P. CONNOLLY.
Service-Pipe Box.

No. 221,526. Patented Nov. 11, 1879.

FIG. 2.

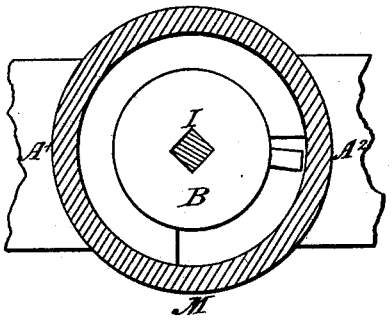
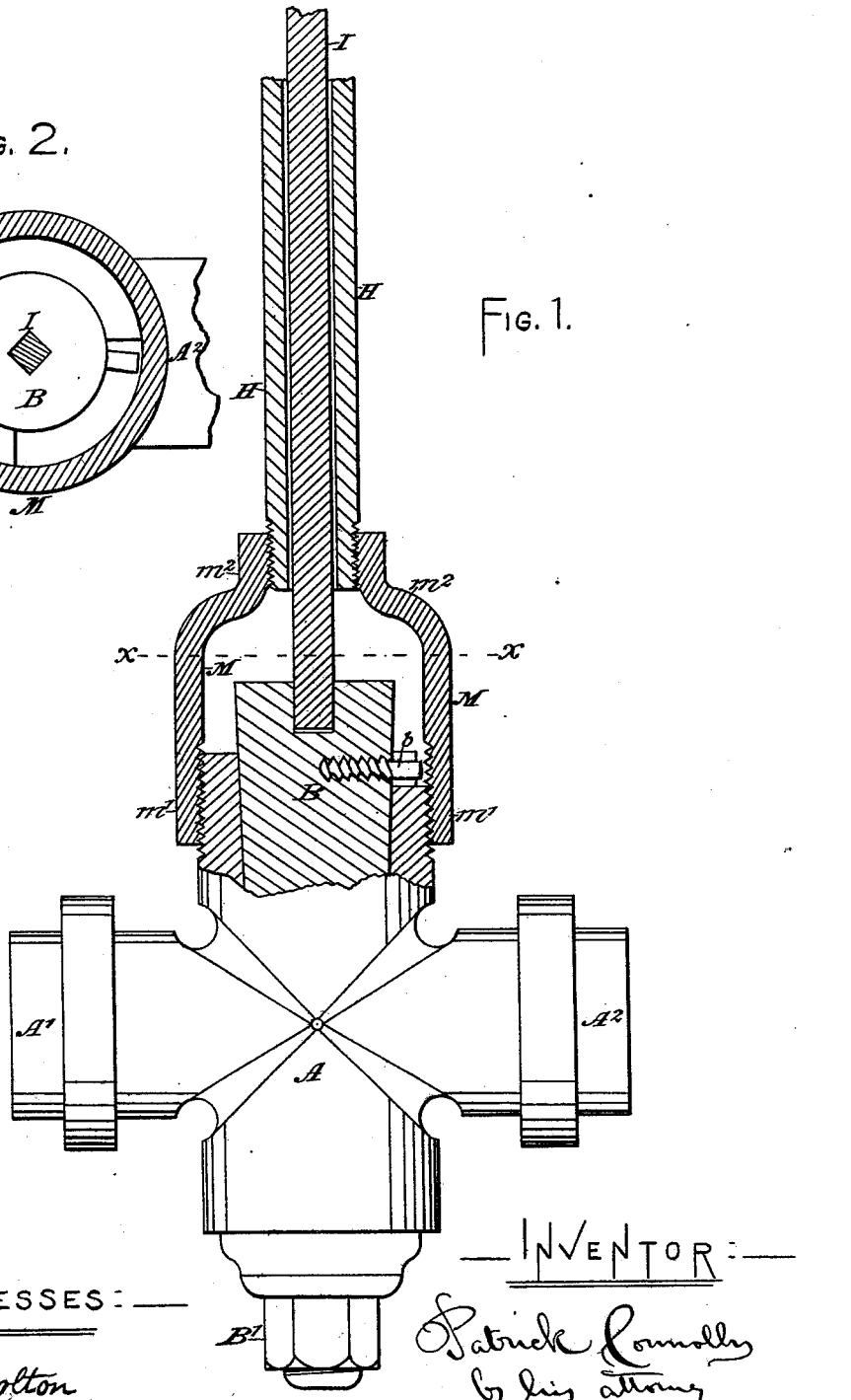


FIG. 1.



