

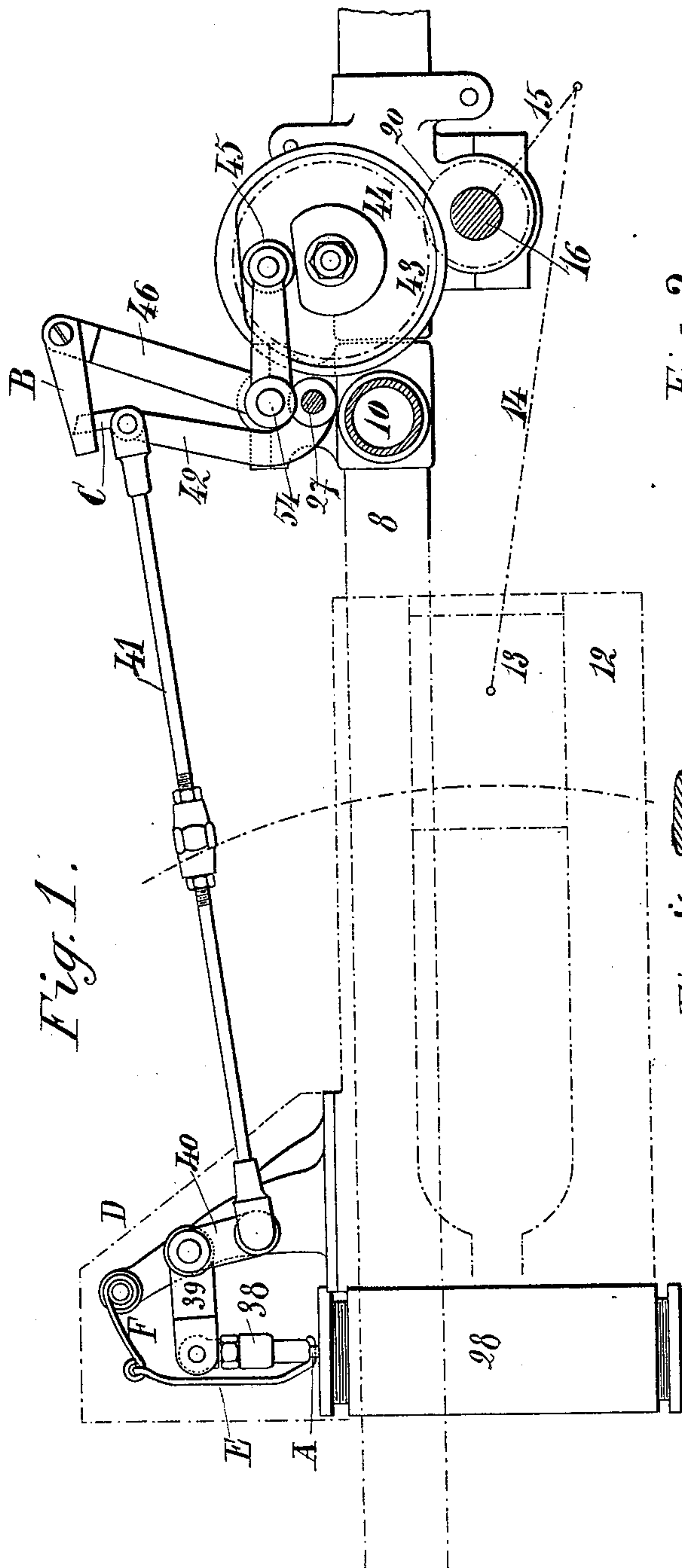
No. 636,634.

Patented Nov. 7, 1899.

G. V. L. CHAUVEAU.  
SPEED REGULATOR FOR EXPLOSIVE ENGINES.

(Application filed June 22, 1898.)

(No Model.)



