

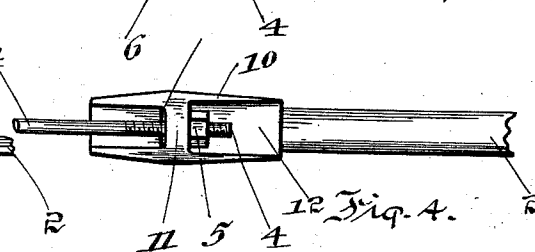
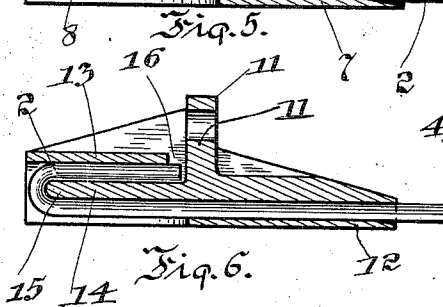
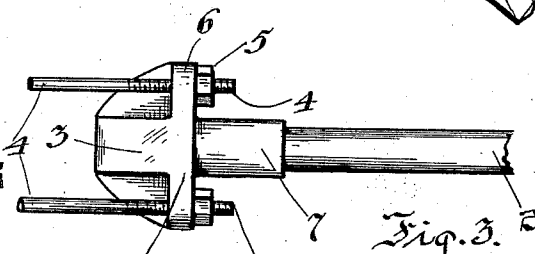
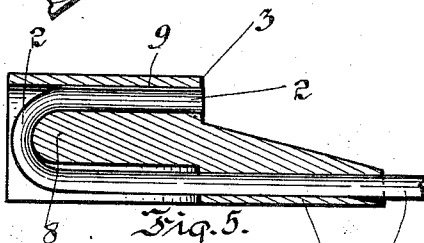
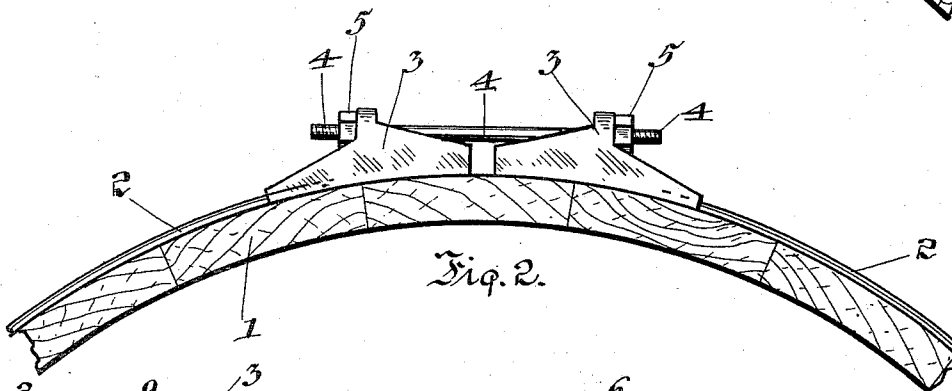
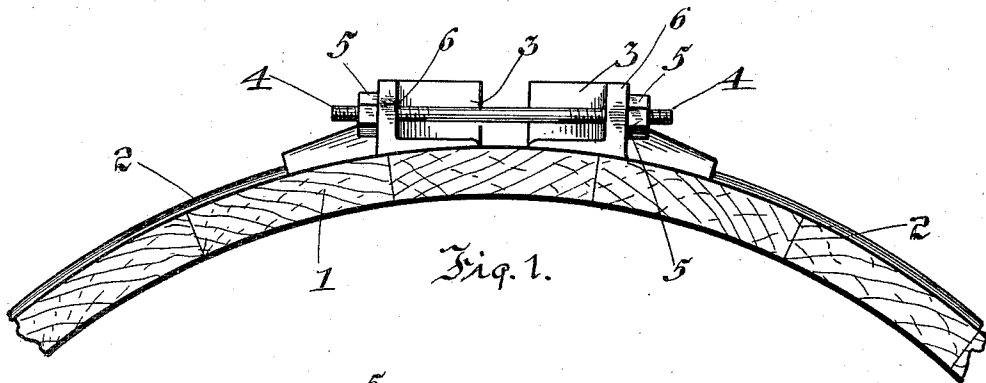
N. JOHNSON.

HOOP LUG.

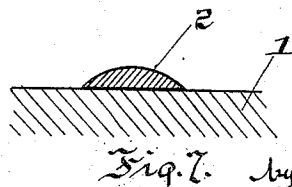
APPLICATION FILED JUNE 12, 1911.

1,018,829.

Patented Feb. 27, 1912.



Witnesses
W. B. Smith
B. G. Richards



Inventor
Nels Johnson
by Joseph H. Potts
 his Attorney

UNITED STATES PATENT OFFICE.

NELS JOHNSON, OF BATAVIA, ILLINOIS.

HOOP-LUG.

1,018,829.

Specification of Letters Patent.

Patented Feb. 27, 1912.

Application filed June 12, 1911. Serial No. 632,764.

To all whom it may concern:

Be it known that I, NELS JOHNSON, a citizen of the United States, and a resident of the city of Batavia, county of Kane, and State of Illinois, have invented certain new and useful Improvements in Hoop-Lugs, of which the following is a specification.

