

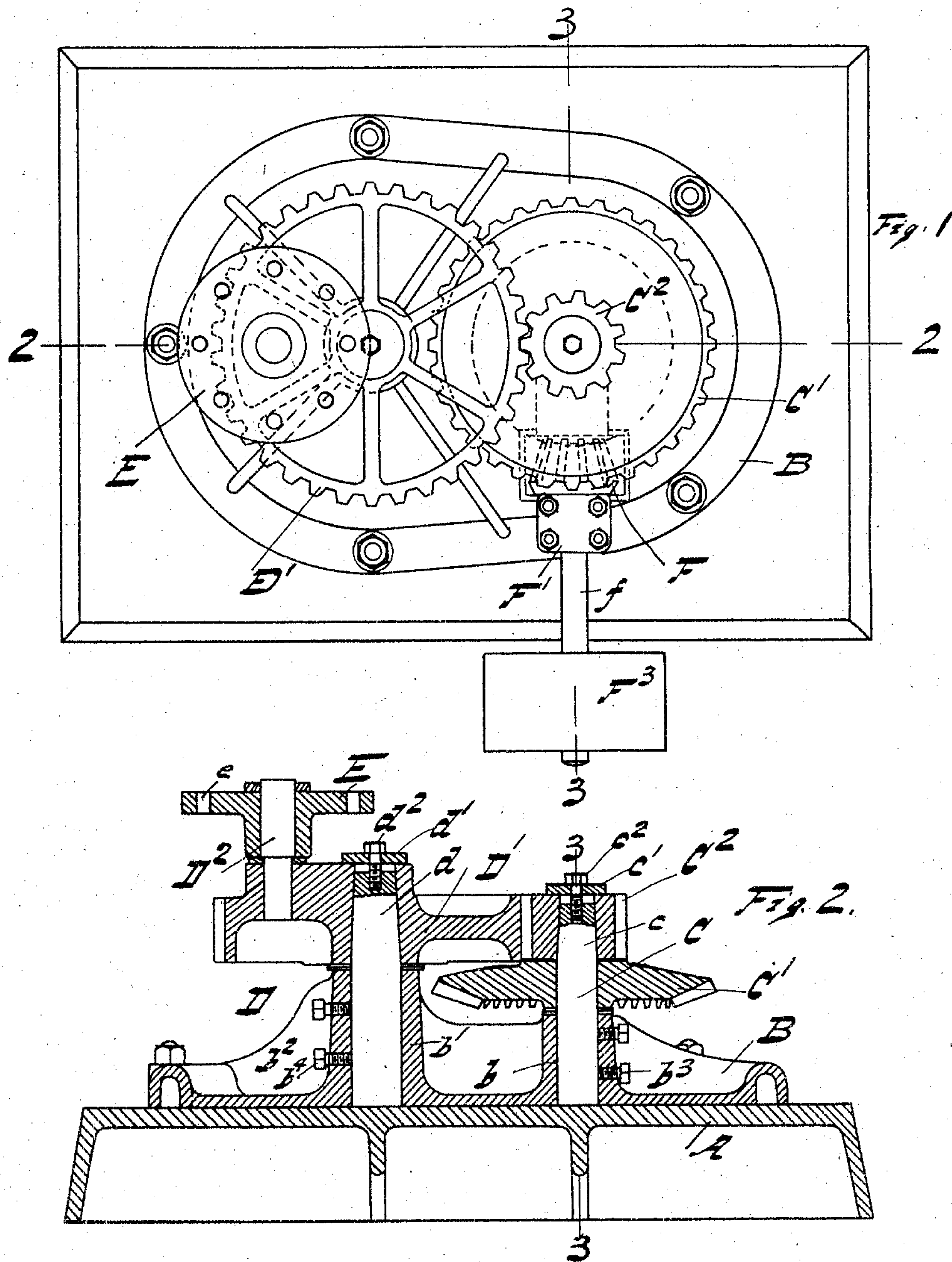
No. 778,428.

PATENTED DEC. 27, 1904.

D. E. NORRIS.
PUMPING POWER.

APPLICATION FILED JULY 13, 1903.

