E. HILLARD.

LUG FOR TIE BANDS OR HOOPS FOR SILOS, &c.

APPLICATION FILED APR. 27, 1908.

**920,742.**

**Patented May 4, 1909.**

2 SHEETS—SHEET 1.

Fig 1.

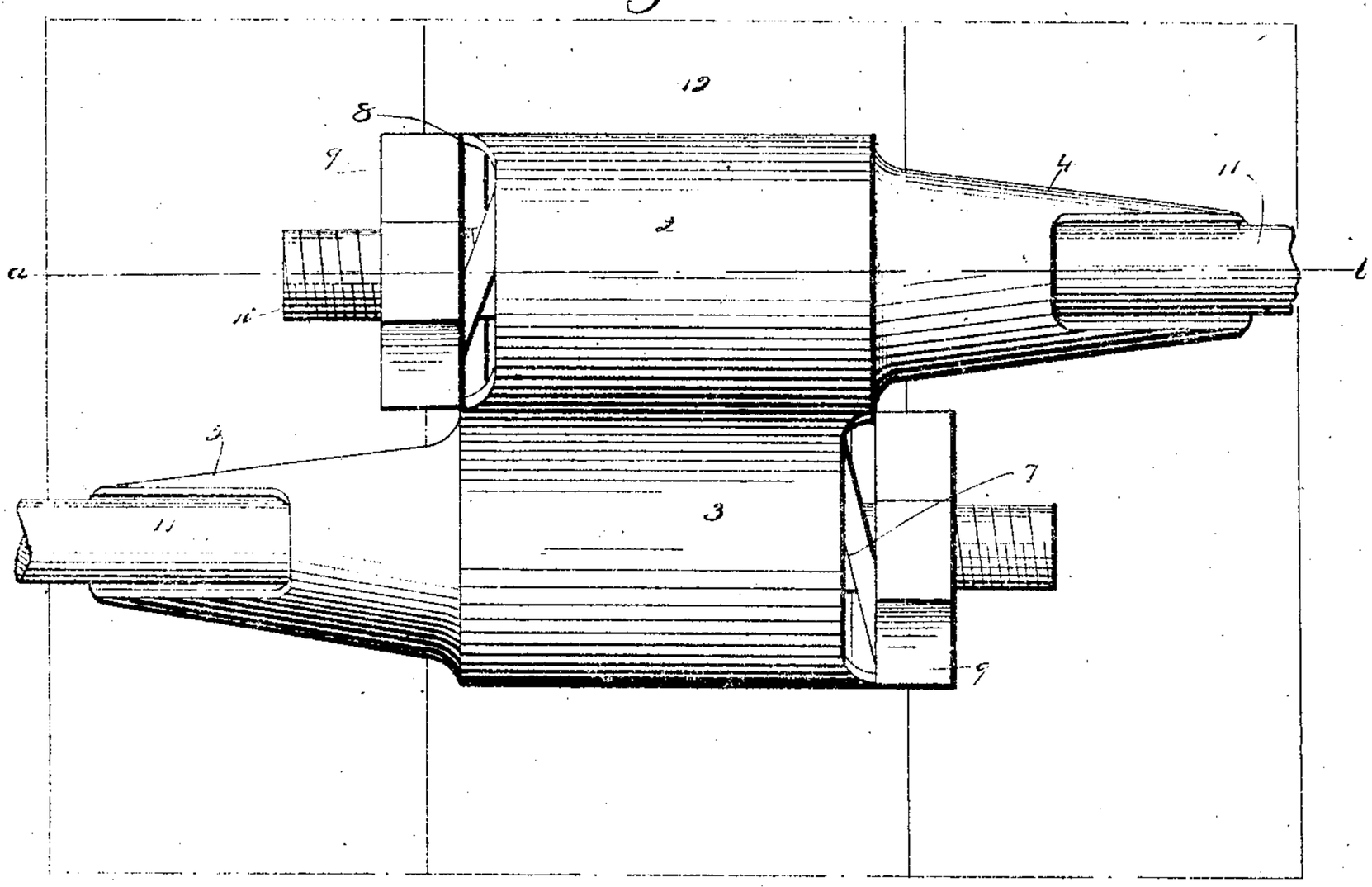


Fig 2.

