

W. C. BROUGHTON.
CONCRETE BUILDING.
APPLICATION FILED FEB. 16, 1914.

1,155,038.

Patented Sept. 28, 1915.

Fig. 1.

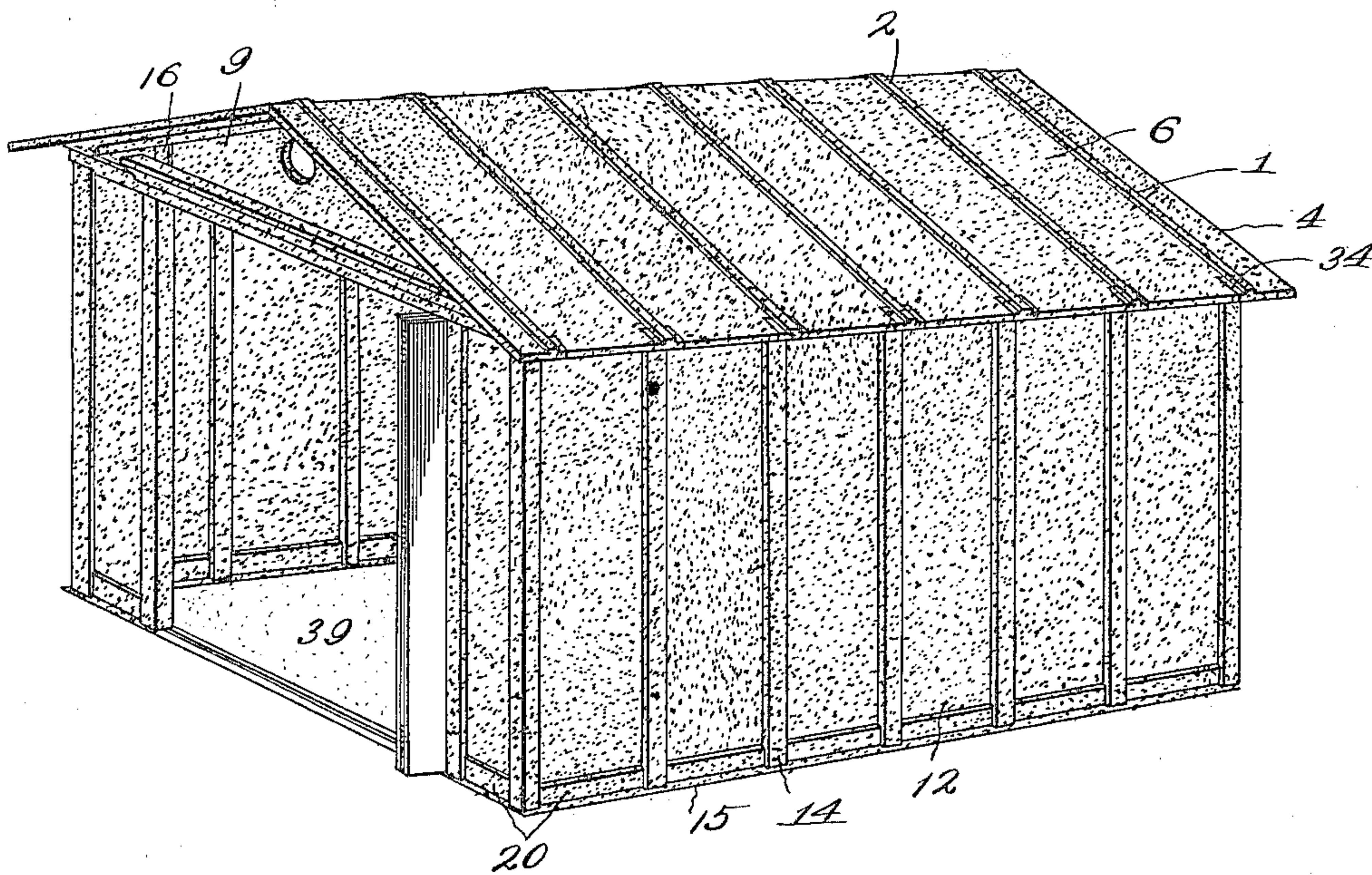


Fig. 2.

