

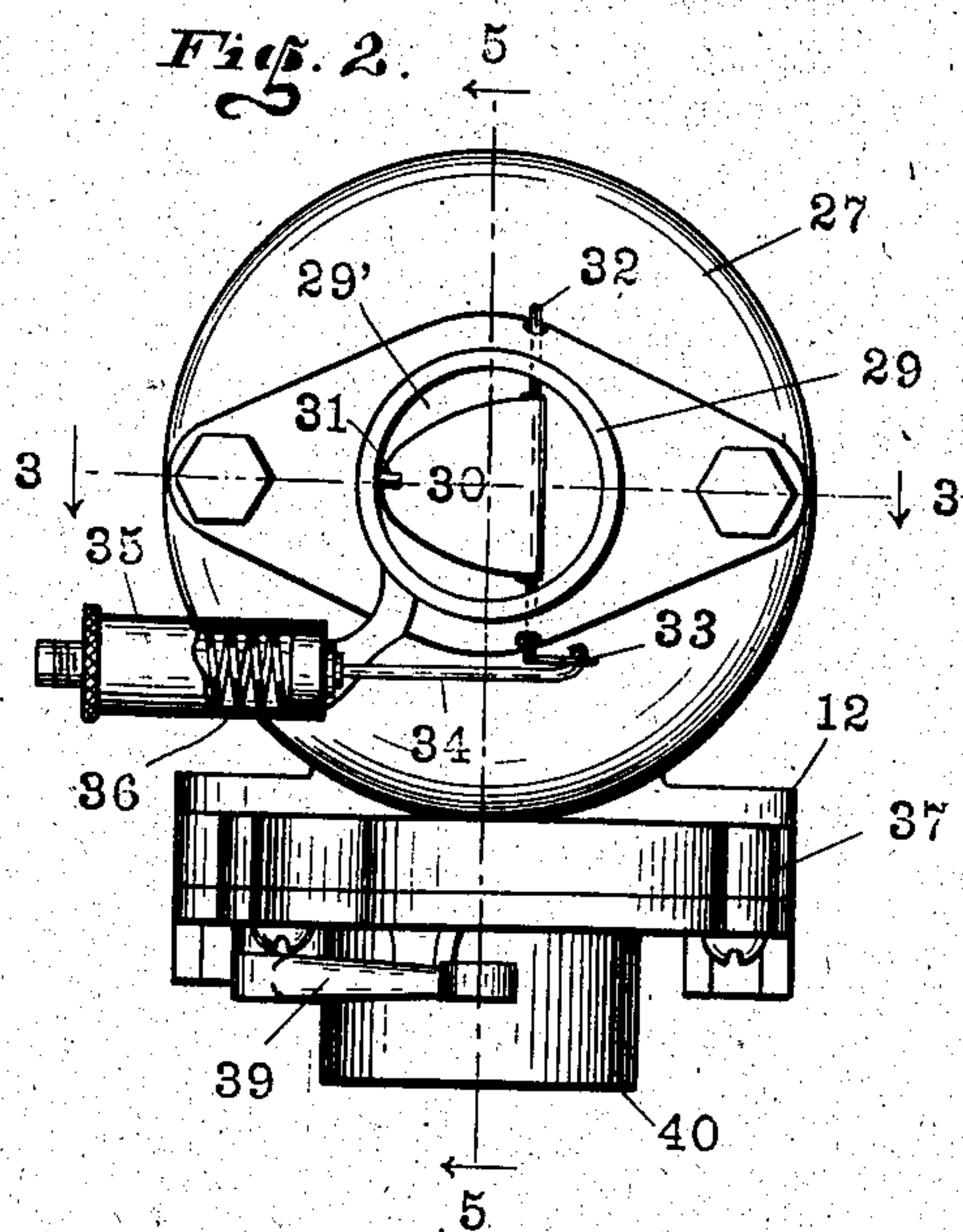
