

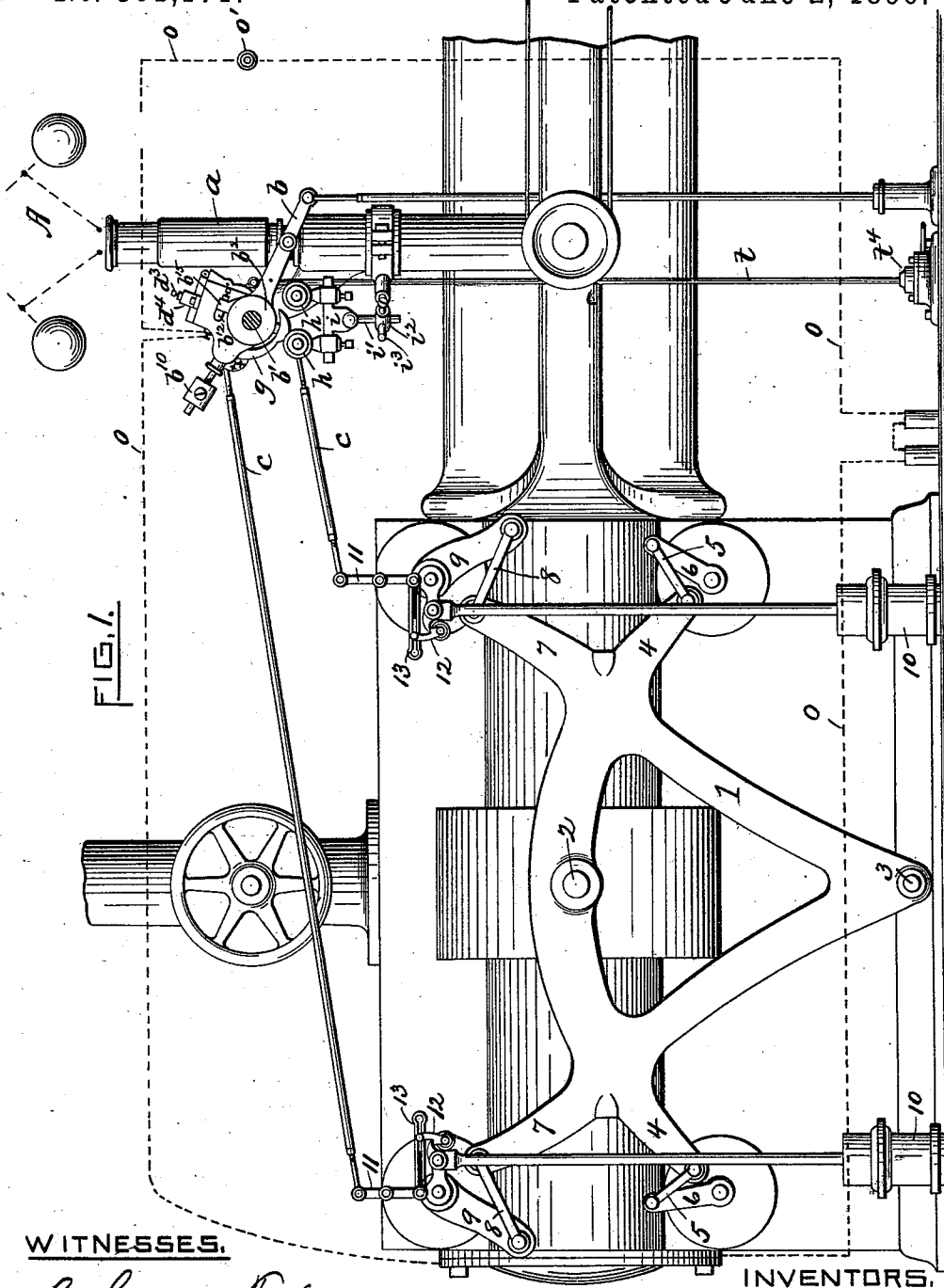
(No Model.)

6 Sheets—Sheet 1.

E. C. MYRICK & G. C. DOEG.
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.



WITNESSES.

Charles J. Hannigan
Ira L. Fish

INVENTORS.

Eugene C. Myrick
George C. Doeg
By *Wilburth H. Clunton* *Atty.*

(No Model.)

