

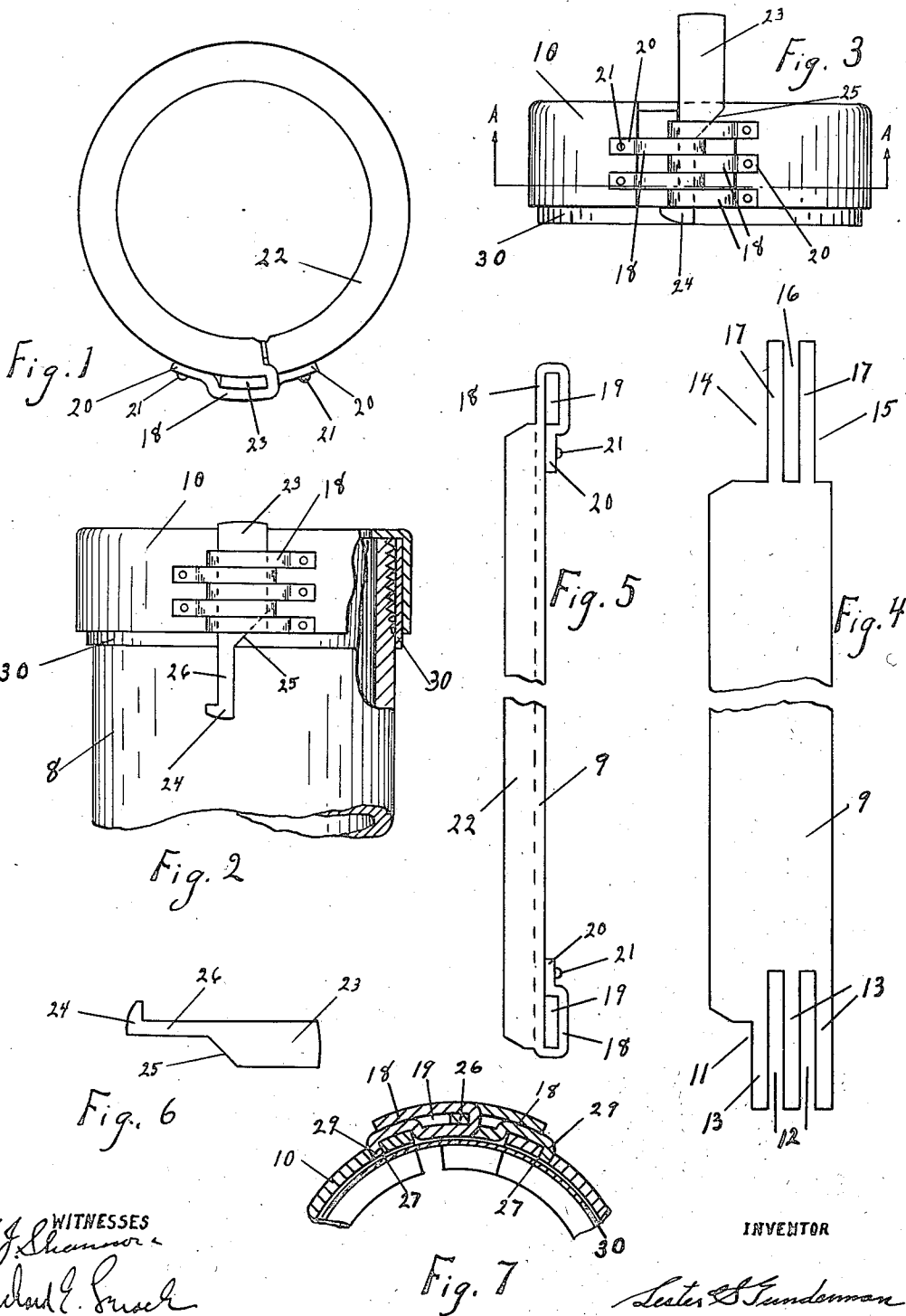
June 16, 1936.

L. S. GUNDERMAN

2,044,568

PROTECTOR FOR THREADED OBJECTS

Filed Feb. 21, 1935



WITNESSES  
*J. J. Shannon*  
*Richard E. Grueck*

INVENTOR

*Lester S. Gunderman*

# UNITED STATES PATENT OFFICE

2,044,568

## PROTECTOR FOR THREADED OBJECTS

Lester S. Gunderman, Pittsburgh, Pa.

Application February 21, 1935, Serial No. 7,592

6 Claims. (Cl. 138—96)

This invention relates to improvement in the method of protecting threaded objects.

One of the objects of this invention is to protect the ends of pipe and other cylindrical objects having sharp and delicate edges thereon, and to prevent the same from becoming battered and damaged through handling or shipping.

Another object of this invention is to provide a cushioning member between the metal band and the object protected.

A further object is to provide a protector which does not rely upon the threads on the article protected to hold the protector in position.

Other objects of this invention will more fully appear from the detailed description which has been chosen to illustrate the features which will be apparent from the following description taken in connection with the accompanying drawing, of which:

Fig. 1 is an end view of a protector embodying my invention.

Fig. 2 is a partial sectional view showing the device applied to the threaded ends of a pipe.

Fig. 3 is a side elevation, and shows the protector in an open position.

Fig. 4 is a view showing the protector before it is formed to the desired shape.

