Sept. 20, 1949. E. A. CALL 2,482,703

AVIATION SPARK PLUG ADJUSTING TOOL

Filed Sept. 26, 1946

Fig. 1.

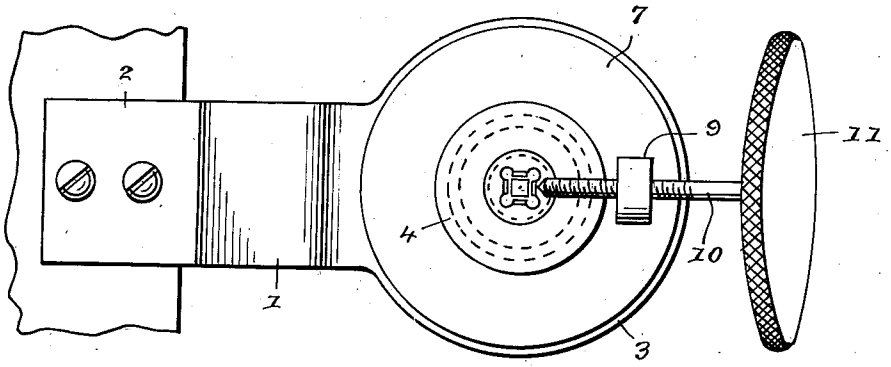
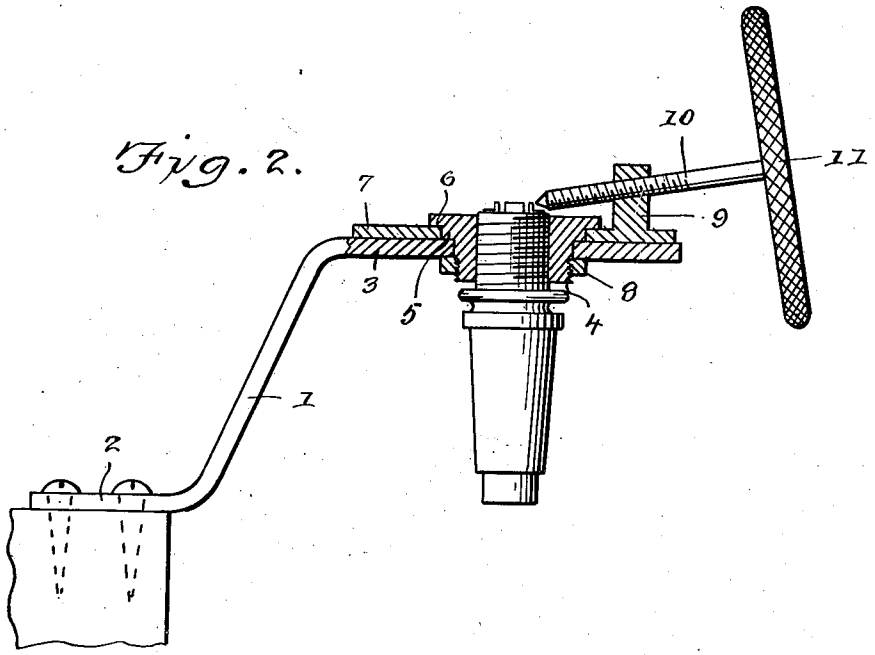


Fig. 2.



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Patented Sept. 20, 1949

2,482,703

UNITED STATES PATENT OFFICE

2,482,703

AVIATION SPARK PLUG ADJUSTING TOOL

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Application September 26, 1946, Serial No. 699,395

4 Claims. (Cl. 153—53)

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This invention relates to tools, and more particularly to the provision of a tool for adjusting 4-way electrodes on aviation spark plugs.

The adjusting of the electrodes of spark plugs on aviation engines is a tedious job and must be carefully performed. In large aviation motors having as many as 28 or 30 spark plugs, considerable time is required in adjusting.

It is, therefore, an object of this invention to provide a tool by means of which spark plug electrodes in aviation motors can be quickly and accurately adjusted.

A further object is to provide a tool which can be quickly moved to the four positions necessary to adjust the four electrodes of spark plugs used in aviation motors, which tool also enables close adjustment.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a plan view of a tool embodying the invention.

Fig. 2 is an elevational view of the tool.

Referring to the drawings, the adjusting tool is shown to comprise a body 1 made of steel or other metal, said body having a bent portion 2 with holes to enable it to be secured by screws to a bench or the portion 2 can be placed in a vise or the like. The other end of the body 1 has a plate 3, preferably circular, with a circular hole in the center thereof.

Positioned in the hole is a threaded bushing 4 having two flanges 5 and 6. Flange 5 rests directly on the plate 3, while flange 6 rests on a washer 7 positioned on plate 3. A hexagonal nut 8 or the like threadedly engages the bushing 4 to clamp the parts together. However, the nut does not prevent free rotation of the washer 7, as there is sufficient play between the flange 6 and the plate 3 to allow the washer to rotate freely.

Integral with or fixed to the washer 7 is a block 9 having an inclined threaded aperture, through which passes a threaded rod 10, having a knurled knob 11.

In assembling, the bushing 4 is passed through the hole in plate 3 and fastened firmly to plate 3 by the nut 8, the washer 7 being free to rotate. To use the tool, a spark plug is screwed into the bushing 4 from the bottom. The washer 7 is then turned to the positions necessary to adjust the four electrodes. Placing a feeler gauge in the plug gap, the adjusting rod 10 is turned in enough to close the plug gap to the proper clearance.

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It will be seen that there has been provided a tool which enables rapid and accurate adjustment of electrodes of spark plugs on aviation motors.

The above description is to be considered as illustrative and not limitative of the invention of which modifications can be made without departing from the spirit and scope of the invention as set forth in the appended claims.

The invention having been described, what is claimed is:

1. In a tool for adjusting spark plug electrodes, a body having a plate with a central hole, a threaded bushing positioned in the hole, said bushing having its threaded portion extending below said plate, and having a flange engaging the upper surface of said plate, a nut threadedly engaging the bushing to hold the bushing to the plate, a washer positioned on the plate and surrounding the bushing, a block on the washer, said block having a threaded aperture, a threaded adjusting rod passing through the aperture, and a second flange on the bushing above the washer.

2. In a tool for adjusting spark plug electrodes, a body including a plate with a hole, a threaded bushing positioned in the hole, said bushing having its threaded portion extending below said plate, and having a flange engaging the upper surface of said plate, a nut threadedly engaging the bushing to clamp the bushing to the plate, a rotatable washer provided on the plate and surrounding the bushing, and a threaded adjusting rod supported by the washer.

3. The structure set forth in claim 2 further characterized by a block with a threaded aperture on the washer to threadedly receive the adjusting rod, said rod having attached thereto a knurled knob.

4. A tool for adjusting spark plug electrodes, comprising a body, means on said body for attaching the tool to a support, said body having a plate provided with an aperture, a threaded bushing positioned in said aperture, said bushing extending below said plate and having its threaded portion adapted for engagement with a nut, said bushing being provided with a flange engaging said plate on the upper surface thereof, a washer positioned on said plate and surrounding said bushing, said bushing being provided with a second flange above said washer for engaging said washer and holding it in place with reference to said plate, said washer being formed with a block thereon, said block being provided with a threaded aperture, a threaded adjusting rod passing through said aperture in said block, and a nut

screw-threadedly engaged with said bushing at the threaded portion thereof below said plate, said nut serving to clamp the bushing to the plate whereby said adjusting tool is maintained in operative relationship.

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REFERENCES CITED

The following references are of record in the file of this patent:

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