

No. 641,951.

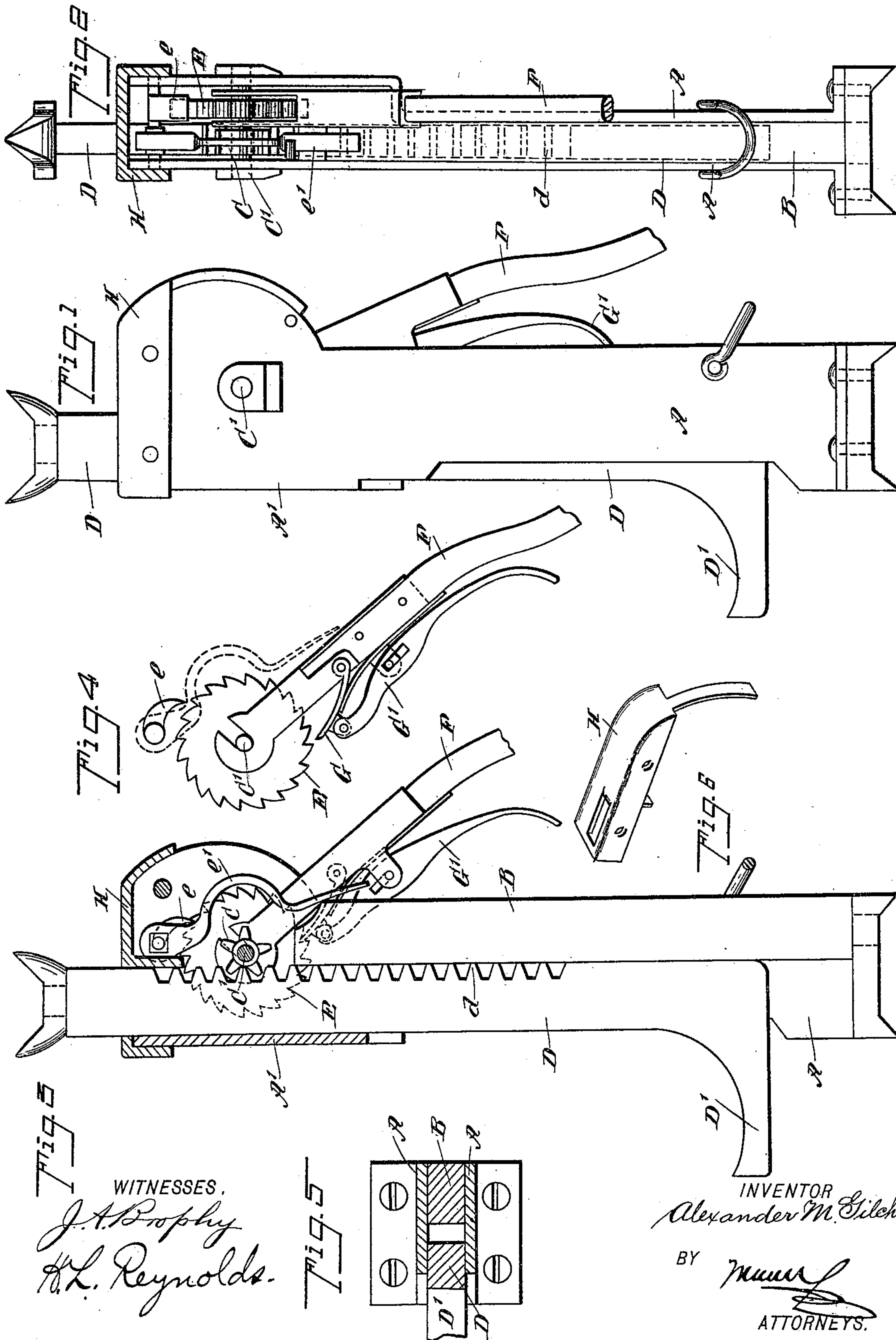
Patented Jan. 23, 1900.

A. M. GILCHRIST.

LOGGING JACK.

(Application filed Apr. 14, 1899.)

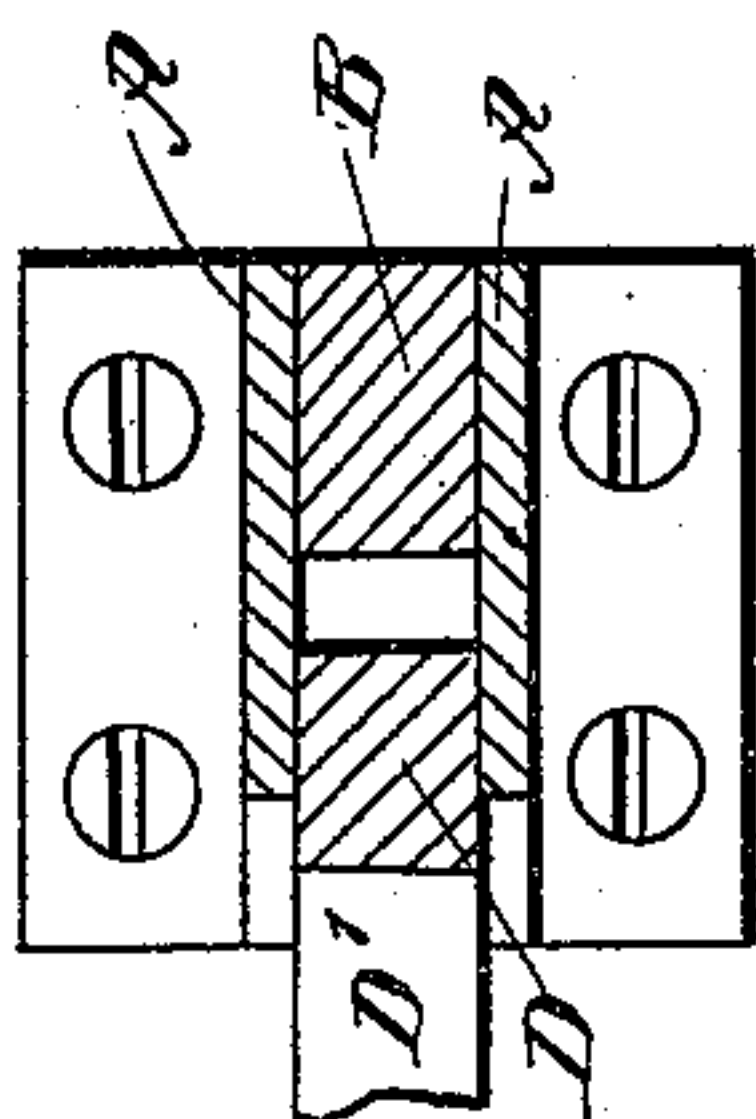
(No Model.)



