

H. ECK.
TOWER OR DERRICK FRAME.
APPLICATION FILED APR. 3, 1905.

2 SHEETS—SHEET 1.

FIG. 1.

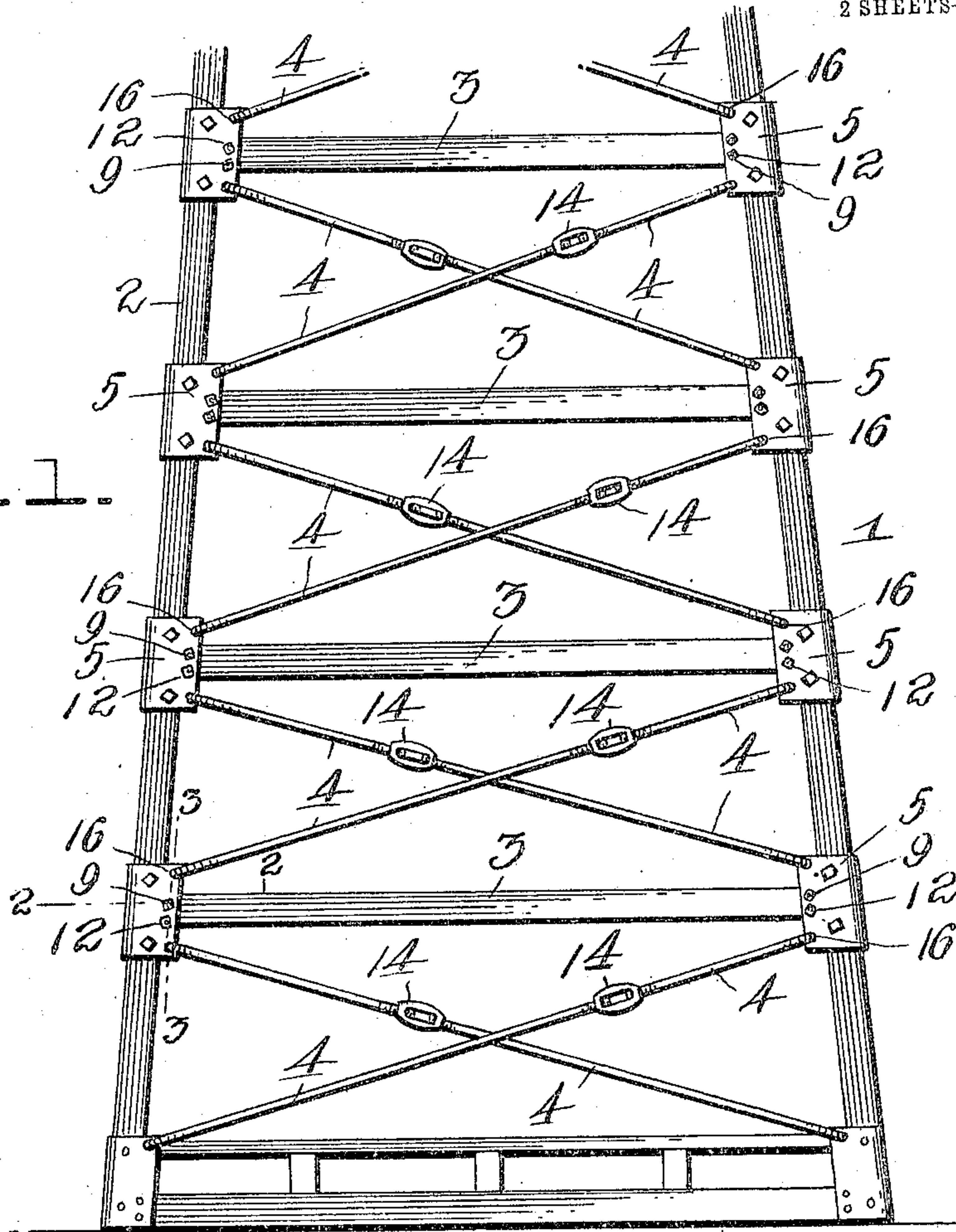


FIG. 2.

