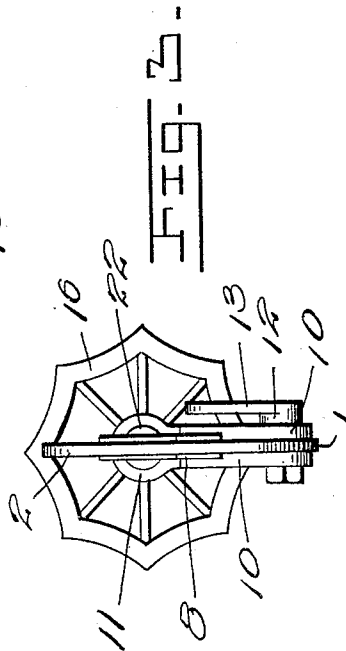
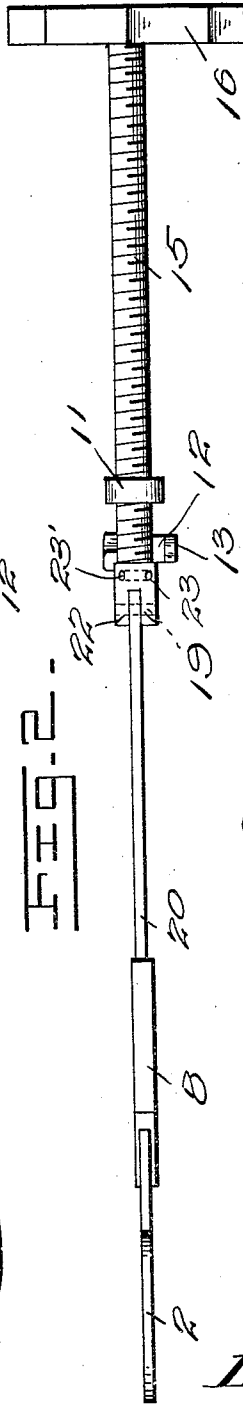
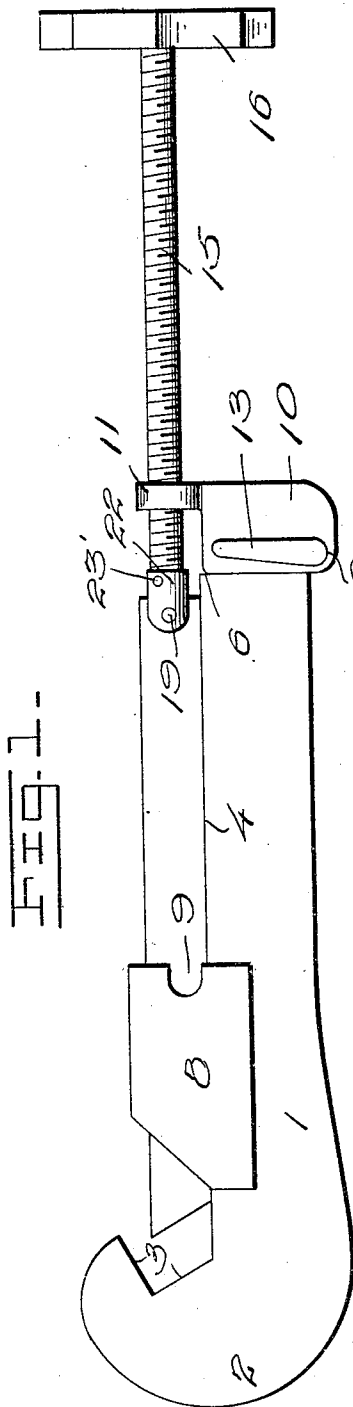


L. J. MATZNER.
CUTTING-OFF TOOL.
APPLICATION FILED AUG. 31, 1909.

955,466.

Patented Apr. 19, 1910.

2 SHEETS—SHEET 1.



Witnesses
M. L. Lorr.

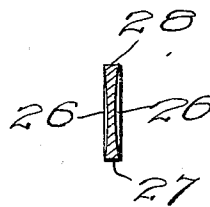
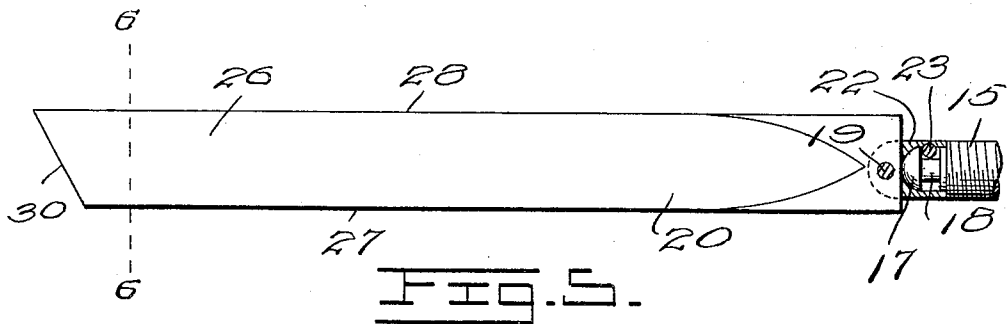
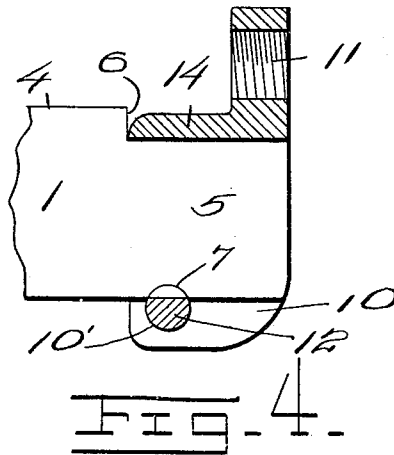
Inventor
L. J. Matzner,
By Woodward & Chandler
Attorneys

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS J. MATZNER, OF STICKNEY, SOUTH DAKOTA.

