(No Model.) 2 Sheets—Sheet 1.

E. & I. D. PARKER.

SAW MILL HEAD BLOCK.

No. 256,157. Patented Apr. 11, 1882.

Fig. 1.

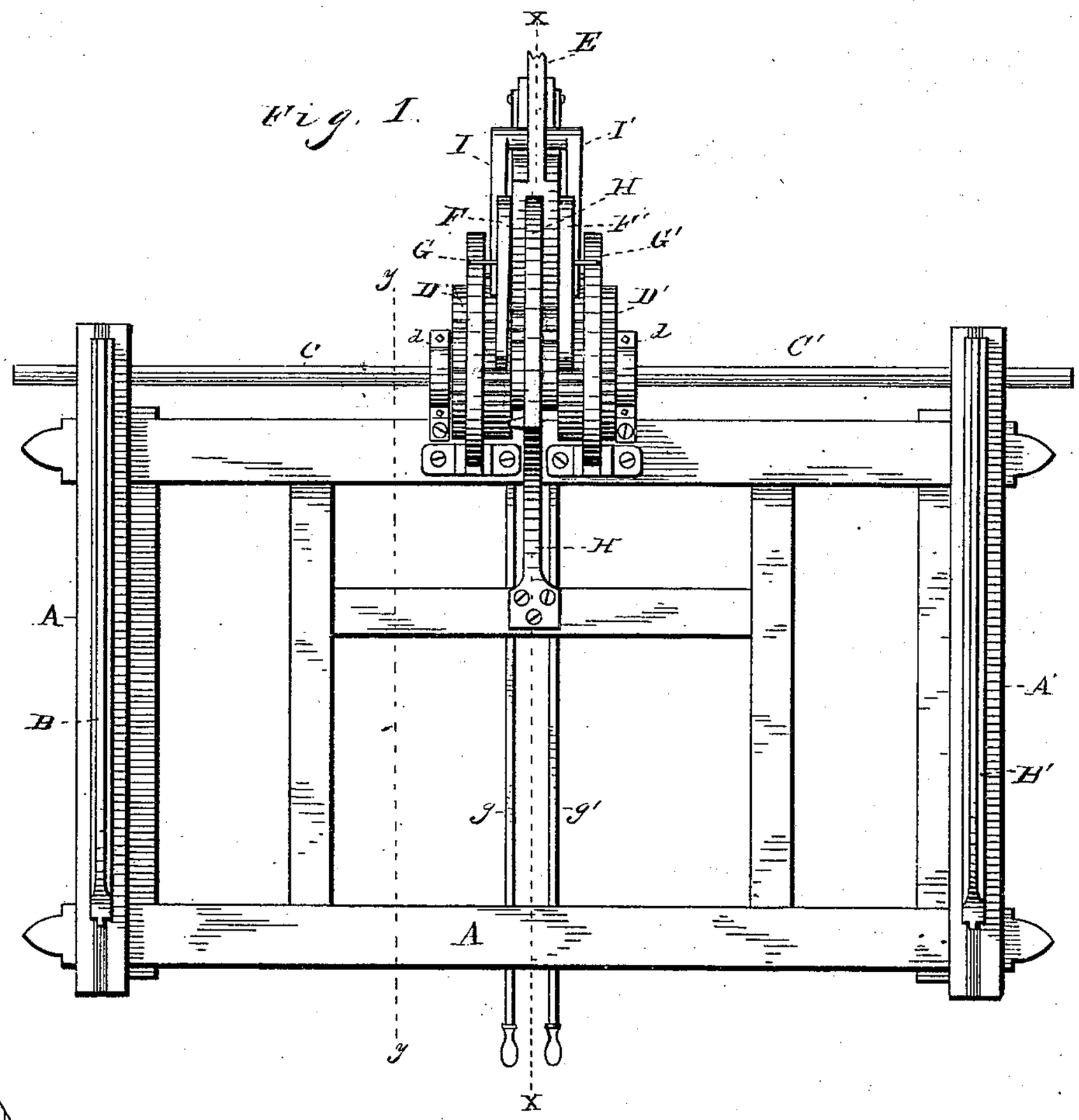
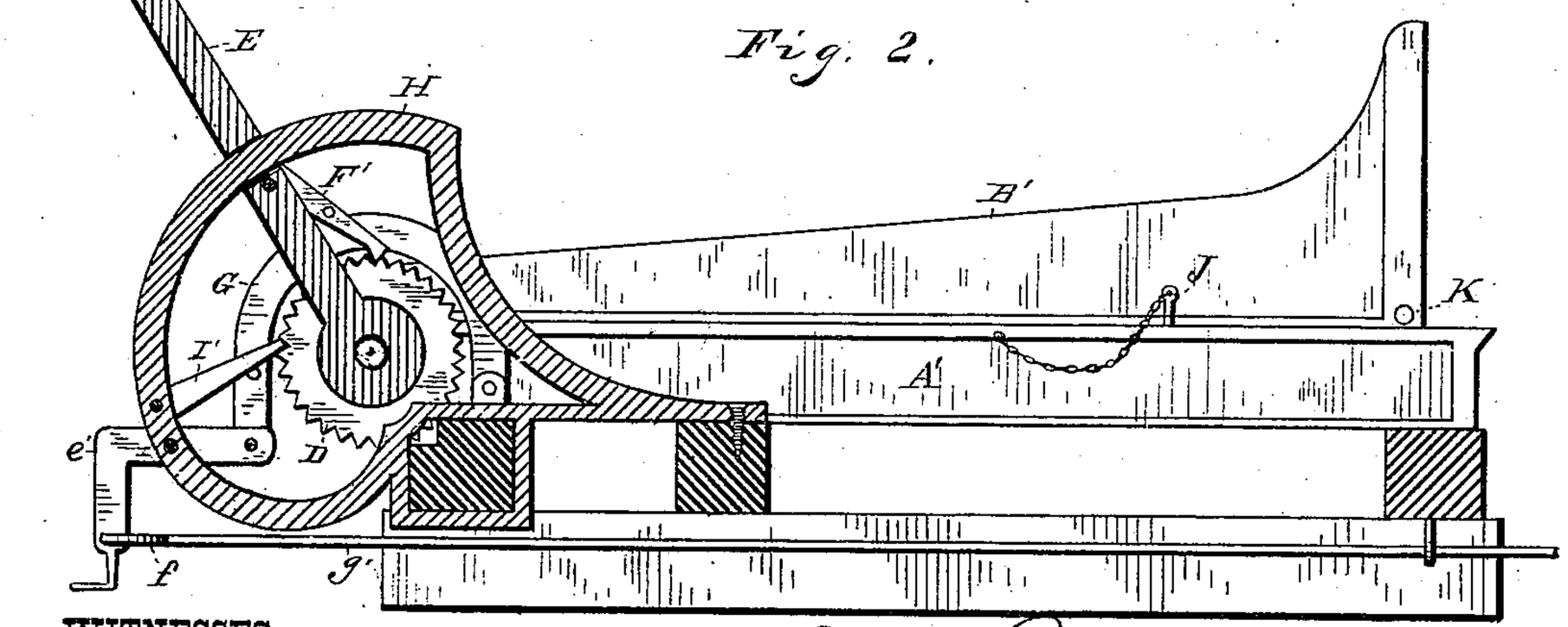


