

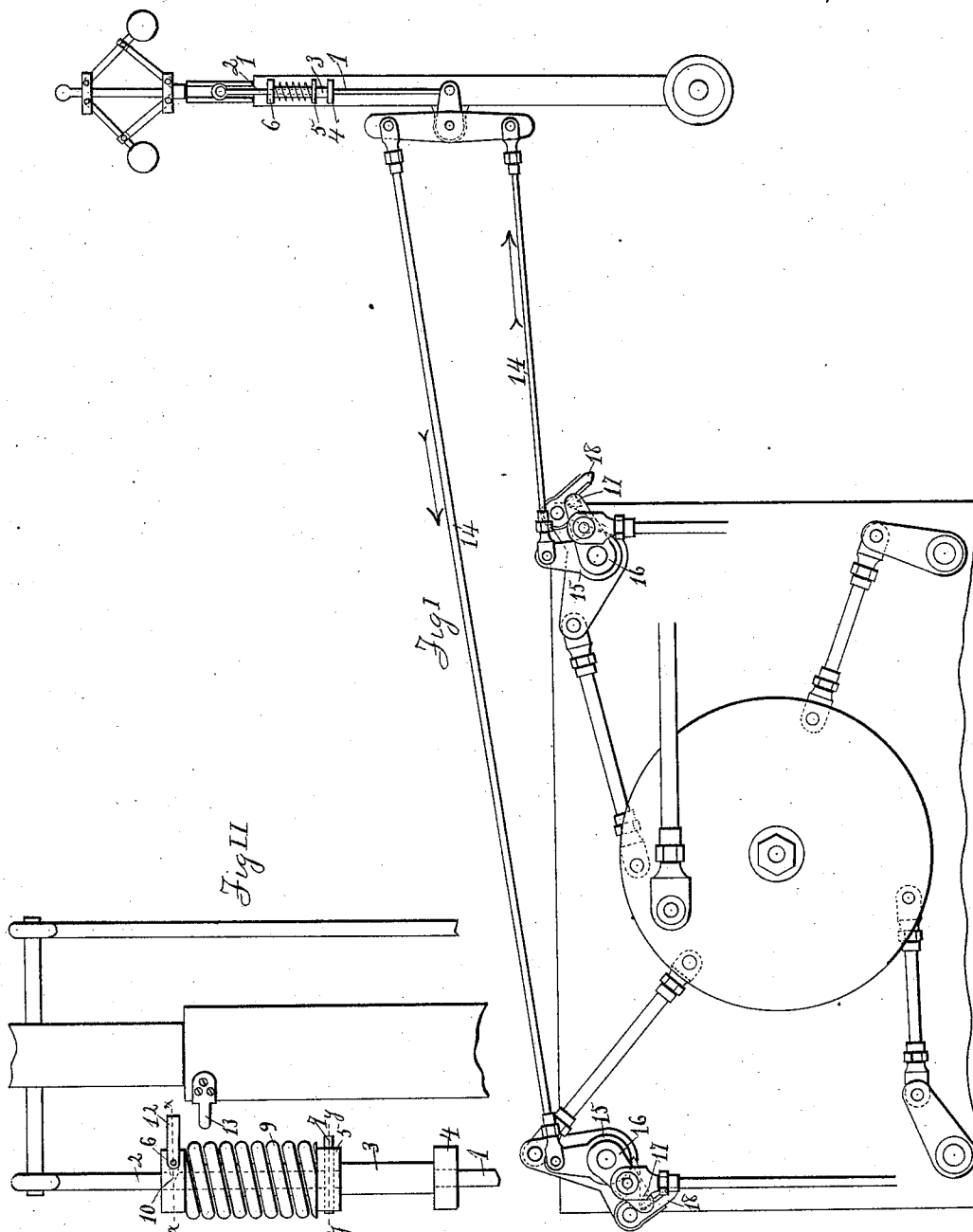
(No Model.)

2 Sheets—Sheet 1.

C. E. EDGAR.
STOP FOR ENGINES.

No. 575,827.

Patented Jan. 26, 1897.



