

No. 685,215.

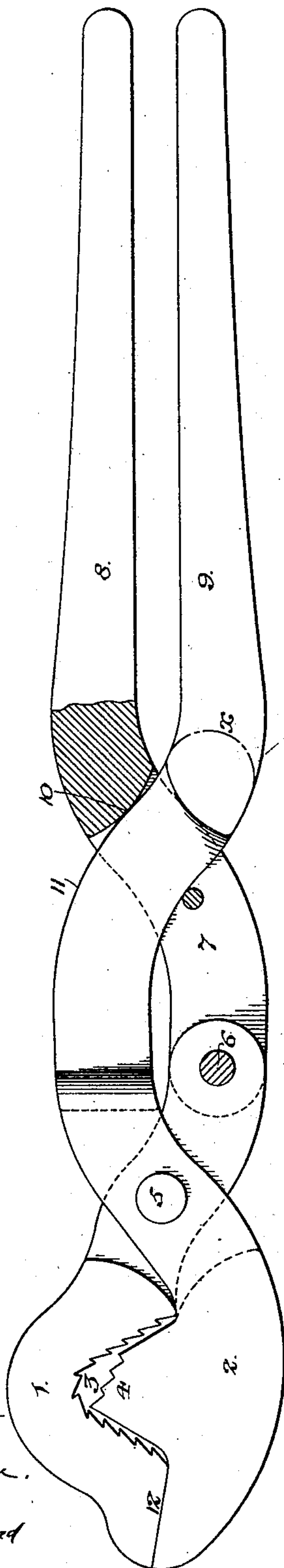
Patented Oct. 22, 1901.

A. MAGUI.
WRENCH OR LIKE TOOL.

(Application filed Oct. 15, 1900.)

(No Model.)

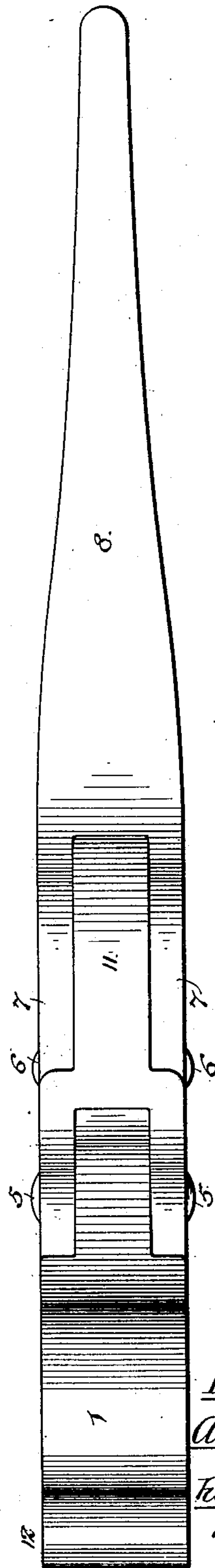
Fig. 1.



Witnesses:-

Charles Wilson.
Louis M. F. Whitehead

Fig. 2.



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- by -
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UNITED STATES PATENT OFFICE.

ABEL MAGUI, OF PHILADELPHIA, PENNSYLVANIA.

WRENCH OR LIKE TOOL.

SPECIFICATION forming part of Letters Patent No. 685,215, dated October 22, 1901.

Application filed October 15, 1900. Serial No. 33,149. (No model.)

To all whom it may concern:

Be it known that I, ABEL MAGUI, a citizen of the Republic of France, (but having declared my intention of becoming a citizen of the United States,) residing in Philadelphia, Pennsylvania, have invented certain Improvements in Wrenches or Like Tools, of which the following is a specification.

My invention consists of a new and improved tool combining a pipe pliers and wrench.

The tool forming the subject of my invention is of such construction that I am enabled to secure a better grip upon a pipe or other member of a similar character for the purpose of holding or turning the same than has been possible heretofore in tools of this class.

My invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a side view, partly in section, of a tool made in accordance with my invention; and Fig. 2 is a plan view of the same.

In the tool devised by me I have shown a pair of jaws 1 and 2, in which the upper jaw 1 has a substantially V-shaped opening or space 3, adapted to receive a pipe or other member, and the lower jaw carries a projection 4, adapted to contact with the exposed surface of the pipe laid in the V-shaped opening of the upper jaw. Although I prefer to make the jaws of my improved tool in this manner, I do not wish to confine myself to such construction, and it is to be understood that the jaws of ordinary pipe wrenches or pliers may be used in place of the jaws shown in the accompanying drawings.