Fig. 2.



WITNESSES

D. A. Engel

Jno. Crowell Jr

INVENTOR

Ezra Parker

Isaac D. Parker

By Leggett & Leggett

ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

E. & I. D. PARKER.

SAW MILL HEAD BLOCK.

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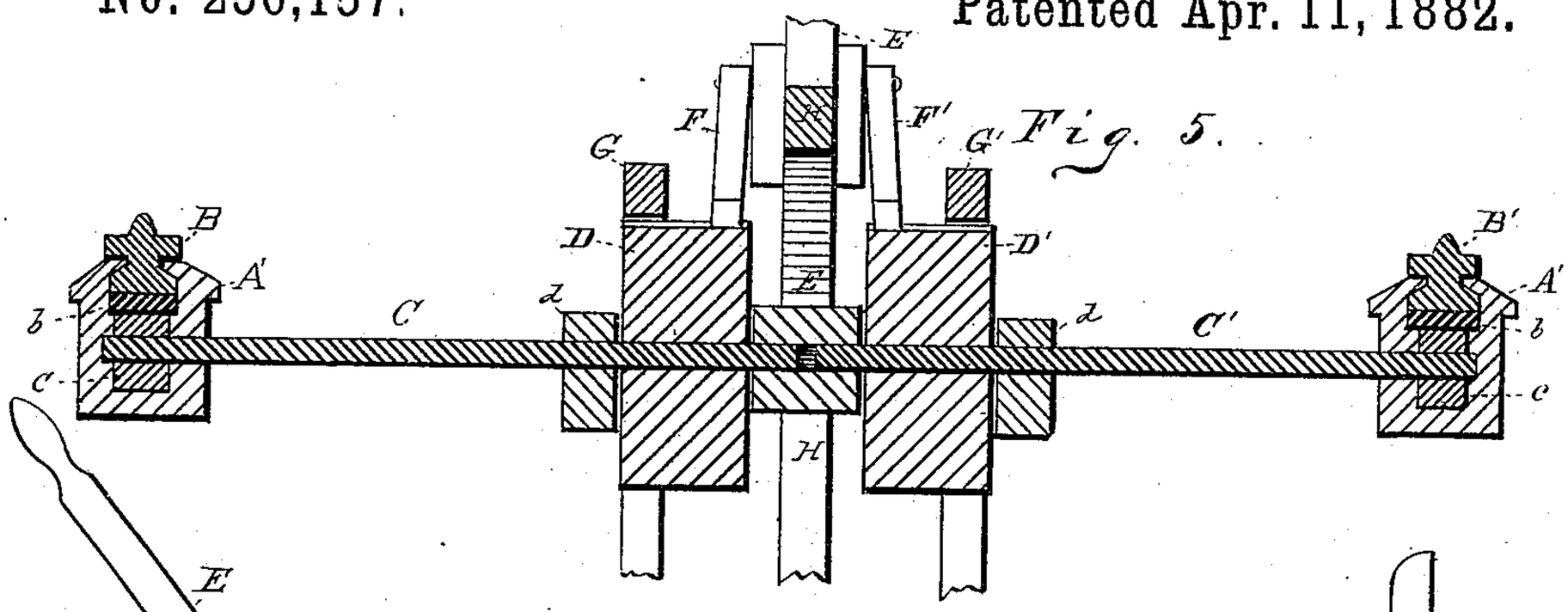

Fig. 5.

