

No. 685,356.

H. SOMMERFELD.

Patented Oct. 29, 1901.

TOOL.

(Application filed May 27, 1901.)

(No Model.)

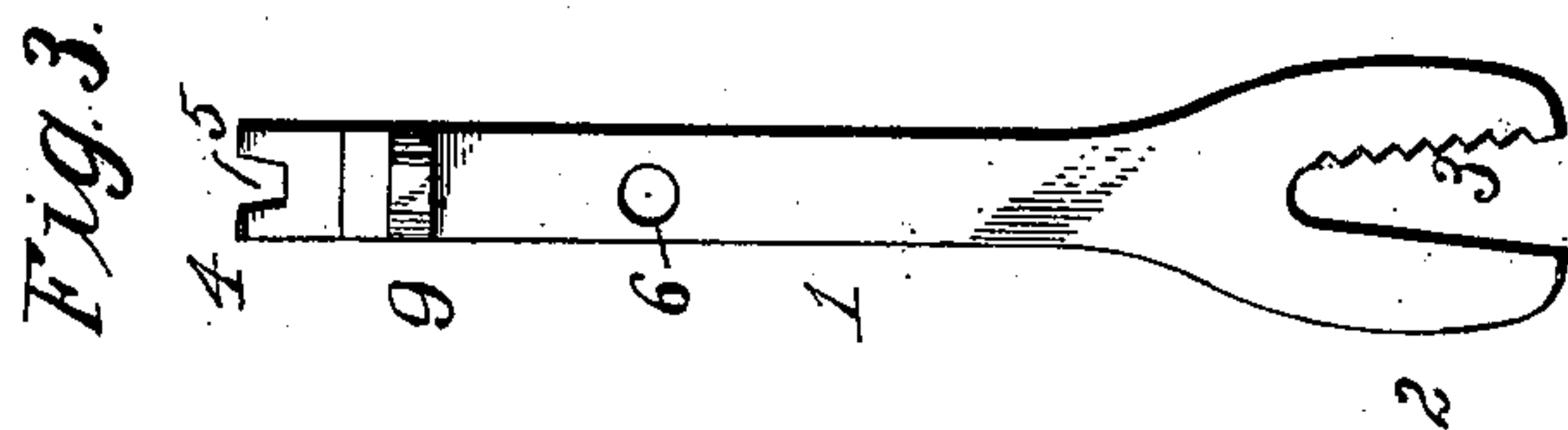
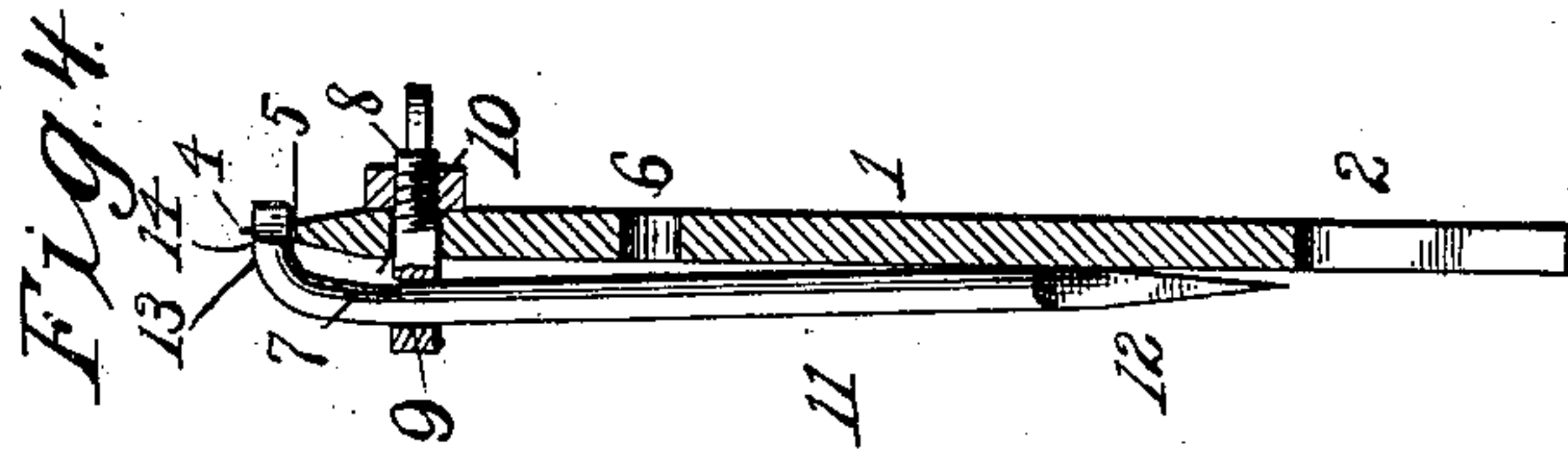


Fig. 2.