WITNESSES:

E. B. Bolton
Charles C. Stetson

INVENTOR:

Patrick Connolly
by his attorney
Thomas S. Stetson

UNITED STATES PATENT OFFICE.

PATRICK CONNOLLY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SERVICE-PIPE BOXES.

Specification forming part of Letters Patent No. **221,526**, dated November 11, 1879; application filed May 8, 1879.

To all whom it may concern:

Be it known that I, PATRICK CONNOLLY, of Brooklyn, Kings county, in the State of New York, have invented certain new and useful Improvements in Service-Pipe Boxes, of which the following is a specification.

My invention is intended to apply in controlling the supply of houses by means operated at or near the curb-stone. It has long been common to employ a cock at that point in each connection to the house, and to operate it by means controlled by the officers in control of the supply of the town or city. In former times a wooden box was used to inclose the rod reaching down to operate such cock. I have, in a patent issued to me, dated April 2, 1878, No. 201,996, and in several subsequent patents, represented means for employing an iron pipe for such purpose with advantage.

By employing a small pipe I reduce the effect of frost, which may freeze to the pipe and lift and tend to disturb the stop-cock below.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is an elevation, partly in section; and Fig. 2 is a horizontal section on the line *x x* in Fig. 1.

Similar letters of reference indicate like parts in both the figures.

A is the body of the stop cock; A′, the end connecting with the pipe bringing water from the street, and A^2 leading it away to the house. B is the plug, which may be of sufficient size to perform its functions perfectly. Its size need not prevent the use of a small pipe leading to the surface.

M is a reducing-coupling. Its lower end, *m′*, is threaded and adapted to form a strong and tight joint with the upper end of the stop-cock A. Its upper end, m^2, is contracted and threaded to form a tight and strong junction with the pipe H, which latter pipe leads to the surface of the ground, and may be equipped there with any suitable box with a lock and cover, or otherwise provided to allow its convenient operation by the proper party, and to forbid its being tampered with by improper persons.

I represents the operating-rod, which fits closely in the tube H and turns easily therein. The lower end is preferably square, and operates in a corresponding recess in the upper end of the plug B.

In applying the parts together the coupling M is first secured strongly on the stop-cock A, the plug B being first fully and properly fitted in its place. Next the pipe H, leading to the surface, is connected to the upper and smaller end of the reducer M. Finally the rod I is introduced and turned around until it drops into its seat in the upper end of the plug. The parts being properly placed in the earth, and the pipe H being properly equipped at the top, the rod I may be turned at any time by a suitable wrench or key, and thus the plug B operated at will.

The rod I is readily removed and replaced at will, the close fit in the tube H assisting it to register promptly with the recess in the plug.

Modifications may be made. The taper of the plug B may be made greater or smaller. Instead of the nut B′ at the bottom of the plug B, any other suitable means may be employed to keep the plug drawn into its seat with sufficient tightness. It is important that it be allowed to turn with sufficient ease to allow it to be operated by a relatively small rod. I propose to use rods I of square section, or round with square ends, and of a uniform size of about three-eighths ($\frac{3}{8}$) of an inch on each side for all ordinary sizes of cocks.

The reducer may have its large end, *m′*, fit inside instead of outside at the junction of this part with the cock, care being taken, of course, to correspondingly arrange the threads.

I have provided an efficient stop to prevent the plug B from turning too far, by screwing into the plug near the top a pin, *b*, and cutting away a little more than a fourth of the upper edge of the casing A, to receive its projecting end and allow it to be turned to just the required extent.

I propose to use in some cases a lifting-valve with a rod connected, to serve tensionally with the other parts, as herein described. I consider such an equivalent to the plug B and operating-rod I.

I have described the device, and in my experiments have applied it, for common water-connections from street-mains to houses. It

may be used with success not only for such, but also for connections to manufactories, bathing-houses, and the like, or for gas-connections, or where the Holly or similar systems are employed for steam-connections.

I claim as my invention—

The reducer M m' m^2, applied directly to the valve-case A of a horizontal turning-valve, in combination therewith, and with the small tube H, removable close-fitting rod I, and plug B, all adapted to serve as and for the purposes specified.

In testimony whereof I have hereunto set my hand this 7th day of May, 1879, in the presence of two subscribing witnesses.

PATRICK CONNOLLY.

Witnesses:

E. B. BOLTON,

CHARLES C. STETSON.