

T. O'HARE.

WRENCH.

APPLICATION FILED MAY 27, 1910.

976,391.

Patented Nov. 22, 1910.

Fig. 1.

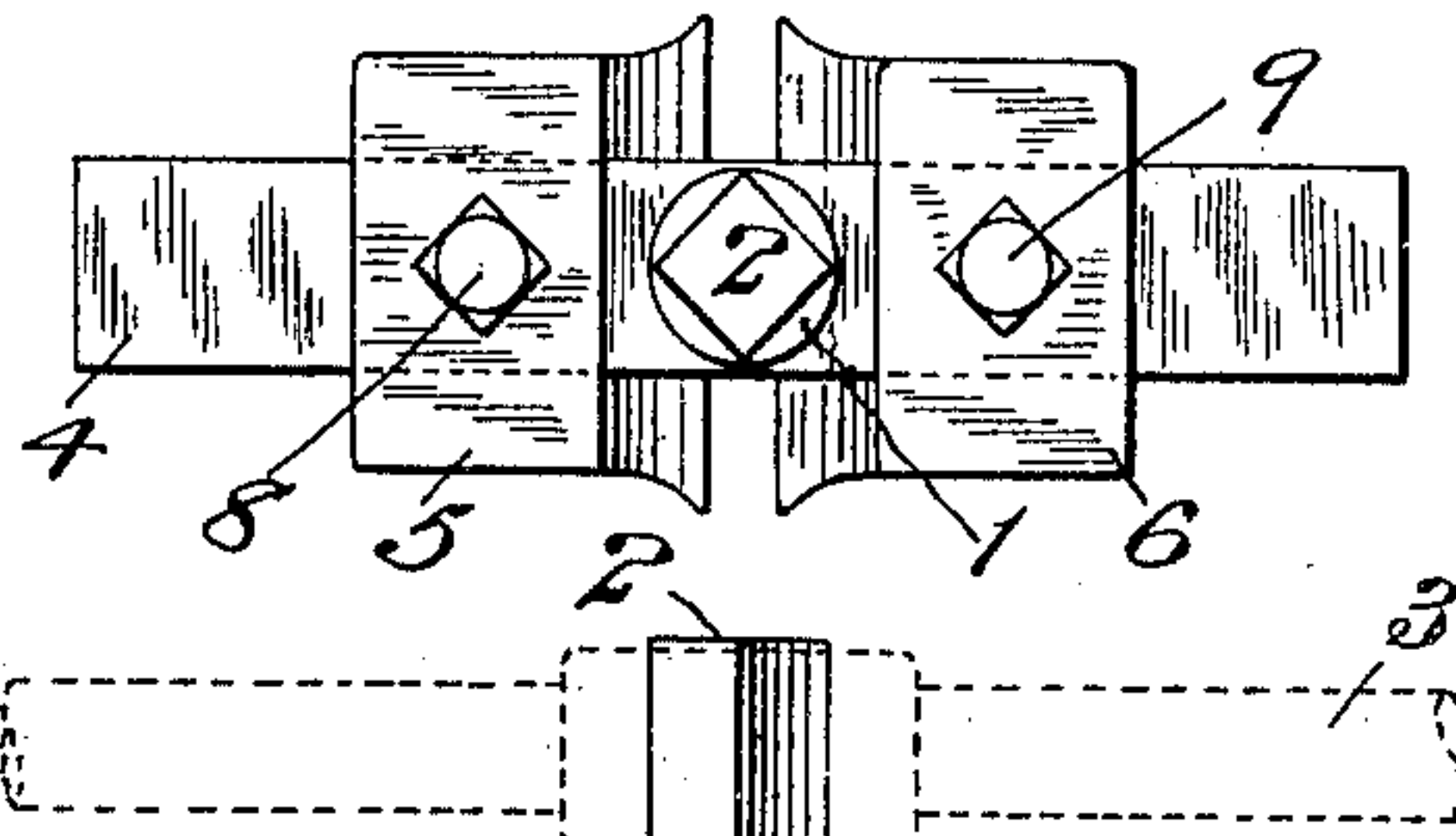


Fig. 3.