CUTTING-OFF TOOL.

955,466.

Specification of Letters Patent.

Patented Apr. 19, 1910.

Application filed August 31, 1909. Serial No. 515,398.

To all whom it may concern:

Be it known that I, LOUIS J. MATZNER, a citizen of the United States, residing at Stickney, in the county of Aurora and State of South Dakota, have invented certain new and useful Improvements in Cutting-Off Tools, of which the following is a specification.

This invention has relation to certain new and useful improvements in cutting-off tools.

The object of my invention is to provide a simply constructed positively operating cutting-off tool, especially arranged to be used in connection with engine lathes.

A further object is to provide a cutting-off tool, that will cut any length of shaft between the lathe centers, without a chuck or steady rest.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claim, it being understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows a side elevational view of a cutting-off tool embodying my invention. Fig. 2 is a top view. Fig. 3 is an end view. Fig. 4 shows a central sectional enlarged detail of the slotted holder. Fig. 5 shows a detached detail of the cutting blade. Fig. 6 shows a sectional view on line 6-6 of Fig. 5.

In cutting-off tools it is desirable to have the instrumentalities so arranged, that the cutting blade can be readily removed to be sharpened, and permitting a new blade to be attached.

In carrying out the aim of my invention I employ a carrier plate 1 of a suitable length ending in the beak hook 2, presenting the two flat bearing surfaces 3, extending at right angles. Secured near the beak end of this carrier plate 1, is the yoke 8, presenting a forward oblique surface, while the rear end is provided with the socket 9. The straight edge 4, of the plate, serves as a bearing surface, for a suitable cutting-off blade. Extending from the rear end of the carrier

plate, is the reduced extension 5 forming the stop shoulder 6, this extension along its lower edge being provided with the cam seat 7 as clearly disclosed.

Slidably held to the upper straight edge 4 of the carrier plate, is the cutting blade 20, having the forward oblique edge 30. As shown in Fig. 6, this cutting blade 20 is in the form of a quadrilateral having its upper and lower edges parallel, the sides converging toward the lower shorter edge 27. The sides are further concaved from the upper edge 28 and the lower edge 27, so as to provide an escape for the shavings, as is usual in cutting tools of this character. This cutting blade is provided with a pin opening near its shank end carrying the pin 19 arranged to be held within the apertured and forked end of the collar 22, this collar being provided with a socket and the pin opening. Held within the pin opening, is the pin 23.

Secured to the reduced end of the carrier plate, is a forked holder, comprising the two similar members 10 having cam openings arranged to receive the cam 12 provided with the operating stem or handle 13. The main body portion 14 of this holder is stopped against the shoulder 6, and extending from this body portion is the threaded ear 11 in alinement with said collar 12 as clearly disclosed in Fig. 4. This holder is secured to the reduced end 5 of the carrier plate by means of the cam 12 riding into the cam seat 7, so that this holder is removably secured to the carrier.

Revolubly held within the ear 11, is the adjusting screw 15 having the operating wheel 16, this screw at its forward end being provided with the rounded termination 17, adjacent to which is provided the groove 18. This operating screw 15 is threaded within the ear 11 and is advanced so that the termination 17 glides into the socket 22. The pin 23' is then introduced into the pin opening of the collar, and in its seated condition is held within the groove 18, so that this operating screw 15 is revolubly connected to the collar 22.

The operation of my device is very simple. When it is desired to use this tool in cutting a rod or pipe, the carrier is connected to the rod or pipe by means of its beak end 1 when the screw 15 is rotated to carry the cutting blade 20 forward. The forward oblique edge 30 of the cutting blade 20 extends at the same angle as does the lowermost flat

bearing surface 3, the blade 20 being arranged to be stopped against the lower surface 3 in its forward position. When it is desired to sharpen the blade 20, the operator simply reverses the cam 12 permitting the holder being removed from the reduced end of the carrier, so that the blade can be sharpened.

The tool is simple and inexpensive in construction, and both durable and efficient in operation, and the adjustment can be made with ease, accuracy, and despatch.

Having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:

The herein described cutting-off tool, comprising a carrier plate having a beak hook at one end and a reduced extension at the other to form a stop shoulder, one edge serving as a bearing surface, of a yoke extending from the bearing edge of said plate near said beak hook, a cutting blade slidably held upon said

bearing edge and in engagement with said yoke carrying a pin near its shank end, a collar having one end forked and apertured to receive said tool end and pin, said collar having a socket traversed by a pin, a forked holder having a cam opening secured upon said reduced extension with a threaded ear in alinement with said collar, an adjusting screw in said ear having a grooved end held in said collar in engagement with said collar pin, said reduced extension having a cam seat within its lower edge, and a cam with an integral operating stem within said cam opening of said forked holder for coöperation with the cam seat of said reduced extension.

In testimony whereof I affix my signature, in presence of two witnesses.

LOUIS J. MATZNER.

Witnesses:

H. D. SPRICK,

B. V. CARBER.