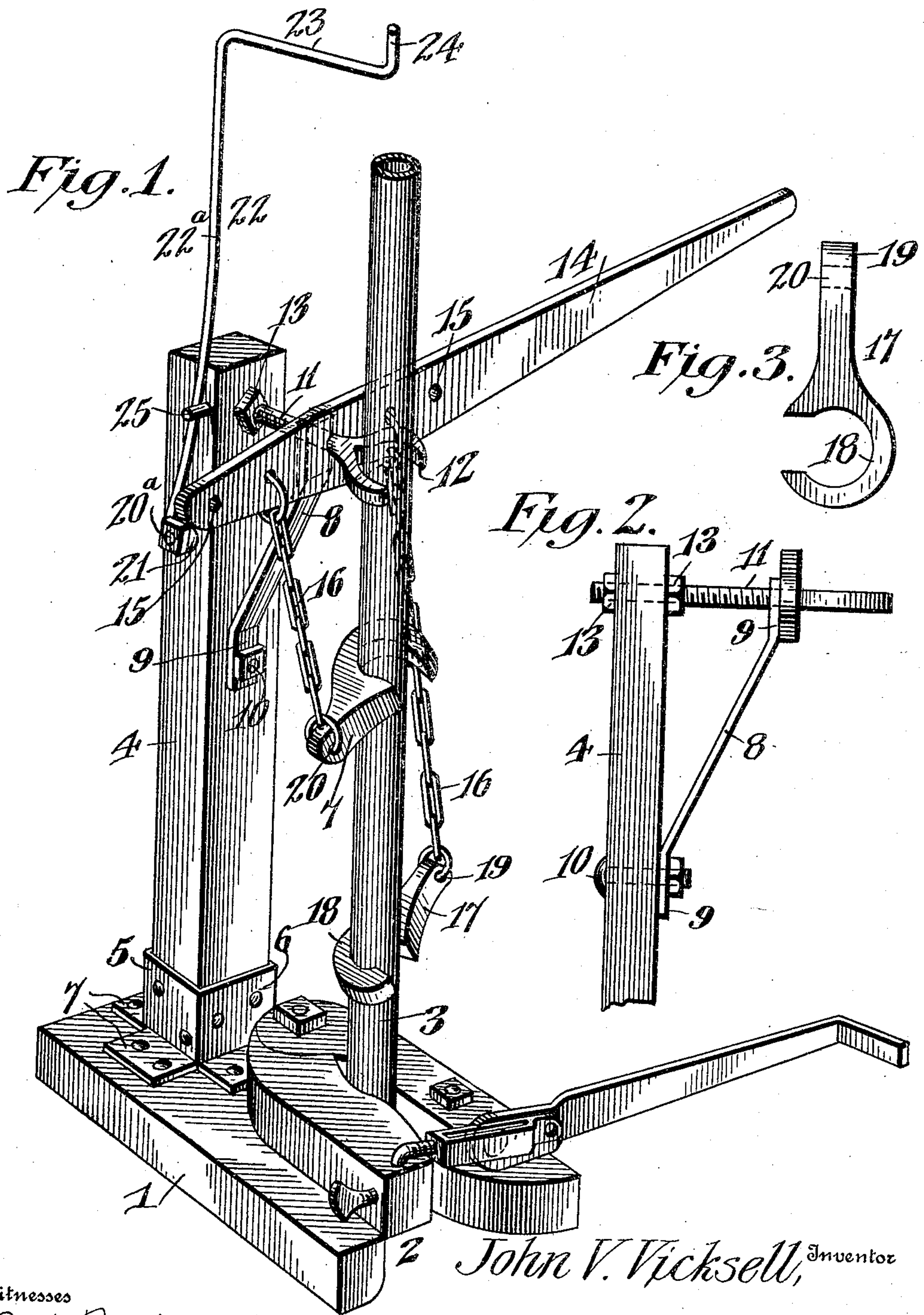


J. V. VICKSELL.  
LIFTING AND LOWERING APPARATUS.  
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938,728.

Patented Nov. 2, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN V. VICKSELL, OF MEDIAPOLIS, IOWA.

LIFTING AND LOWERING APPARATUS.

938,728.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed November 18, 1908. Serial No. 463,240.

*To all whom it may concern:*

Be it known that I, JOHN V. VICKSELL, a citizen of the United States, residing at Mediapolis, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Lifting and Lowering Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an apparatus for raising and lowering pumps, and has for its object the provision of means for facilitating the raising or hoisting of a pump out of a well or the replacing or adjustment thereof in the same.

Another object of the invention is the construction of a pump raising and lowering apparatus which comprises a minimum number of parts, is comparatively simple in operation, and inexpensive to manufacture.

This application embodies the structure disclosed in my original application, Ser. No. 412,619, filed Jan. 25, 1908, in which application claims were presented and required to be divided out and presented in this application.

With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a perspective view of an apparatus constructed in accordance with the present invention. Fig. 2 is a fragmentary view of the lifting apparatus depicted in Fig. 1. Fig. 3 is a plan view of one of the grapples.

