

No. 703,157.

Patented June 24, 1902.

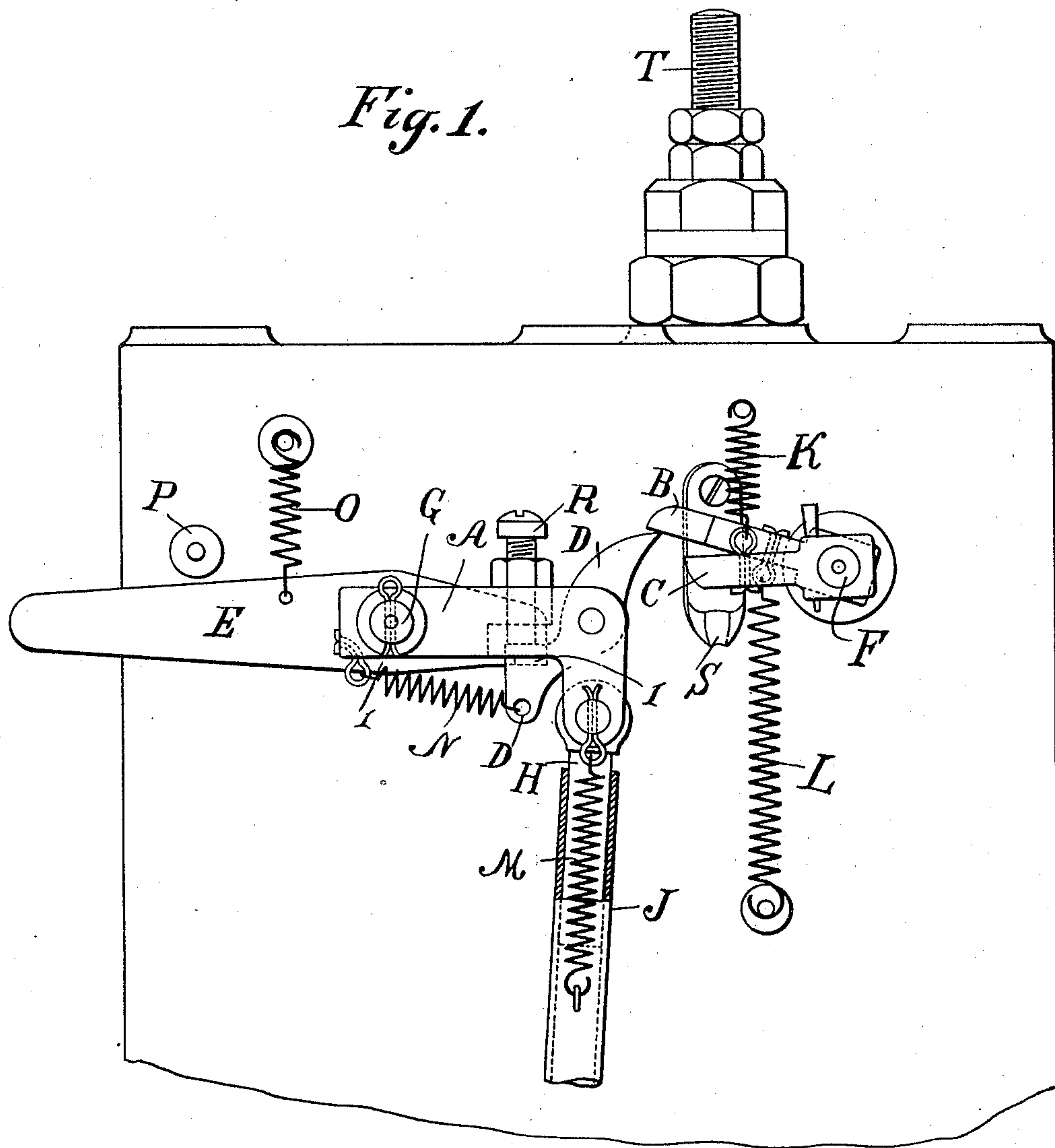
F. A. L. SNECKNER.

STARTING MECHANISM FOR GAS ENGINES.

(Application filed Mar. 7, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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G. W. Eisenbraun;
C. P. Hendrickson.

