

(No Model.)

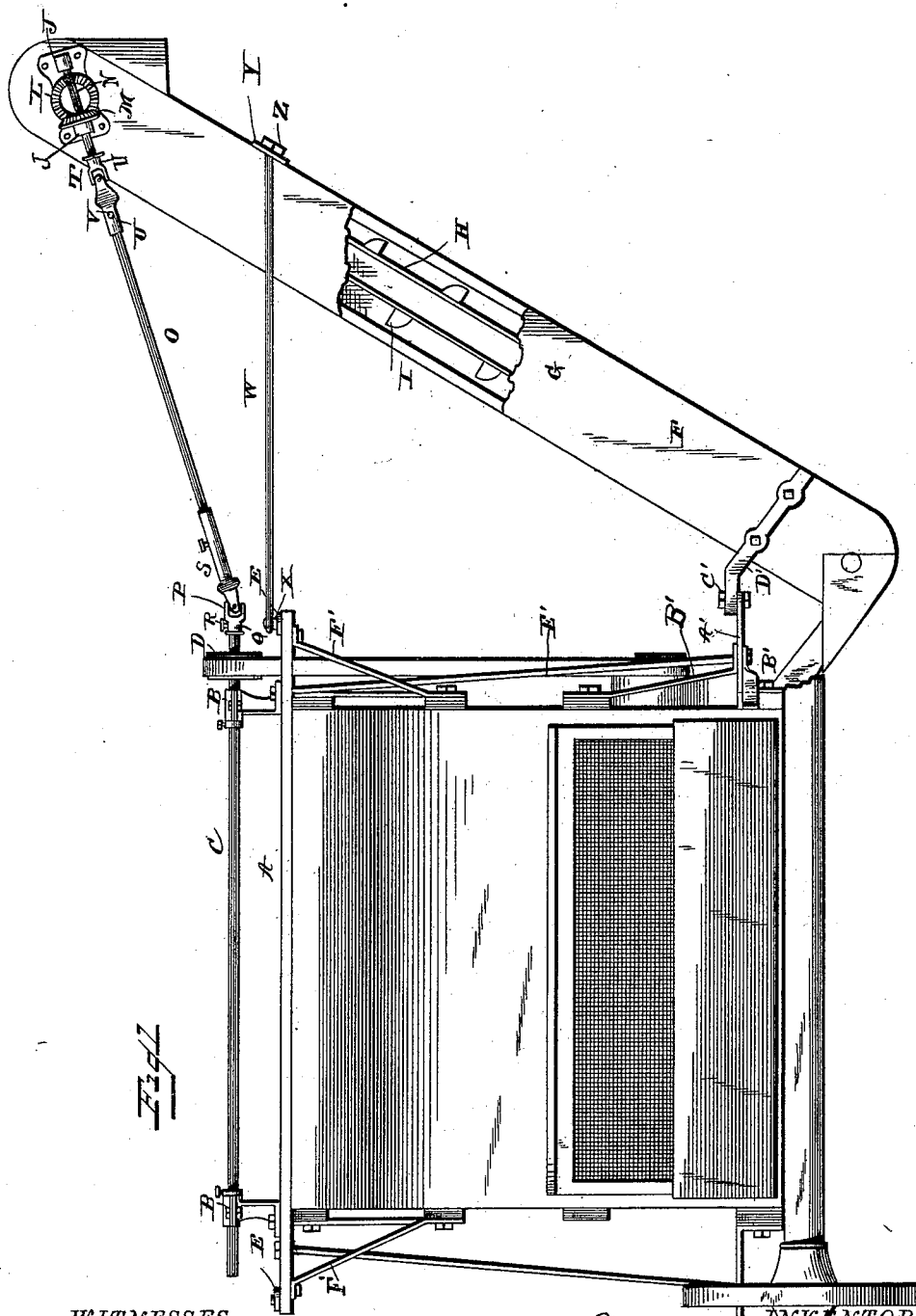
2 Sheets—Sheet 1.

E. M. THORPE.

GRAIN ELEVATOR ATTACHMENT FOR THRASHING MACHINES.

No. 400,270.

Patented Mar. 26, 1889.



WITNESSES.

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Benj. E. Cowe

INVENTOR.

