

G. JOHANSEN.
TOOL HOLDER.

APPLICATION FILED MAY 14, 1910.

995,679.

Patented June 20, 1911.

Fig. 1.

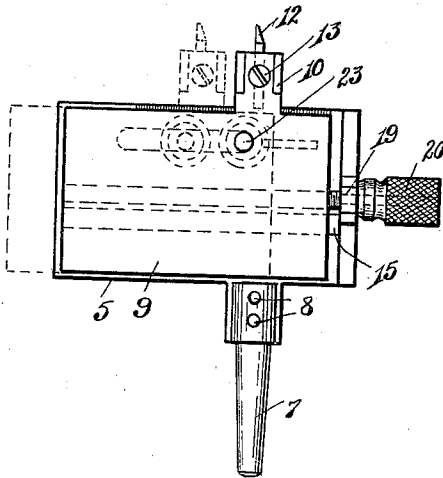


Fig. 2.

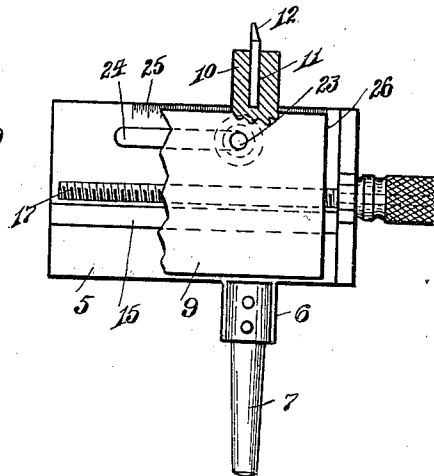


Fig. 3.

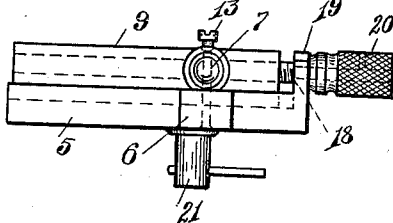
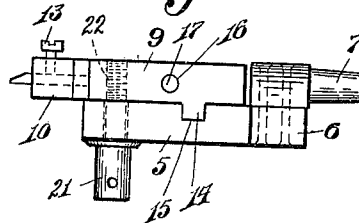


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

GUSTAV JOHANSEN, OF RIVER PARK, INDIANA.

TOOL-HOLDER.

995,679.

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To all whom it may concern:

Be it known that I, GUSTAV JOHANSEN, a subject of the King of Sweden, residing at River Park, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification.

This invention relates to tool holders for use in connection with jewelers' lathes, and is particularly adapted for cutting spokes or openings in watch plates for the reception of jewels, and may also be used in other connections where it is desired to cut openings or sockets in metal to an exact size, or for various other purposes requiring a tool holder which is adjustable with relation to the object operated upon.

A further object of the invention resides in the provision of means whereby the tool carrying head may be adjusted and firmly clamped against accidental movement, whereby exact duplication of operation may be obtained upon many different parts.

Another object of the invention resides in the provision of means whereby the movement of the tool carrying head may be accurately gaged as it is adjusted during the cutting operation, so that the diameter of the socket or opening may be readily determined without measuring the socket or opening, thus permitting the adjustment to be made with precision and rapidity.

With these and other objects in view, the present invention consists in the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims, it being understood that changes may be made in the minor details without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings which show the preferred embodiment of my invention: Figure 1 is a top or plan view of my invention. Fig. 2 is a top or plan view partly in section. Fig. 3 is a side view thereof, and Fig. 4 is an end view.

Referring now more particularly to the accompanying drawings, the base 5 is preferably made flat and rectangular in form and having a lateral extension 6, to which a tapered stem or shank 7 is fixedly secured in any suitable manner, preferably by means of rivets, as indicated at 8, said stem being adapted for attachment of the device to the

tail stock of a lathe in the customary manner.

Slidably disposed upon the base member 5 is a tool carrier 9, having an extension 10 in which a socket 11 is formed to receive the cutting tool 12, which tool is fastened therein by a set screw 13. The carrier has a tongue 14 extending from end to end and integrally formed therewith on its under side, which engages a groove or channel 15 in the upper side of the base, and serves to hold the carrier in perfect alinement with the base and against lateral movement as it is fed or adjusted with relation to the work operated upon by the tool. The carrier has a threaded bore 16, extending through the center and longitudinally thereof, to receive an adjusting screw 17. The said screw has a reduced end to form a shoulder, as at 18, such end being passed through an aperture in a vertically extending arm 19 on the base, the shoulder holding the screw against longitudinal movement in one direction and a turning head 20, which is mounted on the end thereof with its inner end adjoining the arm, preventing longitudinal movement in the opposite direction, and thus rotatably confining the screw, and upon rotation of which the tool carrier will be traversed upon the base, which remains stationary.

In order to hold the carrier firmly in contact with the base, and lock same against the slightest movement, so exact duplication may be obtained upon many different parts, a clamping member consisting of a head 21, and a shank portion 22, which is threaded from a point near its middle to the end thereof, engages a threaded aperture 23, in the carrier, the intermediate portion passing through an elongated slot 24 in the base, so that upon turning the head the carrier and the base will be drawn into tight frictional contact and thus locked against accidental movement. Upon releasing the same, the carrier may be adjusted as desired, the elongated slot 24 permitting the clamping member to move with the carrier.

The base is provided with a scale ruled off along the upper edge, as at 25, so that by causing the end 26 of the carrier to register with the scale indicating one-half the diameter of the socket or opening to be cut, the size thereof is quickly and accurately obtained without necessitating measurement of the opening or socket, with the consequent loss of time incidental thereto.

The cutting tool when in position shown in full lines in Fig. 1 is on the exact center with the stem or shank, and the farther the carrier is caused to traverse to the left, the
5 larger the diameter of the cut will be.

Having thus described my invention, what I claim is:—

1. In a device of the class described, a base member, a tool carrier slidably mounted
10 thereon, an adjusting screw carried by the base and engaging said carrier, a clamping member engaging the tool carrier and projecting through a slot in the base and operable to draw the carrier and base into
15 locking contact.

2. In a device of the class described, a base member, a tool carrier slidably mounted thereon, an adjusting screw carried by the base and engaging the carrier, an elongated
20 slot in the base, a clamping screw projecting

upwardly through the slot and engaging a threaded bore in the carrier and operable to draw the carrier and base into locking contact.

3. In a device of the class described, a base 25 member having a longitudinal groove, a tool carrier slidably mounted thereon and having a tongue engaging said groove, an adjusting screw carried by the base and engaging a threaded bore in the carrier, and a clamping 30 screw projecting through a slot in the base and engaging the carrier and operable to draw the base and carrier into locking contact.

In testimony whereof I affix my signature, 35 in presence of two witnesses.

GUSTAV JOHANSEN.

Witnesses:

G. M. COLE,

LULU D. WAHLEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
