Aug. 12, 1924. 1,504,812

H. G. CARLSON

BOLSTER CASING

Filed Feb. 9, 1923

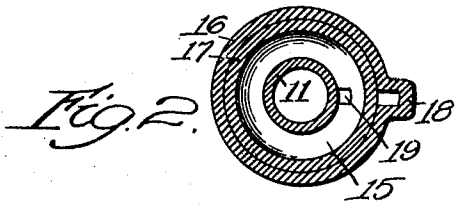


Fig. 2.

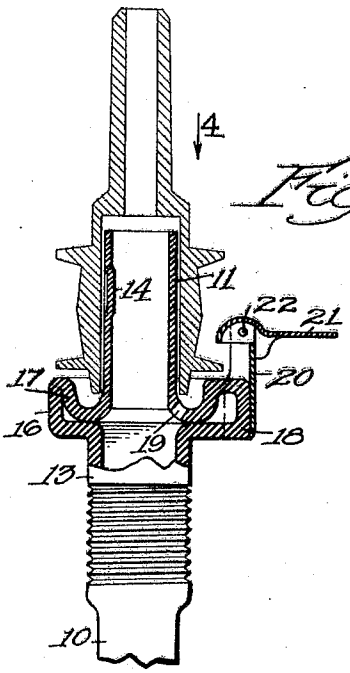


Fig. 3.

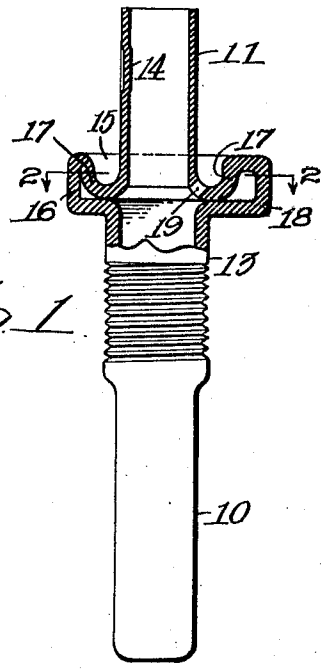


Fig. 1.

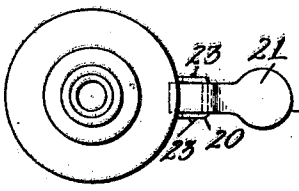


Fig. 4.

Fig. 5.

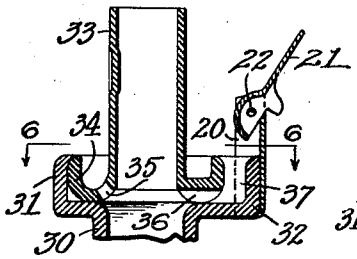




Fig. 8.

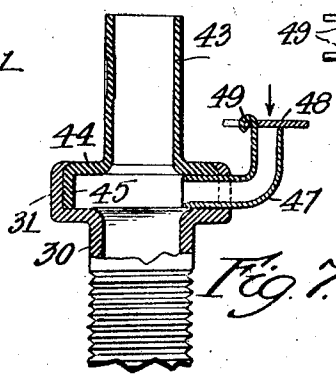


Fig. 7.

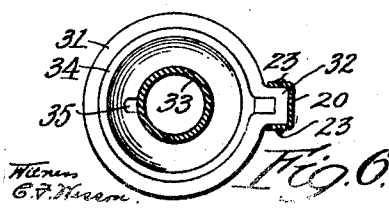


Fig. 6.

Witness
C. F. Green

Inventor
H. G. Carlson
By attorneys
Sandlyate & Sandlyate

Patented Aug. 12, 1924. 1,504,812

UNITED STATES PATENT OFFICE.

HJALMAR G. CARLSON, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO ROCKWOOD SPRINKLER COMPANY OF MASSACHUSETTS, OF WORCESTER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

BOLSTER CASING.

Application filed February 9, 1923. Serial No. 618,147.

To all whom it may concern:

Be it known that I, HJALMAR G. CARLSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Bolster Casing, of which the following is a specification.

This invention relates to a bolster casing for a spinning spindle.

The principal objects of the invention are to provide a construction of bolster casing which can be made mainly out of sheet metal either in one or two pieces and to provide an improved form of doffer guard therefor.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a side view, partly in section, of a bolster casing constructed in accordance with this invention;

Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 1 showing the doffer guard in position and the spindle applied;

Fig. 4 is a plan of the same;

Fig. 5 is a sectional view of a modified form;

Fig. 6 is a plan of the same partly in section on the line 6—6 of Fig. 5;

Fig. 7 is a view similar to Fig. 5 showing another modification, and

Fig. 8 is a plan of the doffer guard shown in Fig. 7.

Referring to the first four figures, it will be seen that I have shown a bolster casing having a bottom portion 10 closed at the bottom and an upper portion 11 open at the top, these two being substantially of the same external and also internal diameter. Between them there is an intermediate portion 13 of larger diameter and of thicker metal. These are all formed of a single piece of sheet metal by pressing in dies and an integral key 14 is provided in the upper portion 11 also by die pressing operations.