6 Sheets—Sheet 2.

E. C. MYRICK & G. C. DOEG.
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.

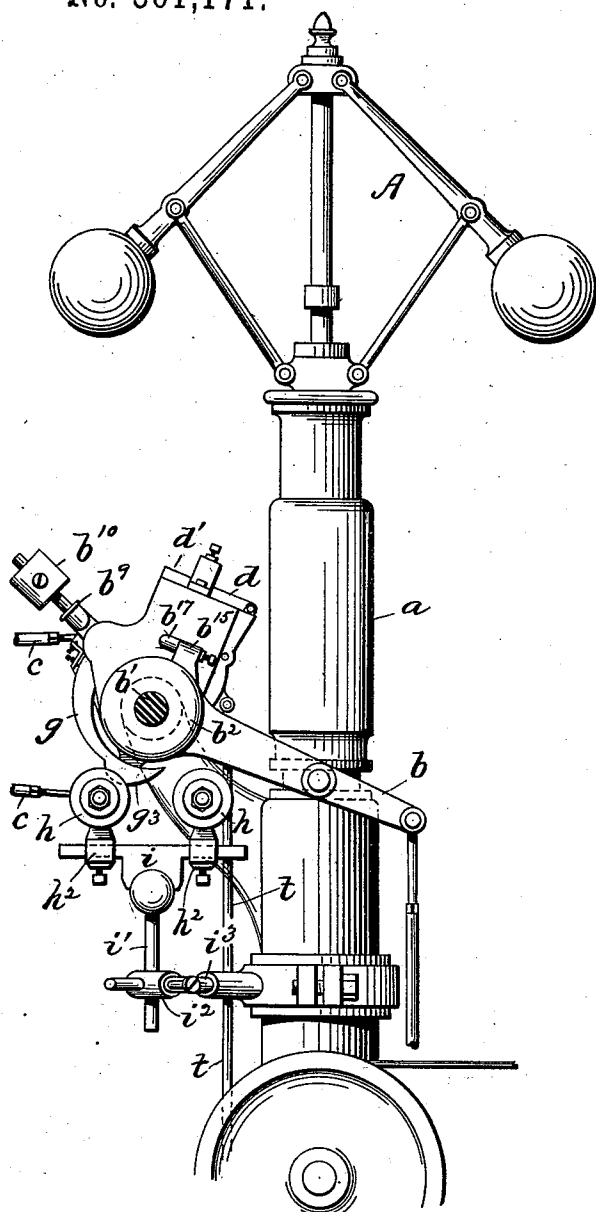


FIG. 2.

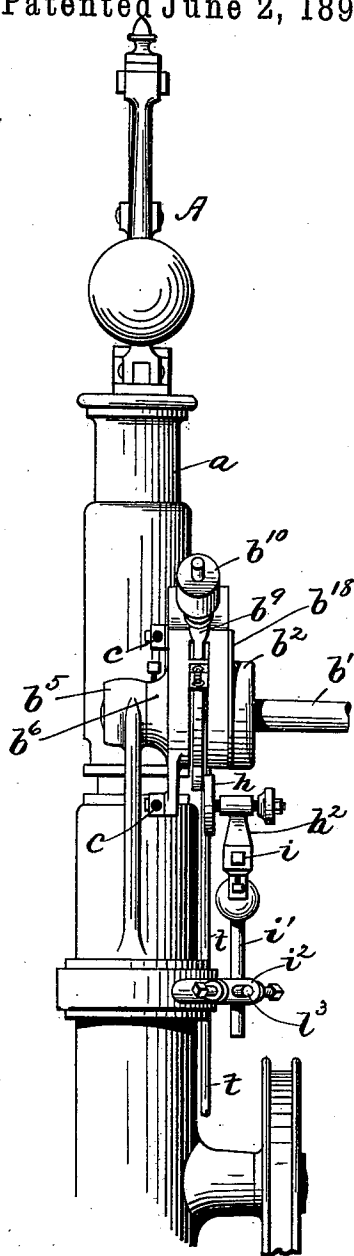


FIG. 3.

WITNESSES.

Charles T. Hannigan.
Ira L. Fish

INVENTORS

Engineer E. Myrick
George C. Doeg

By Kilmarth & Thurston
Atty.

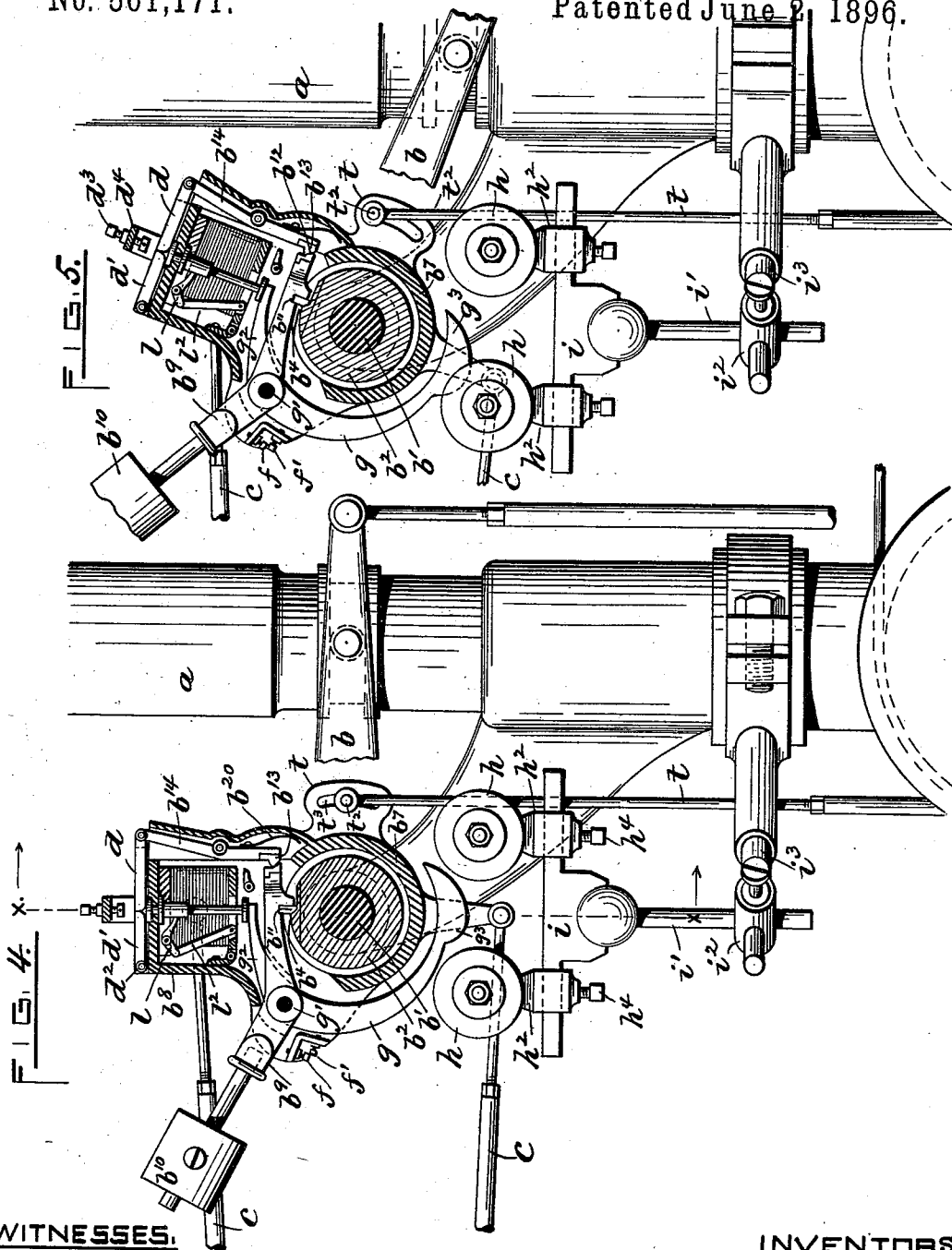
(No Model.)