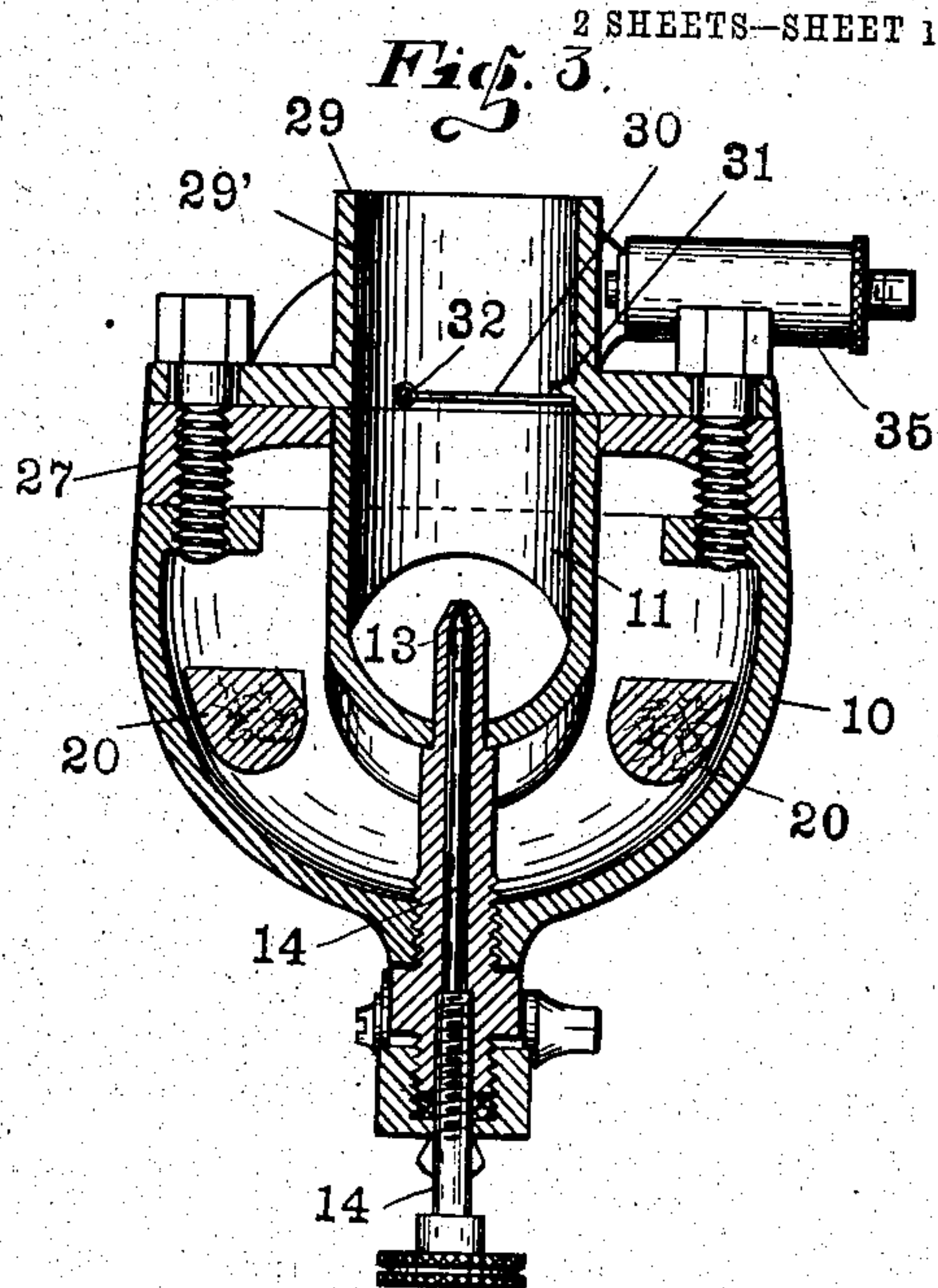
