

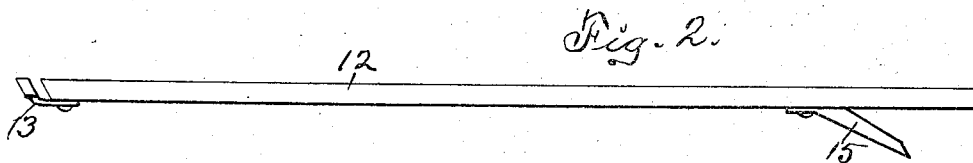
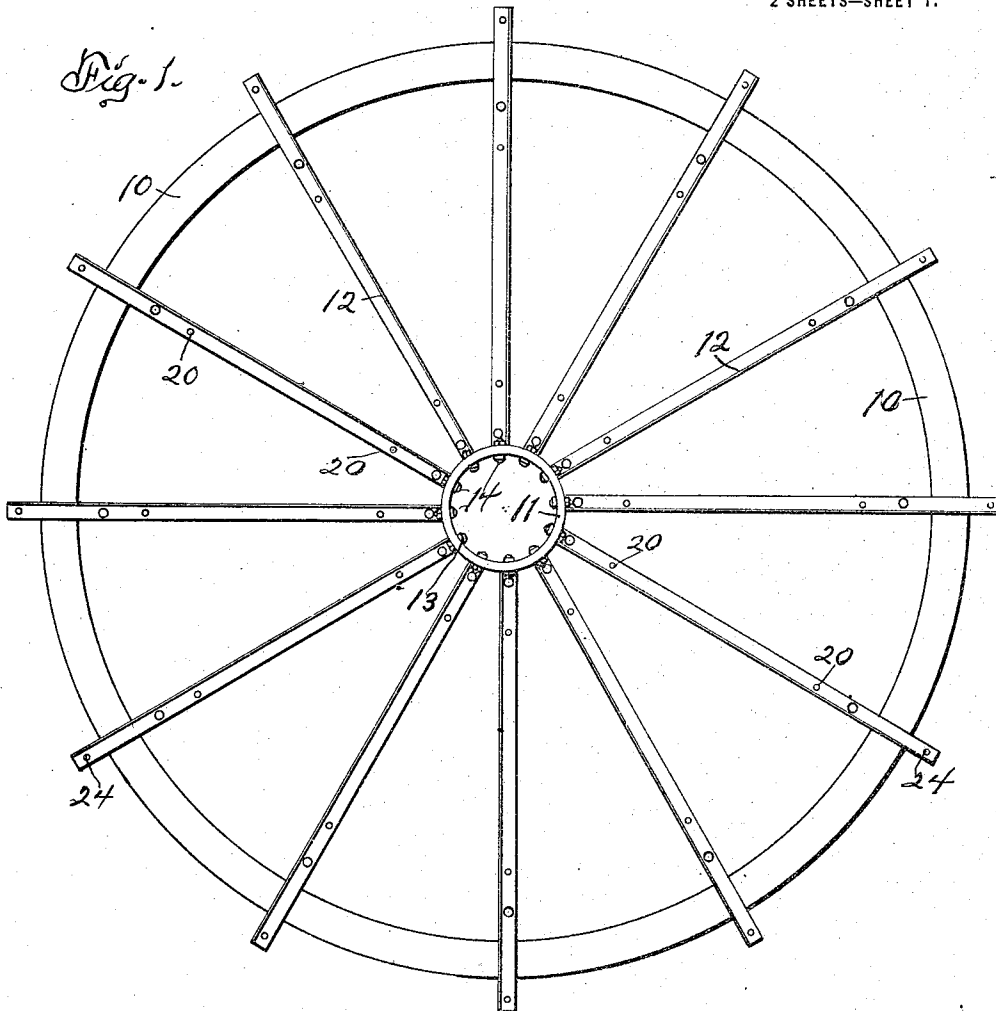
R. J. ELDREDGE.
REINFORCED ROOF FORM.

APPLICATION FILED FEB. 1, 1915. RENEWED FEB. 20, 1917.