6 Sheets—Sheet 3.

E. C. MYRICK & G. C. DOEG.
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.



WITNESSES.

INVENTORS.

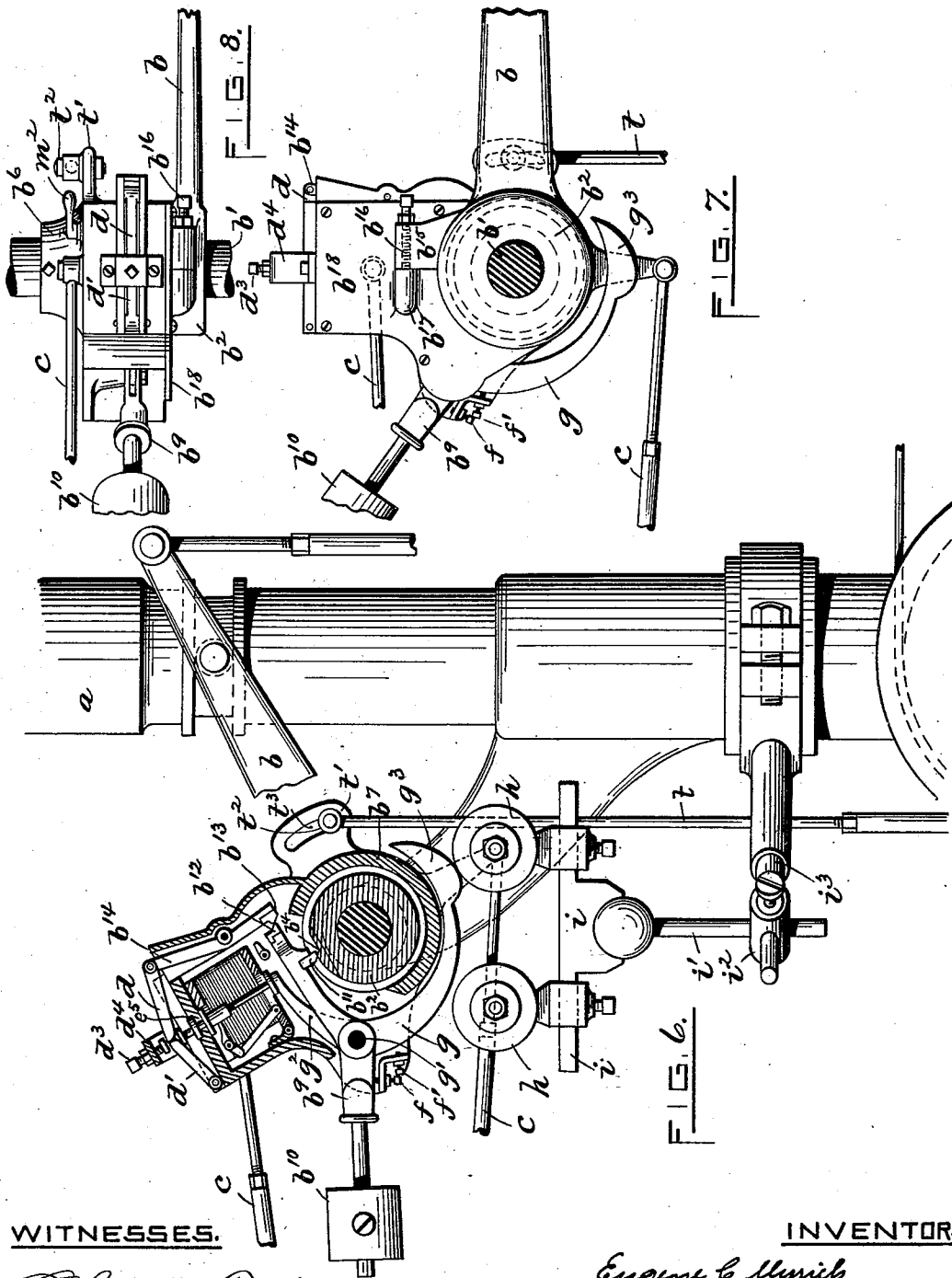
Charles T. Hannigan
Ira L. Fish

Eugene C. Myrick
George C. Doeg
Wilmart C. Shurston
Atty.

E. C. MYRICK & G. C. DOEG.
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.



WITNESSES.

