

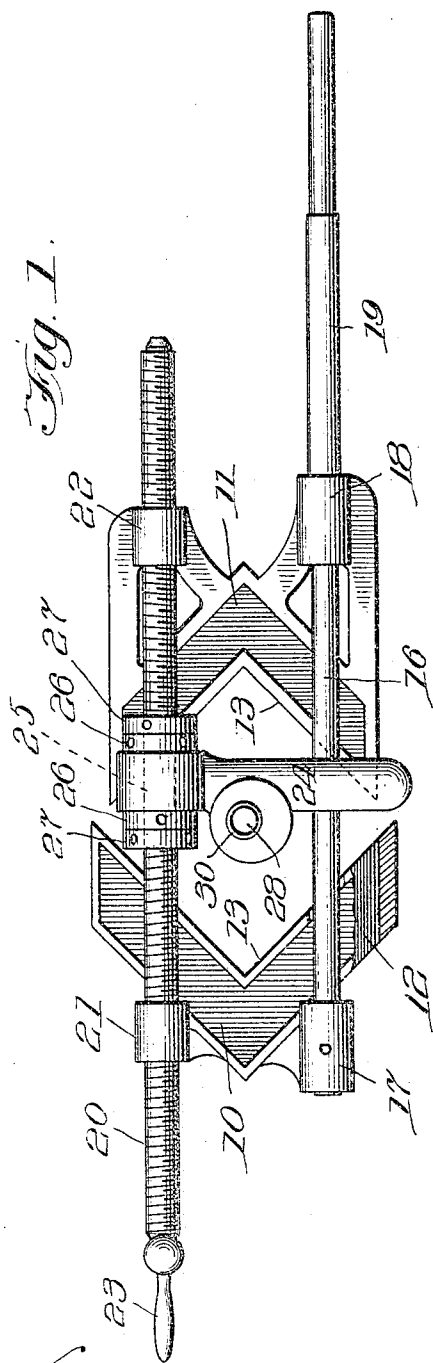
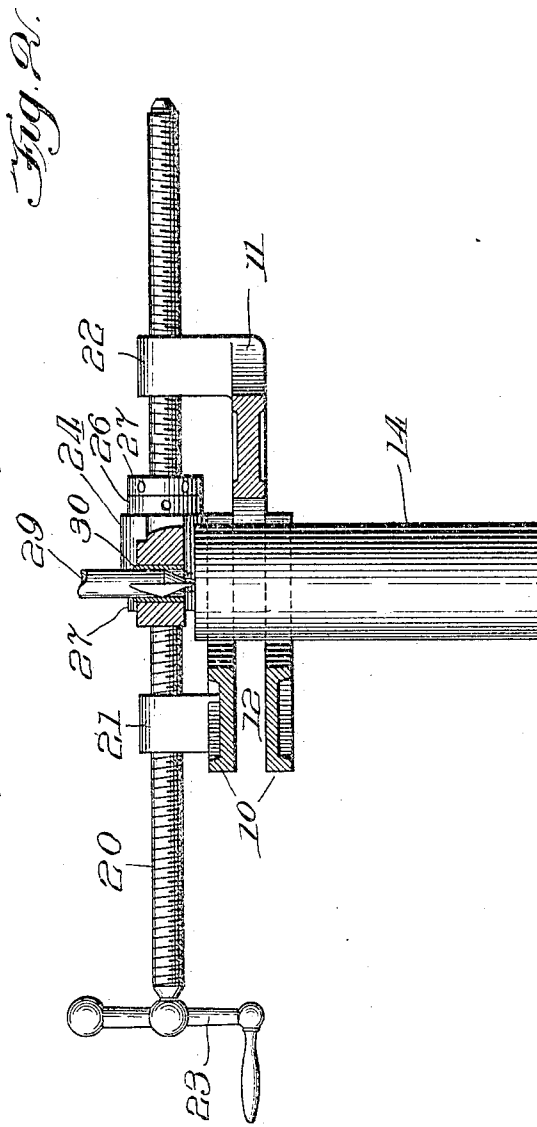
No. 787,893.

