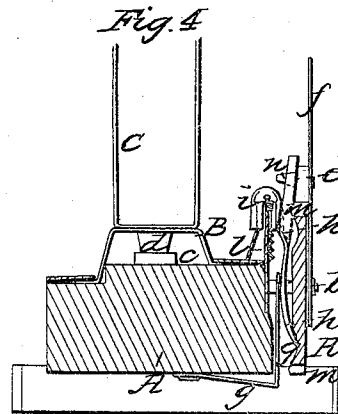
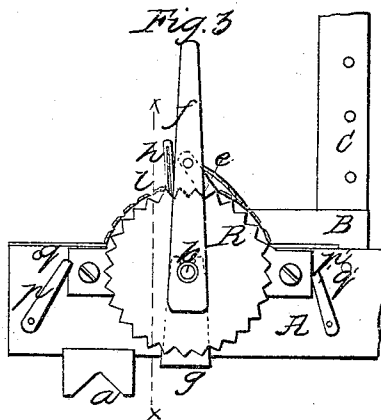
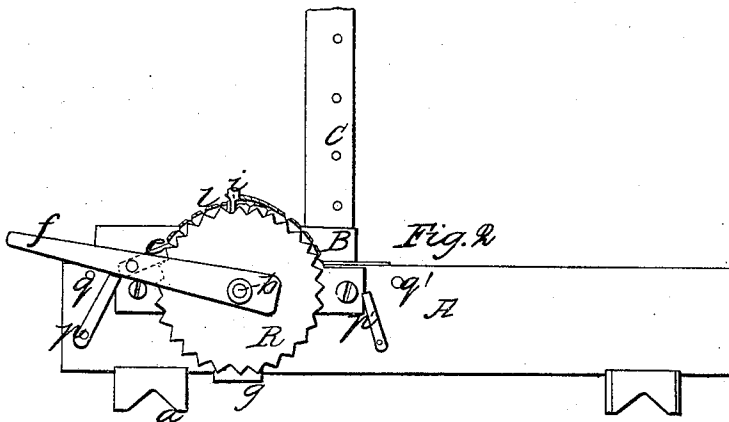
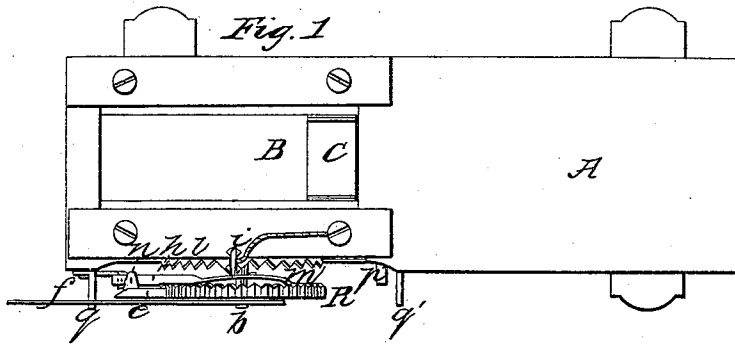


*L. B. Fisher,*  
*Saw-Mill Head-Block,*  
*No 13,715,                      Patented Oct. 30, 1855.*



# UNITED STATES PATENT OFFICE.

LUTHER B. FISHER, OF COLDWATER, MICHIGAN.

## DEVICE FOR GAGING AND SETTING SAWMILL-DOGS.

Specification of Letters Patent No. 13,715, dated October 30, 1855.

*To all whom it may concern:*

Be it known that I, LUTHER B. FISHER, of Coldwater, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Sawmill-Dogs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is a plan of head block and parts adjacent thereto. Fig. 2 is an elevation of same showing ratchet with lever in position for moving the same. Fig. 3 is a similar view, showing lever at termination of ratchet movement. Fig. 4 is a section on line *x x* of Fig. 3 in direction of axis of ratchet.

Similar characters of reference in the several figures denote the same part.

