

P. Estes' Impⁿ in Saw-Mills.

72828

Fig 1

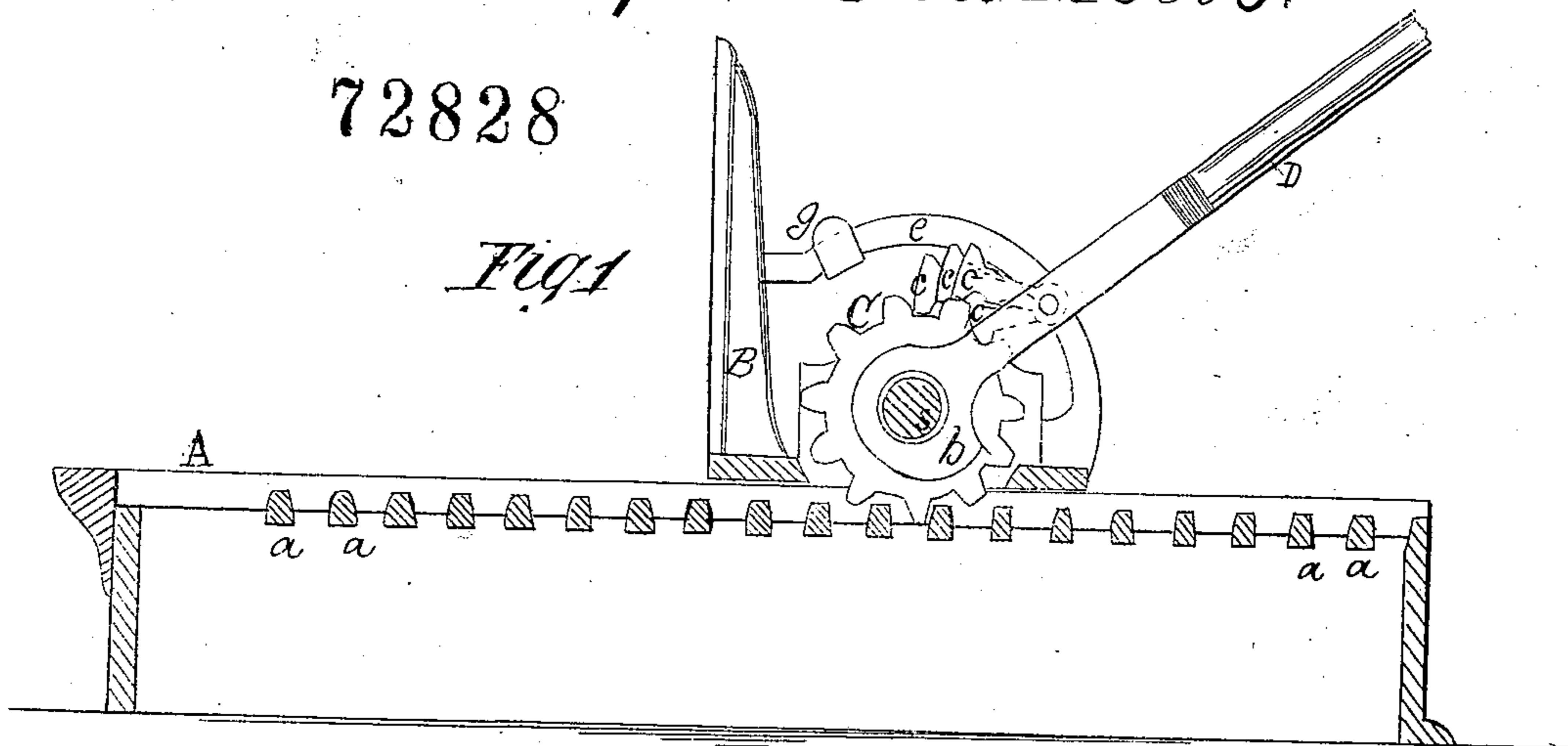
