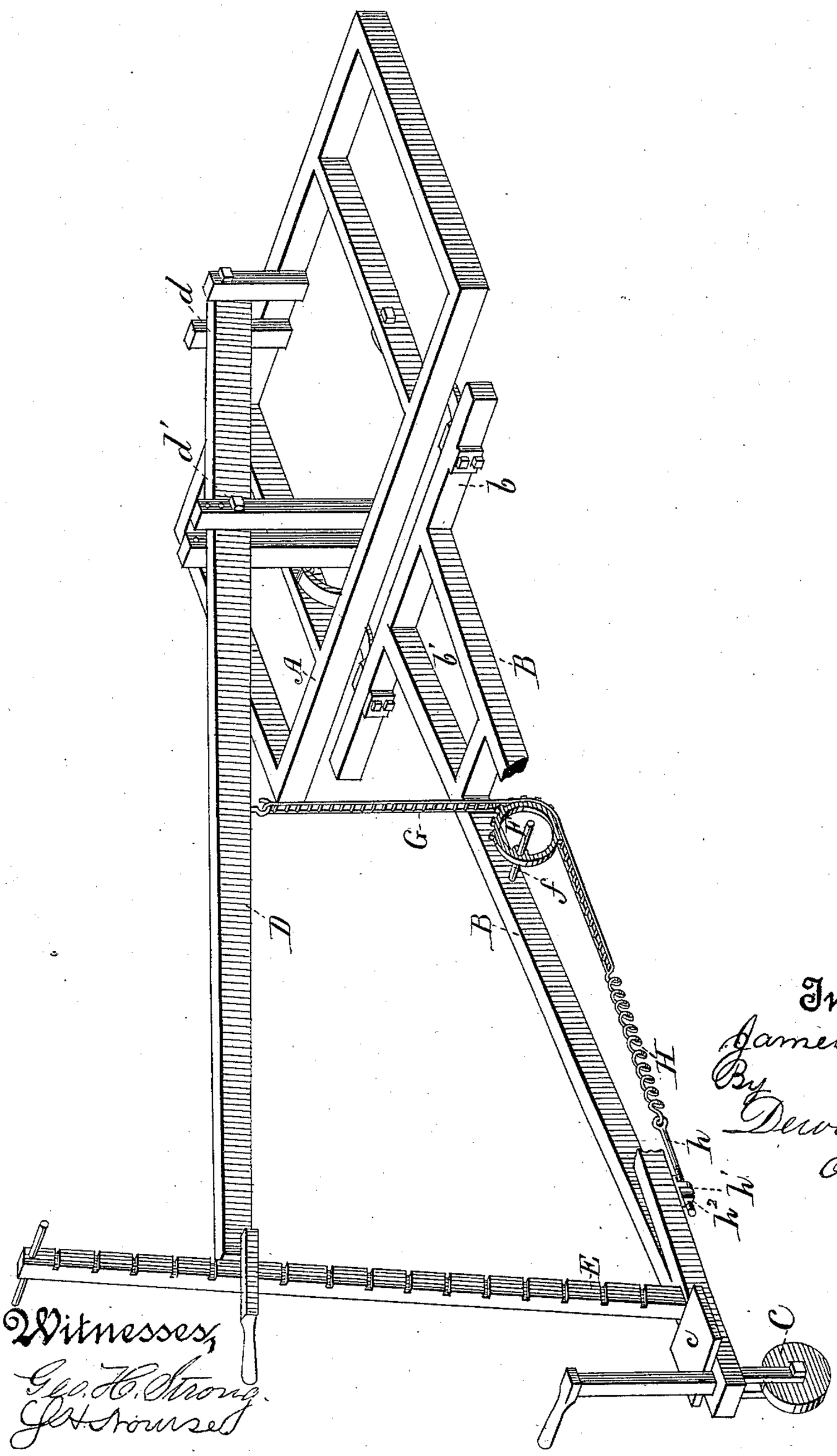
(No Model.)

J. H. WINN.

HEADER.

No. 285,720. Patented Sept. 25, 1883.



UNITED STATES PATENT OFFICE.

JAMES H. WINN, OF BENICIA, ASSIGNOR TO BAKER & HAMILTON, OF SAN FRANCISCO, CALIFORNIA.

HEADER.

SPECIFICATION forming part of Letters Patent No. 285,720, dated September 25, 1883.

Application filed April 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. WINN, of Benicia, county of Solano, State of California, have invented an Improvement in Headers; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in that class of agricultural implements known as "headers."

My invention consists in the peculiar arrangement of a compensating-spring, eccentric, pulley-chain, and beam, as will be hereinafter particularly described, and specifically pointed out in the claims.

Referring to the accompanying drawing, the figure is a perspective view of the rear of a header showing my improvements, the wheels being left off and a portion of the beam B being broken away.

A is a portion of the header.

B is the beam, having a cross-head, *b*, which is hinged to the header in the usual and well-known manner.

C is the steering-wheel, and *c* the platform for the operator.

D is the lever, attached to the header at *d* and *d'*. It extends back over the beam, and is adapted to engage with a rack, E, extending upward. It is by the movement of this lever that the front of the header is raised or lowered.

The beam B, instead of being made of a single piece, is here made of two pieces suitably bolted and braced, leaving a slot, *b'*, between them. In this slot is the pulley F, pivoted to the beam eccentrically at *f*. This pulley is shown as a sprocket-wheel to adapt it to engage with the links of the chain G, the upper end of which is connected with the lever D.

H is a strong spiral spring under the beam. One end of this spring is secured to a bolt, *h*, which passes through a stationary bearing-lug, *h'*, under the beam, and takes a nut, h^2, whereby the tension of the spring may be regulated. The other end of the spring is secured to the end of chain G.

The operation of the device is as follows: When the lever D is disengaged from its rack, the spring assists in lowering it to raise the front of the header. In lowering the front the tendency of the header to go down is resisted by the spring, and the stronger the tendency the greater the resisting power of the spring in being drawn out. This resistance is augmented by the eccentric F, in that it requires less movement of the lever, when it is near its highest position, to draw out the spring a certain distance than when said lever is near its lowest position. If the pulley were centrally pivoted, the distance through which the spring would be drawn out would be the same in all positions of the lever. It therefore enables me to use a shorter and stronger spring, whereby the device can be attached in a neat manner and be out of the way. With this spring as a counter-balance the lever may be moved up or down with the exercise of but little power. The resistance of the spring is graduated according to the tendency of the header to go down, and is exerted at times when most needed. The beams for headers are usually made of a single piece, and are very liable to warp, besides being very heavy in order to get the required strength; but by being made in two pieces, as I here show, it is stronger, lighter, and less liable to warp; and a further advantage is gained—namely, that it furnishes by its central slot a secure and neat bearing for the eccentric, which may be entirely or partially inclosed, though it might also be mounted to one side of the beam, if deemed preferable.

I do not claim, broadly, the employment of a spring to accomplish the results herein set forth, but simply my construction and arrangement as shown and described.

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

1. A header and its hinged beam, in combination with the lever D, the spiral spring H, the eccentric sprocket-pulley F, and chain G, all arranged and operating substantially as herein described.

2. In a header, the slotted or divided beam B, constructed substantially as shown, in combination with the lever D, spiral spring H, eccentric sprocket-pulley F, mounted in said beam, and chain G, substantially as and for the purpose specified.

In witness whereof I hereunto put my hand, at Benicia, California, March 9, 1883.

JAMES H. WINN.

Witnesses:
MATT. CLARKEN,
FINT WINTZ.