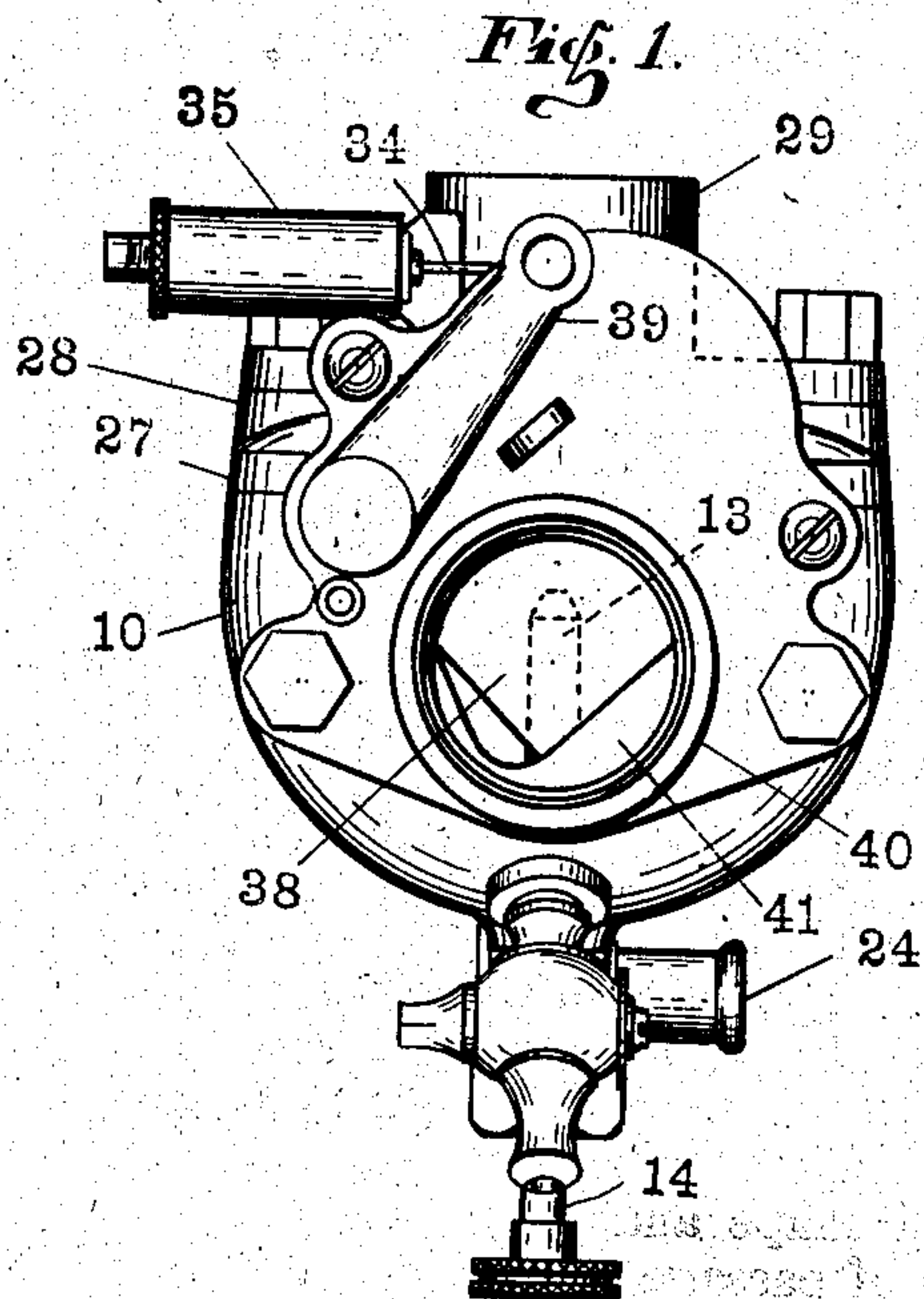
No. 806,434.