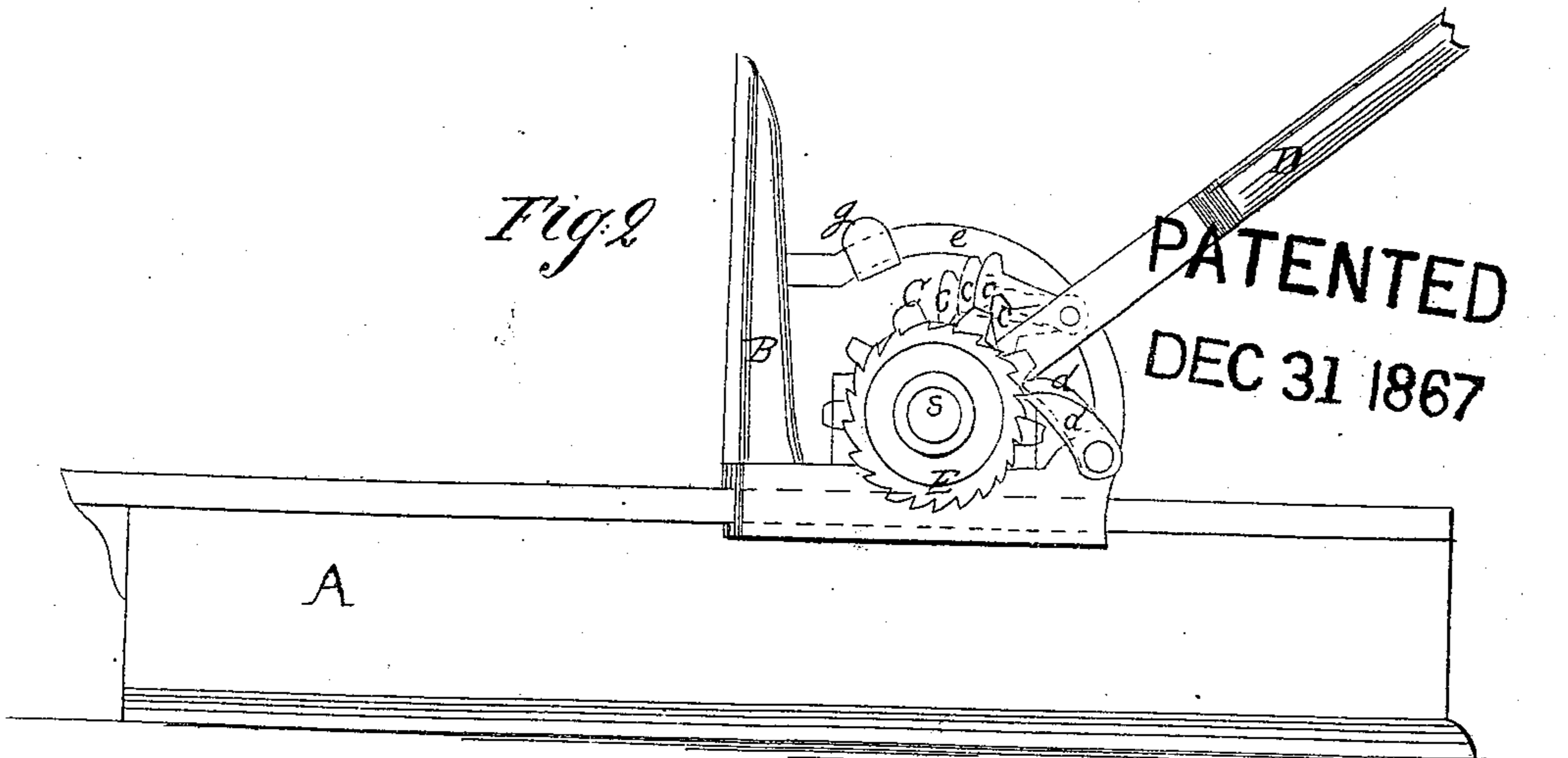
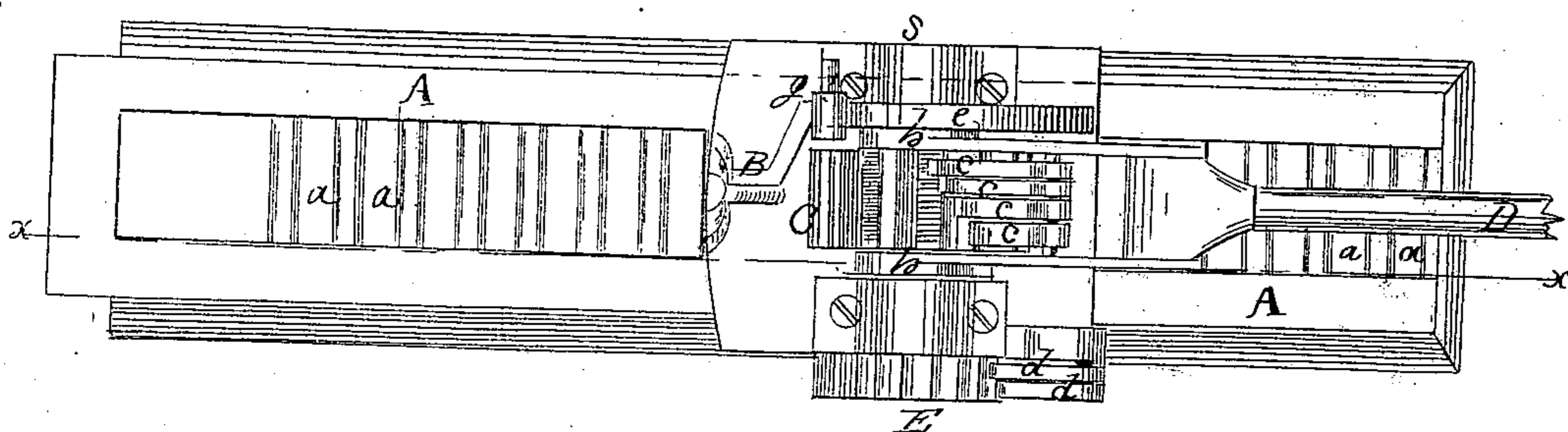


