Aug. 14, 1928. 1,680,913

H. C. RASSMANN

SILO OR TANK LUG

Filed Sept. 3, 1925

Fig. 1.

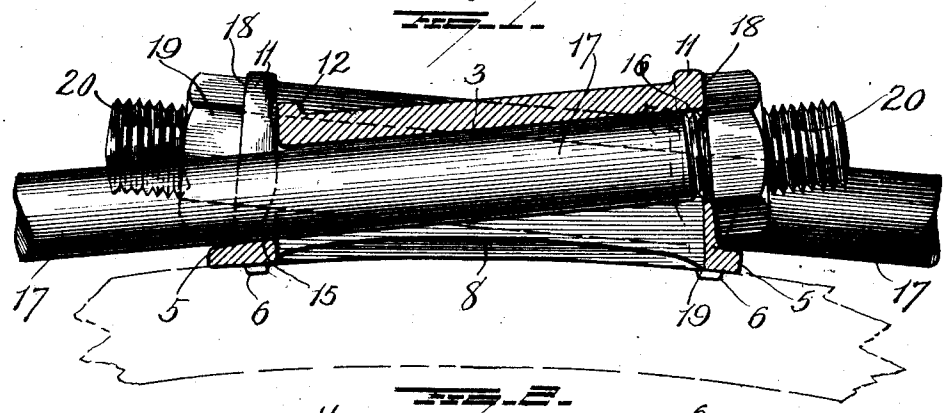
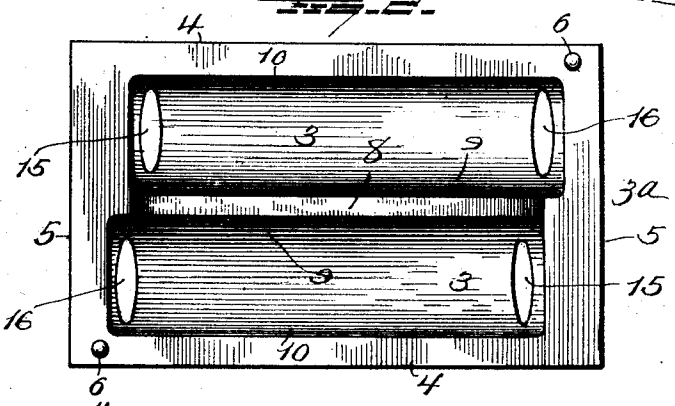


Fig. 2.



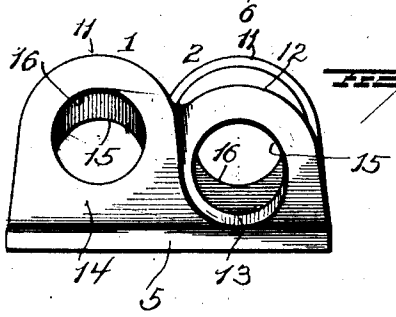


Fig. 3.

Fig. 4.

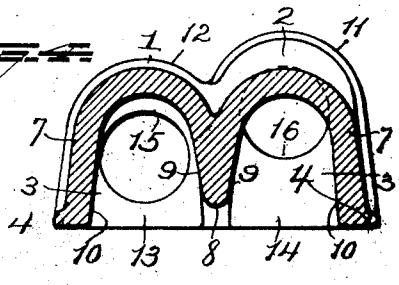


Fig. 6.

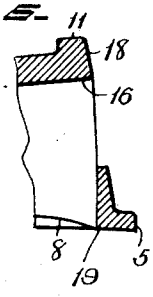
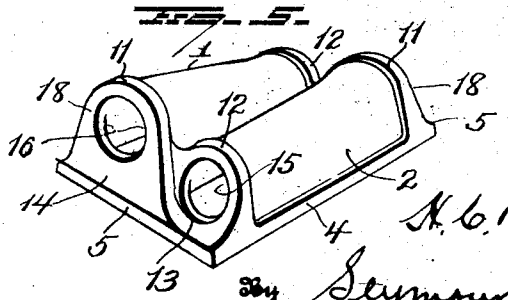


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SILO OR TANK LUG.

Application filed September 3, 1925. Serial No. 54,303.

REISSUED

This invention relates to improvements in silo or tank lugs.

