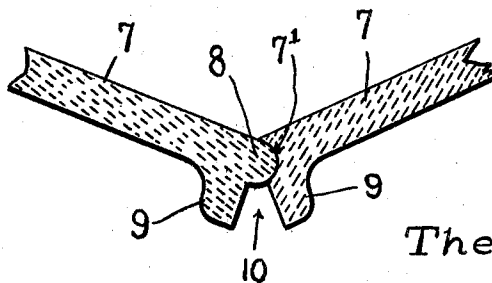
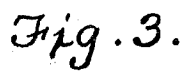


SIL0.

Patented Dec. 6, 1921.

2 SHEETS—SHEET 1.

Fig. 1.



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APPLICATION FILED DEC. 13, 1919.

1,399,546.

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2 SHEETS—SHEET 2.

Fig. 2.

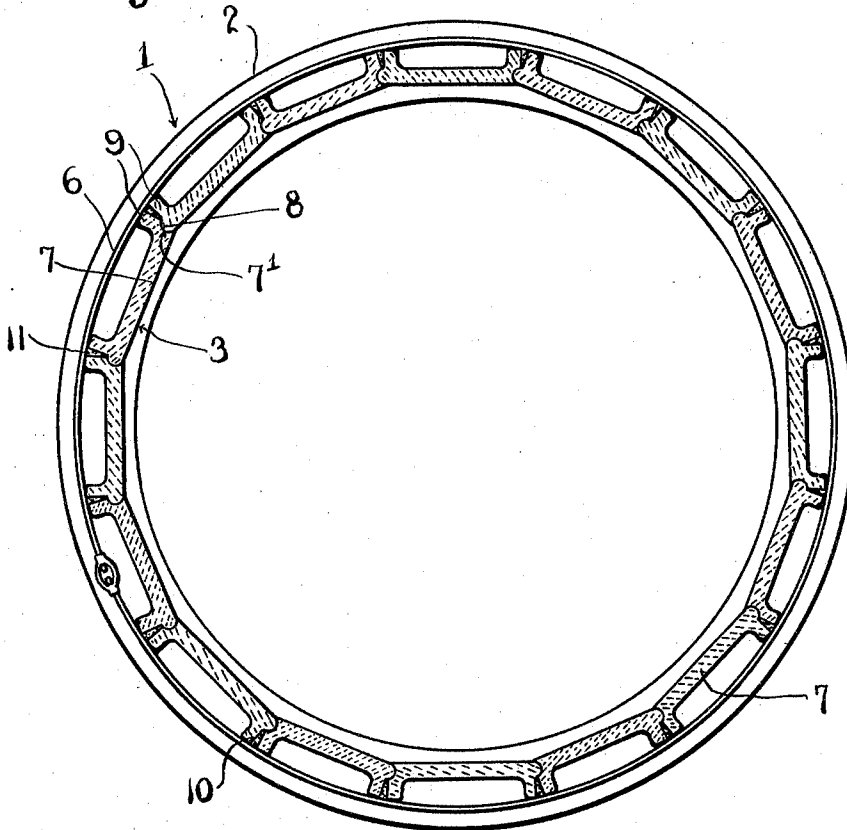
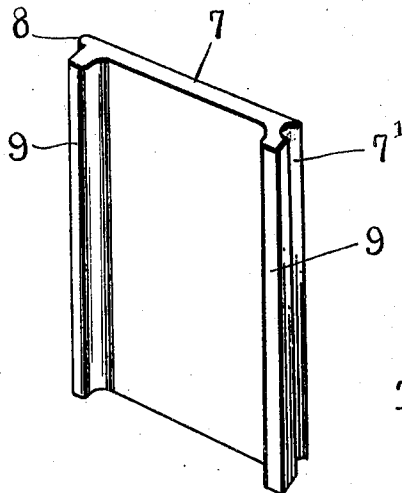


Fig. 4.



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SILO.

1,399,546.