I have also formed an integral cup 15 for oil. This has two walls, an outer wall 16 and an inner wall 17 integral respectively with the intermediate portion 13 and the upper portion 11 and with each other. They form a substantially circular propection on the bolster casing but the regularity of this circle is interrupted by an integral projection 18 at one side. The cup 15 will receive oil applied intentionally and also oil that accidentally flows over the open top of the bolster casing on account of the rapid rotation of the spindle and conduct it through a perforation 19 into the enlarged space in the intermediate portion 13 to oil the spindle.

The projection 18 is made for the purpose of supporting a three-sided sheet metal piece 20 which constitutes a support for the doffer guard 21 which is also formed of sheet metal. This doffer guard performs the usual functions and is pivoted to the top of this support 20 on a pivot pin 22. The support 20 is fixed to the opposite sides of the projection 18 by a rivet or studs 23.

In the form shown in Figs. 5 and 6 instead of making the entire device of a single piece of sheet metal, I reduce the complication of manufacture of dies. To do this I form the lower part 30 the same shape as the parts 10 and 13, both of one piece of sheet metal terminating in an upwardly extending wall 31 which preferably is substantially circular except for a projection 32.

I set into this section another piece of sheet metal having an open part above the part 33 and a reversely up-turned bottom 34 of circular shape and provided with a perforation 35 directly from the inside of the cup. Below the cup is also a space or perforation 36 which communicates with another opening 37, the use of which will be obvious. This projection 32 is in this case provided with members 20, 21 and 22 above described. In order to fix the two parts 30 and 33 together the latter is placed accurately in position and the extreme upper edge of the wall 31 is spun over into engagement with the convex edge of the cup 34. This firmly fixes the two parts together so that they constitute to all intents and purposes a single structure.

Certain other modifications are shown in Figs. 7 and 8. Here the lower part 30—31 is the same as shown in Fig. 5 but the upper part, although in a separate piece, is made differently. It has the portion 43 like the part 33 but at the bottom it has a flat horizontal wall 44 and a downwardly extending cylindrical wall 45 which is inserted inside the wall 31 to provide for introducing a

tube 47. This is an oil tube capable of conducting the oil into the bearing surfaces inside. This is made use of for providing a doffer guard 48 pivoted at 49 to the top of the tube and acting otherwise the same as the doffer guard 21.

In each of these forms the bolster casing is made with an offset to provide in one way or another for supporting the doffer guard, and in Figs. 5 and 7 for an oil passage. When made in two parts the two pieces of sheet metal are firmly united and constitute to all intents and purposes a single structure. They can be made by comparatively simple dies whereas in the form shown in the first four figures a more elaborate set of dies has to be provided. This constitutes a simple way to manufacture a bolster casing all of sheet metal and satisfy all the requirements of the articles.

Although I have illustrated and described only three forms of the invention I am aware of the fact that other modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to, all the details of construction herein shown and described but what I do claim is:—

1. As an article of manufacture, a spinning spindle bolster casing comprising a hollow body formed of sheet metal closed at the bottom and open at the top having a cylindrical portion at each extreme end, and a larger intermediate portion between them formed from the sheet metal and having an integral sheet metal oil receiving and conducting enlargement around the casing at the junction of the intermediate portion and the open end portion provided with a radial projection having a passage therein for conducting oil.

2. As an article of manufacture, a spinning spindle bolster casing comprising a hollow body formed of sheel metal having a cylindrical portion at each extreme end, and a larger intermediate portion between them formed from sheet metal and having a circular oil conducting enlargement surrounding the casing at the top of said intermediate portion and formed of two thicknesses of the sheet metal, the outer one having a hollow radial projection integral with the enlargement, communicating with the interior of the casing to conduct oil thereto.

3. As an article of manufacture, a spinning spindle bolster casing formed of sheet metal and having a bottom closed end, a top open end, an intermediate portion between them having a larger interior diameter and provided with an integral enlargement at a point adjacent to the top of said enlarged intermediate portion and of cup shape extending upwardly and adapted to receive any oil discharged over the top of the open end and provided with an integral projection at one side, and a support carried by said projection.

4. As an article of manufacture, a spinning spindle bolster casing formed of sheet metal and having a bottom closed end, a top open end, an intermediate portion between them having a larger internal diameter and provided with an integral cylindrical enlargement surrounding the bolster casing at a point adjacent to the top of said enlarged intermediate portion and adapted to receive any oil discharged over the top of the open end, and provided with a radial projection having an oil passage through the wall of the sheet metal at the bottom of said cup to discharge the oil into the enlarged portion below, a sheet metal member fixed on said projection and extending upwardly therefrom, and a lever pivoted to the upper end of said sheet metal member.

5. As an article of manufacture, a spinning spindle bolster casing comprising a hollow body having the lower end closed, and an intermediate portion having a larger internal diameter integrally connected and provided at a point distant from the top with an outwardly extending wall integrally connected with the top of said intermediate portion, said wall extending upwardly at the exterior to form an outer cup-shaped wall and an upper open ended sheet metal portion having a lower part fitting within, and held by, the cup-shaped wall to form an annular space around the bolster casing to receive oil.

In testimony whereof I have hereunto affixed my signature.

HJALMAR G. CARLSON.