1,227,255.

Patented May 22, 1917.

2 SHEETS—SHEET 1.



Attest:
H. G. Sweet,
L. L. Leibman

Inventor:
Robert J. Eldredge,
By Silas Sweet
Att'y

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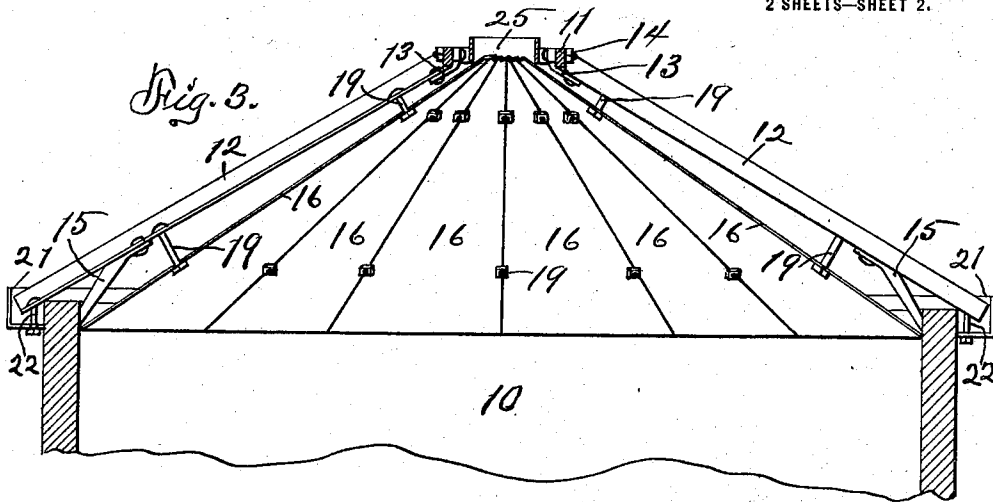


Fig. 5.

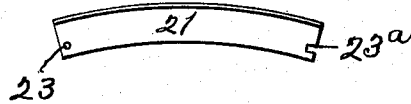
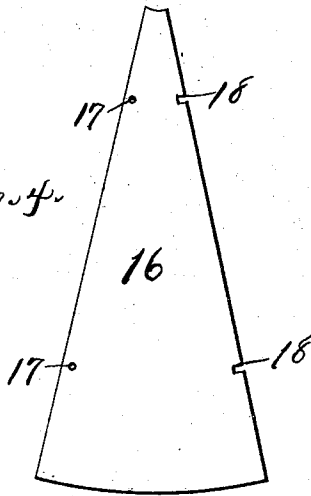


Fig. 4.



Attest:
H. Sweet
L. Lehn

Inventor:
Robert J. Eldredge,
By J. H. Sweet
Att'y

UNITED STATES PATENT OFFICE.

ROBERT J. ELDREDGE, OF WAVERLY, IOWA.

REINFORCED-ROOF FORM.

1,227,255.

Specification of Letters Patent.

Patented May 22, 1917.

Application filed February 1, 1915, Serial No. 5,425. Renewed February 20, 1917. Serial No. 149,939.

To all whom it may concern:

Be it known that I, ROBERT J. ELDREDGE, a citizen of the United States of America, and resident of Waverly, Bremer county, Iowa, have invented a new and useful Reinforced-Roof Form, of which the following is a specification.

The object of this invention is to provide means for supporting forms during the operation of pouring and molding a roof, such as of a silo, of concrete or other plastic material.

A further object of this invention is to provide improved means for reinforcing a roof or similar structure of concrete or plastic material.

A further object of this invention is to provide means having the dual function of supporting forms during the operation of erection and thereafter reinforcing the structure made of plastic material such as concrete.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing in which—

Figure 1 is a plan of the supporting and reinforcing skeleton preliminary to mounting of the forms thereon. Fig. 2 is a side view of one element of the skeleton. Fig. 3 is an elevation, partly in section illustrating the collocation of skeleton and forms on a supporting wall of permanent form, preparatory to pouring the plastic material, such as concrete, to provide a roof. Fig. 4 is a plan of a form plate and Fig. 5 is a plan of a sectional form for the eaves of the roof.

