

No. 709,584.

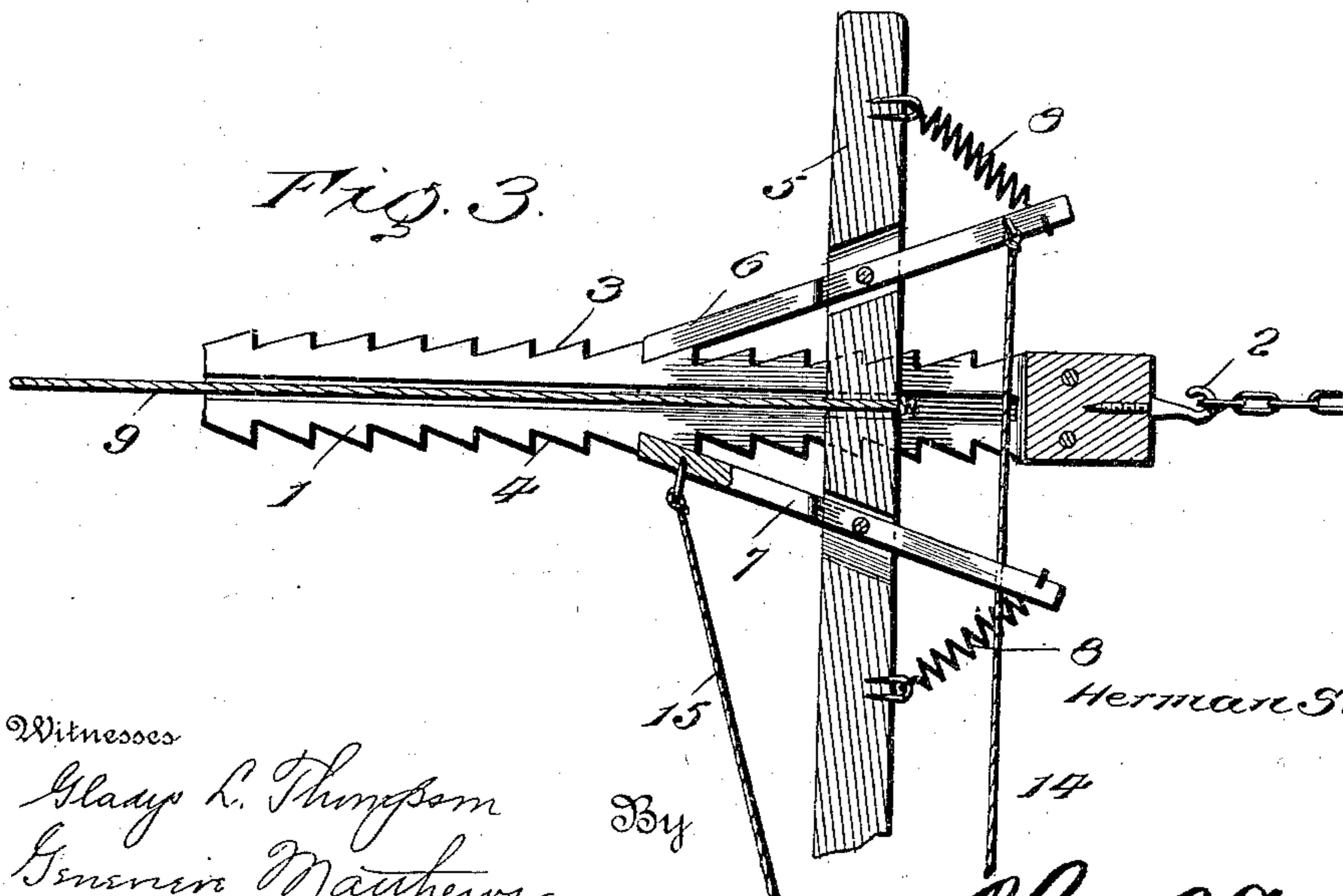
