

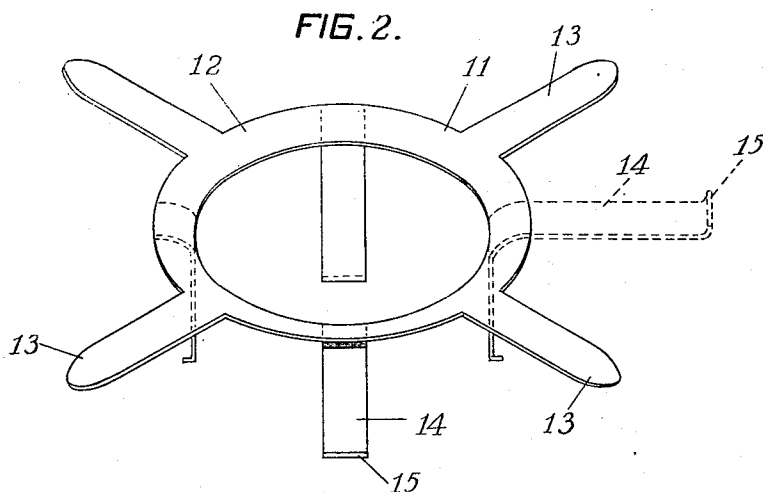
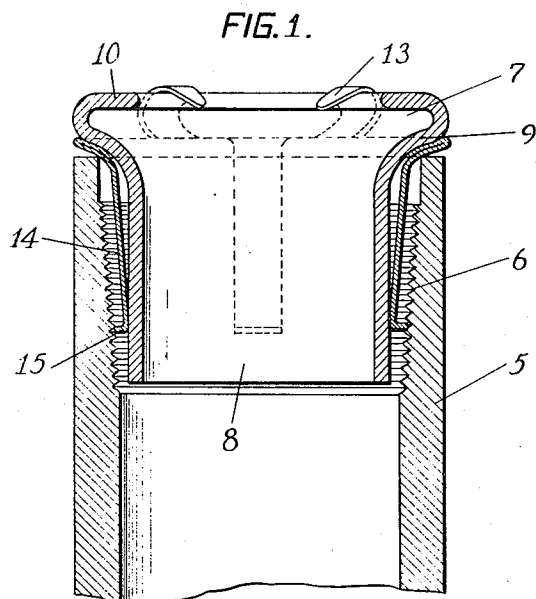
Nov. 19, 1929.

P. J. SHRUM

1,735,983

THREAD PROTECTOR

Filed Feb. 3, 1927



INVENTOR

Peter J. Shrum
By Green & McCallister
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UNITED STATES PATENT OFFICE

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THREAD PROTECTOR

Application filed February 3, 1927. Serial No. 165,609.

This invention relates to thread protectors and more particularly to those for use in connection with internal threads on tubes, pipes and the like.

5 Thread protectors of this type have heretofore been generally made of relatively heavy metal in order to secure ample protection for the threads, and they have also been so constructed that they must be screwed into the
10 threads which are to be protected.

An object of this invention is to provide a device of the type set forth of such construction and arrangement as to permit of its being readily and easily applied to a pipe or
15 coupling without the necessity of screwing it into place and which at the same time will be sufficiently heavy to safeguard the threads against injury.

A further object is to provide a thread protector of such construction and arrangement as to eliminate all necessity of providing threaded surfaces thereon or the need for machining any of the surfaces thereof, thus substantially reducing the cost of manufacture.

25 A still further object is to provide a thread protector of the type set forth which will be simple in construction, cheap to manufacture and positive and reliable in operation.

These and other objects which will be apparent to those skilled in this particular art are accomplished by means of this invention, one embodiment of which is illustrated in the accompanying drawings, in which Figure 1 is a transverse sectional view through
30 a protector constructed in accordance with one embodiment of this invention, showing the same applied to the end of a pipe for protecting the threads thereof and Fig. 2 is a perspective view of one of the elements forming
40 a part of the protector illustrated in Fig. 1.

The particular embodiment of this invention which has been chosen for the purpose of illustration includes a relatively heavy guard member for protecting the threads with
45 which it is associated. The construction of this member is such that it does not actually engage the threads of the article being protected when in operative position but it is shaped so as to provide a protective cover
50 therefor. The guard member is secured in

operative position by a relatively light holding member of such construction that it can be moved into locking engagement with the threads without having to be screwed thereon, and it is so formed as to be capable of
55 holding the guard member in operative, thread protecting position.

The illustrated thread protector is shown, in Fig. 1, applied to the end of a pipe 5 having internal threads 6. It includes a relatively heavy guard member 7 which is preferably so constructed, that its body portion 8 fits loosely within the threaded end of the pipe or rod 5 and does not actually engage any of the threads to be protected. The outer
60 end of the body portion has a flaring mouth 9 which flares outwardly to a diameter substantially equal to the outer diameter of the associated pipe, or at least materially greater than the inner diameter thereof. The outer
70 end of the guard member is formed by an annular inwardly extending flange 10. The flaring end constitutes, in effect, an annular flange for properly positioning and centering the guard within the article.
75

A holding member 11 of relatively light resilient metal is provided for the purpose of securing the guard member 7 in position in the pipe. As illustrated, this holding member includes an annular ring 12 which may
80 be conveniently formed of sheet metal and which is provided with outwardly extending fingers 13. At the time it is stamped or formed the ring 12 of the holding member has outwardly projecting legs 14 with angularly
85 extending toes 15, as illustrated in dotted lines in Fig. 2. The legs 14 are bent to the position shown in full lines in Figs. 1 and 2 so as to extend in a generally axial direction from the ring. The legs and toes form resilient
90 thread engaging members which can be snapped into position within the pipe 5 by a longitudinal movement axially thereof until the ring 12 engages the end of the pipe. The guard member 10 can then be inserted within
95 the holding member as shown in Fig. 1 after which the guard member securing fingers 13 are curved around the flanged end of the guard so as to securely hold the guard in place.

It will be apparent that the protector can be quickly applied to the end of a pipe without the necessity of any relative rotation between the protector and pipe. The holding member 11 can be cheaply and easily manufactured from sheet metal of such gauge as to permit the fingers 13 to be readily bent by hand. The guard member can be formed from lengths of pipe or tube in accordance with well known practice. It will also be apparent that the latter member requires no threaded surfaces and need not be subjected to any machining operation.

Although I have described what I now consider to be the preferred embodiment of this invention, it will be apparent that various changes, additions, substitutions and omissions can be made therein without departing from the spirit of the invention or the scope of the appended claims. What I claim as new and desire to secure by Letters Patent is:

1. A thread protector for the internal threads of a pipe having in combination a guard member adapted to be positioned within the open end of a pipe, a flaring outer end on said guard member shaped so as to form an annular flange cooperating with the end of the associated pipe for centering said member therein, a separable holding member of resilient material including an annular ring located between said member and the associated pipe, inwardly projecting legs formed on said ring for engaging the threads of the associated pipe and upwardly extending fingers on said ring embracing said flange for holding said member in position.

2. A thread protector for the internal threads of a pipe having in combination a guard member adapted to be positioned within the open end of a pipe, a flaring outer end on said guard member having a reentrant portion forming an annular cushioning flange cooperating with the end of the associated pipe for centering said member therein, a separable holding member of resilient material including an annular ring located between said member and the associated pipe, inwardly projecting legs formed on said ring for engaging the threads of the associated pipe and upwardly extending fingers on said ring embracing said flange for holding said member in position.

In testimony whereof, I have hereunto subscribed my name this 2nd day of February, 1927.

PETER J. SHRUM.