moving with the shaft B, actuates the wheel E, which in turn operates the pinion F and the shaft G, to which it is secured. By this means the sprocket-wheels H H and the sprocket-chain I are set in motion, and the flights or buckets R R are moved forward to convey the grain to the point of delivery at Z. Should the sprocket-chain become slack, it may be tightened by turning the screw N in the proper direction.

Coming now to that which forms more specifically my invention, it will be seen that the wheel E is dished to allow the foot of the elevator some freedom of vertical adjustment, and thereby adapt it to be put under the spout of any thrashing-machine. Moreover, it will be observed that the hub *e* of wheel E revolves in a socket, S, and that the hub is itself hollow to allow the stem *o* of the yoke O to pass through it and rotate in it. As the bearings of the shaft G, which supports the lower end of the elevator, are in the arms *p* of the yoke O, and as the stem of the yoke O is free to rotate in the hub *e* of the wheel E, it is clear that the elevator is capable of horizontal adjustment as well as that by virtue of the dishing shape of the wheel E it is made capable of vertical adjustment. The upper part of the elevator is supported by the props or legs U, so constructed that by tightening the nut at V they are clamped to the elevator-leg at any desired point. By changing the point of attachment of the legs U or the angle at which they stand, the height of the elevator may be varied to suit circumstances.

W is a part of the frame of a thrashing-machine, and X is the delivery-spout thereof.

By supporting the gear of my apparatus upon the frame or jack A, I am enabled readily to change the apparatus from one side of a thrashing-machine to the other.

5 Having described my invention, I claim—

1. A grain-conveyer essentially of a frame or jack, a driving-gear supported thereon, a driven gear for operating the elevator-chain, also supported on the frame, the elevator-leg, 10 and means whereby the elevator-leg is made adjustable vertically and horizontally, substantially as set forth.

2. In a grain-conveyer, the combination, with the elevator-leg, of the dished elevator 15 gear-wheel for allowing freedom of vertical adjustment to the elevator-leg, substantially as set forth.

3. In a grain-conveyer, the combination, with the elevator-leg and the shaft supporting 20 the same, of the dished elevator gear-wheel for allowing freedom of vertical adjustment to the elevator-leg, substantially as set forth.

4. In a grain conveyer, the combination, with the elevator-leg, of the dished elevator 25 gear-wheel and the adjustable support, where-

by the elevator-leg may be adjusted vertically to any desired position and supported in place, substantially as set forth.

5. In a grain-conveyer, the combination of the dished wheel E, pinion F, shaft G and 30 elevator-leg T, sprocket-wheels H H, sprocket-chain I, and flights or buckets R R, as and for the purpose set forth.

6. In a grain-conveyer, the elevator-leg, the shaft supporting the same, and the vertical 35 pivoted yoke, whereby the elevator-leg is made capable of horizontal adjustment, substantially as set forth.

7. In combination, the elevator-leg, the shaft supporting the same, the pivoted yoke, 40 and the dished elevator gear-wheel, whereby the elevator-leg is made capable of vertical and horizontal adjustment, substantially as described.

In testimony whereof I affix my signature in 45 presence of two witnesses.

ALMON E. PRESTON.

Witnesses:

I. M. MERRITT,
N. E. HUBBARD.