J. J. RICHARDS.

CHOKE CONTROLLER.

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1,432,789.

Patented Oct. 24, 1922.

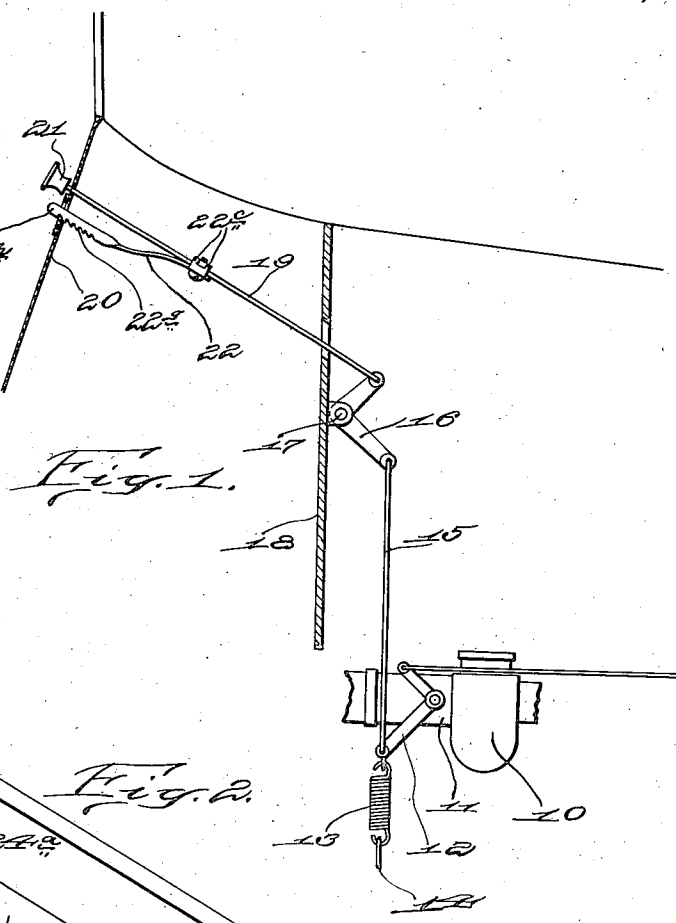


Fig. 1.

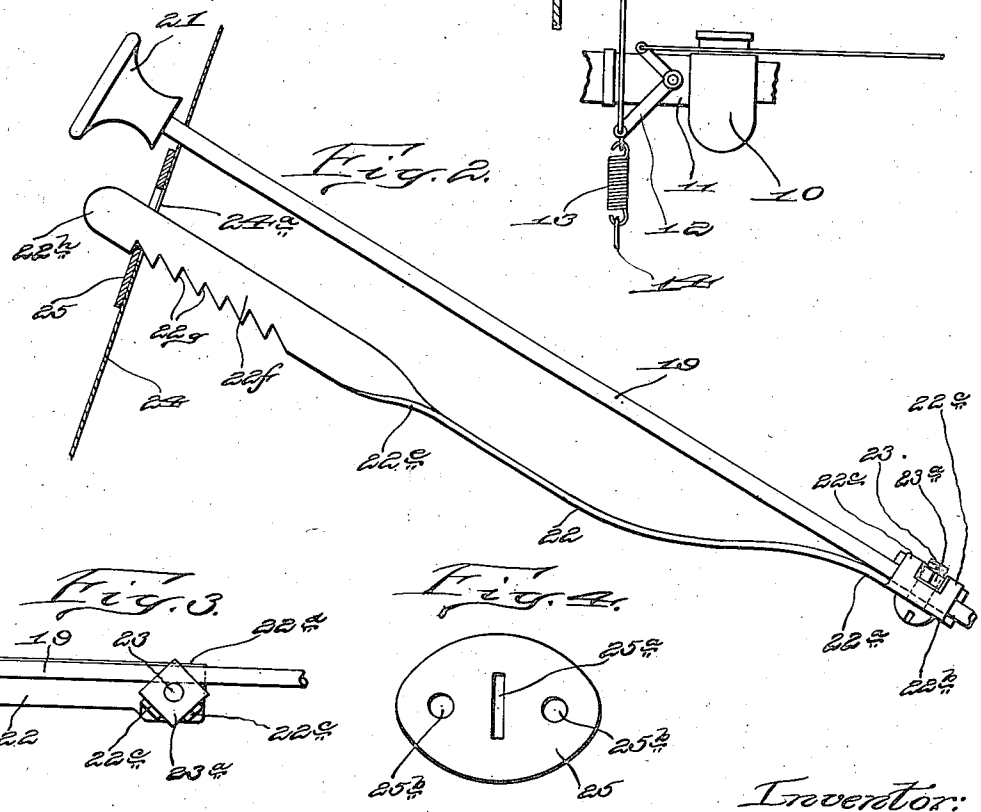


Fig. 2.

Fig. 3.

Fig. 4.

Inventor:
John J. Richards
by Clyde L. Rogers
his Atty.

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UNITED STATES PATENT OFFICE.

JOHN J. RICHARDS, OF BROOKLINE, MASSACHUSETTS.

CHOKE CONTROLLER.

Application filed April 18, 1922. Serial No. 555,266.

To all whom it may concern:

Be it known that I, JOHN J. RICHARDS, a citizen of the United States, and resident of Brookline, county of Norfolk, Commonwealth of Massachusetts, have invented an Improvement in Choke Controllers, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts in each of the several views.

