H. T. HALLOWELL.

SHAFT COLLAR.

APPLICATION FILED FEB. 14, 1913.

1,167,296.

Patented Jan. 4, 1916.

Fig. 1.

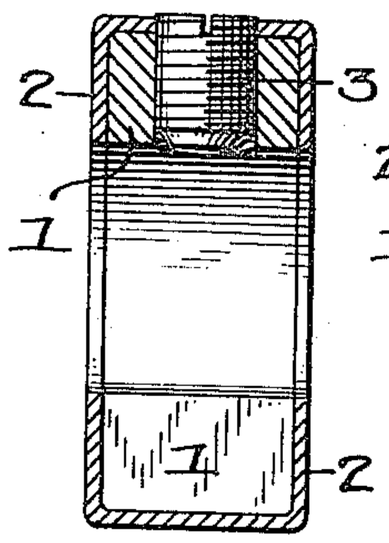


Fig. 3.

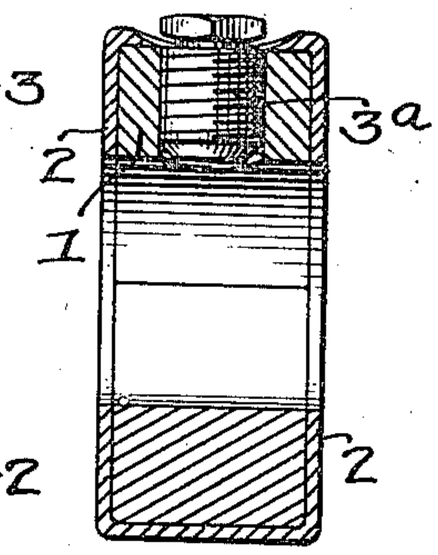


Fig. 7.

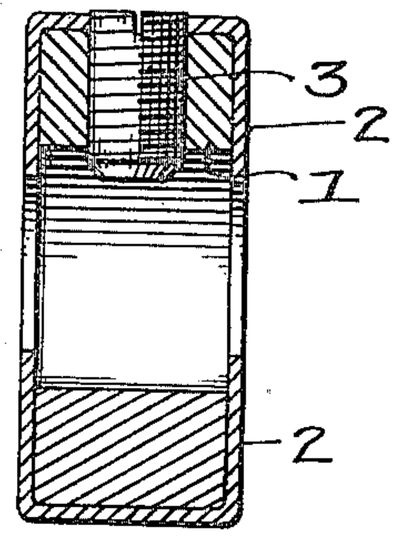


Fig. 8.

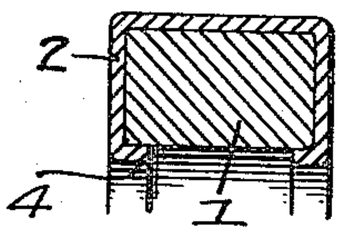


Fig. 6.

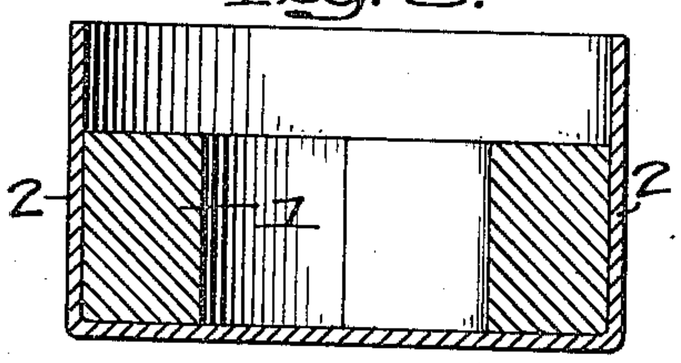


Fig. 2.

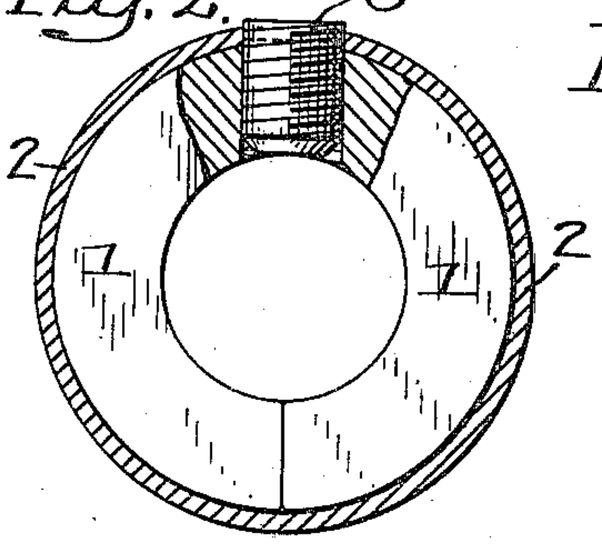
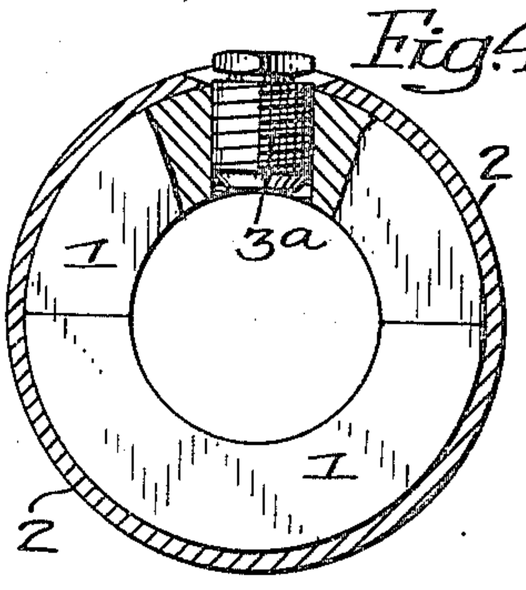


Fig. 5.

