Aug. 26, 1924. 1,506,675

A. B. SEPPMANN

TONGS

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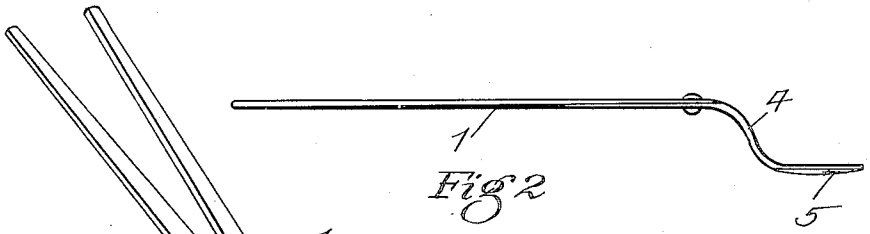


Fig. 2

Fig. 1

Fig. 4

Fig. 3

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UNITED STATES PATENT OFFICE.

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TONGS.

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To all whom it may concern:

Be it known that I, ALFRED BRUNO SEPPMANN, a citizen of the United States, residing at Lake Crystal, in the county of Blue Earth and State of Minnesota, have invented certain new and useful Improvements in Tongs, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in tongs and it is primarily an object of the invention to provide a novel and improved tool of this general character which is particularly adapted for use to enter the universal joint tang into the squared opening comprised in the drive plate assembly of the type embodied in Ford automobiles.

It is also an object of the invention to provide a novel and improved tool of this general character wherein the jaws are offset with respect to the associated operating handles and wherein the jaws proper are coplanar and provided with opposed edges adapted to have close contact throughout when the jaws are closed, the opposed portions of the jaws being provided with registering recesses providing a squared opening when the jaws are closed, the base walls of the recesses being disposed in a direction lengthwise of the jaws.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved tong whereby wherein important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in perspective illustrating tongs constructed in accordance with an embodiment of my invention;

Figure 2 is a view in side elevation of the tool as disclosed in Figure 1;

Figure 3 is an elevational view showing the tongs engaged with the work and with the tang entering the coacting opening in the drive plate; and

Figure 4 is an elevational view showing the tongs engaged with the work and illustrating how the same may be employed to bring the tang into proper position for entering the opening in the drive plate.

As disclosed in the accompanying drawings, my improved tool comprises the cross elongated handle members 1 pivotally connected one with the other as at 2, the pivoted end portions of each of the handle members 1 being continued by the similarly curved extensions or arms 4 terminating in the jaws 5, the pivotal connection 2 being closely adjacent to the curved extensions or arms 4. The jaws 5 are coplanar and positioned in a plane in substantially parallelism with the handle members 1, said jaws 5 being spaced from the handle members 1 in accordance with the extent or length of the curved arms 4.

The opposed edges of the jaws 5 and arms 4 are straight whereby the same have close contact when the jaws 5 are in closed position. The opposed portions of the jaws are provided with the recesses or notches 6, each of said notches being of the same configuration and dimensions and providing a squared opening when the jaws are in closed position. The base walls of the notches 6 are in parallelism with the opposed straight edges of the jaws 5 while the side walls of said notches or recesses are perpendicularly related thereto. This particular formation and arrangement of the notches or recesses 6 is of particular advantage in the use of my improved tool. My improved tongs or tool as herein disclosed is especially designed to enter the universal joint tang 8 and into the squared opening 9 of the drive plate assembly of the type comprised in Ford automobiles.

When the jaws 5 are slipped over the tang 8 and closed, one-half of said tang is received within the notch or recess 6 of each of the jaws with each jaw reaching to the middle of the tang and thus completely enclosing the tang. This engagement of the tool or tongs with the tang facilitates the requisite pressure being imposed to the tang to rotate the same sufficiently to bring the same into proper register with the opening 9 so that the tang may enter. This provision of requisite pressure upon the tang 8 is further required to offset the resistance offered by the requisite slippage, under certain conditions of the rear or drive wheels of the vehicle. The arms 4 are also of particular advantage in connection with tongs or tools of this class as they provide for the requisite clearance

with respect to the edge of the ball cap when the tang 8 is rotated to enter the opening 9.

The portions *a* or noses, as they may be called, of the jaws 5 outwardly of the recesses 6 assure a complete locking of the tool upon the tang or the like during a working operation and this is due to the fact that with the tang or other similarly shaped material engaged within the recesses 6 of the jaws the turning movement of the tang results in the pressure forcing the jaws 5 one toward the other but the contact of the portions or noses *a* resist such pressure and prevent spreading or opening of the jaws. This is particularly true when the tang is being turned to the right. Upon turning of the tang 8 to the left the opposed edges of the jaws inwardly of the recesses or notches 6 will effect the same result.

From the foregoing description it is thought to be obvious that a tong constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A tool of the class described comprising a pair of opposed jaws, means for connecting the jaws for relative swinging movement, the opposed edges of the jaws being straight and having close contact when in closed position, the opposed portions of the jaws being provided with duplicate recesses, the side walls of the recesses being perpendicularly related to the opposed edges of the jaws and the base walls of the recesses being parallel to said opposed edges of the jaws, and means for operating the jaws.

2. A tool of the class described comprising a pair of opposed jaws, means for connecting the jaws for relative swinging movement, the opposed edges of the jaws being straight and having close contact when in closed position, the opposed portions of the jaws being provided with duplicate recesses, the side walls of the recesses being perpendicularly related to the opposed edges of the jaws and the base walls of the recesses being parallel to said opposed edges of the jaws, an operating handle member for each of the jaws, said jaws being offset with respect to the handle members, and arms connecting the jaws and handle members.

3. A tool of the class described comprising a pair of opposed jaws, means for connecting the jaws for relative swinging movement, the opposed edges of the jaws being straight and having close contact when in closed position, the opposed portions of the jaws being provided with duplicate recesses, the side walls of the recesses being perpendicularly related to the opposed edges of the jaws and the base walls of the recesses being parallel to said opposed edges of the jaws, an operating handle member for each of the jaws, said jaws being offset with respect to the handle members, and arms connecting the jaws and handle members, said arms being curved.

4. A tool of the class described comprising a pair of crossed elongated handle members, means for pivotally connecting the overlying portions of said members, offset arms extending from the pivoted portions of the members, the pivotal connection between the handle members being closely adjacent to the arms, jaws carried by the outer portions of the arms, the opposed edges of the jaws and arms being straight and having close contact when in closed position, the opposed portions of the jaws being provided with duplicate recesses, the side walls of the recesses being perpendicularly related to the opposed edges of the jaws and the base walls of the recesses being parallel to said opposed edges of the jaws.

In testimony whereof I hereunto affix my signature.

ALFRED B. SEPPMANN.