

C. J. JONASSON & F. B. RICE.

HEAD-BLOCKS FOR SAW-MILLS.

No. 177,403.

Patented May 16, 1876.

FIG. 1

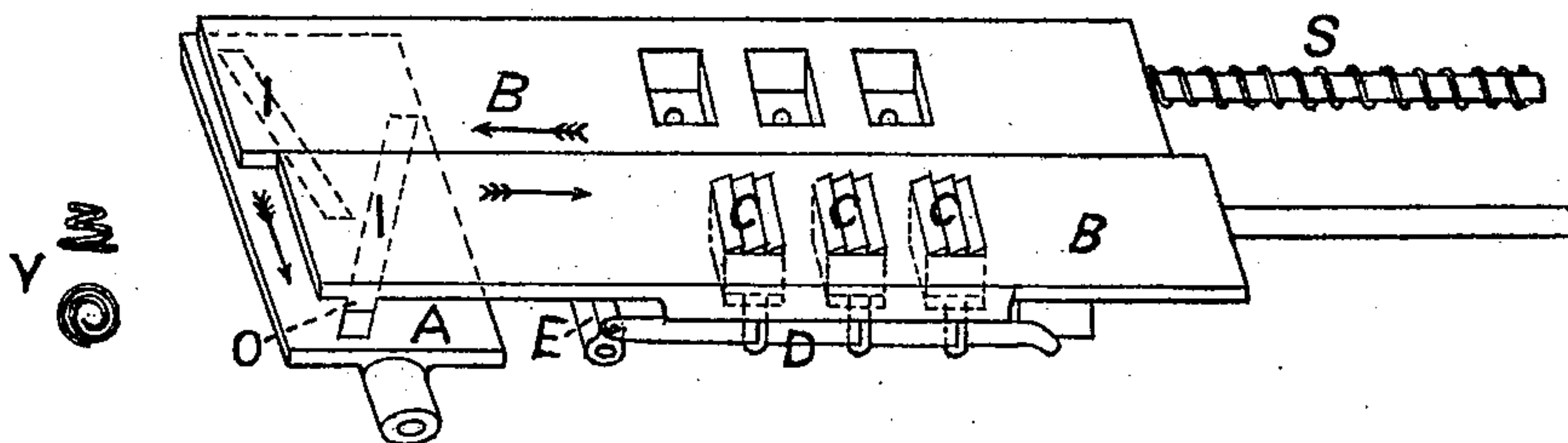


FIG. 2

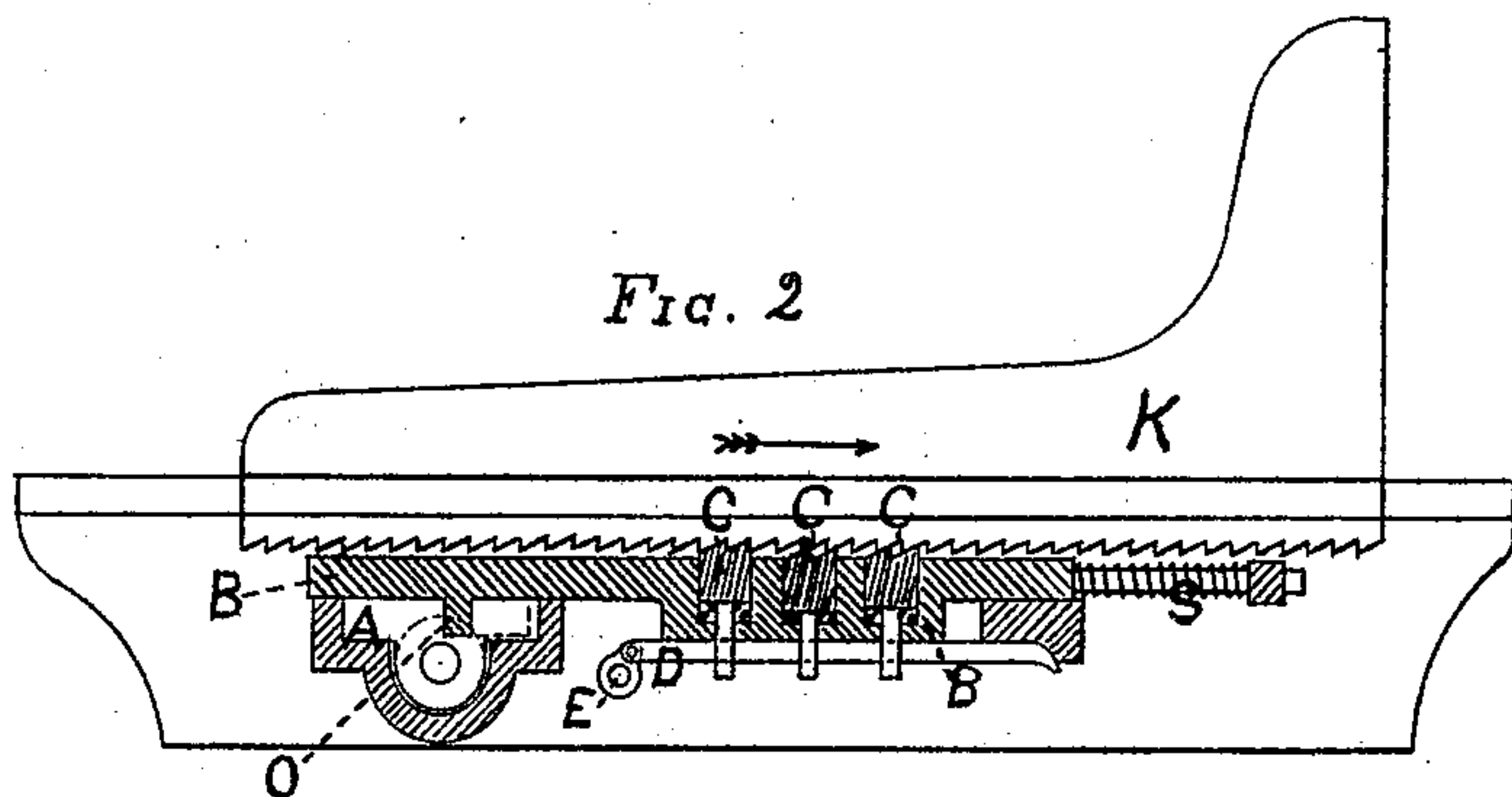


FIG. 4

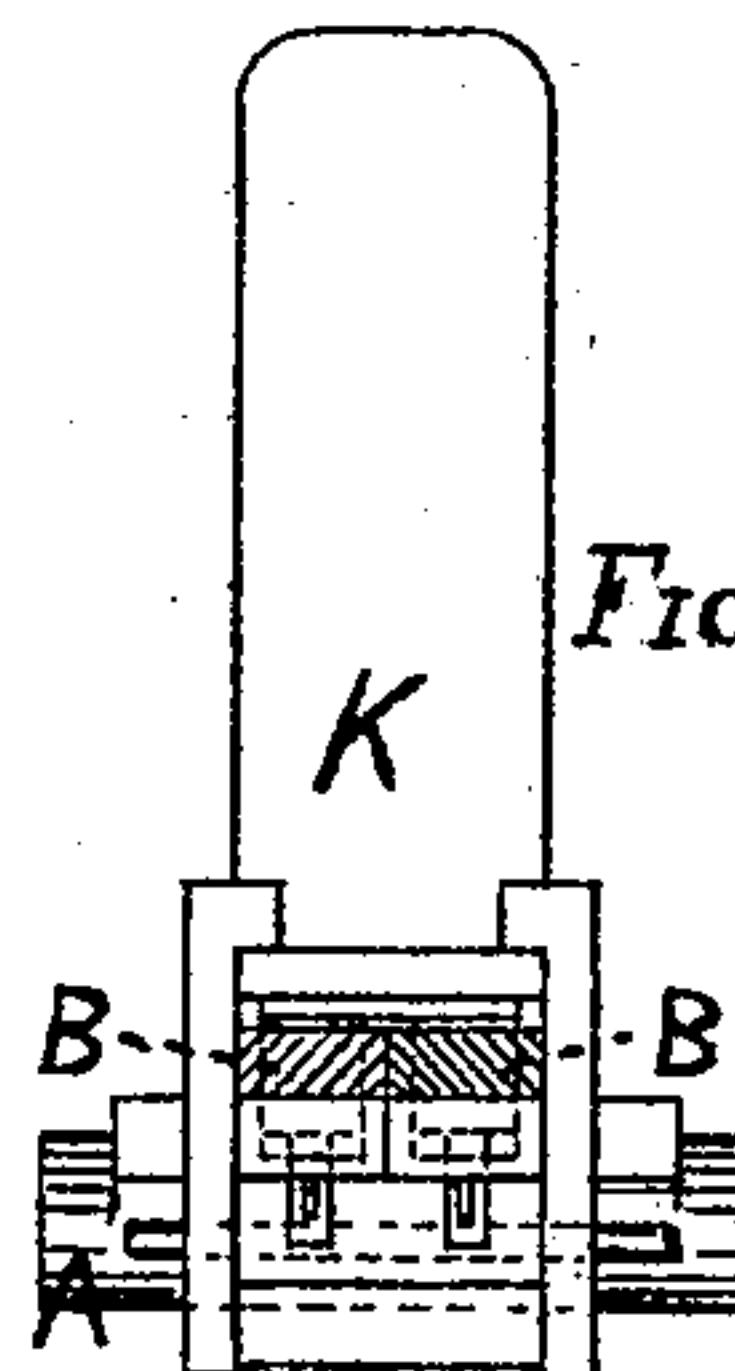


FIG. 3

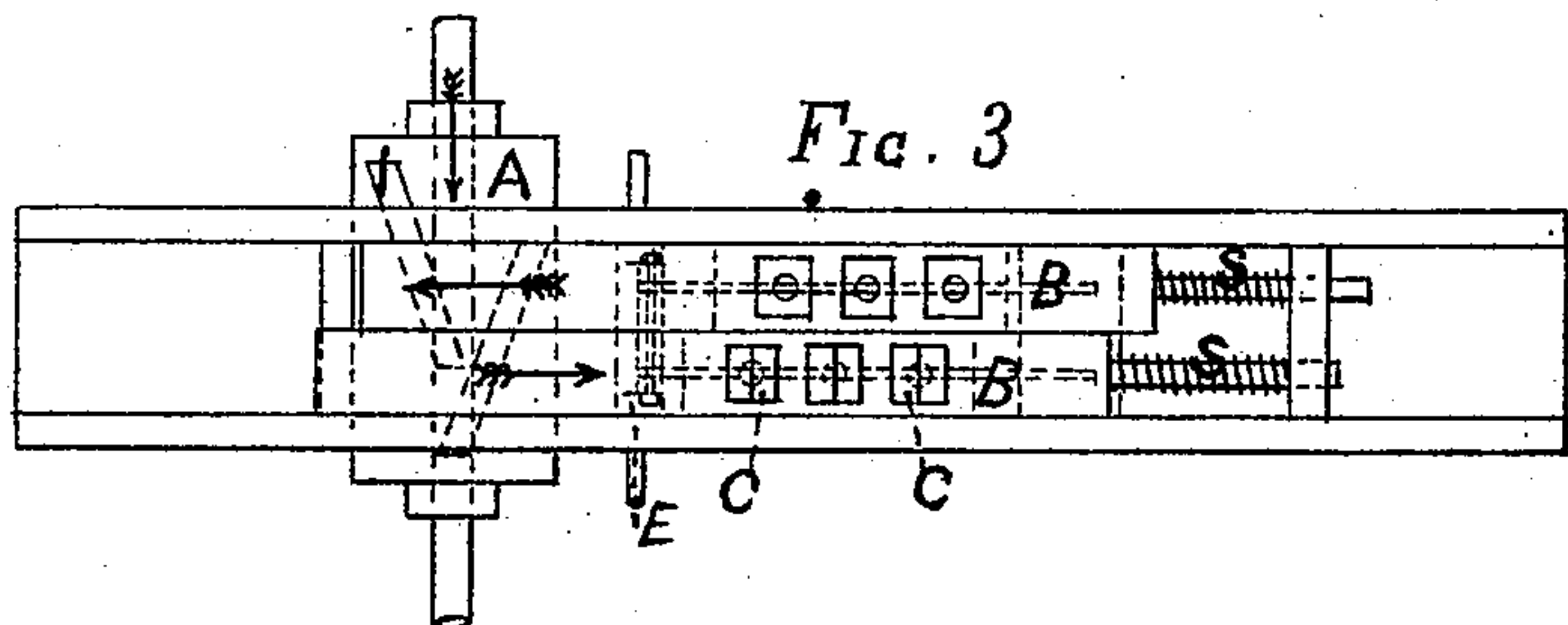


FIG. 5



FIG. 6

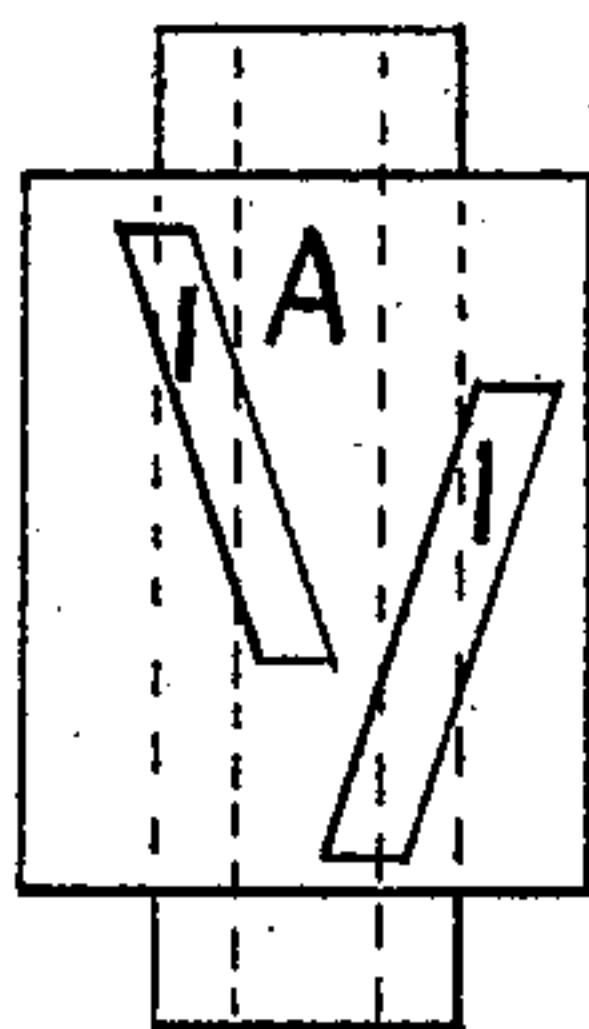


FIG. 7



Witnesses :

James C. Green
A. H. Kelby

Inventors :

C. J. Jonasson
Fred B. Rice

UNITED STATES PATENT OFFICE

CARL J. JONASSON AND FRED. B. RICE, OF WARREN, PENNSYLVANIA.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

Specification forming part of Letters Patent No. **177,403**, dated May 16, 1876; application filed April 5, 1876.

To all whom it may concern:

Be it known that we, C. J. JONASSON and F. B. RICE, of Warren, county of Warren, State of Pennsylvania, have invented a new and useful Improvement in Head-Blocks for Saw-Mills, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of our invention is to produce a cheaper, more simple, reliable, and convenient head-block than the ones in use heretofore.

In the rack and pinion blocks at present used are entailed a multiplicity of parts, the wearing of which soon causes slack, and often the breaking of pinion-teeth, to say nothing of first cost in building.

