Nov. 6, 1934. E. A. BARNETT 1,979,523

AUTOMOBILE MECHANISM

Filed Sept. 14, 1931

Fig. 1.

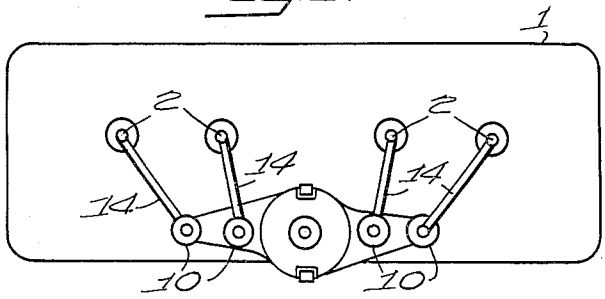
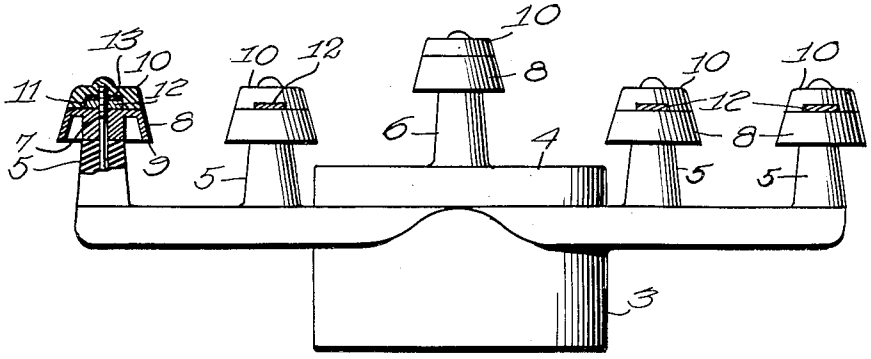


Fig. 2.



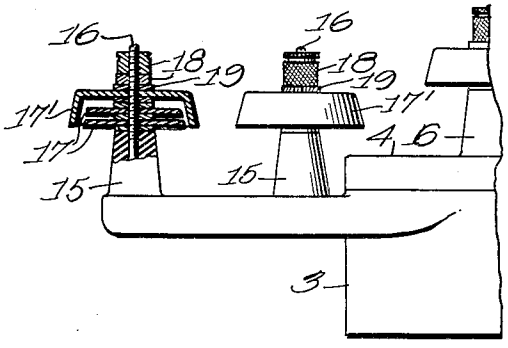


Fig. 3.

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Patented Nov. 6, 1934

1,979,523

UNITED STATES PATENT OFFICE

1,979,523

AUTOMOBILE MECHANISM

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Application September 14, 1931, Serial No. 562,816

1 Claim. (Cl. 123—143)

My invention relates to improvements in automobile mechanism, and the improvements are directed particularly to the spark plugs and distributer which co-operate in the operation of the motor or engine.

In the present construction of spark plugs and distributers with their electric connections or circuits, there is no provision made to prevent the access of water or dampness to the contacts between the plugs and distributer, which defect causes the contacts to refuse to function and naturally prevents the proper operation of the motor.

The main object of my invention is to overcome this serious defect or objection and to provide the contacts of the spark plugs with means which will positively prevent moisture or dampness from touching said contacts and thus insure the proper functioning of the motor under all conditions of weather.

Another object of my invention is the provision of means which can be applied to structures in general use or at the time of manufacture and which will perform their function in a reliable and satisfactory manner.

Another object of my invention is the provision of means to protect the contacts between the spark plugs and distributer from the entrance of moisture, which can be supplied at a very small cost, which will be simple, strong and durable in construction and which will prove desirable and practical in every particular.

With these objects in view my invention consists of means of the character and for the purpose stated embodying novel features of construction and combination of parts, substantially as described and claimed, and as shown in the accompanying drawing, in which:

Figure 1 represents a top plan view of an engine block and distributer with circuit connections showing my invention in combination therewith.

Figure 2 represents a side view of a distributer on an enlarged scale with one of the posts which carry the contacts shown broken away to show my protecting means for the contacts, and

Figure 3 represents a side view of a part of the distributer with a post broken away and provided with a modified form of protecting means for the contact.

In carrying my invention into effect the engine block 1, is provided with the four spark plugs 2, and the distributer casing or housing 3, is provided with the head 4, formed with or having the series of posts 5, and with the central or intermediate post 6, the latter being the feed or high resistance post.

The spark plugs and the series of posts of the distributer head are all provided with the identical protecting means which as shown in Figure 2, comprise the threaded stem 7, which fits the posts or spark plug, the lower cap 8, with conical or flaring rim 9, and the surmounting crown 10, with chamber or pocket 11, to receive the lower washer 12, and contact 13, and the contacts 13 are at each end of the wires or connections 14, between the spark plugs and the posts of the distributer.

In the modified form of my invention shown in Figure 3, the distributer head is provided with the posts 15, in which are fitted the threaded stems 16, upon which is placed the series of washers 17, of different sizes, surmounted by the protecting hood or cover 17', with the pair of nuts 18, above said hood and acting to retain the contacts 19, in place, and this form of my invention operates in a manner similar to the form shown in Figure 2.

In the operation of my invention it will be understood that the distributer and spark plugs are connected in proper relation and that the current is fed through the high resistance to the four contacts of the distributer and hence to the spark plugs to effect the explosion in the cylinders of the motor, and it will be apparent that my invention affords a perfect protection to all contacts between the spark plugs and distributer and prevents any moisture from access to said contacts and thus insures the proper action of the motor under all conditions of weather.

I claim:

In a mechanism of the character and for the purpose described, the combination with a series of spark plugs and a series of posts upon a distributer head, stems mounted in said spark plugs and posts of said distributer head, and protecting means mounted on said stems, and connections from all of said stems of the posts and spark plugs, said protecting means comprising a flaring cap, and a crown member having a pocket to receive a washer and a recess in its lower edge to admit the end of the connecting contact members.

EDWARD A. BARNETT.