Elihu M. Thorpe
by Louis Bagges & Co.
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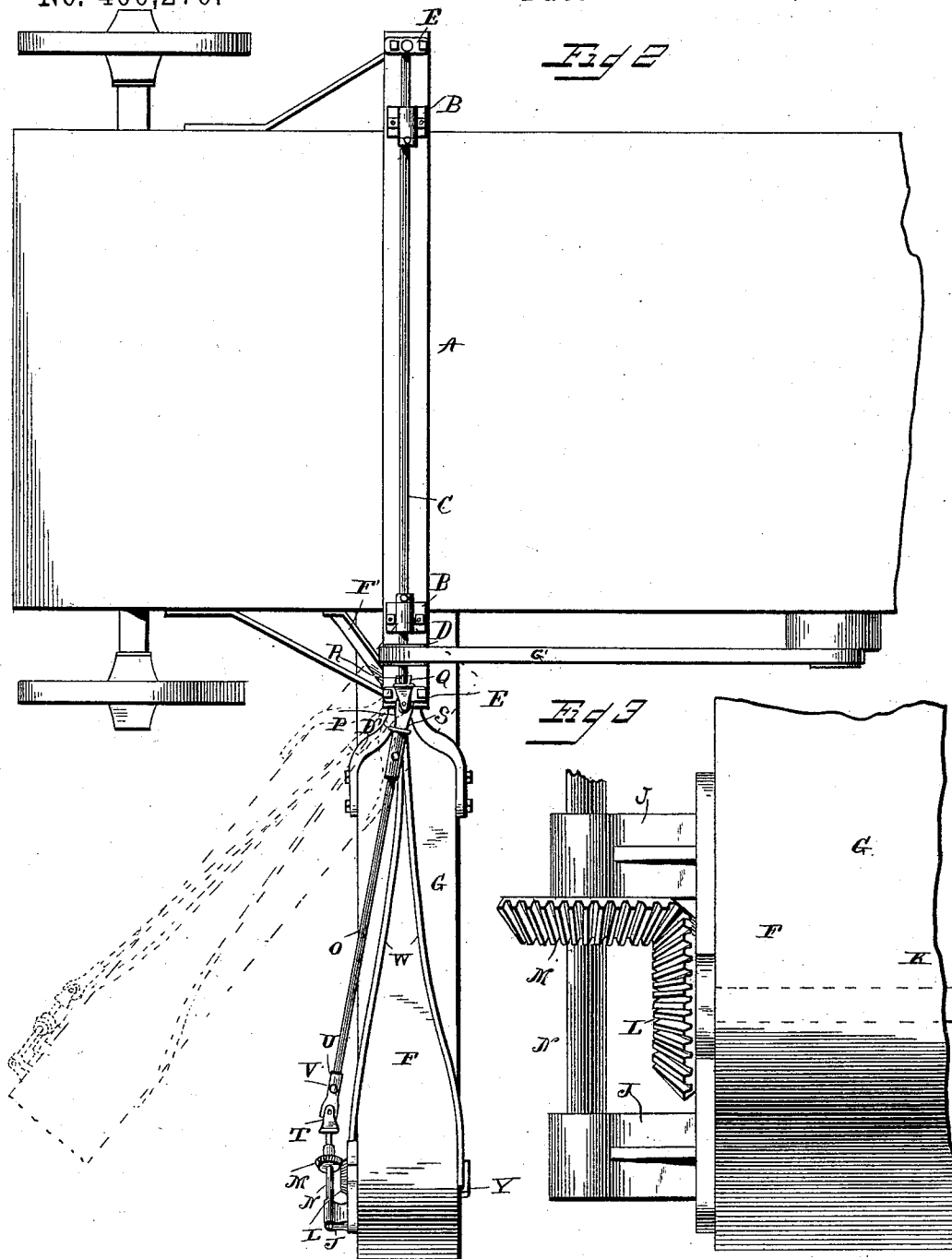
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UNITED STATES PATENT OFFICE.

ELIHU M. THORPE, OF WAPELLA, ILLINOIS.

GRAIN-ELEVATOR ATTACHMENT FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 400,270, dated March 26, 1889.

Application filed February 28, 1888. Serial No. 265,605. (No model.)