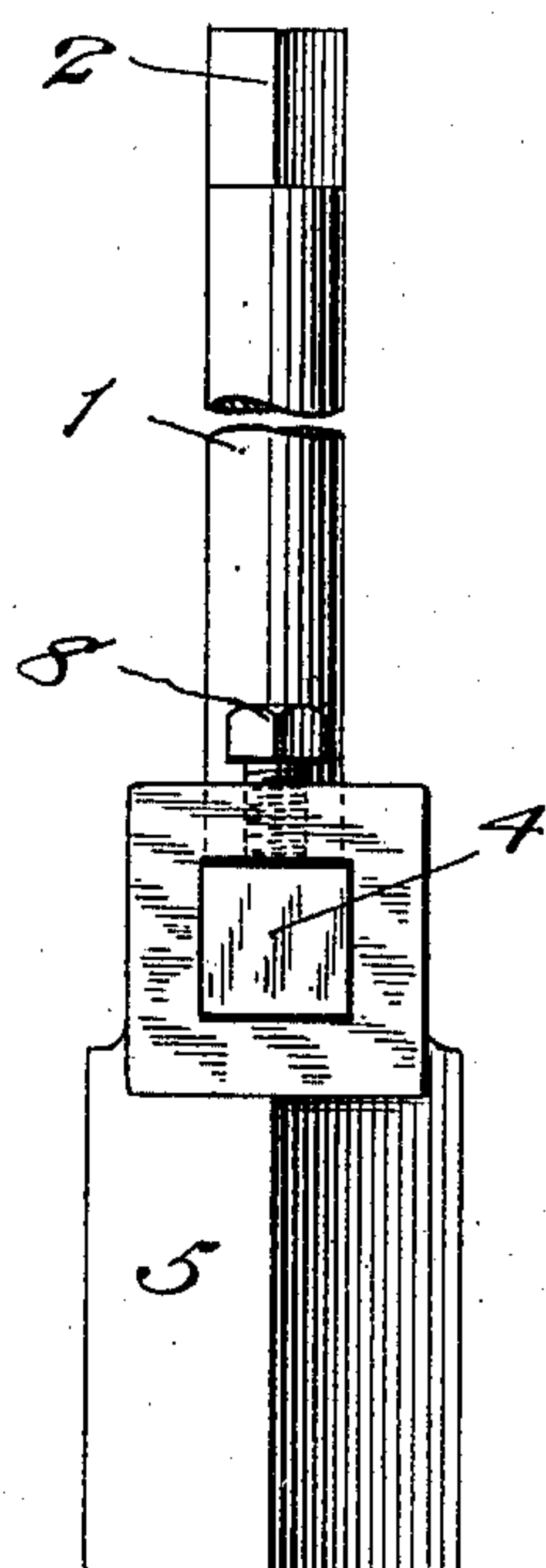


Fig. 2.

