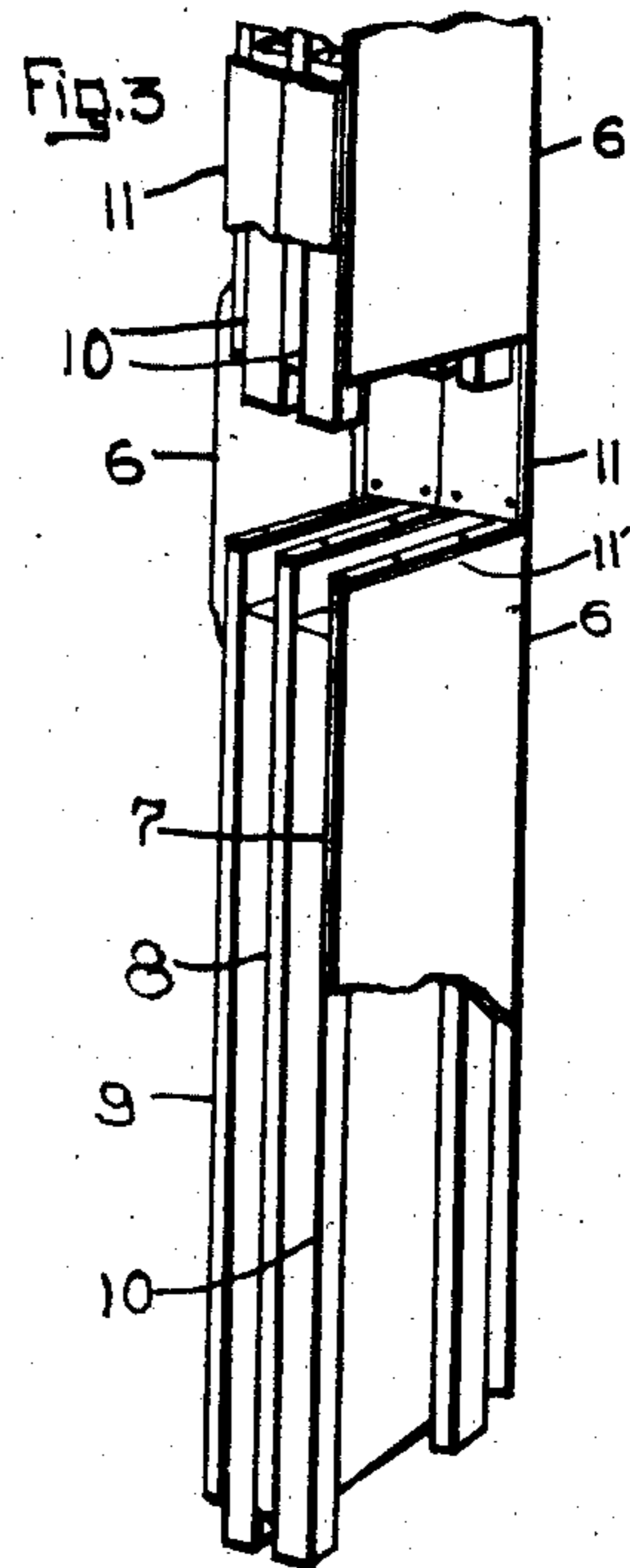