INVENTOR:

Frank A. L. Sneekner,

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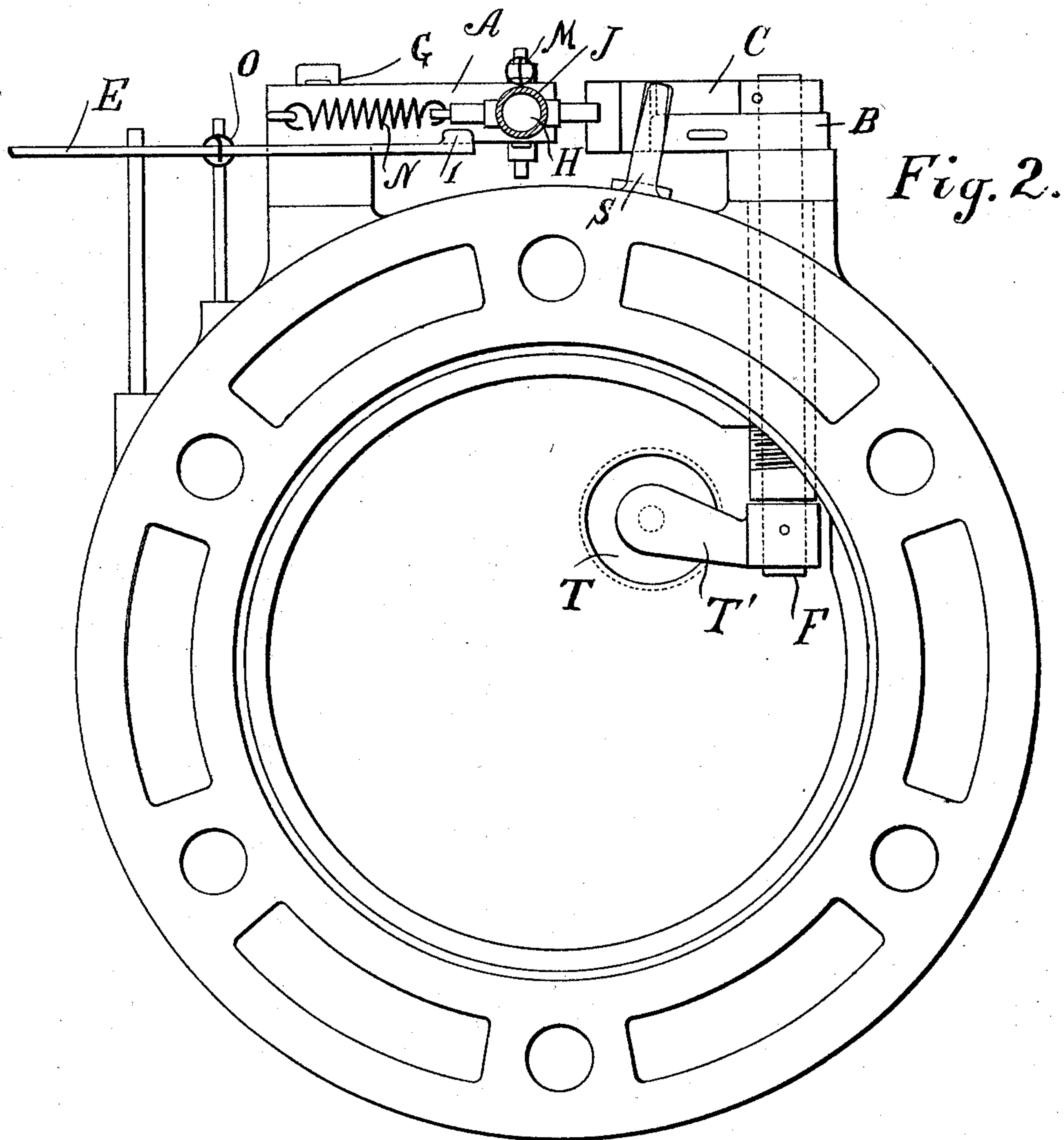
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Geo W Eisenbraun
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INVENTOR:

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UNITED STATES PATENT OFFICE.

FRANK A. L. SNECKNER, OF COSCOB, CONNECTICUT, ASSIGNOR TO CHARLES H. LOUNDSBURY, OF STAMFORD, CONNECTICUT.

STARTING MECHANISM FOR GAS-ENGINES.

SPECIFICATION forming part of Letters Patent No. 703,157, dated June 24, 1902.