Charles L. Hamman
Ira L. Fish

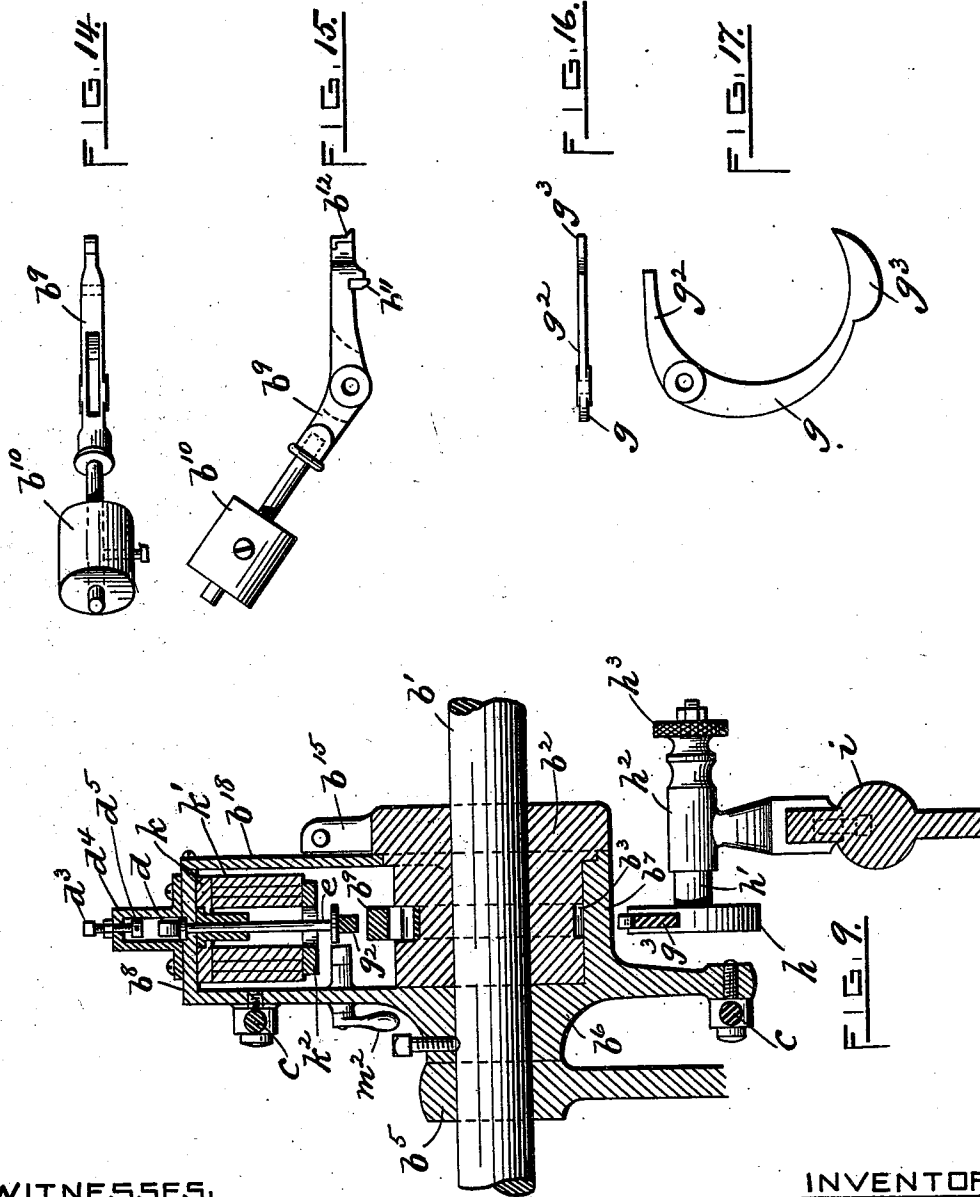
INVENTORS

Engene C. Myrick
George C. Doeg
by *Wilmouth R. Hurston*
Atty.

E. C. MYRICK & G. C. DOEG
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.



WITNESSES.

