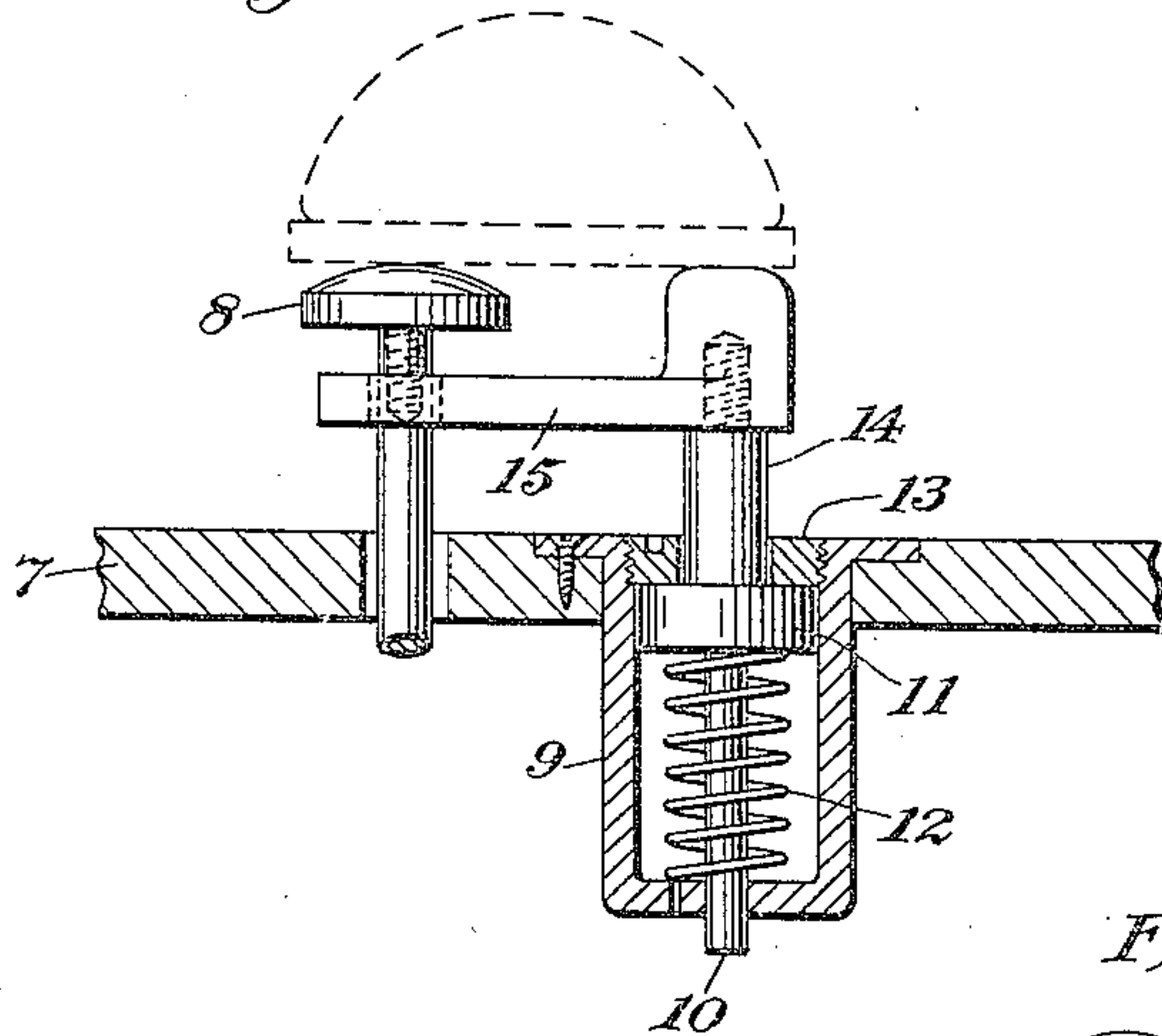


Jan. 2, 1923.

