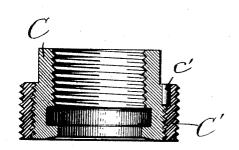
PATENTED MAR. 24, 1908.

H. E. BULLOCK.
UNION.
APPLICATION FILED SEPT. 23, 1907.

Elg.3



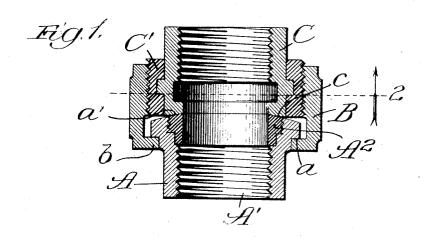
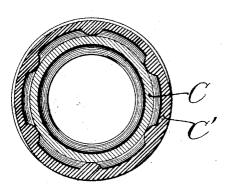


Fig.2



Witnesses, Sal Shybrd. Can H. Buell.

Enventor Henry E. Butlock, By Gymysth Lie, Chritton & Hillis....

NITED STATES PATENT OFFICE.

HENRY E. BULLOCK, OF CHICAGO, ILLINOIS, ASSIGNOR TO ILLINOIS MALLEABLE IRON COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

UNION.

No. 883,080.

Specification of Letters Patent.

Patented March 24, 1908.

Application filed September 23, 1907. Serial No. 394,198.

To all whom it may concern:

Be it known that I, HENRY E. BULLOCK, a subject of the King of Great Britain, a citizen of the Dominion of Canada, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Unions, of which the following is a specification.

Figure 1 is a central longitudinal section 10 through my improved union; Fig. 2 is a horizontal section of the spud in the line 2 of Fig. 1; and Fig. 3 is a central longitudinal section

through a modified form of spud. .

Referring to the drawings, A is the tail-15 piece of my improved union, the same comprising two portions—an outer shell A¹ having a shoulder a at its upper end and an inserted brass annulus A2 screw-threaded into place as illustrated in Fig. 1 and provided on 20 its upper face with a seat a^1 which is roughly conical in form but is made with a top surface which in cross-section is slightly convex as illustrated.

B is the nut of the union and the said nut is 25 constructed of iron and is of usual form, i. e., internally screw-threaded at its upper end and provided at its lower end with an internally projecting flange b to engage the shoul-

der a upon the tail-piece.

The spud of the union comprises two portions, a main portion C of iron having at its lower face a seat c of internally conical form, to cooperate with the corresponding seat upon the tail-piece and having at its upper 35 end a series of internal threads to cooperate with a suitable pipe, and an outer annulus C1 of brass secured to the portion C. In the form of device shown in Fig. 1 the portion C¹ is cast upon the portion C, being held in place 40 by an outwardly projecting flange having notches to prevent rotary movement. In the form of device shown in Fig. 3, this flange is omitted and the annulus C¹ is screwed in place, being held in position by a locking-45 pin c^1 .

My improved union is particularly advantageous by reason of the fact that it produces a brass to iron contact between the nut and spud and a brass to iron contact at the seat, so that corrosion is minimized in the 50 construction and by reason of these brass to iron contacts sticking between the parts is made impossible. These results are brought about with the use of the least possible amount of brass consistent with obtaining 55

satisfactory results.

I realize that considerable variation is possible in the details of the construction herein shown and described and I do not intend to limit myself thereto except as pointed out in 60 the following claims. By the term "brass" in this specification and in the following claims, I mean, of course, any metal, brass being the most common example of such metals, which, when brought into contact 65 with iron, will not form therewith a joint which will stick by reason of corrosion. In practice, brass, bronze or copper will doubtless be used for the parts described as of

What I claim as new, and desire to secure

by Letters Patent, is-

1. The combination with an iron nut, of an iron spud having an iron seat and provided with a brass annulus threaded to en- 75 gage the nut, and a tail-piece having a brass seat to engage the iron seat upon the spud.

2. The combination with an iron nut, of an iron tail-piece having an inset brass annulus provided with a seat, an iron spud hav- 80 ing an iron seat to engage said seat upon said inset, and provided with a surrounding brass annulus threaded to engage the nut.

HENRY E. BULLOCK.

In presence of-CHAS. E. GAYLORD A. U. THORIEN.