(No Model.)

A. M. STICKNEY.

THROTTLE VALVE LEVER.

No. 313,896. Patented Mar. 17, 1885.

Fig. 1.

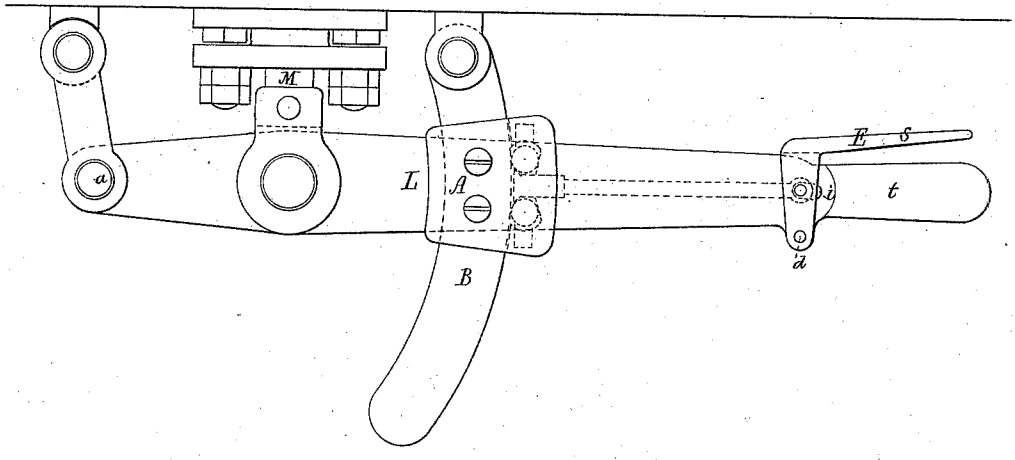


Fig. 2.

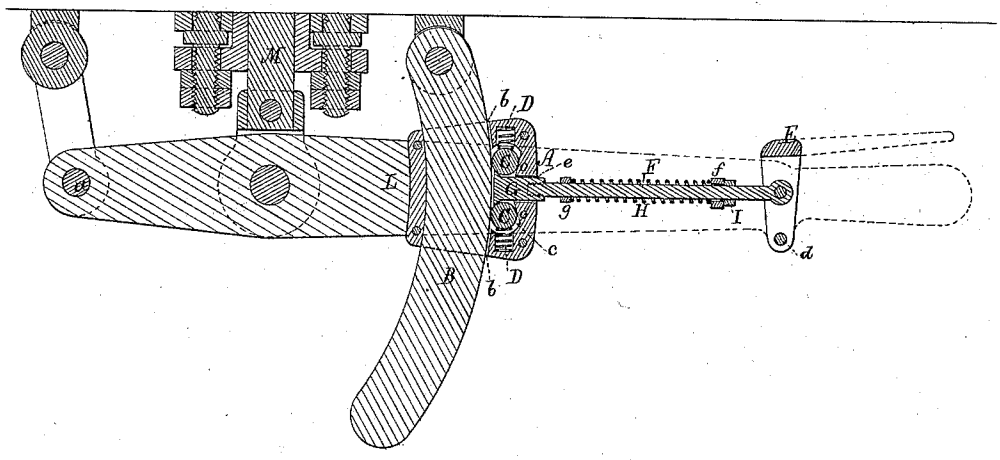
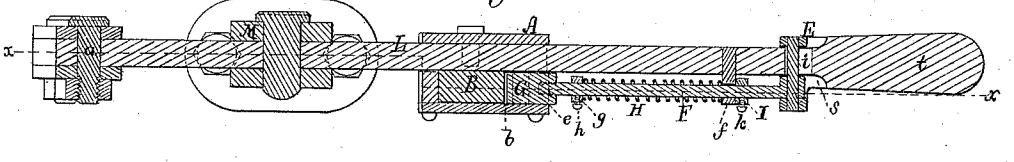


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALLISON MORRIS STICKNEY, OF WATERTOWN, MASSACHUSETTS.

THROTTLE-VALVE LEVER.

SPECIFICATION forming part of Letters Patent No. 313,896, dated March 17, 1885.

