J. Jackman, Jr.,

Steam Cut-Off.

No. 47,358. Patented Apr. 18, 1865.

Fig. 3.

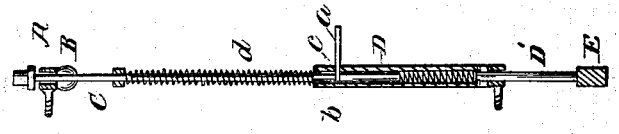


Fig. 4.

Fig. 2.

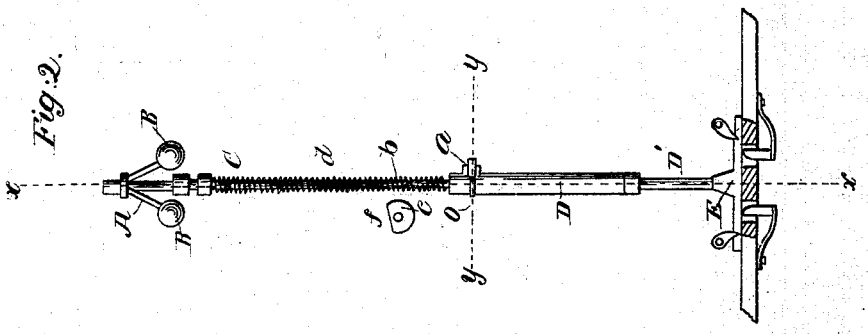
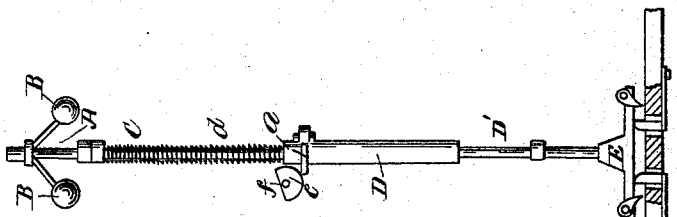


Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN JACKMAN, JR., OF NEWBURYPORT, MASS., ASSIGNOR TO THE AMERICAN AUTOMATIC STOP MOTION COMPANY, OF SAME PLACE.

IMPROVEMENT IN AUTOMATIC STOP-MOTIONS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **47,358**, dated April 18, 1865.

To all whom it may concern:

Be it known that I, JOHN JACKMAN, Jr., of Newburyport, in the county of Essex and State of Massachusetts, have invented a new and Improved Stop Motion for Steam-Engines, &c.; and I hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of this invention when the engine is running at its regular speed. Fig. 2 is a similar view when the balls have dropped down and the engine stops. Fig. 3 is a longitudinal section of the same, taken in the plane indicated by the line *x x*, Fig. 2. Fig. 4 is a horizontal section of the same, the line *y y*, Fig. 2, indicating the plane of section.

Similar letters of reference indicate like parts.

This invention consists in combining with a governor a coupling or sleeve with a dog let in crosswise of the same, and a supporting-spring and button in such a manner that when the engine runs at its regular speed and the balls occupy their normal position the connection between the sleeve and governor-rod is not disturbed, and the valve remains open, or partially open, but if from some cause the balls drop down the dog will strike the button, so that it is thrown back and the sleeve is liberated from the rod of the governor, allowing the same to follow the action of the spring, and to close the valve.

A represents a governor. The balls B are connected to the rod C, so that when the balls fly out the rod will be depressed, and vice versa. Said rod is fitted into a sleeve, D, and it is coupled with this sleeve by a dog, *a*, which is hinged to the sleeve and catches into a slot, *b*, in the same, and in a circular groove or neck, *c*, in the rod. A spring, *d*, acting on the end of the sleeve, has a tendency to throw the same in the direction of the arrow marked on it in Fig. 1 of the drawings. From the lower end of the sleeve extends a rod, D′, which may be made to connect with the lever on the throttle-valve, or which may be secured to a T-piece, E, as shown in the drawings. This T-piece is intended to act on the tappets of a Greene cut-off, and I have shown the same in the drawings, but it is obvious that this stop-motion can be attached to a valve of any other description.

In order to disengage the dog automatically when the balls drop drown from any cause while the engine is running at its regular speed, a button, *e*, is secured to a stud, *f*, on the side of the governor, and in such a position that when the balls drop down and the sleeve D rises the dog *a* comes in contact with the same, (the button,) and thereby the sleeve is liberated and allowed to follow the action of the spring. The T-piece E is brought in the position shown in Fig. 2, and the cut-off remains closed. The engine stops automatically. When the sleeve D connects with the lever of an ordinary throttle-valve, said valve is closed by the action of the spring as soon as the sleeve is liberated.

I claim as new and desire to secure by Letters Patent—

The sleeve D, connected to the rod C of a governor and locked to the same by a dog, *a*, in combination with a spring, *d*, and button *e*, constructed and operating substantially as and for the purpose set forth.

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