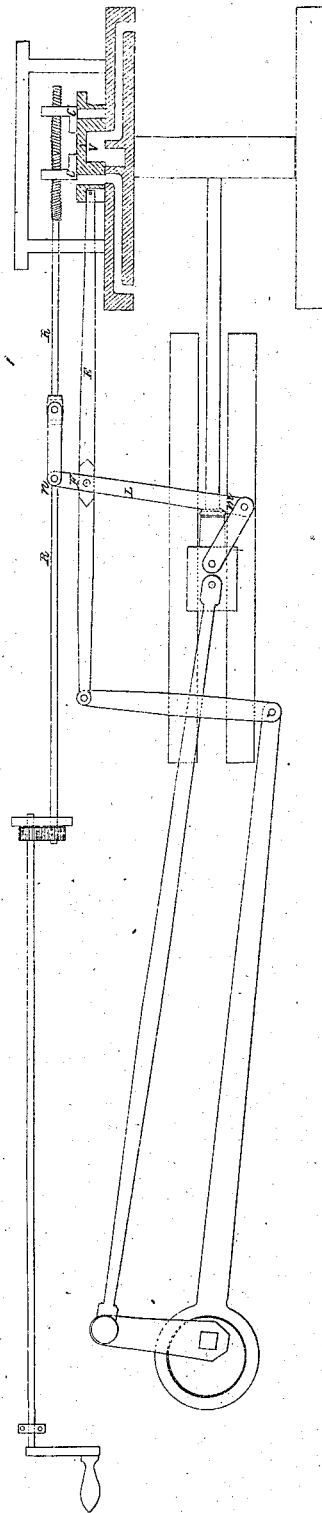


H. Allen,  
Steam Cut-Off.

*N<sup>o</sup> 5,025.*

*Patented Mar. 20, 1847.*



Witnesses:  
James Wilkinson  
N B Holman

Inventor:  
Stomies Allen

# UNITED STATES PATENT OFFICE.

HORATIO ALLEN, OF NEW YORK, N. Y.

## CUT-OFF VALVE.

Specification of Letters Patent No. 5,025, dated March 20, 1847.

*To all whom it may concern:*

Be it known that I, HORATIO ALLEN, of the city of New York, State of New York, have invented further Improvements on my  
5 Adjustable Cut-off, (patent dated August 21, 1841;) and I do hereby declare that the following is a full and exact description.

By reference to the specification of the patent issued to me for an adjustable cut  
10 off, dated August 1841 it will be seen upon what combination of parts that patent depends. Figures 1 and 2 of the drawings annexed to that patent represent one of the combination on which the present invention  
15 is an improvement, and to which it is particularly applicable. Fig. 1 annexed to this specification represents the same combination together with the parts constituting the present improvement, which consists in plac-  
20 ing on the rod which carries the main slide valve, the fulcrum of the lever, by which motion is given to the cut off slides. By this arrangement, the lever which gives motion to the cut-off slides, can receive its mo-  
25 tion from the cross-head of the engine, or from any movement coincident with the motion of the cross-head. Whereas when the fulcrum is not connected with the rod carrying the main valve, it is necessary to use an  
30 eccentric to give motion to the cut off slides, when acting on top of the main valve or valves.

My combination as now improved is represented in the drawing herewith.

35 The well known parts of a slide valve

engine, represented in the drawing as well as those described in the specification of my patent dated August 1841 require no description.

At some convenient place on the rod E 40 carrying the main valve, I place the center of the lever L, the end *n* of this lever is attached by a link to the rod R which carries the cut-off slides C C', and the other end *m* of this lever, is attached by a link to the 45 cross-head.

It will be seen that when the engine is in motion, the cut off slides will have a motion on top of the main slides, and that the fulcrum having the same motion as the 50 main valve, the adjustment of the cut off slides can be effected by nearly equal movements of each cut off slide. The adjustment of the cut off slides can therefore be effected by a simultaneous movement of the cut off 55 slides C C' in opposite directions by means described in the patent referred to.

What I claim in this present improvement, is—

Placing the fulcrum of the lever, which 60 carries the cut off slides on the rod carrying the main valve, or on some part having the same motion as the main valve, substantially in the manner set forth in this specification.

HORATIO ALLEN.

Witnesses:

JAMES WILKINSON,  
W. B. SPELMAN.