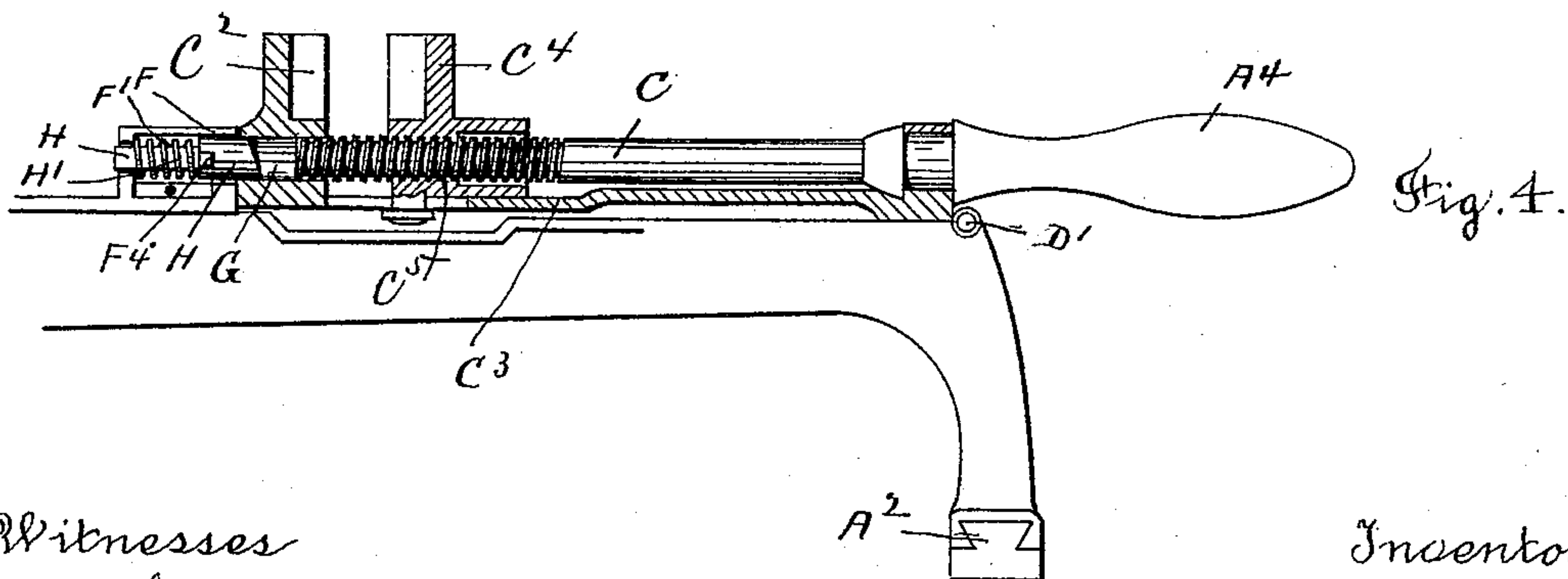
