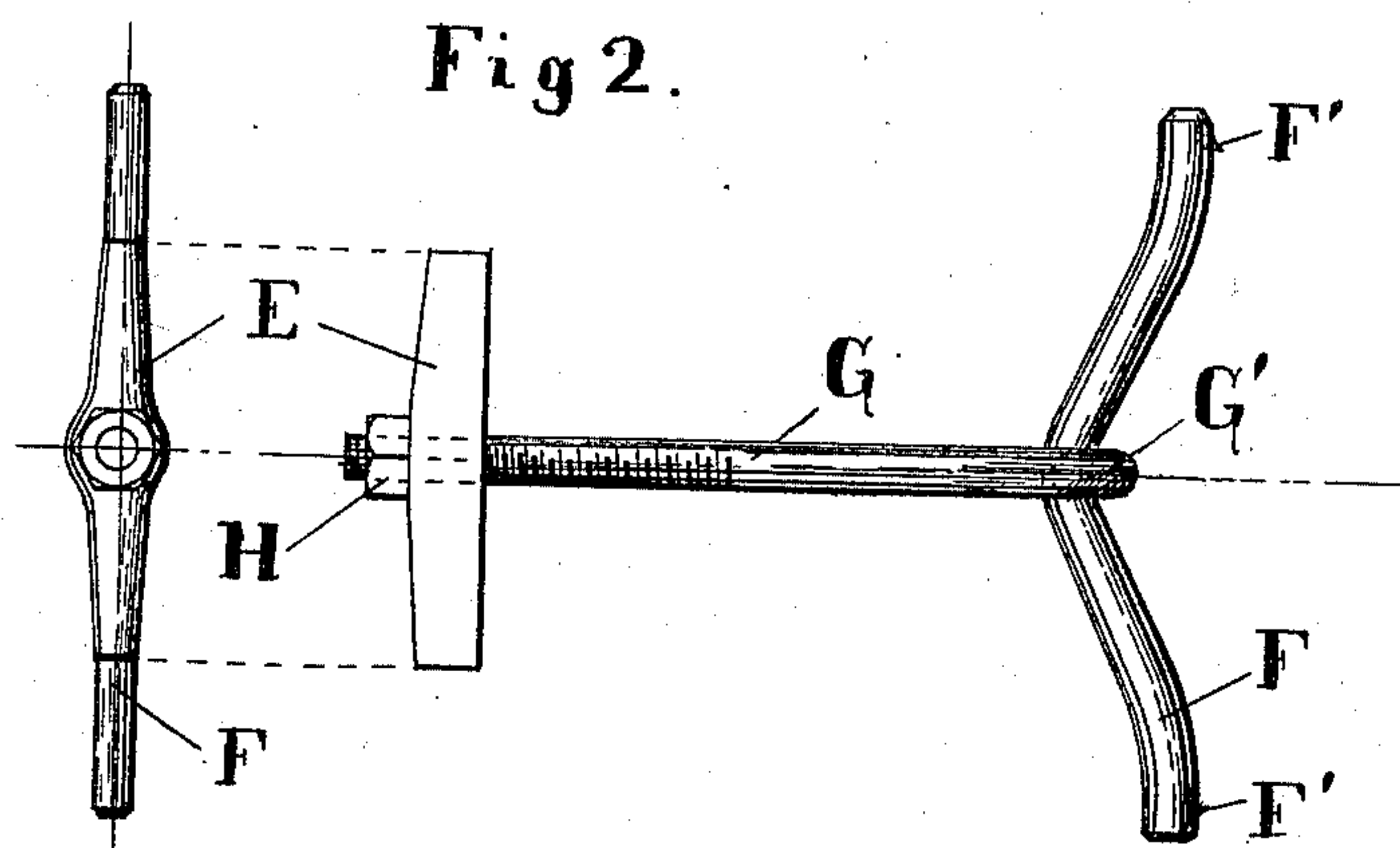
