

C. Roberts.

Head-Block for Saw-Mill.

N^o 73465

Patented Jan. 21, 1868.

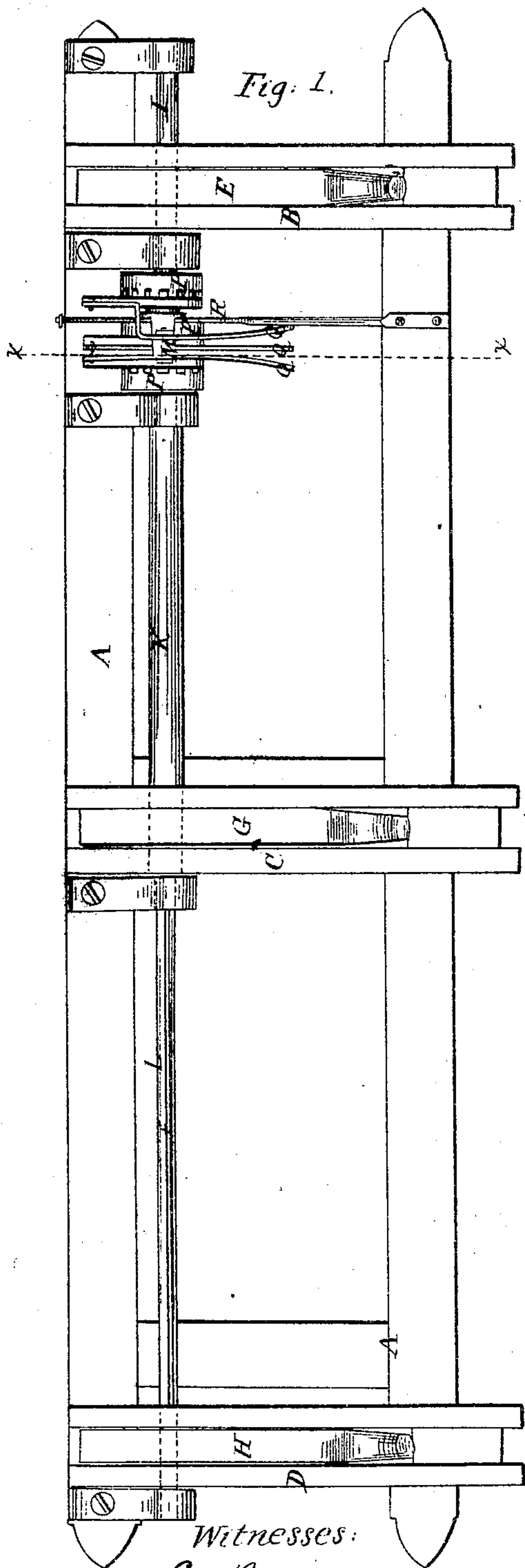


Fig. 1.