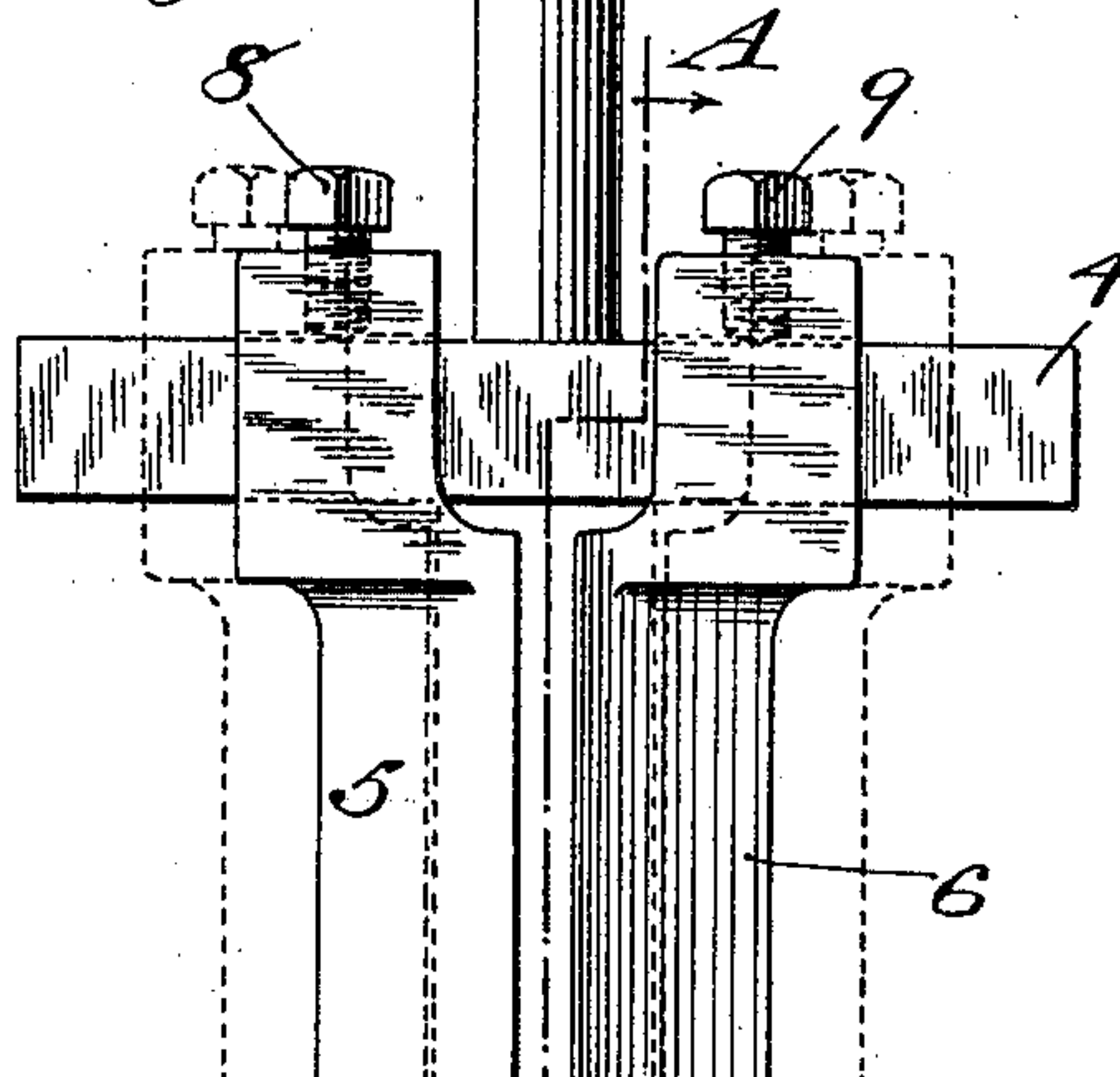


Fig. 4.

