(No Model.)

F. BARRELL.

WRENCH OR HOLDING DEVICE.

No. 598,591. Patented Feb. 8, 1898.

Fig. 1.

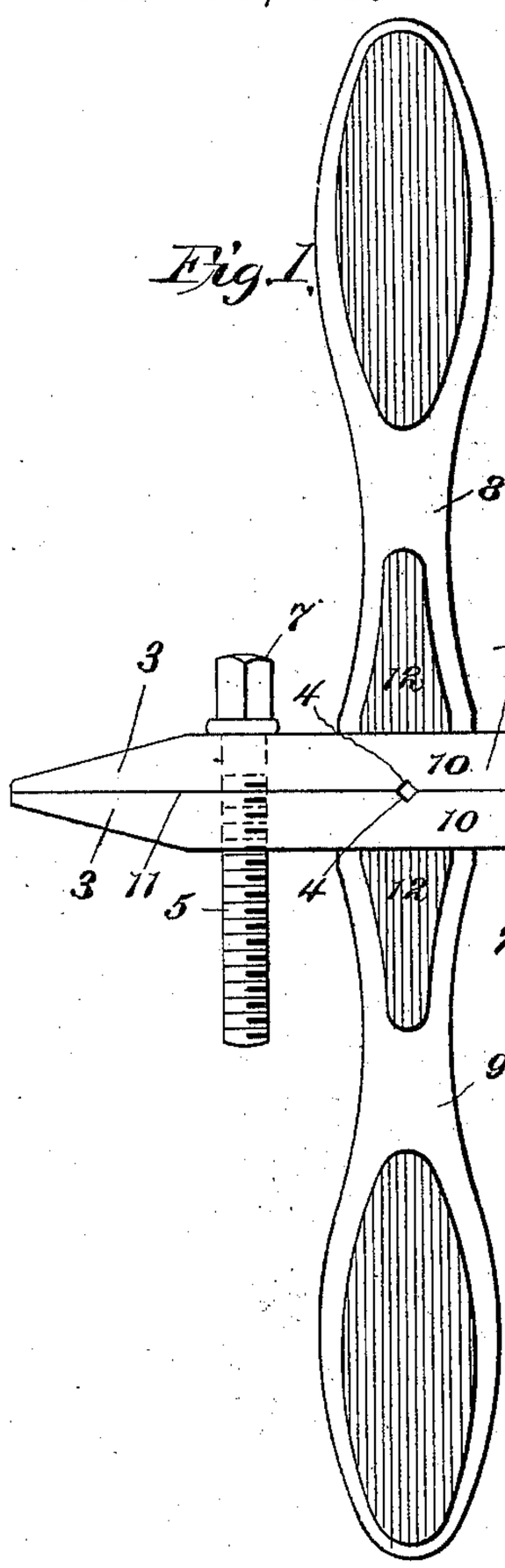
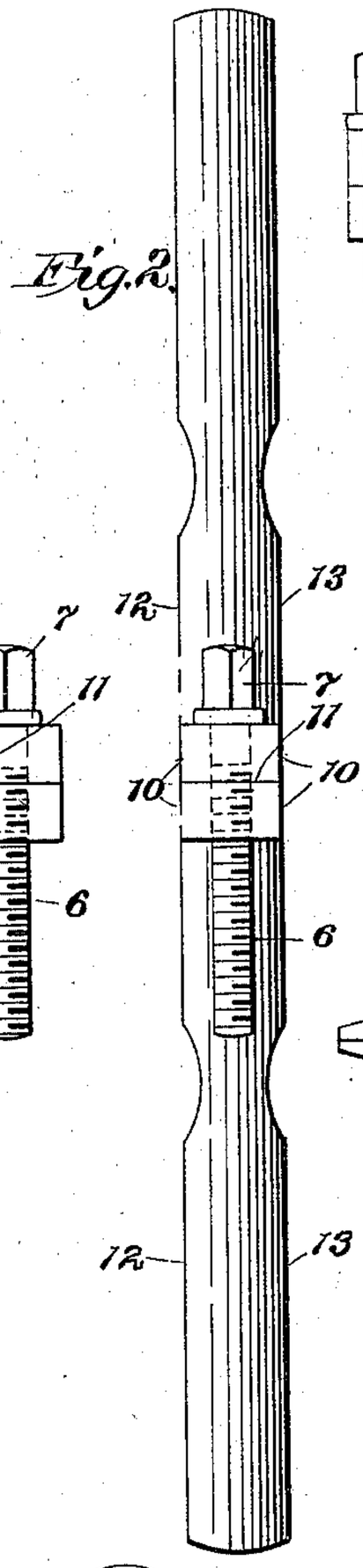


Fig. 2.