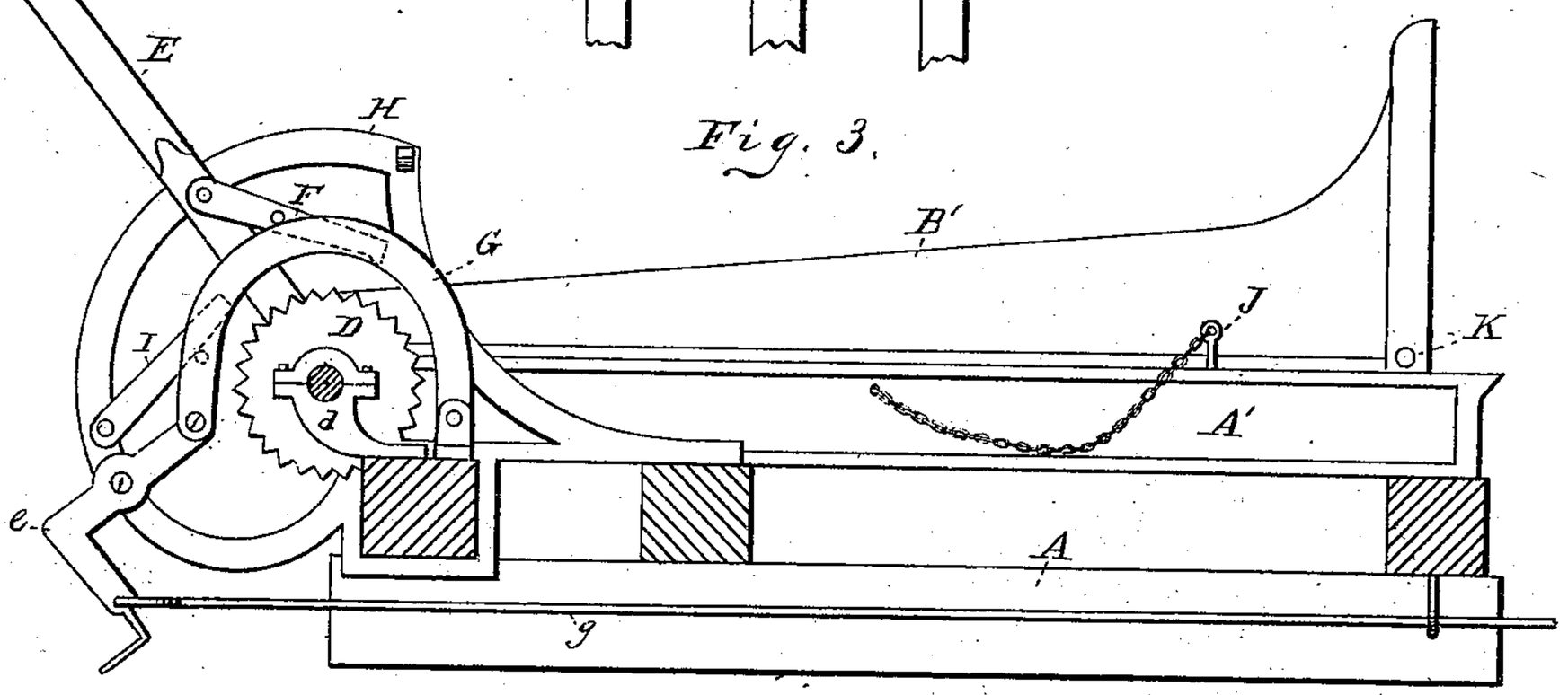

Fig. 3.