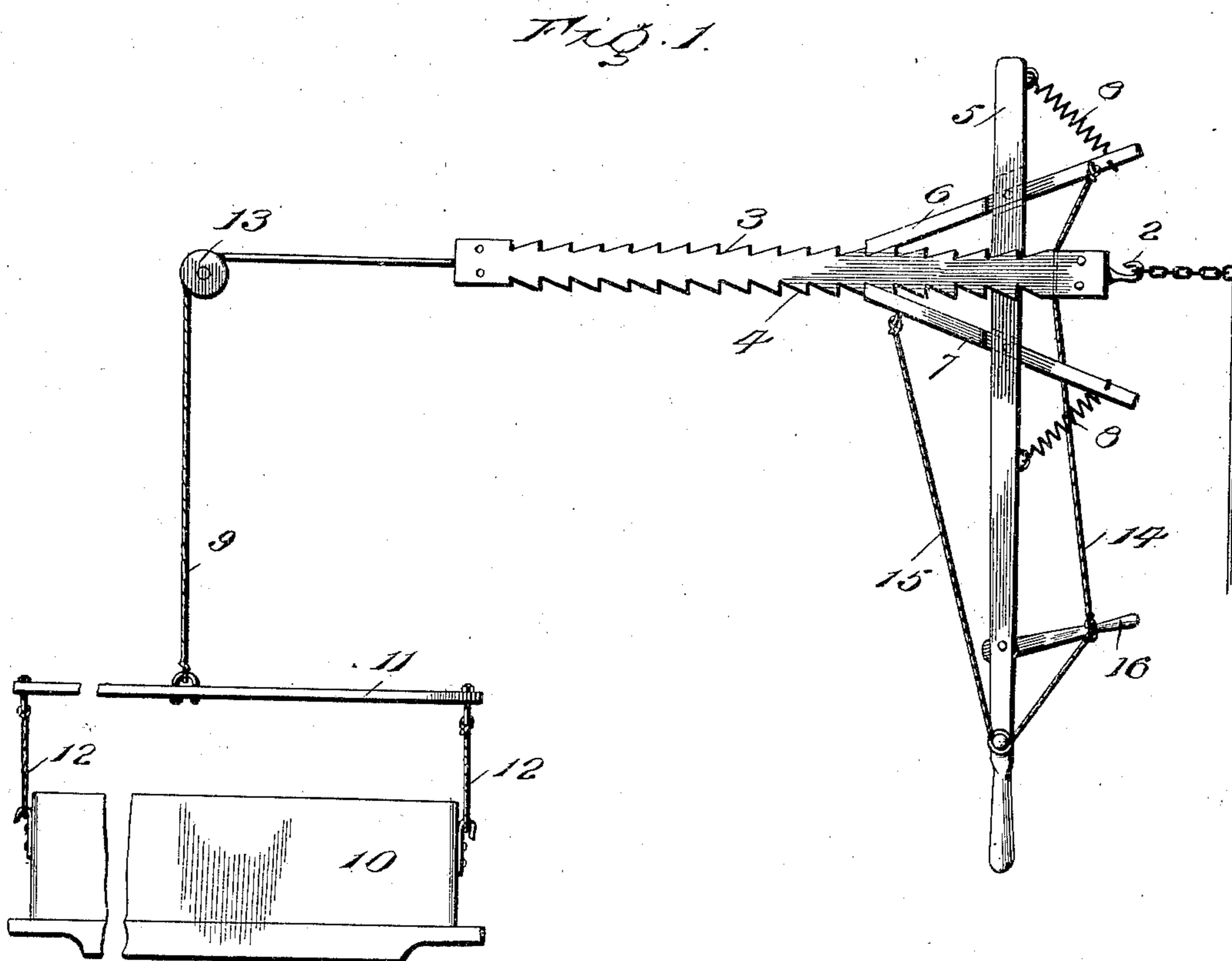
Patented Sept. 23, 1902.

