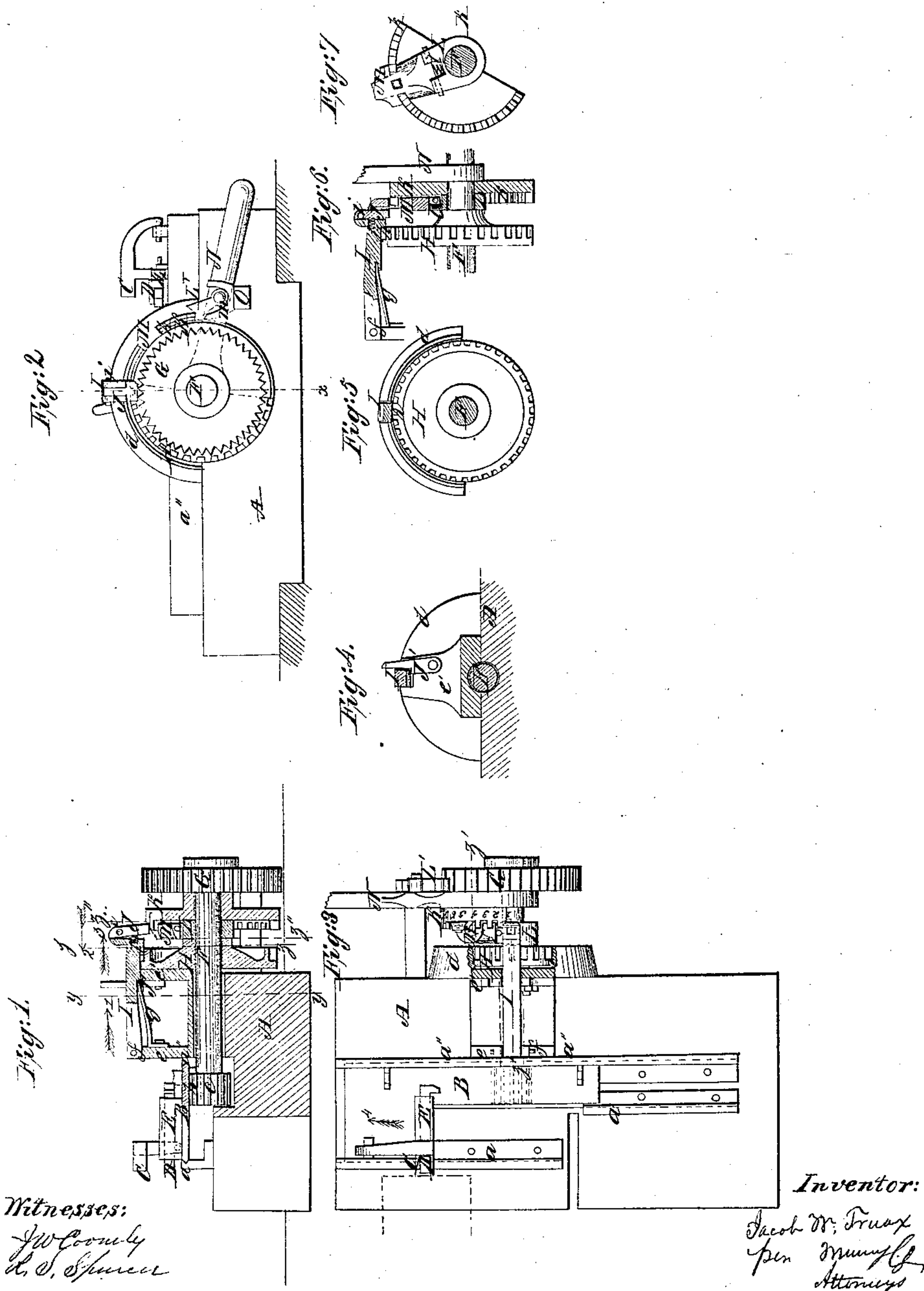


*J. W. Truax,*  
*Saw-Mill Head-Block,*  
*No 29,845.                      Patented Aug. 28, 1860.*





# UNITED STATES PATENT OFFICE.

JACOB W. TRUAX, OF RICHFORD, VERMONT, ASSIGNOR TO HIMSELF AND O. J. SMITH, OF  
SAME PLACE.

## HEAD-BLOCK FOR SAWMILLS.

Specification of Letters Patent No. 29,845, dated August 28, 1860.

*To all whom it may concern:*

Be it known that I, JACOB W. TRUAX, of Richford, in the county of Franklin and State of Vermont, have invented a new and Improved Head-Block for Sawmills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical transverse section of my invention taken in the lines  $x, x$ , Fig. 2; Fig. 2, a back view of the same; Fig. 3, a plan or top view of the same; Fig. 4, a sectional view of a portion of the same, taken in the line  $y, y$ , Fig. 1, and looking in the direction indicated by arrow 1; Fig. 5, a sectional view of the same taken in the line  $z, z$ , Fig. 1, and looking in the direction indicated by arrow 2; Fig. 6, a sectional view of the same, taken in the line  $z', z'$ , Fig. 3. Fig. 7, a sectional view of the same, taken in the line  $z'', z''$ , Fig. 1, and looking in the direction indicated by arrow 3.