Fig. 5 is an end view showing the protector formed before being brought to a circle.

Fig. 6 is a view of a key member which may be employed in the structure.

Fig. 7 is a partial sectional view taken from point A—A in Figure 3 showing a modified form.

Referring to drawing, 8 is a threaded pipe or other threaded articles to be protected, having the usual threaded ends, over which the protector is to be applied.

It will be seen from Figure 4 that the protector body is made from a sheet metal strip 9 having a series of operations to give a general collar form 10. One end of the strip of metal is cut away at 11 and the remainder of the end has longitudinal slots 12 cut to a predetermined depth leaving longitudinal finger like ends 13. The opposite end of the metal strip has cut away portions 14 and 15, also a slot 16 leaving longitudinal finger like ends 17. The slots 12 and 16 are of a greater width than the finger like ends 13 and 17 so that when the collar is formed, one formed end will interlace with the opposite formed end. The ends 13 and 17 are reversely bent forming loops 18 to leave openings 19. The loop ends 20 overlap the body portion 9 and are secured in any suitable manner. I have shown them held by rivets 21.

On the one edge of the body portion 9 and in

a reverse direction of the loops 18 is a bent over section 22 for locating the protector on the object protected.

When the strip of metal 9 is formed into a collar 10 as shown in Figures 1, 2 and 3 the loops 18 on both ends of the collar are interlaced with each other so that the end 26 of a key member may be placed in the opening 18 and held in position as shown in Figure 3. On the end of the key portion 26 is lug 24 for retaining the key 26 within the loops for preventing the key from becoming detached from the collar. In order to wedge the collar into a tightened position a taper 25 is provided which extends from a narrow section 26 to a wider section 23. When the collar 10 is in an open position as shown in Figure 3 the narrow section 26 of the key remains surrounded by the loops 18, and when the collar is in a tightened position on the object protected the wide section 23 of the key member is driven into the openings 19, the ends of the loop 18 are forced farther across the openings 19 thus lessening the diameter of the collar 10 as shown in Figure 2. Between the collar 10 and the object to be protected is a yielding member 30 which may be of any suitable substance desired.

In the modified form as shown in Figure 7 the collar 10 and the loops 18 are made from separate pieces of metal and securely fastened together in any suitable manner preferred to make a substantial protector.

In order to make speedy and accurate assembly of the separate loops 18 on the body of the collar 10 as shown in Figure 7, I show rectangular openings 27 punched in the collar 10 and on the separate loops 28 are suitable tongues 29 which are located in the openings 27. The same key member is used in both instances and is designated by the same symbol.

The invention resides in a strip of metal formed in a circular band or collar to surround the wall of the pipe. In connection therewith I employ simple but quick and effective means of securing the protector in position and yet this simple and quick means may be employed for removing the protector when desired.

In applying such securing and removing means I employ looped members on the ends of the collar and a key member mounted therein and movable in a direction transversely to the circumference thereof. When it is desired to tighten or loosen the protector, a few blows from a hammer on the end of the key will move it to a locked or unlocked position. In such a con-

struction I eliminate the necessity of screwing or unscrewing the protector on or off the pipe.

While I have shown and described the preferred form of my device, it will be understood that I do not limit my invention to this particular embodiment, but regard as my invention such modifications thereof as fall within the scope of the applied claims.

What I claim is:

1. A protector to be placed over threads on pipe comprising a collar having a key member slidably mounted across the ends of said collar, said key member having edges which lie in the same plane to coact with means on the ends of said collar to hold the collar in a tightened position on the said threads preventing the accidental loosening of the collar and a separate yielding member adapted to lie between the collar and the threads.
2. A protector to be placed over threads on pipe comprising a collar, means on the collar to receive a slidable key member having parallel edges thereon to be operative across the ends of said collar and to engage with the said means on the ends of said collar to hold the collar in a tightened position on the said threads and a separate yielding member to lie between the collar and the said threads.
3. A protector to be placed over threads on pipe comprising a collar the ends thereof being provided with means to hold a slideable key member transversely across the ends thereof, said key member having edges which lie in the same plane to contact with said holding means to retain the collar in a tightened position on the said threads, the movement of the said key in one direction will hold the collar in a tightened

position and the movement of the said key in a reverse direction will release the collar from a tightened position.

4. A protector to be placed over threads on pipe comprising a collar having at one edge thereof a cylindrical locating wall and looped members on the ends of said collar, said loops on one end of said collar alternately interposing within the loop ends on the opposite end of said collar, and a substantial locking wedge lying within the said loops and arranged to move transversely in relation with the ends of said collar to tighten said collar on the threaded objects and a separate yielding member positioned between the collar and the threaded object.

5. A protector to be placed over threads on pipe comprising a collar having alternately looped ends thereon, a substantial wedged locking means lying within said loops and arranged to be moved transversely with the collar to draw the collar into contact with the grooved object, a retaining end on the said locking means to hold the locking member in an assembled position, a separate yielding member positioned between the collar and the grooved object.

6. A protector to be placed over threads on pipe comprising a collar having an inturned locating member on one edge and looped members on the ends of said collar, the looped end members of one end alternately meshing with the opposite end loop members, a wedged locking member having a retaining end thereon lying within the said loops and arranged to draw the collar into contact with the circular object, a separate yielding member positioned between the collar and the circular object.

LESTER S. GUNDERMAN.