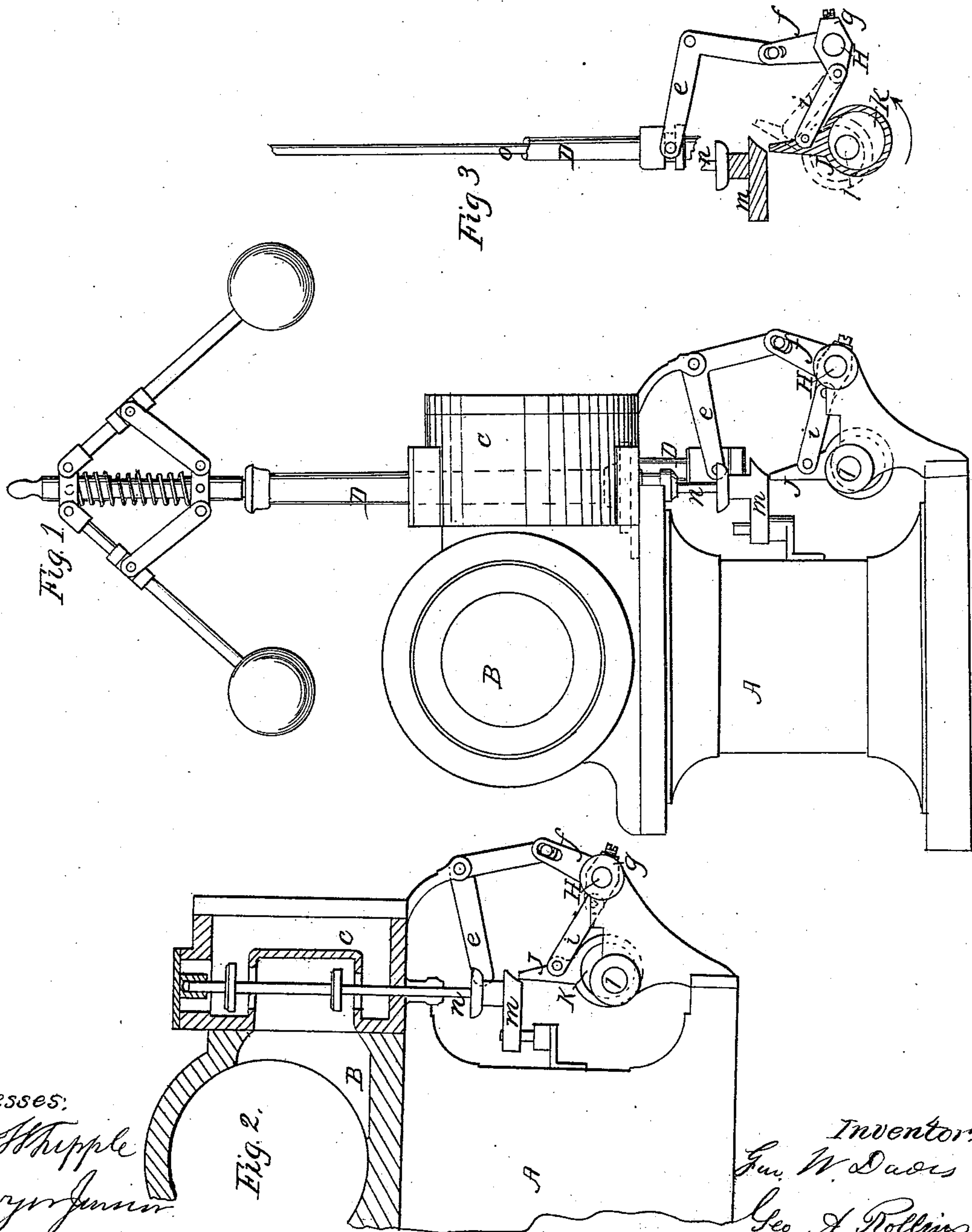


Davis & Rollins,
Governor.

N^o 64,500.

Patented May 7, 1867.



Witnesses:
Chas. Whipple
Samuel J. J. J.

Inventor:
Geo. W. Davis
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United States Patent Office.

G. W. DAVIS AND G. A. ROLLINS, OF NASHUA, NEW HAMPSHIRE.

Letters Patent No. 64,500, dated May 7, 1867.

IMPROVEMENT IN STEAM-ENGINE GOVERNORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, GEORGE W. DAVIS and GEORGE A. ROLLINS, of Nashua, in the county of Hillsborough, in the State of New Hampshire, have invented a new and useful Improvement in Means of Regulating and Working Steam Valves as Cut-Offs; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is an end elevation.

Figure 2 is an end elevation and vertical section through valve-chest.

Figure 3 is a view of the working parts of the cut-off detached.

A represents the bed-piece, to which is attached the steam-cylinder B; C is the steam-chest and valve-box; D is a hollow shaft supporting the governor; E is a rocker-arm connected with the governor by means of the rod O; H is a shaft on which are fixed the arms *f g*; *i* are links connected with arms *g* and valve-lifters J; *m* are cross-heads on the end of the valve-stems *n*; I is a shaft revolving coincident to the crank-shaft in the direction of the arrow, fig. 3, on which are fixed the revolving eccentrics K, and the valve-lifters J. Said lifters are held in position by the links *i*, arms *g*, and shaft H. In fig. 1 the valve-lifter J is represented in position for lifting the valve to its extreme height. Fig. 2 represents the lifter J in the act of lowering the valve on to its seat, it being held against the inclined circle on the valve-stem cross-head *m*, by means of links *i* and arm *g*, the centres of said links and arm being nearly on a line with the centre of the shaft H. The object of so placing the links *i* and arms *g* is to hold the lifters more firmly, while the valves are closing, thereby relieving the governor; also that the centres or turning-points of the links which are attached to the arms *g* may be lowered in proportion as the governor-balls diverge from the centre, thereby causing the points of the lifters to slide off of the lifting-points on the cross-heads quicker in proportion as said balls diverge, and when the balls are at their highest points the valve-lifters will not come in contact with the cross-heads, and the valves are not lifted, as shown in fig. 3.

What we claim, and desire to secure by Letters Patent, is—

The revolving eccentric K, lifters J, links *i*, arms *g*, in combination with the governor, for the purpose of operating steam-valves as substantially herein set forth.

G. W. DAVIS,
GEO. A. ROLLINS.

Witnesses:

JOHN B. PERKINS,
GEO. Y. SAWYER, Jr.