

T. McOUAT.
VALVE FOR PULP PUMPS.
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1,061,768.

Patented May 13, 1913.

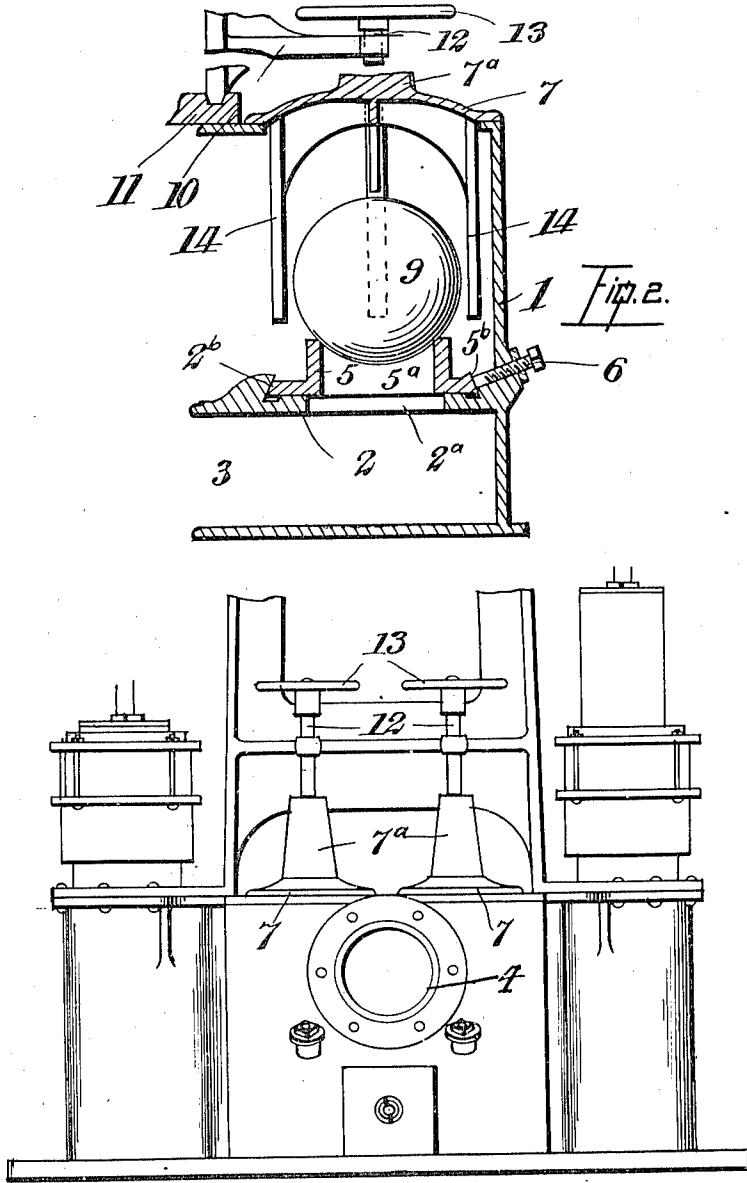


Fig. 1.

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WITNESSES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS McOUAT, a subject of the King of Great Britain, and resident of La Chute, in the Province of Quebec, in the Dominion of Canada, have invented certain new and useful Improvements in Valves for Pulp-Pumps, of which the following is the specification.

My invention relates to improvements in valves for pulp pumps and the object of the invention is to devise a simple and effective valve which will not be choked with the pulp going through the same.

A further object is to devise a valve with a removable seat so that the same can be speedily and cheaply replaced when worn; and a still further object is to provide a readily removable cover in order that the valve may be quickly accessible in case of clogging or when in need of repairs.

The invention consists of a valve casing having a removable valve seat with a beveled outer periphery, the bottom of the casing being correspondingly beveled, a screw bolt extending through the casing and adapted to be screwed down against the beveled periphery of the valve seat, a removable cover, a swingable bracket above the cover secured to the pump casing, a spherical valve, guide fingers either depending from the removable cover or projecting upwardly from the seat, a hand wheel provided with a suitable screw spindle adapted to be screwed down against the removable cover and secure the same in place, all as hereinafter more particularly described and illustrated in the accompanying drawing in which—

Figure 1 represents a side view of a portion of a pulp or stuff pump showing a valve constructed according to my invention applied thereto. Fig. 2 is a vertical section of the valve.

Like characters of reference indicate corresponding parts in the different views.

1 is the valve casing and 2 is the bottom thereof having the aperture 2^a therein.

3 is an inlet through which the pulp passes to the valve.

4 is an outlet from which the pulp passes after going through the valve.

5 is a removable seat having a central aperture 5^a, and 5^b is the beveled periphery

of the same. 2^b is a correspondingly beveled flange on the bottom of the casing 2, and 6 is a screw bolt extending through the casing and adapted to engage the beveled periphery 5^b of the removable seat and thus hold the same in position. It will be seen that the screw bolt 6 extends through the casing at such an angle that it will be at substantially right angles to the beveled surface on the valve seat, so that the end of the bolts may engage the beveled periphery and hold it without cutting or entering the same.

7 is the removable cover.

9 is a spherical valve adapted to seat on the seat 5.

10 is a swingable bracket suitably pivoted to the pump casing 11, and 12 is a screw spindle extending through the outer end of the bracket 10 and 13 is a hand wheel for operating the screw spindle whereby the latter is turned down against the cover 7 for holding the same in place.

14 are guiding fingers formed on the bottom of the cover 7 or on the seat 5.

The spherical valve rises and falls with each stroke of the pump and the seat being removable can be readily and cheaply renewed when worn, and further when the guiding fingers become worn the cover or seat to which they are attached or on which they are formed can be replaced and thus obviate the necessity of replacing the whole valve. The seat can be removed by swinging the bracket 10 out of the way when the cover 7 may be removed. The bolt 6 is then unscrewed and the seat removed and replaced by a new one.

The bracket 10 could with equal efficiency be constructed rigid instead of being swingable as is shown and further the valve could with facility be used with other materials besides pulp.

What I claim as my invention is:

In a valve for pulp pumps, a valve casing having an aperture in the bottom thereof, a removable seat adapted to fit over the aperture and having a beveled periphery, a beveled flange on the bottom of the casing at one side of the aperture therein, a screw bolt extending through the casing and adapted to engage the beveled periphery of

the removable seat and thus hold the same
in position, a removable cover, a swingable
bracket suitably pivoted to the casing, a
screw spindle extending through the outer
5 end of the bracket adapted to bear against
the cover when in one position, a hand wheel
for operating the screw spindle and integral
guide fingers formed on the bottom of the

cover, and a spherical valve mounted on the
seat!

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

THOMAS McOUAT.

Witnesses:

EDITH RICHARDSON,
M. P. PARSON.