No. 686,164. Patented Nov. 5, 1901.

J. M. SWEENEY.

PIPE COUPLING.

(Application filed June 19, 1901.)

(No Model.)

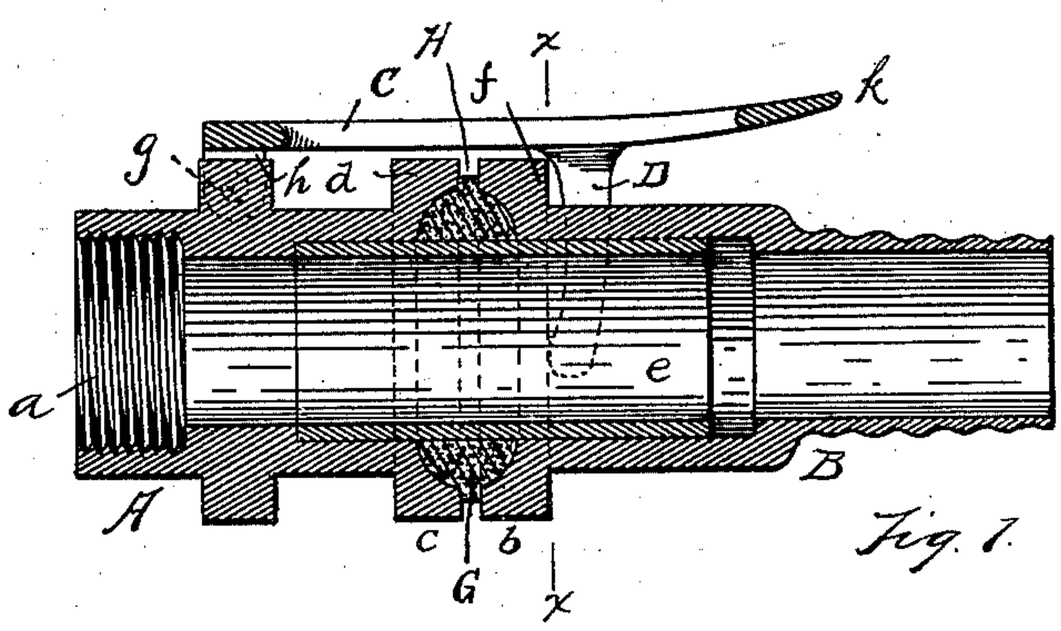

Fig. 1.

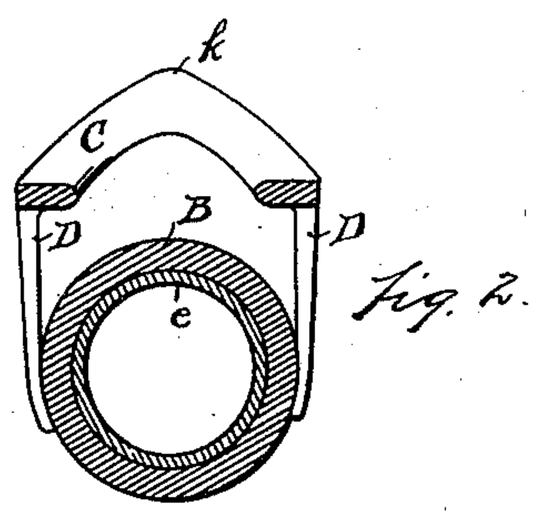

Fig. 2.

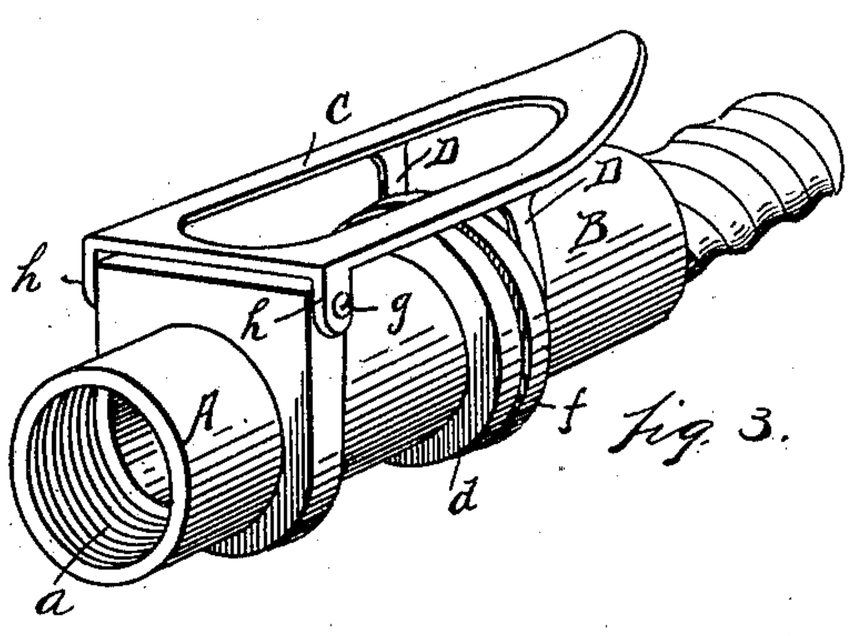

Fig. 3.