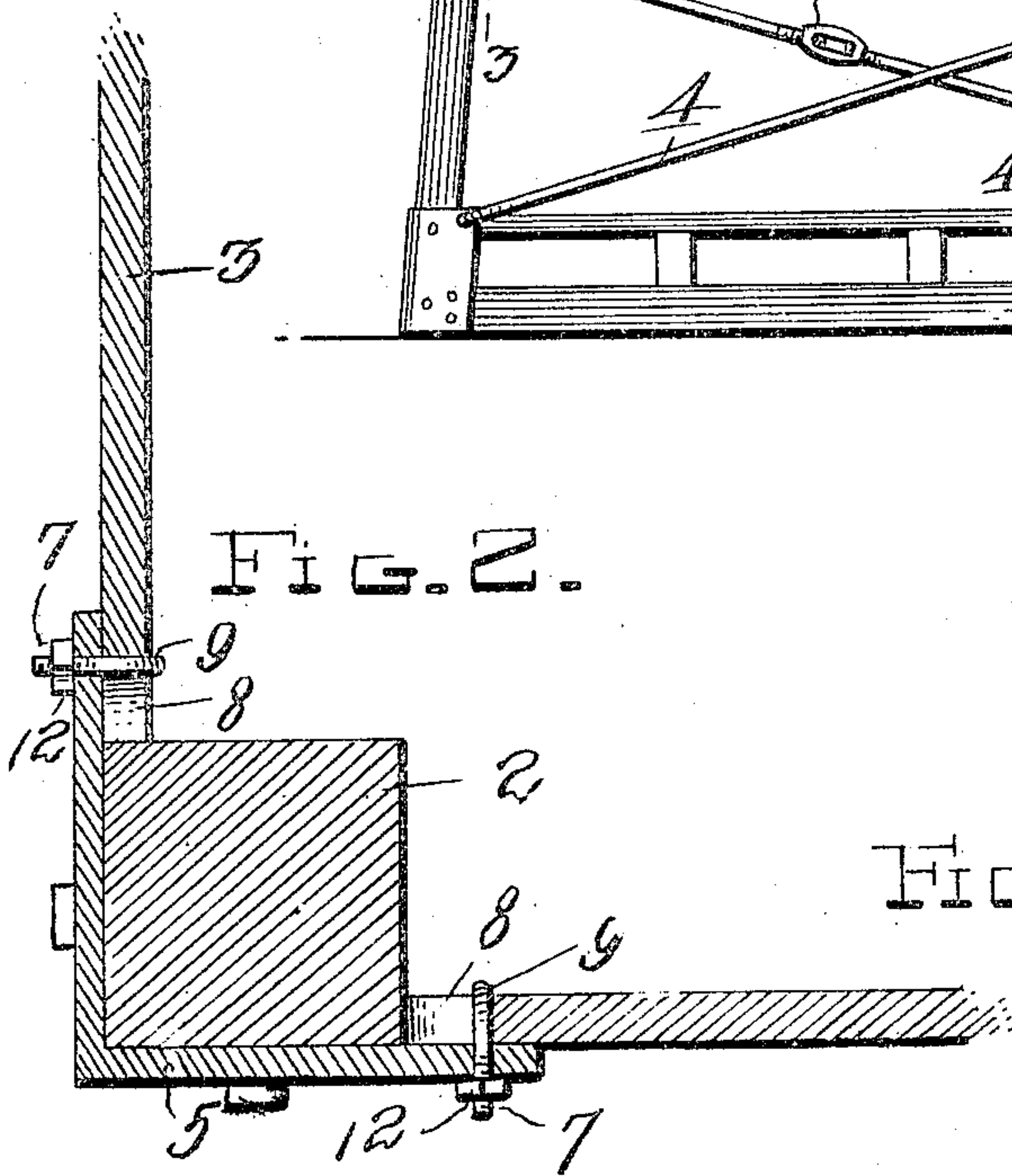