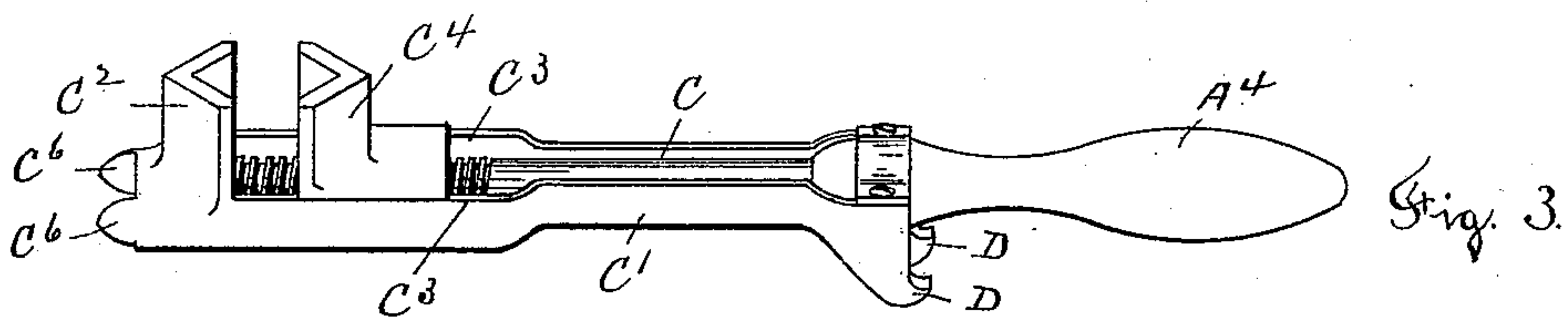
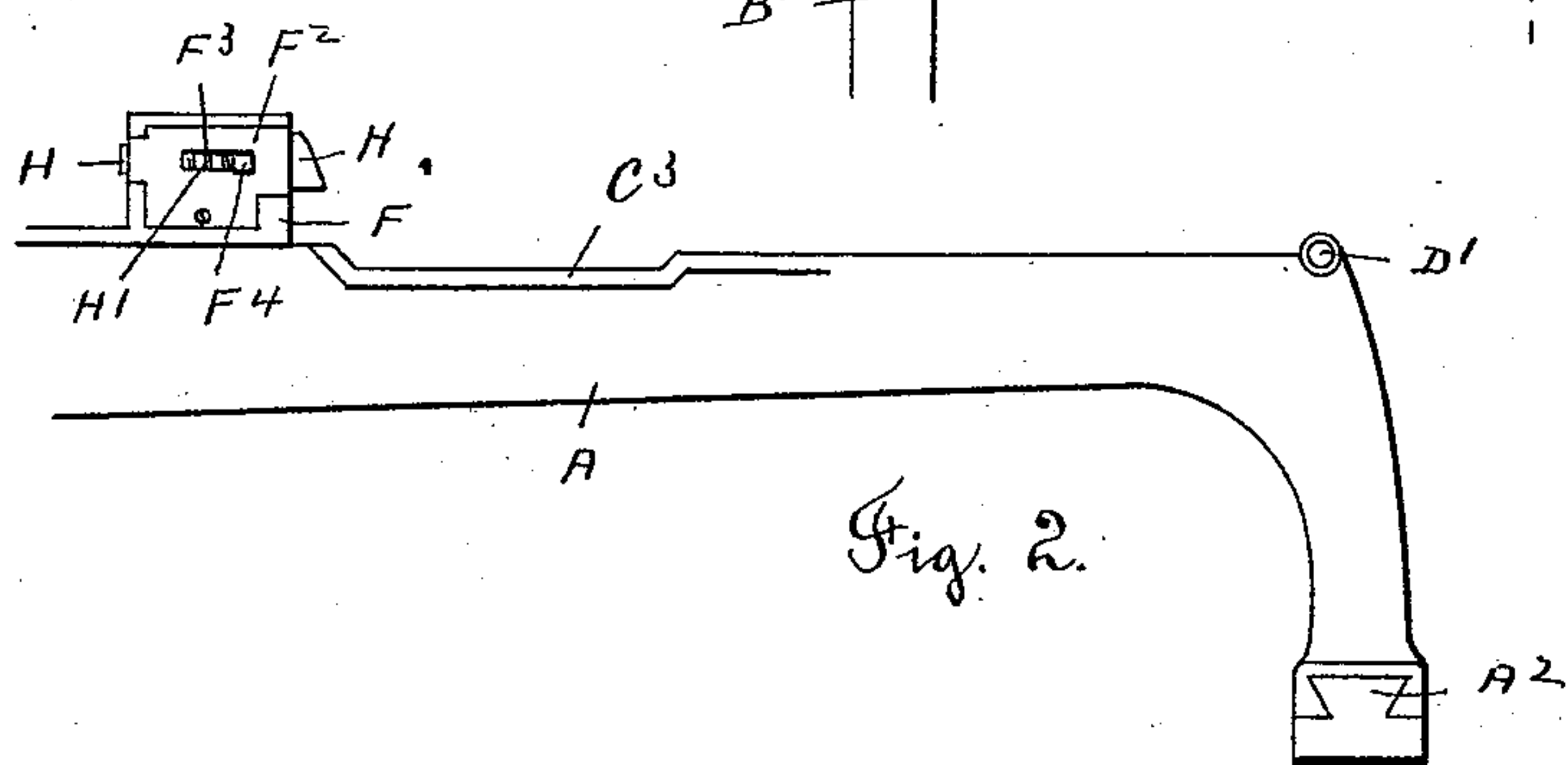
