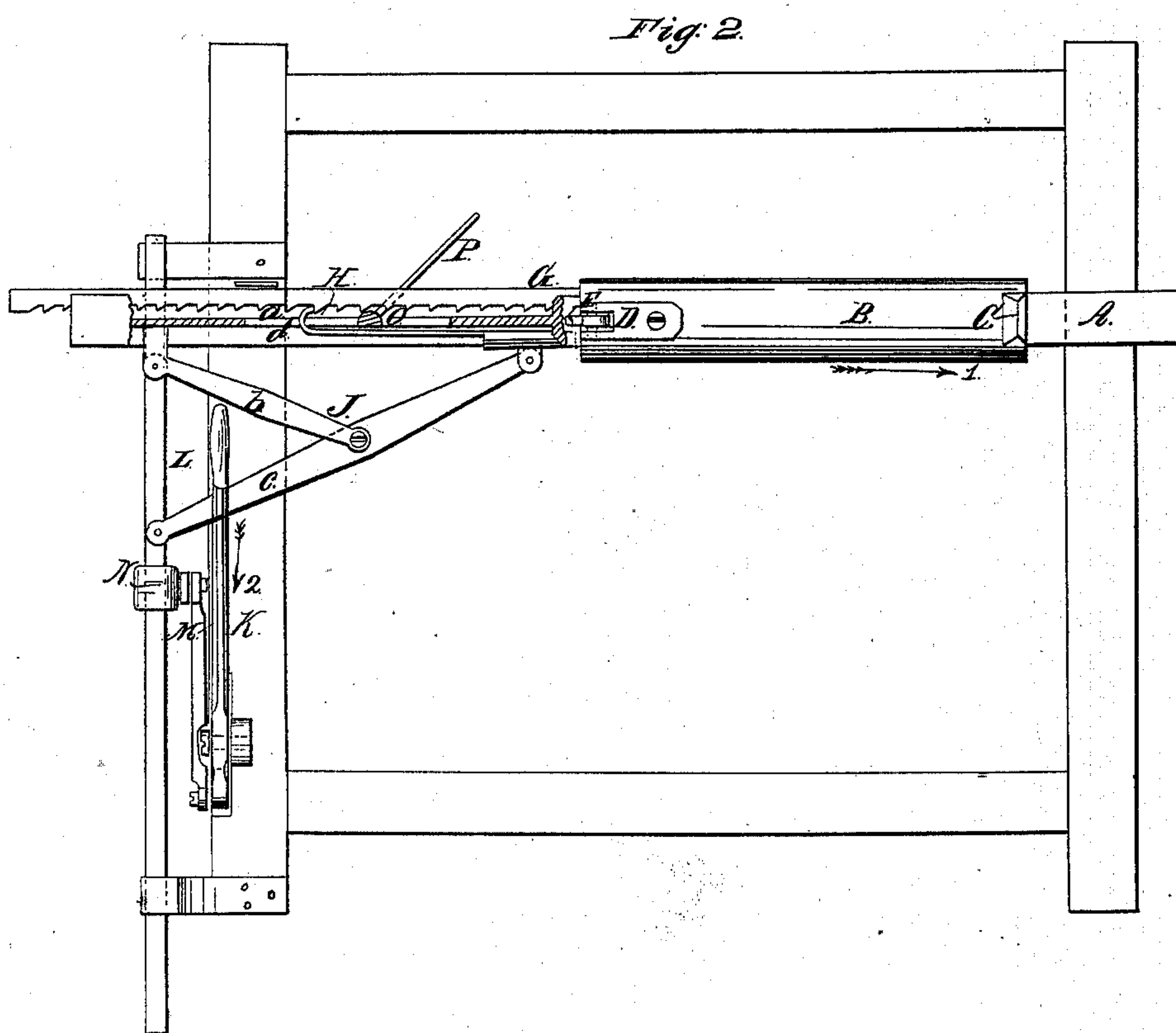
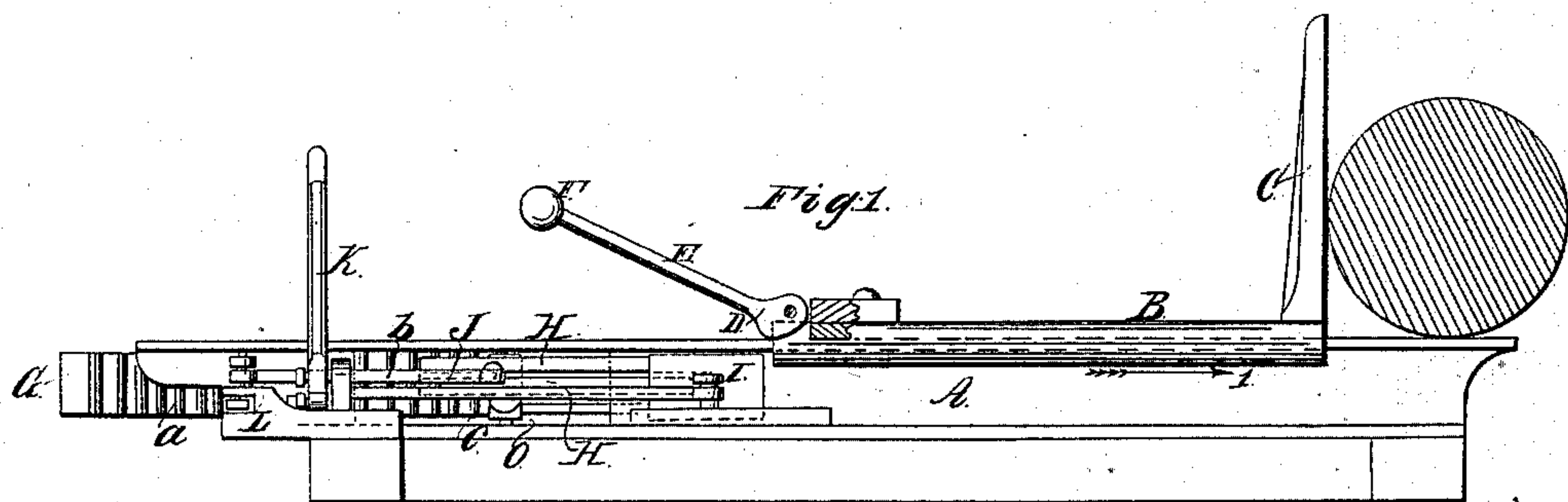


