

No. 710,164.

Patented Sept. 30, 1902.

M. M. MURRAY.
WRENCH.

(Application filed Feb. 7, 1902.)

(No Model.)

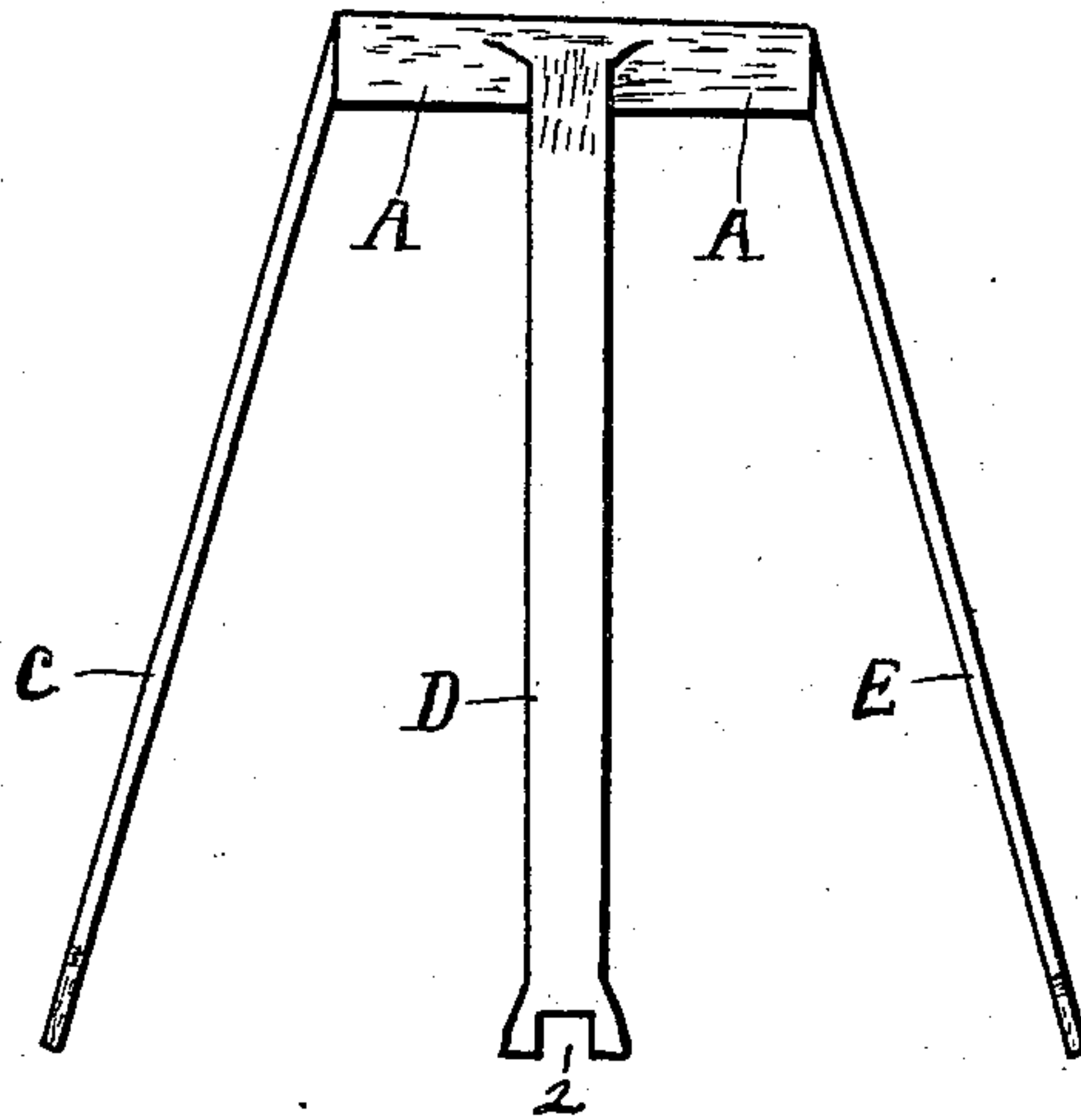


Fig. 1.