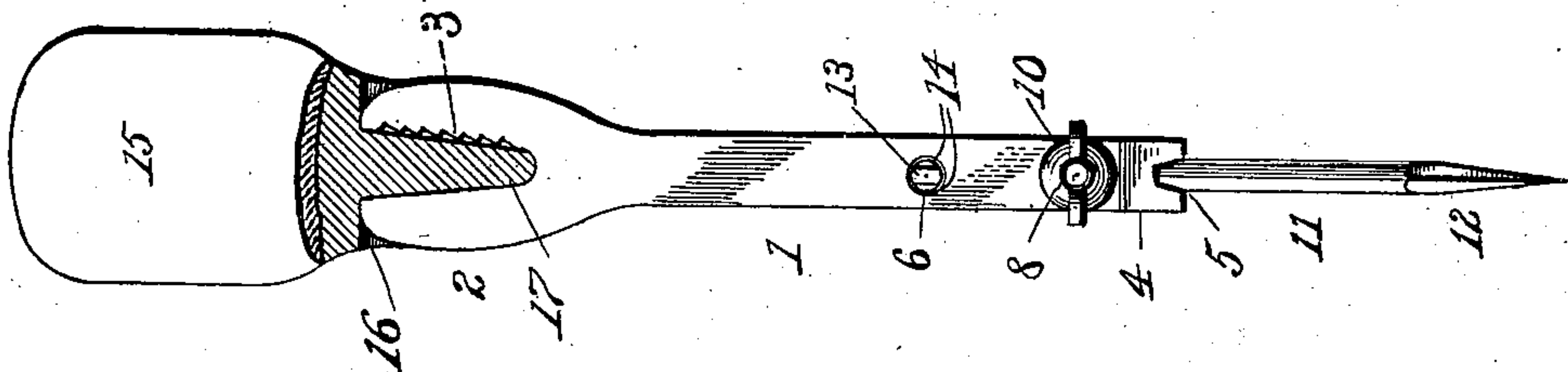
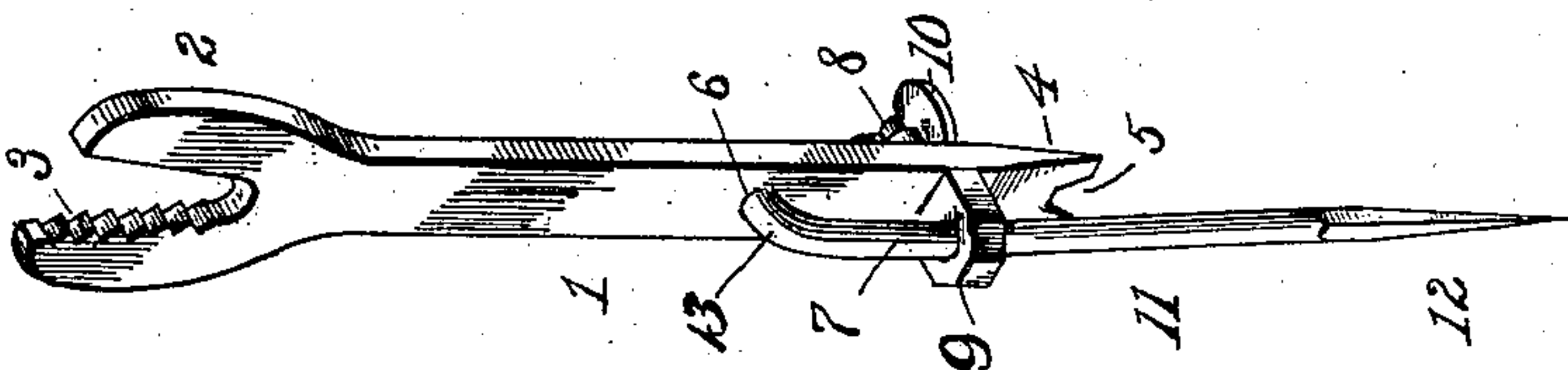


Fig. 1.



Witnesses:

Arthur M. Arthur  
H. C. Rodgers.

Inventor:

Heinrich Sommerfeld  
By Fischer & Porpe  
Attys.

# UNITED STATES PATENT OFFICE.

HEINRICH SOMMERFELD, OF CANTON, KANSAS.

## TOOL.

SPECIFICATION forming part of Letters Patent No. 685,356, dated October 29, 1901.

Application filed May 27, 1901. Serial No. 62,009. (No model.)

*To all whom it may concern:*

Be it known that I, HEINRICH SOMMERFELD, a citizen of the United States, residing at Canton, in the county of McPherson and State of Kansas, have invention certain new and useful Improvements in Tools, of which the following is a specification.

My invention relates to tools, and more especially to a tool which combines the functions of a wrench, screw-driver, tack-puller, and an awl and which may be made of size suitable to be carried in one's pocket; and my object is to produce a tool of this character efficient for the purpose intended and of simple, strong, durable, and cheap construction.

With this general object in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents the tool arranged for use as an awl or puncturing instrument. Fig. 2 is a side elevation, partly in section, showing the tool as provided with a detachable handle. Fig. 3 is a side view showing the wrench, screw-driver, and tack-puller portion of the tool detached. Fig. 4 is a vertical longitudinal section of the device as arranged to be carried in the pocket.