The object of my invention is to insure an accurate movement of the feeding ratchet, whether it be self operating or not.

It consists in constructing on the inner face of the said ratchet, a serrated rim, in which rests the upper portion of a bar movable around the ratchet shaft, and pressed into the ratchet rim by a spring; so that the said bar shall turn with the ratchet when it is carried forward by the usual lever and pawl, and by striking a stop prevent the further movement of the ratchet; a tapering stud on the inner face of the lever removing the said bar from the teeth of the ratchet rim, and carrying it down to a rest; when it again engages the said notched rim, the effect of this construction being to insure the movement of the ratchet through a certain number of degrees, irrespective of the motion of the operating lever; the details of construction, operation, and advantages being as follows.

In the drawing A represents one of the ends of the log carriage, the grooves *a* of which rest on the usual guides of such machines. This carriage has the sliding head block B, on which is the dog support C by which one extremity of the log is held. The head block is moved for giving feed to the machine by a ratchet R, on whose shaft *b*, is a pinion meshing into a rack on the under surface of the head block, as shown by *c* and *d* in Fig. 4. This being the ordinary construction need not be more particularly noticed. It will moreover be understood

that a similar ratchet, and appurtenances annexed therewith will be constructed at the opposite extremity of the log carriage; consequently I shall confine my description strictly to the construction and operation of the part effected by my invention.

The ratchet R is moved by lever *f* and pawl *e*, either by hand or automatically, the lever falling back into the position shown in Fig. 2 at the termination of each feed. Upon, and movable about the shaft *b*, is a bar *h* pressed against the ratchet R by a spring *g*, (Fig. 4) so that its upper portion will enter between two of the teeth of a serrated rim *m*, on the inner face of ratchet R; the edge of the bar being so constructed as to favor such entrance. By this construction the bar *h* will hold tightly to the ratchet and be carried around with it.

On the carriage is an arched plate *l*, toothed on the side toward the ratchet, and cut on the other side, so that a double branched stop *i* may be held upon the edge of said plate. The different notches and cuts on the plate are so graduated as to give certain movements of the head block for the several positions of the stop. The securing bolt on which the pawl turns, projects inward and constitutes a tapering stud *n*, acting as will be set forth.

The operation of my invention is as follows. The double branched stop *i* is first placed upon the plate *l* in the notch indicating the required feed, lever *f* being in position of Figs. 1 and 2, resting on stud *q*; bar *h* being at that time tightly held by ratchet rim *m*. The lever *f* is lifted, causing the rotation of ratchet R until the bar *h* strikes the stop *i*. The lever *f* then falls, causing the tapering stud *n* to press on bar *h*, and remove the said bar from the teeth of the ratchet rim *m*, when the bar is carried around to stop *p*; the progress of the lever being stayed by stud *q*. The bar *h* being no longer acted on by the stud *n*, spring *g* carries it between the teeth of the ratchet rim *m*, and the ratchet is ready for the next feed.

The advantage of this construction lies in making the limit of the ratchet movement independent of the movement of the operating lever *f*. For, when the amplitude of motion is governed by the striking of a stop, by the lever, the slipping of the pawl entirely destroys the accuracy of the feed. And, as by wear on pawl and teeth, this accident is liable to obtain, it becomes of

great importance to guard against it. This is effectually done by the spring bar *h*; for, if the pawl slip several teeth, the lever will move on until the bar *h* strikes the stop; 5 and the amount of the revolution of the ratchet R will be the same no matter how often the pawl may have slipped.

Making no claim to ratchet, pawl, and lever for giving the feed, I claim as new 10 and of my own invention—

The spring bar *h*, in combination with

the ratchet rim *m* and lever stud *n*, constructed, arranged, and operating substantially as, and for the purposes specified.

In testimony whereof, I have hereunto 15 signed my name before two subscribing witnesses.

LUTHER B. FISHER.

Witnesses:

E. O. LEACH,  
H. SHONDLER.