The pawl-blocks as heretofore built are also costly to build and inconvenient to handle, owing to the frequent necessity of changing racks necessary for sawing different thicknesses of lumber.

These faults are obviated in our invention, first, by using the least possible number of parts; second, the judicious use of springs to take up the slack; and, last, an arrangement of catches, which enables the operator to set any number of sixteenths inches or finer without changing racks.

The invention will be readily understood on reference to the accompanying drawings, Figure 1 being a perspective view, showing the essential features of the plan; Fig. 2, a side elevation, part sectional; Fig. 3, top view; Fig. 4, end view; Fig. 5, enlarged view of arm E; Fig. 6, enlarged view of slide A, showing the angular slots I I; Fig. 7, enlarged view, showing the angular lug O across the bottom of slide B.

The angularly-slotted slide A is fitted to slide through the supporting-frame of head-block at right angles to the direction of its length. The slides B B have attached to their lower sides lugs O, of an angle and size to fit the slots I I in the slide A. They also carry a suitable number of catches, C C C, to engage the knee K as often as desired, and which enables fine or close setting without necessitating excessively fine teeth, which are so easily broken and worn out, and which

obviate the necessity of changing racks to saw different thicknesses of lumber.

The slides B B reciprocate in opposite directions, as indicated by the arrows. The catches in the one moving forward engage the knee, while the catches in the other or retreating slide slip.

The catches C C C are supported by suitable springs V. Their lower ends pass through bottom of slides, and are slotted to receive the bars D D. The bars D D are carried at one end by a small arm, E, and at the opposite end are curved to slide down an incline.

By turning the arm E down, the rods D D and catches C C C are all drawn down, free from the knee K, which enables the knee to be set ahead, left standing, or drawn back at pleasure.

The slack occasioned by the wear in the angular slots I I is taken up by the springs S S, which are strong enough to keep the slides B B against the driving side of slot at all times. The slats I I do not pass through the slide A, but have a bottom which enables them to be kept full of oil.

The slide A is connected in a suitable manner with a common reciprocating setting-lever.

The machine is operated as follows: On moving the slide A in the direction indicated by the arrow the slides B B are caused to be moved in opposite directions, as indicated by their respective arrows. On reversing the motion of A the motions of B B are also reversed, and as the catches C C C in slides B B engage the knee in their forward movement, and one of them always moves forward when the slide A is moved, we see that by the continued reciprocation of slide A a continuous forward motion is imparted to the knee K.

When it is desired to draw the knee back, the catches C C C are disengaged from it by turning the arm E down, which, in turn, draws bars D D and catches C C C down until the knee is free to be moved back.

The simplicity, durability, and advantages of the device are obvious.

We claim as our invention—

1. The angularly-slotted reciprocating slide A and slides B B, carrying catches C C C, arranged to impart motion to knee K, substantially as described.
2. The combination, with the slides B B, of the springs S S, substantially as described.
3. The combination of the catches C C C, bars D D, and arm E, arranged and operated substantially as described.

CARL JOHAN JONASSON.
FRED. B. RICE.

Witnesses:

JAMES C. WELLS,
A. H. MCKELVY.