Witnesses
O. L. Slader
Hugh Miller

Inventor
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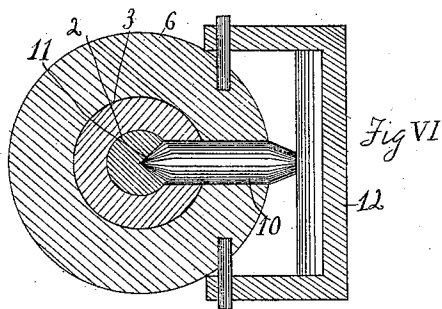
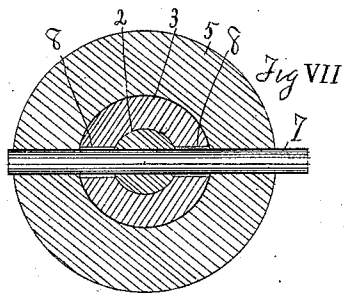
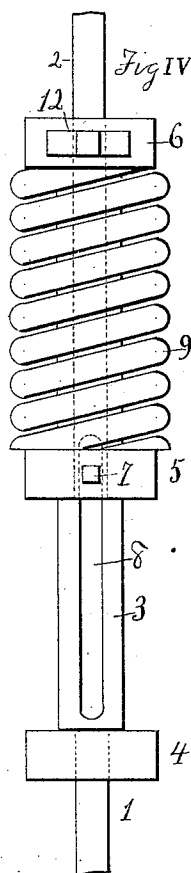
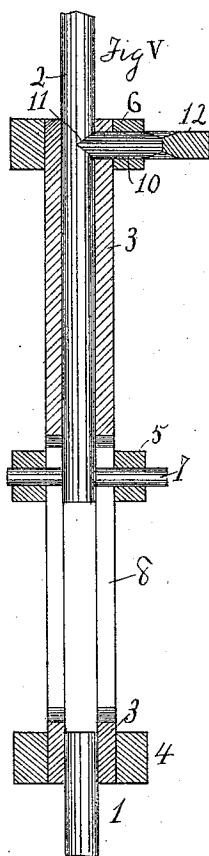
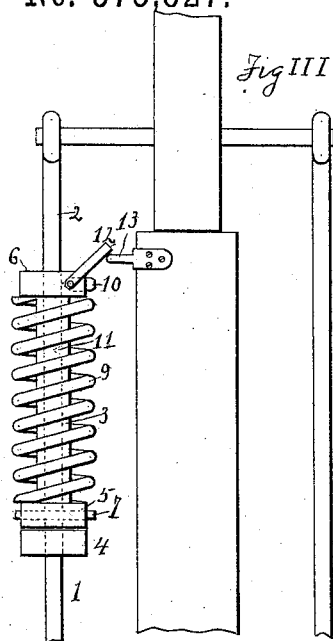
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

CHARLES E. EDGAR, OF ST. JOSEPH, MISSOURI.

STOP FOR ENGINES.

SPECIFICATION forming part of Letters Patent No. 575,827, dated January 26, 1897.

Application filed June 12, 1896. Serial No. 595,334. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. EDGAR, a citizen of the United States, residing at St. Joseph, in the county of Buchanan, in the State of Missouri, have invented a certain new and useful Automatic Stop for Corliss Engines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a certain new and useful automatic stop for Corliss engines; and my invention consists in certain features of novelty hereinafter described, and pointed out in the claims.

Figure I represents a view of a Corliss engine provided with my automatic stop. Fig. II represents a view of a governor-standard and side rod provided with automatic stop, showing the spring compressed and side rod extended in working position. Fig. III represents the same with the spring expanded and the side rod shortened. Fig. IV represents a view of the side-rod bearing, the attachment forming my automatic stop. Fig. V represents a longitudinal section of the same with the spring removed. Fig. VI represents a cross-section on the line X X of Fig. II. Fig. VII represents a cross-section on the line Y Y, Fig. II.

Similar numerals refer to similar parts throughout the several views.

The side rod of the governor is divided into the portions 1 and 2.

3 represents a sleeve provided with the collars 4, 5, and 6, the collars 4 and 6 being fixed on the sleeve and the collar 5 adapted to slide longitudinally thereon. The end of the portion 1 of the side rod is secured within the sleeve at one end and the portion 2 of the side rod is adapted to slide or telescope within the sleeve from the other end, and is provided near its end with the pin or key 7, passing through the collar 5 and the slot 8 in the sleeve.