Fig 2



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Fig 3



Witnesses.
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PHILIP ESTES, OF LEAVENWORTH, KANSAS.

Letters Patent No. 72,828, dated December 31, 1867.

IMPROVEMENT IN HEAD-BLOCKS.

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, PHILIP ESTES, of Leavenworth, in the county of Leavenworth, and State of Kansas, have invented a new and useful Improvement in Saw-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal vertical section of my improved head-block rack, taken in the line *x x*, fig. 3.

Figure 2 is a side view.

Figure 3 is a top view.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in the construction of head-blocks for saw-mills, and consists in an open rack and pinion, connected with a lever having clamping-eccentrics and carrying four pawls, and a ratchet-wheel having two dogs, as hereinafter more particularly described.

A represents the bearer of the head-block, in which, running down the middle on the top, is an open rack formed of the teeth *a a*. B is the knee of the head-block, fitted to a base to slide on the bearer A, when moved by the pinion C, operated by the lever D, which is forked to straddle the pinion and work on the same shaft, *s*. The forked ends of the lever are eccentrics *b b*, which are so formed that when the head-block is set to the gauge, and the lever is thrown back close down to the rack, they bear upon the top of the bearer to clamp the knee, and hold it rigidly in place while the saw is cutting. Between the forks of the lever D are hung four pawls, *c c c c*, having one-inch pitch, operating on the pinion C, when the lever is raised, to push the knee B with the log forward. A ratchet-wheel, E, is set on one end of the shaft *s*, outside of the bearing, which has double the number of teeth of the pinion C, and is provided with two holding-dogs, *d d*, which allow the head-block to be set one-quarter of an inch as each falls, or more, as required. On one side of the lever is a segment-gauge, *e*, on which is placed a stop-gauge, *g*, provided with a thumb-screw to adjust the movement of the lever for any thickness of lumber. When the log has been sawed up, the four pawls *c c c c* can all be thrown back from the pinion, and the whole head-block be pulled back at once without working the lever, or be taken off the bearer entirely, to roll the log on from either side.

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

1. The lever D, provided with eccentrics working on the shaft *s*, upon each side of the pinion C, for clamping the knee B upon the bearer A, as herein shown and described.

2. The combination of the open rack *a*, pinion C, knee B, forked lever D, pawls *c*, ratchet-wheel E, dogs *d*, segments *e*, and adjustable stop *g*, as herein described, for the purpose specified.

The above specification of my invention signed by me, this day of 1867.

PHILIP ESTES.

Witnesses:

DE FORREST FAIRCHILD,
E. P. WILLSON.