

(No Model.)

D. TRUE.
CARRIAGE WRENCH.

No. 279,993.

Patented June 26, 1883.

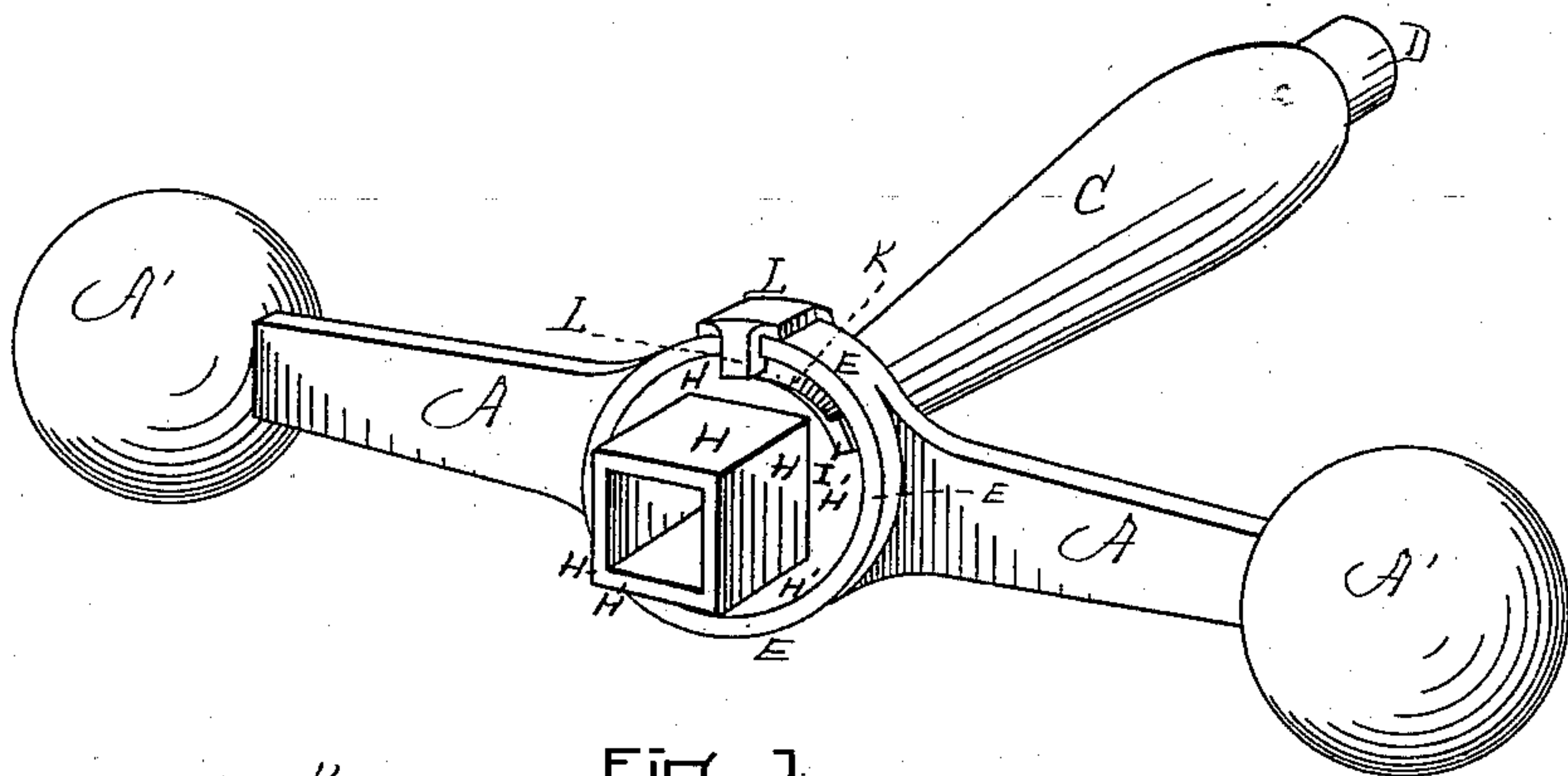


Fig. 1.