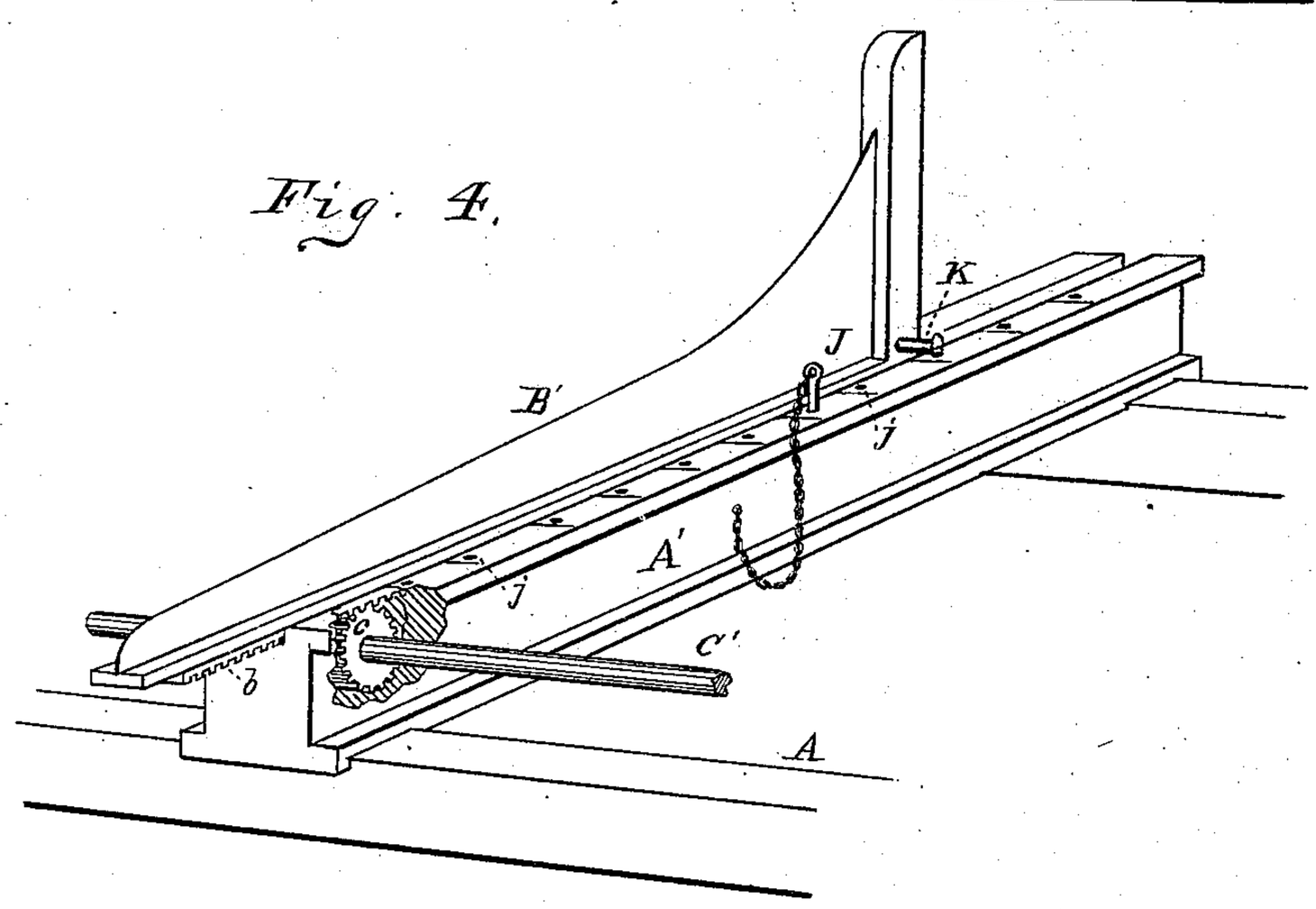

Fig. 4.

WITNESSES

W. Engel

Jno. Cowell Jr

Ezra Parker

Isaac D. Parker

By Liggett & Liggett

INVENTOR

ATTORNEYS

UNITED STATES PATENT OFFICE.

EZRA PARKER AND ISAAC D. PARKER, OF PLAINFIELD, ASSIGNORS TO H. & F. J. L. BLANDY, OF ZANESVILLE, OHIO.

SAW-MILL HEAD-BLOCK.

SPECIFICATION forming part of Letters Patent No. 256,157, dated April 11, 1882.

Application filed December 17, 1881. (No model.)

To all whom it may concern:

Be it known that we, EZRA PARKER and ISAAC D. PARKER, of Plainfield, in the county of Coshocton and state of Ohio, have invented certain new and useful Improvements in Saw-Mill Head-Blocks; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to saw-mills; and it consists in an improvement in lever head-blocks, or in any other devices where pawls can or may be used.

This improvement being used in saw-mills necessitates the use of only one lever and one standard-quadrant instead of three. We also have a device whereby the knees of a head-block may be squared instantly and with certainty, thus saving the trouble of calculation and measurement.

In the drawings we show one manner of constructing our device adapted to be used in lever head-blocks.

