

No. 887,572.

PATENTED MAY 12, 1908.

A. B. BAILEY.  
PUMPING JACK.

APPLICATION FILED JUNE 21, 1907.

Fig. 2.

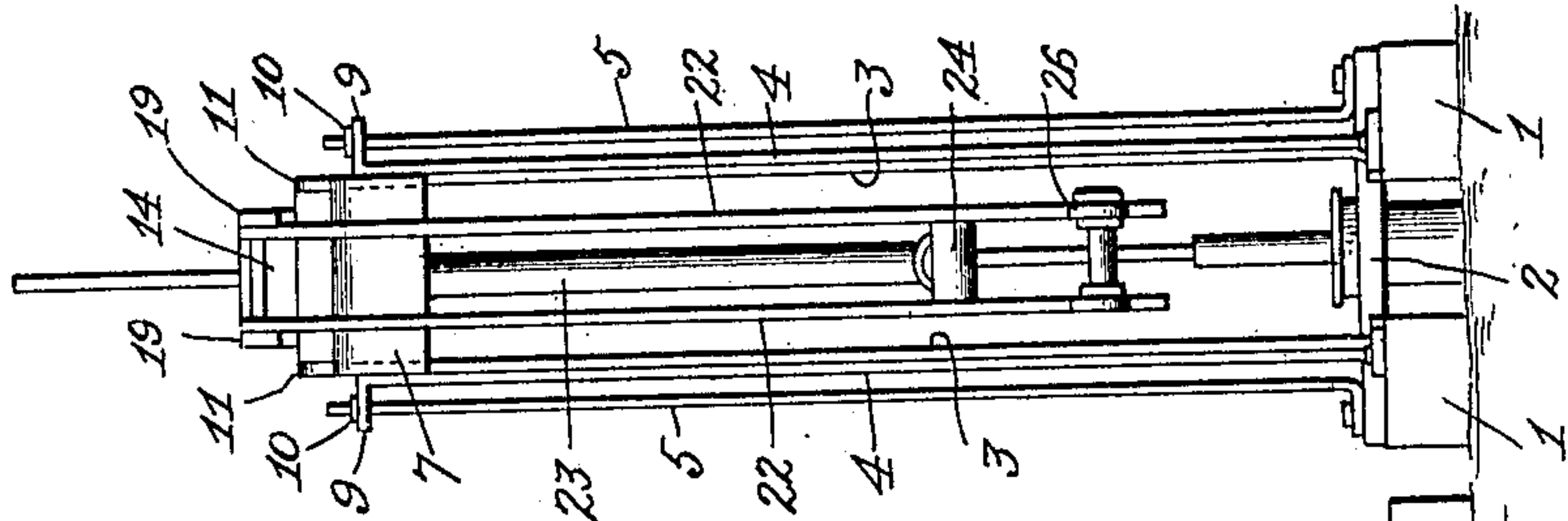


Fig. 1.

