F. J. LOOMIS.

APPARATUS FOR SHAPING HEATED METAL.

APPLICATION FILED MAY 16, 1906.

900,401. Patented Oct. 6, 1908.

Fig. 1.

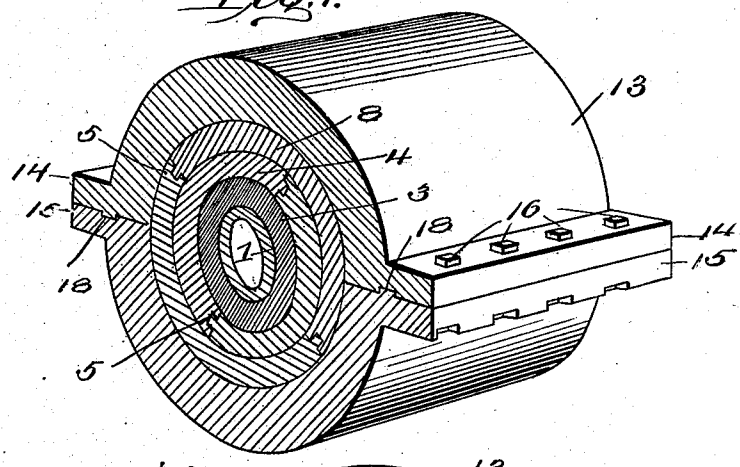


Fig. 3.

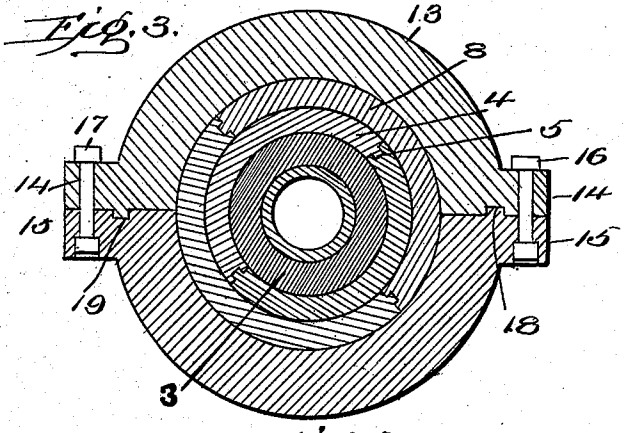
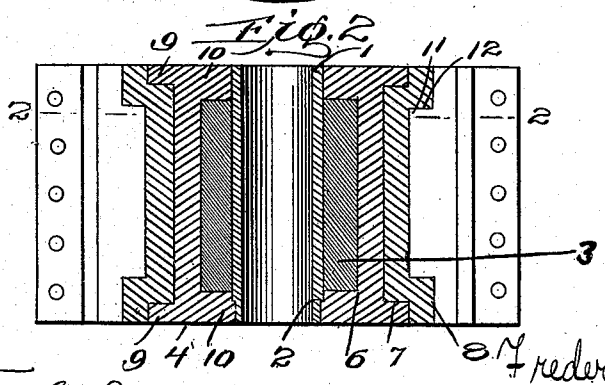


Fig. 2.



Witnesses

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APPARATUS FOR SHAPING HEATED METAL.

No. 900,401. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed May 16, 1906. Serial No. 317,245.

To all whom it may concern:

Be it known that I, FREDERICK J. LOOMIS, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Apparatus for Shaping Heated Metal; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in apparatus for shaping heated metal under pressure, and it consists in the production of a container having the usual inner tube and particularly constructed pressure resisting means surrounding the same. These means include a plurality of detachable, flanged, interlocking, segmental cylinders surrounding a suitable insulator. A detachable casing formed in sections surrounds the flanged cylinders and is provided with fastening devices, the sections of the casing and the segments of the flanged cylinders being arranged in such manner that the joints in the respective cylinders and in the casing do not coincide.

In the accompanying drawings—Figure 1 is a perspective view of the device, the ends of the cylinders being cut off approximately on the line 2—2 of Fig. 2, in order to show the insulating material. Fig. 2 is a horizontal longitudinal section of the device. Fig. 3 is a section of Fig. 2 on the line 2—2.

In the construction of devices of this character it is desirable to provide means for renewing all of the various parts and at the same time arrange for assembling the elements in such manner that they will resist in the best possible way the strains exerted upon them.

In carrying out my invention I provide a central tube 1, having an offset portion 2 to prevent it from being forced from the surrounding reinforcing means. Encircling the tube 1 is a heat insulator 3 of any desirable material. This insulator extends to within a short distance of each end of the container. Surrounding the insulating material is a cylinder 4, preferably made in two sections having tongue and groove joints 5, 5. This cylinder is made with a hollowed out portion 6 to accommodate the insulating material, and a similar hollowed out portion or annular recess 7 accommodates a cylinder 8, formed in sections, and preferably provided with tongue and groove joints. The cylinder 4 has therefore outwardly and inwardly projecting flanges 9 and 10, the inner flanges being thicker than the outer flanges, as shown. This construction enables the device to resist a great amount of pressure at the ends.

Surrounding the cylinder 8 is an outer cylinder 13 formed with a projecting ridge 11 adapted to fit into a cut-out portion 12 of the cylinder 8. The cylinder 13 is made in sections in order that it may be easily removed when desired, and the sections are provided with lips 14 and 15 adapted to be secured together by means of bolts 16 and 17. The contacting edges of the sections of cylinder 13 have tongue and groove connections 18 and 19. The cylinders 4, 8 and 13 are preferably arranged so that the edges of the sections of adjoining cylinders do not coincide but are positioned at an angle to each other, as shown in Figs. 1 and 3, thereby increasing the strength of the device as a whole.

The principal reason for providing the several concentric cylinders formed in sections is that the apparatus may have the strength of a single cylinder of equal thickness and yet permit of the easy renewal of any part which may become worn or broken. It is obvious that the insulating material may be formed in sections also, and that other changes coming within the scope of my invention may be made.

What I claim as new, and desire to secure by Letters Patent, is—

A device of the class described, comprising a tube, a cylinder formed in segments surrounding said tube and provided on each end with internal and external flanges, the inner flanges thicker than the external flanges and bearing against the tube, insulating material between said tube and cylinder, a second segmental cylinder provided with an offset portion on its ends and surrounding the cylinder last mentioned, the offset portion engaging the flanges of the flanged cylinder, and a detachable casing engaging an annular recess in the second cylinder.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK J. LOOMIS.

Witnesses:

L. R. MORRILL,

HUGO MOCK.