

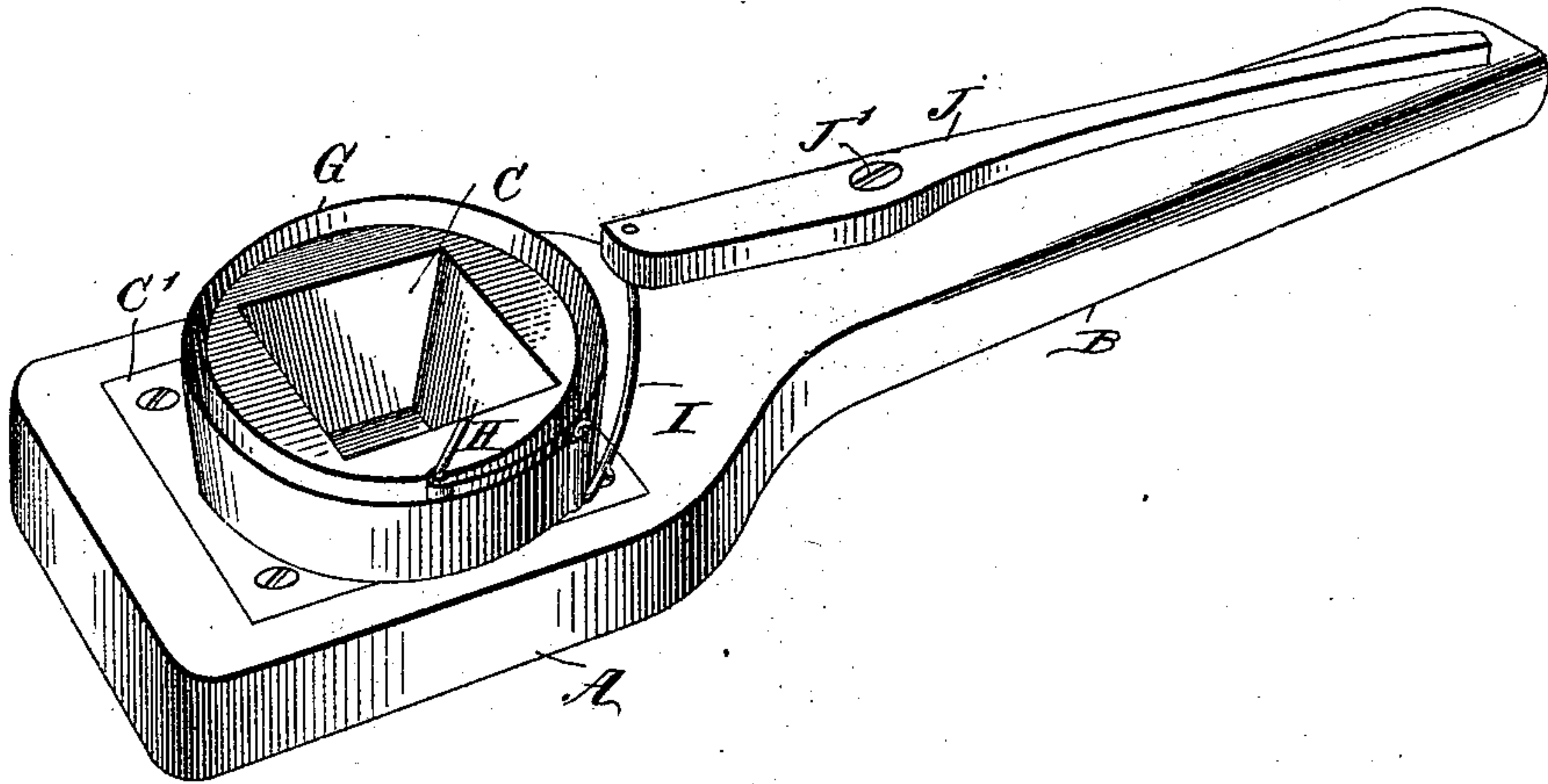
(No Model.)