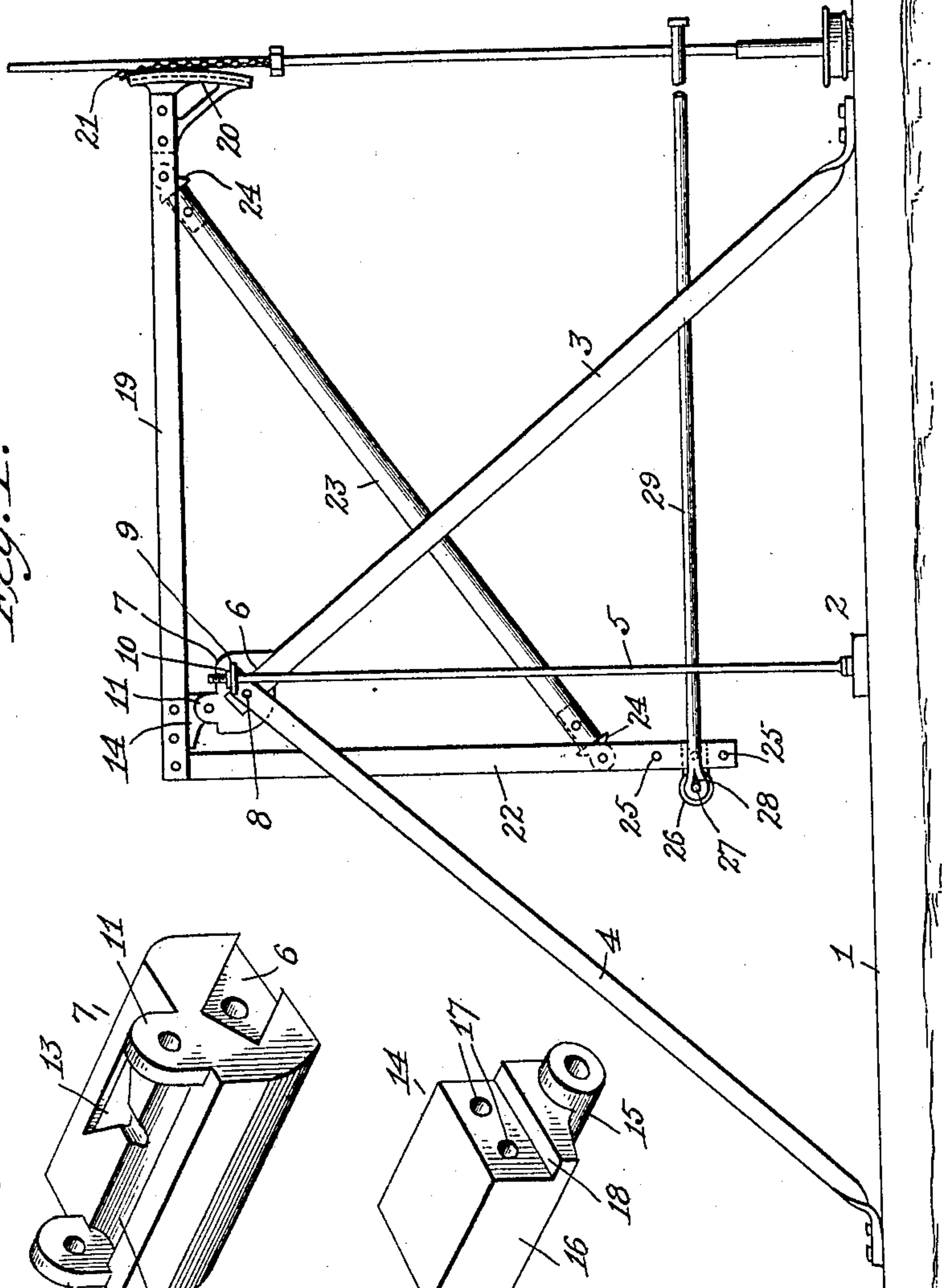


Fig. 3.