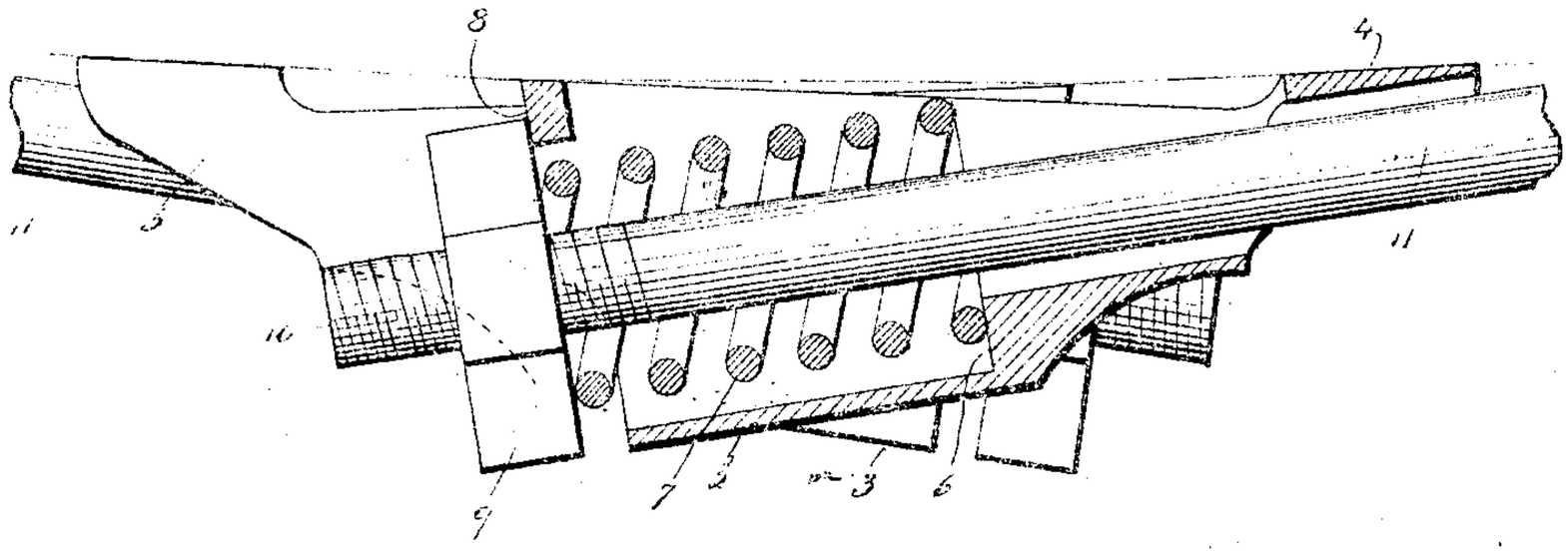


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Fig 3

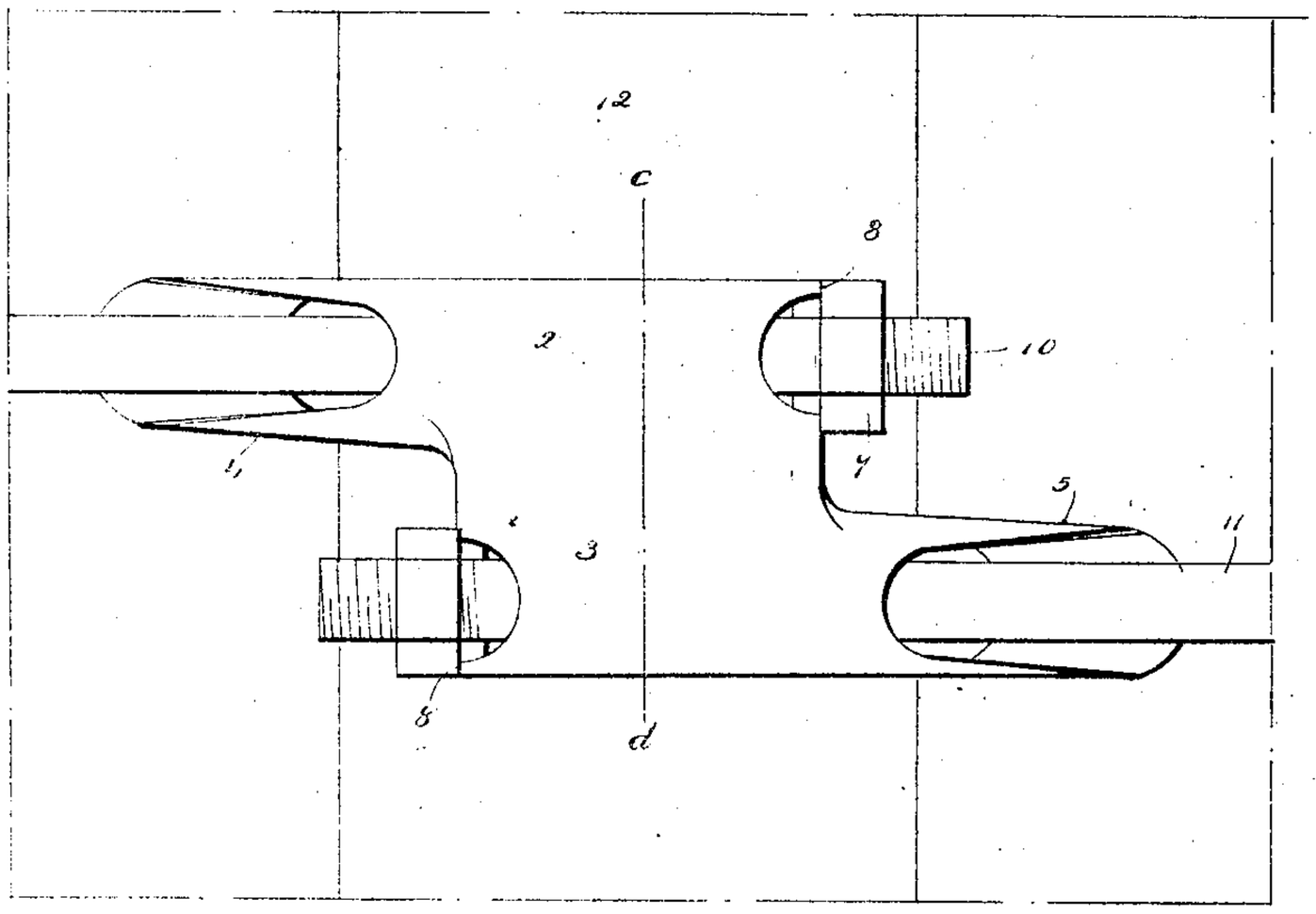



Fig 4