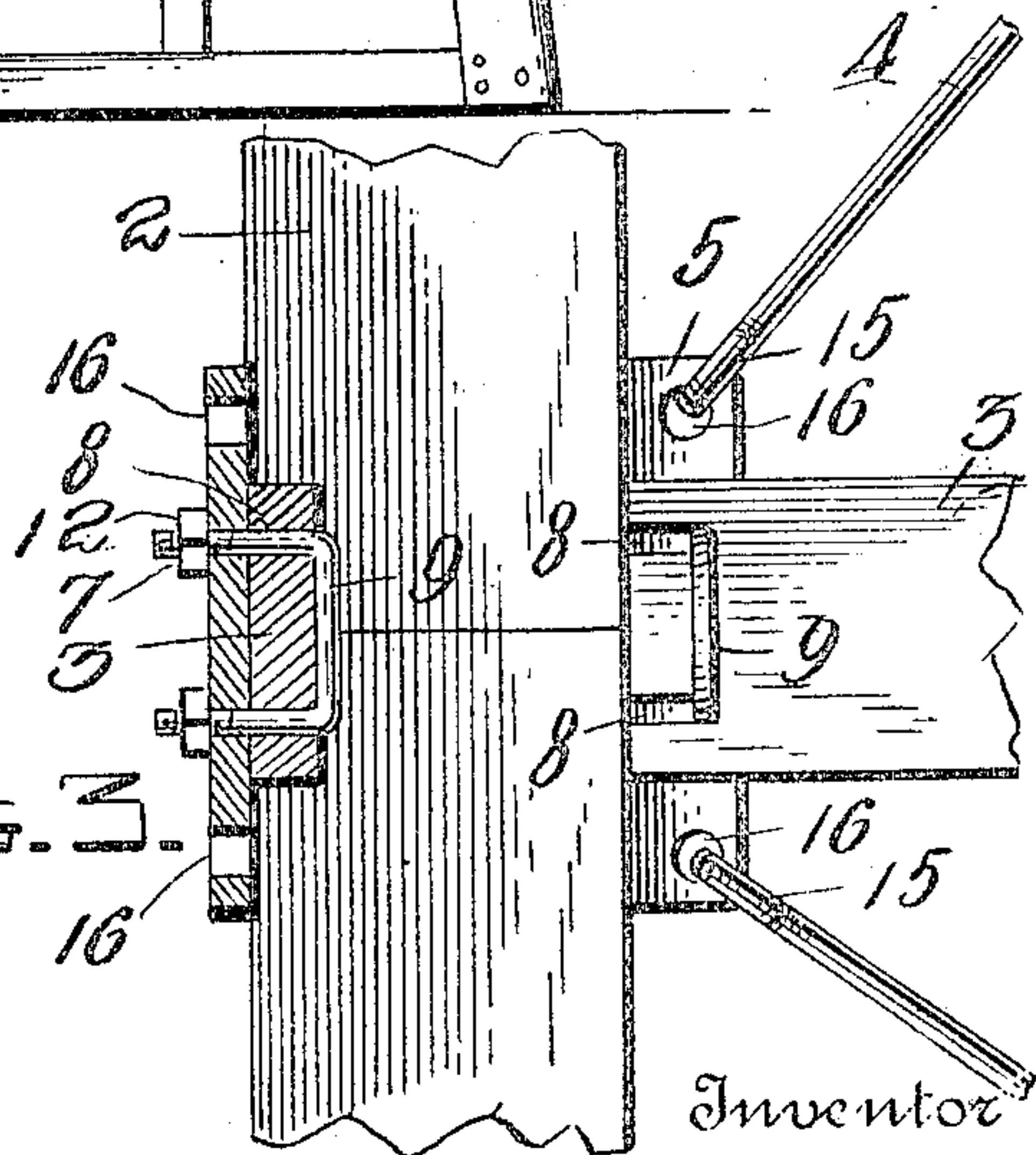