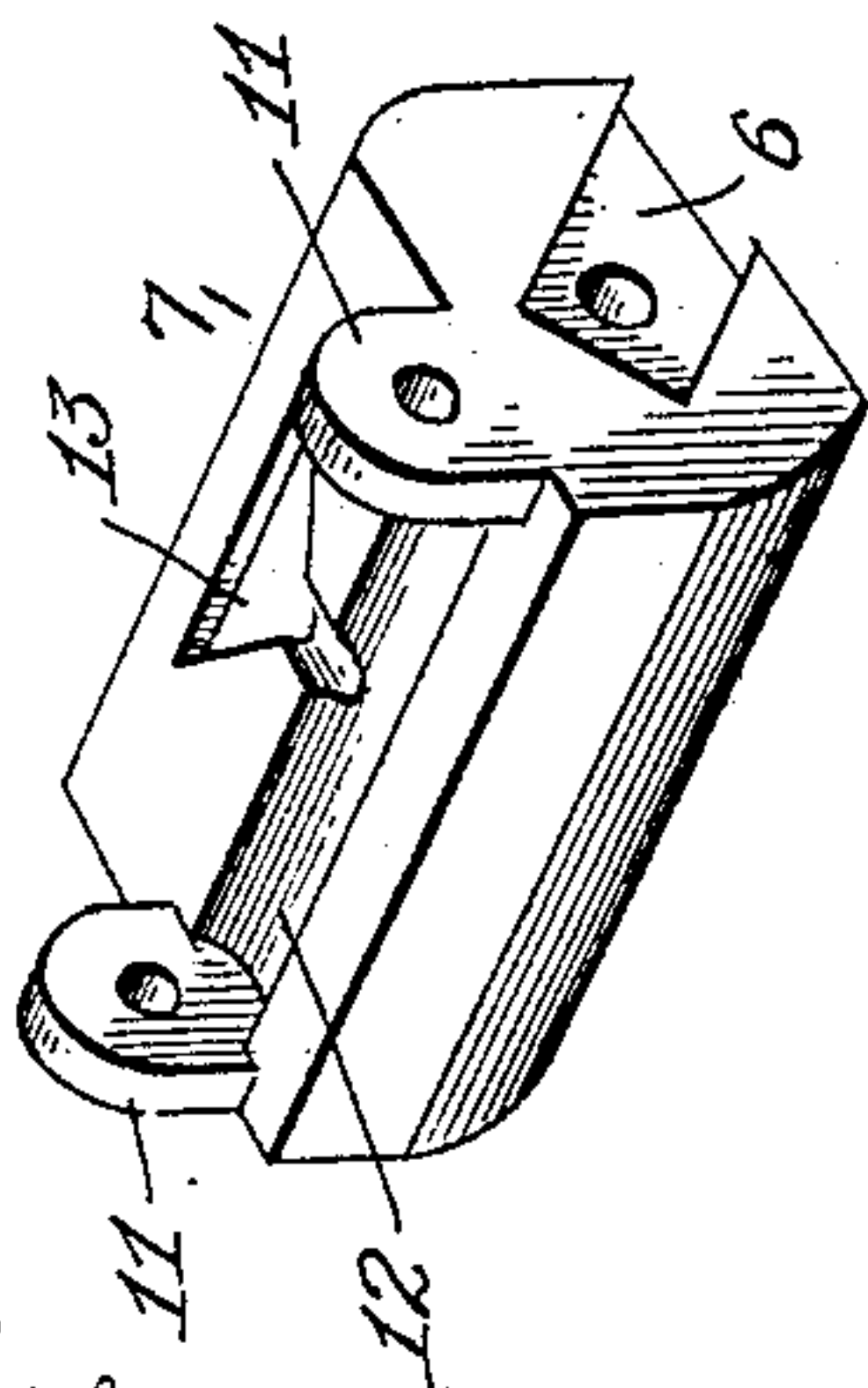
