Nov. 1, 1932. L. G. PONCE 1,885,375

PIPE THREAD PROTECTOR

Filed Sept 15, 1930

Fig. 1.

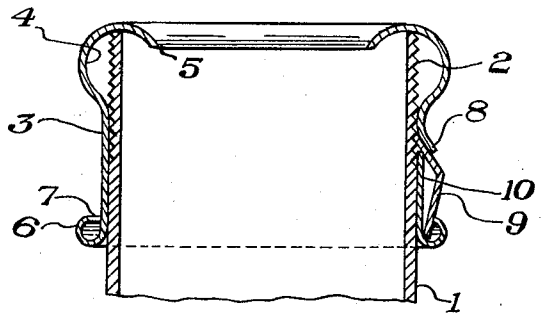


Fig. 2.

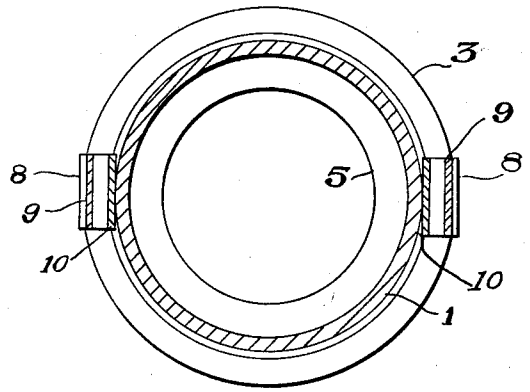


Fig. 3.

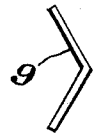


Fig. 4.

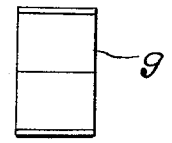
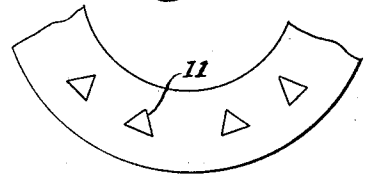


Fig. 5.



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UNITED STATES PATENT OFFICE

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PIPE THREAD PROTECTOR

Application filed September 15, 1930. Serial No. 481,900.

This invention relates to pipe thread protectors of the type employed to envelop the threaded ends of pipe to protect the thread from injury.

It is among the objects of the present invention to provide a pipe thread protector of simple construction which shall be adapted to be interlocked with the thread of the pipe on which it is secured and which shall be readily dismembered when the pipe is ready for use.

In pipe thread protectors heretofore constructed, it has been customary to provide an annular metal cap having an inwardly turned peripheral flange constituting an abutment for the end of the pipe and having a threaded portion on the interior thereof for engagement with the threaded portion of the pipe, the protector being fastened on the pipe by turning its screw thread on the thread of the pipe until its abutting flange is seated against the end of the pipe.

Protectors of this type are expensive to manufacture as they require machining operations to form the thread on the interior of the pipe and in accordance with the present invention the thread is entirely eliminated, thereby not only reducing the cost of the protector but eliminating labor necessary in fastening it on the end of the pipe.

In the accompanying drawing constituting a part hereof, and in which like reference characters designate like parts, Figure 1 is a vertical sectional view of the end of a pipe with a thread protector embodying the principles of this invention placed on the end thereof; Figure 2 is a transverse section of a modified form of the protector on the end of a pipe; Figures 3 and 4 are an end and a side elevational view, respectively, of the fastening clip employed to interlock the protector with the pipe thread; and Figure 5 is a partial view of the flanged end of the protector.

With reference to the several figures of the drawing, 1 designates a pipe having a screw thread portion 2 on the end thereof; 3 a thread protector comprising a sleeve which is snugly fitting for the major portion of its length against the outer wall of the pipe and expanded at 4 to form a reenforcing bead adjacent the end of the pipe, which bead terminates in an in-turned peripheral flange 5 constituting an abutment for the ends of the pipe 1. The semi-spherical end portion 4 and 5 of the protector constitutes a structural section which greatly strengthens the protector and prevents damage to the thread. The in-turned end 5 forms a larger opening for the bars employed in handling the pipe and prevents distortion of the protector.

The lower end of the protector is curled to form a hollow bead or shoulder 6, the top end of which is open at 7. The wall of the protector is slotted by forming an up-struck portion 8 in which a clip 9 is inserted. This clip which is shown in Figures 3 and 4 of the drawing is preferably formed of metal that is softer than the thread of the pipe, suitable material being aluminum, and is constructed in triangular form as shown. The clip is normally in assembled position when the protector is slipped on the end of the pipe and by tapping the clip with a mallet, its end is forced into engagement with the thread 2 of the pipe.

When it is desired to remove the protector, a rod or a hook is inserted in the opening 10 between the wall of the protector and the clip and the latter is pulled out of position, thereby releasing the protector, which may be removed by simply slipping it from the end of the pipe.

In Figure 2 of the drawing the protector is shown with two clips instead of one, as in Figure 1, this being desirable on large diameter pipes. Any number such as three or more clips may be employed to obtain greater area of contact with the thread of the pipe if desired.

In Figure 5 of the drawing the end of the protector is shown with openings 11 which constitute drain holes for use on larger pipes to prevent rusting due to accumulation of water in the protector.

It is evident from the foregoing description of this invention that pipe thread protectors made in accordance therewith are of simple and inexpensive construction and can be readily placed on or removed from the end of a

threaded pipe to protect the threads against injury.

Although one embodiment of the invention has been herein illustrated and described, it will be obvious to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim:

1. A pipe thread protector comprising a sleeve having a peripheral flange for engagement with the end of the pipe and terminating in a hollow bead at its other end, said sleeve being provided with an up-struck portion forming a slot, and a clip inserted in said slot, said clip having one end abutting against the hollow bead of the sleeve and its other end in interlocking engagement with the thread of the pipe.

2. A pipe thread protector comprising in combination a sleeve adapted to engage the end of a pipe having a slotted portion therein and a clip disposed in said slotted portion and adapted to engage the thread of the pipe, said clip having one end in abutment with a shoulder formed by a projection of the sleeve.

3. A pipe thread protector comprising a sleeve adapted to envelop the threaded end of a pipe, and having a plurality of slots therein and having an end portion extending radially outward, clips disposed in the slots of said sleeve and abutting against said extended end, said clips being adapted to interlock with the threads of the pipe.

In testimony whereof I have hereunto set my hand.

LUCIEN G. PONCE.