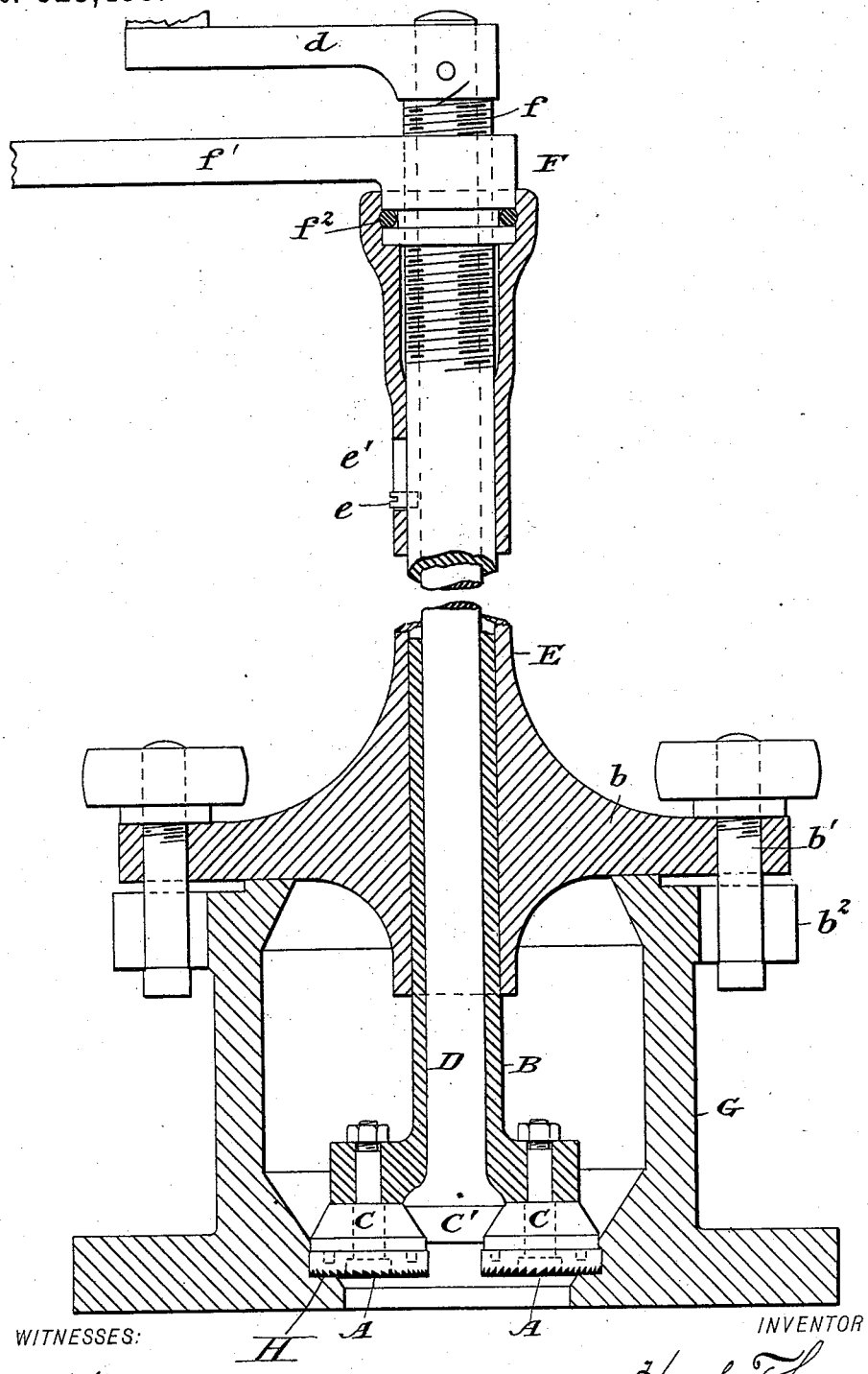
(No Model.)