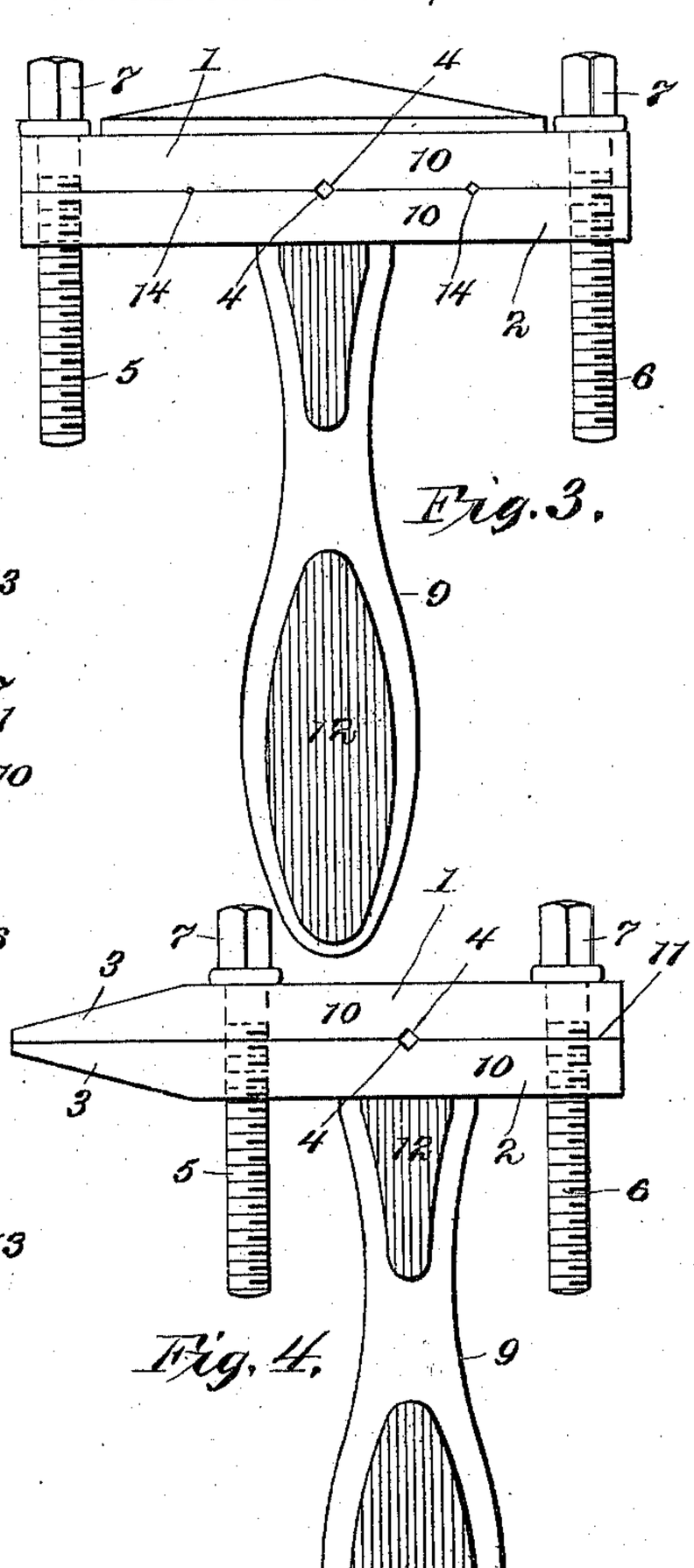
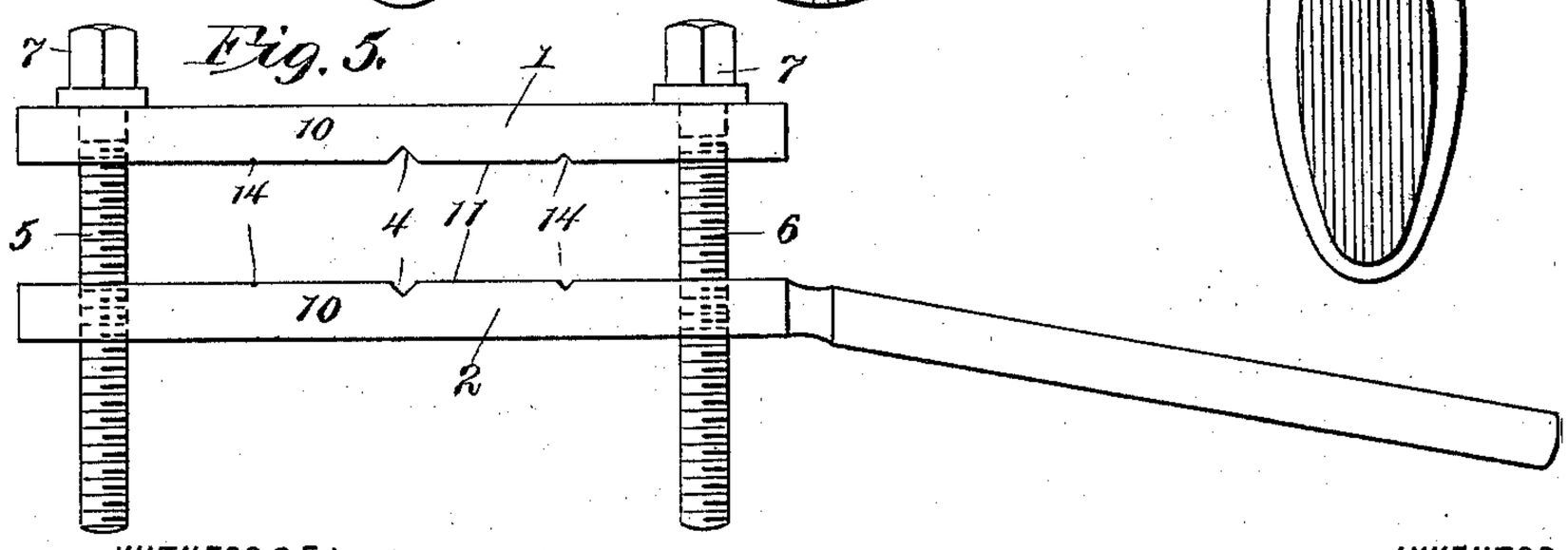