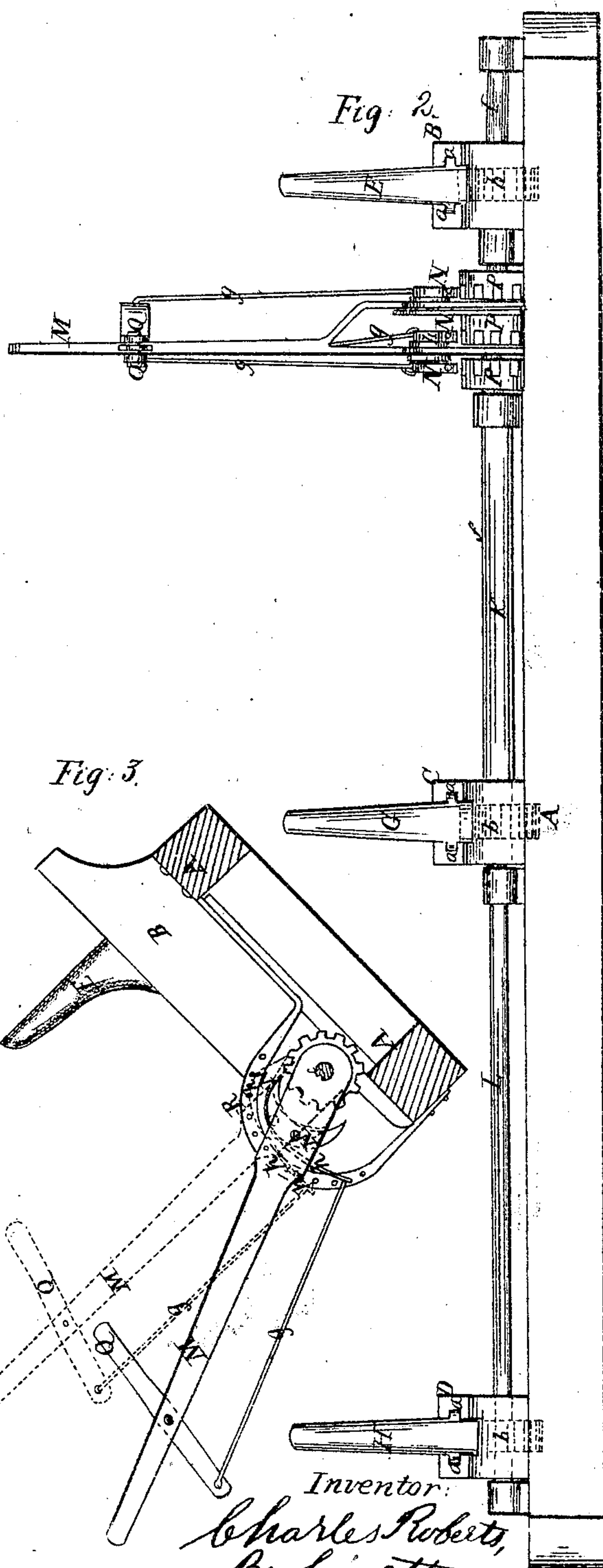


Fig. 2.

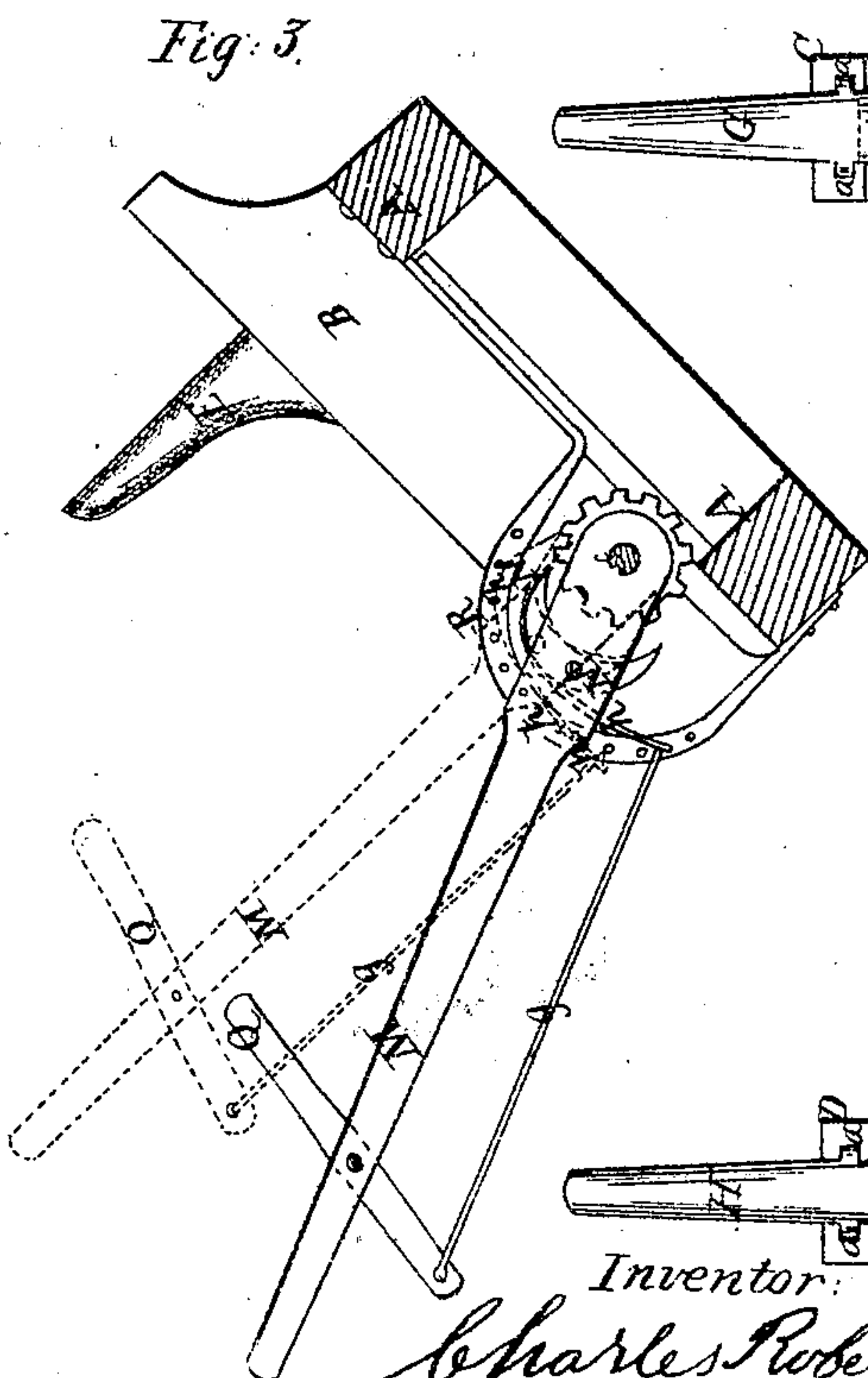


Fig. 3.

