

G. L. TRYON & G. F. REID.
PUMP VALVE.
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1,044,300.

Patented Nov. 12, 1912.

Fig. 1

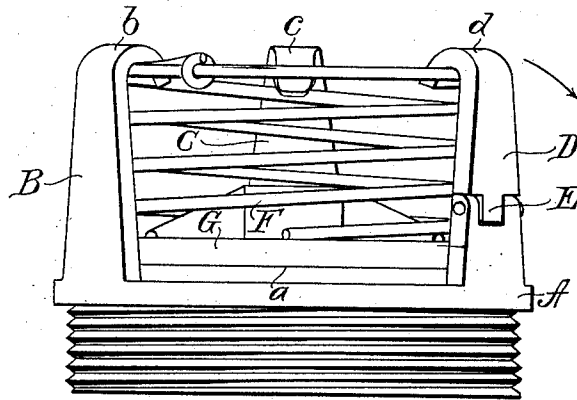


Fig. 2

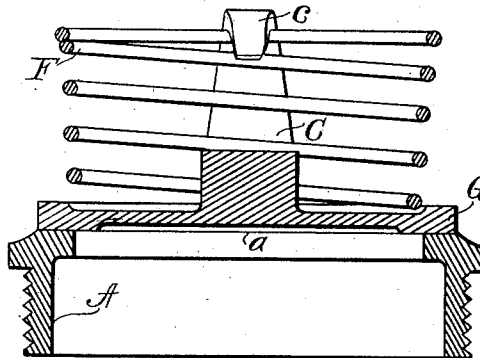
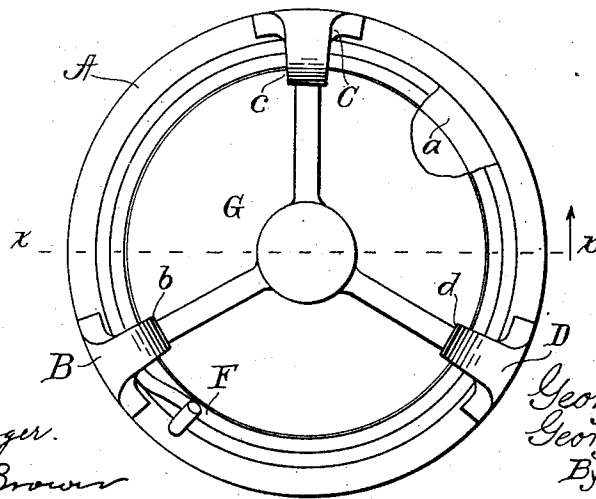


Fig. 3



Witnesses
R. C. Balinger.
Ben S. Brower

Inventors
George L. Tryon,
George F. Reid,
By Edwin Guthrie,
Attorney

UNITED STATES PATENT OFFICE.

GEORGE L. TRYON AND GEORGE F. REID, OF NEWBURGH, NEW YORK.

PUMP-VALVE.

1,044,300.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, GEORGE L. TRYON and GEORGE F. REID, citizens of the United States, residing at Newburgh, in the county of Orange and State of New York, have invented certain new and useful Improvements in Pump-Valves, of which the following is a specification.

This invention relates to pump valves, and belongs in that class of valves which have, practically, no stems, but are guided up and down by adjacently disposed parts and held yielding upon their seats by spiral or helical springs. It is desirable to dispense with the stem in valves of this sort, by reason of the fact that the stems in service often are broken, distorted, or loosened, and, as is customarily the case, the spring being attached to the distorted stem results in the uneven seating and operation of the valve.

The object of this invention is the production of a valve having the nature generally stated above, and comprising parts special in construction and arrangement whereby it is believed the parts are rendered easily accessible for cleaning or repairs, and the operation as a whole materially improved.

Of the accompanying drawings, Figure 1 represents a side view of all parts. Fig. 2 is a vertical section on broken line $x-x$ of Fig. 3. Fig. 3 is a top plan view of this invention.

Throughout the description and drawings, the same letter is used to refer to the same part.

Considering the drawings, there will be observed the threaded base ring A, having a valve seat a . At separated points around the base ring are formed the vertical posts B, C, and D, the tops of which are marked b , c , and d , and are turned over inwardly to form hooks. One of the posts, post D is provided with a knuckle E, and the top of that post may be swung outwardly and downwardly as indicated by the arrow, to permit the placing and removal of spring F. The upper coil of the spring engages the hook ends of the posts, and the lower coil of the spring presses upon the valve

G which is thus yieldingly held upon its seat a . The valve is without a stem, and the pressure of the spring is exerted near the outer rim of the valve. The movements of the valve up and down are guided by the posts, which are given some breadth and are placed near the valve for that purpose as shown. To remove or replace the spring, it is necessary only that the top coil thereof be pressed down with the finger until the hook end d of post D is free. The top of the post may then be turned outwardly and downwardly, and the way is clear for the passage of the spring. It will also be understood that the turning outwardly of the top part of post D as explained, permits the removal and replacement of valve G after the spring has been taken out of the way.

Having now described this invention, and explained the mode of its operation, what we claim is:—

1. A pump valve comprising a base ring having a valve seat and posts vertically arranged at the rim of said base ring, the upper end of each post being turned inwardly to form a hook, a valve, a spring constructed to engage said hook ends of said posts and arranged to bear upon said valve, and one of said posts having a portion movable out of the vertical position whereby an opening is afforded for the removal of said spring and valve.

2. A pump valve, comprising a base ring having a valve seat and posts vertically arranged at the rim of said base ring, the upper end of each post being turned inwardly to form a hook, one of said posts being provided with a knuckle joint, a valve and a coil spring having its topmost coil in engagement with the hook ends of said posts and its lowest coil in contact with the said valve near the rim thereof.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE L. TRYON.
GEORGE F. REID.

Witnesses:

JAMES G. MEYER,
ELIZABETH DOYLE.