FIG. 3.

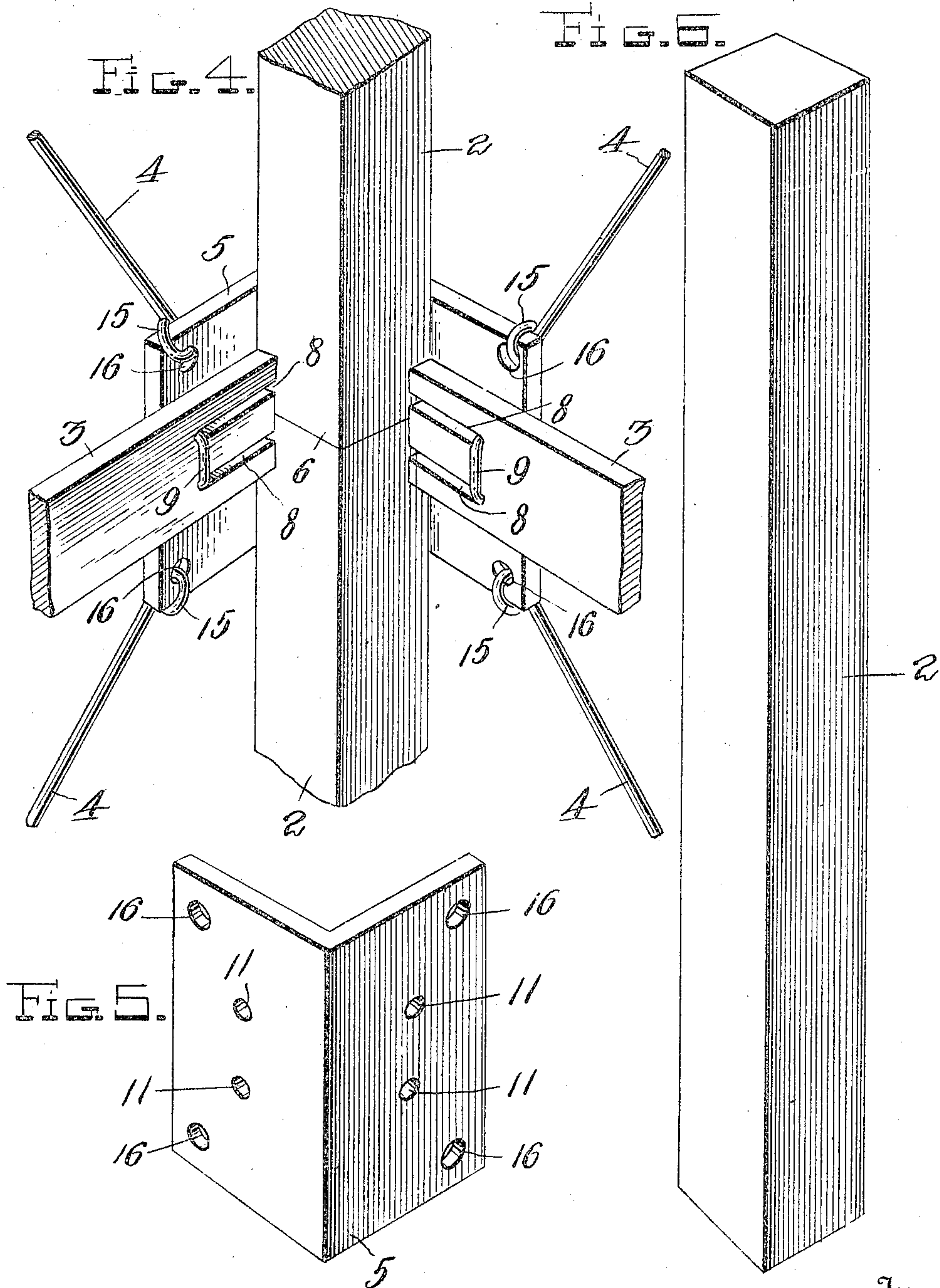


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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HENRY ECK, OF NOBLESVILLE, INDIANA.

