

1,003,617.

E. B. LACEY.
SILO HOOP.
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Fig. 1.

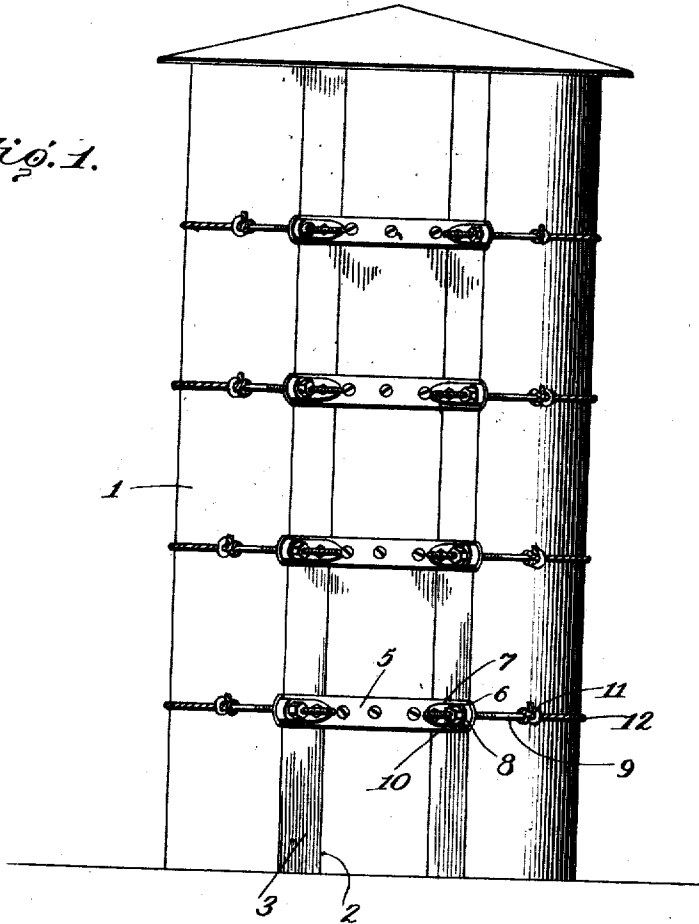
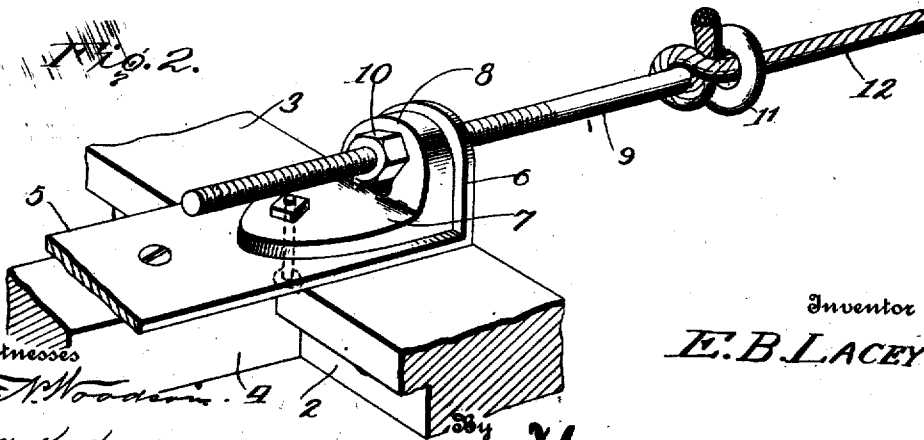


Fig. 2.



Witnesses

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SILO-HOOP.

1,003,617.

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To all whom it may concern:

Be it known that I, ELMER B. LACEY, citizen of the United States, residing at Union, in the county of Broome and State of New York, have invented certain new and useful Improvements in Silo-Hoops, of which the following is a specification.

This invention has relation to silo hoops and is especially designed to be used in the form of a silo covered in my earlier Patent No. 707,123.