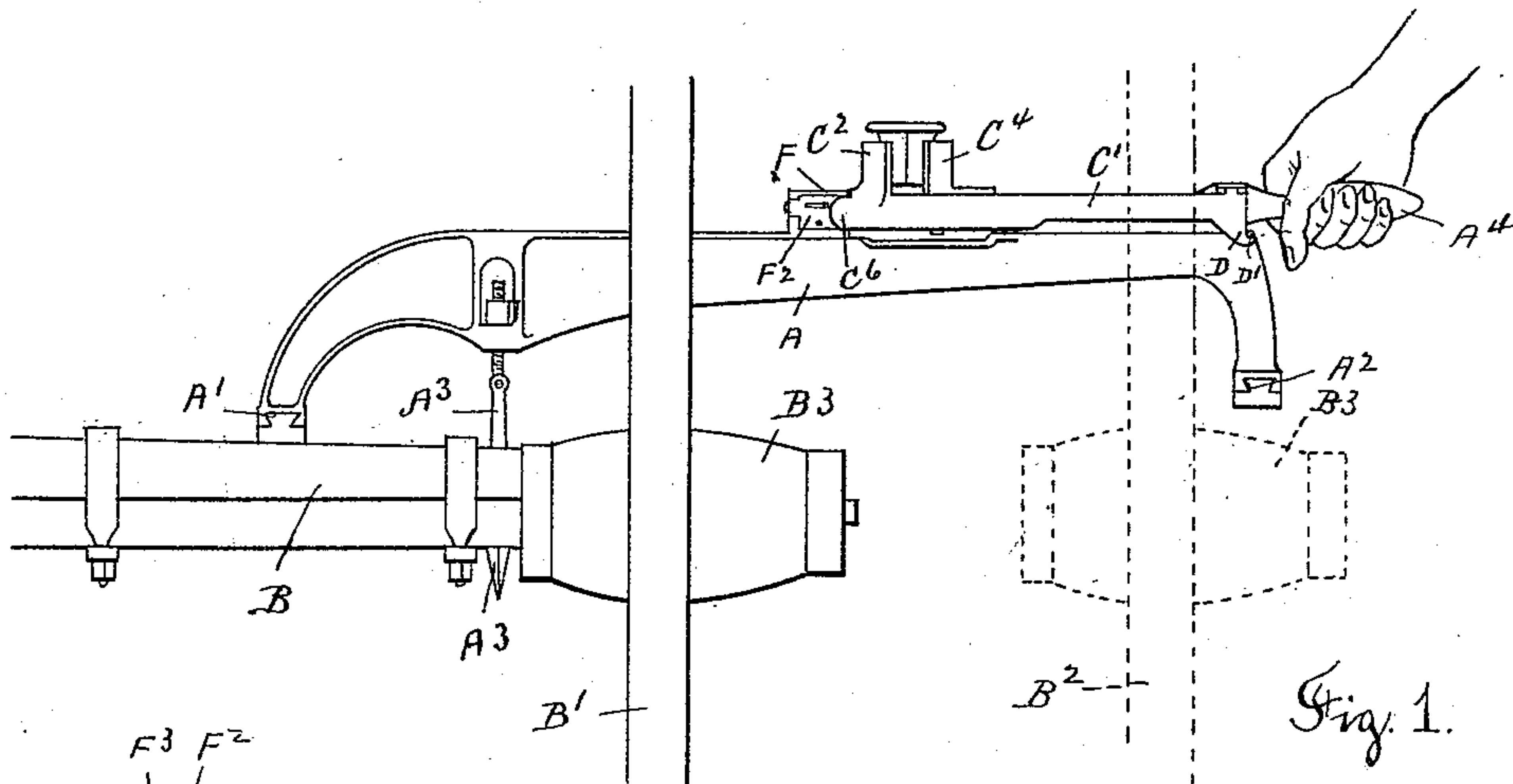