PATENTED DEC. 5, 1905.

G. M. SCHEBLER.
CARBURETER FOR HYDROCARBON MOTORS.

APPLICATION FILED OCT. 30, 1903.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

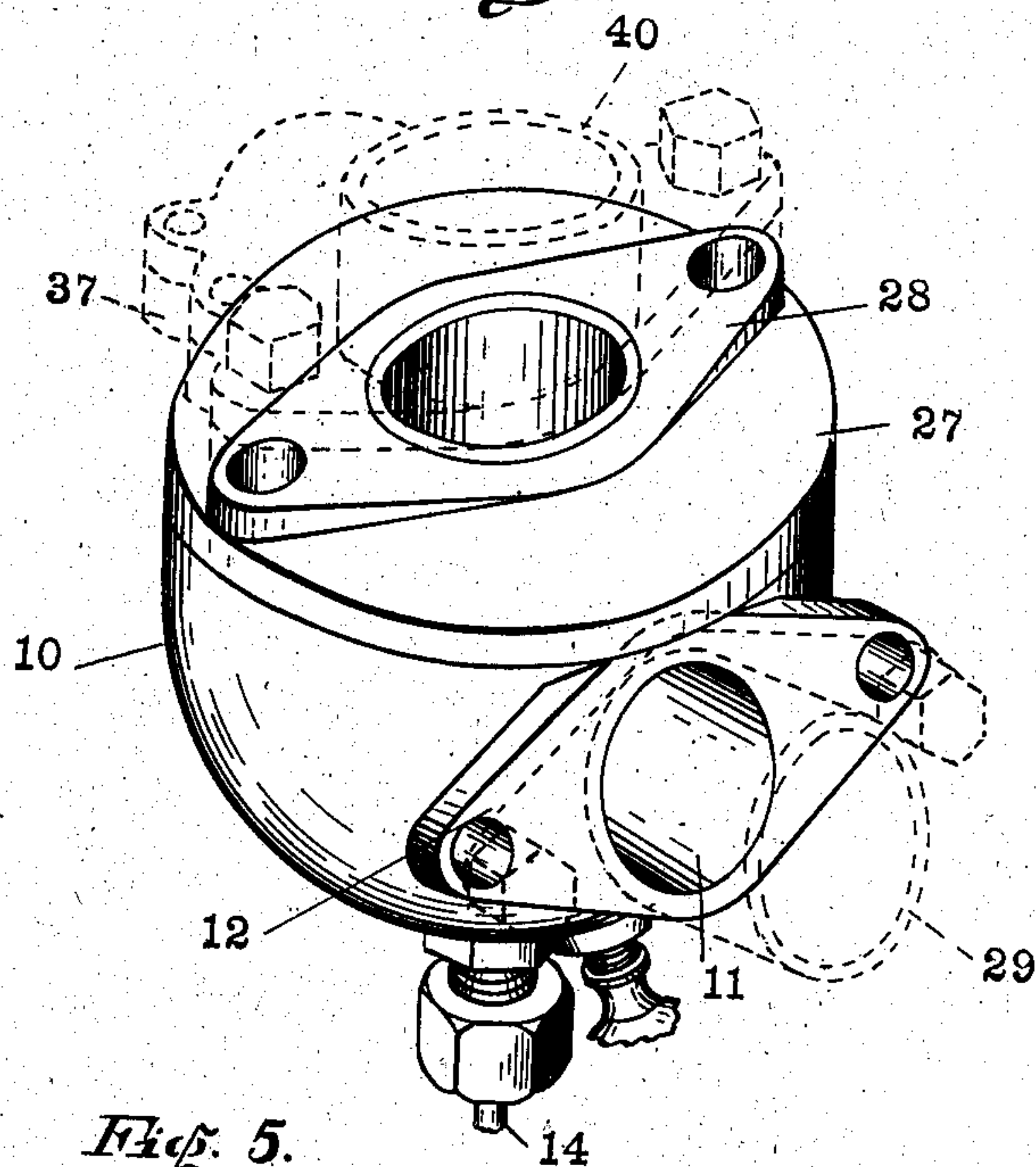
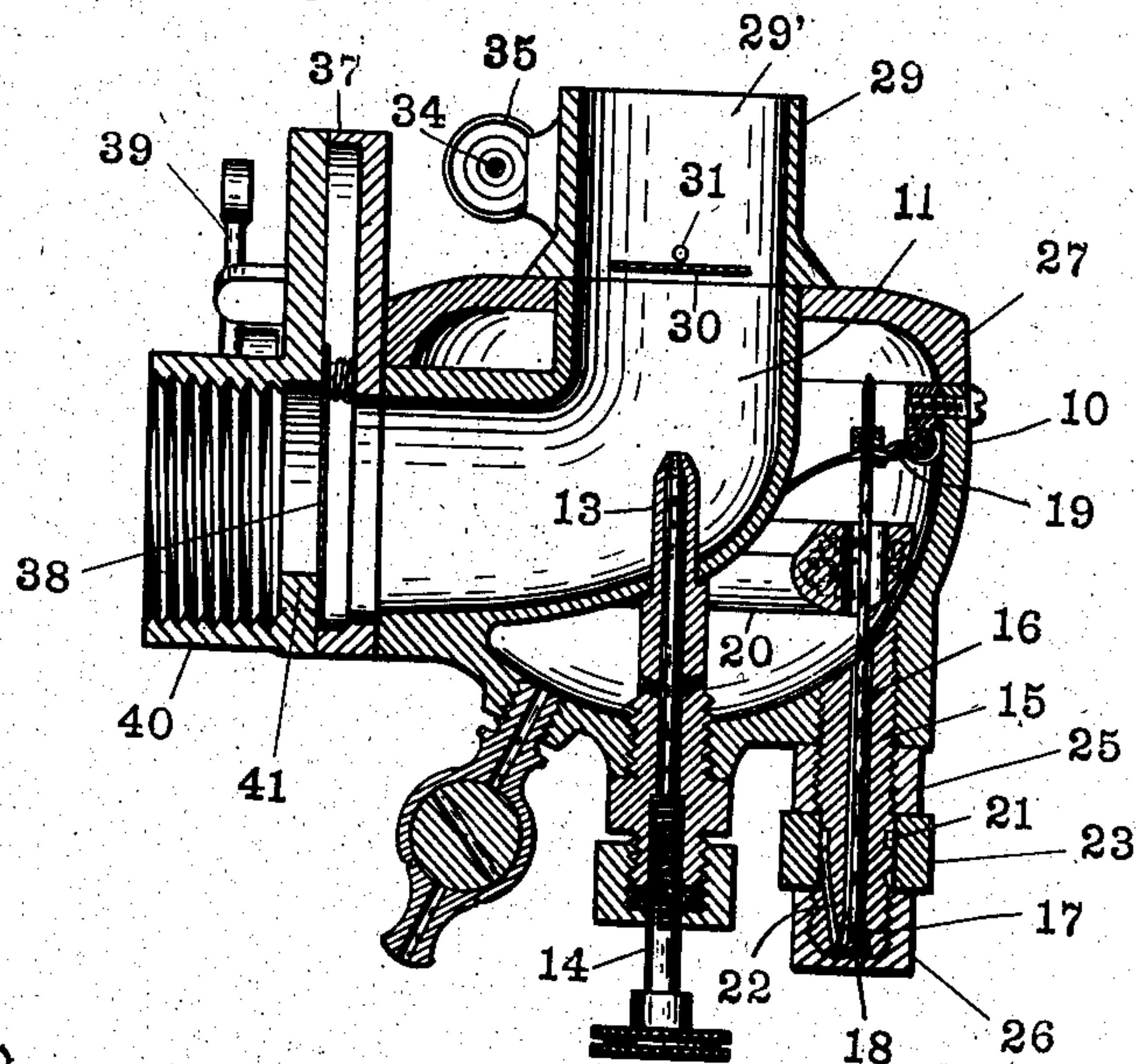


