

No. 619,437.

Patented Feb. 14, 1899.

J. F. POOL.
PIPE JOINT.

(Application filed Aug. 6, 1898.)

(No Model.)

Fig. 2.

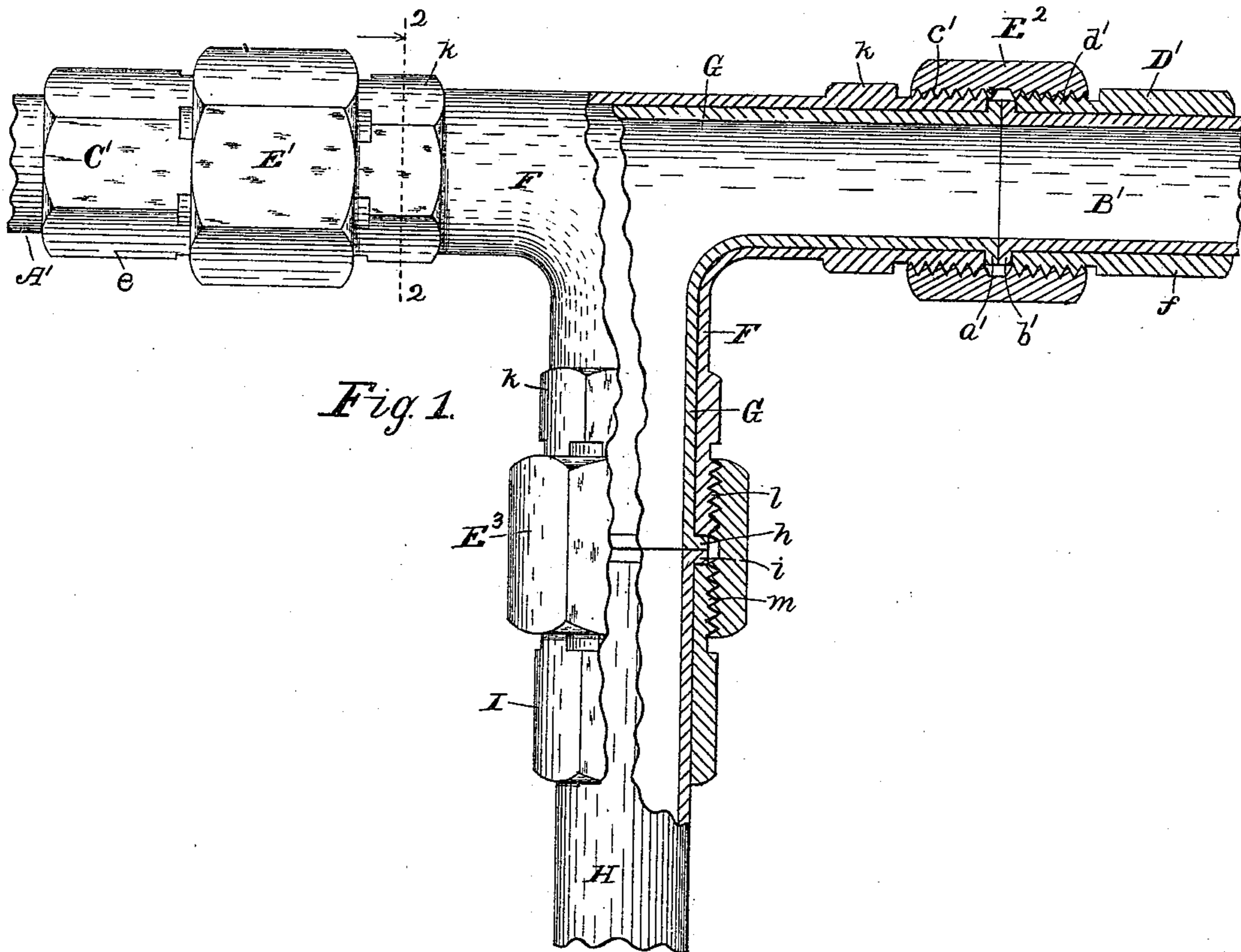
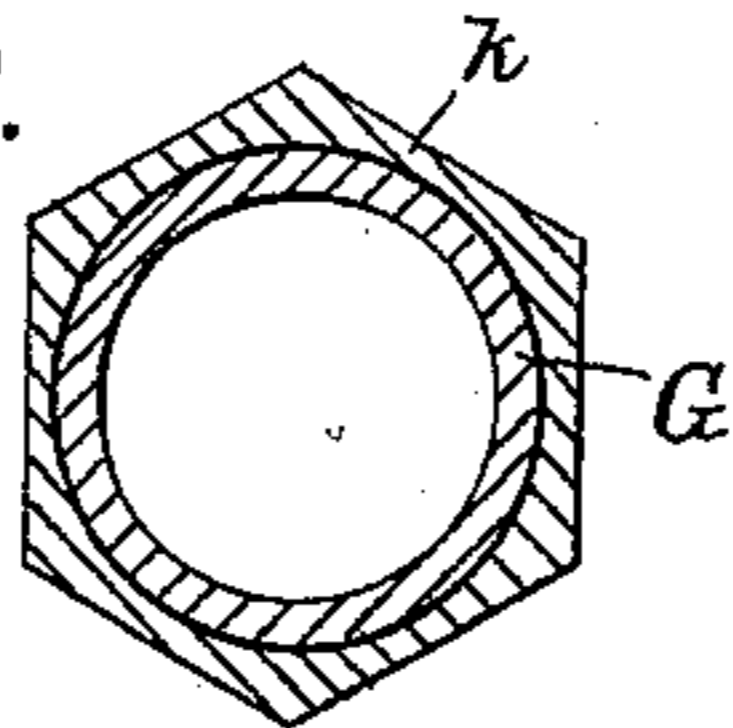


Fig. 1.

