Aug. 13, 1957 L. BYERS 2,802,632

PUMP JACK BASE

Filed May 20, 1954 2 Sheets-Sheet 1

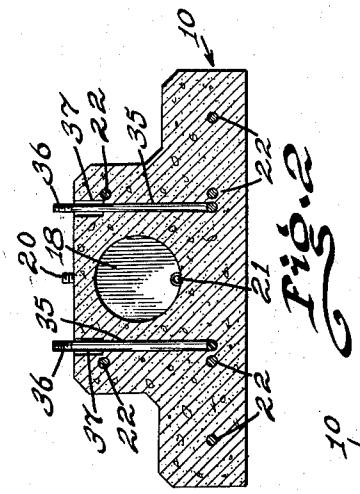

Fig. 2

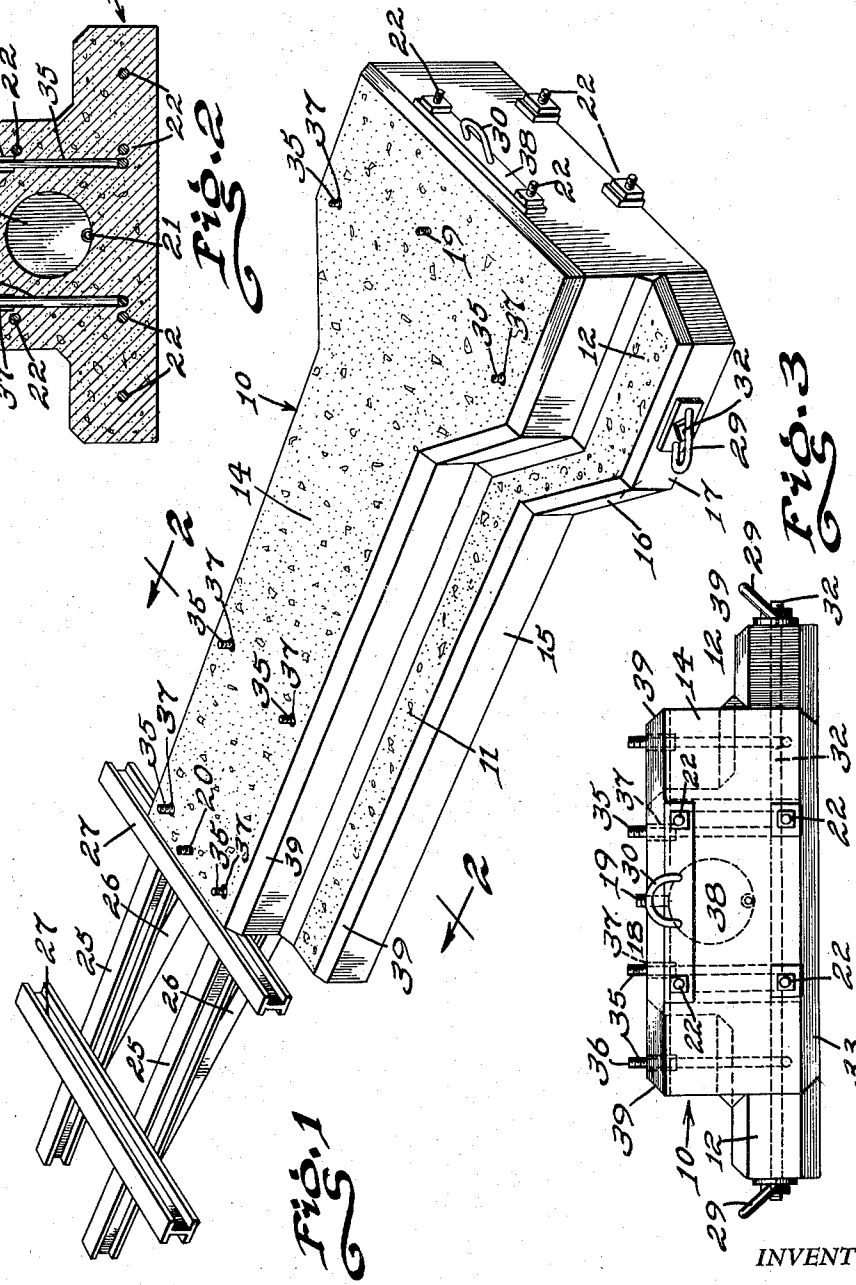

Fig. 3

Fig. 1

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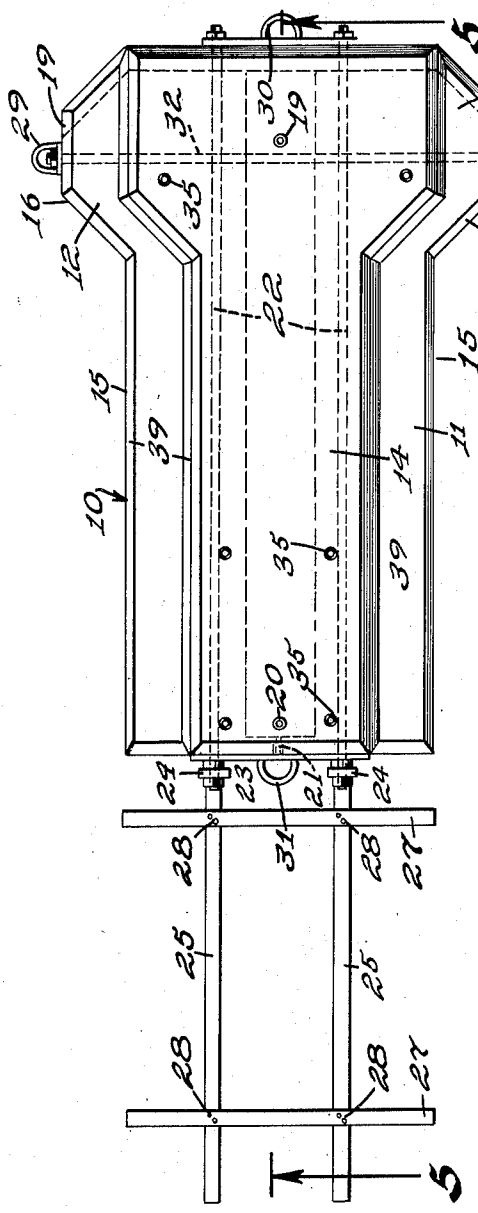

Fig. 4

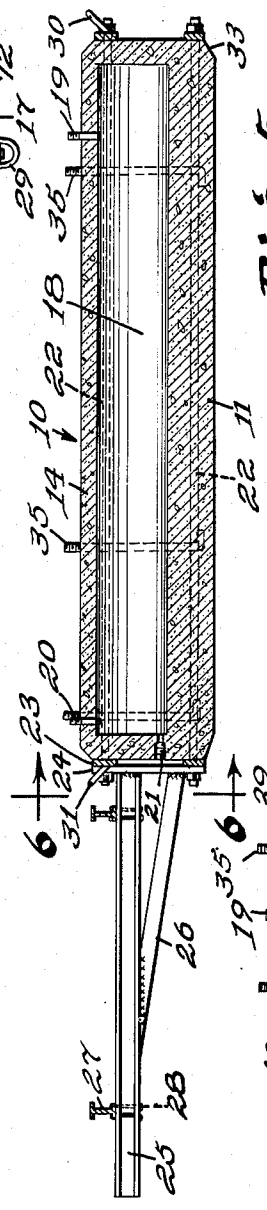

Fig. 5

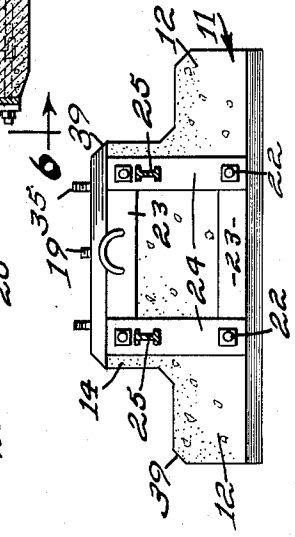

Fig. 6

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2,802,632

PUMP JACK BASE

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Application May 20, 1954, Serial No. 431,060

1 Claim. (Cl. 248—19)

This invention relates to a support, and more particularly to a support for a pump or engine.

The object of the invention is to provide a pump jack base which is adapted to be made of concrete or aggregate and wherein the base is constructed so that it will provide a maximum support where the maximum support is needed with the lowest possible weight, there being a plurality of anchoring bolts extending up from the base for anchoring the pump or engine in place.

Another object of the invention is to provide a pump jack base which can be moved from place to place as desired, there being rings connected to the base for moving the base and wherein the edges of the base are beveled to prevent breakage.

A further object of the invention is to provide a pump jack base which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

Figure 1 is a perspective view of the pump jack base, constructed according to the present invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is an end elevational view of the pump jack base.

Figure 4 is a top plan view of the base.

Figure 5 is a sectional view taken on the line 5—5 of Figure 4.

Figure 6 is a section view taken on the line 6—6 of Figure 5.

Referring in detail to the drawings, the numeral 10 designates a base which may be made of any suitable material such as concrete or lightweight aggregate, and the base 10 includes a lower portion 11 which has one end widened as at 12, Figures 1 and 4. The base 10 further includes an upper portion 14 which has the same general configuration as the lower portion 11 except that the upper portion 14 is smaller than the lower portion 11. The lower portion 11 includes spaced parallel sides 15, outwardly diverging wall sections 16, and straight walls 17 which are arranged contiguous to the widened portion 12.

The base 10 may be provided with a longitudinally extending cutout or space 18 which defines a reservoir for holding gas or liquid, and a conduit 19 communicates with the reservoir 18 for filling the reservoir with fluid or gas. An outlet conduit or pipe 20 is arranged in communication with the other end of the reservoir 18, and a drainage opening or pipe 21 also communicates with the reservoir 18 whereby the reservoir 18 can be drained when desired.