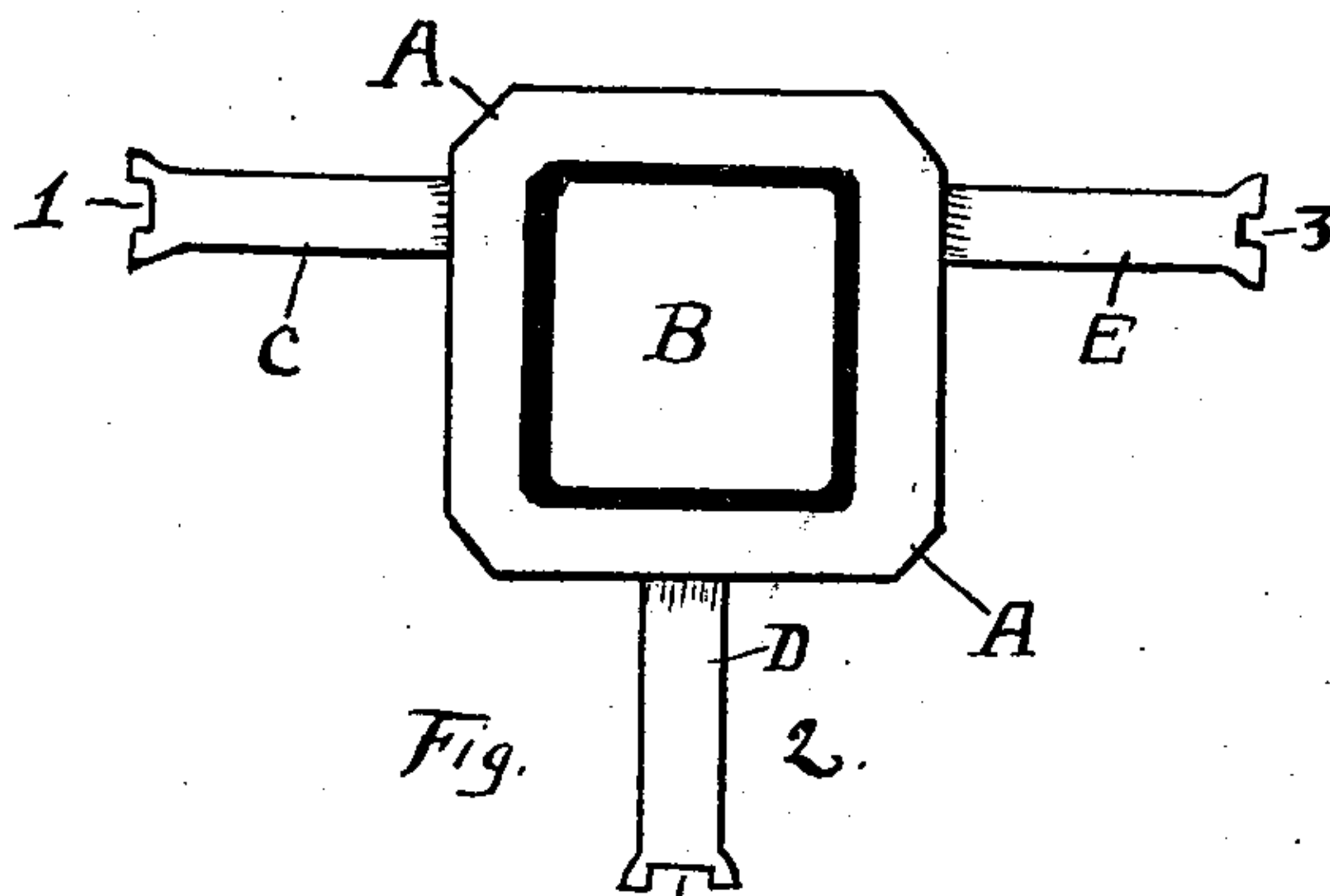


Fig.

2.

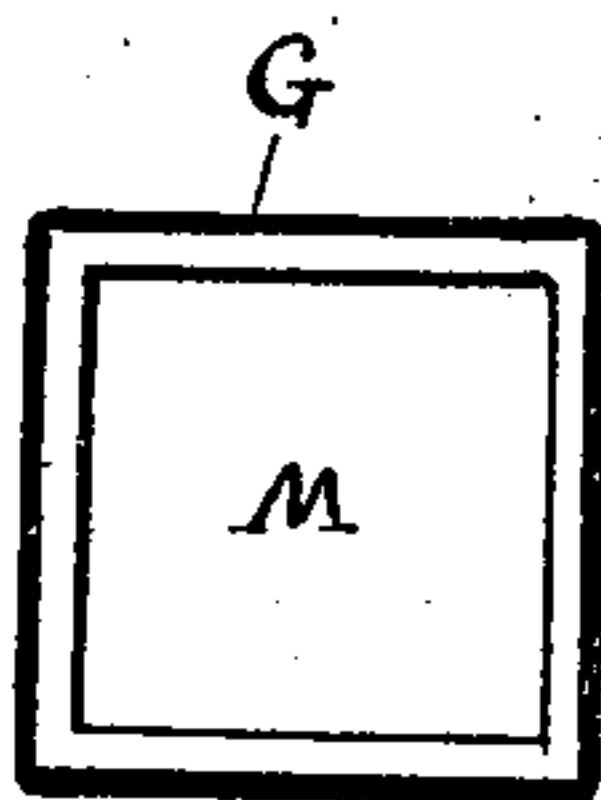


Fig. 3.