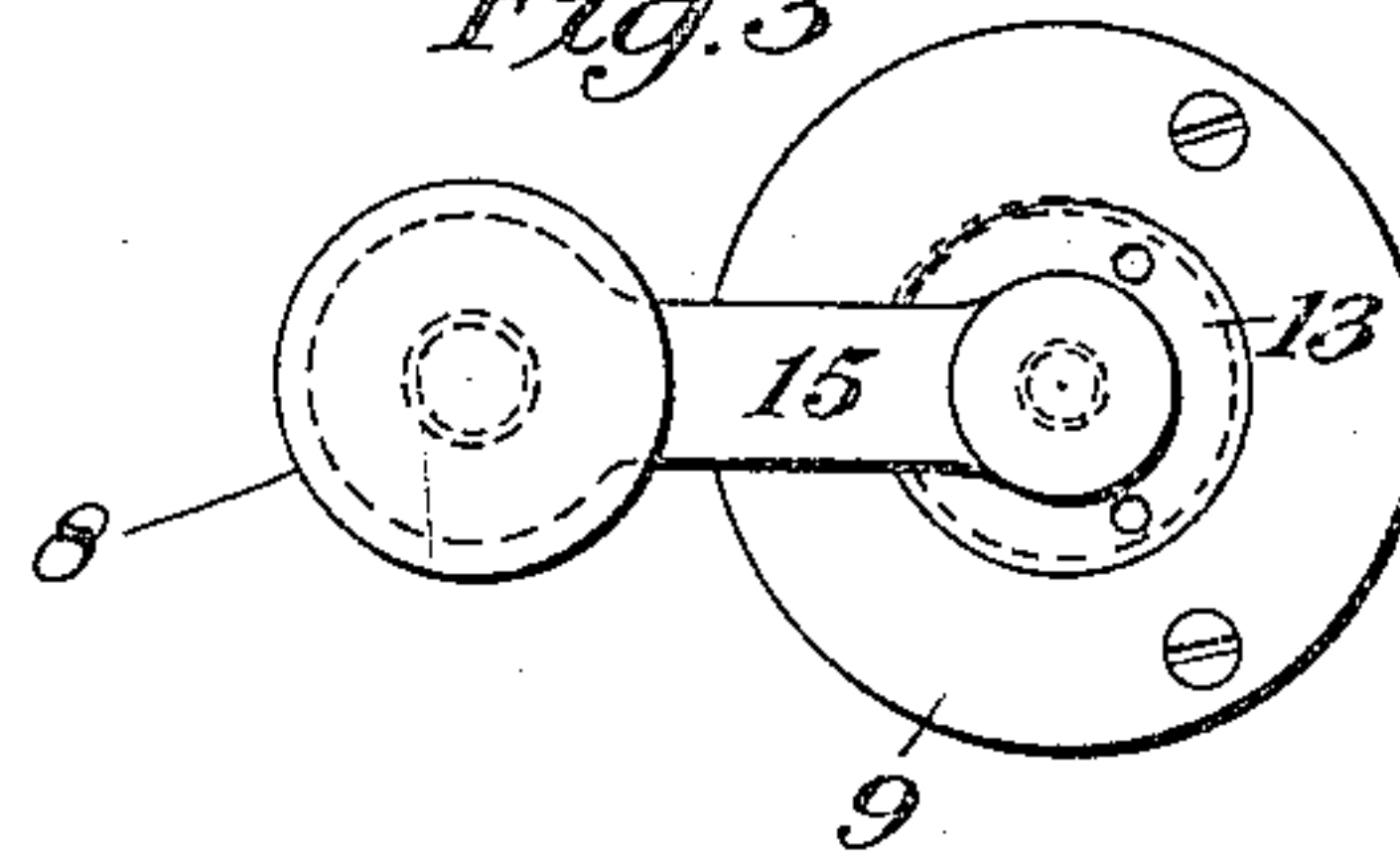
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J. J. MCGUCKIN.  
AUTOMOBILE ACCELERATOR.  
FILED DEC. 23, 1921.