2 SHEETS—SHEET 1.



Witnesses
Willis E. Cadwell
W. B. Sullivan

Inventor
Daniel E. Norris
by W. C. Lord
Attorney

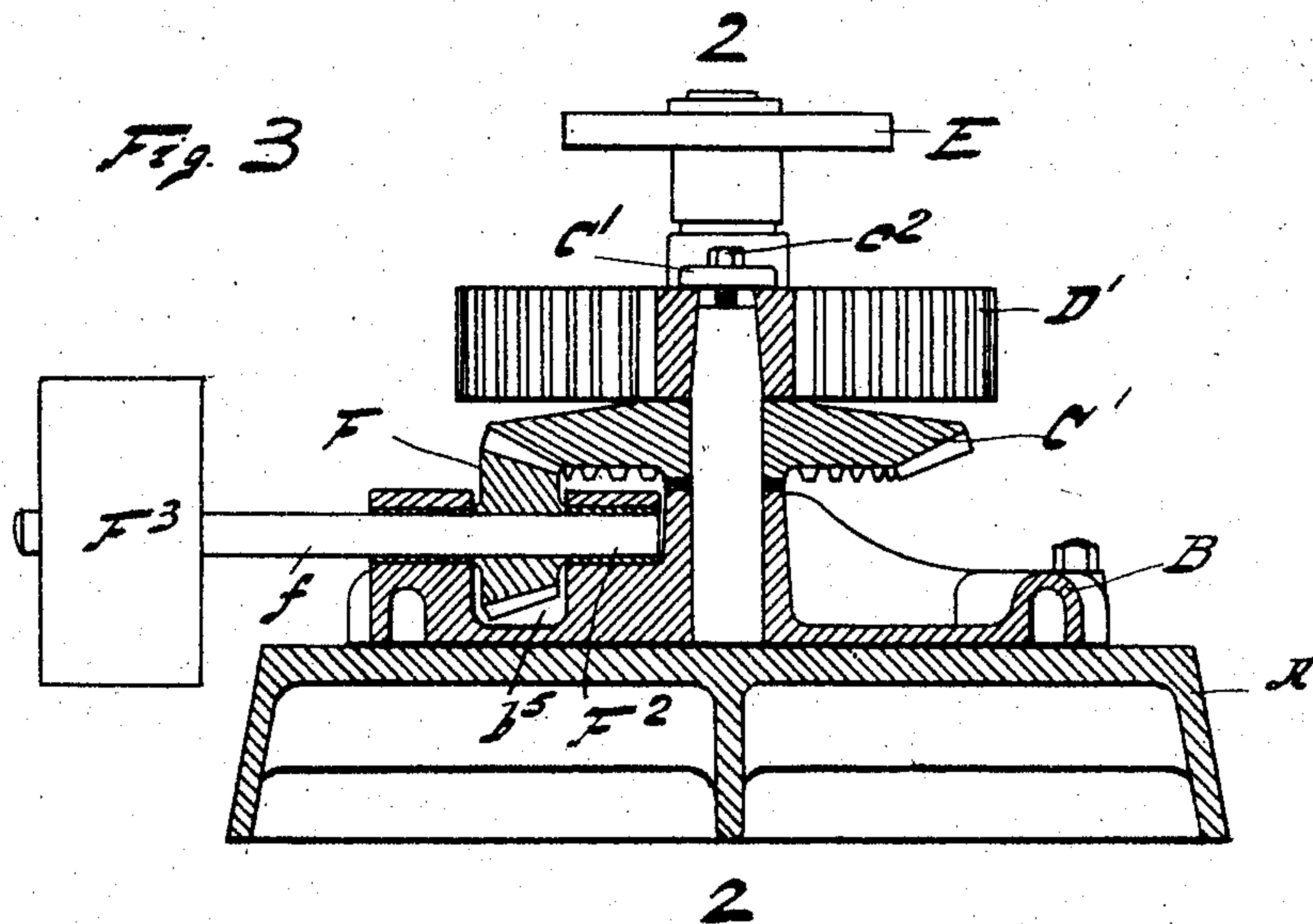
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Attorney

UNITED STATES PATENT OFFICE.

DANIEL E. NORRIS, OF TIONA, PENNSYLVANIA.

