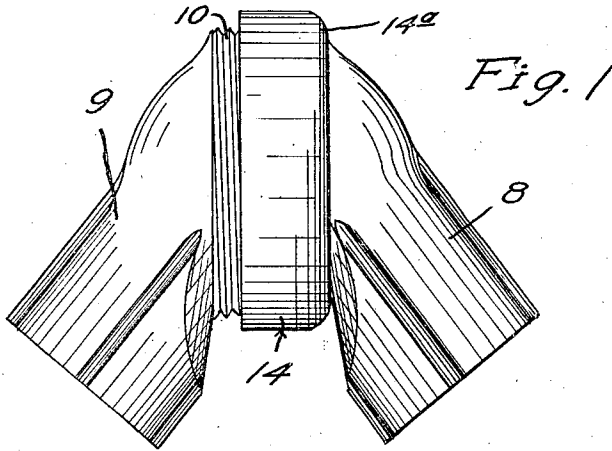
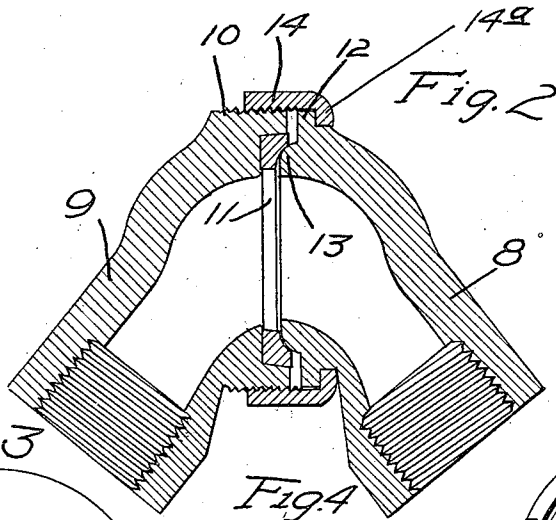
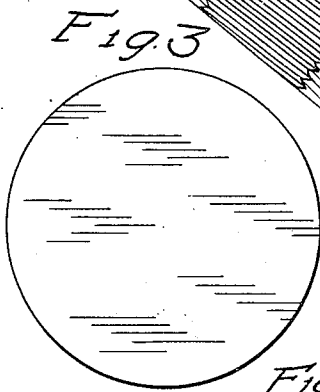
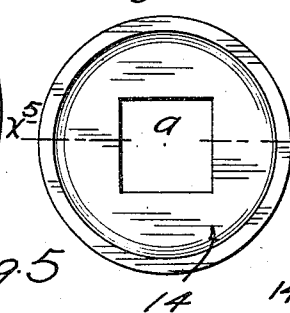
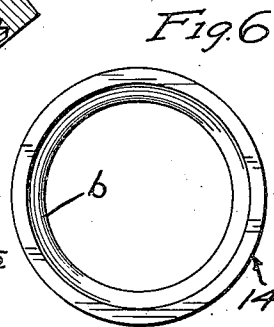
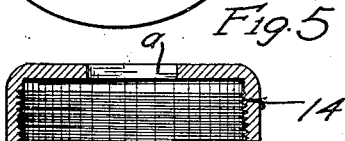


F. J. WALLING.
UNIVERSAL COUPLING.
APPLICATION FILED JAN. 6, 1917.

1,285,849.

Patented Nov. 26, 1918.



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK J. WALLING, OF LOMAX, ILLINOIS.

UNIVERSAL COUPLING.

1,285,849.

Specification of Letters Patent.

Patented Nov. 26, 1918.

Application filed January 6, 1917. Serial No. 140,802.

To all whom it may concern:

Be it known that I, FREDERICK J. WALLING, a citizen of the United States, residing at Lomax, in the State of Illinois, have invented certain new and useful Improvements in Universal Couplings; 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 appertains to make and use the same.

My present invention relates to an improved process of making clamping rings for pipe couplings and the like, and to such ends, the invention consists of the novel operations hereinafter described and defined in the claim.

The invention is illustrated in the accompanying drawings wherein like characters indicate like parts throughout the several views. Referring to the drawings:

Figure 1 is a plan view showing a coupling having my improved clamping sleeve applied thereto;

Fig. 2 shows the coupling in central longitudinal section;

Fig. 3 is a plan view of the blank from which the clamping ring is made;

Fig. 4 is a plan view showing the clamping ring as it appears after the second step of the process for producing the same;

Fig. 5 is a section on the line 5—5 of Fig. 4, but showing the ring as it would appear after the third step of the process;

Fig. 6 is a plan view showing the ring as it would appear after the fourth step of the operation; and

Fig. 7 shows the complete ring in side elevation.

The numerals 8 and 9 indicate the cooperating hollow heads or members of the coupling, the same having oblique faces. The head 9 is externally threaded at 10 and is provided with an inset annular seat 11, preferably of lead or other metal that is softer than the metal of the heads 8 and 9, the said heads being usually cast of gray iron. The head 8 is provided with an outstanding flange 12 and with a rounded annular end 13, which latter closely fits the concavity of the seat 11. The completed clamping ring is indicated, as an entirety, by the numeral 14. It is internally threaded for engagement with the threads 10 of the head 9 and is provided with an inturned flange 14^a that

bears against the outstanding flange 12 of the head 8.

The process of producing this clamping ring is as follows:

First, from a metal sheet or plate, preferably of rolled steel, a disk is stamped, as shown in Fig. 3. This disk must have such diameter that it will form the body and flange of the completed ring.

Second, the disk of Fig. 3 is pressed into cup shape form shown in Figs. 4 and 7 and the web thereof has a square or angular axial perforation *a* punched therein.

Third, the internal threads are cut in the cylindrical flange of the ring, as shown in Fig. 5, and in performing this operation, the square perforation *a* performs an important function, to-wit, it is adapted to be engaged by the jaws of a chuck or mandrel, to thereby properly center the ring in the cutting of the internal threads without requiring the cylindrical flange of the said ring to be clamped in a chuck. Here it may be stated that, in practice, it has been found that the cylindrical flange of the ring cannot be clamped in a chuck tightly enough for the cutting of the threads without springing the same, and thereby rendering the threads inaccurate.

Fourth, the web of the ring is cut out to form the large perforation located as shown in Fig. 6, thereby leaving the ring with the inturned annular clamping flange 14^a. This completes the ring, which, in side elevation, has the form shown in Fig. 7, and, in section, has the form shown in Fig. 2. The perforation *b*, as is evident, has a larger diameter than the extreme or greatest dimensions of the angular perforation *a* so that the latter entirely disappears in the finished ring. The perforations *a* and *b*, of course, may be produced by punching. The perforation *a* may be produced by an individual action, or at the same time that the disk of Fig. 3 is being pressed to the form shown in Fig. 4.

In practice, it has been found that these clamping rings may be produced by the improved process at a much less cost than they can be cast, and furthermore, that they are much more durable, lighter stronger, and in every way, better than a cast ring. Also, they have a neater appearance than a cast ring.

What I claim is:

The process of producing a clamping ring of the kind described which consists, first in cutting a disk from a sheet of metal, second, in pressing the disk into cup shape
5 form and forming therein an angular axial perforation; third in cutting internal threads in the cylindrical portion of said ring, and fourth, in cutting from the web

of said ring a circular perforation of at least as large diameter as the extreme dimensions of the said angular perforation.

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

FREDERICK J. WALLING.

Witnesses:

CLARA DEMAREST,
F. D. MERCHANT.