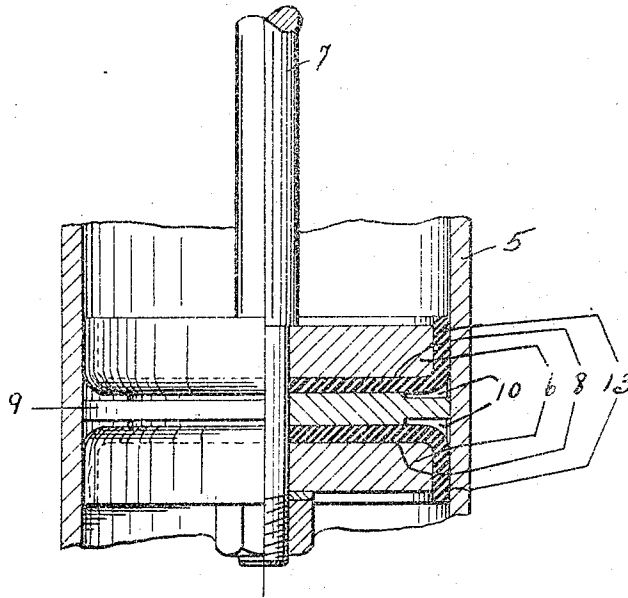


P. J. WALLER.
PUMP PLUNGER.
APPLICATION FILED NOV. 15, 1915.

1,215,445.

Patented Feb. 13, 1917.



INVENTOR
PERRY J. WALLER

By *E. J. Thompson*
ATTORNEY

UNITED STATES PATENT OFFICE.

PERRY J. WALLER, OF LOS ANGELES, CALIFORNIA.

PUMP-PLUNGER.

1,215,445.

Specification of Letters Patent.

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Application filed November 15, 1915. Serial No. 61,512.

To all whom it may concern:

Be it known that I, PERRY J. WALLER, a citizen of the United States, residing at the city of Los Angeles, county of Los Angeles, and State of California, have invented new and useful Improvements in Pump-Plungers, of which the following is a specification.

My invention relates to that class of pump plungers in which cup leathers are used and the object thereof is to produce a more efficient plunger, and one in which the cup leathers will last longer than those now in common use.

15 In the drawings forming a part of this application, I have shown a central section of a fragment of a pump barrel with my improved plunger therein, partly in section and partly in elevation.

20 Referring to the drawings 5 is a pump barrel. 6 are the inside rings which are mounted on the pump rod 7 in the usual manner. 9 is the metal follower plate which, adjacent to the pump barrel, is reduced in thickness as at 10 so that the outer edges and flange of the cup leathers are not engaged by the follower plate and said plate only engages the central portions of the cup leathers, said follower plate being stepped 25 on the surfaces adjacent to the cup leathers.

30 By this construction the outer edges of the cup leathers are allowed to yield slightly when the plunger is pumping thereby causing the flange to more closely contact with

the pump barrel than is possible when the pump leather is engaged out to the edges by the follower plate as is the case in the usual construction of plungers. I have illustrated my invention applied to a double acting plunger, but it is obvious that it can be used equally well with a single acting plunger, in which case the only surface stepped would be the one adjacent to the cup leather.

Having described my invention what I claim is:

1. A plunger pump follower plate having a central hole therein and a peripheral margin rabbeted, the central portions being adapted to support the central portions of the cup leather when pumping, and the edges to contact with the pump barrel, in combination with a plunger rod to which said plate is attached, a cup leather and a pump barrel.

2. In a pump, the combination of a pump barrel; a plunger rod; a follower plate having a working fit in the pump barrel secured to said rod, said plate having the central portions thicker than the portion adjacent to the pump barrel; and a cup leather having the central portions thereof contacting with the central portions of the plate and its outer portions spaced from the outer portions of the plate.

In witness that I claim the foregoing I have hereunto subscribed my name this 6th day of July, 1915.

PERRY J. WALLER.