To all whom it may concern:

Be it known that I, ELIHU M. THORPE, a citizen of the United States, and a resident of Wapella, in the county of De Witt and State of Illinois, have invented certain new and useful Improvements in Grain-Elevator Attachments for Thrashing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the 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, which form a part of this specification, and in which—

Figure 1 represents an end view of a separator and a view of an elevator provided with my invention. Fig. 2 is a top view of the same; and Fig. 3 is a detail plan view of the upper end of the elevator, showing on a larger scale the beveled gear, which will be hereinafter more fully described.

Similar letters of reference denote corresponding parts in the figures.

The invention relates to grain-elevator attachments for thrashing-machines; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the accompanying drawings, the letter A denotes the cross-piece, secured across the top of the separator or to any other part which may be desired. Secured to or near each end of this cross-piece is a bearing or boxing, B, in which is journaled the main operating-shaft C, having upon it, near one of its ends, the band-pulley D. Upon each end of the cross-piece is a socket-plate, E, the object of which will be hereinafter described.

F indicates the elevator, of ordinary construction, comprising the casing G and the continuous belt H, provided with buckets I.

J denotes the pillar-bearings, secured to the side of the elevator near the top. An elevator-shaft, K, suitably journaled in position, is provided with a miter-wheel, L, which meshes with a miter-wheel, M, upon the intermediate portion of the short shaft N, journaled with its ends in the pillar-bearings J.

O indicates the tumbling-shaft, secured to the main shaft by means of the universal joint P, one end of which is formed with a short

sleeve, Q, which is secured to the main shaft by means of a set-screw, R, while the outer end is formed with a long sleeve, S, which permits the tumbling-shaft to play back and forth to adapt it to the variations in length caused by the different positions assumed by the elevator. The other end of this tumbling-shaft is provided with a universal joint, T, similar to the joint upon the other end of the shaft, it being provided with short sleeves U, one of which is secured by means of set-screw V to the end of the tumbling-shaft, while the other sleeve is secured to the end of the shaft N.

W indicates a forked brace or hanger, which is formed at its inner end with an eye, X, which is placed over the socket-plate E and a bolt inserted through the eye and into the socket-plate, thus pivoting the said brace or hanger to the cross-piece A of the separator. The forked ends of the brace extend to and are attached to the elevator in any convenient manner, or extend laterally and overlap the sides of the elevator and pass through apertures in a plate, Y, as shown in the drawings. Nuts Z are now screwed on the ends of this brace, forcing the plate Y firmly and securely against the elevator.

Near the lower portion of the separator is secured a strip, A', provided with bracing-arms B', which are also secured to the separator. The outer end of this strip is formed with an aperture, through which passes a pivotal bolt, C', which pivotally secures a yoke, D', to the strip A'. This yoke is secured with its arms to the lower end of the elevator, which, with the forked brace, secures the elevator pivotally to the separator. A rod, E', further braces the strip A', and is secured to the cross-piece of the separator and to the strip.

F' indicates the braces which secure the cross-piece to the separator.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

It will be seen that should it be desired to secure the elevator to the other side of the separator it may be readily done by removing the forked brace and securing it in the socket-plate on the other end of the cross-piece and securing the elevator to similar

braces and yokes upon the other side of the elevator in the manner above set forth. The band-pulley may also be removed and attached to the other end of the shaft. This
5 pulley receives motion from any suitable source; but for convenience of illustration I have shown in the drawings a belt, G', passing over it and over a pulley secured to the shaft of the fan of the separator.

10 It will be further seen that my invention is exceedingly simple and not apt to get out of order, the universal joints permitting the elevator to be swung in any direction without in the least affecting the motion imparted to the
15 elevator by the main shaft.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

20 A grain-elevator attachment for thrashing-machines, comprising the yoke D', pivoted to a strip, A', the forked brace W, pivoted to a

socket-plate at one end and attached to the elevator at the other end, said strip and socket-plate being suitably braced and secured to a thrashing-machine near its top and bottom, 25
respectively, the shaft C, journaled in bearings secured to the separator, the short shaft K of the elevator, the short shaft N, journaled in bearings attached to the side of the elevator, the beveled gear-wheels connecting the 30
shafts K and N, the tumbling-shaft capable of moving longitudinally in the sleeve S, and the universal joints P and T, which respectively connect the shaft C and the shaft N to the tumbling-shaft, substantially as specified. 35

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ELIHU M. THORPE.

Witnesses:

S. E. COY,

J. J. ROLOFSON.