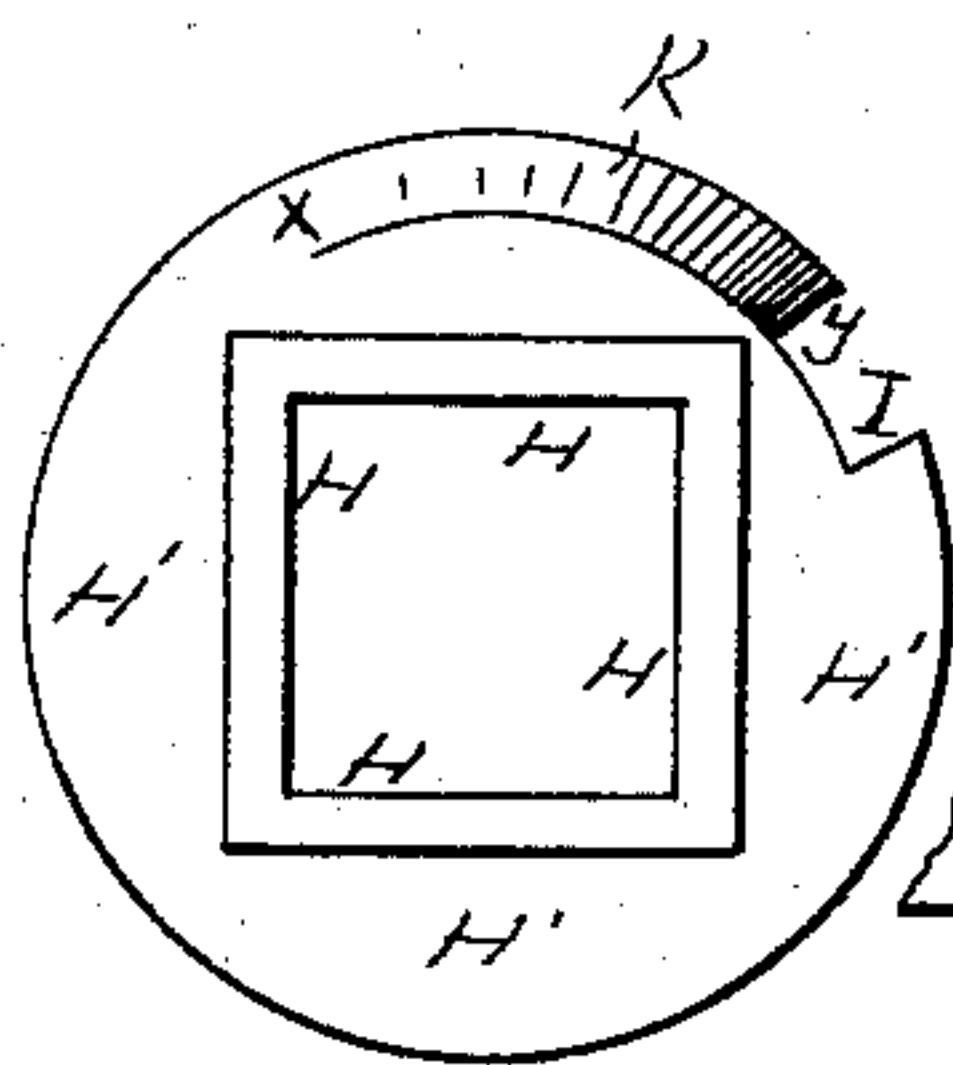


Fig. 3.