Similar letters of reference denote corresponding parts in the several figures.

This invention consists in a novel arrangement of parts for gaging the lateral movement of the log so that the latter may be readily adjusted previous to the commencement of each cut to saw boards or stuff of uniform thickness from the log.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents the block or stock to which the working parts of the device are attached and  $a, a' a''$  are guides which are attached to the upper surface of the block or stock and between which a head B is fitted and allowed to slide freely. The guides  $a a'$  are parallel with each other and with the guide  $a''$  but the two former are not in the same line as will be seen by referring to Fig. 3. This arrangement is to accommodate the head B which is wider at one end than at the other. On the head B at its wide end there is attached a dog C, of ordinary construction and also a spike dog D, the latter being fitted in a horizontal socket E and allowed to slide therein. At the under side of the head B there is a rack  $b$  into which a pinion  $c'$  on a shaft F, gears, said shaft being fitted on the block A, at right angles to the head B. The shaft F projects some dis-

tance from the back of the block A, and on its other end there is placed a toothed wheel G. On the shaft F, there is also secured firmly a toothed wheel H, the upper part of which is encompassed by a guard  $d$  attached to the block A. On the block A, there are placed two uprights  $e, e'$ , in one of which  $e'$  a bar I, is fitted and secured by a pin  $f$ . This bar I, has a spring  $g$ , attached to it which spring has a tendency to keep a projection  $h$ , at the under side of the front part of the bar in gear with the wheel H. To the upright  $e'$  there is attached a button  $J'$ , which when adjusted in a vertical position serves to keep the bar I, in an elevated state so that its projection  $h$ , will be free from the teeth of wheel H, and admit of the shaft being turned.

At the outer end of the bar I, there is attached by a pivot  $i$  a pendant J. This pendant has a spring  $j$  bearing against its inner side, the spring having a tendency to keep the lower end of the pendant over the periphery of a segment K which is placed loosely on the shaft F. At the edge or periphery of the segment K and at its inner side there are teeth  $k$  which are numbered as shown in Fig. 3.

On the shaft F and adjoining the segment K there is placed loosely an arm L, to the outer end of which a lip M, is pivoted, said lip having a spring  $l$  underneath it which spring has a tendency to keep the lip in gear with either of the teeth on the segment K, the lip M being perforated to receive a tooth as shown in Fig. 6.

On the shaft F there is placed a lever N. This lever is allowed to work freely on the shaft, and it is attached to the segment K. To the lever N, there is secured a pawl  $L'$ , which engages with the wheel G, and from the back end of the block there projects a bar O at right angles, the outer end of said bar having a projection  $m$ , attached which keeps the pawl  $L'$  in a proper position relatively with wheel G, so that the former may engage with the latter as the lever N is raised—see Fig. 2.

The operation is as follows: The head B is moved to the extent of its movement in the direction indicated by arrow 4, and the dogs C, D, secured in the end of the log. The lip M of the arm L being fitted on the tooth, which is at such a distance from the end of the segment K as to cause the head B,



and consequently the log, to be moved a requisite distance after each cut to have the stuff sawed of the required thickness. The head B is retained in proper position during the operation of sawing by the bar I, the projection *h*, fitting between two of the teeth of wheel H, and just previous to the commencement of each cut. The operation raises the bar I sufficiently to allow the pendant J to be forced outward by its spring *j* over the periphery of the segment K, as shown in Fig. 1, the segment K in resting on the segment keeps the projection *h*, of the bar I free from the wheel H and admits of the shaft F, being turned, and the head B moved through the medium of lever N, pawl L', wheel G, projection C, and rack *b*. This lever N is thus actuated when the bar I is raised and the shaft F is turned until the upper end of the lip M comes in contact with the pendant J and forces it back off from the periphery of the segment K, so that the spring *g*, may draw the projection *h* down into the teeth of wheel H and stop the rotation of the shaft and the movement of the log. It will be seen therefore that the "set"

or movement of the latter is determined by the position of the lip M, or rather its point of attachment to the segment and the teeth of the latter are therefore numbered for the purpose of regulating the "set" with facility.

When the log is sawed up, the bar I is retained in an elevated state by the button J' to allow the head block to be moved back to its original position to be secured to another log.

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

The toothed segment K, and arm L, provided with the wheels H and G, bar I, provided with the swinging or adjustable pendant J; the wheels H, G being attached permanently to the shaft F, and the segment fitted loosely thereon—substantially as and for the purpose set forth.

JACOB W. TRUAX.

Witnesses:

H. M. SAFFORD,  
BELANI VERBONN.