H. SOETEBIER.
WAGON BODY LIFTER.

(Application filed Apr. 5, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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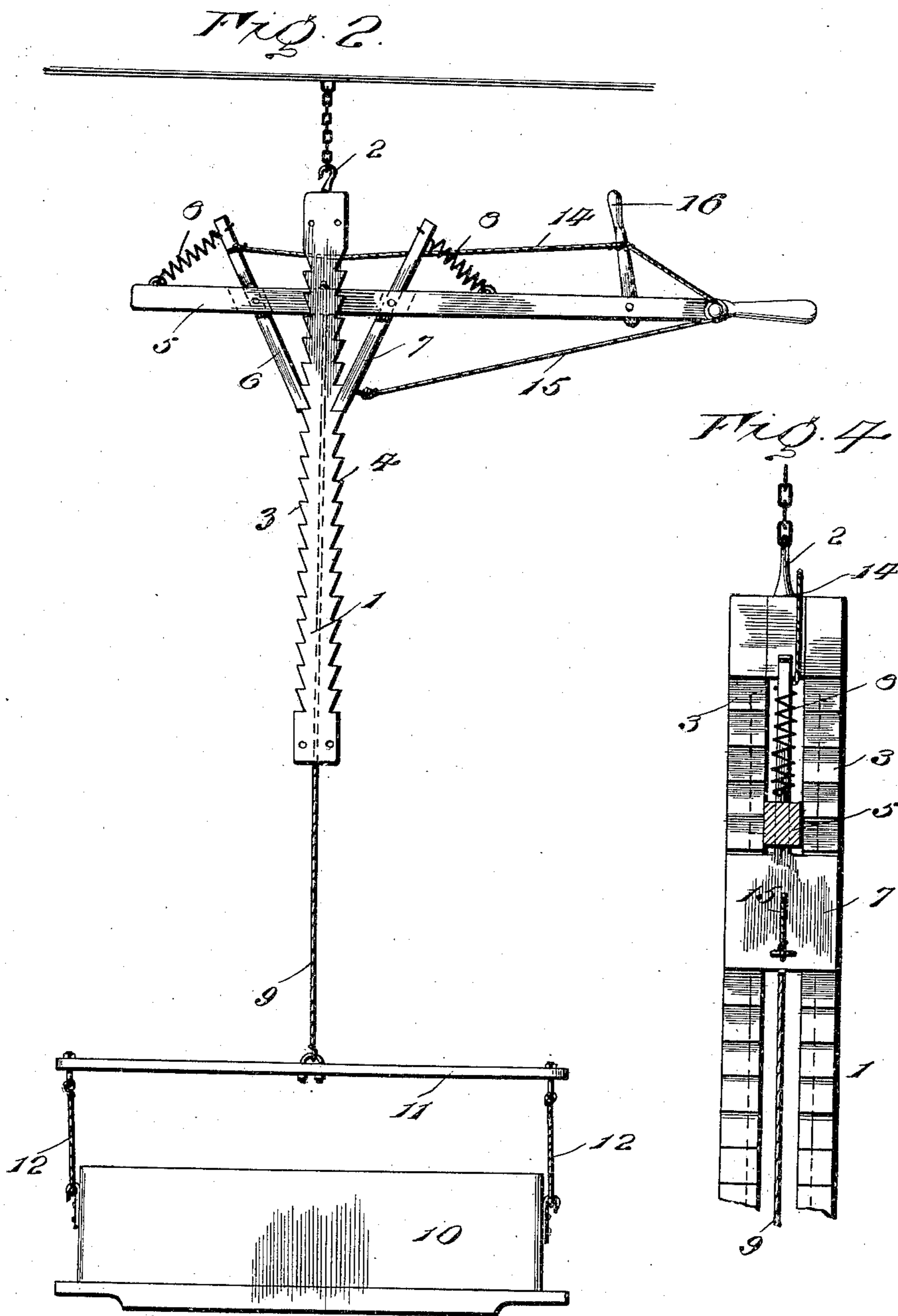
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

HERMAN SOETEBIER, OF UNION, MISSOURI.

WAGON-BODY LIFTER.

SPECIFICATION forming part of Letters Patent No. 709,584, dated September 23, 1902.

Application filed April 5, 1902. Serial No. 101,564. (No model.)

To all whom it may concern:

Be it known that I, HERMAN SOETEBIER, a citizen of the United States, residing at Union, in the county of Franklin and State of Missouri, have invented certain new and useful Improvements in Wagon-Body Lifters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention provides novel means for hoisting a wagon-body from the running-gear, the same being exceedingly simple, effective, and readily operable by one person either in lifting the body from the running-gear or replacing the same when required.

The essential feature of the invention is a bar having ratchet-teeth along opposite edges, a lever provided with oppositely-disposed spring-actuated pawls to coöperate with the ratchet-teeth and effect a movement of the lever step by step, hoisting-tackle connected with the said lever and adapted to be connected with the wagon-body to be lifted, and releasing-cords connected with the pawls to admit of a backward movement of the lever when it is required to replace the wagon-body upon the running-gear, all as will be more fully set forth hereinafter.