J. L. STAMBAUGH.  
WRENCH.

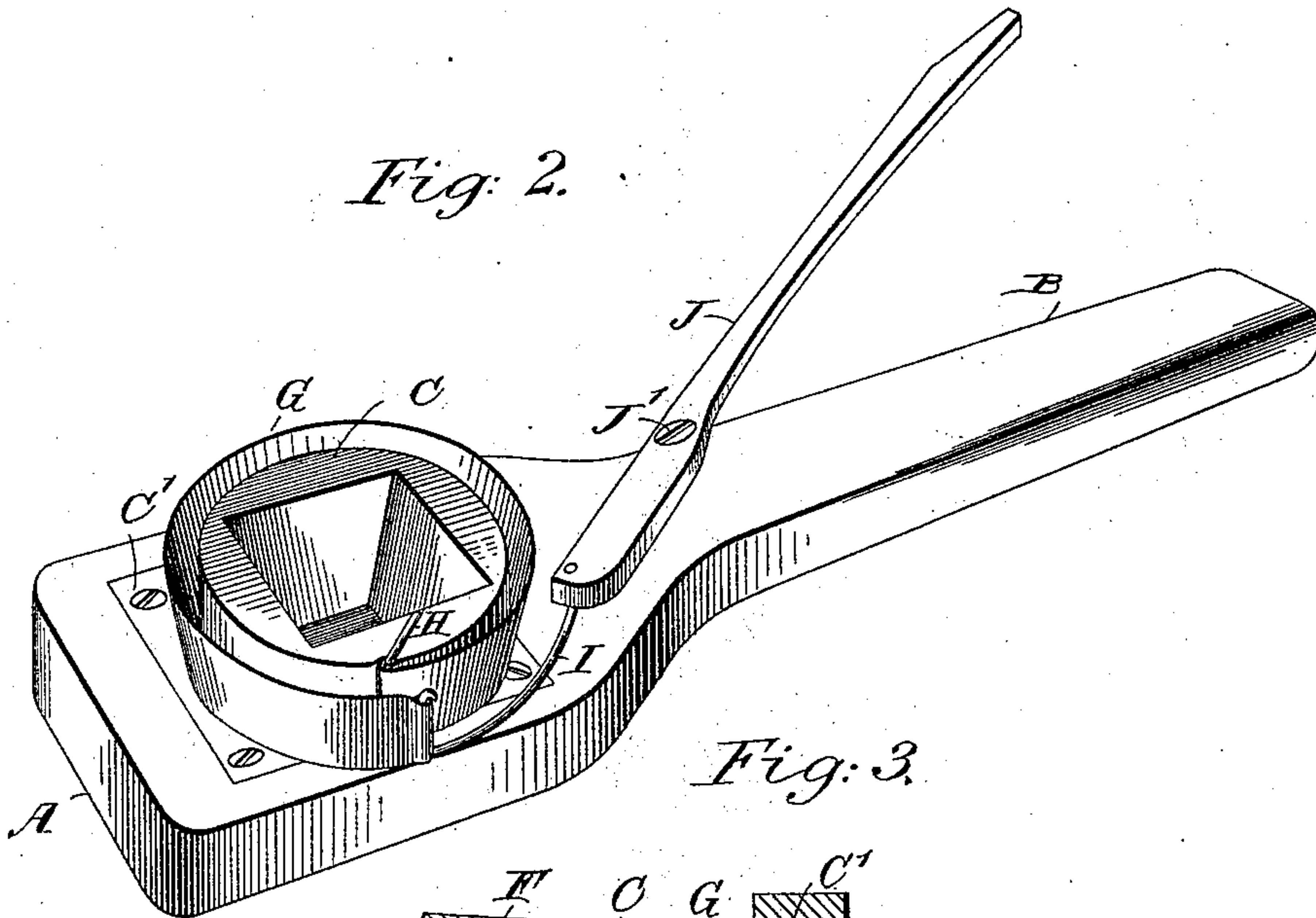
No. 528,398.

Patented Oct. 30, 1894.

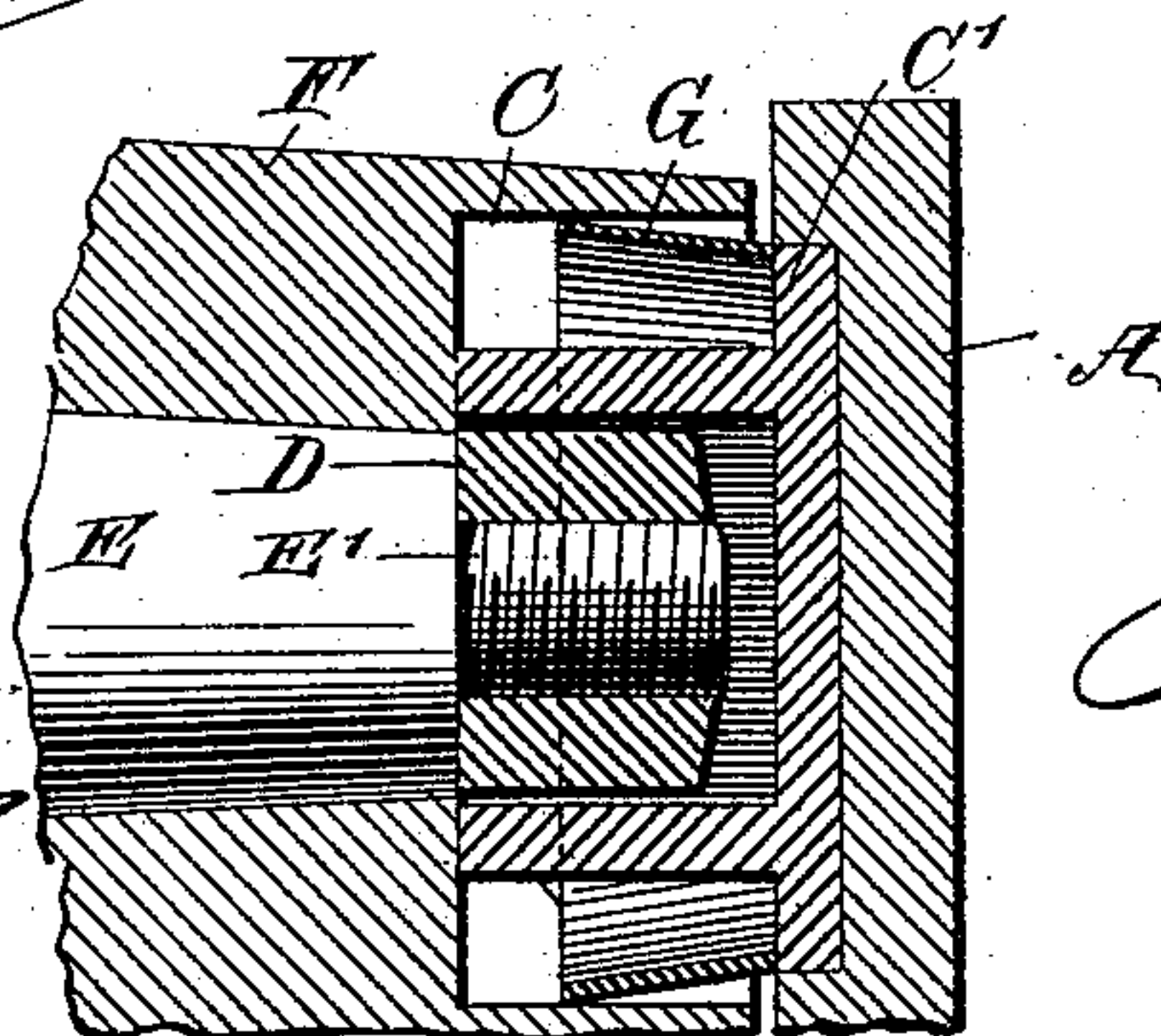
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:  
*John A. Rennie.*  
*Geo. G. Hosmer.*