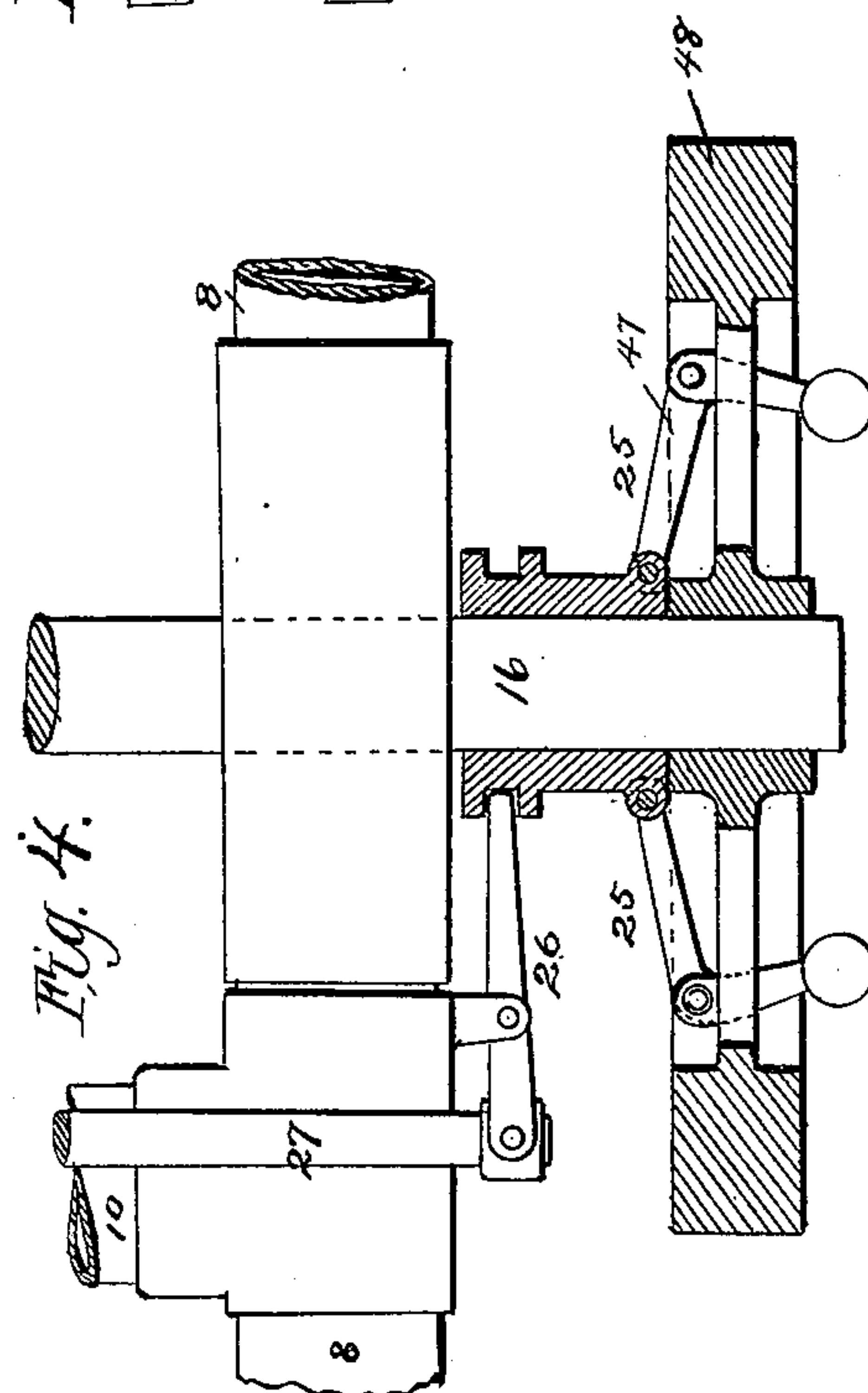
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES.

*George H. Mumford*  
*Manufactured*

INVENTOR:

*G. V. L. Chauveau*

BY

*Mumford*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

GUSTAVE VICTOR LÉON CHAUVÉAU, OF PARIS, FRANCE, ASSIGNOR TO  
LA SOCIÉTÉ ANONYME DES VOITURETTES AUTOMOBILES, OF SAME  
PLACE.

## SPEED-REGULATOR FOR EXPLOSIVE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 636,634, dated November 7, 1899.

Application filed June 22, 1898. Serial No. 684,172. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAVE VICTOR LÉON CHAUVÉAU, director of La Société Anonyme des Voiturettes Automobiles, of 163 Avenue Victor Hugo, Paris, France, have invented a new and useful Improvement in Motor-Vehicles, (for which applications for patents have been filed in the following foreign countries: France, dated December 4, 1897, No. 272,804; France, Certificate of Addition, dated December 27, 1897, No. 272,804; France, second Certificate of Addition, dated February 21, 1898, No. 272,804; Belgium, dated January 24, 1898, No. 133,360; Germany, dated January 14, 1898, No. 11,011, and Great Britain, dated March 11, 1898, No. 6,045,) of which the following is a full, clear, and exact description.