H. THOMSON.

TOOL FOR CUTTING RECESSES ON THE INSIDE OF FIRE PLUG CASINGS.

No. 523,493. Patented July 24, 1894.



WITNESSES:

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HUGH THOMSON, OF KEW, VICTORIA.

TOOL FOR CUTTING RECESSES ON THE INSIDE OF FIRE-PLUG CASINGS.

SPECIFICATION forming part of Letters Patent No. 523,493, dated July 24, 1894.

Application filed March 9, 1894. Serial No. 503,059. (No model.)

To all whom it may concern:

Be it known that I, HUGH THOMSON, tanner, a subject of the Queen of Great Britain and Ireland, and a resident of Thornton, Studley Park Road, Kew, near Melbourne, in the British Colony of Victoria, have invented an Improved Tool for Cutting Recesses on the Inside of Fire-Plug Casings, of which the following is a specification.

This improved tool has been devised for the purpose of enabling recesses to be quickly and easily cut on the inside of fire-plug casings, principally for the purpose of providing a support for the valve. It is especially useful in cases where (as described in the specification accompanying an application filed by me on the 9th day of March, 1894, Serial No. 503,058) notches or recesses are required in the lower part of the inside of such casing to form a support for a cage in which the valve works.

It consists essentially of one or more rotating cutters mounted upon the lower end of a support and adapted to be driven through the medium of suitable gearing by means of a handle at the upper end of the tool. These cutters are preferably four in number and means are provided for adjusting them vertically so that they can be fed downward to the required depth.

The accompanying drawing is a vertical, central section of my improved tool for cutting recesses on the inside of fire plug casings to enable valves to be fitted therein.

A—A represent the rotating cutters which are mounted on the lower end of a sleeve or support B. Rotary motion is imparted to these cutters by bevel gearing C—C′ from a spindle D passing down through the center of the sleeve B, which latter is capable of being moved up and down within an outer fixed sleeve E by means of a screw-threaded nut F working upon a correspondingly threaded part *f* of said sleeve and having a handle *f′* whereby it may be rotated. This nut is prevented from moving vertically by pins f^2 passing through a groove therein and extending into the outer sleeve E while the movement of the sleeve B is stopped at a certain point by a stud *e* working within a slot *e′* in the outer sleeve E.

The upper end of the spindle D is fitted with a handle *d* whereby it can be conveniently rotated and the outer fixed sleeve or support E is provided with projecting arms *b* at its lower end, through which pass holding down bolts *b′* whose lower ends can be passed through and then turned into engagement with the usual lugs b^2 on the fire-plug casing G.

In order to use my improved tool for cutting recesses on the inside of fire-plug casings, as for instance, to enable valves to be fitted therein, it is merely necessary to remove the cover of such casing and to secure the tool centrally upon said casing by means of the holding down bolts *b′*, as just described. The spindle D is then rotated by means of the handle *d* so as to cause the cutters A to revolve and the sleeve B is fed downward by means of the nut F so as to keep the rotating cutters A against their work. When the stud or stop pin *e* is at the bottom of the slot *e′* the recesses H on the inside of the fire-plug casing G will have been cut to the required depth the pin *e* and its slot *e′* acting as a gage and being arranged to suit the depth of recesses required.

It will be readily understood that with a tool such as I have described recesses or notches can be cut on the inside of the casings of fire-plugs at a trifling expense and without having to remove each one.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a tool of the kind described the combination of the longitudinally adjustable tubular sleeve, the cutters journaled on the lower end thereof, and the driving spindle located within said hollow sleeve and having operating connections to said cutters, substantially as described.

2. In combination, the longitudinally adjustable sleeve, having an enlarged lower end, a plurality of cutters journaled in said lower end and carrying gears C, and a driving spindle journaled in said sleeve and having a gear C′ engaging said gears C, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HUGH THOMSON.

Witnesses:
EDWARD WATERS,
WALTER SMYTHE BAYSTON.