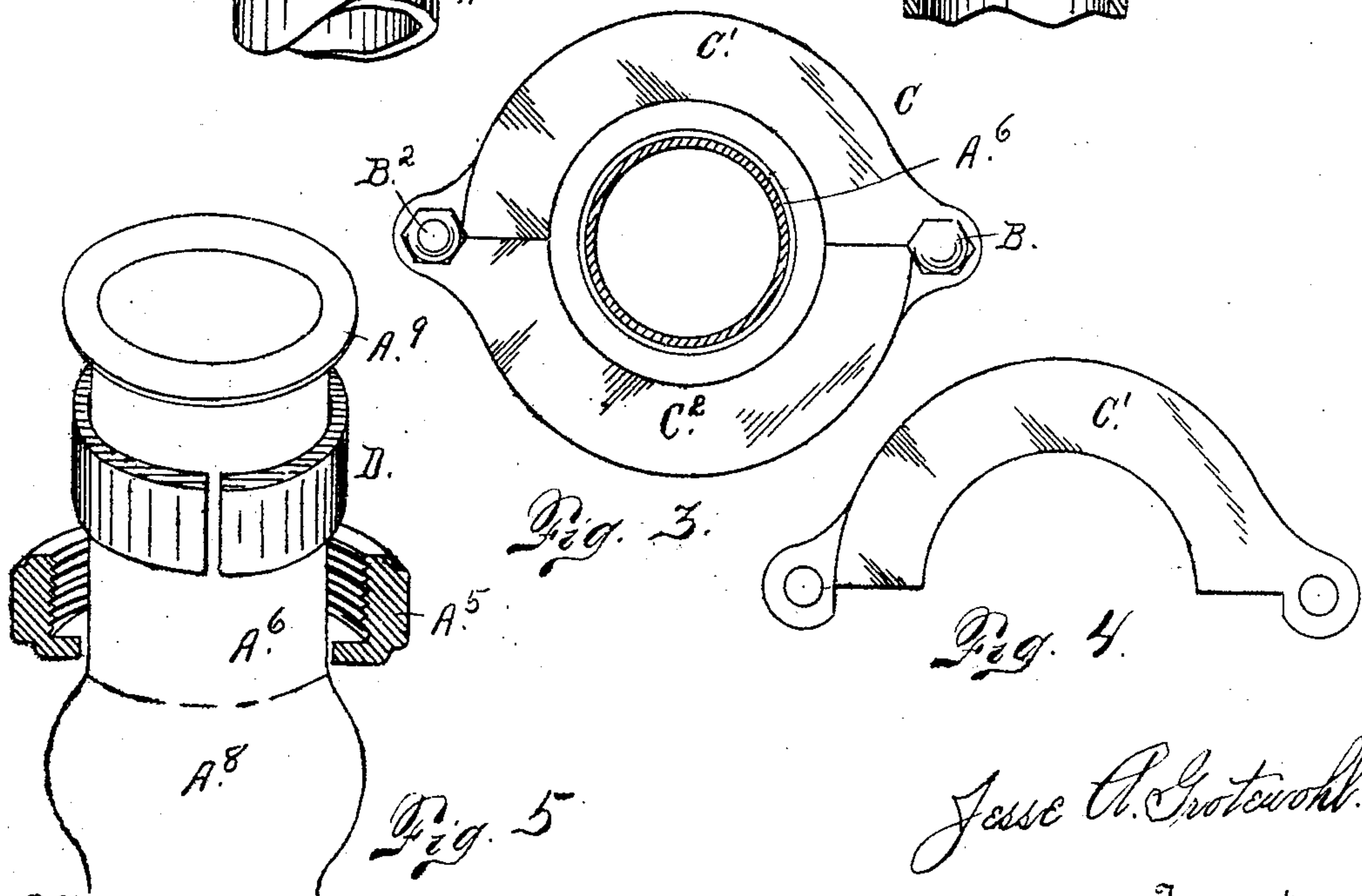
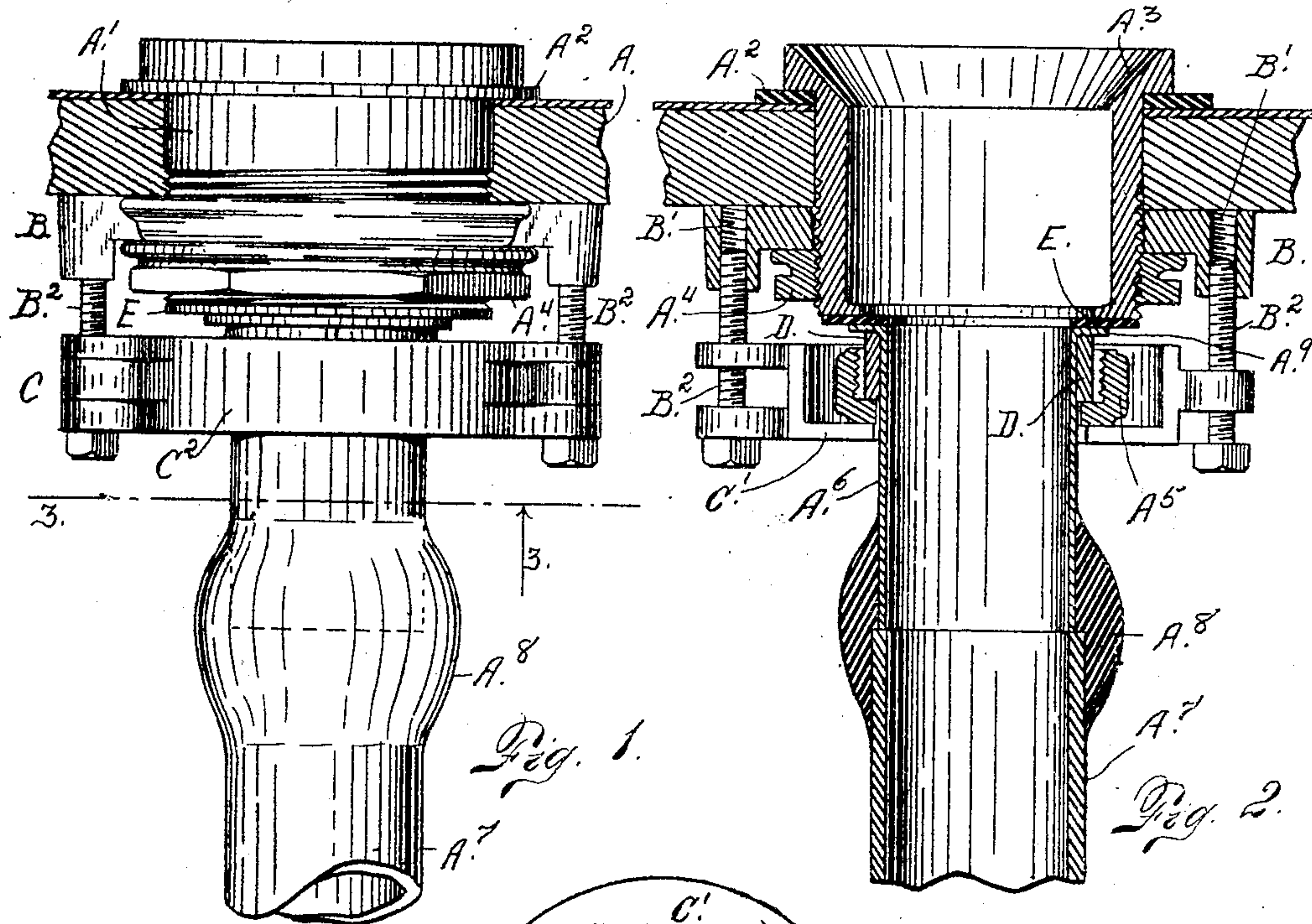