*B. F. McKinley,*  
*Saw-Mill Head-Block.*

*N<sup>o</sup> 60,401.*

*Patented Dec. 11, 1866.*



*Inventor:*

*Geo. Trusck*  
*J. A. Service*

*Witnesses:*

*B. F. McKinley*  
*Per [Signature]*



# United States Patent Office.

## IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

B. F. McKINLEY, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND H. R. MATHIAS, OF SAME PLACE.

*Letters Patent No. 60,401, dated December 11, 1866.*

*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, B. F. McKINLEY, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and improved Head-Block for Saw-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those 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 side view of my invention.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved head-block for saw-mills, and it consists in a novel means employed for operating or moving the knee, whereby the log is set to the saw, as hereinafter fully shown and described, and by which the log may be set with accuracy and so as to cause the log to be sawed into boards or planks of varying thicknesses, as may be required.

A represents the body of the head-block, on which the log to be sawed (shown in red) rests, and B is a slide, which is fitted and rests upon, A, and has an upright bar or knee C, at one end of it, and a cam D at the opposite end, said cam, having an arm E connected to it, with a weight F at its outer end, as shown clearly in fig. 1. The slide B, has a horizontal bar G, connected to one side of it, said bar being at one side of the body A, of the head-block, and having a rack *a*, at its inner side. H H are spring or elastic pawls, which engage with the rack *a*, when the device is at work. These pawls are attached to a slide, I, which is fitted and works between suitable guides at the side of the body, A, opposite to the side where the bar G works. The slide I is operated by a toggle J, and a lever, K, one of the arms *b*, of the toggle, being attached to the body A, of the head-block, and the other *c*, connected to the slide, I. The arm *c*, is considerably longer than the arm *b*, and has its outer end pivoted to a horizontal bar, L, which works in suitable guides, the lever, K, being connected to said bar, L, by a link, M, which is attached to the bar, L, by an adjustable head, N, as shown clearly in fig. 2. The pawls H H, work through an opening *d*, in the body A, of the head-block, and keep engaged with the rack *a*, of the bar G, by virtue of their own elasticity. The pawls are thrown out from the rack *a* when required, by means of an eccentric, O, having a lever, P, attached. From the above description, it will be seen that the slide B, and knee C, will be moved in the direction indicated by arrow 1, each time the lever K, is moved in the direction indicated by arrow 2, and it will further be seen that the movement of the slide B and knee C, is arbitrary or fixed, as the lever K, has but a certain sweep and cannot operate beyond the point, which brings the pivot that connects the link M, with the lever K, in line with the fulcrum of said lever, and the pivot which connects the outer end of the link M, with the head N. The movement of the slide B and knee C, however, may be varied according to the required thickness of the stuff to be sawed, by adjusting the head N, on the bar, L. The cam D, when the arm E, is thrown over backward, prevents a retrograde movement of the slide, B, and when the slide B and knee C, have reached the extent of their forward movement on A, the arm E is thrown forward, and the eccentric O, turned to throw the pawls H H out of gear from the rack, *a*, the slide B may then be readily shoved back. The device is extremely simple and efficient, and contains no parts liable to become deranged by use or to get out of repair. An equivalent of adjustable head, N, may be, attaching the link M, to bar, L, by a pin passing through link M, and holes in bar, L, so graduated as to correspond to different thicknesses of lumber.

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

The regulating of the movement of the slide B, and knee C, by means of the adjustable head N or its equivalent on bar L, substantially as and for the purpose specified.

I further claim, so adjusting head N or its equivalent on bar L, as to bring the pivot centres of link M, and the fulcrum of lever K, all in line when starting in combination with a similar arrangement of levers or links on head-block A, the centers of which are brought in line in stopping, and the slide I, pawls H H, and rack-bar G, all arranged substantially as and for the purpose set forth.

B. F. McKINLEY.

Witnesses:

JOSEPH SOLLENBERGER,  
GEO. B. GRONFELDER.