TOWER OR DERRICK FRAME.

No. 798,021.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed April 3, 1905. Serial No. 253,681.

To all whom it may concern:

Be it known that I, HENRY ECK, a citizen of the United States, residing at Noblesville, in the county of Hamilton and State of Indiana, have invented certain new and useful Improvements in Tower or Derrick Frames; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in derrick frames, towers, and similar structures; and it consists in certain novel features of construction, combination, and arrangement of parts hereinafter described and claimed.

The object of my invention is to provide a structure of this character which is especially designed for supporting well-drilling apparatus, which has its component parts or sections so arranged and connected as to permit them to be readily assembled or taken apart for shipment or storage, and which when erected forms a strong and durable structure with an economy of material.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a derrick frame or tower constructed in accordance with my invention. Fig. 2 is a horizontal sectional view through the same, taken on the line 2 2 in Fig. 1. Fig. 3 is a detail vertical sectional view taken on the line 3 3 in Fig. 1. Fig. 4 is a detail perspective view of the inner side of one of the corner joints or connections. Fig. 5 is a perspective view of one of the angle-plates, and Fig. 6 is a similar view of one of the corner-posts.

Referring to the drawings by numeral, 1 denotes a portion of a derrick-frame which is particularly adapted for supporting well-drilling apparatus and which consists of four corner-posts 2, united by girths or connecting-bars 3 and by crossed diagonal brace-rods 4. The corner-posts 2 are preferably formed of sections of lumber which are placed end to end and connected together at the ends of the girths 3, which latter are also preferably of wood. The connection of these parts is clearly shown in Fig. 4 of the drawings and consists in providing angle-plates 5 upon the outer faces of the abutting ends of the sections 6 of the post 2. These plates are preferably bolted

to the sections 6, as shown at 7, and their sides project inwardly to receive the ends of the girths 3, which bear against the sections 6. The girths are also detachably connected, preferably by forming in their ends slots 8, which are engaged with U-shaped bolts 9. The ends or arms of these bolts pass through openings 11, formed in the angle-plate 5, and receive nuts 12, by means of which the girths are firmly clamped in position.

Each of the brace-rods 4 consists of two sections 13, which have their inner ends screw-threaded to receive a turnbuckle 14, and their outer ends formed with hooks 15, which are engaged with openings 16, formed in the corners of the angle-plates 5. By adjusting the turnbuckles 14 said rods may be varied in length to bind the parts of the structure firmly together.

The construction, use, and advantages of my invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings.

It will be seen that a derrick constructed in this manner will effect a great saving in lumber and will be very much stronger than one which is nailed together. It may also be more quickly erected, and there will be no waste or loss of material when it is taken down for the purpose of storage or transportation.

While I have shown and described the preferred embodiment of my invention, it will be understood that I do not wish to be limited to the precise construction herein set forth, since various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A structure of the character described, comprising corner-posts, girths or connecting-bars having slots in their ends, angle-plates secured upon the outer faces of said post and engaged with said girths, fastening devices engaged with the slots in said girths and projecting through said plates, and adjustable braces connecting said angle-plates.

2. A structure of the character described, comprising posts, girths or connecting-bars having slots in their ends, angle-plates secured upon the outer faces of said posts and engaged with said girths, U-shaped bolts passed through said slots and through openings in

said angle-plates, and adjustable diagonal braces connecting said angle-plates.

3. A corner-fastening comprising a sectional corner-post, an angle-plate secured upon said post at the meeting ends of two of its sections, girths or connecting-bars abutting against the adjacent ends of two of the post-sections and said angle-plates, said girths having their ends slotted, and U-shaped bolts en-

gaged with said slots and passed through said angle-plates, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY ECK.

Witnesses:

EDGAR ECK,

THOS. E. KANE.