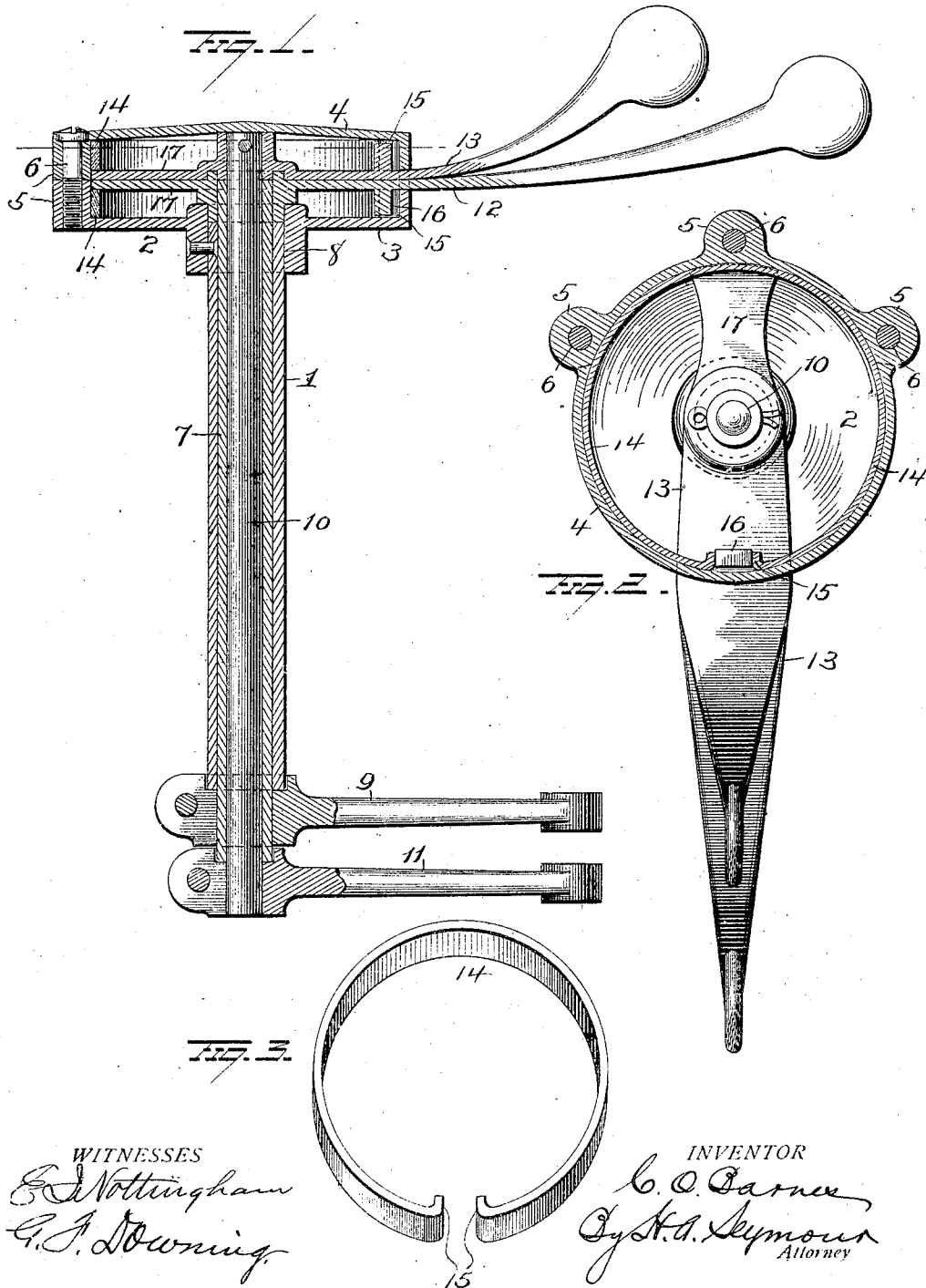


No. 887,180.

PATENTED MAY 12, 1908.

C. O. BARNES.
CONTROLLER.

APPLICATION FILED MAR. 23, 1907.



UNITED STATES PATENT OFFICE.

CHARLES O. BARNES, OF OSWEGO, NEW YORK, ASSIGNOR TO BARNES GEAR COMPANY, OF OSWEGO, NEW YORK.

CONTROLLER.

No. 887,180.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed March 23, 1907. Serial No. 364,178.