Charles L. Hamigan

Ira L. Fish

INVENTORS

Eugene C. Myrick

George C. Doeg

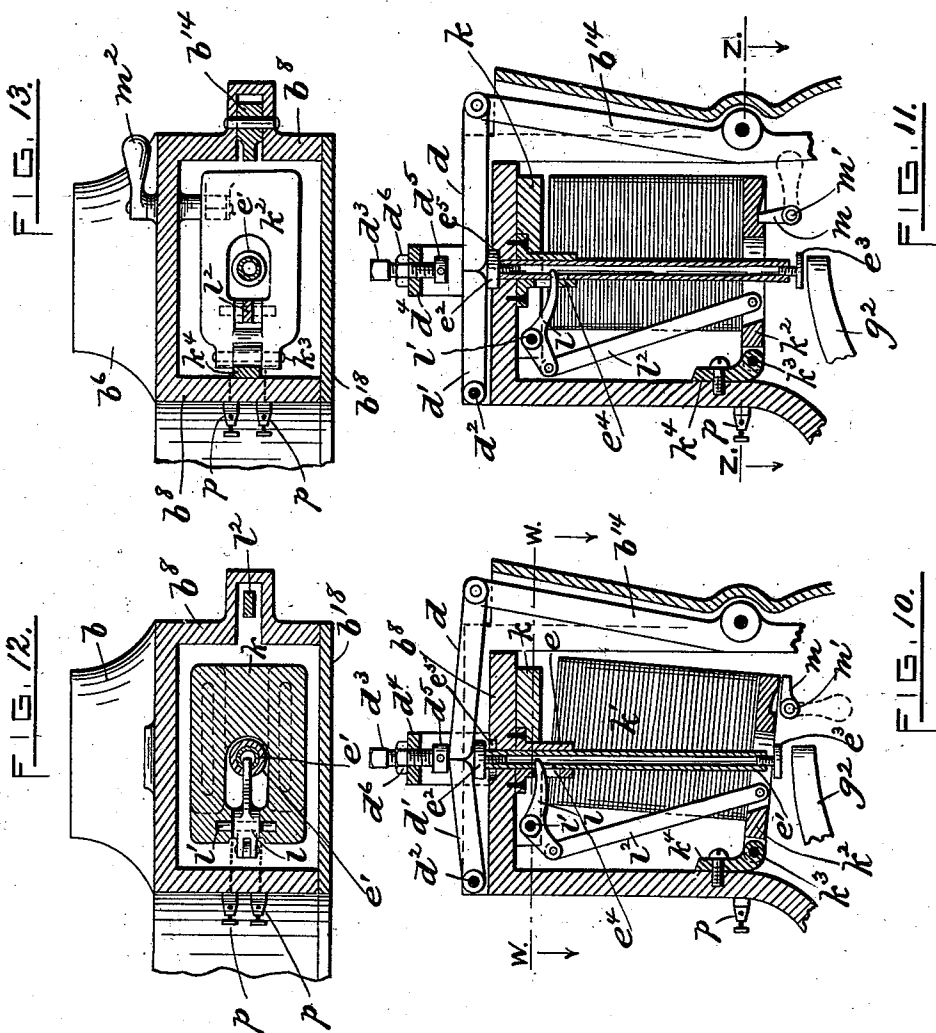
By Wilburth L. Thurston

Atty.

E. C. MYRICK & G. C. DOEG.
STOP MOTION FOR ENGINES.

No. 561,171.

Patented June 2, 1896.



WITNESSES:

Charles T. Hannigan
Ira L. Fish

INVENTORS

Eugene C. Myrick
George C. Doeg
by *Wilmott H. Thurston* Atty.

UNITED STATES PATENT OFFICE.

EUGENE C. MYRICK AND GEORGE C. DOEG, OF PROVIDENCE, RHODE ISLAND.

STOP-MOTION FOR ENGINES.

SPECIFICATION forming part of Letters Patent No. 561,171, dated June 2, 1896.

Application filed December 30, 1895. Serial No. 573,727. (No model.)

To all whom it may concern:

Be it known that we, EUGENE C. MYRICK and GEORGE C. DOEG, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Stop-Motions for Steam-Engines; and we do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

The stop-motion which forms the subject of the present invention is more particularly adapted for use upon steam-engines which are provided with a detachable valve-gear and mechanism connected with and controlled by the governor for regulating the detachment of the valves.

The invention relates to means for stopping the engine automatically whenever the speed of the engine rises above or falls below predetermined limits, or when a part of the engine becomes displaced, and which will also enable the engine to be stopped whenever desired from a point distant from the engine-room.

In Letters Patent No. 541,287, heretofore granted to us, is shown and described a stop-motion in which the mechanism connecting the governor with the mechanism for regulating the detachment of the valves comprises two parts detachably connected together, one of said parts being provided with an independently-movable engaging device for engaging the other part and carrying an electromagnet for operating said engaging device when an electric circuit is closed either automatically by the movement of the governor or by hand at a point distant from the engine. In an application of even date herewith we have also shown and described a somewhat similar stop-motion, in which the independent engaging device is operated automatically by mechanical devices instead of by an electromagnet and in which a magnet serves to operate said engaging device on the closing of an electric circuit by hand. With the constructions of stop-motions described in said patent and said application, in which the electric devices are included in an open circuit, which circuit is closed to effect the

stopping of the engine, it may sometimes happen that the circuit becomes inoperative because of the injury to the wires or for some other reason, so that when it becomes necessary to stop the engine the electric devices fail to operate, thereby causing damage and possible loss of life.

The object of the present invention is to overcome this difficulty, and this is accomplished by including the electric devices, which cause the parts of the connecting mechanism to be detached, in a closed circuit, whereby, if the circuit is broken or becomes inoperative for any reason, the electric devices act to cause the stopping of the engine.

It is very desirable to cut off the supply of steam from the cylinder in case of any movement of the cylinder-head, and a further feature of the present invention consists in including the cylinder and cylinder-head in the closed circuit above referred to, whereby the circuit will be broken and the electric devices act to cause the steam to be cut off from the cylinder should the cylinder-head move from its seat.

The invention further consists in certain features and combinations hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation of so much of an engine as is necessary to the understanding of the present invention. Figs. 2 and 3 are front and side elevations of a stop-motion embodying the present invention. Figs. 4, 5, and 6 are enlarged elevations, partly in section, showing the parts of the stop-motion in different positions. Fig. 7 is an elevation, and Fig. 8 a plan view, of a stop-motion. Fig. 9 is a longitudinal vertical section on the line *x x*, Fig. 4, looking in the direction of the arrows in said figure. Figs. 10 and 11 are details showing the electric devices in two different positions. Fig. 12 is a horizontal section on line *w w*, Fig. 10. Fig. 13 is a horizontal section on line *z z*, Fig. 11. Figs. 14 to 17 are details of certain parts.

The engine shown in the drawings is of the Corliss type, embodying rotary cut-off valves and one of the more recent forms of Corliss valve-operating mechanism. It is to be un-

derstood, however, that the features of invention hereinafter described are not limited to any particular form or type of engine, but may be applied to any engine provided with detachable valve-gear, whether horizontal or vertical, stationary or marine, and can readily be applied to such class of engines now in use without any change in or addition to the mechanism for regulating the detachment of the valves.