Fig. 3.

Fig. 4.

Fig. 5.



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WRENCH OR HOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 598,591, dated February 8, 1898.

Application filed November 12, 1897. Serial No. 658,343. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND BARRELL, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Wrenches or Holding Devices, of which the following is a specification.

My object is to provide an improved wrench adapted for use as a holding device in lathe, drill-press, and bench or vise work, as well as in a variety of other connections about the shop, which will be of strong, durable, and inexpensive construction and capable of rapid and easy adjustment for adaptation to any particular use.

The foregoing object is accomplished by the provision of a device comprising an improved adjustable wrench adapted for holding reamers, taps, and other similar tools and gripping drills and boring-tools in lathework, as well as for the holding and working of articles at the bench or vise, and a handle for the wrench which is of novel construction and disposition in relation thereto, whereby the device is rendered particularly adaptable for securely holding flat-sided and oblong work in proper position on the table of a drill-press and in relation to the drill.

The invention and the manner of its use will be set forth in detail in the following description and the novel features thereof recited in the appended claims.

In the accompanying drawings, Figure 1 is a front view of the preferred form of my invention; Fig. 2, a side view thereof; and Figs. 3, 4, and 5, side views, respectively, of modified constructions.

Reference is first to be had to Figs. 1 and 2. The jaws of my improved wrench and work-holder are shown at 1 and 2 and have pointed noses 3. They are also provided with alined triangular notches 4, which together form a square opening for the reception of the squared end of a tap, reamer, or other tool of like nature, as well as to accommodate and permit the gripping of a drill when the tool is used in lathework. Screws 5 and 6, having polygonal heads 7 and passing loosely through one jaw and threaded through the other jaw, afford means whereby the jaws may be advanced toward or retracted from each other, and the polygonal heads afford a proper hold for any suitable instrument to be used in tightening the screws, thus insuring the proper bite or hold of the jaws on the tool or work secured therein either intermediate the screws or at the jaw-noses. It will be observed that by the provision of two screws the noses of the jaws can be adjusted very tightly against the article to be gripped thereby. I do not confine myself to that special construction whereby both screws are entered from one side of the jaws, as I sometimes prefer to enter one screw from one side, screwing into the opposite jaw, and to enter the other screw from the opposite jaw, screwing into the opposing jaw. Duplicate handles 8 and 9 are employed, they being formed integral with the respective jaws intermediate the screws and located in alinement with each other. It is preferable to hollow out the faces of these handles, as shown, for the sake of lightness. It is to be observed that the outer faces or sides 10 of the wrench-jaws are formed in planes at right angles to the gripping-faces 11 thereof and that the opposite sides 12 and 13 of both handles are flush or in the same plane with the faces 10 of both jaws. The purpose of thus forming and disposing the jaws and handles is to insure all points of the sides of the tool lying perfectly flat when it is in position on the table of a drill-press and so that any flat-sided or oblong piece of work being held on said table between the jaws of the tool will be arranged in a perfectly vertical position, and hence properly disposed in relation to the drill. The employment of two handles disposed on opposite sides of the work gives the tool, and hence the work, great stability when positioned on the drill-press table, while the convenience of this arrangement is obvious when the device is used in lathework and as a tap and reamer wrench, it being observed that the drill, reamer, tap, or other tool, as well as the work secured by the jaws, has its axis coinciding with that of both handles.