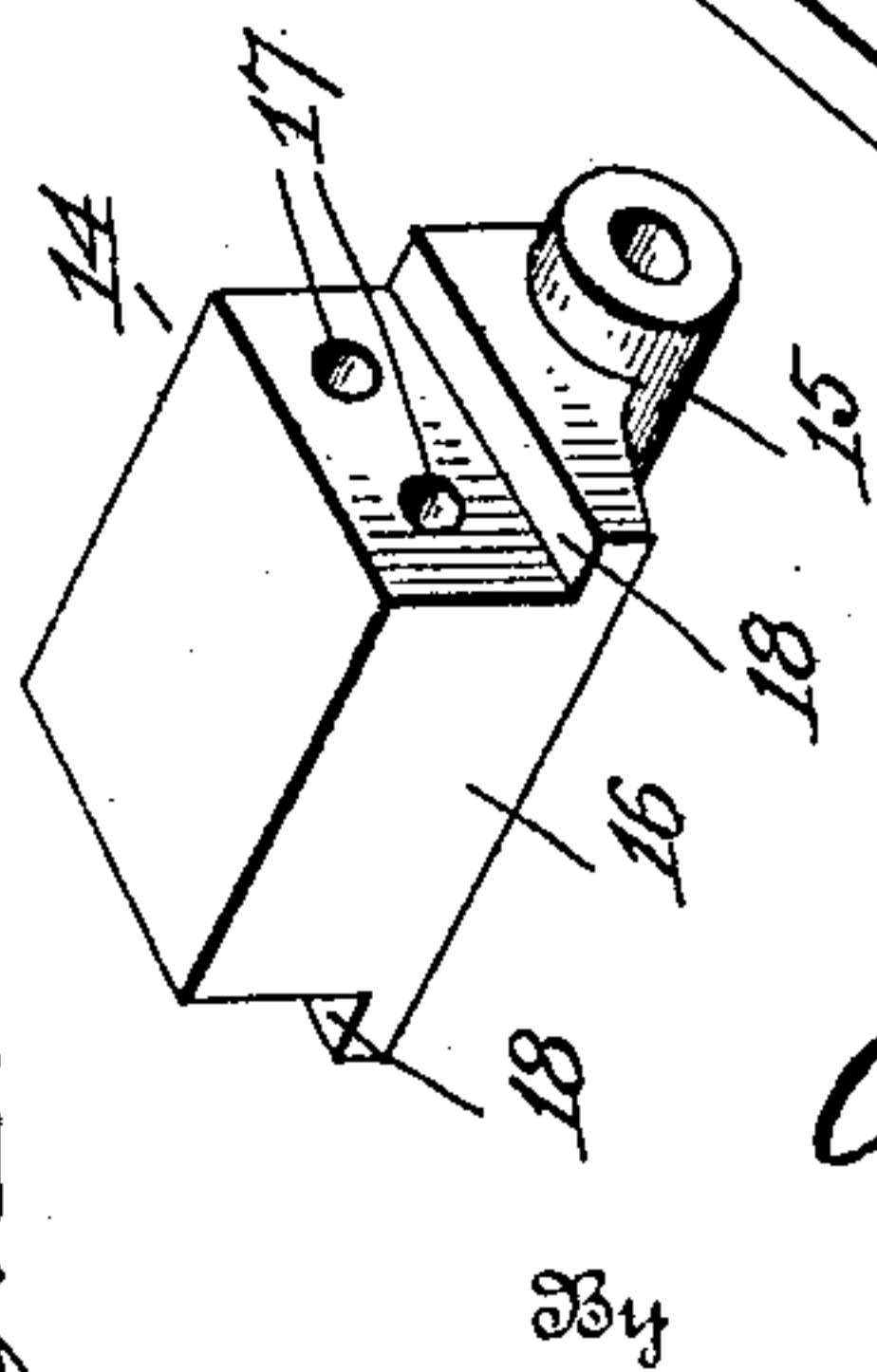


