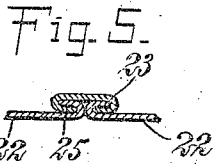
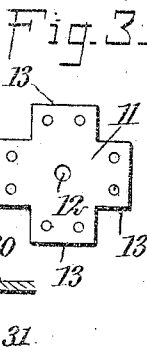
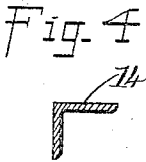
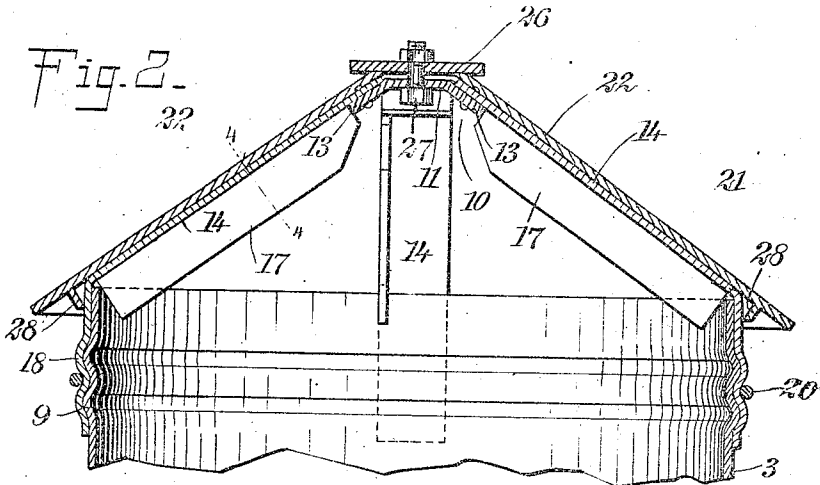
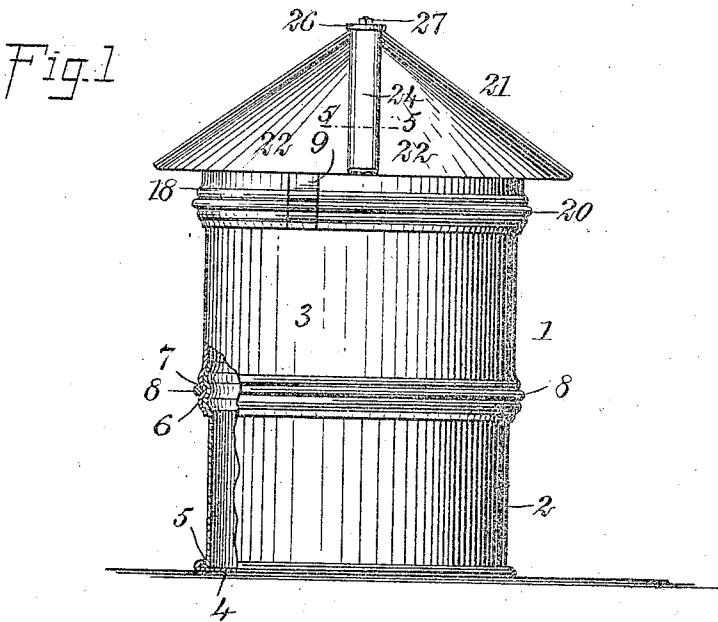


No. 849,294.

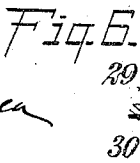
PATENTED APR. 2, 1907.

E. G. WARE.  
GRANARY.

APPLICATION FILED JUNE 7, 1906.



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## UNITED STATES PATENT OFFICE.

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GRANARY.

No. 849,294.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed June 7, 1906. Serial No. 320,659.

*To all whom it may concern:*

Be it known that I, ELMER G. WARE, a citizen of the United States, and a resident of Emporia, in the county of Lyon and State of Kansas, have invented a new and Improved Granary, of which the following is a full, clear, and exact description.

This invention relates to granaries, the object being to produce a granary of simple construction, which is formed of a plurality of matched parts which may be quickly assembled to form the complete structure or disconnected if the structure is to be moved to another place. While the granary is in its nature portable, a further object of the invention is to construct the parts so that the granary may readily have its capacity adapted to the particular requirements under which it is to be used.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the granary, a portion of the wall of which is broken away and shown in section. Fig. 2 is a vertical section taken through the roof and upper portion of the body of the granary. Fig. 3 is a plan of a center plate constituting a part of the roof-frame. Fig. 4 is a cross-section through a part of the roof-frame, taken on the line 4 4 of Fig. 2. Fig. 5 is a cross-section on the line 5 5 of Fig. 1 and illustrating the details of the roof construction, and Fig. 6 is a horizontal cross-section taken through a portion of the wall of one of the sections of which the granary is composed and illustrating the manner of securing the overlapping edges of each section.