INVENTOR  
*J. L. Stambaugh*  
BY *Munn & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JULIUS LOCKE STAMBAUGH, OF STANDART, TEXAS.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 528,398, dated October 30, 1894.

Application filed July 16, 1894. Serial No. 517,710. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS LOCKE STAMBAUGH, of Standart, in the county of Kinney and State of Texas, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved wrench, which is simple and durable in construction, and more especially designed for conveniently and quickly removing the nuts on the axles of vehicles and other devices.

The invention consists principally of a wrench adapted to engage the nut of the wheel hub, so that on turning the wheel the nut will unscrew from the threaded end of the axle.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improvement with the clamping spring closed. Fig. 2 is a like view of the same with the clamping spring open, and Fig. 3 is a sectional side elevation of the improvement as applied.

The improved wrench is provided with a wrench body A, from which extends a handle B, adapted to be taken hold of by the operator, for manipulating the wrench. On the wrench body A, is screwed the base plate C' of the cap or head C, formed with a recess of a cross section corresponding to the shape of the nut D, screwing on the threaded end E' of the axle E, carrying the hub of the wheel F.

The cap C, is surrounded by a coil spring band G, fastened at one end by a staple H, or other suitable means, to the side of the cap C, as is plainly illustrated in Figs. 1 and 2, the outer end of the said spring band being connected by a link I, with the forward end of the lever J, fulcrumed at J' on the handle B.

Normally, the spring band G is in an open position, as illustrated in Fig. 2, but when the lever J is swung inward over the handle B, as illustrated in Fig. 1, then the link I will draw the spring band G into the closed position, as shown in said Fig. 1.

In order to apply the wrench, the lever J is moved inward over the handle B to close the spring band G, and then the cap C is placed over the nut D, as indicated in Fig. 3, after which the operator releases the lever J, to permit the spring band G to open and to engage the inner surface of the hub of the wheel F, as illustrated in Fig. 3.

The spring band G, engages, with sufficient force, the hub of the wheel, so that when the latter is turned in the right direction, the wrench is carried around with the wheel and consequently the nut D is unscrewed from the threaded end of the spindle E. In a like manner the nut D, is screwed up on the threaded end E', by the operator turning the wheel F in an opposite direction, after the axle is lubricated in the usual manner.

Should the nut be too tightly set to turn with the wheel, the operator gives some aid, by turning the handle B a sufficient distance to loosen the nut, after which the complete loosening of the nut is accomplished by turning the wheel, as previously described.

The spring band G, is preferably made flaring, as illustrated in the drawings, to permit the outer edge of its face to snugly fit onto the conical inner surface of the hub of the wheel. The outer end of the spring band G, is rounded so as to leave no sharp corner to prevent the wheel from turning, at the time the nut is screwed up tightly, when placing the wheel in position on the spindle, and also in case the nut is too tightly set when taking the wheel off the spindle.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

An improved wrench, comprising a body having a handle member, a cap adapted to engage the nut, a spring band held to encircle the cap, having one end secured to the body adjacent to the cap, and means secured to the body for drawing up such band, whereby it can be fitted into the hub to expand against the inner wall thereof, as specified.

JULIUS LOCKE STAMBAUGH.

Witnesses:

THOMAS J. MASON,  
MARTIN BRADEN.