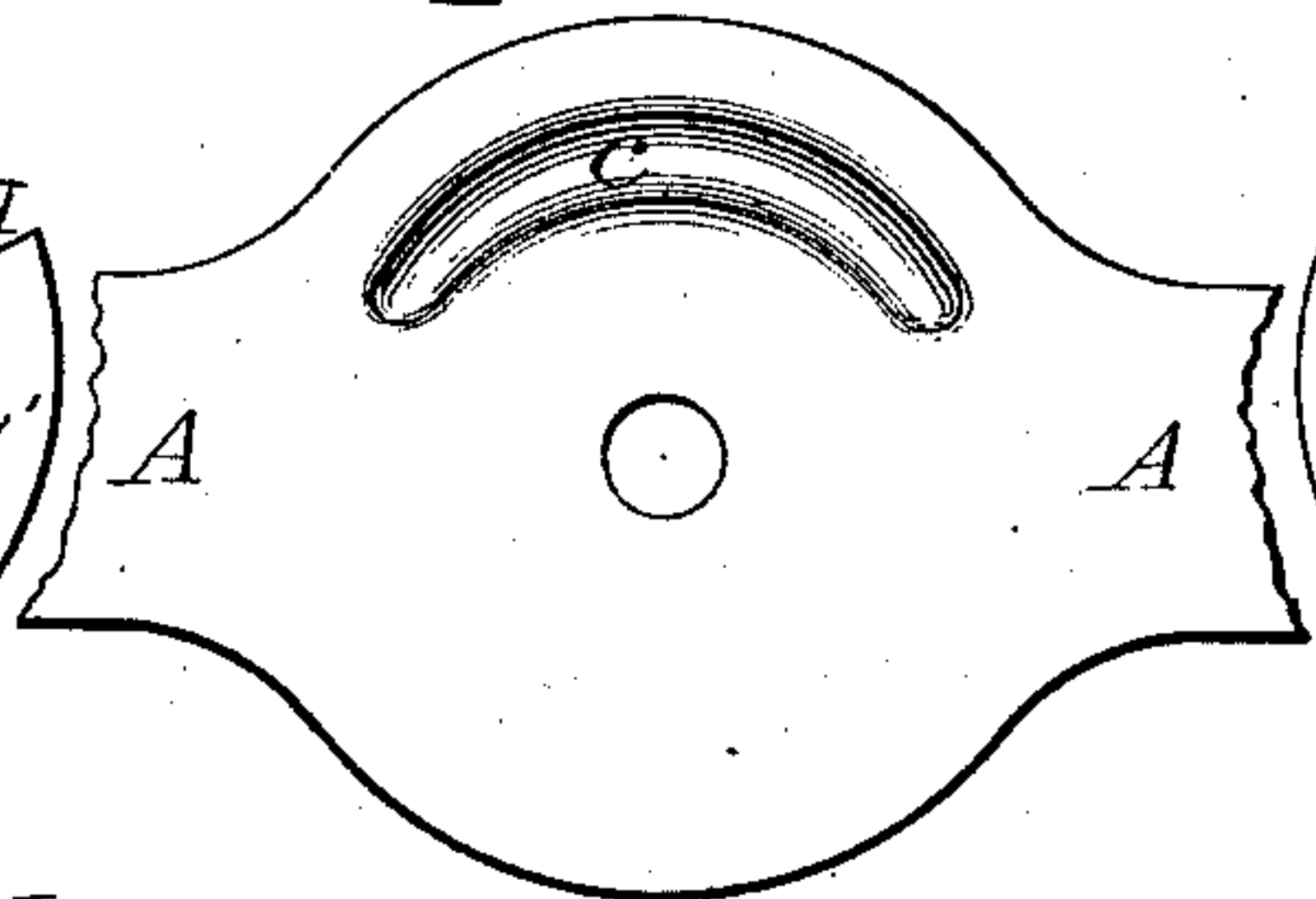


Fig. 5.