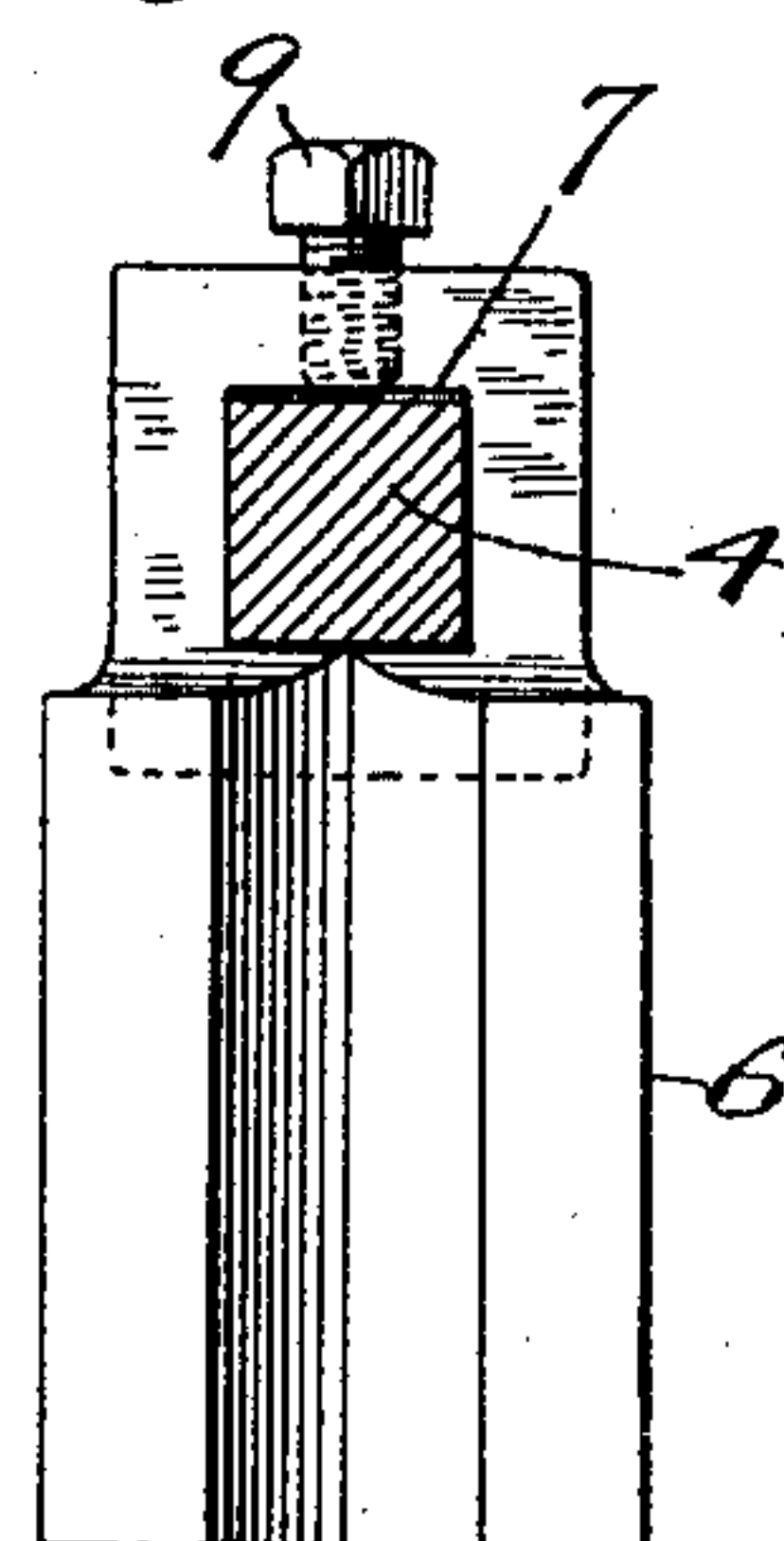


Fig. 5.

