

(No Model.)

D. A. STREETER.
PIPE PLUG.

No. 600,751.

Patented Mar. 15, 1898.

Fig 1

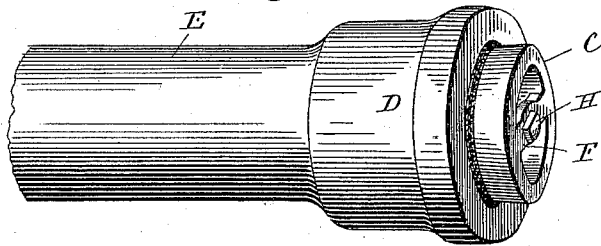


Fig. 2

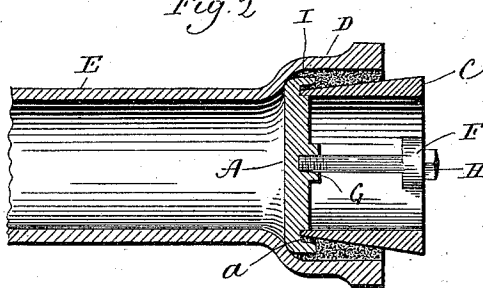


Fig. 3

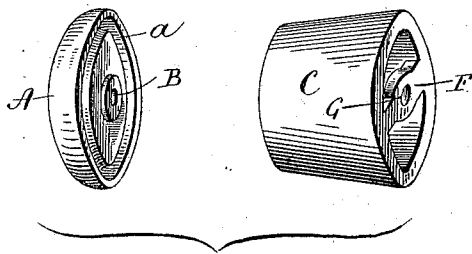
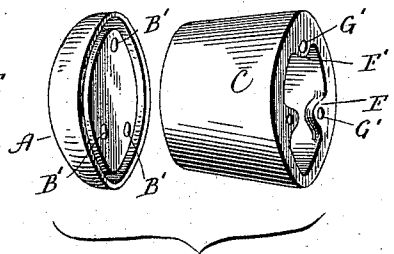


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL A. STREETER, OF WATERBURY, CONNECTICUT.

PIPE-PLUG.

SPECIFICATION forming part of Letters Patent No. 600,751, dated March 15, 1898.

Application filed August 4, 1897. Serial No. 647,108. (No model.)

To all whom it may concern:

Be it known that I, DANIEL A. STREETER, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Pipe-Plugs; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the bell end of a pipe, illustrating my plug as applied thereto; Fig. 2, a vertical central section thereof; Fig. 3, a perspective view of the plate and shell separated; Fig. 4, a similar view illustrating a modification in the manner of connecting the shell and plate.

This invention relates to an improvement in pipe-plugs, and particularly to that class which are adapted to close the bell end of water or gas pipes.

In the more general construction of plugs as now employed it is necessary to break and destroy the plug in removing it.

The object of this invention is to produce a plug which may be readily removed from the pipe when desired without injury to the plug and so that the same plug may be used as many times as desired; and the invention consists in forming the plug in two parts, as will be more fully hereinafter described, and particularly recited in the claims.

The plug consists of a plate or disk A, formed with a concentric groove *a* and with one or more threaded openings B, and a shell C, the inner end of which is adapted to enter the groove in the plate, from which it gradually increases in thickness to its outer end and so that the diameter of its outer end is greater than the diameter of the inner end. The plate or disk corresponds substantially in diameter to the diameter of the inner end of the bell-mouth D of a pipe E, while the diameter of the shell is somewhat less than the diameter of the outer end of the bell, it being understood that the plugs are made of varying sizes to adapt them for use in various sizes of pipes. For the smaller sizes of pipes the outer ends of the shell will be connected

by a web F, through the center of which is a perforation G to receive a bolt H, which is adapted to enter the threaded opening B, formed in the plate, while for the larger sizes the outer end of the shell will be formed with inwardly-extending lugs F', through which are holes G' for the reception of bolts, which will extend into correspondingly-threaded holes B' in the plate.

The device is applied as follows: The shell is first bolted to the plate, and the space I between the edge of the plate and the shell is calked with lead or other material thoroughly packed therein, so as to form a water-tight joint. The back of the plate, or at least the edges thereof, is preferably smeared with fire-clay and inserted into the bell-mouth D of the pipe and so as to rest in the inner end thereof, as shown in Fig. 2, in which position the outer end of the shell projects beyond the end of the pipe. The space between the bell-mouth D and the shell and edges of the plate is then calked, so as to securely lock the plug in the mouth of the pipe. When it is desired to remove the plug, the bolts are removed, so as to disconnect the shell from the plate, when by slightly rapping the end of the shell, owing to its tapering sides, it will readily loosen from the lead around its surface, so that it may be withdrawn. The lead around the inner surface of the pipe is then cut, so as to detach it, which frees the plate. For convenience one of the bolts may be screwed into the plate to form a convenient handle for drawing it outward in case slight force is required. The parts are thus removed without destroying them and are ready to be again connected for further use. The plate and shell are readily cast from metal, and as they may be used several times are much more economical than the plugs now employed.

While I have shown the plug applied to a bell-mouth pipe, it is apparent that it is equally applicable to the opposite end of the pipe, it only being necessary to securely pack the solder around the plug.

I am aware that plugs comprising an inner and outer member which are adapted to be wedged together—such, for instance, as shown

in patent granted to me May 3, 1892, No. 474,196—have been employed, and therefore do not wish to be understood as claiming, broadly, at this time such as my invention; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A pipe-plug comprising a circular plate adapted to be entered into the end of a pipe, a shell, the inner end of which is smaller in diameter than the diameter of said plate, and means for detachably connecting the inner end of said shell to the outer face of said plate, substantially as described.

2. A pipe-plug comprising a plate formed with a concentric groove in its outer face, a shell tapering from its outward end inward, which is adapted to enter said groove, and

means for detachably connecting said shell and plate, substantially as described.

3. The herein-described pipe-plug comprising a plate formed with a concentric groove in its outer face and with a threaded opening, a shell tapering from its outer to its inner end, which is adapted to enter said groove, bolt-supports at the outer end of said shell, and bolts adapted to extend through said supports into the threaded openings in the plate, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DANIEL A. STREETER.

Witnesses:

PATRICK W. HALPIN,
CHARLES K. PEAL.