To all whom it may concern:

Be it known that I, CHARLES O. BARNES, of Oswego, in the county of Oswego and State of New York, have invented certain new and useful Improvements in Controllers; and I do hereby declare the following to be a full, clear, and exact description of the invention; such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in controllers and more particularly to means for operating the motive power supply devices and the fuel feeding means for an engine,—the said improvements being especially intended for use in controlling the operation of automobiles.

The object of the invention is to provide controlling means which can be safely and accurately operated without resort to ratchet devices.

A further object is to provide a controller for use with automobiles, which shall be simple and compact in construction; comprise few movable parts, and which can be quickly and easily applied and connected with the operating means of an automobile of any type.

With these objects in view the invention consists in certain novel feature of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view of a controller embodying my improvements. Fig. 2 is a horizontal sectional view. Fig. 3 is a view of one of the friction springs.

1 represents a tubular standard which may be mounted in any suitable support (not shown) and provided at its upper end with a head 2. This head comprises two cup-shaped members 3, 4, each provided with a series of lugs 5 for the accommodation of screws 6, whereby the two members are secured together. These screws may be made plain throughout a portion of their length and pass freely through the lugs of one member of the head and screw into the lugs of the other member.

A tubular rod 7 is disposed within the standard 1 and enters the head 2 through an opening 8 in the bottom of member 3 thereof, the lower end of this tubular rod being provided with an arm 9 with which the valve for controlling the feed of fuel to the engine may be connected. A rod 10 is disposed within

the tubular rod 7 and depends below the lower end thereof, where it is provided with an arm 11 to be connected with the throttle valve of the engine.

A lever 12 is secured to the upper end of the tubular rod 7 within the head 2 and a similar lever 13 is secured to the upper end of the rod 10 within said head. These levers project outwardly through the side of the head and are provided at their free ends with suitable hand-holds whereby they may be readily operated for turning the rods 7 and 10 to control the supply of fuel to the engine or to operate the throttle valve.

Located within each member of the head and lying against the annular flange thereof, is a spring 14 which has frictional contact with said annular flange. The adjacent ends of each friction spring 14 are bent inwardly and form lugs 15 between which a lug 16 on one of the operating levers project. From this construction and arrangement of parts it will be seen that when one of the operating levers is moved it will cause a corresponding movement of one of the friction springs and such movement will be retarded or opposed by the frictional engagement of said spring with the annular flange of the member of the head in which it is located. When the other lever is operated the friction spring in the other member of the head will act in the same manner as above explained. By the provision of the friction devices above described the operating levers will be properly held in any position to which they may be moved and the mechanisms with which my improved controller are connected, can be minutely regulated or adjusted and held at any desired adjustment without the provision of ratchet mechanism, or other positive holding means.

In order that the friction springs may be prevented from displacement, each operating lever will be provided with an arm 17 adapted at the free end to bear against the edge of one of the friction springs, each lever being thus made to retain in proper position within the head, the friction spring with which it coöperates.

While I have described my improvements for use with an engine employing fluid motive power and liquid fuel, it is evident that they are equally applicable for use with an electrically controlled motor. In such case one of the arms (9 or 11) would be connected

with a suitable starting rheostat and the other of said arms would be connected with any suitable reversing switch.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to restrict myself to the precise details herein set forth.

10 Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination with a tubular support, controller rods mounted therein and a
15 head secured to said support, of operating levers secured to the respective controller rods, and friction devices located between said levers and the head.

2. The combination with a tubular support, controller rods mounted therein and a
20 head secured to said support, of operating levers secured to the respective controller rods within the head, and friction devices within said head and coöperating with the
25 operating levers.

3. The combination with a tubular support, a head secured thereto and controller rods mounted in said tubular support and entering the head, of an operating lever se-
30 cured to each controller rod within the head,

and friction springs located within the head and connected with the respective operating levers.

4. The combination with a support, of a head comprising two flanged members, con- 35 troller rods entering said head, levers secured to the respective controller rods, friction springs disposed within the respective members of the head and bearing against the flanges thereof and operating levers secured 40 to the respective controller rods and connected respectively with the friction springs.

5. The combination with a support and a head secured thereto, said head comprising two flanged members, of a friction spring lo- 45 cated within each member of the head and bearing against the flange thereof, controller rods entering the head, operating levers secured to the respective controller rods, and connected respectively with the friction 50 springs, and arms on said levers having their free ends disposed between the two friction springs.

In testimony whereof, I have signed this specification in the presence of two subscrib- 55 ing witnesses.

CHARLES O. BARNES.

Witnesses:

C. A. BENTLEY,
K. E. CASLER.