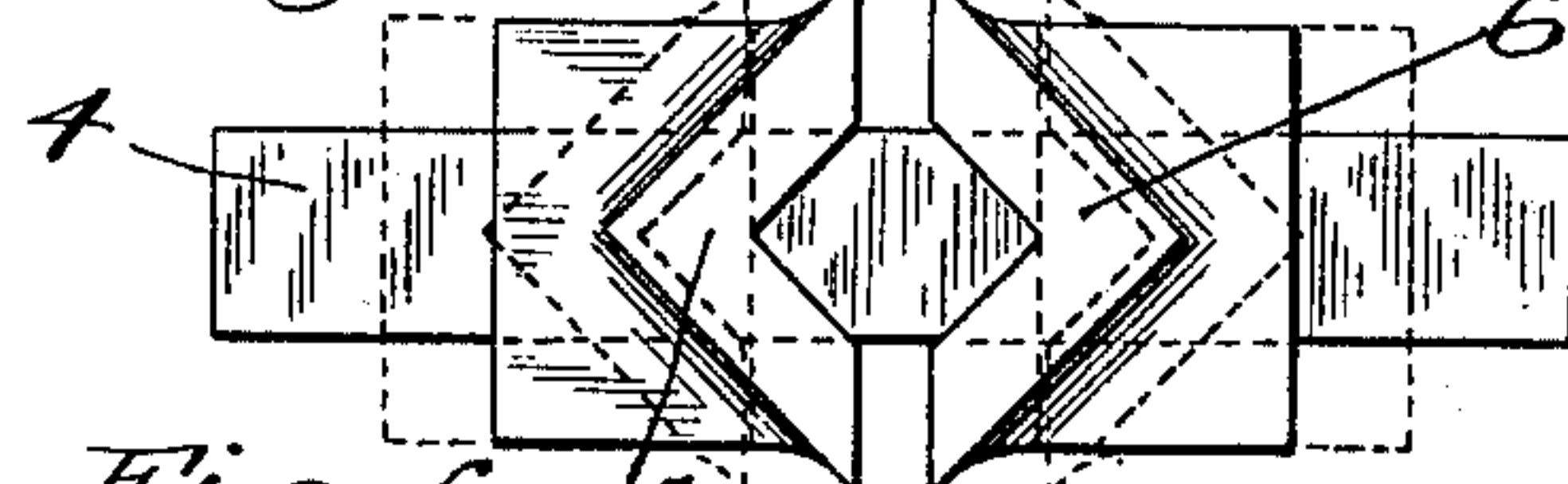


Fig. 7.