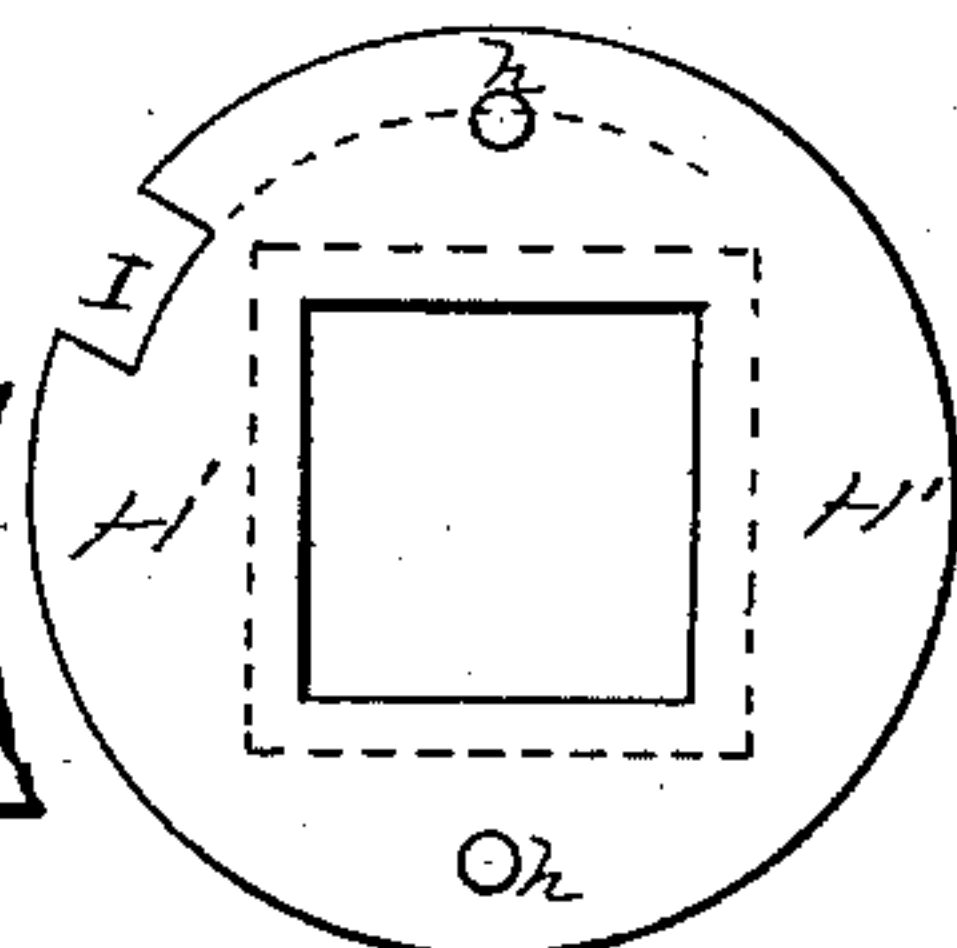


Fig. 4.