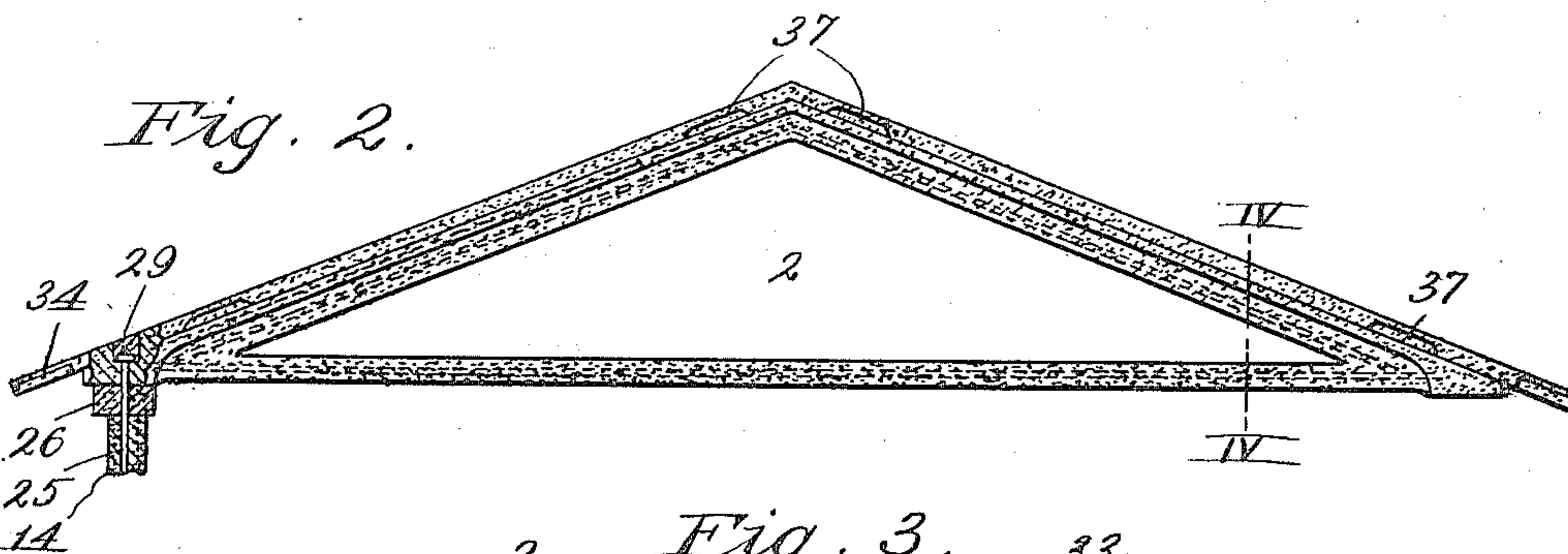
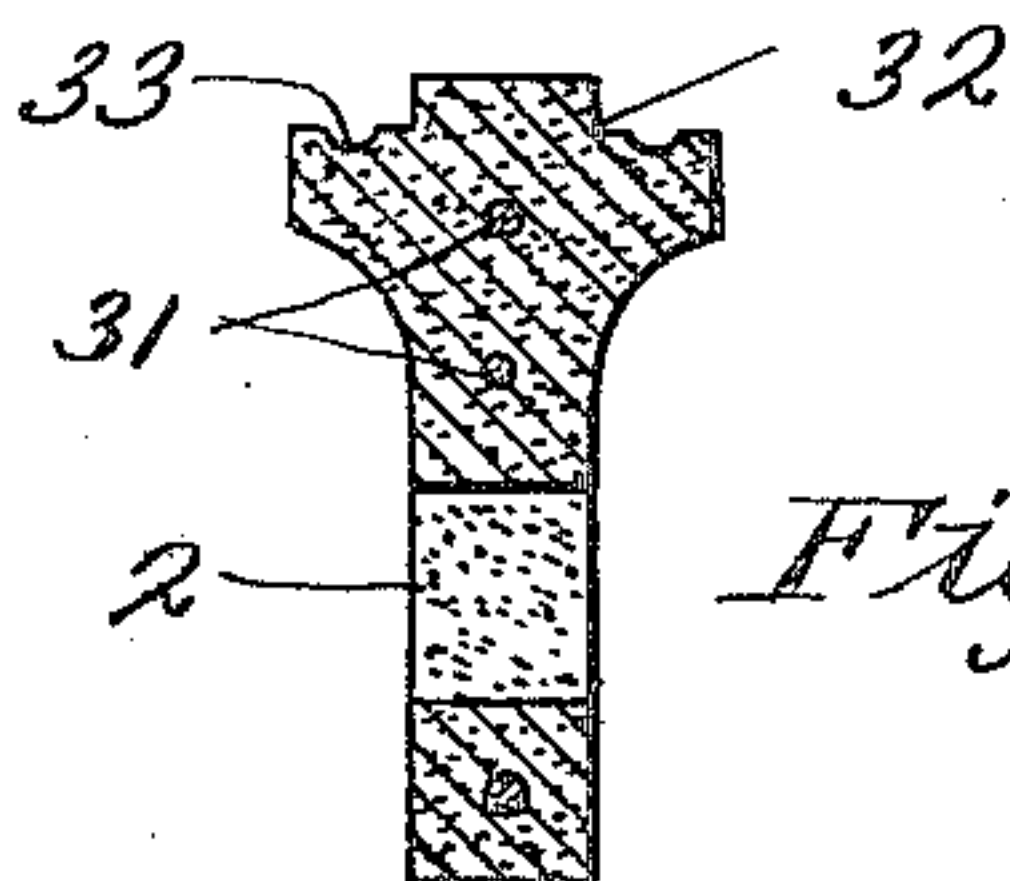
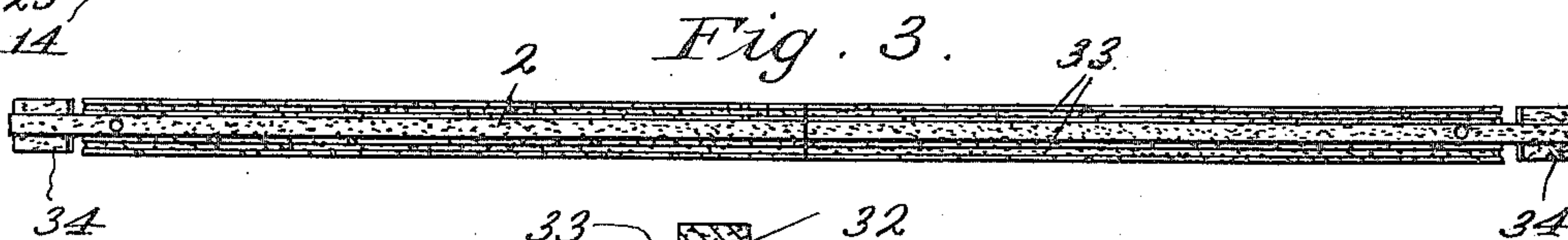