PATENTED APR. 25, 1905.

E. A. CHRISTOPH.
CENTER JIG.

APPLICATION FILED APR. 21, 1904.

2 SHEETS—SHEET 1.



Witnesses:

H. S. Gaitner
J. B. Allen.

Inventor:

Emil A. Christoph
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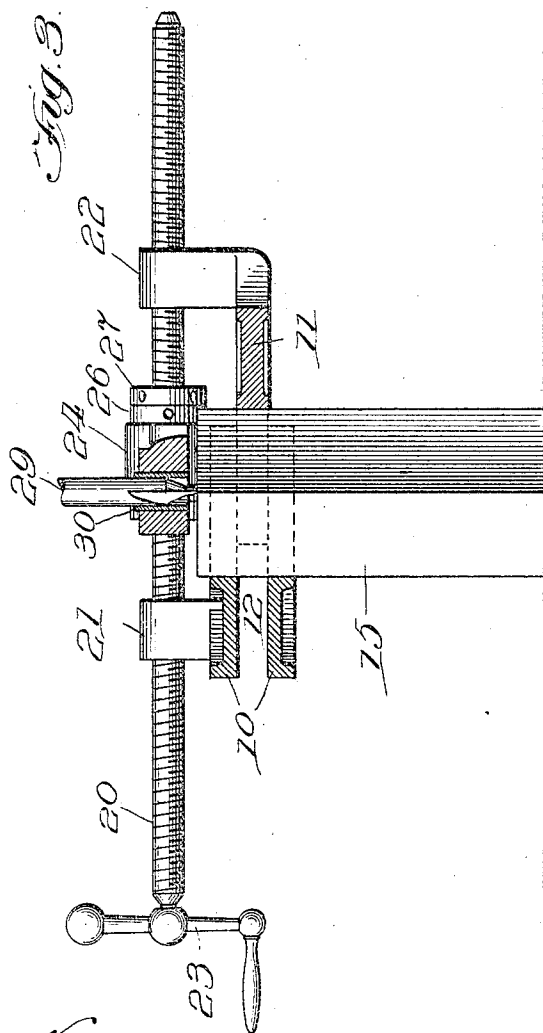
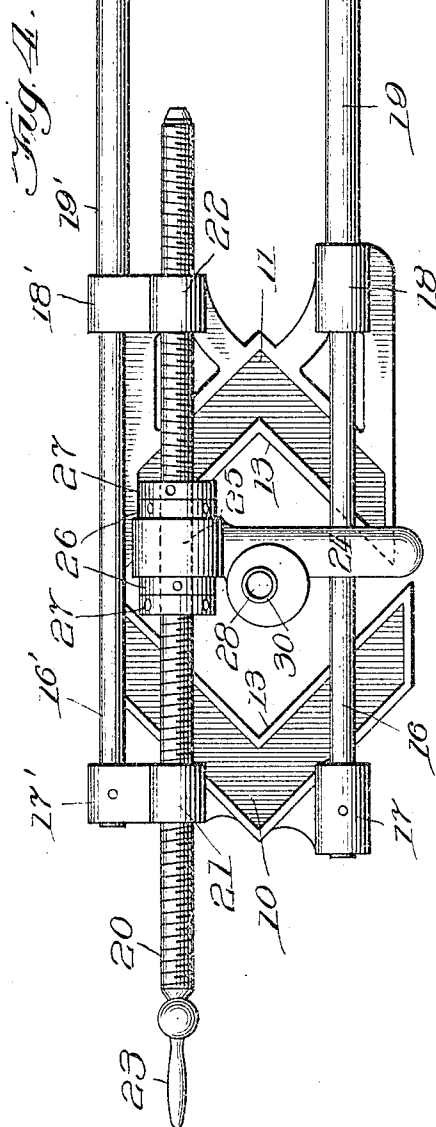
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

EMIL A. CHRISTOPH, OF CHICAGO, ILLINOIS.