My invention relates to improvements in hoop-lugs or clamps by means of which the ends of a hoop on a tank, reservoir, or silo are drawn together, the object of the invention being to provide a hoop-lug or clamp which shall be so designed and constructed as to secure the ends of a hoop without forming apertures in the latter.

A further object of my invention is to provide a hoop-lug of simple construction which is capable of use with half-round or half-oval hoops, the flat surfaces of the latter being in contact with the exterior walls of the tank or reservoir.

Other objects will appear hereinafter.

With these objects in view my invention consists in the novel construction and arrangements of parts hereinafter described and claimed.

My invention will be best understood by reference to the accompanying drawing forming a part of this specification and in which,

Figure 1 is a horizontal section taken through a wood reservoir and showing a top plan view of my improved hoop-lug in its preferred form, Fig. 2 is a similar section taken through a reservoir showing a top plan view of a modified form of hoop-lug, Fig. 3 is a side elevation of one member of the preferred form of hoop-lug, Fig. 4 is a side elevation of one member of the modified form of hoop lug, Fig. 5 is a horizontal section taken through one member of the preferred form of hoop-lug, Fig. 6 is a similar section taken through one member of the modified form of hoop-lug, and Fig. 7 is a vertical transverse section showing the cross section of a hoop.

The preferred form of construction as illustrated in the accompanying drawing comprises an ordinary wood tank or reservoir 1 and half-round or half-oval hoops 2 surrounding the same, only a portion of the latter being shown. The advantage of these forms of hoops is that when the flat surfaces thereof are drawn into close contact with the exterior surfaces of the tank that the latter are not recessed to conform with the

hoop as is the case with round hoops in common use. The ends of the hoop 2 are bent back in such a manner as to be U-shaped as clearly illustrated in Figs. 5 and 6, there being no apertures or other special forming of said ends to reduce their cross section and consequently to weaken the hoop at these vital points. The preferred form of hoop-lug as illustrated in Fig. 1 comprises two members 3 which are connected by a pair of threaded rods 4 having nuts 5 on either end thereof. Each member 3 comprises a pair of perforated ears 6 through which the ends of the rods 4 are passed and a socket 7 formed integral with said ears designed for the reception of one end of the hoop 2. The end of the hoop 2 after passing through the socket 7 is passed around a semi-circular portion 8 formed in the interior of the member 3, the terminal or extreme end of the hoop 2 being passed through a socket or longitudinal recess 9 arranged parallel with the socket 7. The extremity of the hoop 2 is formed flush with surfaces of the perforated ears 6 as clearly illustrated in Fig. 5, this forming a neat and simple construction. It is apparent that a hoop-lug constructed as described will securely hold a hoop end since the U-shape of the latter is prevented from distortion by the sockets 7 and 9 provided therefor. There are no holes, notches, or other special forming of the hoop ends, consequently the hoop is as strong at these points as in any other.

In order to apply a hoop 2 to the reservoir 1 it is only necessary to position the members 3 on the U-shaped ends of the hoop and then to insert the threaded rods 4 and to screw up the nuts 5 until the joints in the walls of the reservoir are made perfectly tight.

The modified form of hoop-lug comprises a pair of members 10 in each of which is provided a perforated bridge 11 through which a threaded rod 4 is passed, there being nuts 5 on said rod as in the preferred form. In this hoop-lug a socket 12 is provided similar to socket 7 in the preferred form, and also a socket 13 similar to the socket 9, the ends of the hoop 2 being U-shaped as illustrated in Fig. 6. A partition or wall 14 which terminates in a semi-circular end 15 separates the two sides of the U-shaped end as illustrated in Fig. 6, the strain or tension which is applied to the

hoop by means of the threaded rods 4 and nuts 5 being withstood by said semi-circular portion. In order to reinforce the perforated bridge 11 side flanges 16 are provided
5 the conformation of which may be as shown or of any design similar thereto. The manner in which a hoop 2 contacts with the walls of the reservoir 1 is illustrated in Fig. 7, it being obvious that the flat surface of
10 said hoop will cause less indentation or cutting than if the same were round or oval, thereby increasing the life of the tank.

Hoop-lugs of the constructions set forth are strong and durable, simple of construction,
15 tion, and efficient in operation.

While I have illustrated and described the preferred forms of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within
20 the scope of the appended claims.

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

1. A device of the class described comprising a securing member substantially in
30

the form of a cross, the side members of said cross being perforated and forming securing ears for securing rods and the longitudinal member of said cross having a socket
35 in its lower portion extending its entire length and a socket in its upper portion extending back to the central portion of said cross, substantially as described.

2. A device of the class described, comprising a securing member having a centrally disposed transverse member perforated to receive a pair of securing rods, a longitudinal member projecting forwardly and rearwardly from said transverse member, a central longitudinal socket in and
45 through the lower portion of said longitudinal member, a longitudinal socket in the upper portion of said longitudinal section and said transverse member, reinforcing flanges between said transverse member and
50 one end of said longitudinal member, substantially as described.

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

NELS JOHNSON.

Witnesses:

HELEN F. LILLIS,
JOSHUA R. H. POTTS.