No. 803,687.

PATENTED NOV. 7, 1905.

J. A. GROTEWOHL.
PIPE COUPLING.

APPLICATION FILED JULY 22, 1904.



Witnesses
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UNITED STATES PATENT OFFICE.

JESSE A. GROTEWOHL, OF DENVER, COLORADO.

PIPE-COUPLING.

No. 813,687.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JESSE A. GROTEWOHL, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Pipe-Couplings; and I do 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in
15 pipe-couplings, and while more especially intended for use in connection with the flush-tanks of water-closets it may be employed to advantage in many other relations.

When the flush-tank of a water-closet is
20 removed, it often happens that the short piece of pipe to which the depending lead conduit is connected by a wiped joint, together with the coupling-nut surrounding the same, do not harmonize in size with the threaded sleeve
25 protruding through the opening in the bottom of the flush-tank. By the use of my improved coupling the said parts of the new flush-tank may be connected with the old parts in such a manner as to form a perfectly tight joint
30 without the necessity of discarding the old parts and substituting new ones. I accomplish this object by means of a clamping device, one member of which is held in place on the coupling-sleeve of the flush-tank by means
35 of the nut connected with said sleeve, while the other member engages the coupling-nut forming one of the old features of the pipe-conduit, a divided ring being inserted in the coupling-nut and protruding slightly above
40 the same, whereby the nut is held below the sleeve, a lead washer being interposed between the top flange of the old pipe-section and the lower edge of the sleeve of the tank. Then by the use of stud-bolts the movable
45 clamping part engaging the coupling-nut is drawn toward the sleeve of the flush-tank with sufficient force to form a perfectly tight joint. Having briefly outlined my improved construction, as well as the function it is intended to
50 perform, I will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is an elevation
55 illustrating my improved pipe-couplings shown

in connection with the flush-tank, the bottom of which is sectionized. Fig. 2 is a section taken through all of the parts. Fig. 3 is a section taken on the line 3 3 looking in the di-
60 rection of the arrow in Fig. 1. Fig. 4 is a detail view of one part of the lower clamping member. Fig. 5 is a detail view showing the upper extremity of the lead conduit and the pipe-section connected therewith, together with the divided ring employed in forming my
65 improved coupling.