CENTER-JIG.

SPECIFICATION forming part of Letters Patent No. 787,893, dated April 25, 1905.

Application filed April 21, 1904. Serial No. 204,248.

To all whom it may concern:

Be it known that I, EMIL A. CHRISTOPH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Center-Jigs, of which the following is a specification.

The object of this invention is to provide a simple and convenient center-jig for automatically centering rods, bars, and other work for drilling.

In the accompanying drawings, illustrating the preferred embodiment of the invention, Figure 1 is a plan view of the invention, showing the jaws partly opened and a portion of one jaw broken away. Fig. 2 is a sectional view showing a round bar in the jig. Fig. 3 is a similar view showing a square bar in the jig. Fig. 4 shows another construction embodying two guide-rods.

Referring to the drawings, 10 and 11 designate two jaws, one of which, as 10, is slotted at 12 between its ends to receive the other jaw. These jaws are preferably formed with sockets 13 of right-angle shape, so that they will securely hold and center round bars 14, as well as square bars 15 and other work of similar shape. A guide-rod 16 is fastened in a lug 17 on one jaw, as 10, and it extends through a tubular lug 18 on the other jaw. A sleeve 19 may be secured to the lug 18, if desired, to form a longer guide and bearing for the guide-rod. A right and left threaded screw-rod 20 is arranged to operate in threaded openings in lugs 21 and 22 on the jaws, and this rod is provided with an operating-handle 23. An arm 24 is pivotally held on the middle unthreaded portion 25 of the screw-rod by the nuts 26 and lock-nuts 27. This arm is provided with a drill-guide opening 28 to receive the drill and hold it at a point centrally of the clamping-jaws, and a sleeve 30, of steel or other suitable material, is preferably secured in said opening to prevent wear. The free end of the arm rests upon the guide-rod 16.

As the screw-rod acts as a guide for the jaws, I have found that the jig constructed

with a single guide-rod, as shown in Fig. 1, will work very satisfactorily; but, if desired, an additional guide-rod 16' may be secured in a lug 17' on one of the jaws, as 10, and the other jaw provided with a tubular lug 18' and sleeve 19' to receive said rod, the object of this additional guide-rod being simply to increase the strength and stability of the device.

In practice, the arm having first been set to bring the drill-guide opening central of the jaws, the work is arranged in place between the jaws and the screw-rod is operated to clamp the jaws thereon. The work clamped in the jig is then arranged on the table of a drilling-machine and the drill 29 inserted in the guide-opening 28.

This device automatically centers the work without necessitating calculation or adjustments, and thus greatly simplifies and reduces the work of the machinist. Furthermore, it acts as a guide for the drill and causes it to operate properly on the work.

Without limiting myself to the exact construction and arrangement of parts herein shown and described, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, a pair of jaws, a guide for the jaws, a screw-rod for clamping the jaws upon the work, and a drill-guide pivotally mounted on said screw-rod.

2. In a device of the character described, a guide-rod, a screw-rod, a pair of jaws on said rods, and a drill-guide pivotally mounted on the screw-rod and arranged to rest upon the guide-rod.

3. In a device of the character described, a guide-rod and a screw-rod, a pair of jaws carried by said rods, and an arm pivotally mounted on the screw-rod and arranged to rest upon the guide-rod and provided with a drill-guide opening located centrally of the jaws.

4. In a device of the character described, a guide-rod and a reversely-threaded screw-rod, a pair of jaws carried by said rods, said screw-rod being unthreaded at or about its

middle, and a drill-guide adjustably and pivotally mounted on said unthreaded portion of the screw-rod and arranged to rest upon the guide-rod.

- 5 5. In a device of the character described, a guide-rod and a reversely-threaded screw-rod, a pair of jaws carried by said rods, one

of said jaws being slotted lengthwise between its ends to receive the other jaw, and a drill-guide pivotally mounted on the screw-rod.

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Witnesses:

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