In the construction of the device and mounting thereof as shown, the numeral 10 designates a wall of permanent character such as may be provided for a silo, crib, granary and the like, and said wall may be constructed or built in any desired manner and of any desired materials. A skeleton is mounted on the upper end of the wall and is built up of a central metal ring 11 and a plurality of rafters 12 arranged radially of the ring and secured thereto by lugs 13 bolted to the horizontal flange of the rafters and to the ring. The rafters 12 preferably are made of angle bars and have their inner ends beveled through the vertical flanges thereof to fit them against the perimeter of the ring 11. The lugs 13 are bent between

their ends and are formed with holes in their upturned portions adapted to register with holes in the ring to receive bolts 14 for securing the rafters to the ring. The outer ends of the rafters extend across the wall 10 and rest thereon in spaced relations, and lugs 15 are bolted to the horizontal flanges of the rafters and extend downward and outward therefrom into contact with the inner face of the wall. The lugs 15 serve as braces to center and support the skeleton on the wall. The ring 11 may be elevated as desired relative to the top of the wall 10 to provide suitable or desired pitch for the rafters. Form plates 16 are provided, one plate for each space between rafters. The form plates 16 are formed generally as truncated sectors and are provided with spaced holes 17 near one side margin and corresponding spaced notches 18 in the converging side margin. The form plates 16 are mounted in overlapping relations beneath and spaced from the rafters 12 and are suspended from said rafters by bolts 19 depending through holes 20 in the horizontal flanges of the rafters and extending through holes 17 and notches 18 of overlapping portions of the plates. The outer ends of the form plates 16 are rounded and abut the inner surface of the wall 10 while the inner ends of said plates are concaved and extend within the ring 11. Arcuate forms 21, angular in cross-section (Fig. 5), are mounted beneath and outside the outer ends of the rafters 12 and are suspended by bolts 22 extending through registering holes 23 and notches 23^a in the forms and 24 in the rafters. The inner margins of the arcuate forms 21 fit to and abut the outer face of the wall 10.

A loose form or ring 25 is mounted on the inner ends of the form plates 16 within and spaced from the ring 11.

The plastic material, such as concrete, is poured or tamped in the forms and is caused to cover and inclose the ring 11, rafters (except at the points where they touch the wall), lugs and the upper end of the wall, the loose ring 25 forming a hole at the apex of the structure. After the plastic material is set, the form plates, loose ring and arcuate forms are removed and the skeleton remains as a reinforcing for the structure.

I do not desire to be limited to the exact form and arrangement shown and described,

as the same may be modified without departing from my invention.

I claim as my invention—

1. A reinforced roof form comprising a central ring, rafters secured to and crossing said ring and adapted to be supported at their outer ends on a circular wall, and removable plates of truncated sector form adapted to be suspended from and in spaced relations to said ring and rafters, said plates overlapping each other.

2. A reinforced roof form comprising a central ring, rafters crossing beneath and radiating from said ring and adapted to be supported at their outer ends on a circular wall, lugs connecting said rafters and ring, lugs on the outer ends of said rafters adapted to engage the inner surface of said wall, and truncated sector plates adapted to be suspended from and beneath said rafters whereby said ring, lugs and rafters may be inclosed in plastic material.

3. A roof form comprising a ring, rafters

secured to and radiating from said ring and adapted to be supported at their outer ends on a circular wall, form plates of truncated-sector shape suspended from said rafters and extending within said ring, a loose ring on the inner ends of said form plates and arcuate forms suspended from the outer ends of said rafters.

4. A roof form comprising a ring, rafters radiating from said ring across and adapted to be supported on a circular wall, overlapping sector plates suspended from said rafters within said wall, and arcuate forms, angular in cross-section, suspended at the outer ends of said rafters and engaging the outer face of said wall.

Signed by me at Waverly, Iowa, this 25th day of January, 1915.

ROBERT J. ELDREDGE.

Witnesses:

J. C. BLASIER,

C. C. RUNYARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."