

May 9, 1933.

W. WALTHER

1,908,274

MAKE AND BREAK DEVICE FOR ELECTRIC IGNITION APPARATUS

Filed Dec. 26, 1930

Fig. 1.

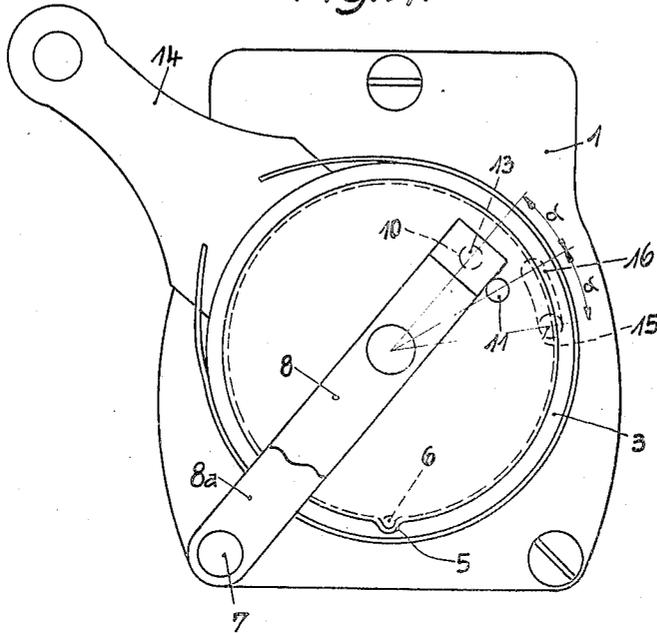
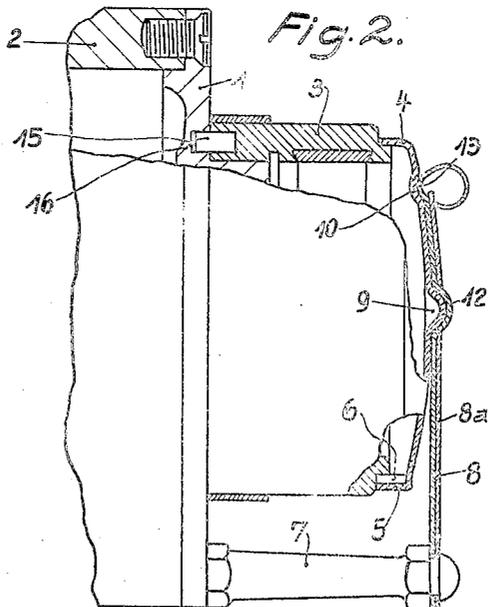


Fig. 2.



Inventor
Wilhelm Walther
by Steward & McKing
his attorneys

UNITED STATES PATENT OFFICE

WILHELM WALTHER, OF STUTTGART, GERMANY, ASSIGNOR TO ROBERT BOSCH
AKTIENGESELLSCHAFT, OF STUTTGART, GERMANY

MAKE AND BREAK DEVICE FOR ELECTRIC IGNITION APPARATUS

Application filed December 26, 1930, Serial No. 504,937, and in Germany January 3, 1930.

The present invention relates to electrical make and break devices and more particularly to a stop device for adjustable non-rotating cam rings for the same.

5 In all known cases in which the adjusting rod cannot be mounted on the adjustable lever of the make and break device, care must be taken that the adjustable cam ring cannot be displaced by shocks from the position in which it has been adjusted. The lever of the make and break device is generally secured in its position by screws, pegs and the like in order to obtain this effect. In order to change the adjustment of the make and break device the tightening band has to be loosened when the lever is for example secured by such and the cam ring must be adjusted under the tightening band, this latter being tightened again. This procedure necessitates new parts and a constructional alteration in the apparatus. Adjustment by directly grasping the cam ring by hand is troublesome and inconvenient.

25 The object of the present invention is to overcome these disadvantages and accordingly a leaf spring is provided which has the dual function of forcing the cam ring together with the cover against the casing and at the same time secures the cam ring in a predetermined position against rotation.

30 The invention is more particularly described with reference to the accompanying drawing which shows one form of construction of the invention by way of example and in which:—

Figure 1 is a partial section of a cam ring having a cover and a retaining spring.

Figure 2 is a sectional elevation.

40 A cam ring 3 is adjustably mounted on a base plate 1 of the make and break device which is secured to a part 2 of an electric ignition apparatus. The make and break device has a cover 4 from the edge of which a nosepiece 5 is pressed out, by which the cover is adapted to engage with a pin 6 in the cam ring, the cover being mounted on the cam ring. When cam ring 3 rotates, cover 4 is carried along by reason of the nosepiece—pin connection 5, 6 between these parts.

50 The cover 4 is forced against the cam ring

3 and the latter is forced against the base plate 1 by means of a leaf spring 8 rotatably secured to a bolt or pin 7, a strengthening spring 8a being laid on the leaf spring 8. A boss 9 is pressed outwards in the centre of the cover, whilst two recesses 10 and 11 are also pressed inwards of the cover about a radius having as its centre the boss 9.

The bosses 10 and 11 are disposed at a distance corresponding to the angle of adjustment of the make and break device.

The leaf spring 8 is provided intermediate its ends and on one side with a recess 12 into which the boss 9 of the cover projects and also at the end and on the other side with a nose-piece 13 which is adapted to engage in the recesses 10 and 11 of the cover 3.

In order to adjust the make and break device the adjusting lever 14 is rotated until the nosepiece 13 of the leaf spring springs into the recess 11 and for this purpose the cam ring 3 is provided with a peg 15 which projects into a slot 16 of the base plate and restricts the range of adjustment of the cam ring.

I claim:

1. A make and break device for an electric ignition apparatus comprising a cam ring adapted to be adjustably mounted on a base plate of the ignition apparatus, a cover for said cam ring, a leaf spring adapted to press the cover against said ring and the ring against said base plate, portions of said cover pressed out of the plane of the cover to form recesses, and a nose piece on said leaf spring adapted for engagement with said pressed out portions of said cover thereby preventing rotation of said ring from a predetermined position.

2. A make and break device for an electric ignition apparatus comprising a cam ring adapted to be adjustably mounted on a base plate of the ignition apparatus, a cover for said cam ring, a leaf spring adapted to press the cover against said ring and the ring against said base plate, two portions of said cover which are pressed out of the plane of the cover and are spaced apart by an arc subtending an angle equal to the angle of adjustment of the make and break device, and a nose

piece on said leaf spring adapted for engagement with said pressed out portions of said cover thereby preventing rotation of said ring from a predetermined position.

5 3. A make and break device for an electric ignition apparatus comprising a cam ring adapted to be adjustably mounted on a base plate of the ignition apparatus, a cover for
10 said cam ring, a peg on said cover engaging said cam ring and preventing relative rotation between the two, a leaf spring adapted to
15 press the cover against said ring and the ring against said base plate, and interengaging means between said leaf spring and said cover preventing rotation of said ring from a pre-

20 4. A make and break device for electric ignition apparatus comprising, in combination, a cam ring adapted to be adjustably mounted on a base plate of the apparatus, a cover for
25 said cam ring, resilient means adapted to press the cover against said ring and the ring against said base plate, and inter-engaging means between said resilient means and said cover preventing rotation of said ring from a predetermined position.

In testimony whereof I have hereunto affixed my signature.

WILHELM WALTHER.

30

35

40

45

50

55

60

65