Referring to the drawings by numerals, 1 designates a platform provided with a bifurcated portion 2, formed in its front end, between the sides of which the pump or tube 3 is positioned. When the apparatus is in operation a vertical standard 4 is positioned upon the platform 1 and is seated in the bracket 5. The bracket 5 comprises a hollow portion or body 6, and outwardly-extending, right-angular feet or flanges 7; the feet or flanges are secured to the platform and as the standard 4 is secured within the hollow body of the bracket 5, said platform and standard are fixedly secured together. A vertical bracket 8, provided with parallel, vertical end-portions 9, is fixedly secured, at its lower end, by any suitable fastening means, as for instance, bolt 10, to the standard 4, and its upper vertical end 9 is

apertured for receiving the horizontal bolt or shaft 11, which bolt or shaft 11 is provided with an outer bifurcated end 12. Locking nuts 13 are, preferably, positioned upon opposite sides of the standard 4 and are threaded upon the bolt or shaft 11 for securing said shaft in an operative position upon the standard 4.

A lever 14 is pivotally mounted upon the bolt 11 between the bifurcated end 12 and the vertical bracket 8. The lever 14 is provided, upon opposite sides of said bolt 11, with a plurality of apertures 15. In one of the apertures upon each side of the bolt or supporting shaft 11 is positioned, preferably, a chain 16, to the lower end of which is attached a grapple 17, which grapple 17 comprises a grip portion or body 18, having an apertured extension 19. The chain 16 is positioned in the aperture 20 of portion 19. The leverage can be increased or decreased by positioning the chains 16, constituting the connecting means for engaging the pipe or pump, in different apertures in the lever at opposite sides of the bolt or shaft 11.

The rod-supporting device of my apparatus comprises a bolt or supporting-member 20<sup>a</sup>, upon which is pivotally mounted the eye or lower apertured-end 21 of the pivotally-mounted bracket 22. The bracket 22 is provided with a vertical body 22<sup>a</sup>, terminating at its upper end in a horizontal extension 23, which extension 23 is provided, at its outer end, with a vertical extension or lug 24. To the horizontal portion 23 any suitable fastening means can be attached for securing the pump-rod or pipe in a raised or operative position preparatory to adjoining or connecting its lower end with another section or with an additional piece of the rod. When the apparatus is not in use, the pivotally-mounted bracket 22 can be swung rearwardly, so as to place the horizontal portion 23 below the pivot, constituted by the bolt or member 20<sup>a</sup>. The forward pivotal movement of the bracket 22 is limited by a pin or laterally-extending horizontal projection 25, secured to the same side of the standard 4 upon which the extended-end of the bolt 20 projects; the pin or stop 25 is placed near the front end of said place for permitting the bracket to swing slightly forward and be retained in its upright or set position when the apparatus is in operation.

It is to be noted that I have provided a



very efficient structure for raising and lowering a pump or any other suitable device, and I have also provided an efficient actuated foot clamp-device for holding the pump  
 5 operated upon, after the grapple-device, hereinbefore fully described, has been employed for lifting the same, which clamp-device is fully described in my prior U. S. patent No. 894,923. When it is desired to  
 10 lower a pump or pipe my apparatus is placed substantially in the same position illustrated in Fig. 1, relative to the object to be operated upon for placing the grapples or jaws 17 in engagement with the pipe; upon oper-  
 15 ating the lever 14, the pipe will be raised, or by shifting the grapple 17 longitudinally of the pipe, said pipe may be lowered.

The positioning of the grapples higher up each succeeding time will permit the pump  
 20 to be quickly lowered into a well.

It is to be noted that the bracket 8 is substantially a Z-shaped member, and that the bolt 11 is threaded from approximately its outer bifurcated end 12 to its opposite end  
 25 for accommodating the locking nuts or members 13. Furthermore, the bifurcated end 12 constitutes a guide in which the pipes or rods are normally positioned when the apparatus is in operation.

30 What I claim is:

1. In an apparatus of the class described, the combination with a platform, a vertical standard carried by said platform, of a pivotally-mounted bracket secured to one side  
 35 of said standard, a stop secured to the same side of said standard in the path of the movement of said bracket, said stop positioned off-center of said side and contiguous to one edge thereof, and a grappling-device  
 40 supported upon said standard.

2. In an apparatus of the class described, the combination with a standard, a pivotally-mounted bracket carried by said standard, said bracket provided with a body, ter-  
 45 minating at its lower end in an eye, and at

its upper end in a portion extending at substantially right-angles to the body, said last-mentioned portion provided at its outer end with a hook or extension, said standard provided with a stop engaged by the bracket  
 50 when said bracket is in an operative position, and pipe or rod-gripping means carried by said standard.

3. In an apparatus of the class described the combination with a standard, of a guide-  
 55 member, said guide-member provided with an enlarged-bifurcated end and with a threaded shank portion, said shank portion engaging said standard and adapted to be adjusted thereon for bringing the bifurcated  
 60 end of said guide-member in alinement with the bore of a well, a pivoted lever mounted upon said guide-member, pipe or rod gripping means carried thereby, and said pipe or  
 65 rod adapted to be held in a vertical position by means of said bifurcated end of said guide-member.

4. In an apparatus of the class described the combination with a standard, of a guide-  
 70 member provided with an outer bifurcated end and a threaded shank portion, said shank portion threaded through said standard, a nut threaded upon said shank portion upon each side of the standard, said guide-  
 75 member adapted to be moved forward or backward by means of turning said nuts upon said threaded shank for causing the outer bifurcated end to come in alinement with the bore of a well, a lever pivotally  
 80 mounted upon said guide-member, pipe or rod gripping means carried thereby, and said bifurcated end adapted to support a pipe or rod in a vertical position or in alinement with the bore of a well.

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

JOHN V. VICKSELL.

Witnesses:

W. H. JOY,

T. Z. CUMMINGS.