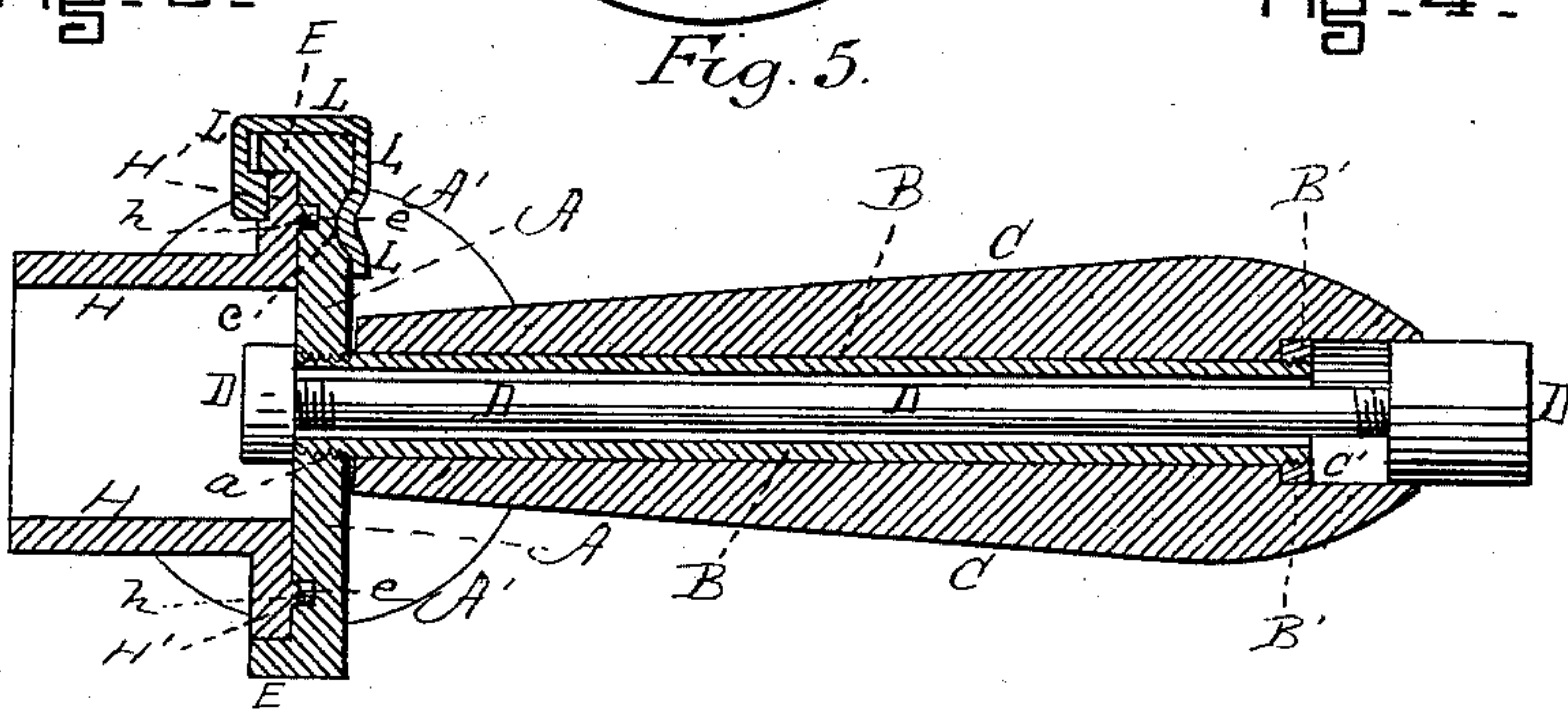


Fig. 2.

WITNESSES

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DAVID TRUE, OF SALISBURY, MASSACHUSETTS.

CARRIAGE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 279,993, dated June 26, 1883.

Application filed March 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID TRUE, of Salisbury, in the county of Essex and State of Massachusetts, have invented new and useful
5 Improvements in Carriage-Wrenches, of which the following is a specification.

In this wrench the construction is such that different sizes and styles of sockets or other devices for grasping nuts may be applied to the
10 stock or handle of the same instrument. The wrench is especially adapted for use as a carriage-wrench, but may be applied to nuts, &c., on other articles, if desired.

In the accompanying drawings, in which
15 similar letters of reference indicate like parts, Figure 1 is a view in perspective of a carriage-wrench embodying my invention. Fig. 2 is a longitudinal section of the same. Figs. 3 and 4 are respectively front and rear views of the
20 socket. Fig. 5 is a rear view of a portion of the bar A.

A is a bar, provided at its ends with the weights or balls A' and central opening, *a*. Screwed into this bar at said opening is the
25 tube or gas-pipe B, provided at its outer end with the ring B'.

C is a handle loosely placed upon the tube B and counterbored at C'.

D is a plunger placed loosely in the tube B and enlarged at its ends. The plunger D, handle C, tube B, and so much of the bar and balls A A' as is above described are constructed substantially as shown and described in Letters
30 Patent of the United States numbered 271,549, and granted to me January 30, 1883.

Centrally built upon the face of the bar A is a flange, E, which is circular in shape, and may be a complete circle or a segment of one.

H and H' are respectively the sides and
40 back or base, the latter circular in shape, of the socket which is applied to the nut. The socket is provided with pins *h*, fitting into corresponding openings, *e*, in the bar A, and a graduated or inclined track, K, is formed next

the periphery of the base of the socket by 45 gradually thinning the metal from *x* to *y*, Fig. 3. A clamp, L, substantially as shown, and made preferably of malleable iron, is bent over the flange E into the shape shown in the drawings, a semicircular depression being prefera- 50 bly, but not necessarily, made in the back of the bar A at *c*. The desired size or style of socket having been selected, it is placed against the bar A, within the flange E, its pins *h* in the openings *e* and the slot I allowing the base 55 H' of the socket to pass the clamp L. The said clamp is then slid around on the flange E from *y* toward *x* until it binds upon the base H' of the socket, holding it firmly in place. The wrench is then used in the manner described in 60 the Letters Patent above referred to, the handle C being held in the hand, while the bar A is revolved by means of the balls A' to remove the nut, which is pushed out of the socket by the plunger D. Thus it will be seen that sock- 65 ets may be made of different sizes and shapes, so as to fit square and hexagonal nuts, for instance, and the shank shown in the patent above referred to is entirely dispensed with.

Having thus fully described my invention, 70 what I claim, and desire to secure by Letters Patent, is—

1. In a wrench, the combination, with the bar A, provided with the flange E and clamp L, of the socket H H', provided with the open- 75 ing I, substantially as and for the purpose set forth.

2. In a wrench, the combination of the bar A, provided with the flange E, the detachable socket H H', provided with the graduated or 80 inclined track K, and recess I, and the clamp L, substantially as and for the purpose described.

DAVID TRUE.

Witnesses:

HENRY W. WILLIAMS,
JOSEPH ISHBAUGH.