

A. A. DOTY.

SILO.

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911,217.

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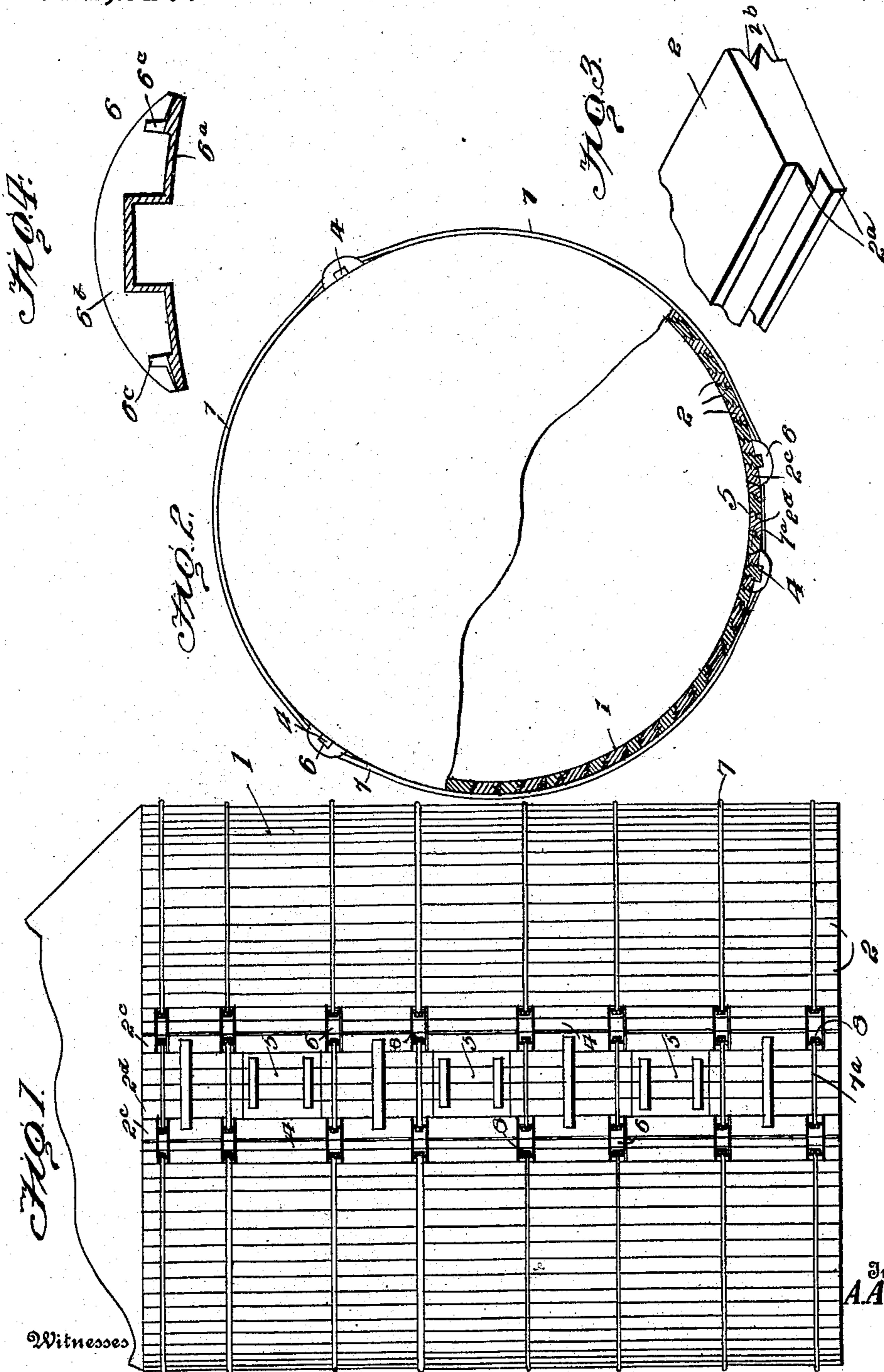


Fig. 1.