1 represents an oscillating or swinging frame pivoted at 2 and to be operated in the usual manner by an eccentric upon the main shaft of the engine connected to said swinging frame at 3 for giving the proper movements to the steam and exhaust valves of the cylinder. The arms 4 4 of the swinging frame 1 are connected by means of the links 5 to the crank-arms 6, which operate the exhaust-valves. The arms 7 7 of the swinging frame are connected by means of links 8 8 to the crank-arms 9 9, which operate the steam-valves. As will be understood, the crank-arms are not permanently connected with the steam-valves, but are detachably connected therewith through a suitable latch connection, and so that the valves may be unlatched and disconnected from the arms 9 before the completion of their throw and quickly closed by weights working in the dash-pots 10. The time of unlatching and thus disconnecting the steam-valves from the arms which operate them is automatically controlled by the position of the governor acting through proper connecting mechanism to vary the position of the latch connection, or in some other suitable way.

Heretofore the mechanism commonly used for connecting the governor with the mechanism for regulating the detachment of the valves in an engine of the type shown in the drawings has consisted of a T-lever suitably pivoted upon the framework, the long arm of which was connected with and operated by the governor-sleeve *a*, and from the short arms of which extended connecting-rods *c c*, connecting said short arms of said T-lever with the pivoted levers 11 11, the opposite ends of which were connected to the parts 13 13, which in this case serve for regulating the detachment of the valves, the combination being such that as the governor-sleeve rose and fell under the action of the governor-balls the T-lever would be oscillated, and thereby, through the connecting-rods *c*, the position of the parts 13 automatically controlled and determined.

In the application of the present invention to the engine of the type shown there is no change in or addition to the mechanism for regulating the detachment of the valves, the latches 12, the parts 13, and the connecting-rods *c* being all constructed as heretofore. Instead, however, of connecting the rods *c* to the governor-sleeve *a* through a T-lever constructed of a single part or piece, a T-lever, as in the patent above referred to, is con-

structed in two parts adapted to be detachably connected together.

A represents the governor, to the sleeve *a* of which is connected the arm *b*, extending from a hub *b*², loosely mounted on the shaft *b*¹. The hub *b*² is grooved at *b*³, and said groove is provided with a depression forming a shoulder *b*⁴. The shaft *b*¹ is mounted in suitable bearings *b*⁵, one only of which is shown, and has secured thereto the part *b*⁶, to which are pivoted the rods *c c* for controlling the detachment of the valves. The shaft *b*¹ may be extended and the valve mechanism of a number of cylinders connected therewith, if desired. The part *b*⁶ is provided with a flange *b*⁷, which partially surrounds the hub *b*², and also with a flange or housing *b*⁸, which supports and protects certain parts to be described. Pivoted to the part *b*⁶ is a lever *b*⁹, on one arm of which is adjustably secured a weight *b*¹⁰. The other arm of lever *b*⁹ is provided with a shoulder *b*¹¹, forming an engaging device or catch which engages the shoulder *b*⁴ on hub *b*², and said arm is also provided with a shoulder or notch *b*¹², adapted to be engaged by the dog or latch *b*¹³, carried on the end of a lever *b*¹⁴, pivoted in an offset in the housing *b*⁸. Pivoted to the other end of lever *b*¹⁴ is an arm *d*, the free end of which butts against the free end of a similar arm *d'*, pivoted at *d*² to the top of housing *b*⁸, said arm forming a toggle for holding the dog *b*¹³ in engagement with the shoulder *b*¹².

An adjustable bolt *d*³, mounted in a bracket *d*⁴, secured to housing *b*⁸, limits the upward movement of the arms *d d'*. The bolt *d*³ is provided with an adjustable nut *d*⁵ on its lower end, against which the arms strike, and a lock-nut *d*⁶ serves to hold said bolt in its adjusted position.

Secured to the under side of the top of the housing *b*⁸ is a bearing *e*, in which a rod or tube *e'* is mounted to slide, said tube being provided at its ends with the adjustable screw-plugs *e*² *e*³. The housing *b*⁸ is recessed at *e*⁵ to receive the plug *e*² at the upper end of the tube *e'*, and the free ends of the arms *d d'* normally rest on said plug. An arm *b*¹⁵ (see Fig. 7) extends from hub *b*² and carries a set-screw *b*¹⁶, which engages a lug *b*¹⁷ on the plate or cover *b*¹⁸, secured to the housing *b*⁸. The set-screw *b*¹⁶ serves to hold the shoulder *b*⁴ against the catch *b*¹¹ when the parts are in their normal position, and a check-nut *b*¹⁹ is provided to hold said set-screw in position when it has been properly adjusted.

With the parts above described in their normal position—i. e., that shown in Fig. 4—hub *b*² and the part *b*⁶ are firmly connected together and the detachment of the valve is controlled by the governor in the usual manner. When the tube *e'* is raised, the toggle formed by the arm *d d'* is broken and the lever *b*⁹ rocks on its pivot under the influence of the weight *b*¹⁰, the lever *b*¹⁴ being forced back against the tension of spring *b*²⁰, and the catch *b*¹¹ is disengaged from the shoulder *b*⁴, thus

disconnecting the parts $b^2 b^6$. As the weight continues to fall after the parts are disconnected the lever b^9 engages an adjustable set-screw or shoulder f , carried by the part b^6 , and moves said part and the rods $c c$ independently of the governor, so that the valves are not operated, and thus the engine is stopped.