The tool is constructed as follows: 1 designates a steel bar suitably tempered and provided at one end with an enlarged bifurcated head 2, the inner edge of one of the jaws of said head being preferably serrated or toothed, as at 3. The opposite end of the bar is tapered on its flat sides to a point, as at 4, so as to form a screw-driver, and is notched, as at 5, so as to constitute a tack-puller. The bifurcation of the end also divides the screw-driver, so that either prong may be engaged with smaller screws than they can simultaneously engage.

A bar of the construction thus far described is adapted for use only as a wrench, screw-driver, and tack-puller. When it is to be used as a part of an awl or puncturing device, it is provided at a suitable point with a

hole 6 and between the same and the beveled end 4 with a hole 7.

8 designates a bolt extending loosely through hole 7 and provided at one end with an enlarged apertured portion or head 9 and engaged at its opposite end by a wing-nut 10.

11 designates a puncturing or hole-boring instrument of any suitable type, though in its simplest form it will be preferably tapered to a point at one end, as at 12, like an awl. Its opposite end is preferably of resilient construction and bent to provide an arm 13, projecting approximately at right angles to its point, with its extremity reduced to provide shoulders 14. This puncturing instrument extends slidably through the hole of bolt-head 9, and when in operative position, as shown in Figs. 1 and 2, its bent arm engages hole 6 and is held by the same and the clamping-nut 10 reliably in the position shown, so that by grasping the wrench portion of bar 1 an object can be punctured by forcing point 12 through it by pressure or by manipulating it like a gimlet. For puncturing tough or hard objects a handle 15 is fitted on the wrench end of the bar in order that the required pressure or force may be brought to bear without injury to the hand. This handle is bifurcated to snugly receive the wrench end of bar 1, the arm 16 at opposite sides of the bifurcation (one only of which appears) closely hugging the sides of jaws 2 to prevent lateral movement, movement edgewise on the bar or at right angles to the lateral movement being prevented by means of the tongue or rod 17, connecting arms 16 and fitting snugly between the jaws of the wrench. As thus arranged pressure may be brought to bear on the handle without any chance of its dislocation, such dislocation being automatically effected when desired by inverting the tool and letting the handle drop or by pulling the latter from the end of the bar.

When it is desired to carry the tool in the pocket, the handle 15 is removed and the clamping-nut is loosened to permit the puncturing instrument to be disengaged from hole 6. Its position is then reversed by turning bolt 8 half around or until the point of said device projects toward the wrench end of bar



1. It is then slipped through the bolt-head until the reduced portion or arm 13 fits snugly in notch 5 and the shoulders 14 thereof bear against the side of the tapered or beveled end 4, as shown in Fig. 4. The wing-nut is then manipulated to advance the bolt and cause it to clamp the puncturing device tightly up against the bar, with said shoulders in the opposite direction and its pointed end lying so snugly against the side of the bar that there is but little chance of the point catching and tearing the lining of the pocket. The total disengagement of the puncturing device or its reversal is effected easily and quickly, as will be readily understood.

From the above description it will be apparent that I have produced a tool possessing the features of advantage enumerated as desirable and that it is susceptible of modification in some particulars without departing from the principle of construction involved.

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

1. A tool, comprising a bar provided with a hole, a puncturing device having an arm projecting at an angle from its point and engaging said hole, and a bolt secured to said bar, and holding the puncturing device reliably in position, substantially as described.

2. A tool, comprising a bar portion, provided with a pair of holes, a bolt swiveled in one of said holes and provided with an apertured head, a puncturing device extending through said apertured head, and provided with an arm engaging the other hole of the bar, and a nut engaging the threaded end of the bolt and clamping said device firmly in position.

3. In a tool, a bar provided with a notched end, a puncturing device having an arm extending at an angle to its point engaging said notched end, and provided with shoulders to bear against the side of the bar adjacent to said notch, and means to clamp said puncturing device firmly against said bar and with its angular end in the position described and its point resting against the side of said bar.

4. In a tool, a bar provided with a notched end, a puncturing device having an arm extending at an angle to its point engaging said notched end, and provided with shoulders to bear against the side of the bar adjacent to said notch, a bolt mounted in said bar, and provided with an apertured head through which said puncturing device extends, and a clamping-nut engaging said bolt to clamp the puncturing device firmly in position, substantially as described.

5. A tool, comprising a bar having a bifurcated end and a hole, a puncturing device engaging said hole at one end, means to secure the puncturing device reliably in such position, and a handle fitting upon the bifurcated end of the bar and provided with a tongue engaging the bifurcation, substantially as described.

6. A tool, comprising a bar having a bifurcated end and a hole, a puncturing device engaging said hole at one end, means to secure the puncturing device reliably in such position, and a bifurcated handle fitting upon the bifurcated end of the bar and provided with a tongue engaging the bifurcation of the latter, substantially as described.

7. In a tool, a bar provided with a notched end, a pair of holes, a swiveled bolt engaging the hole nearest the notched end, and a puncturing device extending through the head of said bolt and provided with an angular arm adapted to engage the hole of the notched end, and a clamping-nut to engage said bolt and clamp the puncturing device reliably to the bar, substantially as described.

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

HEINRICH SOMMERFELD.

Witnesses:

H. C. RODGERS,  
F. G. FISCHER.