Application filed May 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALLISON MORRIS STICKNEY, of Watertown, in the county of Middlesex, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Mechanism for Locking the Throttle-Valve Lever of a Locomotive Steam-Engine; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view; Fig. 2, a horizontal and longitudinal section on line *x x* of Fig. 3; and Fig. 3, a vertical and longitudinal section of a throttle-valve lever with my invention, the nature of which is defined in the claims hereinafter presented.

In such drawings the valve-lever is shown at L as having its fulcrum at *a*, and as jointed to the valve-operating rod M. There is fixed to and projected upward from the said lever a block, A, adapted to slide upon a curved arm, B, lengthwise thereof, such arm being extended through a correspondingly-curved passage, *b*, in the block. Within the block, and opening into such passage *b*, is a cavity or chamber, *c*, which increases in width from its middle to each end of it, so as to form in the chamber inclined planes *o o*, arranged as represented. Within this chamber *c* are two short cylinders or rollers, C C, besides which there are within the chamber and to press the two rollers toward each other two spiral springs, D D. Furthermore, there is fulcrumed to the lever L near its handle, and arranged therewith as represented, a bent lever, E, the fulcrum of which is shown at *d*. This lever is to move in one direction a slide, F, which within the chamber is provided with a head, G, formed and disposed between the two rollers in manner as shown. The shank of the said slide passes through an opening, *e*, in the block A, and also through an ear or guide, *f*, projecting from the lever L. A spiral spring, H, encompassing the said shank, bears at one end against the said ear *f*, and at the other against a collar, *g*, adapted to slide on the shank, and having a set-screw, *h*, to fix it in place thereon. At its outer end the slide F is pivoted to the lever E, said pivot passing through a slot, *i*, in the lever L. Between the said lever E and the ear *f* there is on the shank of the slide F an adjustable collar, I, provided with a set-screw, *k*. The spring H is to force the slide F toward the curved arm B, in order to keep the head G out of action or contact with the two rollers C C.

When an engineer may desire to move the throttle-valve, he is to grasp with his hand at one and the same time both the handle *t* of the lever L and the longer arm *s* of the lever E, and is to press the said arm toward the said handle. In so doing he will cause the head G to be drawn against the two rollers C C, so as to force them simultaneously in directions toward their springs D D, and out of contact with the curved arm B and the inclined planes *o o* of the chamber *c*. While the rollers are so out of contact with the inclined planes, he is to move the lever L to the desired extent, and having done this he is to withdraw his hand from the lever E, so as to allow the spring H to impel the slide F toward the arm B until stopped by the collar I bringing up against the ear *f*. In this case the head G will be moved so as to allow the springs D D to force the two rollers, C C, closely against the arm B and the inclined planes *o o*, and thereby cause the lever L to be firmly locked in position or to the curved arm.

With my improvement a very nice adjustment of the throttle-valve lever can be expeditiously effected, and such lever be firmly locked and as quickly unlocked, all of which is of great importance, especially when there may be danger or liability of a collision of the locomotive or other accident, requiring either a sudden movement or a locking of the valve-lever. The adjustable collar I, provided with the set-screw *k*, is also a matter of importance, to provide against undue pressure of the rollers against the inclined planes, and also to keep the head G out of contact with the arm B, or to limit the advance of the slide F, as other circumstances may require, the retreat of the said slide being accomplished by the lever E.

I claim—

1. The combination of the block A, fixed to the throttle-lever L, and chambered and provided with springs and rollers, and inclined planes arranged in the chamber, substantially as set forth, with the said throttle-lever L and the curved arm B, extending through such block, and with the headed slide F, the aux-

iliary lever E, and the spring H, arranged with and applied to the said block A and lever L, all being as and to operate essentially as described.

2. The combination of the adjustable collar I, provided with a set-screw and arranged on the slide F, as described, with such slide and its guide and operative spring, and with the block A, adapted to the throttle-lever L and the curved arm B, and chambered and provided with rollers, springs, and inclined planes, as set forth, all being to operate essentially in manner and for the purpose or purposes as represented.

ALLISON MORRIS STICKNEY.

Witnesses:
R. H. EDDY,
E. B. PRATT.