The tube e' is raised automatically to allow the unlocking of the parts $b^2 b^6$ and cause the stopping of the engine when the speed of the engine becomes abnormal by the following mechanism: A bell-crank lever g passes through a slot formed in the lever b^9 and is pivoted to the part b^6 on the stud g' , on which said lever b^9 is pivoted. The arm g^2 of the lever g engages the screw-plug e^3 in the lower end of the tube e' and the other arm of said lever carries a cam g^3 , which is forced inward by its engagement with one of the abutments h whenever the speed of the engine becomes abnormal, thus rocking the lever g to raise the tube e and release the catch b^{11} , as above described. A set-screw f' passes through a lug on the part b^6 and serves to adjust the lever g , so that the end of arm g^2 shall properly engage the end of tube e' . The abutments h are in the form of disks carried on the ends of spring-pressed rods h' , mounted in the bearings h^2 , and provided at their outer ends with milled disks h^3 . The bearings h^2 are adjustably secured to the bar i by means of set-screws h^4 , said bar i being provided with a depending rod i' , adjustably secured in a support i , which support is in turn adjustably secured to an arm i^2 , secured to the governor-stand. When the engine is running at normal speed, the cam g^3 stands between the abutments h , as in Fig. 4, but if the speed falls below or rises above certain limits the said cam engages one of the abutments h and the engine is stopped, as above described.

When it is desired to stop the engine without unlocking the parts $b^2 b^6$, as will be the case whenever the engine is stopped by closing the throttle-valve, the engineer draws back the left-hand disk h out of the path of the cam g^3 and said cam passes back of said disk as the engine slows down and the governor falls. (See Fig. 5.)

When the engine is started up, the disk h returns to its normal position under the influence of its spring as soon as the cam g^3 moves from behind said disk.

If desired, the parts may be so adjusted that when the speed of the engine has increased to such an extent that the governor has risen high enough to bring the cam g^3 onto the right-hand disk the rods $c c$ will have already been moved into position to prevent the opening of the valves, and any further movement of the part b^6 by the weight b^{10} will be unnecessary. In this case, however, the weight b^{10} will move far enough to unlock the parts $b^2 b^6$, so that when the governor-balls fall the part b^6 and the rods $c c$ will be unaffected by the movement of the governor and the engine

will be stopped and remain stopped until started by the engineer.

In the case of a condensing-engine it is advantageous, in order to insure a prompt stopping of the engine, to not only prevent the admission of steam to the cylinder, but to also destroy the vacuum in the condenser. To accomplish this result, a rod t is connected to the lug t' , projecting from the part b^6 by means of the pin t^2 and slot t^3 , and said rod operates a valve t^4 of any suitable construction to admit air to the condenser, and thus destroy the vacuum therein whenever the part b^6 is moved into the position shown in Fig. 6. This valve may also be constructed to form a stop for limiting the movement of the part b^6 under the influence of weight b^{10} , or any other suitable means may be employed for this purpose.

For unlocking the parts $b^2 b^6$ from a distant point or automatically when there is a displacement of a part of the engine the following means are employed.

Secured to the under side of housing b^8 and surrounding the bearing e is an armature k . Directly below the armature is an electromagnet k' , carried by a plate k^2 , pivoted at k^3 to a lug k^4 , secured to the part b^6 . One end of a lever l , pivoted to the armature k at l' , passes through a slot in bearing e and engages the upper end of a slot e^2 in tube e' , and the other end of said lever is connected to the plate k^2 by a link l^2 . The ends of the electromagnet-wire pass through the part b^6 and are connected to the binding-posts p . The wires $o o$ of a closed electric circuit are connected to the posts $p p$, and said electric circuit is provided at suitable points with push-buttons o' , whereby the circuit may be broken and the magnet k' deenergized. The wires $o o$ are also connected to the cylinder and cylinder-head, as shown in Fig. 1, so that should the cylinder-head move from its seat the circuit will be broken and the magnet deenergized.

So long as the circuit remains closed the magnet k' is held against the armature k and the parts remain in the position shown in Figs. 4, 5, and 6, but when the circuit is broken by pushing one of the buttons o' or by the movement of the cylinder-head or for any other reason, the magnet k' is deenergized and drops, as shown in Fig. 10, thereby lifting the tube e through the link l^2 and lever l , thus breaking the toggle $d d'$ and releasing the catch b^{11} and allowing the weight b^{10} to unlock the parts $b^2 b^6$ and move the rods $c c$, so that the engine is stopped.

With the construction above described, in which the electrical device for causing the unlocking of the parts of the connecting mechanism is in a closed circuit, the breaking of which causes the parts to be disconnected, the electric device acts as an indicator to indicate that the electric circuit is in proper working order, for should the circuit become defective for any reason the magnet will im-

mediately drop and remain in its lower position, whereas if the circuit is simply broken for an instant by operating one of the push-buttons the magnet will drop to break the toggle *d d'* and then immediately return to its normal position.

In order that the engine may be run when the circuit is being repaired or when it is desired to discontinue the use of the electric devices for any reason, a device is provided to hold the magnet-support *k*² substantially in its raised position until such repairs have been completed or it is again desired to use the electric device. In the construction shown this device consists of the arm *m*, secured to the stud *m'*, pivoted in the housing *b*⁸, and provided on its outer end with a weighted handle *m*². When the circuit becomes defective and it is desired to run the engine while repairing said circuit, or when it is desired to run the engine without the use of the electric devices, the handle *m*² is moved into the position shown in Fig. 11, thus causing arm *m* to engage and lift the plate *k*², the friction on the end of arm *m*, due to the weight of the magnet *k'*, holding said arm in position. This lifting of the magnet does not carry it into contact with the armature *k*, but lifts it far enough to allow the arms *d d'* to occupy their normal position. When the circuit is repaired or when the current is turned on, if the use of the electric devices has been discontinued for any reason, the magnet becomes energized and is lifted into contact with armature *k*, and the arm *m* is thus released and returns to its normal position under the influence of the weight *m*².