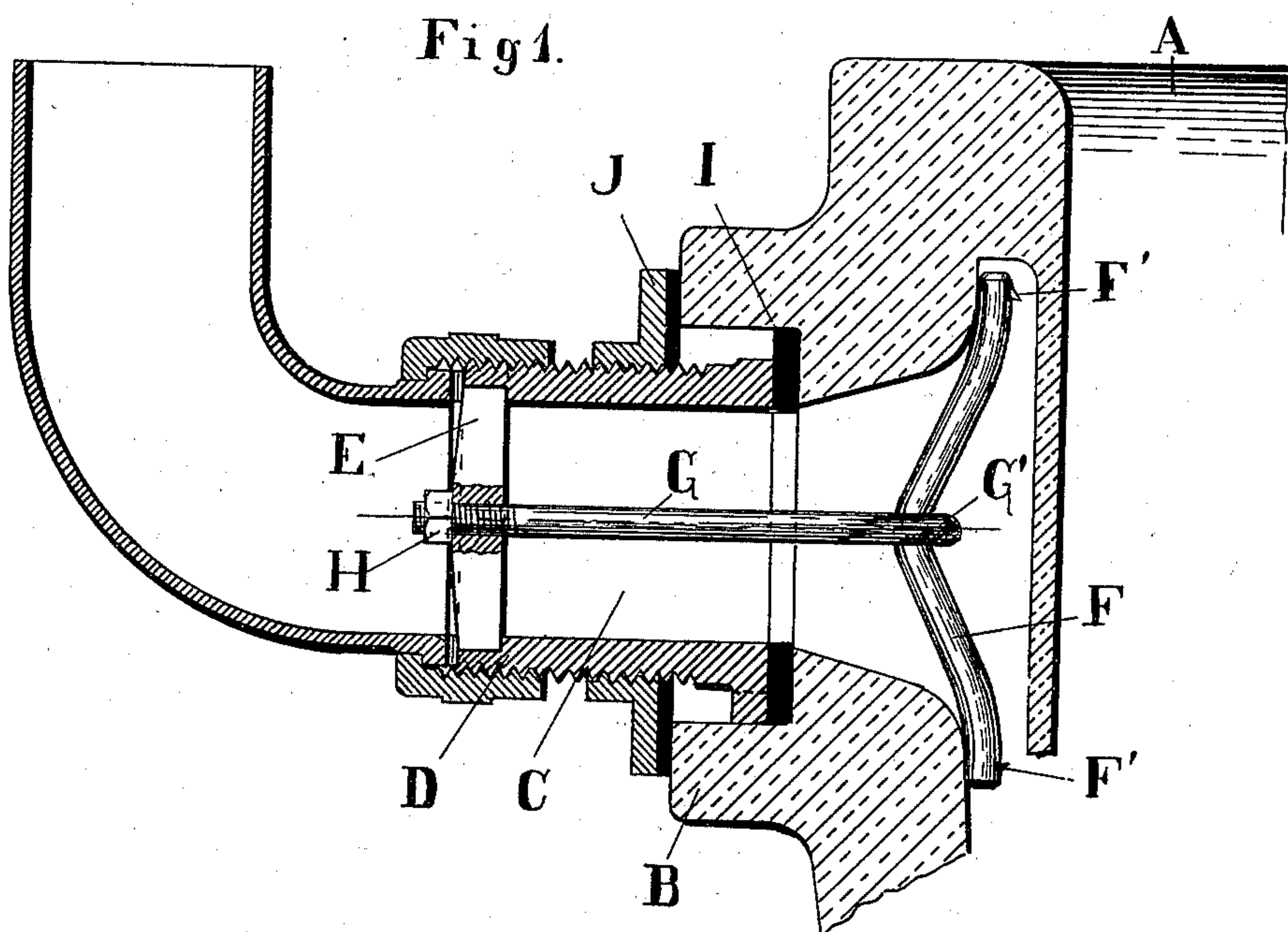


