My invention relates to a power pump jack which may be used with any type of suction pump.

It is a principal object of my invention to provide a pump jack in which are combined a short crank and a long stroke, in which the increased stroke length is accomplished without the increase of power.

It is a further object of the invention to provide a jack of the character described which is compact and which may be used with several types of pumps without any substantial mechanical change.

It is another object of the invention to provide in a jack of the character described means of operation by hand or by emergency power.

It is a still further object of my invention to provide a jack of the character described which is very efficient in use, simple to manufacture, and one which will not easily get out of order.

Other objects and advantages of my invention will become apparent during the course of the following specification, and accompanying drawings, forming part of the specification, wherein like numerals are used to designate like parts throughout.

In the drawings:

Figure 1 is an elevation of a suction pump to which the jack of my invention is operably connected, the jack gear housing being shown in section.

Figure 2 is a section through the gear housing taken substantially on the line 2—2 of Figure 1.

Figure 3 is a transverse section through the gear housing, taken substantially on the line 3—3 of Figure 2, and.

Figure 4 is another transverse section through the gear housing, taken substantially on the line 4—4 of Figure 2.

Referring now in detail to the drawing, the numeral 6 refers to a hollow housing member, rectilinear in cross section and open at each end adapted to be pivotally mounted intermediate its ends for oscillatory movement in a frame 7 formed as an inverted U and supported in a ground engaging base 8 by a transverse pivot shaft 9 journaled in bearings 10 formed on the side of the said frame 7.

A fixed rack 11, preferably of a 16 pitch is mounted along one vertical interior face of the said housing member 6 throughout the length thereof, and opposed inwardly extending longitudinal flanges 12—12, and 13—13 are formed in the inner side walls closely adjacent the other end thereof, the said flanges defining longitudi-
by the gear 25, thus increasing the pumping stroke of four inches to a total of 16 inches.

I have described my invention in the form best known to me at this time. It is to be understood, however, that various changes in the shape, size and arrangement of the parts may be made within the scope of the subjoined claim without departing from the spirit of the invention.

Having thus described my invention, I claim:

A pump jack for use with a pump having a laterally extending handle operatively connected with the plunger thereof, comprising a support including spaced upstanding sides, an elongated rectangular tubular housing pivotally mounted between said upstanding sides and having its opposite ends open, a rotatable crank mounted between the sides and arranged above the top end of the housing, a fixed rack gear arranged within the tubular housing near one side thereof, a first gear arranged within the housing and engaging the fixed rack gear, a connecting rod for the crank and first gear, a movable rack gear slidably mounted within the housing near its side opposite the fixed rack gear shiftably longitudinally in said housing and engaging the first gear, a second gear secured to the movable rack gear near its lower end and engaging the fixed rack gear, said second gear being larger than said first gear, a second movable rack gear slidably mounted within the housing between the first named movable rack gear and the side of the housing opposite from the fixed rack gear and engaging the second gear, a rod connecting the second movable rack gear and pump handle, and means to rotate the crank.

JAMES A. MITCHELL.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,865,290</td>
<td>Vaughn</td>
<td>June 28, 1932</td>
</tr>
<tr>
<td>2,432,735</td>
<td>Downing</td>
<td>Dec. 16, 1947</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,076</td>
<td>Great Britain</td>
<td>of 1871</td>
</tr>
</tbody>
</table>