Fig. 3.



WITNESSES:

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Fig. 4.

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UNITED STATES PATENT OFFICE.

WALTER C. BROUGHTON, OF KANSAS CITY, MISSOURI.

CONCRETE BUILDING.

1,155,038.

Specification of Letters Patent.

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Application filed February 16, 1914. Serial No. 819,088.

To all whom it may concern:

Be it known that I, WALTER C. BROUGHTON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Concrete Buildings, of which the following is a specification.

My invention pertains to improvements in concrete buildings, and the invention relates more particularly to the novel construction of the roof and side walls of a building.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which:

Figure 1 is a perspective of a garage built in accordance with my invention. Fig. 2 is a detail elevation of a part of the roof construction. Fig. 3 is a plan view of the part disclosed by Fig. 2. Fig. 4 is a cross section, enlarged, on line IV—IV of Fig. 2.

In constructing the roof of the building, I employ two end rafters 1, intermediate of which is a plurality of roof trusses, or combined rafters and struts 2, cast in one piece, Fig. 2.

The two end rafters 1 are reinforced by longitudinal rods 3 and have eaves for the ends of the roof cast integral with their upper outer sides. The inner sides of the rafters 1 have rabbeted portions 5 to receive the adjacent ends of the roof slabs 6. The horizontal portion of the rabbeted part 5 has a gutter 7 extending the full length of the rafters to carry off any rain water that may seep through the joint between the rabbeted portion 5 and the roof slab 6, the intention being, however, to render said joint water-tight with cement or other suitable material.

The undersides of the rafters 1 have grooves 8 extending the full length thereof to receive gable-end wall-panels 9, reinforced by longitudinal rods and having grooves in their undersides to receive the upper edges of the main end wall-panels 12.

The vertical edges of the end-wall panels 12 fit into columns 14 resting upon sills 15 and supporting at their upper ends the panels 9. Columns 14 are interposed by cement baseboards 20 which support the wall panels 12.

The upper end of each column 14 has an anchor 25 which extends upward through plate 26 and into the lower end of a rafter, thus securing the same to the column. The

upper ends of the anchors 25 are secured by nuts 27 which are covered by grouting poured into the recesses 28, left in the rafters to receive said nuts.

As the columns and the wall-panels constituting the sides of the building are the same in construction as those forming the ends of the building, further description thereof is deemed unnecessary.

The intermediate rafters or roof trusses 2 are reinforced with rods 31 and have oppositely-disposed rabbeted portions 32 at their upper sides to receive the adjacent ends of the roof slabs 6. The horizontal portions of the rabbeted portions 32, have gutters 33 extending the full length of the rafters to carry off any rain-water which may seep through the joints between said rabbeted portions and the roof slabs. Each truss comprises an inverted V-body and a lower chord or tension member, the extremities of the V-body projecting beyond the wall of the building and the portions 32 and each carrying laterally extending stops 34 arranged above the plane of the portions or seats 32.

When the building is constructed with a gable roof, as shown, the roof slabs 6 are secured from slipping downward by stops 34, fitting into recesses 35 at the lower ends of said roof slabs. The stops 34 are assisted in holding the slabs 6 in place by grouting 36, placed in registering recesses 37 and 38 in the roof slab 6 and the rafters 2, respectively.

The floor 39 of the building is, preferably, constructed of cement, and any suitable foundation may be provided to support the walls of the building.

From the foregoing description, it is apparent that I have produced a substantial concrete building, which may be economically cast in sections and quickly assembled to constitute a durable and fire-proof structure.

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

A roof structure comprising spaced truss members each of which consists of an inverted V-body and a lower chord connecting the end portions of the V-body, the latter having rabbeted seats on its opposite longitudinal edge portions and each seat being formed with a gutter, integral end extensions projecting from the body in a plane

above the seats thereof, oppositely extending lateral stops integral with the end extensions and being disposed in a plane above the body seats, and roof slabs engaging in
5 opposite seats of adjacent truss members and having their lower edges recessed to receive the lateral stops, the latter supplementing the slabs to complete the latter whereby the roof edge is uninterrupted and

the slab surfaces between the truss members 10 unobstructed.

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

WALTER C. BROUGHTON.

Witnesses:

F. G. FISCHER,
L. J. FISCHER.