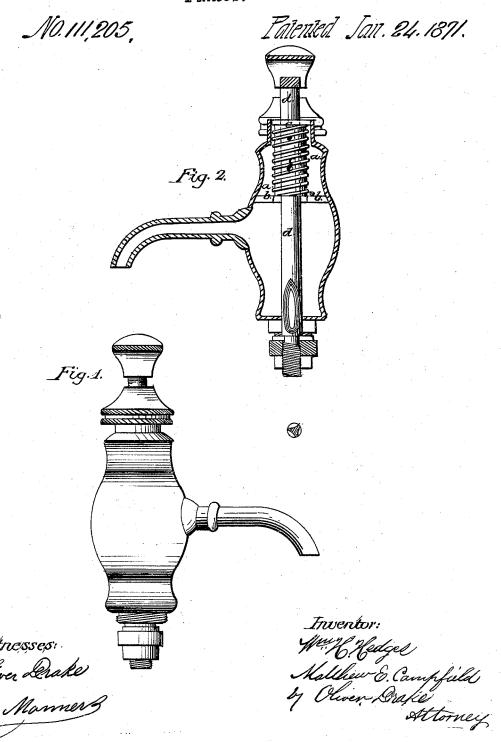
Heages & Campbell,

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United States Patent Office.

WILLIAM H. HEDGES AND MATTHEW E. CAMPFIELD, OF NEWARK, NEW JERSEY.

Letters Patent No. 111,205, dated January 24, 1871.

IMPROVEMENT IN COCKS.

The Schedule referred to in these Letters Patent and making part of the same.

We, WILLIAM H. HEDGES and MATTHEW E. CAMPFIELD, of the city of Newark and State of New Jersey, have invented certain Improvements in Cocks, of which the following, in connection with the accompanying drawing, is a specification.

Figure 1 represents an ordinary fluid-cock combin-

ing our improvements.

Figure 2 is a sectional view of the same, showing

the inside or packing-box.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

a is a box or chamber.b is a flange or seat.

c is a collar firmly secured to the rod or stem d.

Through the flange b passes the rod or stem d, and around the rod d, where it passes through the chamber a, is a piece of rubber tubing, or its equivalent, covering the rod d from the flange or seat b to the collar c.

Outside of the rubber tubing is a spiral spring, E, which prevents the rubber from spreading when the rod d is pressed downward for the purpose of drawing the liquid, and also to force the rod d back to its place when the pressure is removed.

A screw-cap, as usual, is fitted over the top of the casing, and holds the collar c in place, and this collar

is made to slide evenly in the casing.

The spring and tubing are secured between the collar c and flange b, and the collar being secured to or made with the stem d, as said stem is passed down to admit the fluid into the casing the said collar bears against the spring and tubing, and they are compressed between it and the flange b, throwing the stem up again when released.

The lower end of the stem is recessed in three, more

or less, places, e, and these recesses, in connection with the packing f, secured to the end of the stem, form the valve for the admittance of the fluid.

By this device all unnecessary friction is avoided, the packing-box is rendered perfectly tight, less liable to get out of repair, and cheaper in cost of construction than many of the prevailing modes.

In manufacturing fluid-cocks we have been put to inconvenience and loss of time, labor, and money, from the fact that the cocks so soon get out of re-

pair, and leak.

Again, it has frequently happened that during the process of galvanizing the packing has become partially or entirely destroyed, thus rendering it necessary to take the cocks apart and insert new packing. By this mode of constructing a packing-box such results cannot take place, it being impossible for the ingredients composing the galvanizing fluid to penetrate into the packing-box.

What we claim as new, and desire to secure by Let-

ters Patent, is-

1. The packing-tubing surrounding the stem d, in combination with the spiral spring E, when said tubing and spring are arranged between the flange or seat b and collar e, and operate together in the manner and for the purpose set forth.

2. The stem d, provided with an opening or openings near its lower end, and constructed as described, in combination with the tubing and spring, arranged

as set forth.

WILLIAM H. HEDGES. MATTHEW E. CAMPFIELD.

Witnesses: OLIVER DRAKE,

ABRAHAM MANNERS.