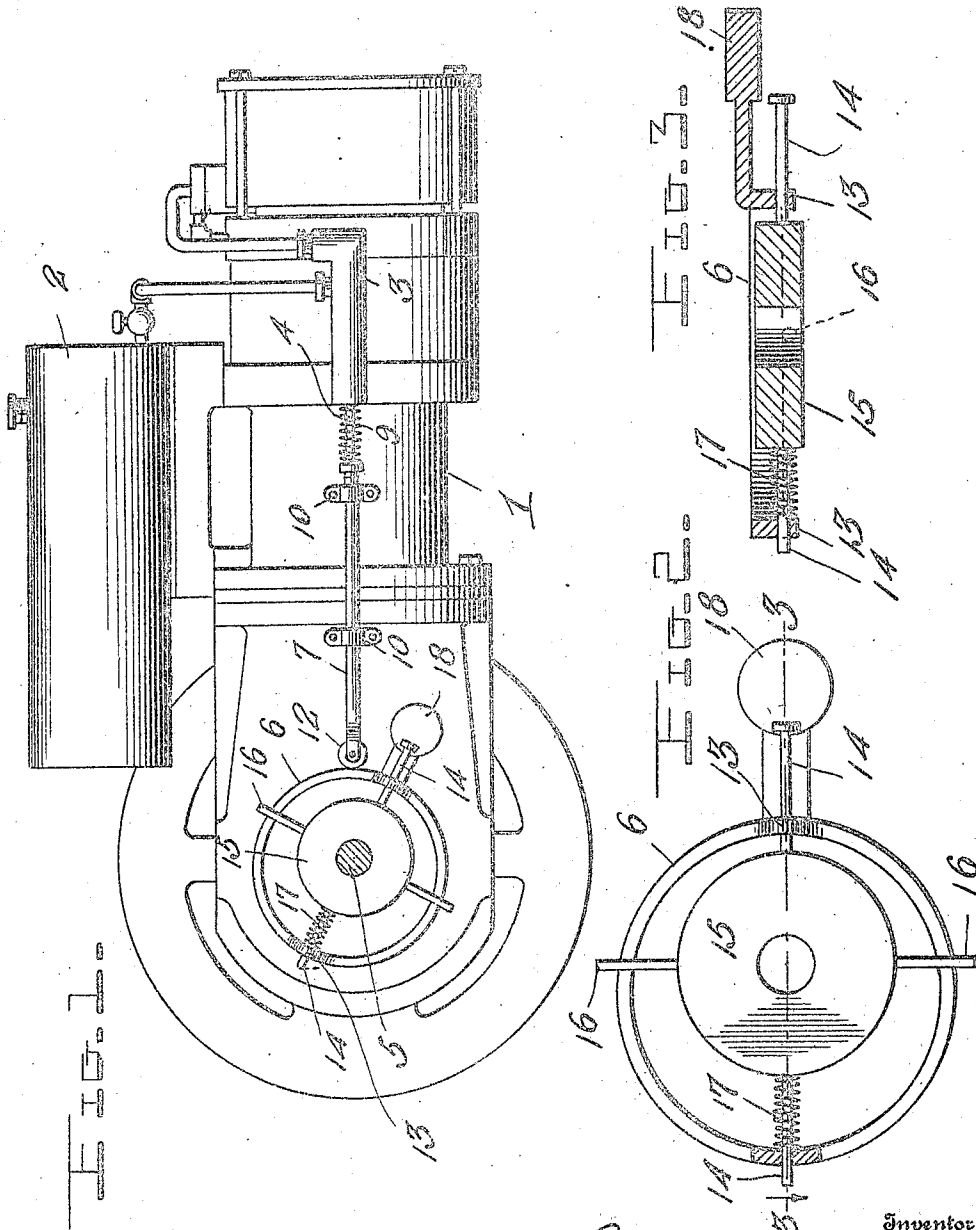


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 AUTOMATIC FUEL CUT-OFF GOVERNOR FOR EXPLOSIVE ENGINES.
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954,155.

Patented Apr. 5, 1910.



Witnesses

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AUTOMATIC FUEL-CUT-OFF GOVERNOR FOR EXPLOSIVE-ENGINES.