(No Model.)

W. A. STOWELL.
COMBINED CARRIAGE JACK AND WRENCH.

No. 543,661.

Patented July 30, 1895.



Witnesses

A. Whiting
Emma Foster

Inventor

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By his Attorney

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UNITED STATES PATENT OFFICE.

WILLIAM A. STOWELL, OF MONTPELIER, VERMONT.

COMBINED CARRIAGE JACK AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 543,661, dated July 30, 1895.

Application filed April 9, 1894. Serial No. 506,967. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. STOWELL, a citizen of the United States, residing at Montpelier, in the county of Washington and State of Vermont, have invented a new and useful Improvement in a Combined Carriage Jack and Wrench, of which the following is a specification, accompanied by drawings, forming a part of the same, in which—

10 Figure 1 represents the apparatus embodying my present invention, illustrating its method of application to the axle of a carriage. Fig. 2 represents a portion of the body of the carriage-jack with the wrench removed therefrom. Fig. 3 is a perspective view of the wrench detached from the body of the carriage-jack; and Fig. 4 represents that portion of the body of the carriage-jack, as shown in Fig. 2, with the wrench attached thereto, the wrench being shown in central sectional view and with the cap removed from the spring case or chamber, so as to disclose the locking-bolt and its actuating-spring, by which one end of the wrench is attached to
25 the body of the carriage-jack.

Similar letters refer to similar parts in the different figures.

My invention relates to that class of carriage-jacks which are adapted to support the axle of the carriage and rest upon the hub of the carriage-wheel after it has been removed from the axle; and it consists in certain improvements in the combined carriage jack and wrench forming the subject of my application for Letters Patent, Serial No. 497,842, filed January 20, 1894.

Referring to the drawings, A denotes the body of the carriage-jack provided at its ends with feet A' A² and having near one end a suspended hook A³. The jack is provided with a handle A⁴ at one end, and in use of the jack the foot A' is placed upon the top of the axle B with the hook A³ beneath the axle near the hub of the wheel B', and the axle and wheel are lifted by means of the handle A⁴, when the wheel B' can be removed from the axle into the position indicated by the broken lines B², Fig. 1, and the foot A² lowered to rest upon the hub B³, thereby suspending the axle.

Instead of permanently attaching the handle A⁴ to the body of the jack it is placed

upon the end of a rotating screw C, which is journaled in a bar C', provided with a fixed jaw C² at one end and having ways C³, adapted to receive a sliding jaw C⁴. The sliding jaw C⁴ is provided with a screw-threaded hole C⁵ to receive the rotating screw C, and as the screw C is held from longitudinal movement in the bar C' its rotation will cause the jaw C⁴ to slide along the ways C³.

The bar C' is detachably connected with the body A of the jack by means of two hooks D D at one end of the bar, which engage studs D', projecting from opposite sides of the jack, only one of the studs being represented in the drawings. The opposite end of the bar is provided with two ears or lugs C⁶, which inclose a lug F, projecting from the upper edge of the jack, in order to hold the bar C' from lateral movement. The end of the bar C' is also provided with a hole G to receive a spring-actuated bolt H, having a sliding motion in the lug F and actuated by a spring H', held within a chamber F', formed within the lug F and covered by a cap F². The cap F² is provided with a slot F³, through which a pin F⁴ extends, which is carried by the sliding bolt H, in order to withdraw the bolt H and release the bar C'. When the bar C' and screw C are in position, as represented in Figs. 1 and 4, they form a portion of the jack capable of being detached from the body A, as represented in Fig. 3, and capable of separate use for the purposes of a wrench.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The device comprising the lever A, provided with feet A' and A² at its opposite ends, and a suspension hook A³ supported by said lever, of a bar C lying parallel with said lever and having one end detachably attached to said lever midway its feet A', A², and having the opposite end of said bar C, detachably attached to one end of said lever A, fixed and movable jaws carried by said bar C, an actuating screw journaled in said bar C and extending beyond the end of said lever A and forming a handle A⁴, substantially as described.

2. A device comprising the lever A, provided with the feet A' and A² and a suspension hook A³ connected to said lever, studs D' projecting from said lever, detachable bar

C' provided with a pair of jaws, hooks D, D' on said bar engaging the stud D', handle A⁴ carried by said bar and a spring actuated latch held by the lever A and engaging said bar, substantially as described.

3. A device comprising the lever A provided with the feet A' and A², and a suspension hook A³, of a bar C' detachably connected with said lever and provided with a recess G, a lug F on said lever, a sliding spring

actuated bolt held by said lug and entering said recess, lugs or ears C⁶, C⁶ inclosing said lug F, hooks D engaging studs on said lever and a handle A⁴ carried by said detachable bar, substantially as described.

Dated this 30th day of March, 1894.

WILLIAM A. STOWELL.

Witnesses:

S. C. SHURTLEFF,

F. W. MORSE.