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

1. The combination with the governor and mechanism for regulating the detachment of valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device and mechanical devices for automatically rendering said means operative whenever the speed of the engine becomes abnormal, substantially as described.

2. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism for connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, means for operating said engaging device, and devices for releasing said means whereby the engaging device is operated to disconnect the parts of the connecting mechanism, substantially as described.

3. The combination with the governor and mechanism for regulating the detachment of the valves of mechanism for connecting said governor and said regulating mechanism said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device and

for moving one of said parts independently of the governor, and devices for rendering said means operative, the construction being such that the operating means first operates the engaging device to disconnect the parts of the connecting mechanism and then moves one of the parts of the connecting mechanism independently of the governor, substantially as described.

4. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device, a dog for holding said operating means, and means for actuating said dog to release said operating means, substantially as described.

5. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device, a dog for holding said operating means, a toggle for holding said dog, and means for breaking said toggle to release said dog, substantially as described.

6. The combination with a connecting mechanism comprising two parts for connecting the governor and the mechanism for regulating the detachment of the valves, of a lever pivoted to one of the parts of said connecting mechanism, a stop on said part arranged to be engaged by said lever, an engaging device for engaging the other part of said mechanism carried by said lever, means for operating said lever, a dog for holding said lever and means for releasing said dog, whereby the lever first moves the engaging device to disconnect the parts of the connecting mechanism and then engages said stop and moves one of the parts of said connecting mechanism, substantially as described.

7. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device to disconnect said parts, means comprising a cam carried by said connecting mechanism for releasing said operating means and an abutment for actuating said cam whereby the two parts of the connecting mechanism will be automatically disconnected whenever the speed of the engine becomes abnormal, substantially as described.

8. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts,

means for operating said engaging device to disconnect said parts, means comprising a cam carried by said connecting mechanism for releasing said operating means and an abutment for actuating said cam and means for adjusting the position of said abutment, substantially as described.

9. The combination with the governor and mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device to disconnect said parts, means comprising a cam carried by said connecting mechanism for releasing said operating means and two abutments for actuating said cam, one of said abutments being located on each side of said cam, substantially as described.

10. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism for connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, mechanical means for automatically operating said engaging device to disconnect the two parts of said connecting mechanism, when the speed of the engine becomes abnormal, and means for effecting the operation of said engaging device by the breaking of an electric circuit, substantially as described.

11. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism for connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device to disconnect said parts, means for automatically releasing said operating means whenever the speed of the engine becomes abnormal, and means for releasing said operating means from a point distant therefrom, substantially as described.

12. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism for connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, means for operating said engaging device to disconnect said parts, means for automatically releasing said operating means whenever the speed of the engine becomes abnormal, and means including an electric circuit for releasing said operating means from a point distant therefrom, substantially as described.

13. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism for connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said

parts, means for operating said engaging device to disconnect said parts, means for automatically releasing said operating means whenever the speed of the engine becomes abnormal, and means including a closed electric circuit for releasing said operating means from a point distant therefrom, substantially as described.

14. The combination with the mechanism for regulating the detachment of the valves, of a closed electric circuit, and mechanism connected with said regulating mechanism and made operative by the breaking of said circuit to move said regulating mechanism into such a position that said valves will not be operated to admit steam to the cylinder, substantially as described.

15. The combination with the mechanism for regulating the detachment of the valves, of a closed electric circuit, mechanism connected with said regulating mechanism and made operative by the breaking of said circuit to move said regulating mechanism into such a position that said valves will not be operated to admit steam to the cylinder, and means for breaking said electric circuit, substantially as described.

16. The combination with the mechanism for regulating the detachment of the valves, of a closed electric circuit mechanism connected with said regulating mechanism and made operative by the breaking of said circuit to move said regulating mechanism into such a position that said valves will not be operated to admit steam to the cylinder, and means operated by the movement of the cylinder-head to break said electric circuit, substantially as described.

17. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts, an engaging device for connecting said parts, an armature, an electromagnet in a closed circuit and devices intermediate said magnet and said engaging device, whereby the breaking of said electric circuit effects the disengagement of said engaging device, substantially as described.

18. The combination with the governor and the mechanism for regulating the detachment of the valves, of mechanism connecting said governor and said regulating mechanism, said connecting mechanism comprising two parts detachably connected together, a closed electric circuit the breaking of which will serve to disconnect the two parts of said connecting mechanism, and suitable electric connections whereby said electric circuit may be broken either by hand or by the movement of some part of the engine, substantially as described.

19. In a connection between the governor and the mechanism for regulating the detachment of the valves, the combination of an engaging device, means for operating said en-

gaging device, a dog for holding said engaging device, an electromagnet included in a closed circuit, and devices intermediate said magnet and said dog whereby said engaging
5 device is released when the electric circuit is broken, substantially as described.

20. In a stop-motion for steam-engines the combination with a shoulder of a catch, means for operating the same, a dog for holding the
10 catch, a toggle for holding the dog, and a sliding rod for engaging the toggle and breaking the same, substantially as described.

21. The combination of mechanism for preventing the operation of the valves comprising
15 ing devices made operative by the breaking of an electric circuit and a catch under the control of the engineer for holding said de-

vices out of operation while the circuit is broken, substantially as described.

22. The combination of mechanism for preventing the operation of the valves comprising
20 ing devices made operative by the breaking of an electric circuit and a catch normally out of operation for holding said devices out of operation while the circuit is broken, and
25 means for automatically returning said catch to its normal position when said circuit is closed, substantially as described.

EUGENE C. MYRICK.
GEORGE C. DOEG.

Witnesses:

W. H. THURSTON,
IRA L. FISH.