954,155.

Specification of Letters Patent.

Patented Apr. 5, 1910.

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To all whom it may concern:

Be it known that I, JAMES I. WOOD, a citizen of the United States, residing at Salida, in the county of Chaffee and State of Colorado, have invented certain new and useful Improvements in Automatic Fuel-Cut-Off Governors for Explosive-Engines, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention is an automatic fuel cut-off governor for gasoline or other explosive engines.

15 The object of the invention is to provide a gasoline or other fuel feeding means of an explosive engine with a simple and practical operating mechanism which will automatically stop the supply of fuel when the engine runs too fast.

20 With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

25 Figure 1 is a view partly in elevation and partly in section, of an explosive engine showing its fuel feeding pump actuated and controlled by the invention; Fig. 2 is an enlarged view, partly in elevation and partly in section, of the eccentric governor; and 30 Fig. 3 is a longitudinal section taken on the plane indicated by the line 3—3 in Fig. 2.

35 In the drawings 1 denotes a gasoline or other explosive engine to which gasoline or other fuel is fed from a tank 2 or other source of supply by means of a pump or equivalent device 3. The piston 4 of the pump is actuated from the crank shaft 5 of the engine by means of my improved auto- 40 matic fuel feeding and cut-off governor which consists of an eccentric 6 fixed to the shaft 5 for rotation therewith and adapted to actuate a rod 7 which in turn actuates the piston rod 8 of the pump 4. As illus- 45 trated, the pump rod 8 is actuated in one direction by a coil spring 9 and in the other direction by the rod 7, which latter is slidably mounted in guide bearings 10 and carries an anti-friction roller 12 to bear against 50 the periphery of the eccentric 6. The latter is in the form of an open ring having at diametrically opposite points on one side

lugs 13 apertured to receive two supporting and guiding pins 14 projecting in diametrically opposite directions from a hub 15 suitably fixed to the shaft 5. Two radially projecting guide pins 16 are also provided on the hub and bear against the side edge of the eccentric 6, as shown. A coil spring 17 surrounds one of the pins 14 and is confined between the outer side of the hub 15 60 and the inner side of the eccentric ring 6, whereby the latter is yieldably retained in an eccentric position on the hub. Provided on the eccentric ring 6 at a point diametrically opposite that side on which the spring 17 is arranged, is a weight 18 which when the eccentric rotates, is adapted to increase the centrifugal action and cause the eccentric ring to vary its degree of eccentricity 70 according to the speed of the engine.

In operation, when the engine is running at the desired or normal speed the spring 17 holds the ring 6 eccentrically on the hub 15 and hence on the fly wheel or crank shaft 5, 75 so that as the latter rotates the eccentric ring will cause the rod 7 to be reciprocated to actuate the pump 4. When the speed of the engine increases the weight 18 will cause the ring 6 to slide laterally on the pins 14, 80 and assume a position concentric or more nearly concentric with the shaft 5, thereby shortening the stroke of the pump piston and reducing the feed of fuel to the engine. When the speed of the engine drops back to 85 normal the spring 17 returns the eccentric ring to its normal eccentric position and the feed of the fuel is thereby increased.

Having thus described the invention what is claimed is: 90

The combination with an explosive engine and a fuel pump having a spring pressed reciprocatory piston, of a hub fixed to the engine shaft, an open eccentric ring inclosing said hub and formed at diametrically 95 opposite points with openings, a pair of oppositely disposed pins projecting radially from the hub and extending through the openings in said eccentric ring, a coil spring upon one of said pins between the hub and 100 ring, a weight arm projecting radially from the outer side of the ring and disposed adjacent to said other pin, a second pair of oppositely disposed radially projecting pins

arranged on the hub in a plane at right angles to the plane of the first mentioned pins, the second mentioned pins being adapted to engage the edge of said ring, guides
5 upon the engine, a rod slidably mounted on said guides and adapted to have one end engaged with the pump piston rod, and an anti-friction roller upon the other end of

said slidably mounted rod and adapted to contact with said eccentric ring. 10

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JAMES I. WOOD.

Witnesses:

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