No. 616,535. Patented Dec. 27, 1898.

D. C. HENNY.

HOOP LUG.

(Application filed Sept. 28, 1897.)

(No Model.)

Fig. 1.

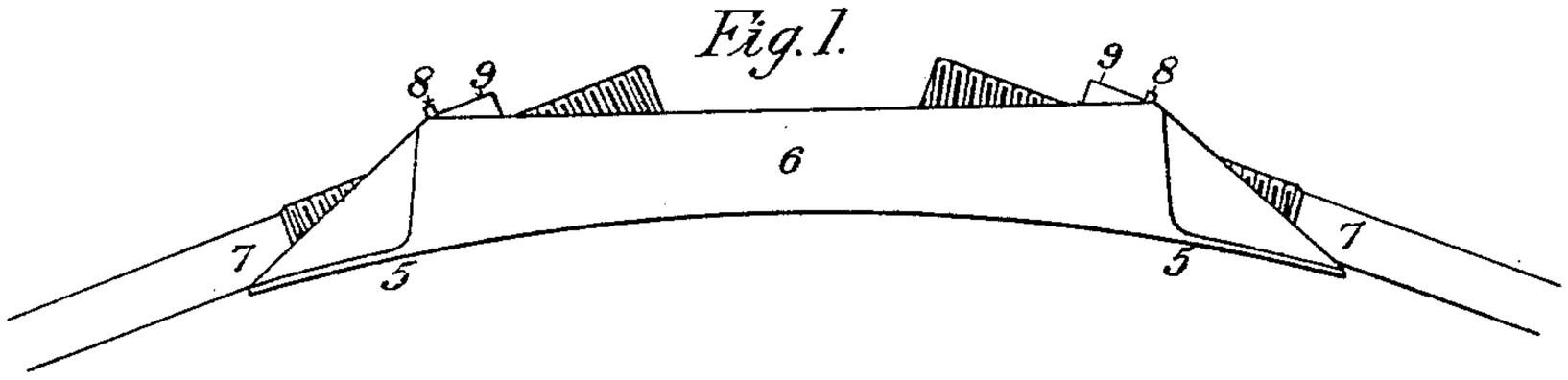


Fig. 2.

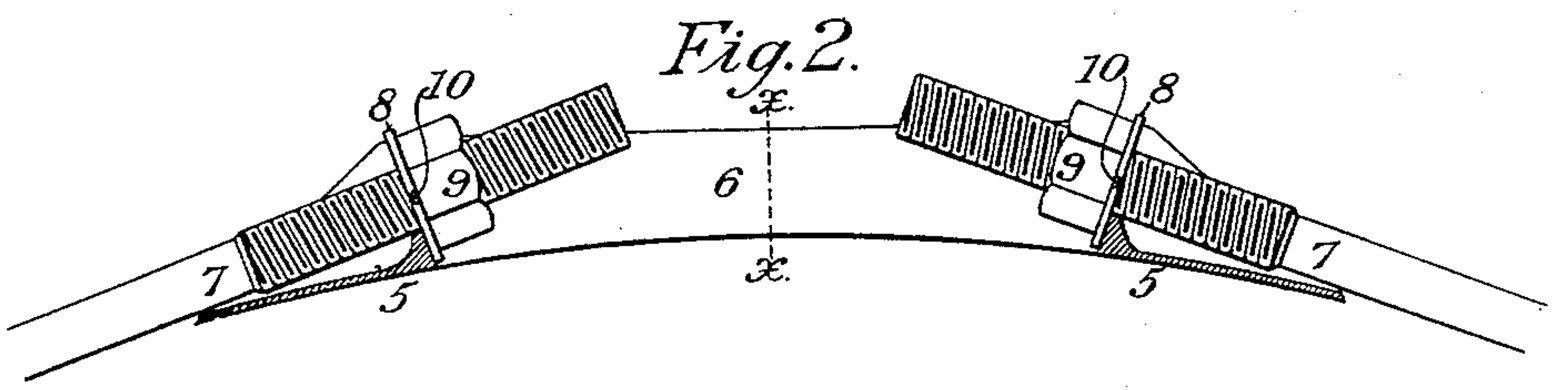


Fig. 3.