The jaws 1 and 2 of the tool are pivoted together at 5, and the upper jaw is pivoted at 6 to the forked end 7 of the handle 8. The jaw 2 is extended rearwardly in the manner shown, terminating in the handle 9. The rear face 10 of the forked end of the handle 8 is adapted to contact with the curved portion 11 of the handle 9, such portion 11 forming a cam, and when the jaws are closed upon a pipe or other member to be turned or held by the tool the face 10 of the handle 8 is brought against this cam-face 11, and the pressure thereon closes the jaws and holds the pipe between the same. The cam-face 11 is so curved and the pivot-point 6 is so disposed with relation to the same that the

portion 10 of the handle is always in position to act upon said cam-face when a pipe is held in the jaws.

Except for convenience in opening the jaws of the tool the handle 9 is not essential, as the tool may be operated in the manner just described by the use of the handle 8 only, and in some instances I may terminate the handle 9 at the point x , as shown in Fig. 1. Downward pressure upon the handle 8 when it contacts with the cam-face 11 will always cause the jaws of the tool to close, and the pipe or other member may be held and moved by said jaws when placing the same in position or attaching any connection, as well as turned to screw said pipe or other member into place.

The tool shown and described herewith may have its jaws extended at 12 to form nippers, which may be especially useful in small-sized tools of this character. Such nippers, however, are not essential, and the tool is complete without them.

The projecting portion of the lower jaw of the tool is so shaped and bears such relation to the pivot-point of the jaws that it contacts with the pipe at the point of greatest leverage. When the jaws are in engagement with the pipe, such engagement is at three points, substantially equidistant from each other. Hence the movement to turn the pipe will be imparted to the latter at three points, and the danger of the jaws slipping over the pipe is entirely eliminated. The jaws are arranged, moreover, so as to provide such contact with pipe of any size within the range of the opening or space in the upper jaw of the tools.

Each face of the V-shaped opening of the upper jaw of the tool, as well as the working face of the projection of the lower jaw, is serrated to provide for a proper grip upon the pipe to be engaged, and the movement of the handle or handles being downward the serrations are arranged so as to bite into the pipe when the tool is moved in this direction. To obtain a fresh hold upon the pipe, it is only necessary to loosen the grip of the tool and give the jaws a partial backward movement similar to the mode of operating any ordinary pipe wrench or pliers.

While the operating mechanism shown and

described herein has been applied to a pair of gripping-jaws or pliers, it will be understood that other members may be substituted therefor without departing from my invention.

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

1. The combination in a tool of the character described, of the jaw members, a pivotal connection for the same, the lower jaw having a rear extension curved in one direction and forming a cam, the upper jaw having a rear extension providing a connection for a handle, and a handle pivoted thereto, said pivoted handle being forked and embracing the rear extension of the lower jaw and having a cam portion arranged to act upon the upper surface of said lower-jaw extension, substantially as described.

2. The combination in a tool of the character described, of the jaw members, a pivotal connection for the same, the lower jaw having a rear extension curved in one direction and forming a cam, the upper jaw having a rear extension curved in the opposite direction and providing a connection for a handle, and a handle pivoted thereto, said pivoted handle being forked and embracing the rear extension of the lower jaw and having a cam portion arranged to act upon the upper surface of the extension of said lower jaw, substantially as described.

3. The combination in a tool of the character described, of the jaw members, a pivotal connection for the same, the lower jaw having an integral wedge-shaped projection

and a rear extension curved in one direction, and the upper jaw having a V-shaped recess with which said wedge-shaped projection is adapted to coact and also having a rear extension curved in the opposite direction and providing a connection for a handle, a handle pivoted thereto, said handle being forked and embracing the rear extension of the lower jaw, and a cam carried by said handle and arranged to act upon the extension of said lower jaw, substantially as described.

4. The combination in a tool of the character described, of the jaw members, a pivotal connection for the same, one of said jaws having a V-shaped recess for the reception of a pipe or other object to be turned, and the opposite jaw having an integral projection coacting with the faces of said wedge-shaped recess whereby movement may be imparted to the object grasped by said jaws, handles for operating the latter, one of said jaws having an extension curved to form a cam and projecting beyond the pivotal connection, and one of the handles embracing said extension and having a portion arranged to engage the cam-surface of the same, whereby the jaws may be closed to grasp a pipe or other object to be turned, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ABEL MAGUI.

Witnesses:

MURRAY C. BOYER,
JOS. H. KLEIN.