Fig. 3.

Fig. 2.

Witnesses

In witness whereof
W. H. H. H. H. H.

By

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UNITED STATES PATENT OFFICE.

ALBERT A. DOTY, OF GREENWOOD, INDIANA.

SILLO.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT A. DOTY, citizen of the United States, residing at Greenwood, in the county of Johnson and State of Indiana, have invented certain new and useful Improvements in Silos, of which the following is a specification.

The present invention relates to improvements in silos, and has for its object to provide a device of this character embodying a novel construction whereby compensation can be readily made for shrinkage and a practically air tight joint always maintained between the staves of which the silo is formed.

The invention further contemplates a novel system of doors through which the ensilage may be removed from the silo as required.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a silo embodying the invention. Fig. 2 is a top plan view of the same, portions being shown in section. Fig. 3 is an enlarged detail view of a portion of one of the staves. Fig. 4 is a detail view of one of the saddles.

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

The body portion of the silo which is indicated by the numeral 1 has a cylindrical formation and is composed of the vertical staves 2 and the standards 4 which are arranged between the staves at suitable points in the circumference of the silo and project outwardly beyond the said staves. For the purpose of providing a practically air tight joint between the staves 2 they are provided upon their longitudinal edges with the tongues 2^a which are received in the corresponding recesses 2^b upon adjacent staves. As shown on the drawing each edge of the staves is provided with a pair of these tongues 2^a and the said tongues have a triangular cross section. A pair of the standards 4 are shown as located at one side of the silo and as having the doors 5 mounted between the same. In the present instance six of the staves are interposed between these standards, those staves 2^c located adjacent the said standards extending vertically throughout the entire

height of the silo while the intermediate staves 2^d disposed between the staves 2^c have the doors 5 cut therefrom. The edges of these doors 5 are beveled and the doors are removable from the interior of the silo so that the pressure of the fodder within the silo will tend to hold the doors securely in position. The remaining two standards 4 are disposed upon the opposite side of the silo to that in which the doors 5 are formed and the space between these two standards corresponds to the space between each of the said standards and the corresponding standard adjacent the doors.

Applied to the standards 4 at suitable intervals in the length thereof are the shoes or saddles 6 to which the tie rods 7 and 7^a are connected, the tie rods 7^a being shorter than the tie rods 7 and extending across the space between those two standards having the doors 5 mounted therebetween.

Each of the saddles comprises a base 6^a having the central portion thereof depressed to receive the outwardly projecting portion of the standard, and the side flanges 6^b which are connected at each end of the shoe by a transverse web 6^c which is slotted to receive the threaded ends of the tie rods 7 and 7^a. Nuts 8 are fitted upon these threaded ends of the tie rods and bear against the slotted web 6^c so as to hold the tie rods in position. It will further be obvious that by tightening these nuts tension may be produced in the tie rods and the staves 2 drawn tightly together so as to produce close joints between the same and provide a practically air tight construction.

The green corn or fodder from which the ensilage is to be produced is placed within the body portion of the silo and after the necessary fermentation has taken place the ensilage may be removed as required through the doors 5.

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

1. In a silo, the combination of a body portion composed of staves and standards projecting outwardly beyond the staves, saddles fitted upon the outwardly projecting portions of the standards, and tie members connecting the saddles.

2. In a silo, the combination of a body portion composed of staves and standards projecting outwardly beyond the staves, saddles fitted upon the standards and formed with depressions receiving the outwardly

projecting portions of the same, and tie rods connecting the saddles.

3. In a silo, the combination of a body portion composed of staves and standards
5 which project outwardly beyond the staves, saddles fitted upon the standards and formed with a base having a depression to receive the outwardly projecting portion of the standards and with side flanges connected by

webs, and tie members connecting the webs 10 of corresponding saddles.

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

ALBERT A. DOTY. [L. s.]

Witnesses:

WM. J. SURPOSE,
JASPER T. JONES.