Figure 1 represents a plan view, the lever being broken off. Fig. 2 represents a longitudinal sectional view taken through the line *x x*, in Fig. 1, showing the quadrant down, the pawls being engaged with the ratchet-wheel. Fig. 3 is a view in side elevation of our device, taken through the line *y y*. This view shows the pawls disengaged from the ratchet-wheels. Fig. 4 represents a perspective view of a portion of the lever head-block, showing the manner of adjusting the blocks when one knee is in advance of the other and they are to be squared. Fig. 5 represents a section taken through the center of the shafts. This view shows the shafts terminating in the center of the lever.

In the drawings, A represents a saw-mill carriage, on which rest the head-blocks A′ A′. On the head-blocks are placed knees having racks on the under side, as shown in Fig. 4. The racks are adapted to slide in grooves in the head-block, and are operated by means of pinions *c* and *c′*, that are attached to the shafts C and C′. The shafts do not connect, but revolve independent of each other, as shown in Fig. 5. They are supported by boxes *d d*, that are attached to the carriage A. To the shafts C and C′ are secured ratchet-wheels D and D′, as shown in Fig. 1.

Between the ratchet-wheels is attached a movable lever, E, to the shafts C and C′. To the lever E are attached pawls F and F′, that operate independent of each other and engage with the teeth of the ratchet-wheels D and D′. These pawls F and F′ have pins or projections *h h*, extending from their sides, which connect with quadrants G and G′, or their equivalent devices, for lifting pawls. They are secured to the carriage A by means of a hinge or equivalent joint. These quadrants are raised and lowered by independent bell-cranks *e* and *e′*, the bell-cranks being secured to a standard-lever head-quadrant, H, which is permanently attached to the carriage A.

To the bell-cranks are secured stirrups *f f′*, and to each stirrup are secured rods *g* and *g′*, which pass through the saw-mill carriage to the sawyer's position, so that the device can be operated from either side of the saw-mill.

I represents pawls that are attached to the standard-lever head-block and operate independently of each other. They engage with the ratchet-wheels D D′, and prevent them from turning back when the pawls F and F′ are disengaged from the ratchet-wheel. They are adapted to be raised and lowered similar to the pawls F and F′, so as to allow the knees B and B′ to be drawn back.

J J are lugs attached to the head-block by means of a cord or chain. These lugs are adapted to be placed in holes *j* in the head-block, and are placed at any desirable distance apart.

To the side of the knees B and B′ are secured pins K K, or any other suitable device. These pins are to be placed so as to come in contact with the pins J J when the knees are drawn back. I will now describe the operation of my device.

A piece of timber to be squared being placed upon the head-blocks A′ A′, the smaller end of the timber being in front of the knee B′, the operator draws the rod *g* forward, which will raise the quadrant G by means of the bell-crank *e*, as shown in Fig. 3. The pawls F and I being connected with the quadrant G are thus raised and disengaged from the ratchet-

wheel D, while the pawl on the opposite side of the lever E is engaged with the ratchet-wheel D′, as shown in Fig. 2. The lever being operated now will cause the ratchet-wheel to revolve and turn the shaft C′, to which the pinion *c* is attached. This pinion, meshing with the rack *b*, will force the knee B′ forward. When carried forward to the desired distance the quadrant G is lowered, and both ratchet-wheels will revolve equally.

When it is desirable to square the knees the pawls are disengaged from the ratchet-wheels and the knees drawn back until the projection K strikes the pin J. This enables the operator to adjust them instantly without calculation and with certainty.

What we claim is—

1. In a saw-mill head-block, the combination, with the lever and its quadrant for adjusting the head-block, of two independent quadrants hinged upon the carriage, one on either side of the lever, and provided with bell-crank levers and adapted to raise the pawls that operate the ratchets which regulate the adjustment of the knees, substantially as set forth.

2. In a saw-mill head-block, the combination, with the lever and its quadrant, of two hinged quadrants adapted to raise the pawls that operate the ratchets, and connected by suitable devices to operating-rods, which latter pass through the carriage to the sawyer's position, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

EZRA PARKER.
ISAAC D. PARKER.

Witnesses:
W. H. WILMOT,
J. N. HOWARD.