Specification of Letters Patent.

Patented Dec. 6, 1921.

Application filed December 13, 1919. Serial No. 344,546.

To all whom it may concern:

Be it known that I, THEODORE F. ELLIS, a citizen of the United States, residing at Lena, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Silos, of which the following is a specification.

This invention relates to new and useful improvements in silos.

One object of my invention is to greatly increase the strength at the meeting edges or joints of the respective blocks from which the silo is built.

A further object of my invention is to provide for varying the relative angularity of the blocks to increase or decrease the size or diameter of the silo.

With the foregoing and other objects in view that will appear as the nature of the invention is better understood, the same consists in the novel features of construction, combination and arrangement of parts illustrated in the drawings and more particularly pointed out in the appended claim.

In the accompanying drawings, which are for illustrative purposes only and are therefore not drawn to scale:—

Figure 1 is a side elevation of a silo constructed in accordance with my invention.

Fig. 2 is a horizontal section, taken on the plane indicated by the dotted lines 2—2 of Fig. 1.

Fig. 3 is a horizontal fragmentary sectional view, showing, on an enlarged scale, the joint between two adjacent blocks.

Fig. 4 is a detail perspective view of one of the blocks.

Referring to the drawings for a more particular description of the invention, and in which drawings like parts are designated by like reference characters throughout the several views, the numeral 1 represents a silo of the circular type, comprising the usual base or foundation 2, upright wall 3, consisting of two or more rows 4 and 5 laid one upon the other with the joints between the blocks of the several rows disposed in vertical alinement, and the circular reinforcing wires or bands 6, 6¹ and 6².

Each section of the silo is formed of a plurality of flat rectangular vertically disposed blocks 7, of cement, concrete or other plastic material, and each block is formed in one side edge, throughout its entire length with a concave recess 7¹ and at its opposite edge with a corresponding tongue 8, the

blocks being arranged in place with the tongue of one block fitting in the groove of an adjacent block.

In carrying out my invention, the respective blocks are provided at their side edges with the longitudinal outwardly projecting reinforcing flanges 9. When the blocks are placed together, edge to edge, the outer faces of the flanges are substantially radially disposed with relation to the silo structure and the spaces 10 between the outer faces of the adjacent flanges are filled with cement or other binding material 11.

Owing to the hinge or pivotal joint or connection between the respective blocks, the same may be arranged or adjusted at the desired angularity and the diameter of the silo regulated accordingly. For the purpose of illustration, the relative angularity between the blocks in Fig. 3 is shown to be greater than that in Fig. 2.

It will be noted by reference to the drawings, that the blocks of the foundation row are alternately of different lengths, the shorter blocks extending from the base or foundation 2, to points directly under or opposite the reinforcing wires or bands 6¹ and the longer blocks extending from the base to points, as *a*, intermediate the bands 6¹ and 6². It will also be noted that the blocks of the succeeding rows are of the same or equal length. By means of the above construction the blocks or staves of the several rows may be placed directly over each other and are securely bound together or held against relative lateral movement.

From the foregoing description taken in connection with the drawings, it is thought that the construction, operation and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportions and minor details of construction may be resorted to without departing from the principles or sacrificing any of the advantages of this invention as defined in the appended claim.

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

A silo comprising blocks rectangular in side elevation and arranged edge to edge around the silo structure, each of the blocks being provided at one vertical edge with a groove and at its opposite vertical edge with

a tongue, the tongue of one block being received in the groove of the adjacent block, each block being provided at its outer side and at its vertical edges with outstanding flanges which extend from end to end of the block, said flanges being provided with outer edge faces, the outer edge faces of the flanges of the adjacent blocks being angularly disposed with relation to each other and substantially radially disposed with relation to the silo structure and a filling of cement material closing the spaces between the outer edge faces of the flanges of the adjacent blocks.

In testimony whereof I affix my signature. 15
THEODORE F. ELLIS.