

No. 618,051.

Patented Jan. 24, 1899.

J. S. BOWMAN & W. E. GRAHAM.  
HOSE OR PIPE CLEANING APPLIANCE.

(Application filed Feb. 9, 1898.)

(No Model.)

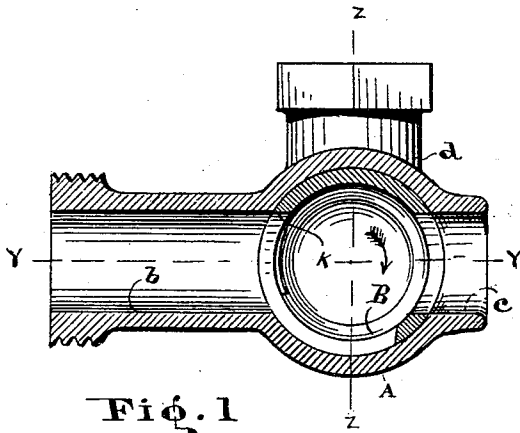


Fig. 1

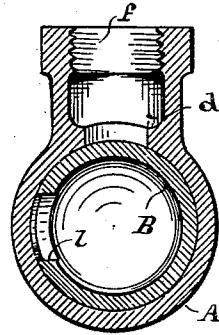


Fig. 2

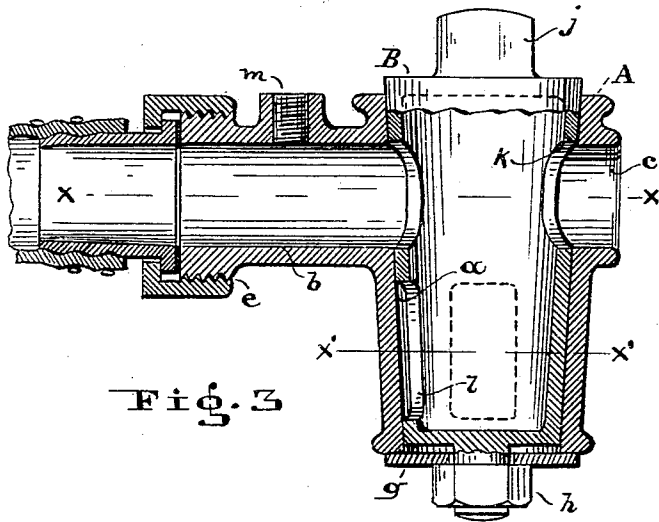


Fig. 3

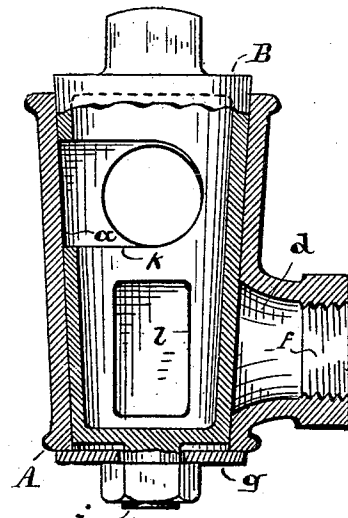


Fig. 4

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# UNITED STATES PATENT OFFICE.

JAMES S. BOWMAN AND WILLIAM E. GRAHAM, OF CLEVELAND, OHIO.

## HOSE OR PIPE CLEANING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 618,051, dated January 24, 1899.

Application filed February 9, 1898. Serial No. 669,703. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES S. BOWMAN and WILLIAM E. GRAHAM, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Hose or Pipe Cleaning Appliance, of which the following is a specification.

Our invention consists in the construction of a cock or valve adapted for use in connection with other suitable means (brushes) for the purpose of cleaning (scrubbing) the interior of hose, pipes, &c.

That the invention may be fully seen and understood, reference will be had to the following specification and accompanying drawings, in which—

Figure 1 represents a horizontal sectional view of said cock or valve on line X X, Fig. 3. Fig. 2 illustrates another sectional view on line X' X', Fig. 3. Fig. 3 is a vertical longitudinal sectional view on line Y Y, Fig. 1; and Fig. 4 is a vertical transverse sectional view on line Z Z, Fig. 1.

Like letters of reference denote like parts in the drawings and specification.

Substantially the contrivance consists of a peculiar branch cock, of which two branches are arranged in central alinement, while the third is "offset" or in a different plane and projecting in about a right-angle direction to the first-mentioned branches.

The casing A or body part of the cock comprises the conical sleeve *a* and the branches *b*, *c*, and *d*. Preferably the terminal of the branch *b* is threaded externally for a coupling connection, as seen at *e*, while the branch *d* is adapted for pipe connection, as seen at *f*. (See Figs. 1, 2, and 3.)

The plug B is fitted to the conical sleeve *a* and retained in operative connection with the casing A by means of the washer *g* and the nut *h*, which screws upon the shank *i* of the small end of said plug. (See Fig. 3.) The large end of the plug has a suitable projection *j* to enable manipulation of said plug.

The plug proper is of the hollow type. Side openings are formed at *k* and *l*, which establish either an open relation of the branches *b c* or the branches *b* and *d*.

Shown in Fig. 1 is an open relation of or

between the branches *b c*, established by the lateral port K, and the branch *d* is shut out. A quarter-turn of the plug in direction of the arrow shuts out communication of the branch *c*. The port *l* then will register with branch *d*, and by way of the cavity of the plug communication is attained between the branches *d* and *b*. A cock or valve so constructed becomes a preëminently useful element in the mode or work of cleaning the inside of hose or pipes, &c., in conjunction with the application of brushes or scrapers.

For freeing the inside of hose, pipes, &c., in an efficient and thorough manner from objectionable or detrimental deposits brushes or the like must necessarily be used for scrubbing the interior walls thereof. Also the application of a suitable liquid solvent becomes desirable aside from the use of water. It can readily be seen that we supply a means suited for the nature of such work in the above-described contrivance, since the same can be used in the following manner:

The branch *d* is connected with any suitable water-supply pipe, while onto the branch *b* is coupled the hose or pipe requiring cleaning. By setting the plug as indicated in Fig. 1 the water-supply is shut off, while the branches *b* and *c* remain in open relation one with the other, owing to the position of the lateral port K. A brush or other suitable article can thus be inserted into the branch *b* by way of the auxiliary branch *c*. After placing the brush a quarter-turn of the plug suffices to close branch *c* and to open branch *d*, whereupon the water rushes upon the brush and drives same through the hose or pipe attached for being scrubbed and cleaned.

An additional pipe connection can be had with branch *b* at *m* for the purpose of introducing soapsuds or the like into the pipe either before, with, or after the chasing of the brush through said pipe. The linear arrangement of the branches *b* and *c* admits the use of comparatively long brushes equally well as short brushes; but evidently with long brushes the work can be accomplished more thoroughly.

What we claim, and desire to secure by Letters Patent of the United States, is—

In a hose-cleaning appliance enabling the

manipulation of cylindrical brushes, a cock consisting of a casing with conical sleeve *a* having an inlet branch *d* adapted for pipe connection, an outlet branch *b* suited for hose-coupling and an opening *c* opposite said outlet and a hollow plug with side ports alternately registering with the inlet *d* or opening *c* and being in open relation with outlet *b* all constructed and arranged substantially as and for the purpose set forth.

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Witnesses:

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