

(No Model.)

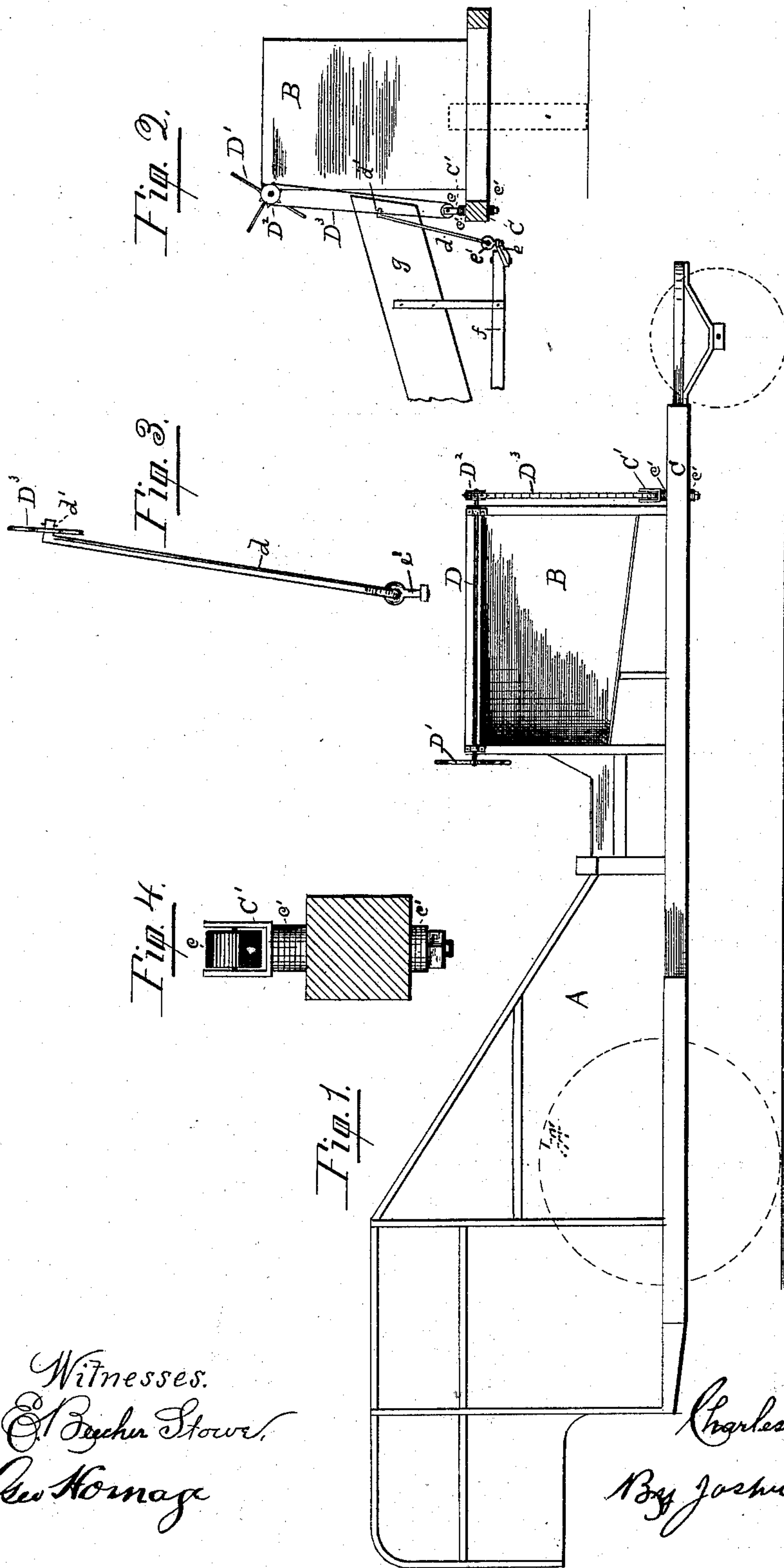
2 Sheets—Sheet 1.

C. A. ASHLEY.

RAISING AND LOWERING MECHANISM FOR HARVESTERS.

No. 406,614.

Patented July 9, 1889.



Witnesses.
E. Beecher Stowe.
Geo. Hornage

Inventor
Charles A. Ashley.
By Joshua B. Webster
Atty.