Fig. 4.



Witnesses—

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UNITED STATES PATENT OFFICE.

HOWARD T. HALLOWELL, OF PHILADELPHIA, PENNSYLVANIA.

SHAFT-COLLAR.

1,167,296. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed February 14, 1913. Serial No. 748,403.

To all whom it may concern:

Be it known that I, HOWARD T. HALLOWELL, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Shaft-Collars, of which the following is a specification.

My invention relates to the construction of annuli such as shaft collars; and the object of my invention is to form a compound shaft collar having a core or body which will serve as a nut, with a sheet metal cover therefor designed to give such core or body a pleasing appearance without the necessity of machining the same. In this way, the value and weight of the collar can rely mainly in the core, while the sheet metal shell may serve as a reinforcing element, in some instances to retain a separate nut in place, and also to improve the looks of the structure.

Other features of my invention will be referred to hereinafter, and, as may be well understood, my invention can be embodied in a number of different forms, some of which are set forth in the accompanying drawings, in which:

Figure 1 is a cross sectional elevation of a collar employing a set screw of the headless type tapped directly through the shell and core of the collar; one form of core being shown; Fig. 2, is a side elevation of the same partly in section; Fig. 3, is a cross sectional view showing a collar having another form of core and arranged to receive a headed set screw; Fig. 4, is a side elevation of the same, partly in section; Fig. 5, is a view showing a filler or core in the form of a straight bar before it is bent into circular or semicircular form; Fig. 6, is a view of the filler placed in a cup-shaped shell, showing the same preparatory to the bending down of the margin of said shell and before the wall of the latter is cut out, and Figs. 7 and 8 are views of other forms of collars within the scope of my invention.

In the drawings, 1 represents a core or filler; 2 the shell inclosing the same, and 3 a set screw carried by said shell and filler, being tapped through both of said parts for engagement with the shaft. I may employ an ordinary set screw, as shown in Figs. 1 and 2, or I may employ a headed set screw 3^a, as in the structure shown in Figs. 3 and 4.

One form of core, body or filler in its preliminary or original shape before being bent into a circular or semi-circular body, is shown in Fig. 5, and after being bent into circular or semi-circular form, this core, body or filler is placed in the cup-shaped shell illustrated in Fig. 6, and then the marginal edge of said cup is turned down over said filler. When in semi-circular form, the filler will be in two pieces, as illustrated in Figs. 3 and 4. After the shell has been bent over, the bottom of the same is cut through in line with the inner wall of the filler to correspond with the inner diameter of the latter, and any rough edges of this wall may be cut down at the same time. When this is completed, the shell and filler are tapped for the reception of the set screws. If desired, the inner wall of the filler may be machined.

If desired, the filler may have a bore with an internal diameter greater than the internal diameter of the side walls of the shell, as shown in Fig. 7; the shaft collar being engaged only by the edges of the shell. A further modification would be to have the walls substantially in this shape, and then to turn down their inner marginal edges against the inner wall of said filler, as shown at 4 in Fig. 8. This filler may be in one or two pieces, as may be desired, and it may be bent into shape from a blank such as shown in Fig. 5, or it may be cut from a solid block. In all instances, the filler is tapped for the reception of the set screw, and in certain instances the shell also is tapped.

In all instances, the filler bodies or cores are rough pieces of metal requiring no machining and being inclosed by the sheet metal shells to give them a finish. If desired, the inner walls of the filler bodies or cores where they engage the shaft may be machined, but this is not necessary nor essential.

I claim:

1. An annulus or collar for shafts comprising a body or core consisting of a ring of cast metal having its marginal walls substantially at right angles to each other, a seamless single piece sheet metal covering for certain of the walls of said body or core, said core and cover being apertured and the aperture of the core being threaded, and a set screw adapted to the threaded aperture of the core.

2. In an annulus or collar designed for application to a shaft or similar structure, the

combination of an annular discontinuous core of cast metal having a substantially circular inner wall with its several marginal walls substantially at right angles to each other, a seamless single piece sheet metal cover of uniform thickness inclosing three sides of said core, said core and cover being apertured and the aperture of the core being threaded, and a set screw for engagement with the shaft on which the collar is mounted adapted to said threaded aperture of the core; the sheet metal cover having an enlarged opening registering with the aperture of the core.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

HOWARD T. HALLOWELL.

Witnesses:
MURRAY C. BOYER,
WM. A. BARR.