July 16, 1929. W. H. WESTERMAN 1,721,364

METHOD OF MAKING THREAD PROTECTORS

Filed Nov. 3, 1927

FIG. 1

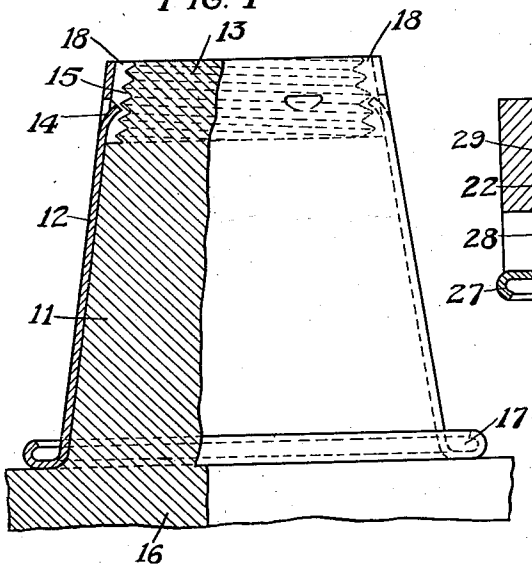


FIG. 3.

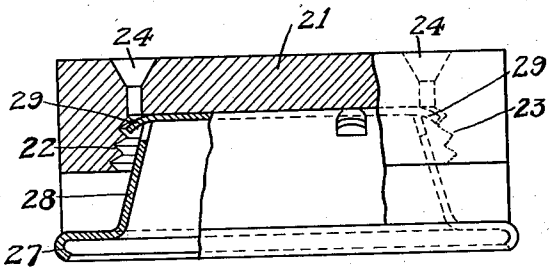


FIG. 4

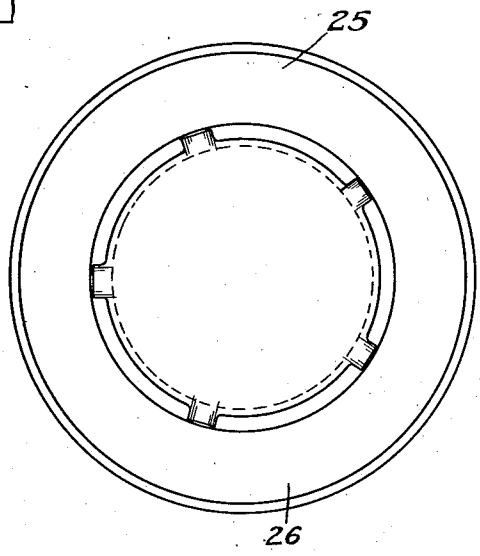
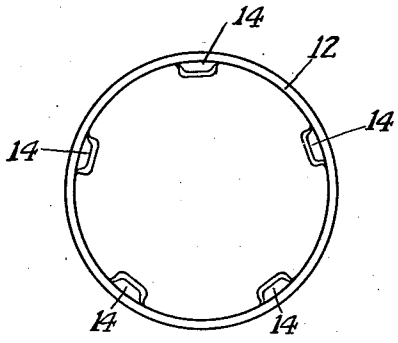


FIG. 2



INVENTOR

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Patented July 16, 1929. 1,721,364

UNITED STATES PATENT OFFICE.

WILLIAM H. WESTERMAN, OF MARIETTA, OHIO, ASSIGNOR TO THE COLONA MANUFACTURING COMPANY, OF MONACA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

METHOD OF MAKING THREAD PROTECTORS.

Application filed November 3, 1927. Serial No. 230,866.

This invention relates to thread protectors and more particularly to a method of making such protectors for use with both internal and external threads.

This invention consists of a method employed by me for making both external and internal thread protectors. Reference is made to Patents Nos. 1,640,969 and 1,640,970, issued to me under date of August 30, 1927. These two patents disclose the thread protectors for which the present invention is employed in manufacturing them.

An object of this invention is to provide a method for manufacturing thread protectors of the above type, that shall render such thread protectors inexpensive to manufacture and increase the production thereof.

