H. STARKER.

ADJUSTING MECHANISM.

APPLICATION FILED AUG. 29, 1912.

1,216,745. Patented Feb. 20, 1917.

Fig. 1.

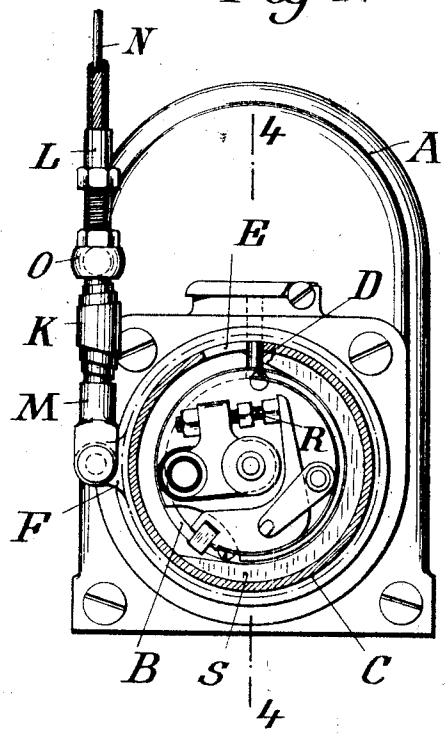
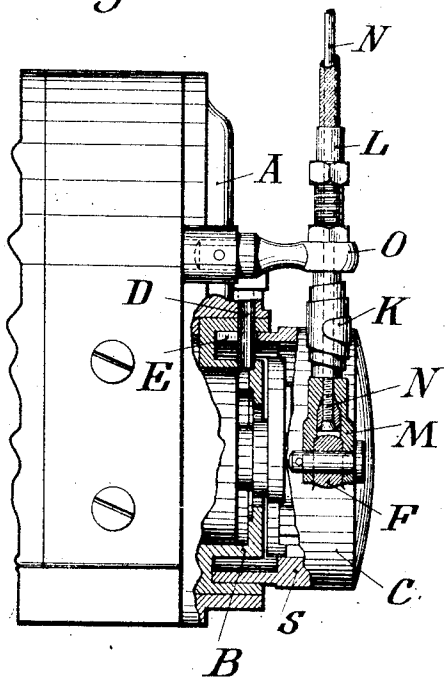


Fig. 2.



WITNESSES

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HEINRICH STARKER, OF STUTTGART, GERMANY, ASSIGNOR TO THE FIRM OF ROBERT BOSCH, OF STUTTGART, GERMANY.

ADJUSTING MECHANISM.

1,216,745. Specification of Letters Patent. **Patented Feb. 20, 1917.**

Application filed August 29, 1912. Serial No. 717,669.

To all whom it may concern:

Be it known that I, HEINRICH STARKER, a subject of the Emperor of Germany, residing at Senefelderstrasse 76, Stuggart, Germany, have invented certain new and useful Improvements in Adjusting Mechanism; 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.

The object of the present invention is to provide adjusting mechanisms embodying a transmitting connection attached to the device to be adjusted for pulling the device toward one limit of its angular movement, and also embodying a spring constantly tending to force the device toward its other limit of angular movement, the particular form of spring used serving also to form a substantially dust and water tight joint around the connection between the device to be adjusted and the transmitting connection. The adjusting mechanism herein disclosed is particularly well adapted for association with the mechanical interrupter of electrical ignition systems for motor cycles and the like wherein the cam ring of the interrupter may be adjusted to fully advanced position of ignition by the operator pulling on the transmitting connection and latching the transmitting connection to maintain the period of ignition at this time point, while the engine is running, and wherein the spring turns the cam ring to its fully retarded position of ignition suitable for starting the engine when the latch is released by the operator.

In the accompanying drawings, illustrating the preferred form of my invention in application to the cam ring of a mechanical interrupter, as an example, Figure 1 represents the front of a mechanical interrupter with its rotatable member mounted on the shaft of an ignition current machine; and Fig. 2 represents a side elevation partly in section on line 4—4 of Fig. 1.

The interrupter housing B is fastened to the front of the ignition current machine A. The cam ring C is inserted in the housing so as to readily turn therein, and a stop D, preferably in the form of a lubricating conduit, passes through a slot E in the cam ring and thereby limits the adjustment of the latter in both directions. The usual form of adjusting lever F is provided and any suitable transmitting connection, flexible or otherwise, but preferably comprising flexible wire N, capable of following a circuitous path, may be fastened to the adjusting lever and also to the usual form of latch in convenient position for operation. The mechanical interrupter shown is of the usual form, having the circuit interrupting elements R mounted on an interrupter disk which is fastened on the shaft of the ignition current machine and the normally stationary deflecting cams S adapted to periodically coöperate with the elements R to interrupt the circuit of the ignition current machine at the adjusted time point of ignition, for the purpose of generating sparking voltages therein.

A fork M is linked to the adjusting lever F, and in this fork the wire N is secured by means of a conical clamping device of the well known kind. The bracket O forming an abutment fixed in position relatively to the cam ring C is fastened to the ignition current machine, and a guide sleeve L is screwed into the abutment to form a guiding socket for the wire N, which passes therethrough. The spring K is of the well known bifurcated spiral type and extends around the wire N from the abutment O to the fork M. This spring not only constantly tends to force the cam ring C to one extreme position of its angular movement, corresponding to the fully retarded time point of ignition, as determined by the stop D in the slot E, but it also maintains such a tight fit around the fork M and the abutment O as to form a substantially dust and water tight joint between the wire N and the adjusting lever F. When the operator pulls on the wire N, the cam ring C is turned toward its other extreme position corresponding to fully advanced time point of ignition. The wire N may be latched in this position, or in any other position of adjustment by any suitable device, the spring K constantly tending to force the cam ring from this position to its other limit, corresponding to the fully retarded time point of ignition.

Having thus described my invention, what I claim is:

1. In a device of the kind described, the combination with a support and an angularly adjustable device on the support, of

adjusting mechanism for the device operable from a distant point and including a wire-like flexible metallic actuator attached at one end to said device, and a housing for the actuator to protect the actuator against dust and rust, said housing including an abutment on said support, a flexible sheath above the abutment, and a flexible universally resilient sheath between the abutment and the device, the housing being closed dust-tight between the device and a point beyond the abutment, and the actuator being lengthwisely movable relatively to the housing; substantially as described.

2. In a device of the kind described, the combination with a support and an angularly adjustable device on the support, of adjusting mechanism for the device operable from a distant point and including a pivoted abutment on the device and a wire-like flexible metallic actuator attached at one end to said pivoted abutment, and a housing for the actuator to protect the actuator against dust and rust, said housing including a fixed abutment on said support, a flexible sheath above the fixed abutment, and a flexible universally resilient sheath between the fixed abutment and the pivoted abutment, the housing being closed dust-tight between the pivoted abutment and a point beyond the fixed abutment, and the actuator being lengthwisely movable relatively to the housing; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HEINRICH STARKER.

Witnesses:
GUSTAV MAIER,
WALTHER STEINCKE.