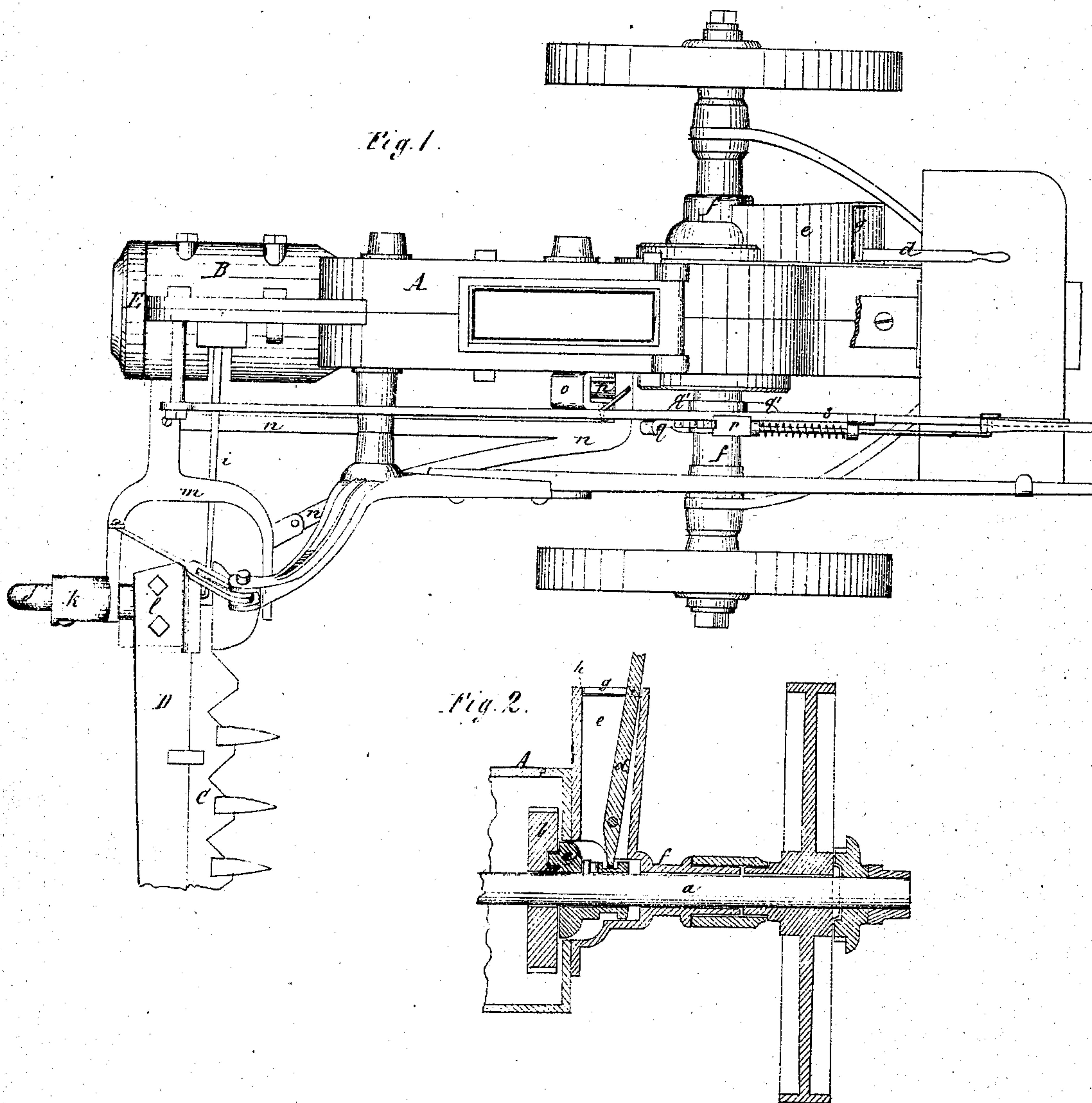


W. H. Harman.

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Harvester.

PATENTED JUL 4 1871



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. HARMAN, OF WESTMINSTER, MARYLAND.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 116,588, dated July 4, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. HARMAN, of Westminster, in the county of Carroll and State of Maryland, have invented a new and useful Improvement in Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view, and Fig. 2 is a transverse vertical section just in front of the axle.

This invention relates to an improvement in harvesters, having special reference to the harvester for which John Jann obtained Letters Patent No. 55,304, June 5, 1866; and the invention consists in the construction and arrangement of a draft or brace-bar with certain other parts, as hereinafter described, in connection with others, forming a complete machine, and as specified in the claim.

Referring to the drawing, *a* is the axle of the transporting-wheels. *b* is the first cog-wheel of the operative mechanism, and is placed loosely on the axle *a*. *c* is a clutch, sliding on the axle, and arranged so that it may be thrown into gear with the wheel *b*, and thereby connect the latter with the axle *a*. The clutch *c* is operated by a lever, *d*, that has its fulcrum in a box, *e*, which projects from and opens into the case *f* that incloses the axle *a*. A latch, *g*, is pivoted to one side of the lever *d*. To fasten said lever the latch *g* is turned down into a recess, *h*, in the top of the box *e*. The mechanism which transmits the motion of the wheel *b* to the cutter-bar is inclosed in a case, *A*, that is supported upon the axle *a*. This case is made in halves which are bolted together. Cast with the case, at its rear end, is a tubular housing, *B*, that incloses the shaft which, connected at its front end with the train of gear-wheels within the case *A*, bears a crank that drives the cutter *C* through the medium of the pitman *i*. The cutter-bar *D* is hinged to the frame *m*, which is likewise jointed to the housing *B*. *j* indicates a small wheel that is partially inclosed in a hood, *k*, which projects rearward from the heel *l* of the cutter-bar. By plac-

ing the wheel *j* in rear of the heel *l* it is enabled to render the latter a good support without being itself hindered by the change of pitch or the tilting of the cutter-bar. To different points in the frame *m*, in which the heel of the cutter-bar is pivoted, are attached the rear ends of a forked bar, *n*, which extends forward by the side of the case *A* and turns inward at its front end past the front of a segment, *o*, that is secured to the side of the case *A*. The segment *o* is slotted lengthwise, and a pin, *p*, bearing a friction-roller, from the end of the bar *n*, enters said slot, which serves as a guide for the pin when the same is moved up or down with the bar *n* in changing the pitch of the cutter-bar. By this construction the inner arm or part of the brace *n* is parallel with the side of the case *A*, thus allowing the frame *m* to tilt or oscillate with perfect freedom from binding or friction, or unevenness, or irregularity of motion, while the hooked front end of the bar is a main element in the draft connection of the cutter-bar and case. The rack-bar *q*, that receives the spring-latch *r* of the lever *s* which raises and lowers the bar *n*, has lugs, *q'*, projecting from each side of its lower end, which lugs straddle the case *f* and are screwed to lugs that extend from each side of the latter. On the end of the shaft that is inclosed within the tubular housing *B* is a fly-wheel, *E*, which also forms the rear end of the housing.

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

1. The forked draft-bar *n*, connected with the frame *m*, curved at its front end and carrying the friction-roller *p*, and the segment or curved socket-piece *o*, attached to the side of the case, as herein shown and described.

2. The cutter-bar *D*, swinging or hinged frame *m* supported on wheel *j*, forked bar *n*, segment *o*, connected or arranged with the case *A*, as shown and described, to operate as specified.

WM. H. HARMAN.

Witnesses:

BURNET VAN BIBBER,
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