In the drawings;

Figure 1, is a view partly in elevation and partly in section of a thread protector positioned on a mold for casting internal threads thereon for engaging external threads to be protected.

Fig. 2, is a top plan view of the protector body, showing the wickers or prongs extending inwardly of the protector body for engaging with the metal from which the threads are molded.

Fig. 3, is a view partly in elevation and partly in section, of a protector positioned in a mold for casting external threads thereon for engaging internal threads to be protected, and

Fig. 4, is a top plan view of Figure 3, with the upper portion of the mold removed, showing the wickers or prongs extending outwardly from the protector body for engaging the metal from which the protector threads are cast.

Figures 1 and 2 illustrate my method of making internal thread protectors, in which 11 is a tabular mold of substantially the same diameter as the inner diameter of the protector body 12 on which the threads are to be molded. The mold 11 is provided at its smaller or upper end with a threaded portion 13 having a diameter of substantially the inner diameter of the internal threads to be cast. The smaller end of the protector body 12 is provided with a plurality of wickers or prongs 14 extending inwardly as illustrated by Figures 1 and 2. The protector body 12 is screwed on to the mold 11 by means of the wickers or prongs 14, engaging the thread like depressions 15 on the portion 13 of the mold 11.

The mold 11 is provided with a suitable base portion 16 for supporting the larger or flanged end 17 of the protector body.

After the protector body 12 has been positioned on the mold 11 as above described, the threads are then cast onto the protector by pouring the metal into the annular opening 18 formed by the upper ends of the mold and protector. The threads may be cast from any suitable soft metal such as lead, so that the protector threads will conform to the threads to be protected in the manner disclosed by the above mentioned patents. After the threads have been cast, the protector is unscrewed from the mold 11 by means of the cast threads and wickers or prongs 14, cooperating with the thread like depression 15 on the mold 11.

Figures 3 and 4, illustrate a slightly different embodiment of my method, which I have found inexpensive and expedient in the manufacture of internal thread protectors disclosed by one of my above mentioned patents. This embodiment consists of a mold having an upper portion 21 which is provided with a cylindrical opening 22 in its bottom having thread like depressions 23 disposed in the side walls thereof, a plurality of openings 24 disposed in its top and leading to the cylindrical opening 22 adjacent the thread depressions 23 and a bottom portion which comprises two parts, 25 and 26, that are adapted to be positioned about the lower or larger end of the protector and supported by the flange portion 27 thereof. The parts 25 and 26 which constitute the bottom portion of the mold supports the upper portion 21 of the mold.

In practicing this method I first position the parts 25 and 26 of the mold about the lower portion of the protector 28 and then the upper portion 21 of the mold is positioned about the upper or smaller end of the protector 28 by means of the thread like depressions 23, engaging and cooperating with the wickers or prongs 29 struck-up from the protector body, the threads are then cast on the protector by pouring the metal into the openings 24, then the upper portion 21 of the mold is unscrewed from the protector by means of the cast threads and the wickers or prongs 29 cooperating

with thread like depressions 23, and the parts 25 and 26 of the mold are removed.

While I have illustrated and described my certain embodiment of this invention, it will be apparent to those skilled in the art that certain changes, modifications, substitutions, additions and omissions may be made in the method without departing from the spirit and scope of the appended claim.

What I claim as new and desire to secure Letters Patent on, is:

The method of making thread protectors, which consists in forming a truncated sheet-metal body, severing portions of the body adjacent the small end thereof, forcing the severed portions out of the plane of the body, arranging a threaded mold in cooperative relation with the small end of said sheet-metal body, with the severed portions in engagement with the thread of the mold to maintain the mold and the sheet-metal body in spaced relation, and then casting lead into the space adjacent said severed portions whereby the severed portions are imbedded in the lead and the lead flows into the openings made by such severing.

In testimony whereof, I have hereunto subscribed my name this 31st day of October, 1927.

WILLIAM H. WESTERMAN.