WITNESSES

Chas. E. Wiener.

May E. Kott.

INVENTOR

By John M. Sweeney

Parker & Burton

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN M. SWEENEY, OF DETROIT, MICHIGAN.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 686,164, dated November 5, 1901.

Application filed June 19, 1901. Serial No. 65,214. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. SWEENEY, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Pipe-Couplings; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to pipe-couplings, and has for its object an improved coupling adapted to be used with water-pipes, steam-pipes, hose, or in any place where it is desired to produce a tight coupling between pipes that are placed end to end.

In the drawings, Figure 1 is a longitudinal section through the coupling. Fig. 2 is a cross-section at the line *x x* of Fig. 1. Fig. 3 is a perspective.

The coupling consists of two pieces A and B, and a lever C is hinged to the piece A. The coupling-piece A is provided with means by which it may be attached to the end of a pipe, as shown in the drawings. This consists of a screw-thread *a*, run on the inside of the coupling to enable it to engage on the threaded end of the pipe; but the means of attachment at this end may be, if desired, arranged for internal engagement with an external pipe in the way shown on the piece B. The piece B is also a fitting arranged to engage with a pipe. The end *c* of the piece A and the end *b* of the piece B are to be brought together, and around the mouth at the end *c* is a flange *d*, and the mouth is concaved around a projecting pilot-tube *e*. The pilot-tube *e* extends beyond the end of the piece A and is adapted to engage closely inside the bore of the coupling-piece B. The piece B has its mouth at the end *b* also concaved, and its bore is arranged to engage over the pilot projection *e*. Around its mouth end is a flange *f*.

To the piece A, back of the end *c*, is secured a lever C. Preferably this is secured to the part that is arranged for wrench-hold purposes by pins *g*, that extend through lugs *h* on the lever C. The lugs *h* straddle the bearing on the piece A, and the lever C turns on the pins *g* as a fulcrum. Between the fulcrum of the lever and its terminal *k* are two arms D, which straddle the coupling-section B behind the flange *f* and are arranged with reference to the pins *g* to bring the two ends of the two sections closely together when in the position shown in Fig. 1. The two arms D are bent toward each other at their extremities, so that the distance between the two arms at the extremities is less than the diameter of the coupling B, with which the arms are to engage, and the lever is made of resilient material, so that when the two ends of the coupling are brought together and the lever is turned to its locking position the ends of the arms will spring apart in the operation of forcing the lever to place and the ends spring toward each other again after the extreme ends have passed below the diameter. The parts are then locked, and there is resistance to again open the lever, due to the resistance of the spring material or the arms D.

The pins *g* should preferably be at the side of the coupling rather than at the ends of a diameter, and the distance from the pin *g* to the free end of the arm D should be greater than the distance from the pin *g* to the fixed end of the arm D, as this construction causes the arm D to pull the coupling B toward the coupling A when the lever is brought to the position shown in Fig. 1.

In the assembled condition of the coupling the pilot *e* extends into the bore of the coupling B, and there is around the pilot *e*, between the ends of the couplings, a chamber H, in which is inserted a packing G. The packing may be of any suitable material. The engagement of the pilot-pipe *e* in the bore of the coupling-piece B itself makes a comparatively tight joint, and it serves to hold the packing material G in proper position and to protect the packing material somewhat from steam and somewhat from any liquid or fluid that may be run through the pipes.

What I claim is—

A two-part coupling for pipes, consisting of one part provided with a lever having spring-

arms adapted to engage the second part of the coupling, and being pivotally secured to the first part, both parts being provided with cavities outside the main bore of the piece, and one part being provided with a pilot-tube adapted to engage in the bore of the other part whereby there is formed between the ends of the coupling parts and outside the pilot-tube, a chamber for a packing-disk, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN M. SWEENEY.

Witnesses:
MAY E. KOTT,
CHARLES F. BURTON.