WITNESSES.

J. A. Prophy  
H. L. Reynolds.

Fig. 5



INVENTOR

Alexander M. Gilchrist

BY

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# UNITED STATES PATENT OFFICE.

ALEXANDER MUNSIE GILCHRIST, OF SOUTH BEND, WASHINGTON.

## LOGGING-JACK.

SPECIFICATION forming part of Letters Patent No. 641,951, dated January 23, 1900.

Application filed April 14, 1899. Serial No. 713,047. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER MUNSIE GILCHRIST, of South Bend, in the county of Pacific and State of Washington, have invented a new and Improved Logging-Jack, of which the following is a full, clear, and exact description.

My invention relates to an improvement in logging-jacks and comprises the novel features which will be hereinafter described and claimed.

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

Figure 1 is a side elevation of my device. Fig. 2 is an elevation taken at right angles to that of Fig. 1 with a portion of the frame broken away at the top. Fig. 3 is a sectional elevation taken from the same side as shown in Fig. 1. Fig. 4 is a detail view of the mechanism for operating the ratchet-wheel. Fig. 5 is a sectional plan view through the standard, and Fig. 6 is a perspective view of the cap which covers the upper end of the frame.

My logging-jack, as herein shown, is similar in many respects to the logging-jack shown in the patent granted March 17, 1896, Serial No. 556,625, to John E. Gilchrist. My device differs, however, from the jack shown in said patent in certain respects, which will be hereinafter particularly pointed out.

One object sought to be accomplished by my present improvement is to provide the bar of the jack with a hook located upon its lower end, by means of which it may be enabled to engage a log close to the ground instead of having to place the upper end of the jack beneath the log.

A further object is to strengthen the construction of the casing, so that it may be used for heavier work without much danger of collapsing. The casing, as herein shown, consists of the two side plates A, of steel, having a filler-bar B inserted between them at one edge. These side plates are secured to each other and to the filler-bar B by means of rivets, bolts, or any other suitable means. The filler-bar thus forms a support for the plates from the lower end to just below the pivot upon which the lever is mounted, and in addition to this furnishes the strength of its cross-

section. It also in connection with the side plates A forms a groove for the reception and guiding of the lifting-bar D. This lifting-bar is formed of steel and has teeth *d* cut in its inner edge, said edge bearing against the edge of the filler-bar B.

The mechanism for raising and lowering the lifting-bar may be of any suitable or desirable construction. I have, however, herein shown mechanism similar to that shown and described in the patent previously referred to. This mechanism in brief consists of a pinion C, which is mounted upon a shaft C', carrying a ratchet-wheel E, said ratchet-wheel being engaged by a pawl G upon the operating-lever F, said pawl G being controlled in position by means of a controlling-lever G'. The ratchet-wheel is also provided with a stop pawl *e*, which is controlled by a hand-lever *e'*. The upper end of the lever F is recessed, thereby forming a hook adapted to engage the shaft C'.

The upper end of the groove containing the lifting-bar D is closed on its outer edge by means of a plate A', which is a continuation of one of the side plates or is secured to said side plates, as desired. The upper end of the casing is covered by a cap H, which is shown in perspective view in Fig. 6 and protects the operating mechanism.

To the lower end of the lifting-bar D is secured or formed a back projecting hook D', which turns slightly upward and is adapted to engage a log close to the ground. In many cases it is very desirable to have such a device as this, as it is impossible to conveniently lower the jack sufficiently to engage the upper end of the lifting-bar with the under surface of the log. To accommodate the hook D', the rear edge of the groove between the plates A is left open. By these improvements the jack is made stronger and more convenient in its operation than formerly.

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

A logging-jack, comprising a casing or standard consisting of two side plates, a filler-bar secured between one side edge of the plates, said plates projecting at one side beyond the filler-bar to form a channel, and one of them in the upper part of the casing or

standard extending across to and being secured to the other plate, thus inclosing said channel, a lifting-bar alongside the filler-bar and within the channel between the side plates  
5 and having teeth on the edge next the filler-bar, a cap having flanges embracing the upper ends of said plates, a hole receiving the lifting-bar, and a flange extending downward from the inner edge of the hole and engaging  
10 the inner edge of the lifting-bar, a pinion

journaled in the casing or standard and meshing with said teeth, a lock engaging the pinion to prevent backward movement, and a step-by-step forward rotating device for said pinion, substantially as described.

ALEXANDER MUNSIE GILCHRIST.

Witnesses:

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CHARLES FOSTER.