This invention relates to devices associated with the choke or priming device for carbureters of internal combustion engines, and while having other and more general fields of usefulness is well adapted and designed for use in connection with the operating rod of the choke device in the current type of Ford automobile, to hold the choke valve open after it has been opened manually until it is desired to close the same, and being then instantly and easily releasable to permit the choke valve to be closed by the usual spring for this purpose. The principal object of the invention is to provide a device for this purpose constituted as a self-contained unit, adapted for bodily application to the usual operating rod of the choke device without any modification in the rod itself, and of a character to be quickly and easily applied to the instrument board of the machine without disfigurement thereof, and without taking any appreciable amount of room thereon. A further object is to provide a device of the kind stated exceedingly simple and inexpensive to produce and capable of being applied to the machine quickly and easily, without requiring any skilled labor. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description taken in connection with the accompanying drawings, and the distinctive features of novelty will be pointed out in the appended claims.

Referring to the drawings:

Figure 1 is a side elevation of a device embodying the invention applied to the choke valve rod, the dash board and instrument board of the machine being shown in section;

Figure 2 is a side elevation on a larger scale of the device applied to the choke valve rod, a portion of the instrument board being shown in section;

Figure 3 is a fragmentary plan view illustrating the manner of clamping the device to the choke rod; and

Figure 4 is an elevation of a plate constituting a part of the device and which is applied to the instrument board.

10 indicates the carbureter with a pipe connection 11, controlled by a choke valve having fixed thereto an operating arm 12. This arm is normally held in valve closing position by a tension spring 13, having a fixed anchorage 14, and operated by a pull rod 15 from a bell crank lever 16 pivoted at 17 to the dash board 18 of the machine. The other arm of the bell crank lever 16 is engaged by a pull rod 19, extending diagonally upward through the instrument board 20 of the machine with a knob or head 21 at its extremity constituting a hand piece by which the rod may be pulled to open the choke valve against the tension of the spring 13,—all this constituting the usual equipment of the current Ford car type. In accordance with my invention I provide a strip of spring metal 22, having an inner portion 22^a extending substantially flatwise of the rod 19, with a head 22^b at its extremity formed as a bracket adapted to co-operate with a short bolt 23 and nut 23^a thereon for clamping this head and thus the strip 22 fixedly to the rod 19. For this purpose the head 22^b is provided with an up-turned portion having spaced apart prongs 22^c adapted to engage the nut 23^a to prevent turning thereof, and the side of the head opposite this up-turned portion is provided with an up-turned lip 22^d, to provide a socket for the rod into which it is clamped by the engagement of the nut 23^a therewith. From this inner portion 22^a, the strip 22 extends outward and thence in substantial parallelism with the rod 19, outward to a point near the extremity thereof and through the instrument board 24 which is provided with a slot or hole 24^a to receive it. The outer portion of the strip is twisted a quarter turn as indicated at 22^e so that the end portion 22^f projecting through the instrument board is disposed substantially edgewise of the rod 19. This portion is equipped with notches 22^g which are adapted to engage selectively with the bottom of a slot 25^a of a plate 25, which is secured to the instrument board adjacent to, and as shown directly below the knob 21. These notches are of a saw-tooth form with their outer sides directly transverse of the strip and their inner sides

inclined whereby they are adapted to cause the strip 22 to yield and permit the choke rod to be drawn outward, but to serve as a positive stop to prevent return of the choke rod except as the strip 22 is tripped manually to release them. The extremity 22^h of the strip 22 is thus located in proximity to the knob 21, i. e. directly thereunder, in position so that after the choke rod is pulled out to open the choke valve, it may be released to move inward for closing the choke valve as required, by pressing upward on the extremity 22^h to release the one of the notches 22^g then engaged with the plate 25. Thus the choke rod is held out automatically as long as required after being pulled out by the operator, and may be released to move inward gradually if desired, the extent of the notches 22^g being such as to keep the movement of the choke rod under control at all times until it is moved fully inward to close the choke valve. It will be noted that the device thus constituted requires no modification or mutilation of any part of the machine for its application, except providing the small hole or slot 24^a in the instrument board, along with holes registering with holes 25^b in the plate 25 to receive screws for securing this plate in place. Further, that the device is a self-contained unit of exceedingly simple and inexpensive construction and is capable of being fitted in place for use in a very little time. I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

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

1. A device of the kind desired comprising a member adapted to be clamped to a choke rod, equipped with means for holding the choke rod in a selective adjusted position and for releasing the same at will.

2. A device of the kind described comprising a member equipped with means at its inner end for clamping to a choke rod, and having means at its outer portion for holding the choke rod in a selective adjusted position, said means adapted for tripping at will to release the choke rod.

3. A device of the kind described comprising a spring strip having its inner extremity equipped with a head having means for frictional clamping to a choke rod, and with its inner portion extending substantially flatwise of the choke rod, with an outer portion extending substantially edgewise of the choke rod and equipped with notches to engage a fixed abutment upon the instrument board.

4. A device of the kind described comprising a choke rod, and means constituted as a self-contained unit, frictionally clamping the choke rod and adapted to hold it in adjusted position until manually released.

In testimony whereof, I have signed my name to this specification.

JOHN J. RICHARDS.