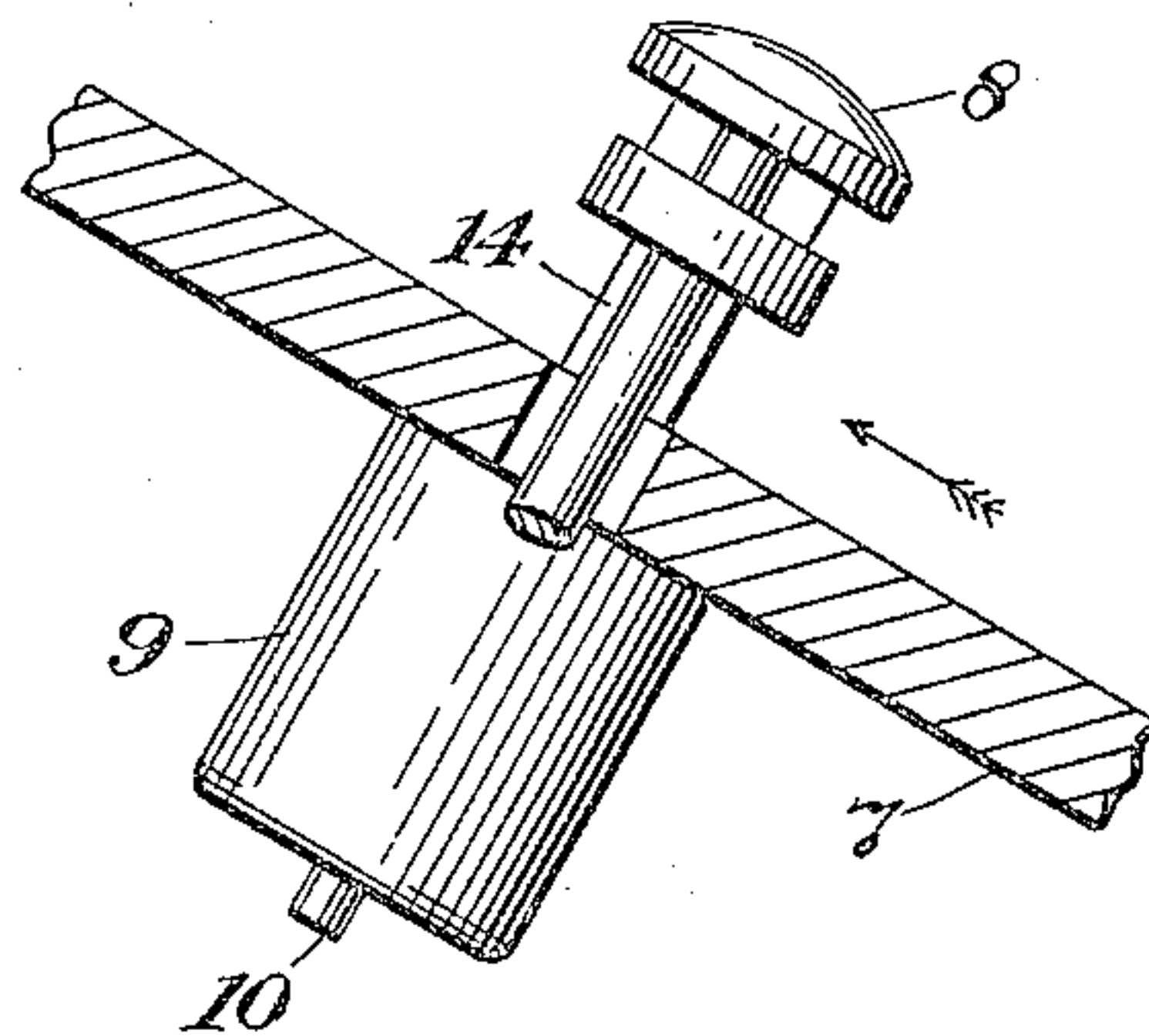
*Fig. 1*



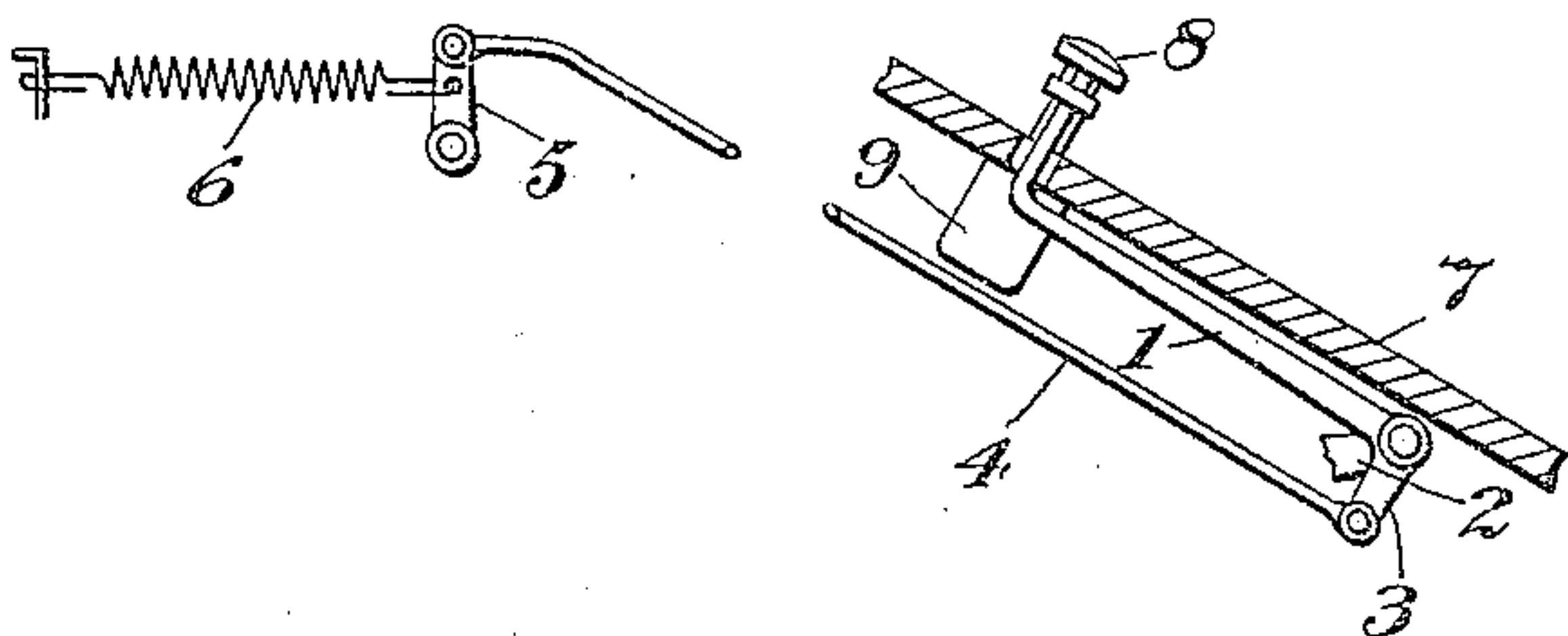
*Fig. 3*



*Fig. 2*



*Fig. 4*



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Patented Jan. 2, 1923.

1,440,881

# UNITED STATES PATENT OFFICE.

JOHN J. MCGUCKIN, OF BROOKLYN, NEW YORK.

## AUTOMOBILE ACCELERATOR.

Application filed December 23, 1921. Serial No. 524,364.

*To all whom it may concern:*

Be it known that I, JOHN J. MCGUCKIN, a citizen of the United States, residing at Brooklyn, Kings County, New York, have invented certain new and useful Improvements in Automobile Accelerators, of which the following is a specification.

My invention relates to the pedal or foot-operated mechanism adapted to control the throttles of automobile engines, and commonly called the accelerator; and my improvements are directed particularly to means for steadying the operation of the accelerator, so as to avoid the sudden, jerky and unintentional opening and closing down of the throttle which is apt to occur, with the ordinary types of accelerators, when the car is being driven over rough roads, where it is subjected to abnormal shocks and jars, or the like.

In the drawings, Fig. 1 is a view taken as looking up in the direction of the arrow in Fig. 2, and showing the upper end of the accelerator lever, and, partly in section, the pneumatic check control mechanism associated therewith; Fig. 2 is a view in full lines, taken as looking to the right on Fig. 1; Fig. 3 is a top view; and Fig. 4 is a view, on a reduced scale, of the accelerator lever, check and throttle control mechanism.