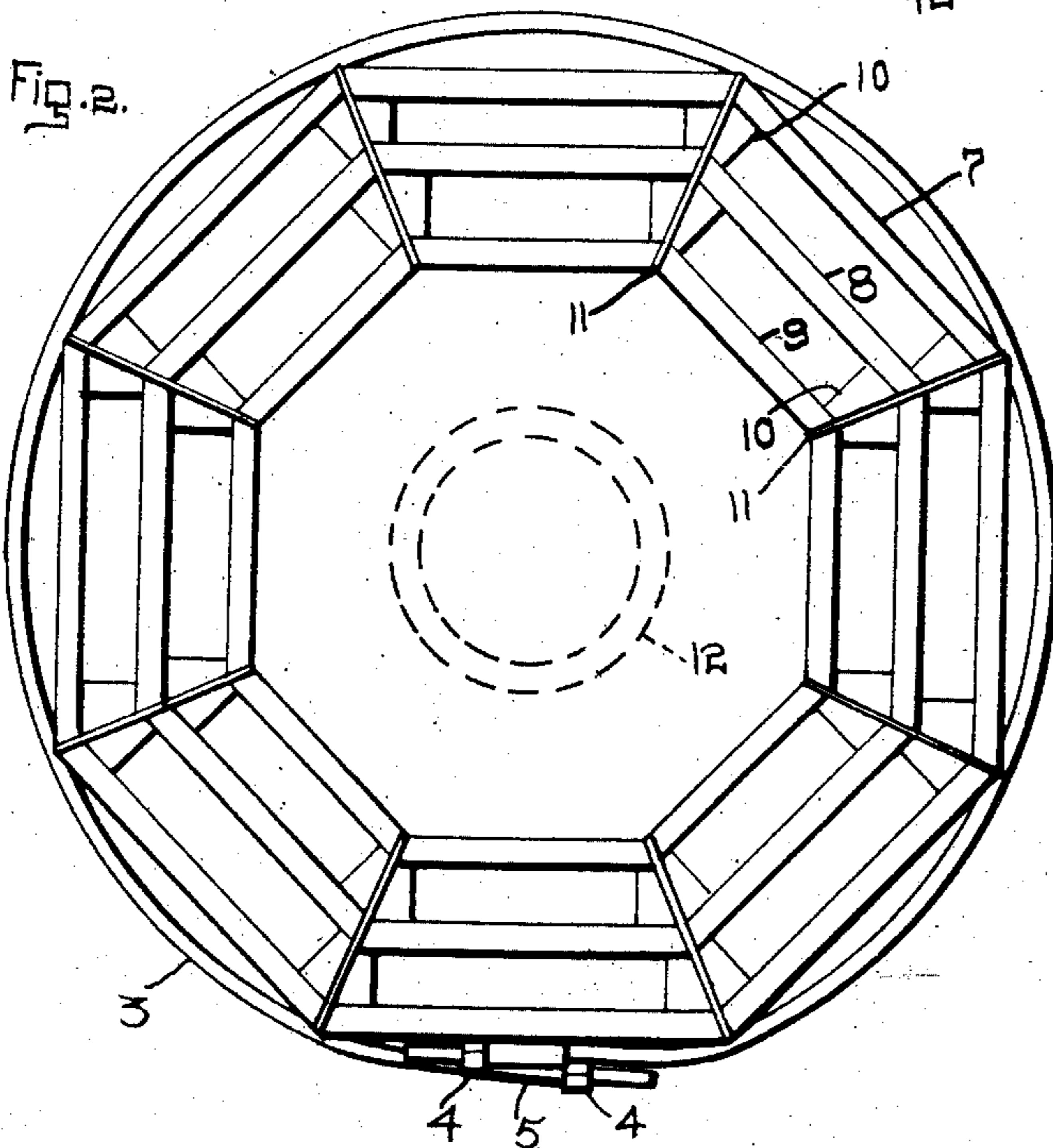