Fig. 4.



Witnesses  
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# UNITED STATES PATENT OFFICE.

AVERY B. BAILEY, OF ROBINSON, ILLINOIS.

## PUMPING-JACK.

No. 887,572.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed June 21, 1907. Serial No. 380,061.

*To all whom it may concern:*

Be it known that I, AVERY B. BAILEY, a citizen of the United States of America, residing at Robinson, in the county of Crawford and State of Illinois, have invented certain new and useful Improvements in Pumping-Jacks, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in jacks for pumping oil-wells and has for its object the provision of a light-running jack of simple and durable construction.

The invention consists in certain novel features of the construction illustrated in the accompanying drawings as will be hereinafter first fully described and then particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of a jack embodying the invention; Fig. 2 is an end view of the same; Fig. 3 is a detail perspective view of the saddle bearing, and Fig. 4 is a detail perspective view of the jack saddle.

In carrying out my invention, I employ a pair of sills, 1, connected by a cross bar, 2. Upon the base thus provided I erect a supporting frame consisting of three pair of braces, the end pairs, 3 and 4, converging upward, and the central pair, 5, rising vertically to meet the upper ends of the end braces. The upper ends of the front braces, 3, are seated snugly in recesses, 6, in the ends of the saddle bearing, 7, and are held therein by bolt or similar fastening, 8, whereby the bearing is firmly secured between the ends of the braces. The said bolt also passes through the rear braces, 4, to hold them to the saddle bearing block and the front braces and the upper extremities of said rear braces are formed into outwardly turned lips, 9, through which the ends of the central vertical braces 5 pass. These central braces 5 are secured in place by nuts, 10, which are turned home against the lips 9 to bind the parts together into a rigid structure. The saddle bearing block, 7, is a block provided with the oblique recesses 6 in its ends and having ears or lugs, 11, rising from its top at its ends near its rear side. In the top of the said block is a groove, 12, extending between said ears or lugs and having a concave bottom. In front of this groove and communicating therewith a cavity or well, 13, is formed in the top of the block.

The jack saddle, 14, is formed with a lower cylindrical portion, 15, which fits between the ears 11 and rests in the groove 12, being held in position therein by a retaining pivot pin inserted through said ears and said cylindrical portion 15, as will be readily understood. Rising from the said cylindrical portion 15 of the jack saddle is the rearwardly projecting seat or carrying portion, 16, constructed with transverse bolt holes, 17, and with the shoulders or seats, 18, on its ends. This carrying portion projects upward between the members, 19, of the upper horizontal arm of the jack proper, the said members resting on the shoulders 18 and being rigidly secured to the saddle by suitable fastenings inserted through the bolt holes 17. The front ends of these members are joined by a head, 20, having a curved front face and provided with a hook, 21, at its upper end to receive a chain or other flexible connection attached to the polish rod of the pump. The members 19 project slightly to the rear of the saddle and to the projecting extremities I secure the upper ends of the members, 22, of the depending arm of the jack proper. In order that the jack may have the necessary rigidity, the two arms are connected by a tubular brace, 23, in the ends of which are fitted and secured the stems of T-couplings, 24, the heads of which are fitted between and secured rigidly to the arms. The depending arm of the jack is provided with a series of transverse openings, 25, in any of which a stirrup, 26, may be secured, the said stirrup carrying a cross pin, 27, which passes through an eye, 28, formed on the end of the pull rod, 29, which passes to any suitable motor. By fitting the stirrup in one or another of the openings 25, the leverage exerted by the depending arm of the jack and, consequently the length of the stroke of the polish arm may be varied, as desired.

The operation of the device is obvious. The pull-rod is moved back and forth and the jack thereby oscillated so as to vertically reciprocate the polish rod. It will be observed that the entire jack is suspended by the jack saddle and saddle-bearing block at a point above the pull-rod with the result that the jack moves very easily. The cavity or well 13 in the top of the saddle-bearing block is filled with lubricant and the smooth-running quality of the jack is thus maintained for a long time without attention on the part of the operator. It will be observed



upon reference to Fig. 3 that the well or reservoir 13 is disposed at the center of the bearing groove and connected therewith by a narrow mouth thereby preventing flooding of the groove. It will also be noticed that the block has a large expanse of wall around the well so that the oil will not be thrown over the sides of the block and lost under the vibrations of the jack. The arrangement of braces employed presents a very strong rigid support.

Having thus described my invention, what I claim and desire to secure by Letters Patent is,—

1. The combination of a bearing block having oblique recesses in its ends, inclined braces having their upper ends fitted in said recesses, other inclined braces secured to the ends of the said bearing block and having

lips at their upper extremities, vertical braces engaging said lips, and an oscillatory jack hung on said bearing block.

2. The combination of a support, a bearing block on the upper end thereof, a saddle resting on and pivotally connected to the said block and provided with longitudinal seats or shoulders on its ends, and a jack having members resting on said shoulders against the ends of the saddle and secured to the ends of the saddle.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

AVERY B. BAILEY.

Witnesses:

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E. H. STELL.