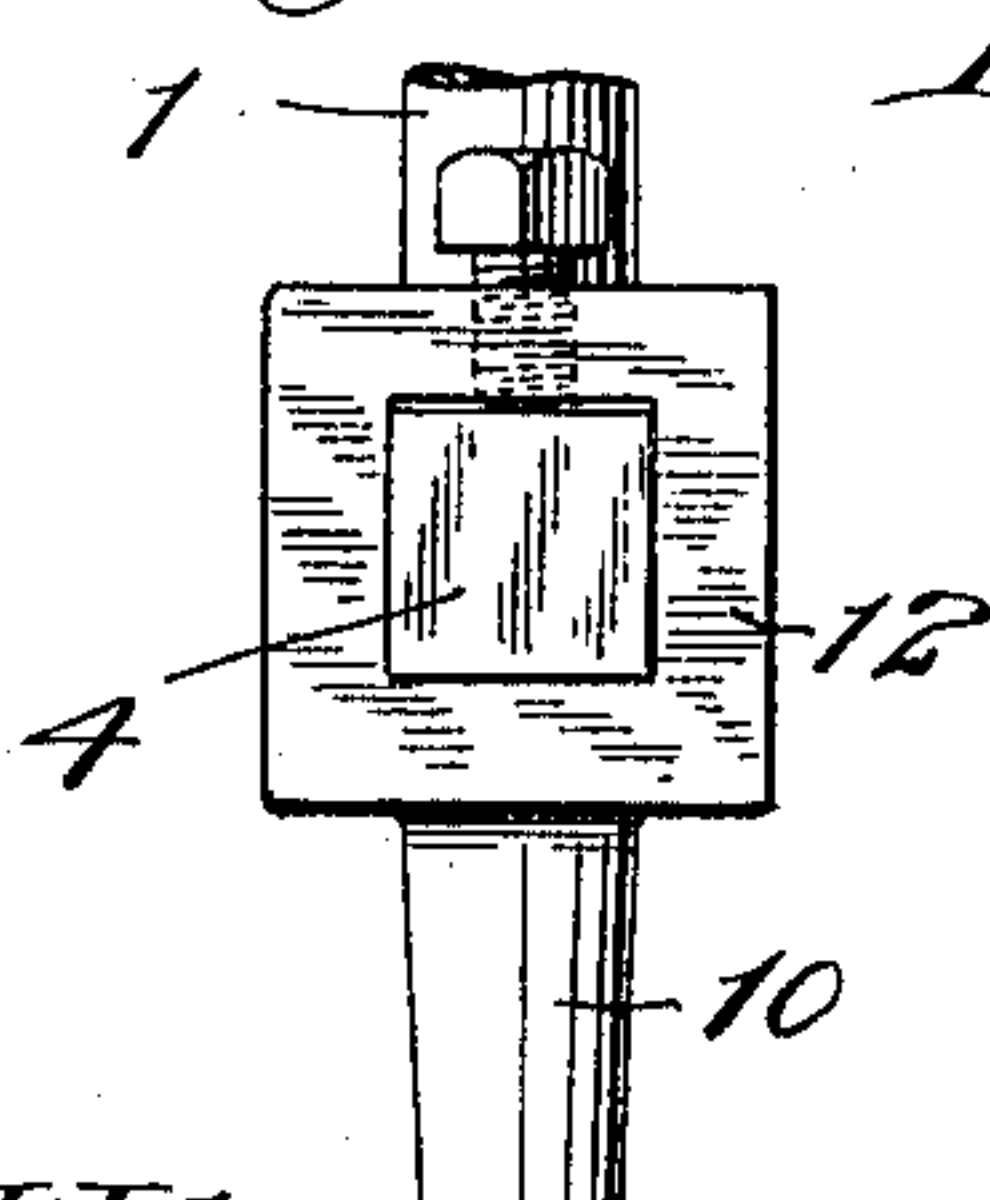
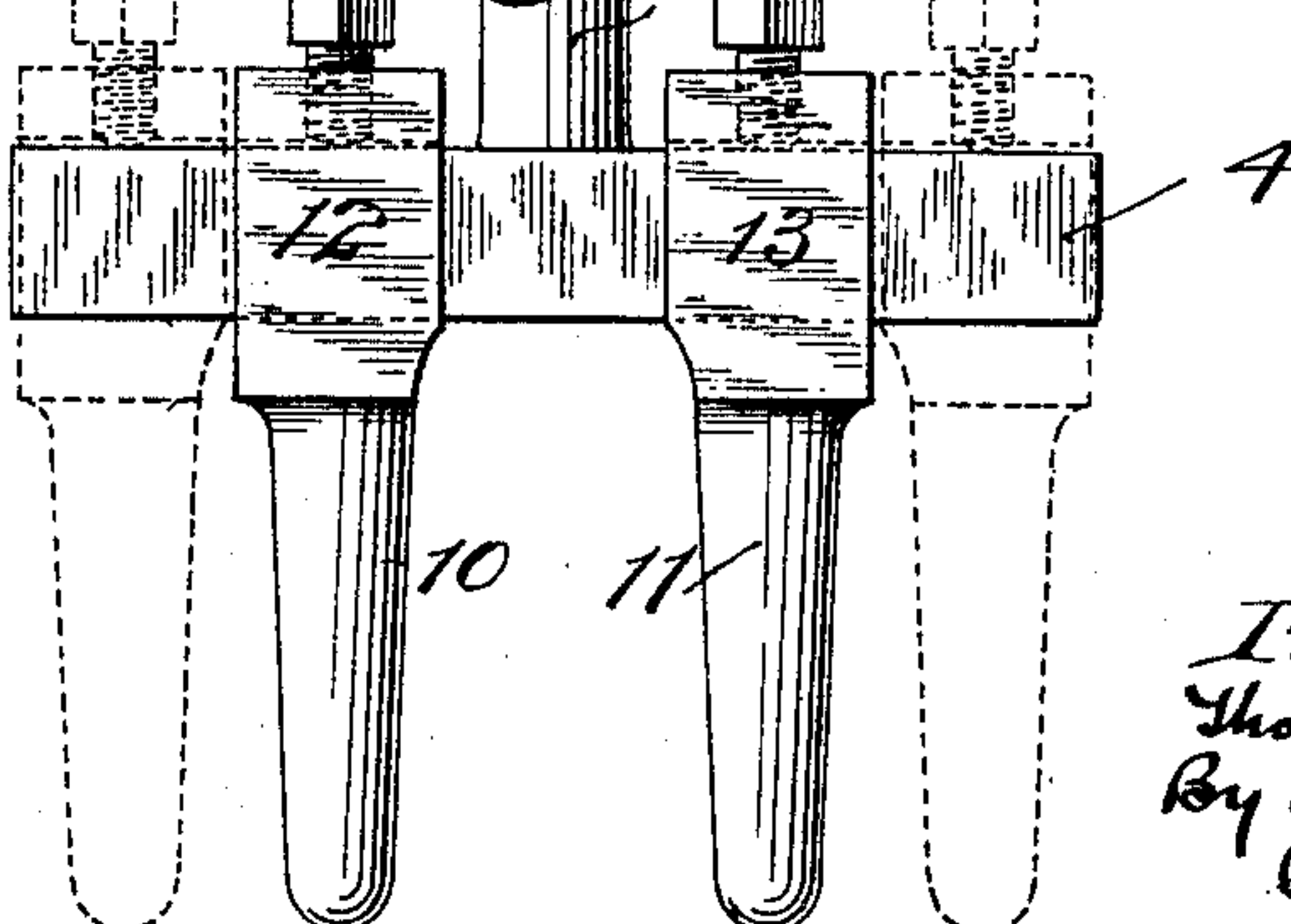


Fig. 6.