Extending longitudinally through the base 10 is a plurality of reinforcing rods 22. A pair of horizontally disposed spaced parallel strips 23 are arranged contiguous to one end of the base 10, and the strips 23 may be secured to ends of the rods 22. A pair of vertically disposed spaced parallel legs 24 are secured to the strips 23, and projecting outwardly from the legs 24 and secured thereto in any suitable manner, as for example by welding, is a pair of horizontally disposed beams 25. Braces 26 extend between the beams 25 and the legs 24 for bracing or for helping to support the beams 25. Bars 27 extend transversely across the beams 25, and the bars 27 may either be adjustable, or else they can be secured to the beams 25 by suitable securing elements 28. The bars 27 may support thereon suitable parts of pumps or engines which can be used for pumping gas, or oil or water from wells and the like.

Ring members 29, 30 and 31 are secured to the base 10 at spaced points, and these ring members are adapted to be used for moving the base to any desired location since a suitable cable or line can be arranged in engagement with these ring members. A suitable reinforcing rod 32 may connect the opposed ring members 29 together. Certain end portions of the base 10 adjacent the lower surface thereof are beveled or inclined as at 33 and 34, and these beveled surfaces 33 and 34 facilitate the sliding movement of the base 10 to any desired location since they provide a sled-like bottom for the base.

Projecting upwardly from the base 10 and secured thereto or embedded in the concrete is a plurality of spaced parallel vertically disposed anchoring bolts 35. The upper end of each of the anchoring bolts 35 is threaded exteriorly as at 36, whereby a suitable nut or the like can be arranged in engagement with the threaded portion 36 of the bolts 35 after the bolts have been extended through the bottom of engines, pumps or the like which are being supported on the base so as to maintain the engine or pump immobile on the base. The portions of the concrete base adjacent to the anchoring bolts 35 are reamed out as at 37 to simplify installation of the parts. The ring member 30 can be secured to a strip 38 which may be mounted on projecting ends of a pair of the reinforcing rods 22, whereby there will be no sharp edges to accidentally break off.

From the foregoing it is apparent that there has been provided a base which can be used for supporting a pump, engine or the like. In use the base can be moved to any desired location by means of the rings 29, 30 and 31 and these rings also permit the base to be leveled. The base is portable and the construction of the base is such that the upper portion 14 is smaller than the lower portion 11 whereby the weight of the base is kept to a minimum. However, the base is widened at one end as at 12 so as to provide increased stability to the base where it is needed. The bars 27 can be used for supporting projecting portions of an engine or the like.

The spread or widened front end 12 of the base provides the maximum support where the maximum support is needed with the lowest possible weight and the recesses in the sides of the base which define the upper portion 14 reduce the weight to the minimum. Since the weight is as small as possible, the base can be easily leveled and plumbing is easily accomplished. The reinforcing rods 22 provide the necessary rigidity or strength for the base and the various rings can be used for handling or moving the device around. The beveled ends 33 and 34 provide a sled-like undersurface so as to facilitate moving of the base when changing set-ups. The reservoir 18 can be cast in the base and if desired the base can be made of lightweight aggregates to decrease the overall weight of the base without sacrificing strength. The concrete may be reamed away around the anchor bolts as indicated by the numeral 37 in order to simplify installation or connection of the parts to the bolts. The bars 27 may be made adjustable and can be used for supporting certain parts of the driving unit. The edges of

the base may be beveled as at 39 so that there will be no sharp edges to break off. Furthermore, all exposed surfaces may be coated to give the base better appearance and more durability and all metal surfaces can be painted to prevent rust.

The purpose of the reservoir 18 is to receive the casing head gas from an oil well so that any fluid can be separated from the gas. This reservoir 18 will also provide a storage area which will keep the supply and pressure more or less constant for efficient operation of the gas engines that may be used in various locations. It is to be understood that the shape and size of the base can be varied as desired. Also, in certain locations as for example in fields where natural gas is not used for power, the bases can be made without the gas reservoir 18. When the reservoir 18 is omitted, the middle and under part of the base can be recessed to a depth of about 3 inches in order to reduce the weight of the base. This recessed portion may extend within six to eight inches from the sides and to the depth indicated.

I claim:

In a portable precast pump jack base of light weight concrete aggregate, a bottom portion including spaced parallel longitudinally extending flat sides, an end of said base being of increased width, a top portion above said bottom portion and having the same configuration as said bottom portion, said top portion being smaller than said bottom portion, a plurality of spaced apart reinforcing rods extending through said bottom and top portions, a plurality of vertically disposed spaced parallel anchoring bolts extending upwardly from said base and having their upper ends threaded, the portions of said base surrounding the outer ends of said bolts being reamed out a pair of horizontally disposed spaced parallel strips secured to an end of said base, a pair of spaced parallel vertically disposed legs extending between said strips and secured thereto, a plurality of horizontally disposed beams extending outwardly from the upper portions of said legs and secured thereto, inclined braces extending between said beams and legs and secured thereto, bars arranged transversely with respect to said beams and supported thereby, strip members secured to said base, ring members secured to the strip members on said base, the undersurface of said base being beveled at the ends to facilitate movement of the base, the edges of said top and bottom portions being beveled, there being a space in said base defining a fluid holding reservoir.

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