The invention further consists of the novel features, structural details, and combinations of parts which hereinafter will be more particularly set forth, illustrated, and finally claimed.

In the drawings hereto attached and forming a part of the specification, Figure 1 is a side view of the invention, showing one application thereof. Fig. 2 is a view similar to Fig. 1, showing a different application. Fig. 3 is a front view of the toothed bar, showing the space between the companion or side members. Fig. 4 is a horizontal section of the bar.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The bar 1 comprises spaced members or parts, which are connected at their ends. This bar has an attaching device 2 at one end, which, as shown, is a hook, and is provided along opposite edges with ratchet-teeth 3 and

4. A lever 5 is passed through the space formed between the side members or parts of the bar 1 and is provided with oppositely-disposed spring-actuated pawls 6 and 7, pivoted to the lever at a point between their ends. The pawl 6 is adapted to coöperate with the ratchet-teeth 3 and the pawl 7 with the teeth 4. These pawls 6 and 7 oppositely incline, and their upper ends are connected by springs 8 with the lever, so as to hold the inner ends of the pawls in engagement with the respective teeth. The hoisting-rope 9 passes through an opening in the connecting end of the bar opposite to the hook 2 and enters the space formed between the side members or parts of said bar and is connected with the lever 5, the opposite end of the hoisting-rope being adapted to be connected with the wagon-body 10 in any convenient way, and, as shown, a bar 11 is attached midway of its ends to the opposite end of the hoisting-rope 9 and is provided at its ends with ropes, chains, or analogous means 12 to be passed around the end portions of the wagon-body 10. As shown in Fig. 1, the hoisting-rope 9 passes around a pulley 13, thereby admitting of the bar 1 occupying a horizontal or other desired position. As shown in Fig. 2, the bar 1 occupies a vertical position, being suspended from a rafter or other overhead support. Upon oscillating the lever 5 the pawls 6 and 7 move upon the bar 1 step by step, thereby drawing upon the hoisting-rope 9 and effecting a lifting of the wagon-body. A releasing device is provided for disconnecting the pawls 6 and 7 from their respective ratchet-teeth, thereby admitting of a retrograde movement of the lever 5 to permit the lowering of the wagon-body. As shown, a cord or like connection 14 is attached at one end to the upper end of the pawl 6, and a cord or like connection 15 is attached to the lower end of the pawl 7, and these cords or connections 14 and 15 extend within convenient reach of the outer or gripping end of the lever 5 to be pulled upon to enable the pawls to clear the respective ratchet-teeth when backing the lever 5 to admit of lowering the wagon-body. For convenience the cords 14 and 15 are attached to a lever 16, pivoted to the lever 5 near its outer end, and proper movement of the lever 16 in conjunction with the lever 5 will admit of a

retrograde movement of the said lever 5 to permit of lowering the wagon-body, as will be readily comprehended.

Having thus described the invention, what is claimed as new is—

1. In hoisting mechanism, the combination of the following instrumentalities, namely, a bar composed of transversely-spaced members having opposite edges correspondingly toothed, a lever freely movable in the space formed between the members of said bar, spring-actuated pawls applied to said lever and located upon opposite sides of the bar for alternate coöperation with the teeth thereof, a second lever pivoted to the first-mentioned lever, and flexible connections between said second lever and the spring-actuated pawls for alternately throwing the latter out of engagement with the toothed bar, one of said flexible connections being deflected by passing around a portion of the first-mentioned lever, substantially as set forth.

2. The herein-described means for lifting wagon-bodies and the like, comprising a bar,

attaching means at the ends of the bar for connection with the object to be lifted, a toothed bar comprising transversely-spaced members having opposite edges correspondingly toothed, a lever freely movable in the space between the members of the toothed bar, a hoisting-rope attached to the said lever and connected with the first-mentioned bar midway of its ends, spring-actuated pawls applied to the lever and located upon opposite sides of the toothed bar for alternate coöperation therewith, a second lever pivoted to the operating-lever, and flexible connections between said second lever and the spring-actuated pawls for alternately throwing them out of engagement with the toothed bar, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HERMAN SOETEBIER. [L. S.]

Witnesses:

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