(No Model.)

C. A. FRITZ.
WATER CLOSET CONNECTION.

No. 545,857.

Patented Sept. 3, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES A. FRITZ, OF JOHNSTOWN, PENNSYLVANIA.

WATER-CLOSET CONNECTION.

SPECIFICATION forming part of Letters Patent No. 545,857, dated September 3, 1895.

Application filed December 13, 1894. Serial No. 531,706. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. FRITZ, of Johnstown, in the county Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Water-Closet Connections; and I do hereby 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 part of this specification.

My invention relates to an improved water-closet connection; and the object of the same is to provide a simple and effective device for clamping the spud of the flush or vent pipe to the bowl or hopper when the horn has been broken therefrom, thus saving the bowl and materially lessening the expense of repairs. Horns are frequently broken from bowls in handling before they are positioned, and in such cases the connection may be easily and quickly effected, while if the break occurs when the bowl is in position for use the repairs may be made without moving the bowl or even necessitating the displacing the seat or covering.

With the above objects in view my invention consists in the novel features of construction hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the rear portion of a closet-bowl, showing my improved connection applied thereto. Fig. 2 is a detail view of the clamping device.

A designates the bowl, and B broken horn. C is the old original spud for connecting the pipe to the horn, and when the latter has been broken the oppositely-arranged notches D are formed on the interior of the outer end of said spud for holding the cross-bar E, as shown. A bar or yoke F is extended transversely across the inner end of the bowl-opening, which between its ends is sprung inward or toward the said opening, as indicated, and engaging said cross-bar is the bolt G, having an eye G' on its inner end through which the said yoke extends. The outer screw-threaded end of the bolt is projected through the cross-bar E and there clamped by nut H. The yoke F is of spring metal, being preferably formed

of brass wire properly flattened and provided adjacent its respective ends with the lug F', for the purpose to be stated.

For making repairs when the horn is broken yoke F is first inserted in the bowl and the eye of the clamping-bolt slid to the end thereof, and by shaking the bolt the said yoke will center itself, owing to the inward bow therein. The washer I is then put in place over or around the outside of the opening and the old spud properly notched positioned thereon. The outer cross-bar is then put in place and the nut run down on the bolt, thus securely clamping the parts together. The lugs on yoke F prevent the same from slipping from the eye of the clamping-bolt when shaking the latter to center said yoke. The yoke is provided with an inward bow, for when made in this shape it can be easily entered, while if it were straight it would have to be made shorter. A further object in so forming it is to enable the same to move readily to the middle of the cross-bar and give it a solid and equal bearing on both sides. The yoke, further, is made of brass spring-wire flattened after being bent to give it strength, and should the washer I compress the spring-yoke holding the clamping-bolt at a tension will take up any difference there may be in the connection and thus insure at all times a tight joint. After the spud has been clamped in position, as above described, the old lock-nut J thereon is run inward upon the spud and the broken portion of the horn placed thereunder and so securely held, thus giving the bowl the appearance of being unbroken. Upon the outer end of the spud the coupling K of the supply-pipe may be attached in the usual manner.

From the above description it will be understood that my invention contemplates the use of the old spud in every case of repair, so that not the slightest inconvenience is experienced in effecting a proper and complete connection and adjustment of the several parts.

I do not claim as my invention the combination, with the water-closet, of the nipple adapted to cover the intake-orifice, an apertured bar across the nipple, a T-headed screw-threaded bolt adapted to engage by its head the inner wall of the closet and to project

outwardly through the orifice and the bar-aperture, and a nut for engaging the outer end of the bolt; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. An improved water closet connection comprising a bowl provided with a flush opening, a flush pipe, a spud connecting the pipe with the opening, said spud having oppositely arranged notches, a cross-bar adapted to be confined at its ends in said notches, and an adjustable bolt adapted to extend through said cross-bar and to be connected to the bowl, substantially as shown and described.

2. An improved water closet connection comprising a bowl having a flush opening, a flush pipe, a spud for connecting the pipe with the opening, and a clamping bolt connected at one end to the spud, and a spring metal yoke connecting the opposite end of the bolt with the bowl, substantially as shown and described.

3. An improved water closet connection comprising a bowl having a flush opening, a flush pipe a spud connecting the pipe with the opening, a clamping device connected at

one end to the spud, and a spring metal yoke bowed between its ends where it is connected to the said clamping device, substantially as shown and described.

4. An improved water closet connection comprising a bowl having a flush opening, a flush pipe, a spud for connecting the pipe with the opening, a clamping device secured at one end to the spud and an inwardly bowed spring metal yoke engaging with the said clamping device and provided at its respective ends with the lugs for the purpose substantially as shown and described.

5. The combination of a receptacle having an opening, a pipe leading thereto, a securing device extending inward from the pipe through the receptacle opening and a bar of spring metal within the receptacle for holding the said securing device, substantially as shown and described.

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

CHARLES A. FRITZ.

Witnesses:

W. F. BURGGRAF,
JNO. J. DEVLIN.