Similar parts are designated by corresponding reference numerals in all the figures.

The accelerator lever 1 is pivoted upon a suitable bearing 2, and, through its bell crank 3 and rod 4, controls the throttle arm 5, against the return action of the spring 6, in the usual way.

The end of the lever 1 is carried up through the floor board 7, and is preferably provided with an enlarged terminal element 8 adapted to receive the sole of the operator's shoe, as indicated by broken lines in Fig. 1.

Adjacent to this lever end, I place a dash pot cylinder 9, which I have shown as mounted in the floor board 7. The shank 10, preferably is guided by sliding through the bottom of the cylinder; and the shank carries a piston head 11, normally raised by the action of the spring 12.

A ring 13, screwed onto the top of the cylinder, confines the piston therein.

The upper end 14 of the shank 10 carries an arm 15, into one end of which the shank may be screwed, as indicated by the broken

lines in Fig. 1; the other end of the arm 15 being preferably enlarged and pierced so as to allow the end of the lever 1 to slide up and down through it; the end of the arm 15 above the shank 10—14 being preferably extended so that its upper surface lies approximately in the same plane as the top of the accelerator terminal 8.

The result of this arrangement is that the accelerator has a limited range of movement free of the control of the pneumatic check device. For it may be pressed down, as by rocking the foot, until the terminal 8 rests against the arm 15, thus permitting an unrestricted and quick control of the throttle to that extent.

When, however, the terminal meets the arm, it can only be further depressed by carrying the arm down with it, against the resistance of the spring 12 and of the air in the dash pot cylinder, which resistance is sufficient to prevent the quick and unintentional depression of the accelerator by the foot of the operator under the ordinary shocks due to rough roads and the like. A steady pressure of the foot, will, however, overcome the resistance and permit the depression of the accelerator to its full limit, if desired, and this action may take place as rapidly as is consistent with increasing the supply of gas to the engine without choking it, as is likely to occur if the throttle is opened too suddenly.

While it is desirable to open the throttle gradually, it is often important to be able to close it quickly and without delay, to prevent the racing of the engine if the clutch is suddenly thrown out, or for other like reasons.

This is permitted by my improved check device; because the upward movement of the accelerator arm is not restricted in the least by the check device, as the accelerator lever slides fully up through the arm 15, under the influence of the spring 6, the arm 15 following at a slower rate, as the air gradually escapes from the cylinder 9.

Thus I provide an accelerator which moves freely downward through a limited range, then is subjected to a steadying check through the remaining part of its descent, but has a free and unrestricted return movement, so that gas for the engine may be first supplied quickly, then more slowly and deliberately and with steady control, and then quickly cut off if desired. The ad-



vantages of this will be well understood by all those familiar with the use of accelerators.

It is to be understood that the mechanism which I have shown is intended to illustrate suitable means for embodying my invention, but that details of construction may be changed, as by the use of mechanical equivalents, without departing from the spirit of my invention as claimed.

Having thus described my invention, what I claim and desire to obtain by Letters Patent of the United States is:—

1. The combination with a pedal accelerator for internal combustion engines, of supplementary depression-resisting means, embodying an element engageable by the pedal during the latter part of its throttle opening movement but permitting free initial and reverse movements of the pedal.

2. The combination with a pedal accelerator for internal combustion engines, of sup-

plementary depression-resisting means, embodying a connecting element engageable by the pedal during the latter part of its throttle opening movement but permitting free initial and reverse movements of the pedal.

3. The combination with a pedal accelerator for internal combustion engines, of supplementary pneumatic depression-resisting means, embodying an element engageable by the pedal during the latter part of its throttle opening movement but permitting free initial and reverse movements of the pedal.

4. The combination with a pedal accelerator for internal combustion engines, of supplementary depression-resisting means, including a dash pot cylinder and an element engageable by the pedal during the latter part of its throttle opening movement but permitting free initial and reverse movements of the pedal.

JOHN J. MCGUCKIN.