PUMPING POWER.

SPECIFICATION forming part of Letters Patent No. 778,428, dated December 27, 1904.

Application filed July 13, 1903. Serial No. 165,344.

To all whom it may concern:

Be it known that I, DANIEL E. NORRIS, a citizen of the United States, residing at Tiona, in the county of Warren and State of Pennsylvania, have invented new and useful Improvements in Pumping Powers, of which the following is a specification.

This invention relates to pumping powers; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described and pointed out in the claims.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a plan view of the power; Fig. 2, a section on the line 2 2 in Figs. 1 and 3; Fig. 3, a section on the line 3 3 in Figs. 1 and 2.

A marks a base on which the power is placed, and B the power-frame. The power-frame is preferably cast in one piece and has the journal-post sockets b and b' , the socket b being arranged to receive the journal-post C for the driving-gear C' , and the socket b' is arranged to receive the journal-post D, on which is journaled the crank-gear D' . These journal-posts are fixed in the sockets by the set-screws b^3 and b^4 . The driving-gear C' has secured with it a small spur-gear c^2 . The gear C^2 meshes the gear D' , and thus communicates motion from the gear C' to the gear D' . Arranged on the crank-gear is the crank-pin D^2 , and the disk E is journaled on the pin D^2 and arranged with the perforations, so that the pull-rods may be attached.

In order that the pull-rods may be connected from any direction, it is desirable that no part of the mechanism extend above the disk E. It is also desirable to have some means of taking up the wear on the posts C and D. I provide the following means: The post C is provided with the tapered portion c , which forms the bearing-surface of the gear. A washer c' is arranged on the top of the gear C^2 and a screw c^2 extends through this washer into the end of the post C. To adjust the post C so as to take up wear, the set-screws b^3 are loosened and the post adjusted by means of the screw c^2 . After properly adjusted the post is fixed in adjustment by the set-screws b^3 . A similar

construction is used with the post D. It has the tapered surface d and the washer d' and screw d^2 , and these perform the functions of the tapered surface c , washer c' , and screw c^2 .

The frame B, especially that part of the frame supporting the socket b' , is subjected to very severe strain. As before stated, it is desirable to have the mechanism below the disk E. I prefer, therefore, to cast the webs b^2 integrally with the frame B, so as to thoroughly brace the socket b' and with it the post D.

Meshed with the drive-gear C' is the drive-pinion F. This pinion is fixed on the shaft f , and the shaft f is journaled in the boxes F' and F^2 . The pinion F is subjected to a great deal of wear and to reduce this as much as possible I provide the oil-cup b^5 , which is cast in the frame B. This oil-cup is so arranged that when filled with oil the pinion F runs in the oil and keeps it constantly lubricated. The drive-pulley F^3 is arranged on the drive-shaft f . It may be driven from any convenient source of power.

What I claim as new is—

1. In a pumping power the combination of a frame having a journal-post socket therein, a post in said socket having a tapered bearing portion; a gear journaled on said tapered portion; and means resting on the gear for adjusting the journal-post.

2. In a pumping power the combination of a frame having a journal-post therein, having a tapered bearing portion; a gear journaled on said tapered portion; means resting on the gear for adjusting the journaled post; and means acting on a portion of the post in the socket for fixing it in adjustment.

3. In a pumping power the combination of a frame having a journal-post socket therein; a journal-post in said socket having a tapered bearing portion; a gear journaled on said tapered portion; a screw supported by said gear and extending into said journal-post and forming means for adjusting the journal-post.

4. In a pumping power the combination of a frame having a journal-post socket therein; a journal-post in said socket having a tapered bearing portion; a gear journaled on said ta-

pered portion; a washer arranged on top of the socket; and a screw extending through the washer into the journal-post for adjusting the journal-post.

- 5 5. In a power the combination of a frame having the journal-post sockets b and b' ; the journal-posts C and D having the tapered portions c and d thereon respectively; a drive-gear journaled on the post C; a crank-gear

journaled on the post D and means for adjusting said journal-posts in said gears. 10

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DANIEL E. NORRIS.

Witnesses:

H. C. LORD,

CHARLES G. BREVILLIER.