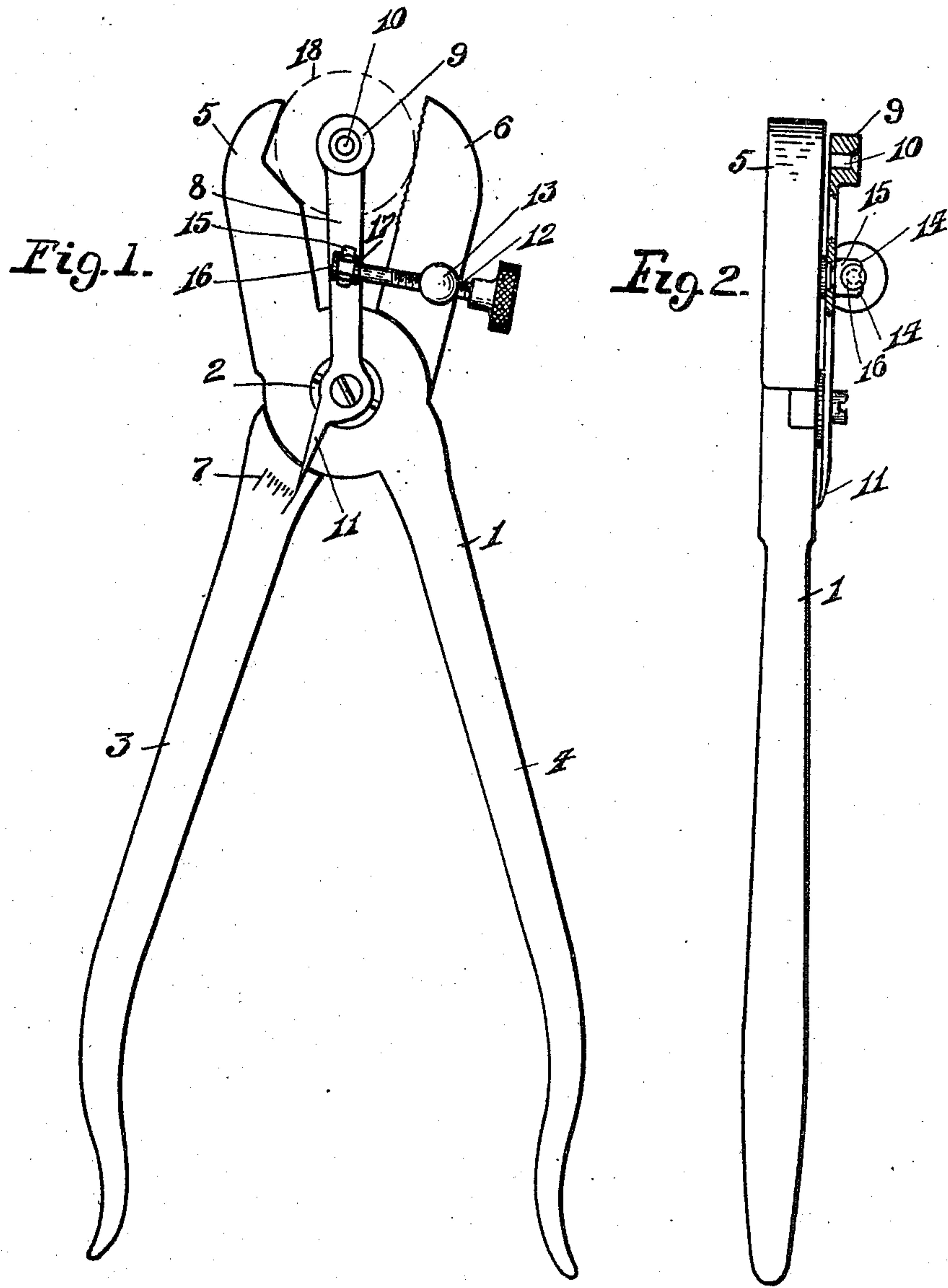


G. F. WEGNER.
 COMBINED HOLDER AND CENTERING TOOL.
 APPLICATION FILED SEPT. 23, 1909.

966,500.

Patented Aug. 9, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

GUSTAV F. WEGNER, OF SOUTH BEND, INDIANA.

COMBINED HOLDER AND CENTERING-TOOL.

966,500.

Specification of Letters Patent.

Patented Aug. 9, 1910.

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To all whom it may concern:

Be it known that I, GUSTAV F. WEGNER, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Combined Holders and Centering-Tools, of which the following is a specification.

This invention relates to a combined holder and centering tool.

The present tool is adapted for the use of lathe operators and other mechanics who are required to measure off the centers of round-iron and shafting and bore a small hole for centering the same in the lathe. By virtue of a great number of various sizes of round-iron and shafting considerable time is required to mark off the centers. The present device is therefore adapted to enable the operator to determine the exact center of round-iron or shafting so that the tapping tool may be disposed in the exact center thereof.

