

No. 695,066.

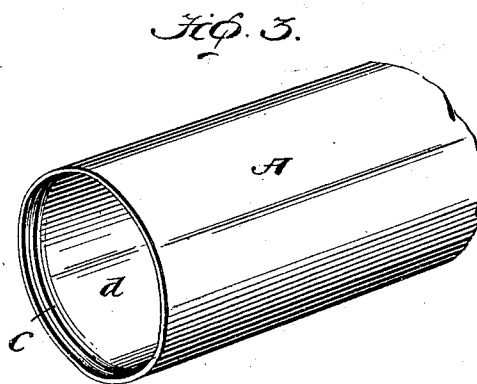
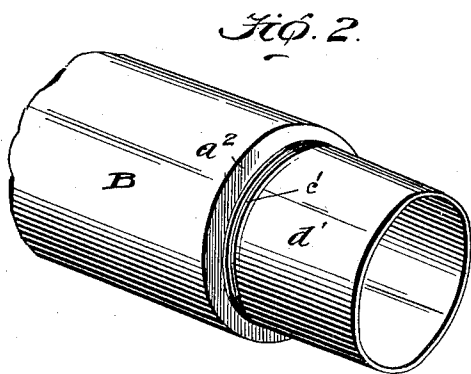
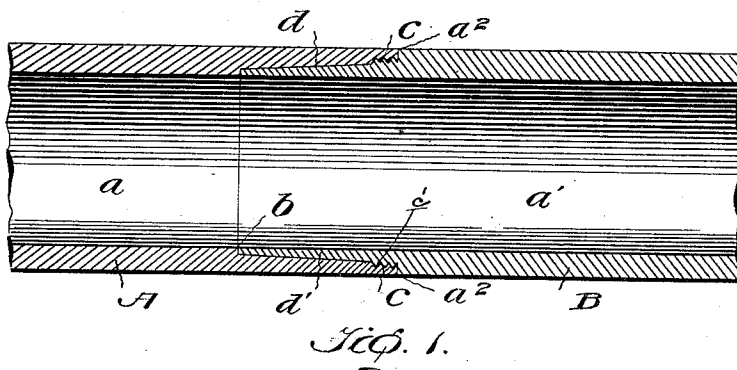
Patented Mar. 11, 1902.

C. J. MACCLAIN & S. S. COLVIN.

PIPE COUPLING.

(Application filed July 16, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

CORNIELOUS J. MACCLAIN AND SILAS S. COLVIN, OF HATTON, OHIO.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 695,066, dated March 11, 1902.

Application filed July 16, 1901. Serial No. 68,503. (No model.)

To all whom it may concern:

Be it known that we, CORNIELOUS J. MACCLAIN and SILAS S. COLVIN, citizens of the United States, residing at Hatton, in the county of Wood and State of Ohio, have invented new and useful Improvements in Pipe-Couplings, of which the following is a specification.

Our invention relates to improvements in pipe-couplings such as are designed more particularly for effecting connection between sections of gas-pipe; and it consists in a coupling comprising two pipe-sections susceptible of being expeditiously connected of themselves—i. e., without the aid of auxiliary appurtenances—and this in such a manner that a perfect gas-tight joint is obtained, and the bore of the pipe is left smooth and unbroken and entirely free from burs and other projections, which are very objectionable, because their tendency to collect sediment frequently results in pipes being choked and necessitates costly repairs.

Our improved coupling is also advantageous because the connected pipe-sections may exteriorly be of a common diameter and free from projections, and hence may be drawn or pushed through small openings in buildings or other places.

With the foregoing in mind the invention will be fully understood from the following description and claim when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a longitudinal central section illustrating the pipe-sections of our improved coupling as connected together. Fig. 2 is a perspective view of the pipe-section which may be properly termed the "male" member of the coupling, and Fig. 3 is a similar view of the pipe-section which constitutes the female member of the coupling.

Similar letters of reference designate corresponding parts in all the views of the drawings.

The pipe-section A, which constitutes the female member of our coupling, is provided with a smooth bore *a*, an interior shoulder *b*, arranged at the end of said bore and about the proportional distance illustrated from the end of the section, interior threads *c* at its end, and a taper bore *d* intermediate of said

threads *c* and the shoulder *b*, the taper of said bore *d* being toward the shoulder *b*, as shown, for a purpose presently described. The pipe-section B, constituting the male member of the coupling, is provided with a smooth bore *a'* of the same diameter as the bore *a* of section A, an exterior shoulder *a''*, arranged at about the distance shown from its end and adapted to abut against the end of the section A when the sections are connected, a reduced extension *d'*, which is exteriorly tapered to tightly fit the taper bore *d* of section A and make the connection gas-tight and is of a length corresponding to that of said taper bore, so as to enable its end to abut against the shoulder *b* in section A and render the bore of the pipe smooth and unbroken throughout, and exterior threads *c'* intermediate of the tapered extension *d'* and shoulder *a''*, adapted to engage the interior threads of section A and connect the sections.

Exteriorly the pipe-sections A B are by preference of a common diameter, smooth and free from projections, this being advantageous, since it permits of the pipe formed of the connected sections being drawn or pushed through small openings in buildings and other places and also permits of one section being disconnected and drawn from the other without disturbing the position of such other.

In effecting our improved coupling it is simply necessary for the operator to screw the male member into the female member until the shoulder *a''* and the end of the reduced extension *d'* of the former abut against the end and the interior shoulder *b*, respectively, of the latter. When this is done, the extension *d'* of the male member will be wedged in the taper bore of the female member, producing a perfectly gas-tight joint, and the bore of the pipe will be perfectly smooth throughout and free from breaks and burs, which, as before stated, are very objectionable, because of their tendency to collect sediment and cause the pipe to become choked. To disconnect the members or pipe-sections, the operator has but to turn one out of engagement with the other, and this may obviously be quickly and easily accomplished with the aid of a wrench or other implement.

Inasmuch as the coupling of the pipe-sections is effected of themselves, or, in other

words, without the aid of auxiliary appurtenances, it will be appreciated that in addition to the advantages pointed out in the foregoing the coupling is very simple and inexpensive and is not liable to get out of order.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

The herein-described pipe-coupling comprising the female member having the bore, the interior shoulder arranged at the end of the bore, the interior threads, and the taper bore intermediate of said shoulder and threads, and the male member having the bore of the same diameter as the bore of the female member, and also having the exterior

shoulder abutting against the end of the female member, the reduced and tapered extension snugly occupying the taper bore of the female member and abutting at its end against the interior shoulder thereof, and exterior threads, intermediate of its shoulder and tapered extension, engaging the interior threads of the female member.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

CORNIELOUS J. MACCLAIN.
SILAS S. COLVIN.

Witnesses:

THOS. F. CONLEY,
ANNA M. DAVIS.