In the modified construction shown in Fig. 3 but one handle is employed, while the wrench-jaws have additional angular notches 14, providing openings of different sizes for the accommodation of the different sizes of drills, the notches 4 4 being provided, as before. The

noses of the jaws are squared off abruptly, and the adjusting-screws are located closely adjacent to the ends of said noses. The sides of the handle are flush with the side faces of the respective jaws, as previously set forth.

Fig. 4 discloses a construction exactly similar to that shown in Figs. 1 and 2, with the exception that one of the handles is omitted.

In Fig. 5 the jaws are provided with different-sized notches, similarly to the construction shown in Fig. 3, and the ends of said jaws are also cut off abruptly, and the adjusting-screws are located inward a suitable distance from the jaw ends. The handle, instead of being disposed at right angles to the jaws, constitutes a continuation of one of them and is disposed in inclined relation to said jaws. The opposite sides of the handle are, as in the construction previously described, flush with the respective opposite side faces of the jaws, so that the tool is especially adaptable as a work-holder for the drill-press.

When the tool is used on the drill-press table, the piece of work is tightly clamped between the jaws, with its lower face flush with the lower side faces of the handles and jaws of the tool. The workman holds one handle, thereby steadying the tool and piece of work and preventing any rotation of the latter during the drilling operation. When the invention is used on the lathe, the drill or boring-tool is received in the notches of the jaws and gripped by the latter, the workman holding the handle with one hand and feeding the drill to the work with the other hand. When used as a tap or reamer wrench, the tap or reamer is accommodated in the notches and gripped by the jaws, while the handles afford means for rotation of the tool. It is obvious how the noses of the jaws are employed in various connections.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench or holding device comprising independent wrench-jaws adapted for free movement toward and away from each other having their side faces formed in planes at right angles to their gripping-faces, a handle rigidly connected to one jaw and having its opposite sides flush or in the same plane with the side faces of both of the jaws, and independent means for adjusting the jaws toward and away from each other to any desired extent.

2. A wrench or holding device comprising independent wrench-jaws adapted for free movement toward and away from each other having their side faces formed in planes at right angles to their gripping-faces, a handle connected to one of the jaws and having its sides flush or in the same plane with the side faces of both of the jaws, and adjusting-screws passing through the jaws and affording means for moving the same toward and away from each other to any desired extent.

3. A wrench or holding device comprising wrench-jaws having their side faces formed in planes at right angles to their gripping-faces, and which are provided with alined notches for the reception of a tool, a handle connected to one of the jaws and having its side faces flush or in the same plane with the respective sides of the jaws, and headed adjusting-screws passing loosely through one jaw and threaded through the other jaw, said screws being located on opposite sides of the notches and handle.

4. A wrench or holding device comprising wrench-jaws having alined notches to receive a tool, and provided with side faces formed in planes at right angles to their gripping-faces, a handle connected to one of the jaws and having its longitudinal axis in line with the notches and its sides flush or in the same plane with the side faces of the jaws, and means for adjusting the jaws.

5. A wrench or holding device comprising wrench-jaws having alined notches to receive a tool and provided with side faces formed in planes at right angles to their gripping-faces, a handle connected to one of the jaws and having its longitudinal axis in line with the notches and its sides flush or in the same plane with the side faces of the jaws, and adjusting-screws located on opposite sides of the handle and passing loosely through one jaw and threaded through the other jaw.

6. A wrench or holding device comprising independent wrench-jaws adapted for free movement toward and away from each other, independent handles connected to the respective jaws at right angles thereto and extending in opposite directions, and means for adjusting the jaws relatively of each other to any desired extent to accommodate a tool or piece of work.

7. A wrench or holding device comprising independent wrench-jaws adapted for free movement toward and away from each other having their side faces formed in planes at right angles to their gripping-faces, independent handles connected to the respective jaws at right angles thereto and having their sides flush or in the same plane with the side faces of the jaws, and means for adjusting the jaws relatively of each other to any desired extent to accommodate a tool or piece of work.

8. A wrench or holding device comprising wrench-jaws, independent handles for the respective jaws which extend substantially at right angles thereto, and independent screws located on opposite sides of the handles and adjustably connecting the jaws together.

9. A wrench or holding device comprising wrench-jaws having their side faces formed in planes at right angles to their gripping-faces and provided with alined notches for holding a tool, said jaws having extended noses, independent handles connected to the respective jaws at right angles thereto and extending in opposite directions in alinement

with each other, said handles having their side faces flush or in the same plane with the sides of the jaws, and screws located on opposite sides of the handles and adjustably connecting the jaws together.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 28th day of October, 1897.

FERDINAND BARRELL.

Witnesses:
ISIDORE ALEXANDER,
JESSE KIPP.