UNITED STATES PATENT OFFICE.

MICHAEL KEATING, OF DAYTON, OHIO.

VALVE-PLUG REMOVER.

1,380,562.


Application filed September 13, 1889. Serial No. 429,561.

To all whom it may concern:

Be it known that I, MICHAEL KEATING, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Valve-Plug Removers, of which the following is a specification.

The principal object of my invention is to provide a device that may be employed readily and successfully with a wrench, to remove a recessed valve plug or similar device from an explosive engine or other structure. It may be cheaply and simply constructed, and is adapted for convenient use by automobile drivers and garage workers.

The preferred form of embodiment of my invention is illustrated in the accompanying drawings, of which Figure 1 is a perspective view of my device. Fig. 2 is a top plan view of the latter in the grip of the jaws of a wrench. Fig. 3 is a perspective view of the device fitted into the top portion of a valve plug. Fig. 4 is a bottom plan view of my device. And Fig. 5 is a top plan view of the valve plug into which the device fits.

Throughout the specification and drawings, similar reference characters denote corresponding parts.

Referring to the accompanying drawings, my valve-plug remover comprises a casting having an annular shoulder 1, on one side of which there is a cubical projection 2 adapted to be gripped by a wrench 3, and on the other side of which there is a cylindrical projection 4 adapted to enter the bore 5 in a valve plug 6 or other part. (See Figs. 1 and 2.)

Projecting outwardly from the cylindrical portion 4 of the casting, along the bottom portion of the annular shoulder 1 to the outer periphery thereof, is a series of radial ribs or lugs 7, 7, adapted to fit into radial recesses 8, 8, provided in the top flange portion 9 of the valve plug 6. (See Figs. 3, 4 and 5.)

When it is desired to unscrew the valve plug 6 from its socket (not shown), the cylindrical portion of the casting is inserted in the bore of the plug 6 a sufficient distance to bring the ribs 7, 7 within the recesses 8, 8 of the plug, after which a wrench is applied to the cubical end 2 of the casting and the latter rotated by it until the plug is removed. This is found to be a much more convenient way of removing the plug 6 than by turning it with a metal plate or other piece inserted in the recesses 8, 8.

After the valve plug 6 has been removed by my device, the latter may be employed with equal facility to re-insert the plug.

Having described my invention, I claim:

A device of the type described comprising a member having a middle shoulder portion, a projection adapted to be gripped by a wrench on one side of said shoulder portion, a cylindrical projection on the other side of said shoulder portion, and lugs projecting outwardly from said shoulder portion along the cylindrical projection a distance less than the distance between said shoulder portion and the outer edge of the cylindrical projection.

In testimony whereof I have hereunto set my hand this 11th day of September, 1920.

MICHAEL KEATING.

Witness: HOWARD S. SMITH.