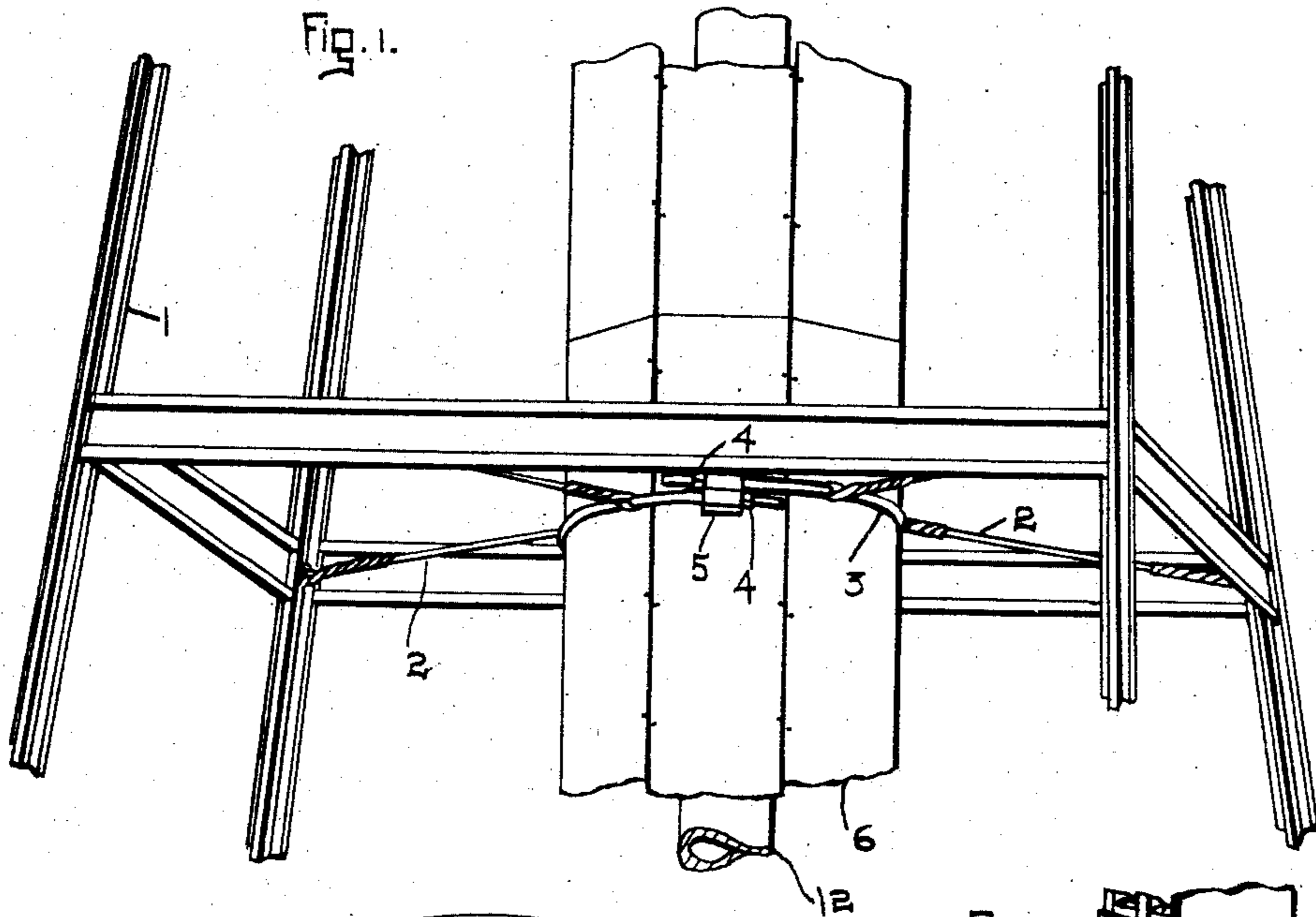


