(No Model.)

J. CLINE.

HOISTING DEVICE.

No. 585,908. Patented July 6, 1897

Fig. 2.

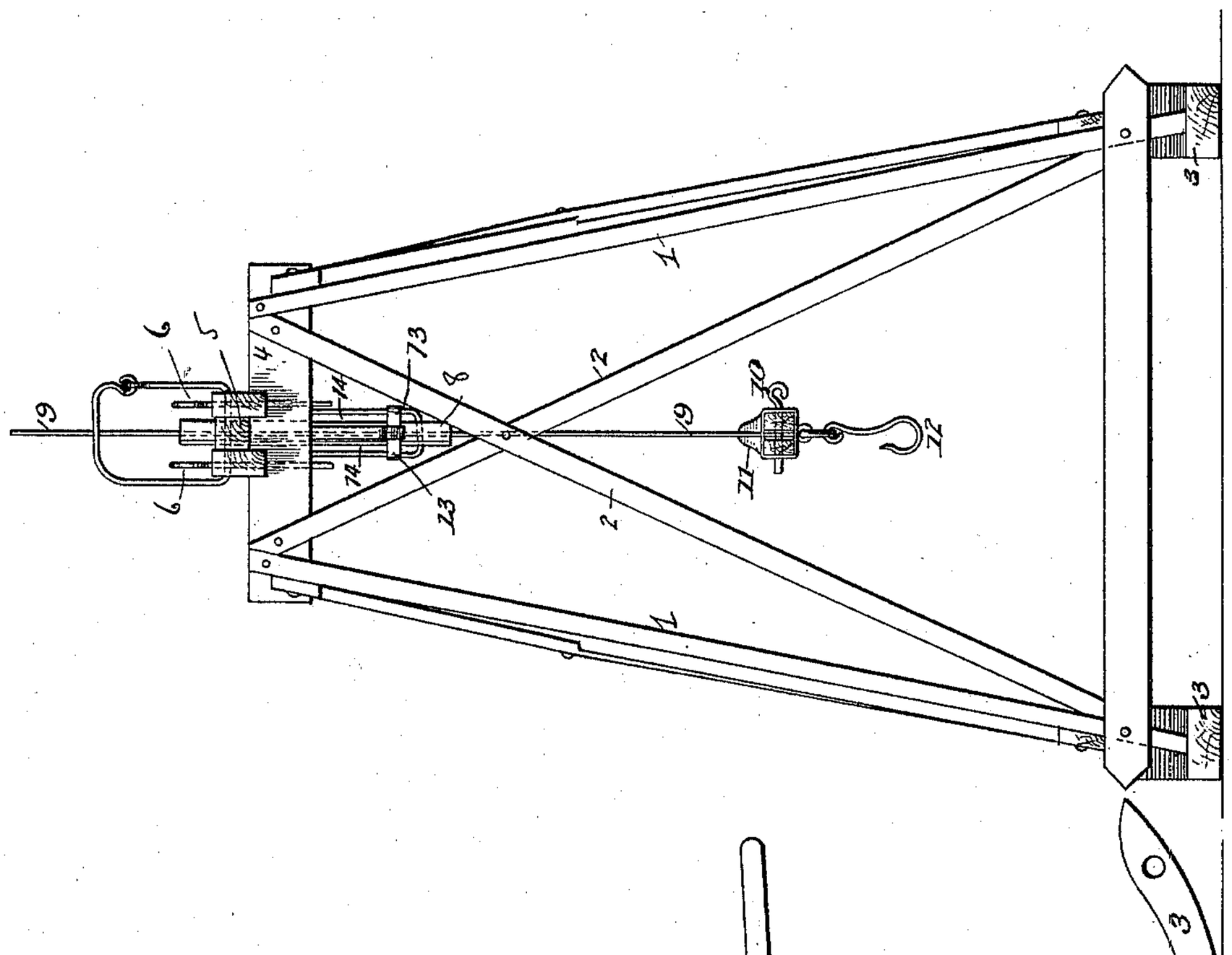
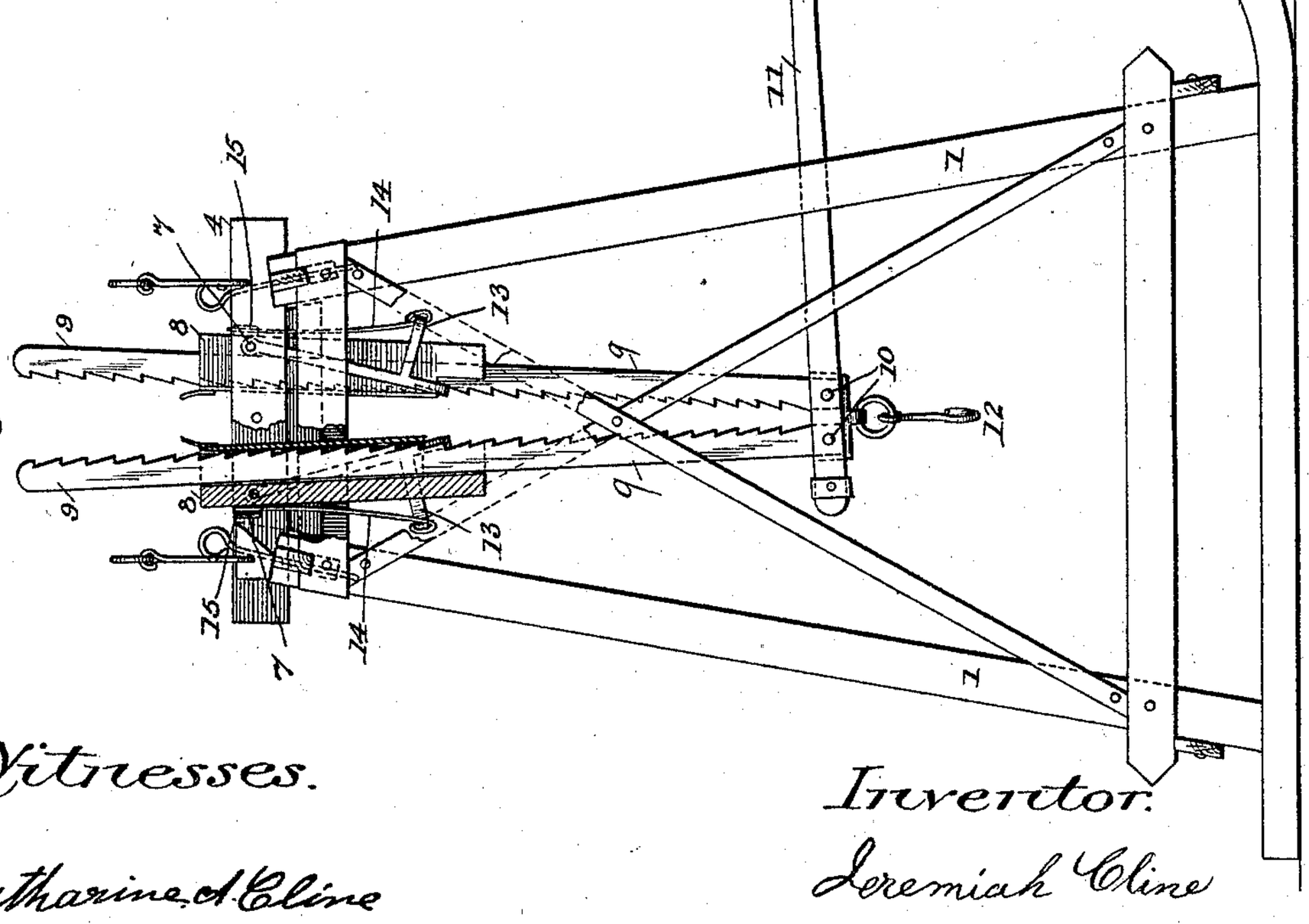