This invention relates to improvements in the motor-tricycle invented by Léon Bollée and patented in the United States of America March 29, 1898, No. 601,545.

The improvements are illustrated in the accompanying drawings, which illustrate the improvements as applied to the Bollée engine.

Figure 1 is a longitudinal elevation of the engine with parts in section. Figs. 2 and 3 are details illustrating the operation of certain parts, and Fig. 4 is a plan showing the governor and its connections.

12 is the working cylinder, 13 the piston, 14 the connecting-rod, 15 the crank, and 16 the driving-shaft, of the Bollée engine. At the rear end of cylinder 12 is the valve-casing 28, containing the admission and exhaust valves.

In the Bollée motor-tricycle the exhaust-valve 30 is actuated by means of distributing-gear placed beneath the engine, which arrangement has the disadvantage of being very close down to the ground, so that the distributing-gear becomes thickly coated with dust, thus causing rapid clogging and wear of the parts. Moreover, the position of the distributing-gear beneath the motor renders it very difficult to examine and repair.

My invention consists in such a construction and arrangement as will enable the distributing-gear to be placed above the engine. For this purpose the functions of the admis-

sion and exhaust valves are interchanged, so that the exhaust-valve rod in this case passes up through the top A of the valve-casing 28 and is connected to its operating mechanism, which is mounted above the engine 12 13 14 15 16. As in the Bollée motor-tricycle, the valve mechanism is operated by a cam 44, making one revolution to every two revolutions of the driving-shaft 16 through the spur-gearing 20 43, the mechanism being controlled by means of the governor 47, mounted on the fly-wheel 48 and moving a rod 27 longitudinally. The cam 44 and rod 27 are, however, mounted above the tubular framing 8 and 10 instead of below it, so as to be brought into proper relative position to the exhaust-valve rod. To the upper end of a bell-crank lever 46 is pivoted a hook-shaped tappet B, with which engages a knife-edged lever C, pivoted on the upper end of another lever 42, which is curved, so as to pass clear of the axis of oscillation 54 of the bell-crank lever 46, the latter being provided with a friction-roller 45, which engages in the groove of the cam 44. The curved lever 42 is connected by a connecting-rod 41 to two elbow-levers 40 39, the latter of which is jointed to a socket 38, in which the exhaust-valve rod A is received. This rod A is suspended by a link E from a spring F, which tends to keep the valve constantly closed. This portion of the distributing-gear is inclosed in a box or casing D to prevent the admission of dust.

When the speed of the motor is normal, the hook-tappet B engages the knife-edged lever C, and the valve opens at the moment when the cam 44 brings the roller 45 toward its center, as shown, the engagement of parts B and C being as shown in Fig. 2. When the speed of the motor is excessive, the governor shifts the sliding rod 27 and moves the knife-edged lever C out of the path of the hook-tappet B, as shown in Fig. 3, the cam 44 then ceasing to act on the exhaust-valve, which remains closed and causes the engine to miss one or more impulses until it regains its normal speed. The whole of this distribution-gear is carried above the engine upon bearings mounted upon the longitudinal tubular

member 8 of the frame, as well as upon the engine-cylinder 12, and is so arranged as not to interfere with the action or working of the other parts of the mechanism of the vehicle, 5 besides which it is adapted to insure the proper working of the engine by its strong and durable trip-gear. It is also so located as to be examined, lubricated, and repaired in case of need. Lastly, it is better protected 10 from dust than when the distributing-gear was placed beneath the engine.

I claim—

A valve-operating mechanism for engines, comprising a movable part or hook mounted 15 to oscillate and operatively connected with

the valve, an oscillating tappet and means for operating the same, said hook and tappet being normally in the same plane so that the tappet will engage the hook and actuate the valve, and one of said parts (the hook and 20 tappet) being movable transversely in relation to the other, that is, lengthwise of its axis of oscillation, and a governor for shifting said movable part lengthwise of its axis to cause the tappet to miss the hook in case 25 of an excessive speed.

GUSTAVE VICTOR LÉON CHAUVEAU.

In presence of—

JULES MATHIEU,  
GEORGES COLLOTE.