One object of the invention is to so construct such a lug that it may be cast in a single piece without necessity for the use of cores, and with the use of a minimum amount of metal, at the same time possessing adequate strength, and capability of properly supporting the connected ends of the tie rod, so that the tie rod can be readily passed through the lug, and so that the nuts on the threaded ends of the tie rod shall have flat bearings.

With this and other objects in view, the invention consists in certain novel features of construction as hereinafter set forth and pointed out in the claims.

In the accompanying drawings:

Figure 1 is a view in longitudinal section and partly in elevation illustrating an embodiment of my invention;

Figure 2 is a bottom plan view;

Figure 3 is an end view;

Figure 4 is a transverse sectional view;

Figure 5 is a perspective view, and

Figure 6 is a fragmentary sectional view.

My improved lug consists of a single casting and comprises two integral members 1, 2 disposed at reverse inclinations relatively to each other and said members are formed to provide grooves 3, and the base 3^a of the lug is formed by side ribs 4 and end ribs 5. Projections 6 may be provided on the base 3^a of the lug, preferably near diametrically opposite corners thereof, and these projections may be caused to become embedded in the material of the silo or tank to prevent the lug from slipping.

The bottom of each groove 3 may be rounded and the outer side walls 7 of the members 1 and 2 are made inclined so as to flare laterally somewhat and the web 8 is made tapering (in cross section), providing inclined or flaring inner faces 9 for the inner sides of the grooves 3, the inner faces 10 of the side walls 7 forming the inclined or flaring outer sides of said grooves. The web 8 may be made to terminate slightly above the plane of the base of the lug as shown in Figure 4.

At respective ends of each member 1, 2, ribs 11, 12, are formed and these ribs are extended to and unite with the base 3^a at the ends of the lug as indicated at 13, 14, so as to close the ends of the grooves 3 and that holes 15, 16, will be formed, the bottom walls of said holes serving to support the end portions of the lugs. The ribs 11 and 12 at the ends of the lug members and uniting with the base 3^a also serve to strengthen the lug and prevent breaking or injury to the same when subjected to strain.

By constructing the lug as hereinbefore described, the same may be readily cast without cores, and the expense of manufacture will therefore be reduced to a minimum.

I prefer to so dispose the lug members 1 and 2 that one end of one member will project beyond the opposite end of the other member. This insures the proper threading of the tie rod through said member. The end of each lug member having the rib 11 and which projects beyond the opposite end of the other member is beveled so that the ribs 11 will present inclined faces 18, against which, nuts 19 on the threaded ends 20 of the tie rods will have flat bearings.

By constructing the lug as herein described, the same may be readily cast in a single piece without cores, and the expense of manufacture will therefore be reduced to a minimum, but it will be understood that the staggered relation of the lug members whereby one end of one member projects beyond the opposite end of the other member, is not essential to the casting of the lug without cores.

It will be noted that the flange or rib portions 13, 14, close the ends of the grooves 3 and have openings therethrough for the passage of the ends of the tie-rod, there being no necessity for washers inasmuch as the securing nuts may be turned home directly against the inclined faces 18 of the flanges 14, and there is ample support for the ends of the tie-rod to prevent them slipping down in the grooves. Moreover, the lines of the lug are such that the holes through the ends of the lug may be formed in the casting without the use of cores. I thus simplify the manufacture of the lugs as well as the work of securing the tie-rods. It is also to be noted that the lug is formed with a base portion bearing against the wall of the tank or silo over an appreciable area so that the lug obtains a very substantial support upon the wall.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. A lug of the character described made with diagonal grooves having unobstructed side walls, said lug also having end portions which are beveled and have holes, whereby said lug may be cast and said holes formed without the use of cores and whereby the separation of the lug from the mold will be facilitated.

2. A lug of the character described made with diagonal grooves having unobstructed side walls, said lug also having end portions having holes, said end portions being beveled at such angle that the portions of the walls of said holes which are farthest removed from the base of the lug shall be in planes inwardly removed from the planes of those portions of the walls of said holes which are nearest the base of the lug, whereby the casting of the lug and the formation of the holes without the use of cores is facilitated.

In testimony whereof, I have signed this specification.

HUGO C. RASSMANN.