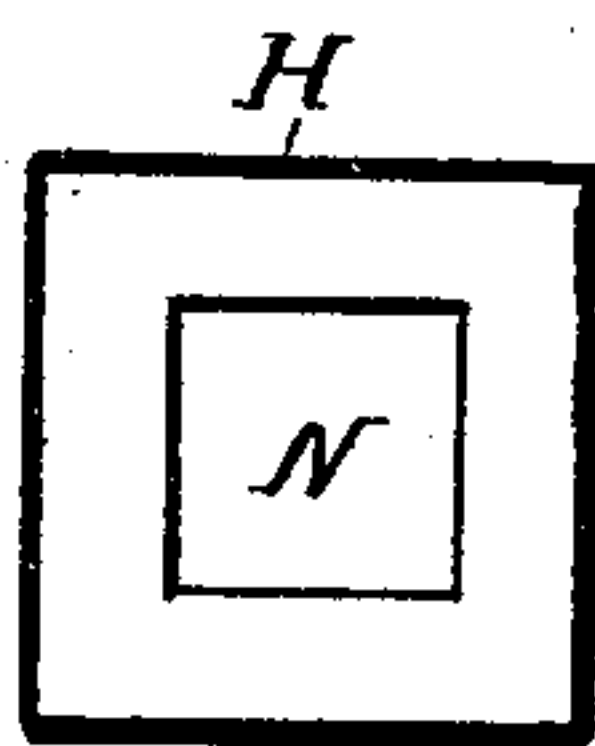


Fig. 4.

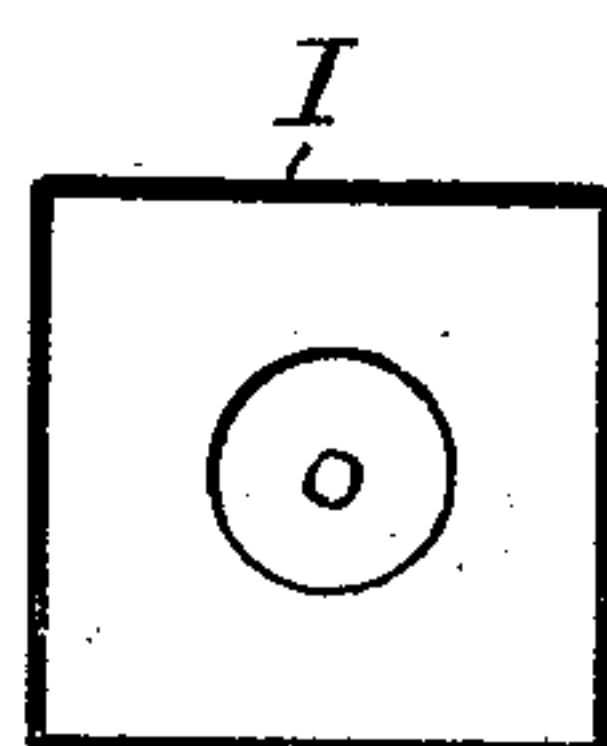


Fig. 5

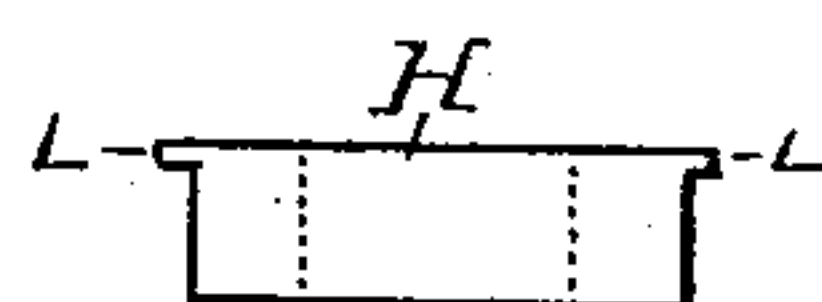


Fig. 6.