Witnesses:  
J. George Barry.  
Harry J. Glueck

Inventor:  
Thos. O'Hare  
By Brown & Edward  
his Attorneys



# UNITED STATES PATENT OFFICE.

THOMAS O'HARE, OF NEW YORK, N. Y.

## WRENCH.

976,391.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed May 27, 1910. Serial No. 563,738.

To all whom it may concern:

Be it known that I, THOMAS O'HARE, a citizen of the United States, and resident of the borough of Brooklyn, in the city and county of New York, State of New York, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

My invention relates to improvements in wrenches with the object in view of providing a socket wrench which may be adjusted to different sized nuts, and to further provide the wrench with interchangeable jaws for turning either a wing nut or a wheel on a valve stem.

A practical embodiment of the invention is represented in the accompanying drawings, in which,

Figure 1 is a top plan view of the wrench with the socket jaws in position thereon, Fig. 2 is a view of the same in side elevation, Fig. 3 is a view in edge elevation, Fig. 4 is a section taken in the plane of the line A—A of Fig. 2, Fig. 5 is a bottom plan view, Fig. 6 is a partial view in side elevation, showing a modified form of jaw, and Fig. 7 is a partial edge view of the same.

The stem, shank or spindle of the wrench is denoted by 1. It may be of any desired length and is conveniently provided at its upper end with a squared portion 2 for receiving a two-armed lever 3, a portion of which is indicated in dotted lines in Fig. 2. The stem 1 is provided at its opposite end with a transverse bar 4, preferably formed integral with the stem 1, and projecting on opposite sides of the stem 1.

On the bar 4 the jaws 5 and 6 are mounted to slide toward and away from each other to fit nuts of different sizes. The holding portions of the jaws are V-shaped, their upper portions being offset and provided with openings 7 therethrough, the said openings being adapted to receive the bar 4 with an easy sliding fit. The jaws are held in their adjusted positions on the bar 4 by means of set screws 8 and 9, which have a screw-threaded engagement with holes in the heads of the jaws and impinge against the bar 4.

The jaws 5 and 6 are offset in directions toward each other so as to permit the hold-

ing portions of the jaws to come into touching position centrally below the stem 1 when the heads or upper portions of the jaws abut against the opposite sides of the stem 1.

In operation, it is intended that the jaws 5 and 6 shall grasp the opposite corners of a nut and the said jaws may be slid toward and away from each other along the bar 4 until they fit snugly against the opposite corners of the particular nut to be turned, and when so adjusted, the set screws 8 and 9 may be turned down into engagement with the bar 4 to lock the jaws in their adjusted positions.

The wrench with its stem or spindle 1 and cross-bar 4 may conveniently be provided with two sets of jaws, one set like the jaws 5 and 6 for grasping the opposite corners of an ordinary polygonal shaped nut and another set like the jaws 10 and 11, Figs. 6 and 7, consisting of prongs depending from heads 12 and 13 quite similar to the heads of the jaws 5 and 6 and provided with set screws quite similar to the set screws 8 and 9 for holding the jaws in the desired position along the bar 4. These jaws 10 and 11 are well adapted to bear against the wings on an ordinary wing nut to turn it and are also adapted to engage the spokes of a wheel where a wheel is used to turn a valve as is common in water mains.

The wrench as above constructed is simple, effective and may be adjusted to all sizes of nuts within the limits of its cross-head or bar 4.

What I claim is:

A wrench comprising a spindle or shank provided with a cross bar, a pair of jaws having their upper portions offset from their lower portions and provided with openings to receive the cross-bar and means for locking the jaws in different positions on the cross-bar.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty fifth day of May, 1910.

THOMAS O'HARE.

Witnesses:

F. GEORGE BARRY,  
C. S. SUNDGREN.