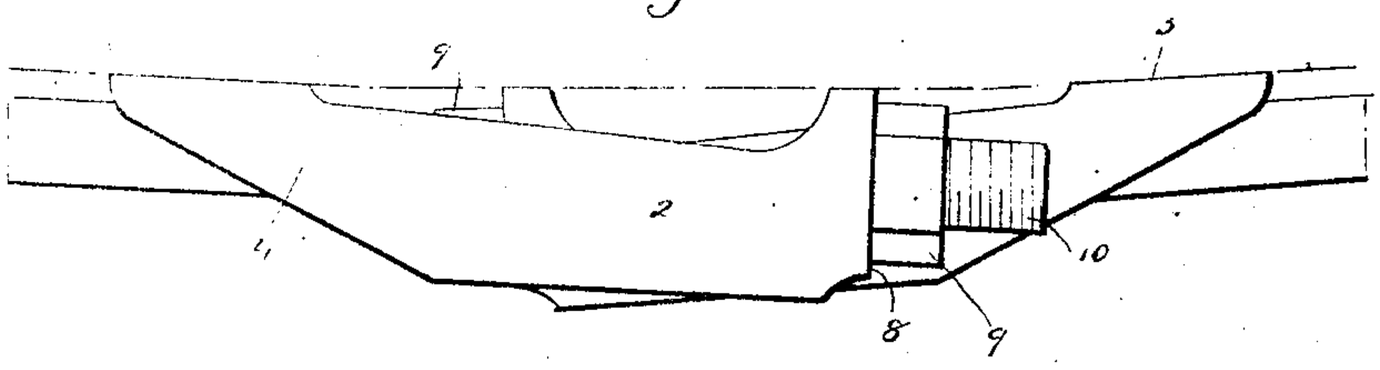
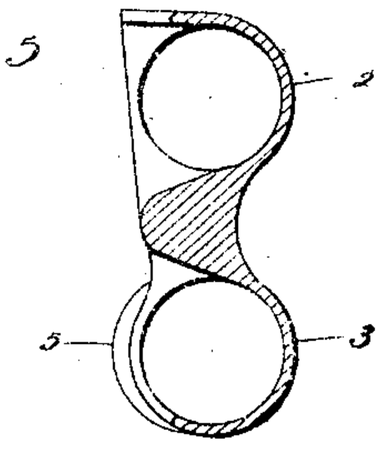



Fig 5

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# UNITED STATES PATENT OFFICE.