No. 854,366.

PATENTED MAY 21, 1907.

H. H. MACOMBER.
FROST PROOF CONDUIT.
APPLICATION FILED FEB. 16, 1907.



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FROST-PROOF CONDUIT.

No. 854,366.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed February 16, 1907. Serial No. 357,780.

To all whom it may concern:

Be it known that I, HERBERT H. MACOMBER, a citizen of the United States, residing at Kendallville, in the county of Noble and State of Indiana, have invented a new and useful Frost-Proof Conduit, of which the following is a specification.

This invention relates to an efficient non-conducting jacket.

This invention has utility when adapted to frost proof conduit construction, especially in connection with towers, as it may be rapidly assembled in position to provide tight surrounding dead air chambers.

The completed device is not only slightly, but most compact and rigid, and susceptible of ready guying to maintain the conduit concentric to the surrounded pipe, as well as properly spaced from the tower.

Referring to the drawings: Figure 1 is a fragmentary perspective view of an embodiment of the invention as a frost proof conduit in a tower; Fig. 2 is a plan view of an assembled section of the conduit or jacket; and Fig. 3 is a perspective view with parts broken away showing construction of the air space units of the conduit and the packing, also the longitudinal interlocking means for the sections.

The steel tower 1 is shown diagrammatically, and is such a structure as is usual to support water storage tanks for sprinkler systems or other uses. Attached to the tower 1 are the guy wires 2 engaging the hoop 3. Nuts 4 engage block 5 to draw up hoop 3, thus constituting a surrounding means for the jacket or conduit 6.

The jacket 6 comprises a plurality of segmental units each having parallel walls 7, 8, 9, which walls are held apart by spacing means 10. Accordingly there are chambers between each pair of walls which serve as dead air spaces. The number of parallel walls may be varied to suit the particular conditions of the installation, for cold regions the three-wall unit is satisfactory, while in a milder climate the two-wall unit will answer. In building of wood, the spacing means 10 serve as nailing strips for holding the walls of the unit as well as for nailing the abutting edges of the units. While the hoops 3 serve to draw the units together in assembling, some of them are left in position

throughout the tower length to hold the conduit or jacket assembled and also afford guying means. By nailing the units together, fewer hoops are required and warping is prevented.

Intermediate each pair of rigid air space units is interposed a compressible unit or packing 11 which may be of haircloth. In practice the compressible units are attached to the rigid units at one side thereof, or both sides, so that in drawing the rigid units into position the packing effectually closes the joints.

In erecting about the member to be protected from temperature change, as pipe 12, the rigid segmental units are arranged alternately with the compressible packing 11, and a hoop brought into position to surround and draw the parts into close relation. Nailing of abutting units may then occur and the hoop be moved along the section. At the section ends of the units is compressible packing 11'. The spacing members, in the construction disclosed, are short of the walls at one end and extend beyond at the other, thereby providing a means for longitudinally interlocking the sections, which sections may be of any convenient length.

While requiring but a minimum quantity of lumber, the jacket is effective as a non-conductor for the air chambers in the units are tight as is also the air space surrounding the pipe 12. The hoops while affording convenient means for attaching the guy wires, may be tightened to take up shrinkage at any time and keep the construction in as effective condition as when first installed. In attaching the guy wires, the conduit is not only firmly positioned as to the tower, but may be drawn and held in proper concentric relation as to the surrounded pipe 12.

If at any time it should become necessary to get at the inclosed pipe 12 for changing connections or repair, this may be readily accomplished without serious damage to the jacket. If there be a hoop at the portion where access to the pipe is desired, the hoop may be moved along or removed, a hole sawed in, and in the octagon formation as herein shown, removal of short sawed lengths of two or three units should permit of sufficient access. After change or repair is completed, the removed portions may be packed back in position and nailed, thus in

no wise detracting from the appearance or usefulness of the frost proof conduit.

The idea of the invention herein disclosed is not to be limited by the drawings and description to any greater extent than the ordinary meaning of the terms of the claims demand. In other words, the elements set forth in the claims are to be interpreted broadly, giving me the advantage of equivalents in the protection of my idea.

What is claimed and it is desired to secure by Letters Patent is:

1. A non-conducting jacket comprising alternately compressible units and independent rigid air chamber units and means firmly uniting the units.

2. A conduit comprising segmental air space units including parallel walls and a spacing strip for the walls terminating beyond the walls at one end and short of the walls at the other end.

3. A non-conducting jacket comprising independent segmental air space units, a non-

conductor packing interposed between the units, and a surrounding means for bringing and holding the units in position.

4. A non-conducting jacket comprising a plurality of longitudinally interlocking sections of segmental units.

5. A non-conducting conduit including longitudinally interlocking sections, said sections each comprising a plurality of air space units, and packing interposed between the sections.

6. A non-conducting jacket comprising segmental units having spaced walls, and spacing means for the walls extending beyond the walls to longitudinally interlock the units.

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

HERBERT H. MACOMBER.

Witnesses:

ALBERT H. MINOR,
JOHN E. LANG.