The same reference characters indicate the same parts in all the views.

Let A designate the bottom of the flush-tank or other receptacle with which my im-
70 proved coupling is to be used. Inserted in the flush-opening of this tank is a sleeve A', whose upper extremity is shouldered to engage a gasket A², applied to the bottom of the flush-tank on the inside. The portion of this
75 sleeve which extends into the flush-tank is provided with the usual valve-seat A³. The depending portion of the sleeve or that which protrudes through the opening in the bottom of the tank is threaded to receive a nut A⁴.
80 This sleeve and nut are provided with the flush-tank, assuming that a new one is to be put in place.

In order to remove the old flush-tank, we will assume that the nut A⁵ was unscrewed
85 from the sleeve of the old tank and allowed to drop down upon the pipe-section A⁶, connected with a lead conduit A⁷ by the wiped joint A⁸. Now when the new flush-tank is put in place it is discovered that the nut A⁵
90 is too small for the sleeve A', and without an invention of the character of my improved device new parts A⁵ and A⁶ would have to be provided and the wiped joint A⁸ broken.
95 The nut A⁴ ordinarily is employed only to secure the sleeve A' in place, the nut being screwed tightly against the bottom of the flush-tank, whereby the sleeve is drawn downwardly tightly against the gasket A², forming
100 a liquid-tight joint around the sleeve.

In order to overcome the difficulty resulting from the fact that the coupling-nut A and the pipe-section A⁶ do not harmonize in size with the sleeve A', I employ two clamping mem-
105 bers B and C. The clamping member B consists of a ring large enough to surround the threaded portion of the sleeve A' and is made to engage the bottom of the tank A. The nut A⁴ is then screwed upon the sleeve to engagement
110 with the ring, whereby the latter is held

tightly in place. This clamping-ring B is provided with threaded openings B', adapted to receive stud-bolts B², passed through apertures formed in the clamping member C, which surrounds the coupling-nut A⁵ and is provided with a bottom flange C', which engages said nut. A divided ring D is fitted around the pipe-section A' and located within the coupling-nut A⁵, the said ring resting on the shoulder or interior flange of the said nut, while the upper edge of the ring engages the top flange A⁹ of the pipe-section A⁶. A washer E, preferably composed of lead, is interposed between the flange A⁹ and the lower edge of the sleeve A'. Now as the stud-bolts B² are screwed to position the clamping member C is drawn upwardly, forming a tight joint between the pipe-section A⁶ and the sleeve A' of the flush-tank.

The clamping-ring C is composed of two parts C' and C², whose extremities are provided with ears having registering openings through which the stud-bolts B² are passed. This divided clamping member facilitates the use of the device, since it can be applied to a pipe which does not have an exposed free extremity over which an integral ring could be passed.

From the foregoing description the use and operation, as well as the advantages, of my improved device will be readily understood and need not be further described in detail.

Having thus described my invention, what I claim is—

1. The combination with two parts to be coupled of two clamping members respectively applied to the said parts, a lock-nut for holding one of the clamping members in place upon one of the parts to be connected, a divided ring applied to the other part and engaging a flange formed on the last-named part, and a second clamping member having

a flange engaging the said ring, and stud-bolts for connecting the two clamping members.

2. The combination with a tank having an opening, a sleeve mounted on the tank and protruding through said opening, a clamping-ring surrounding said sleeve and provided with threaded openings, a nut applied to the sleeve and screwed against the clamping-ring to hold the latter in place, a packing-washer engaging the edge of the said sleeve, a pipe-section engaging said washer, a ring surrounding the pipe-section and engaging the top flange formed thereon, and a second clamping member acting on the ring and provided with openings, and stud-bolts passing through the openings of the second clamping member and entering the threaded openings of the first-named clamping member.

3. The combination with the two parts to be connected, of a clamping member mounted on one of the parts, suitably secured in place and provided with threaded openings, a divided clamping member surrounding the other part, a divided ring interposed between the divided clamping member and the upper extremity of one of the parts to be connected, the said upper part being provided with an exteriorly-bent flange, a packing-washer interposed between the two parts to be connected, the divided clamping member being provided with openings, and stud-bolts passed through the openings of the divided clamping member and entering the threaded openings of the first-named clamping member, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JESSE A. GROTEWOHL.

Witnesses:

DENA NELSON,
A. J. O'BRIEN.