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE M. SCHEBLER, OF INDIANAPOLIS, INDIANA.

CARBURETER FOR HYDROCARBON-MOTORS.

No. 806,434.

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed October 30, 1903. Serial No. 179,161.

To all whom it may concern:

Be it known that I, GEORGE M. SCHEBLER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Carbureters for Hydrocarbon-Motors, of which the following is a specification.

In the construction of automobiles of the gas-engine type a carbureter is an essential element; and the object of my present invention is to provide an efficient carbureter of the type shown in my Patent No. 711,005 which is exceedingly compact and the parts of which may be rearranged with relation to each other in order to adapt the apparatus for use in different types of machines.

A further object of my invention is to provide means for automatically varying the proportions and the character of the mixture produced and to provide such improvements in details of construction as are hereinafter pointed out.

The accompanying drawings illustrate my invention.

Figure 1 is an elevation of the mixture-discharging side. Fig. 2 is a plan of the air-inlet side; Fig. 3, a vertical section on line 3 3 of Fig. 2. Fig. 4 is a perspective view of the main body of the device, showing the air-inlet and the mixture-discharge transposed. Fig. 5 is a section on line 5 5 of Fig. 2.

In the drawings, 10 indicates a semispherical shell or body having formed therein an L-shaped passage 11, which terminates at its upper end in a tubular projection projecting above the open upper end of the main shell, while the other end terminates in a face 12 at the side of the main shell. Projected upward through the body of shell 10 and into the L-shaped passage 11 is a fuel-discharge nozzle 13, which communicates with the interior of body 10 and within which is arranged a suitable needle-valve 14. Secured in the bottom of casing 10 is an inlet-plug 15, having a central passage 16, which communicates with the interior of shell 10 and which is provided at its lower end with a valve-seat 17, in which the valve 18 can be seated. The stem of valve 18 is projected downward through passage 16 and attached to a lever 19, pivoted within casing 10 and having its end secured to a suitable float 20. At an intermediate point in its length plug 15 is provided with an annular groove 21, which communicates, through passage 22, with the lower end of the plug. Loosely surrounding

plug 15, over groove 21, is a collar 23, carrying an inlet-pipe 24, to which a suitable fuel-supply pipe may be attached. The collar 23 may be swung around plug 15 to point in any direction necessary to connect with proper supply-pipe and is clamped tightly any desired position against a suitable collar 25 by means of a cap 26, secured upon the outer end of plug 15, and thus forming a communication between passage 22 and the passage 16.

The upper end of the main casing 10 is closed by a suitable annular cap 27, which upon its upper face is provided with a face 28, corresponding in size and arrangement of bolt-openings with the face 12, and this cap is of such shape and dimensions that the tubular end of passage 11 rises just to the top of the cap and fits therein.

Adapted to fit either one of faces 12 or 28 is an air-inlet 29, which has pivoted therein a check-plate 30, which normally lies across the passage 29, with its free end against a suitable stop-pin 31. Plate 30 is carried by a shaft 32, which is provided at one end with a crank 33, connected to a plunger 34, the end of which lies within a casing 35 and abuts against a suitable spring 36. Also adapted to be secured to either of faces 12 and 28 is a throttle-valve structure 37, within which is mounted a valve-plate 38, operated by a suitable valve-arm 39. Valve structure 37 is provided with an eduction-passage 40, which is of a size and shape to take an ordinary standard pipe, and, if desired, the valve-plate 38 may be made of such shape as to close such an opening. I prefer, however, to place a partial diaphragm 41 immediately adjacent the valve-plate, between it and the eduction-passage 40, and form therewith an eduction-opening having a V-shaped lower side. As a consequence of this construction an appreciable opening may be produced immediately upon opening the throttle-valve; but this opening does not increase as rapidly thereafter by reason of the swing of the valve-plate as it would were the eduction-opening of the usual circular shape.

The device described is exceedingly compact, and in operation the throttle-valve structure and the inlet structure may be attached to the main casing in either position, which ever may be most convenient for use in connection with the particular cooperating mechanism, and the fuel-inlet collar 23 may be also swung to any desired point. Under ordinary speeds the suction of the engine will be such

that check-plate 30 will remain across the inlet-passage; but in case of high speeds the plate 30 will yield, depending upon the adjustment of spring 36, and thus increase the size of the air-inlet, so that the mixture produced will be less rich.

I claim as my invention--

1. A carbureter consisting of, a main casing having an air-passage therethrough with an induction-opening and an eduction-opening, an air-inlet structure, a throttle-valve structure, and means for securing either of said structures to either the induction or eduction openings.

2. A carbureter consisting of, a main casing having an air-passage therethrough with an induction-opening and an eduction-opening, and an air-inlet structure provided with a yielding check-plate normally obstructing the passage therethrough.

3. A carbureter consisting of, a main casing

having an air-passage therethrough with an induction-opening and an eduction-opening, an air-inlet structure provided with a yielding check-plate normally obstructing the passage therethrough, a throttle-valve structure, and means for securing the inlet structure and the throttle-valve structure to either the induction or eduction openings.

4. The combination, with a carbureter, of a throttle-valve structure consisting of an eduction-passage having a V-shaped diaphragm therein, and a swinging valve-plate arranged adjacent said diaphragm, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 20th day of October, A. D. 1903.

GEORGE M. SCHEBLER. [L. s.]

Witnesses:

ARTHUR M. HOOD,
JAMES A. WALSH