Fig. 1.



Witnesses.

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JEREMIAH CLINE, OF OPPENHEIM, NEW YORK.

HOISTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 585,908, dated July 6, 1897.

Application filed December 16, 1896. Serial No. 615,949. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH CLINE, of Oppenheim, county of Fulton, and State of New York, have invented certain new and useful Improvements in Hoisting Devices; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and the figures of reference marked thereon, which form a part of this specification.

Figure 1 shows a side elevation, with portions in vertical section, of my hoisting device. Fig. 2 shows an end elevation at right angles from that shown in Fig. 1.

Referring to the reference-figures in a more particular description, 1 1 indicate the legs or upright portions of the framework, which may be employed for supporting the hoisting apparatus hereinafter explained. The framework may be provided with braces 2 2 and mounted on runners 3 3 to enable it to be readily transported. At the top the frame is provided with heavy cross-bars 4, which afford a support for the hoisting-device head 5 when used on the frame, and the head may be secured to the cross-bars 4 by pins 6 6, &c. In the head are pivoted at 7 7, respectively, two rack guide boxes or ways 8 8, so as to have a free swinging movement in the same plane. The rack ways or boxes 8 have longitudinal openings which receive toothed racks 9 9, respectively. The lower ends of the racks 9 are pivoted at 10 10 to a lever 11, and there is also provided at the lower end of the racks means, as a hook-ring 12, for attaching the hoisting apparatus to anything that may be required to be lifted. In connection with each rack there is also provided a catch 13, pivoted at 7 on a common pivot with the rack box or way. The catch is provided with double arms extending either side of the rack box or way, as shown, and the cross portion between the lower ends is adapted to engage with the teeth of the rack. For holding the catches in engagement with the rack when not forcibly displaced there are provided springs 14, affixed to the back of the rack boxes or ways at 15, engaging at their lower free ends with bale-like loops on the catches. The lower end of the rack boxes or ways 8 are notched out, as shown, to make provisions for the catch engaging with the teeth and at the same time provide a back support for the racks at or opposite the point where the catch engages and below.

In operation the weight is attached to the hook and eye 12, and the hoisting is accomplished by working the free end of the lever 11 up and down. As it is forced down one of the racks 9 is moved up one or more notches and caught by the catch 13, operating on that particular rack. By moving the end of the lever 11 then upward the other rack is shoved up and caught, and the operation can be continued until the desired hoist has been accomplished. By reason of the boxes 8 being pivoted at some distance from each other the hoist can also be accomplished by swinging the lower ends of the racks to and fro in the plane of the racks and boxes. This under certain circumstances may be of advantage. The weight may be lowered by operating the lever 11 up and down and alternately disengaging the catches 13 in accordance with the movement of the lever. The hoisting mechanism may be removed from the frame and used horizontally or in any other desired position.

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

1. The combination in a hoisting device of a head, a pair of reciprocating racks, a lever to which the ends of the racks are secured by contiguous pivots, rack guide-boxes pivoted to the head, and suspended catches pivoted at the same point as the guide-boxes, substantially as set forth.

2. The combination in a hoisting device of a head 5, rack guide-boxes 8 8 independently pivoted in the head, the racks 9 extending through the boxes, the catches 13 and the operating-lever 11 to which the lower ends of the racks are pivoted, substantially as set forth.

JEREMIAH CLINE.

Witnesses:
CATHARINE A. CLINE,
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