ELIPHALET HILLARD, OF MERIDEN, CONNECTICUT.

## LUG FOR TIE-BANDS OR HOOPS FOR SILOS, &c.

No. 920,742. Specification of Letters Patent. Patented May 4, 1909.

Application filed April 27, 1908. Serial No. 429,531.

*To all whom it may concern:*

Be it known that I, ELIPHALET HILLARD, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Lugs for Tie-Bands or Hoops for Silos, &c.; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a plan view of a lug for tie bands for silos, &c. constructed in accordance with my invention and shown as applied to a band. Fig. 2 a sectional view on the line *a—b* of Fig. 1. Fig. 3 a plan view of my improved lug as formed for use without springs. Fig. 4 a side view of the same. Fig. 5 a sectional view on the line *c—d* of Fig. 3.

This invention relates to an improvement in lugs for tie bands or hoops for silos, coal pockets, water tanks and other structures formed from wood which are bound together by encircling bands or hoops, the object of the invention being a simple construction of lug by which the ends of the bands or hoops may be held and the draft so applied as to prevent bending; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In the construction of silos and other large structures considerable strain is applied to the tie bands or hoops and owing to shrinkage these bands must frequently be adjusted, and it is desirable that the ends of the band should not project tangentially beyond the surface of the structure, or in other words, the ends of the band should maintain the curvature given them when applied. In some instances it is desirable to employ a spring between the lug and the nut on the ends of the bands to compensate for shrinkage, and for such purpose one form of my lug as shown in Figs. 1 and 2 of the drawings, will consist of housings 2 and 3 arranged one above the other and provided respectively with tail pieces 4 and 5 which are grooved, the under surface of the housing and tail pieces being curved substantially to the circumference of the structure to which they are to be applied. While the inner surface of the lug is bowed to correspond substantially to the curvature of the structure to which it is applied, the inner surface of the lug is cut away so that it bears against the structure only at four points, as shown in Fig. 4 of the drawings, and so that water running down the side of the structure will escape beneath the lug and consequently not be held thereby. This avoids rotting the structure beneath the lug and permits practically the entire surface beneath the lug to be painted. The housings also are arranged in a plane substantially parallel with the plane of the structure to which they are to be applied and so that if the bands project for a considerable distance beyond the lugs they will not extend outward to any extent beyond the structure and hence will not be in position to injure cattle should they run against them. Within each housing is a shoulder 6 against which one end of the spiral spring 7 is seated, the outer end of which housing has an opening larger in diameter than the diameter of the spring 7 and having a front wall 8 against which a nut 9 applied to the threaded end 10 of the band 11 may bear, the angle of the front wall being at right angles to the inclination of the band which is curved to pass through the lug. For convenience of casting the upper edge of the front wall of the housing is cut away. If the spring is not required the housings 2 and 3 may be made considerably smaller, as shown in Figs. 3, 4 and 5 of the drawings; but as in the construction described the housing will have the front walls inclined at the same angle and will have the same grooved tail-pieces, being substantially the same in every particular except as to the formation of the housing with the seat for the springs. My improved lug when applied to the structure has its outer ends adjacent to the wall 12 and as the bands are tightened by turning the nuts they will not buckle adjacent to the lugs as is the case when the front faces of the lugs do not conform substantially to the curvature of the bands, it being understood that the bands are curved prior to being placed on the structure and that with the usual form of housings must have their ends straightened before they can be tightened being curved in the nuts.

I claim:—

1. A lug for tie bands or hoops for silos, &c., comprising two housings arranged side by side each housing having a rearwardly extending grooved tail, said housing and tail conforming to the curvature of the structure to which they are to be applied and a portion

of the inner surface of the edges of the housing and tail cut away whereby openings are provided between the lug and the structure, substantially as described.

2. A lug for tie bands or hoops for silos, &c., comprising two parallel housings each having a rearwardly extending grooved tail piece, the said housing and tail piece curved corresponding to the curvature of the structure to which they are to be applied, a portion of the inner surface of the edges of the housing and tail piece cut away, whereby openings are formed between the lugs and structure, the said housings each formed with shoulders at the rear, and springs mounted in said housing and having bearings against said shoulders, substantially as described.

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

ELIPHALET HILLARD.

Witnesses:
E. A. MERRIMAN,
I. HENRY MAG.