9 represents a coil-spring mounted on the sleeve between the collars 5 and 6.

10 represents a pin or detent passing through the collar 6 and the sleeve and adapted to engage the notch or recess 11 in the side rod

and retained therein by the pawl or keeper 12, pivotally mounted on the collar 6.

13 represents a trip removably secured to the governor-standard and adapted to engage and trip the keeper 12 and release the detent, as hereinafter described.

14 represents the regulator-rods.

15 represents the cams.

16 represents the valve-stem crank. 17 represents in dotted lines the block therein, and 18 represents the latches. These being of the ordinary and usual construction need not be more particularly described.

The notch or recess 11 in the side rod is so located that when the rod is extended to its full length for the proper operation of the governor it will be engaged by the detent 10. In this position the ends of the two portions will be a distance apart, as shown in Fig. V, and the spring 9 will be compressed between the collars 5 and 6, as shown in Figs. II and IV, the collar 5 being held by the key 7. Now should the governor-belt break or run off or the governor become disabled the side rod will drop until the keeper 12 comes in contact with trip 13 and releases the detent 10. When being released, the spring expands, telescoping that portion of the side-rod within the sleeve and thus shortening the same, the extent to which the side rod is thus shortened being determined by the extent of the slot 8 in the sleeve in which the key 7, passing through said portion and engaging the collar 5, operates. By such shortening of the side rod the regulator-rods are moved in the direction indicated by the arrows, and the cams 15 are turned so as to prevent the latches engaging the blocks on the valve-stem crank, and the valves are not opened and the engine stops.

Thus is provided a simple, cheap, effective, and automatic device for stopping the engine should the governor-belt break or the governor otherwise become disabled.

Having thus fully described my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. An automatic stop for Corliss engines, consisting of a divided governor side rod, a spring-actuated connection between the di-

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vided portions of said rod, means for holding the spring under tension when the rod is extended and means for releasing the spring to shorten the rod, substantially as shown and described.

2. An automatic stop for Corliss engines, consisting of the combination with the governor having a divided side rod of a sleeve, provided with fixed collars secured to one portion of the said divided rod and adapted to telescope with the other portion thereof, a collar on said sleeve adapted to slide thereon connected with one portion of said rod, a detent adapted to engage a recess in said portion while the rod is extended, a spring on said sleeve adapted to shorten the rod when said detent is released, a keeper to retain said detent in engagement in said recess, and a trip to trip said keeper and release said detent, substantially as shown and described.

3. An automatic stop for Corliss engines a divided governor side rod, and a spring-actuated connection between the divided portions of said side rod, substantially as shown and described.

4. In a Corliss engine the combination with the valve-gear, the regulator, the governor and a divided side rod of a sleeve connecting the divided portions of said rod, a spring connected with said sleeve and with one portion of said rod, a detent for holding said divided portions in operative position and holding said spring under tension a keeper controlling the engagement of said detent, and a trip

adapted to control the engagement of said keeper with said detent, substantially as shown and described.

5. An automatic stop for Corliss engines, consisting of the combination with a governor having a divided side rod of a sleeve secured to one portion of said rod and adapted to telescope with the other portion thereof, a collar adapted to slide on said sleeve connected with said telescoping portion of said rod, a spring on said sleeve, a detent in said sleeve adapted to engage a recess in said telescoping portion of said rod, a keeper to retain said detent in engagement in said recess, and a trip to control the engagement of said keeper with said detent, substantially as shown and described.

6. An automatic stop for Corliss engines, consisting of a divided side rod, a sleeve secured to one portion of said rod and adapted to telescope with the other portion thereof, a slot in said sleeve, a collar adapted to slide on said sleeve, a key connecting said collar with the telescoping portion of said side rod, a spring on said sleeve, a detent to maintain said rod in operative extension, a keeper for controlling said detent, and a trip to control the relation of said keeper to said detent, substantially as and for the purpose set forth.

CHARLES E. EDGAR.

Witnesses:

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