In this form of silo the door opening is substantially continuous from the base to the roof of the structure and sectional doors are provided for closing the opening. The opening is provided at intervals along its height with cross bars which serve as sills or soffits for holding the stiles in proper relation to each other.

The present invention consists of a hoop adapted to surround the structure and consisting in the main of a cable having its ends attached to bolts which are passed through the end portions of strips attached to the said sills or soffits of the door opening. The strips are of special structure and means are provided for drawing the bolts longitudinally in order that the hoops may be held in close contact against the sides of the staves of the silo as the structure is subjected to the inclemencies of the weather and the parts contracted and expanded.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a side elevation of a silo with the hoops applied; and, Fig. 2 is a perspective view of a portion of one of the hoops.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

As illustrated in the accompanying drawing, the silo 1 is provided with a continuous door opening 2 which extends from its base to its roof. Vertically disposed stiles 3 are located at the sides of the opening 2 and cross bars 4 are located at intervals along the opening 2 and bear at their ends against the stiles 3 and serve as means for holding them in proper relation to each other, and with relation to the body of the silo.

Metallic strips 5 are mounted upon the cross bars 4 and are secured at their ends to

the stiles 3 at the opposite sides of the opening 2. The said strips are provided with outturned ends 6 and the strips are preferably made from sheet material which may be bent up into the form indicated. Castings 7 (preferably of malleable iron) are bolted within the end portions of the strips 5 and are secured by the same bolts that secure the end portions of the said strips to the stiles 3. The said castings are formed with angularly disposed end portions 8 which bear against the inner faces of the extremities 6 of the strip 5. The extremities 6 and end portions 8 have registering perforations which receive the threaded end portions of bolts 9. Nuts 10 are screw-threaded upon the inner end portions of the said bolts 9 and bear against the inner faces of the angularly disposed portions 8 of the castings 7. At their outer ends the bolts 9 are formed with eyes 11. The ends of metallic cable sections 12 are trained through the eyes 11 and secured to the ends of the bolts 9 one end of each cable section being secured to one bolt 9 upon one of the strips 5 and the other end of the same section being secured to the other bolt 9 upon the same strip 5. The intermediate portion of the cable surrounds the body of the silo.

By this construction the nuts 10 are accessible and may be tightened or loosened as occasion or necessity demands in order to properly hold the parts of the structure together. It is of course understood that the spaces between the cross bars 4 are to be closed by door sections as described in my earlier patent hereinbefore referred to. Therefore it will be seen that while the silo hoop is continuous around the structure of the silo there is nothing to obstruct the door opening for the reason that the bolts 9 are connected together by the strips 5 which lie flat against the cross bars 4. By providing the ends of the metallic strip 5 with the castings 7 the structure may be made light and at the same time it will be durable and able to withstand the strains to which it is subjected for the reason that the addition of the said castings places the preponderance of metal at the end portions of the strip which are the parts subjected to greatest strain.

Having thus described the invention, what is claimed as new is:

1. In combination with a silo having a

door opening provided with a cross bar serving as a sill or soffit, a silo hoop including a strip secured to the cross bar and having outwardly disposed extremities, castings secured to the strip and having angularly disposed end portions which bear against the inner faces of the extremities of the strip, threaded bolts piercing the extremities and castings, nuts screwed upon the bolts and bearing against the inner faces of the angularly disposed portions of the castings, said bolts having eyes and a flexible cable section passing at its ends through the eyes of the bolts and secured to the same.

2. In combination with a silo having a door opening provided at its sides with stiles and a cross bar secured at its ends to the stiles and spacing the same apart, a hoop including a strip secured at intermediate points to the cross bar and at its end portions

to the stiles and having outwardly disposed extremities, castings secured to the strip over the stiles and having angularly disposed end portions which bear against the inner faces of the extremities of the strip, threaded bolts passing through the extremities of the strip and the angularly disposed portions of the castings, nuts screwed upon the inner ends of the bolts and bearing against the inner faces of the angularly disposed portions of the castings, said bolts having eyes and a cable trained at its ends through the eyes of the bolts and secured to the same.

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

ELMER B. LACEY. [L. S.]

Witnesses:

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