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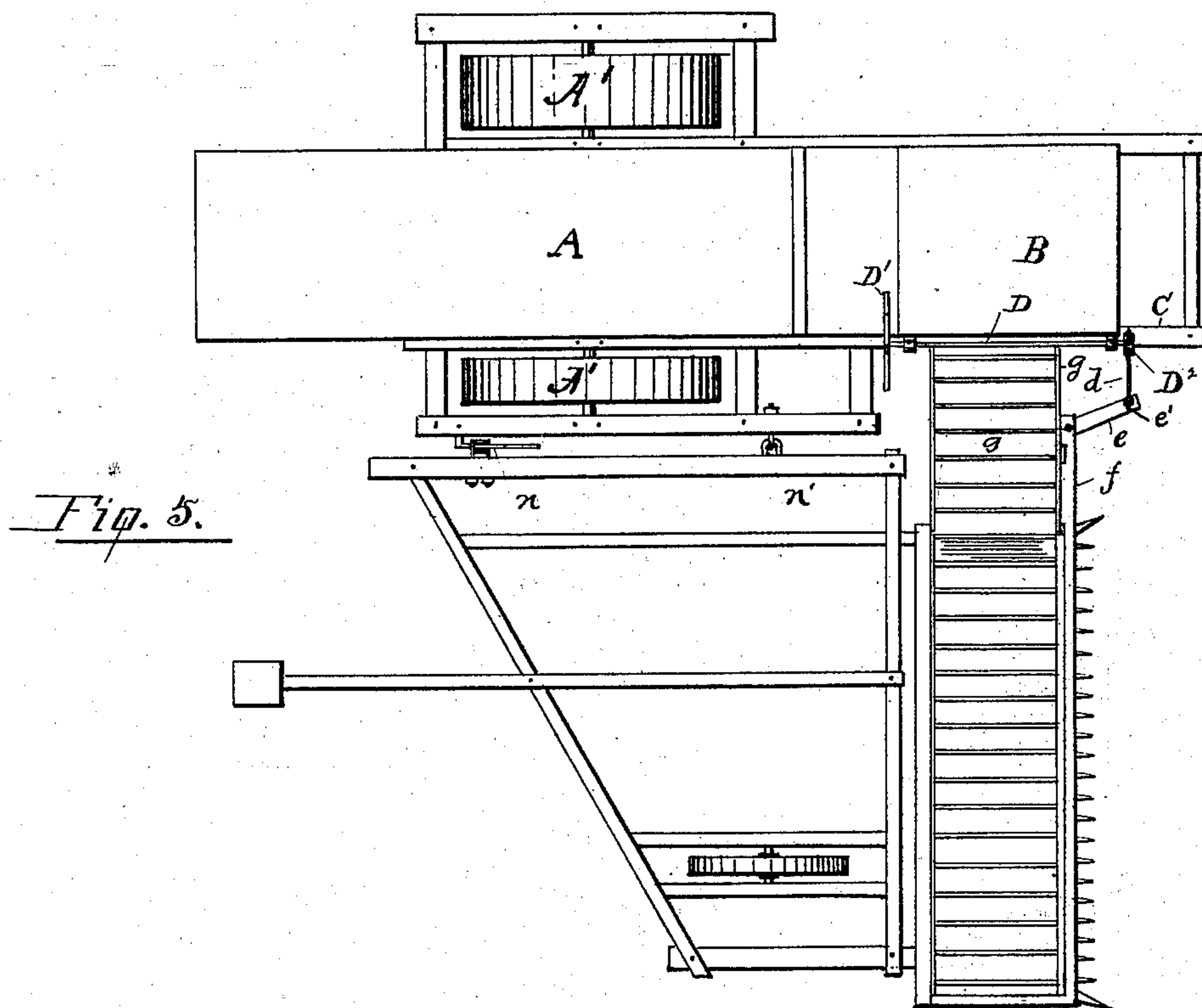
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RAISING AND LOWERING MECHANISM FOR HARVESTERS.

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E. Beecher Stow,

James T. Summerville

Inventor

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Attorney

UNITED STATES PATENT OFFICE.

CHARLES A. ASHLEY, OF STOCKTON, CALIFORNIA, ASSIGNOR OF THREE-FOURTHS TO ASA CLARK, ROBERT A. ASHLEY, AND LUCIUS E. ASHLEY, ALL OF SAME PLACE.

RAISING AND LOWERING MECHANISM FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 406,614, dated July 9, 1889.

Application filed September 30, 1887. Serial No. 251,145. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. ASHLEY, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Raising and Lowering Mechanism for Harvesters; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a new and useful improvement or method for raising and lowering the header-frame of combined headers and thrashers; and it consists in an arrangement of chains, pulleys, shafts, &c., by means of which the operator is enabled to stand in the most convenient position for seeing his work ahead, and from which he is enabled by the tiller-wheel and the connected devices to raise and lower the header to accommodate the various heights of standing grain.

The object of my invention is to dispense with the clumsy and expensive frame-work and levers usually employed to raise and lower the header-frame of combined harvesters.