Witnesses:

R. Lee Stearn.

R. C. Randle.

Inventor:

Maurice M. Murray,

by his Attorney

Robert W. Randle.

UNITED STATES PATENT OFFICE.

MAURICE MORIARTY MURRAY, OF BAXTER, CALIFORNIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 710,164, dated September 30, 1902.

Application filed February 7, 1902. Serial No. 92,981. (No model.)

To all whom it may concern:

Be it known that I, MAURICE MORIARTY MURRAY, a citizen of the United States, residing at Baxter, in the county of Mariposa and State of California, have invented new and useful Improvements in Wrenches, of which the following is a specification which is sufficiently clear and concise as to enable others skilled in the art to which it appertains to make and use the same.

My invention consists in the parts, arrangement, improvements, shape, and combinations thereof, substantially as hereinafter shown and described, and specifically set forth in the appended claim terminating this specification.

The most important object of my invention is to provide a wrench especially adapted to be used on vehicles, in providing parts adapted to fit the various sizes of nut commonly used on vehicles, and more especially to provide a wrench for removing the nuts from ends of the axles of vehicles and for holding the nut after it has been removed, so that it will not come into contact with the floor or earth and will not have to be handled by the operator.

Other objects and advantages will appear from the following specification.

The details of the invention and the manner of operation will now be fully set forth, and the novel features will be recited in the appended claim.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of my newly-invented wrench. Fig. 2 is a vertical or top view of the same. Figs. 3, 4, and 5 are top detail views of the parts adapted to be inserted in the main body of my wrench, as will be hereinafter described; and Fig. 6 is a detail side view of the part shown in Fig. 4 and showing the side view of the parts shown in Figs. 3, 4, and 5.

In the drawings, A represents a flat member, with rounded corners of a thickness sufficient to give it the proper strength, and is provided with a square opening B therethrough, as shown. Secured on the outer edges of A are three legs C, D, and E, the same being secured to and are integral parts of A. Said legs extend downward and outward at approximately the proportions shown. The lower end of each leg is slightly enlarged

and is provided with notches 1, 2, and 3, respectively, which notches are designed to be used as wrenches, and each is of a size different from the other two.

G, H, and I represent blocks of same size as the member A, each being provided with an outwardly-extending flange L, as shown in Fig. 6. Said blocks are adapted to fit into the opening B of the member A, the flanges L resting around the outer edges of B, and thus preventing the blocks from slipping through the hole B. The inner or central portions of G, H, and I are cut out into various shapes and sizes, as shown by M, N, and O, for the purpose of forming different-size wrenches.

It is now apparent that should it be desired to remove a large-sized nut the member A can be placed over the nut, allowing the nut to enter the opening B, and by using the legs C, D, and E as levers the nut can be removed or turned in either direction. If the opening B is too large for the nut to be turned, then I drop the plate G into the opening B, which will reduce the size of the wrench to that shown by M, or if a smaller size is desired I can drop the plate H into the opening B, thus reducing the size to that shown by N. The plate I can be inserted in the opening B in like manner; but in this plate I have shown a round hole which can be of a size sufficient for holding a candle or is made square and of a size different from either M or N, if desired.

It is apparent that I provide a wrench that will fit a great variety of vehicle-nuts; that an axle-nut can be removed and retained in the wrench by sitting the wrench on the floor in the position shown in Fig. 1, which will hold the nut up from the floor while the operator is engaged in oiling the spindle; that I provide a wrench which will be very handy and useful and which can be made and sold at a comparatively low price.

My invention is perfectly adapted to accomplish the results for which it is intended, and it is evident that changes in and modifications of the specific construction herein shown and described may be made and that analogous parts may be used to accomplish the same results without departing from the spirit of my invention or sacrificing any of its many advantages.

I wish it understood I do not dedicate any part of my invention to the public and that I desire adequate and just protection for every feature of the invention and the various parts
5 shown and described that are new and useful and which involve invention.

Having now fully shown and described my invention and the best mode of its construction to me known at this time, what I claim
10 as new, and desire to secure by Letters Patent of the United States, is—

A vehicle-wrench consisting of a square body portion with a square central opening

therein with three legs radiating from and at obtuse angles to the body portion, of auxiliary
15 blocks, adapted to fit in the opening in the body portion, each provided with central openings therein of various diameters, all substantially as shown and described.

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

MAURICE MORIARTY MURRAY.

Witnesses:

EDW. GRENFELL,
JOHN T. MURPHY.