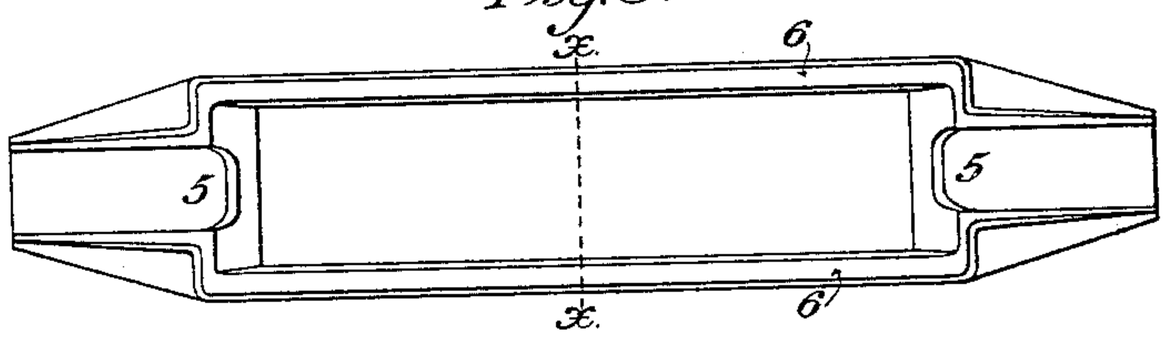
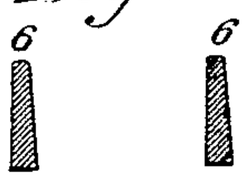


Fig. 4.



Witnesses
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DAVID C. HENNY, OF ALAMEDA, CALIFORNIA.

HOOP-LUG.

SPECIFICATION forming part of Letters Patent No. 616,535, dated December 27, 1898.

Application filed September 28, 1897. Serial No. 653,399. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. HENNY, a citizen of the United States, residing at Alameda, in the county of Alameda, in the State of California, have invented certain new and useful Improvements in Hoop-Lugs; and I do hereby declare the following to be a clear, full, 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 that class of devices which are adapted to connecting the ends of a metallic hoop-bolt together, such as are used in the construction of wooden-stave pipes and wooden tanks.

The object of this invention is to construct a hoop-lug of the class stated, which shall be simple in construction and in which the material shall be economically distributed.

To this end my invention consists in the novel hoop-lug, as hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a form of hoop-lug showing my invention. Fig. 2 is the central longitudinal section, and Fig. 3 is a plan view of the same. Fig. 4 is a transverse section of the form of hoop-lug shown at the line X X.

The hoop-lug is composed of two end blocks 5 for engaging the ends of the hoop-bolt 7, and two connecting-ribs 6 uniting the end blocks. The ends of the hoop-bolt are provided with washers 8 and nuts 9. The hoop is tightened by turning the nuts with a specially-shaped wrench which fits over the nut between the connecting-ribs.

In hoop-lugs of this character as constructed heretofore the end blocks are connected by a flat bottom plate or by low connecting-ribs not extending up to the points 10, or by a combination of these. The pull upon the end block resulting from the tension of the hoop-bolt, the center of application of which is at point 10, is counteracted by a pull from the connecting bottom plate or ribs, the center of application of which in hoop-lugs as heretofore constructed is at a point well below point 10, from which a bending moment results, operating upon the end block and tending to turn it, deflecting the tail end downward. To balance this bending moment and keep the end block from turning, it must be given a large bearing-surface upon the shell of the pipe or tank, or the bottom plate or low connecting-ribs must be given considerable extra area to resist all or part of the bending moment in addition to the tensile strain due to the pull of the hoop-bolt. By attaching the connecting-ribs to the end blocks at points both above and below points 10, as in the improved construction shown, there is no need of large bearing-surface of the end blocks. The connecting-ribs can have a minimum of section, as they are subject only to the tensile strain due to the pull on the hoop-bolt, and considerable saving of material can thus be effected.

The ends of the hoop-bolt in the figures showing my improvement and as described are provided with threads, nuts, and washers; but it is evident that the same object may be attained by providing only one end with thread, nut, and washer and the other with a head. The exact construction of the end blocks is also immaterial, and they may be shaped so as to receive the bolt ends from the bottom instead of from the top. The connecting-ribs in the figures shown attach to the end blocks from bottom to top; but the material of the connecting-ribs may be distributed differently about points 10, where they attach to the end blocks, so long as they attach partly above and partly below points 10, without in any way departing from the characteristic of my invention.

Having thus fully described my invention, what I desire to secure by Letters Patent are the following claims:

1. A hoop-lug consisting of two end blocks provided with shoulders for engaging the ends of a hoop-bolt, and two connecting-ribs uniting the end blocks and attached thereto both above and below the center of application of the pull of the hoop-bolt against the shoulders of the end blocks.

2. A hoop-lug consisting of two end blocks united by two connecting-ribs attached to the end blocks both above and below the center of application of the pull of the hoop-bolt against the end blocks.

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