The invention herein embodies the ordinary type of wrenches or pliers and the centering device associated therewith, and is exceedingly simple, inexpensive, durable, efficient and it is also accurate in determining the exact center of round-iron and shaftings.

With the above 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 appended claims, it being understood that changes may be made in the form, proportion, size and minor details without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a front elevation of a pair of pliers illustrating the present invention associated therewith. Fig. 2 is an edge view of pliers illustrating the invention partly in elevation and partly in section.

Referring now more particularly to the accompanying drawings, the reference character 1 indicates a pair of pliers pivotally connected together at 2 and including the arms 3 and 4 and the gripping jaws 5 and 6, there being graduations 7 on the arm 3 for a purpose hereinafter explained.

The present centering device embodies an arm 8 pivotally mounted upon the aforesaid pivot 2 of the pliers and at its outer end enlarged, as at 9, and provided with an aper-

ture 10 by which the boring tool (not shown) is properly centered. The inner end of the arm 8 is provided with a pointer 11 adapted for coöperation with the graduations 7, so that the device may be adjusted to the exact center of the member to be tapped. The centering arm being pivoted causes the free or centering end to always have the same radius of movement with relation to the jaws of the pliers.

The centering arm is adjusted by means of a screw 12 mounted through a threaded bore of a stud 13, the inner end of the screw being rotatably confined between the upwardly extending ends 14 of the post 15 pivotally secured to the centering arm 8, there being collars 16 and 17 formed on the screw to hold the same in proper relation to the post 15 and permit the centering arm to be adjusted by manipulation of the screw 12.

In Fig. 1 there is shown by dotted lines the end of a shaft 18 which we will say is exactly one inch in diameter. The graduations 7 on the arm 3 represent an inch divided into eighths. If it is desired to find the center of the shafting 18 the jaws 5 and 6 of the pliers engage the sides of the work and hold it and the screw 12 is manipulated until the pointer is exactly over the line indicating one-half inch, when the centering head will then bring the tapping tool to the exact center of the shaft. The operation of the device will now be fully understood.

What is claimed is:—

1. The combination with a pair of pliers, one arm of the pliers having graduations thereon, of a centering arm pivotally mounted upon the pivot of the pliers and provided with a pointer for coöperation with said graduations, the centering arm having an aperture in its outer end, a stud mounted on one of the jaws of the pliers and provided with a screw threaded bore, a screw passed through the bore of said stud, a post on said centering arm in which the inner end of said screw is rotatably mounted, whereby upon operation of the screw the centering arm may be adjusted laterally with respect to the jaws of the pliers.

2. The combination with a pair of pliers including jaws and arms, one of the arms having graduations thereon, a centering arm pivotally mounted upon the pivot of the pliers and provided with a pointer for coöperation with said graduations, the outer end of the centering arm having an aperture,

a post on one of the arms, a stud on one of the jaws of the pliers, and a screw journaled through said stud and rotatably mounted at its inner end in the post of the centering arm
5 to adjust the latter.

3. The combination with a pair of pliers including arms pivoted together and provided with jaws, one of said arms having graduations thereon, a centering arm pivotally mounted upon the pivot of the pliers
10 and provided with a pointer at its inner end for coöperation with said graduations, said centering arm being enlarged at its outer end with its enlargement provided with an aperture, a post pivotally mounted upon the
15 centering arm, a stud mounted upon one of the jaws of the pliers, and a screw operating in said stud and having rotatable engagement with said post to permit adjustment of
20 the centering arm.

4. The combination with a holding device provided with graduations, of a centering arm mounted upon the device and having a pointer for coöperation with said graduations, the centering arm having an enlarged
25 outer end provided with an aperture, and means mounted upon the device and having connection with the centering arm to adjust the latter.

30 5. The combination with a holding device

embodying arms pivotally connected together with each arm provided with a jaw, one of the arms having graduations, of a centering arm pivotally mounted upon the pivot of said arms and provided with a
35 pointer for coöperation with said graduations, the centering arm having an aperture at its outer end with said apertured end of the centering arm terminating near the outer ends of the jaws of the arms, and means
40 mounted upon the pliers and having connection with the centering arm to adjust the latter.

6. The combination with a pair of pliers including jaws and arms, one of said elements having graduations thereon, a centering arm pivotally mounted upon the pivot of the pliers and provided with a pointer for coöperation with said graduations, the
50 outer end of the centering arm terminating adjacent the outer ends of said jaws and having an aperture, and means mounted upon the pliers and having connection with the centering arm to adjust the latter.

In testimony whereof I affix my signature, 55
in presence of two witnesses.

GUSTAV F. WEGNER.

Witnesses:

GEORGE OLTSCHE,

G. M. COLE.