Referring to the accompanying drawings, Figure 1 is a grain-side elevation of the thrasher portion of a combined harvester, showing my invention. Fig. 2 is a front end view of the same, and also a section of the header-spout, showing my entire invention. Fig. 3 is an enlarged view of the connection-rod between the header-frame and the thrasher. Fig. 4 is an enlarged view of the chain-roller and its forked stand. Fig. 5 is a plan view showing the entire header-frame in position.

The machine consists, generally, of a thrasher portion or frame A, which may be supposed to have the usual parts. I have shown, for the purposes of illustrating my invention, one of the main longitudinal sills C of the frame A, mounted upon bearing-wheels A', (represented in Fig. 1 by dotted lines.) B

is the feed-box. At the side of the box B is a shaft D, its bearings being in boxes at either corner of the box B. At the handling end of the shaft D is a tiller-wheel D', and at the other end is a sprocket-wheel D², connected by a chain belt D³ with a roller c in a forked stand C', having a threaded stem which is inserted in a hole through the beam C and secured at its lower end by a nut. Upon the stem of the stand C' are washers c', the number of which may be increased or decreased to tighten or slacken the chain D³, as may be desired. A rod d has an upper hook end and an eyebolt e' at its lower end. The eyebolt engages with an eye-iron e, attached to the inner end of a cross-beam or finger-bar f of the header-frame, while the hook end is inserted through a link of the chain D'', and is held in position by a pin d'. By this means the header-frame may be elevated or depressed at its front, and a cross-bar or finger-bar f is extended so as to take the rod d. The header-spout g, containing the usual conveyer, discharges into the feed-box B, as usual.

In operating the machine the attendant will be located near the tiller-wheel D', and by turning this wheel he can raise or lower the front of the header as the condition of the grain requires.

By reference to Fig. 5 it will be seen that the header frame or platform is attached to the main transporting or thrasher frame by means of a long pintle-joint n, and also by means of a double eye-joint n', which allow a free articulation of the header-frame and admit the use of the adjusting devices above described. The said header-frame and its jointed connections with the thrasher-frame, as shown in Fig. 5, are not herein claimed. The outer end of the header-frame is supported upon a wheel, and the elevator g is mounted upon the front part of the said frame by standards, so that as the heads are cut from the standing straw they will fall into the elevator and be delivered into the box B, and thence conveyed by suitable means to the thrasher.

I do not claim the mere transmission of power to the header by means of the chain,

shaft, pulley, roller, and rod, as such have long been used in mechanics; but I conceive my invention consists in the arrangement of parts herein shown and described, and their application to the machine, by which useful and advantageous results are produced.

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

10 1. The combination of the header-frame, the thrasher-frame connected thereto, so as to rise and fall, as usual, the beam C of the thrasher and the beam *f* of the header, the rod *d*, provided with a hook end secured to
15 the chain D^3 by pin *d'* and to the beam *f* by the eye-iron *e*, the chain D^3 , the shaft D, having its bearings in boxes secured to feed-box B, the sprocket-wheel D^2 at its end connected by the chain D^3 to the roller *c*, the roller *c* in
20 the stand *C'*, and stand *C'*, the latter secured to the beam C, all substantially as shown.

2. In a combined thrasher and header, the combination of the shaft D, mounted in boxes secured to the feed-box B, and having the
25 tiller-wheel D' at one end and the sprocket-wheel D^2 at the other end, the endless chain D^3 , the forked stand *C'*, the beam C of the thrasher, and its roller *c*, the washers *c'* upon

the stem of the stand *C'*, and means for connecting the chain D^3 to the header-frame and the beam C, all substantially as set forth. 30

3. In a combined thrasher and header, the combination of the shaft D, the tiller-wheel D' , the sprocket-wheel D^2 , the chain D^3 , the roller *c*, the forked stand *C'*, and its washers
35 *c'* on the stem of the stand *C'*, the rod *d*, with an eye in its lower end and hook at its upper end connecting the chain D^3 to the header, the eye-iron *e*, secured to the header-frame, and the beam C, all suitably located and at-
40 tached to the machine, as shown and described.

4. In a combined thrasher and header, the combination of the beam C with the forked stand *C'*, provided with the roller *c* and washers *c'*, and connected by the chain D^3 to the
45 sprocket-wheel D^2 on the end of the shaft D, the header-frame, the chain D^3 being suitably connected with the beam *f* of the header, all operating substantially as shown and set forth.

In testimony whereof I affix my signature in presence of two witnesses. 50

CHARLES A. ASHLEY.

Witnesses:

ELIHU B. STOWE,
J. B. WEBSTER.