Referring more particularly to the parts, 1 represents the body of the granary, which is of cylindrical form and composed of a bottom or base section 2 and an upper section 3. The bottom section 2 consists of a circular base-plate 4, the edges of which are crimped around a laterally-projecting flange 5, which is formed at the lower edge of this section. The upper section 3 telescopes over the lower section 2, and at the point where the edges overlap circumferential corrugations 6 are formed between the sections, the said corrugations

being arranged so that they match with each other, as indicated. In this manner when the parts are placed together a circumferential groove or recess 7 is formed in the outer side of the outer or upper section 3, and in this groove I place a band or hoop 8, which is tightened about the parts in any suitable manner. At or near the upper edge of the upper section 3 corrugations 9 are formed, as indicated in Fig. 2, which are similar in form to the corrugations 6, just described.

Upon the upper end of the upper section 3 a roof-frame 10 is supported. This frame consists of a center plate 11, having substantially the form shown in Fig. 3. As shown, this plate presents a central opening 12 and has four outwardly-projecting stub-arms 13. The arms 13 are preferably bent downwardly at their point of connection with the body of the plate, as indicated in Fig. 2, and to the upper sides of these arms trusses 14 are attached, as shown. These trusses are riveted to the arms 13, as shown. They are formed of angle-iron, the cross-section being substantially that shown in Fig. 4. The flanges 17 of these trusses project downwardly toward the interior of the granary and terminate below, with their lower edges resting against the inner edge of the upper section 3, as shown in Fig. 2. The webs of the trusses are bent downwardly at their lower extremities, so that each forms an arm 18, disposed in a vertical position and lying against the side wall of the upper section 3 of the granary. These arms are corrugated, so as to match the corrugations 9 and are held securely against the upper section by means of a band or hoop 20, which encircles the upper end of the granary, as indicated. This hoop is similar to the hoop 8 and will be tightened in any suitable manner.

The roof 21 is composed of a plurality of sections 22. There may be any number of these sections as may be found convenient. In the drawings I have represented four such sections. The said sections are formed so that when brought together at their edges they constitute a roof having the form of a cone. For this purpose the roof-sections have the form of sectors of a circle, the radial edges being formed with crimps 23, as indicated in Fig. 5. When the roof-sections are set together to form the roof, these crimped edges 23 come together and they are secured in position by battens or weather-strips 24.

These battens have their side edges turned inwardly to form flanges 25, which engage under the crimps 23. When the roof-sections are assembled as described, these battens are slid longitudinally from a lower position into the position shown in Fig. 1. In this way the roof-sections are firmly held together and the roof is made substantially water-tight. It will be understood that in this way an opening is formed at the upper ends of the roof-sections where they meet at the center. This opening is closed by a cap-plate 26, which consists simply of a plate of circular form, the edges of which project beyond the sides of the aforesaid opening so as to shed the water falling upon the roof. This plate 26 has a central opening through which a clamping-bolt 27 passes upwardly. With the bolt applied as described the roof-sections are firmly held together and to the roof-frame. Near the lower edges of the roof-sections 22 an inwardly-projecting flange 28 is provided, which projects toward the upper edge of the upper section. This flange rests against the upper edge of the top section and assists in holding the roof in position.

While I have illustrated only one upper section in connection with the body of the granary, it should be understood that there may be more or less of these upper sections, as desired. When there are more sections, of course the capacity of the granary is proportionately increased. Evidently the granary may be shipped to any point in dismantled condition and its parts may be quickly assembled to form a complete structure.

The upper section 3 is formed of a plate rolled to cylindrical form and having its vertical edges overlapping, as indicated in Fig. 6. Between these vertical edges a gasket or weather-strip 29 is placed, and on the inner side and outer side of the section longitudinally-disposed angle-irons 30 are placed. To these angle-irons and to the overlapping edges rivets 31 or similar fastening devices are applied which rigidly connect the edges together. In this way a secure joint is formed, which is substantially water-tight. The strip 29 will be formed of some suitable material for this purpose, such as leather or rubber.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A granary having a substantially cylindrical body presenting circumferentially-disposed corrugations near the upper edge thereof, a roof-frame having downwardly-bent arms with corrugations matching said first corrugations, a roof supported on said roof-frame, and means for securing said arms to said body.

2. In a granary, in combination, a body of cylindrical form having corrugations formed near the upper edge thereof, a roof-frame presenting radially-disposed trusses attached together at their inner extremities and having downwardly-projecting arms with corrugations matching said first corrugations, a band encircling said body at said corrugations and securing said arms thereto, and a roof supported on said roof-frame and composed of a plurality of detachable sections.

3. In a granary, in combination, a body presenting circumferentially-disposed corrugations near the upper edge thereof, a roof-frame composed of angle-irons having downwardly-projecting flanges, and webs bent downwardly to form arms with corrugations matching the said corrugations, a band encircling said body at said corrugations and holding said arms thereto, said trusses being secured together at their inner extremities, and a roof supported on said frame.

4. A granary having a substantially cylindrical body, a roof-frame supported on the upper edge of said body and presenting a central plate with trusses radiating therefrom and secured to said body, a roof composed of sections detachably connected together having flanges on the under edges thereof adapted to engage the side wall of said body, and means for supporting said roof at said central plate.

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

ELMER G. WARE.

Witnesses:

CARL E. GOODWIN,  
E. S. ROWLAND.