Application filed March 7, 1901. Serial No. 50,197. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. L. SNECKNER, a citizen of the United States of America, residing at Coscob, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Starting Mechanisms for Gas-Engines, of which the following is a specification.

My invention has reference to improvements in igniters for gas-engines, and has for its object to create an electric spark within the explosion-chamber of an explosive-engine at the will of the attendant, so as to produce an explosive impulse at any desired time independent of the action of the igniting mechanism of the engine.

With this object in view my invention consists, essentially, in an igniting mechanism for gas-engines, comprising a firing-pin, a contact movable toward and from the firing-pin, a lever connected with the contact, a firing-lever adapted to engage with the former lever, a dog engaging with the said firing-lever and having a yieldable connection with the actuating mechanism of the engine, a dog-carrier, and a lever adapted to be operated by hand and engaging with said dog-carrier. By this means I am enabled to readily start the engine by a partial revolution of the fly-wheel, it being simply necessary to produce a partial compression of the explosion charge in the explosion-chamber and then to operate the sparking mechanism by the independent hand-lever, thus causing the small charge to be exploded, which effects the starting of the engine, and thereafter the igniting mechanism operates automatically in the usual manner.

The nature of my invention will best be understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a side elevation of a sparking mechanism embodying my improvements. Fig. 2 is a bottom view of the same.

Similar letters of reference designate corresponding parts throughout the several views of the drawings.

Referring to the drawings, the letter T designates the firing-pin, which enters the ex-

plosion-chamber and which, in coöperation with a suitable contact T', Fig. 2, effects the ignition of the charge in the usual manner.

E designates the starting-lever, which is mounted to turn about a stud G, secured to the cylinder of the engine, and is subjected to the action of a spring O, tending to turn the inner end of the lever E downwardly until the movement of said lever is arrested by the stop P. The inner end of said lever is provided with a lip L, adapted to engage with the dog-carrier A of the igniting mechanism. During the automatic operation of the igniting mechanism the lever E is idle on the stud G and does not interfere with the operation of the igniting device. When, however, the outer end of the lever E is depressed so as to cause its inner end to engage with the dog-carrier A, it operates the igniting mechanism, and consequently a spark can be produced in the explosion-chamber at the will of the attendant. In the present igniting mechanism the dog-carrier A is pivoted to turn about the stud G and carries a pivotal dog D, having its tail subjected to the action of a spring N, attached to the dog-carrier A or any other suitable part, the tendency of said spring being to turn the nose of the dog D inwardly and downwardly.

R is an adjusting-screw on the dog-carrier, which engages with the tail of the dog for setting the same to time the spark and is also adapted to take up for wear. Said dog D when turned is adapted to engage with the firing-lever B, which is pivoted to the firing-spindle F, against the action of a spring L. When the dog releases the firing-lever, the latter is rapidly drawn downwardly by the spring L and engages with a short lever C, carrying the latter downwardly against the action of a weaker spring K, attached to said short lever. The lever C is rigidly mounted on the firing-spindle F and carries the contact T', previously referred to, thus producing a spark. The downward movement of the lever C, and consequently of the lever B, is limited by a stop S. When the firing-lever is lifted by the dog D, the latter is moved upwardly under the action of the spring K

until its movement is arrested by the engagement of the contact T' with the lower end of the firing-pin T'. The dog-carrier A is operated from an eccentric cam or other usual
5 means, so as to effect automatic sparking during the running of the engine. In the present instance I have shown the actuating-rod J made tubular and the dog-carrier provided with an eyepiece H, pivoted at its upper end
10 thereto and fitted within the upper end of the actuating - rod and capable of sliding therein. The eyepiece is held downwardly by a spring M, attached to the pivot thereof and to the tube J.
15 I do not wish to confine myself to any particular mechanism for effecting automatic ignition, as the starting-lever may be employed in connection with other mechanisms of the same character.

What I claim as new is—

An igniting mechanism for gas - engines comprising a firing-pin, a contact movable toward and from the firing-pin, a lever connected with the contact, a firing-lever adapted to engage with the former lever, a dog engaging with said firing-lever and having a yield- 25 able connection with the actuating mechanism of the engine, a dog-carrier, and a lever adapted to be operated by hand and engaging with said dog-carrier, substantially as described. 30

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANK A. L. SNECKNER.

Witnesses:

EUGENIE P. HENDRICKSON,
A. FABER DU FAUR, Jr.