Witnesses:
E. J. Brown.
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United States Patent Office.

CHARLES ROBERTS, OF LAKE VILLAGE, NEW HAMPSHIRE.

Letters Patent No. 73,465, dated January 21, 1868.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES ROBERTS, of Lake Village, in the county of Belknap, and State of New Hampshire, have invented certain Improvements in Saw-Mills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a top view of the carriage of a saw-mill provided with my improvements.

Figure 2, a side elevation thereof.

Figure 3, a transverse vertical section of the same in a plane indicated by the line *x x*, fig. 1.

Like letters designate corresponding parts in all of the figures.

The purpose of this invention is to connect all the head-rests of the carriage in such a manner that they may be operated together by a single lever, or its equivalent, or any number less than all be moved together, or each operated separately, as may be desired.

In the drawings, let *A* represent a saw-mill carriage, *B C D* three head-blocks thereon, *E G H*, respectively, the head-rests of the said head-blocks. Each rest has, on the sides of its horizontal part or body, ridges or vanes *a a*, fig. 2, which fit and slide in side grooves of the head-block, in which it moves, and on the lower side thereof is a set of ratchet-teeth, into which gears a pinion, *b*, as indicated by dotted lines in the same figure. Each pinion *b* has a different shaft, to which it is so secured as to slide freely lengthwise, but not to turn thereon. A convenient means of accomplishing this is to form a longitudinal groove, *f*, in each shaft, into which fits a projection from the eye of the pinion. Thus, by turning either of the shafts, its pinion will turn with it, and move the corresponding head-rest, while the head-block, rest, and pinion can be shifted lengthwise on the shaft at pleasure. The object, now, here to be accomplished is, to so arrange these shafts as to enable them to be moved simultaneously or separately. To effect this, I employ a vibratory lever, *M*, near the front end of the carriage, or in a convenient position thereon, pivoting it upon one of the shafts, or concentric with them, substantially as indicated in fig. 3. The several shafts *I K L* (three or more) all terminate at one end thereof, near one or the other side of this lever. To do this, two shafts, *I L*, may be simple solid shafts, and extend to the furthest head-blocks, or to the ends of the carriage. The intermediate head-block *K* (or blocks, if there are more than three in all) is tubular, and surrounds the shaft *L*; and if there were more than four blocks, the next pair would have to be connected with the lever by tubular shafts outside of the first tubular shafts, and so on, although three or four blocks are practically all that are generally required. Then each shaft, solid or tubular, has attached to its end, adjacent to the lever *M*, a ratchet-wheel, *P*, the teeth of which are so shaped as to enable it to be moved either way by a pawl, or pawls, with equal facility and certainty. A pawl, *N*, for each ratchet-wheel is pivoted to the lever *M* in such a manner, and is so shaped, that either end or neither will take into the notches or teeth of its ratchet-wheel; and each pawl is connected, by means of an elastic handle or spring, *h*, with a connecting-rod, *g*, which extends upward to an adjusting-lever, *Q*, or its equivalent, pivoted to the lever *M* near its upper end or handle, as shown most clearly in fig. 3. By adjusting these levers, which remain or are retained in any position in which they are placed, each pawl below is made to take into its ratchet-wheel at either end required, so as to turn its shaft, and consequently move the corresponding head-rest either way required, or so that neither end of the pawl will move its ratchet-wheel, and consequently the corresponding head-rest will remain stationary; hence, on vibrating the lever *M*, either or all of the head-rests will be moved in the direction required to adjust them to position. In connection with this lever *M*, I arrange a curved concentric scale, *R*, marked with holes, pins, or notches, and numbered, so that the extent to which the head-rests are moved by the motions of the lever are measured and indicated. Other scales are, or may be, marked directly on the head-blocks to direct the adjustment or movement of the head-rests.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the tubular shaft or shafts *K* with the other shaft or shafts *I L*, and the lever *M*, with its pawls, or their equivalent, constructed and operating substantially as and for the purpose herein specified.

The above specification of my improvements in saw-mills signed by me, this 31st day of January, 1867.

CHARLES ROBERTS.

Witnesses:

R. C. SANBORN,

F. H. DAVIS.