Attest:
M. L. Winston.
O. D. Harris.

Inventor:
J. F. Pool,
By E. B. Whitmore, Atty.

UNITED STATES PATENT OFFICE.

JAMES F. POOL, OF ROCHESTER, NEW YORK.

PIPE-JOINT.

SPECIFICATION forming part of Letters Patent No. 619,437, dated February 14, 1899.

Application filed August 6, 1898. Serial No. 687,931. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. POOL, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Pipe-Joints, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

10 My invention is a device for coupling together or joining sections of pipe, and relates more particularly to that class designed for forming a joint between lead or other soft-metal pipes to take the place of the ordinary
15 wipe-joint and cup-joint.

The invention consists in parts and their connection and operation, all hereinafter fully described and more particularly pointed out in the claim.

20 Referring to the drawings, Figure 1 is a view of my improvement, parts being longitudinally sectioned and broken away. Fig. 2 is a cross-section taken on the dotted line 2 2 in Fig. 1.

25 Referring to the drawings, A' B' are two similar sections of lead pipe or pipe of other soft metal adapted to have flanges a' b' turned at the ends, as shown.

30 C' D' are similar opposing bands, as of brass, formed, respectively, with right and left hand threads c' d' and with squared or hexagonal parts e f to receive a wrench for holding or turning them, as the case may be. These bands are preferably adapted to turn
35 without lost motion upon the sections of pipe, having their inner threaded ends abutting squarely against the rear surfaces of the respective flanges a' b', as shown in Fig. 1. A barrel-nut or sleeve E is provided, internally
40 threaded right and left to engage the threads c' d' of the respective bands, as shown in Fig. 1, an internal chamber g' separating the two threads of said nut or sleeve. This barrel-nut is squared or made hexagonal on its exterior
45 surface for the purpose of receiving a wrench for turning it. Now it will be understood that if the bands are, for instance, held from turning and the barrel-nut be turned in the right direction the two flanges a' b' of the pipe
50 will be drawn snugly together and form a tight joint, as shown in Fig. 1, without using

a packing-ring, plastic lead, or any other thing or substance commonly used to prevent leaking. Also if the barrel-nut be turned in the opposite direction the parts may be loosened and the sections of pipe disconnected
55 for examination, repairs, or other purposes without cutting the pipe, as would be necessary in the case of a wipe or cup joint.

To operate the parts, a bifurcated wrench 60 is employed, one tine or branch of the wrench engaging each of the bands C' D', between which branches the barrel-nut E' may be turned by another wrench. This coupling device consists, aside from the sections of
65 pipe, of but three parts—namely, the two bands and the barrel-nut—without other detachable or removable parts, like packing-rings, for example, a perfect joint being effected by pressing together the yielding sur-
70 faces of the leaden flanges.

A firm metal branch or fitting F, of brass, or it may be iron, is employed lined with lead G, as shown. The three branches of the lead part G correspond in size with the contiguous
75 pipe-sections A', B', and H and are flanged at their ends, two being shown at a' h to meet the flanges of said contiguous sections, two of said flanges b' and i being shown. Upon the three pipe-sections A' B' H are employed
80 bands C' D' I and associated barrel-nuts E' E² E³, as shown. The body or fitting F is threaded at the extreme end of each branch, two of said threads being shown at c' l and also formed with squared parts k k k for re-
85 ceiving a wrench. The threads on the part F and those on the adjacent bands d' and m are, as to pairs, right and left, respectively, so that the barrel-nuts will act to draw the parts of each pair together to form a joint, as
90 above stated. By this construction a continuous lead pipe is produced having three branches, and it is understood that a fourth branch may be as conveniently added, forming a cross T.

What I claim as my invention is—

A lead-pipe coupling or joint, comprising a rigid metal branched fitting having lead lining, the latter being flanged at the ends of the branches of said fitting, said branches be-
100 ingscrew-threaded at their ends, and squared to receive a wrench, in combination with

similarly-flanged sections of lead pipe joining
the respective flanges of said lead lining, and
threaded bands upon said sections to bear
against the flanges thereof, and barrel-nuts
5 to engage the threads of said bands and the
threaded ends of said branches, in pairs, sub-
stantially as shown and set forth.

In witness whereof I have hereunto set my
hand, this 2d day of August, 1898, in the pres-
ence of two subscribing witnesses.

JAMES F. POOL.

Witnesses:

E. B. WHITMORE,
M. L. WINSTON.