W. T. DONNELLY.

FLOATING DRY DOCK.

APPLICATION FILED JUNE 12, 1908.

920,283.

Patented May 4, 1909.

2 SHEETS—SHEET 1.

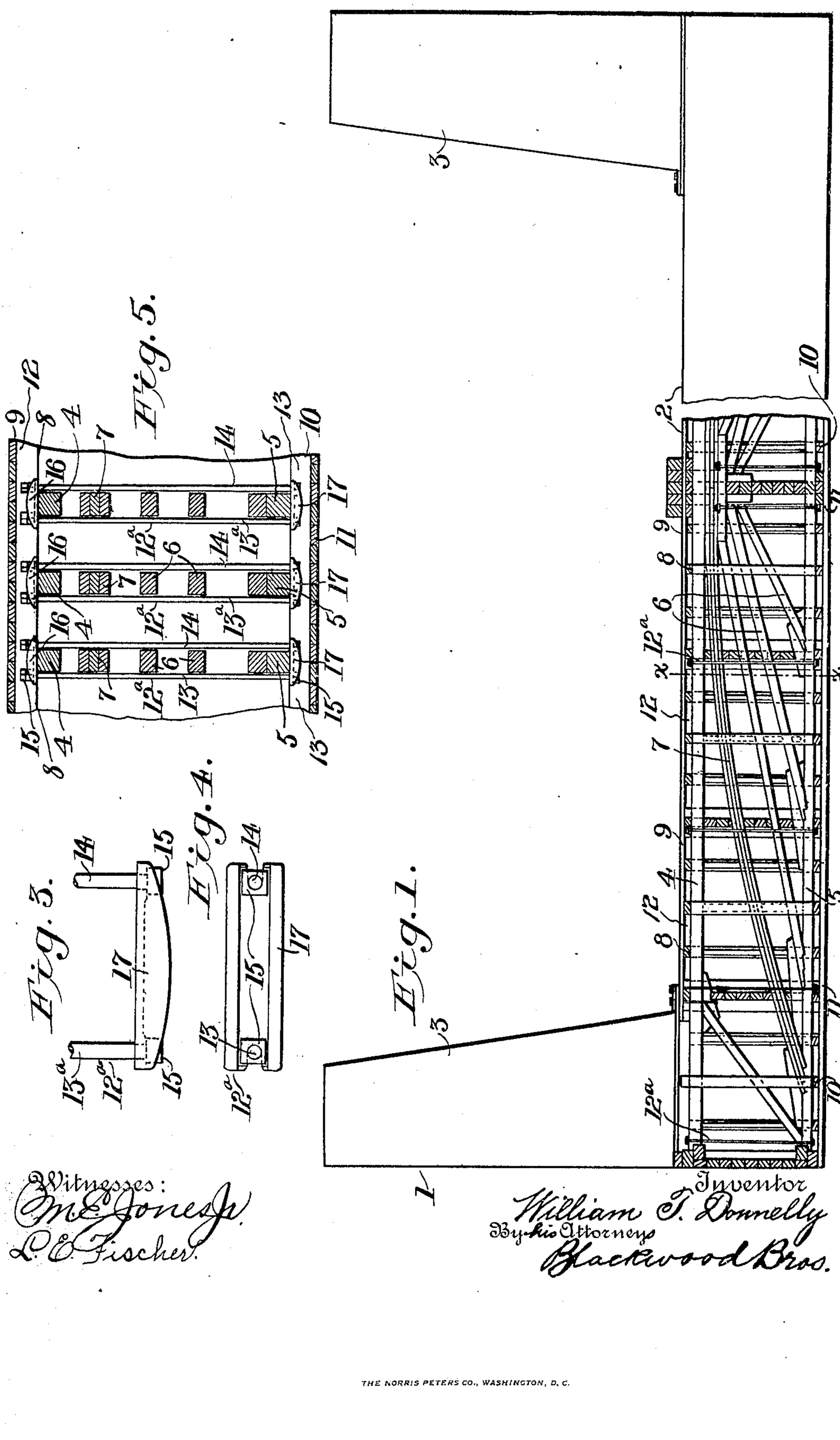

Fig. 1.

Fig. 5.

Fig. 3.

Fig. 4.

Witnesses:
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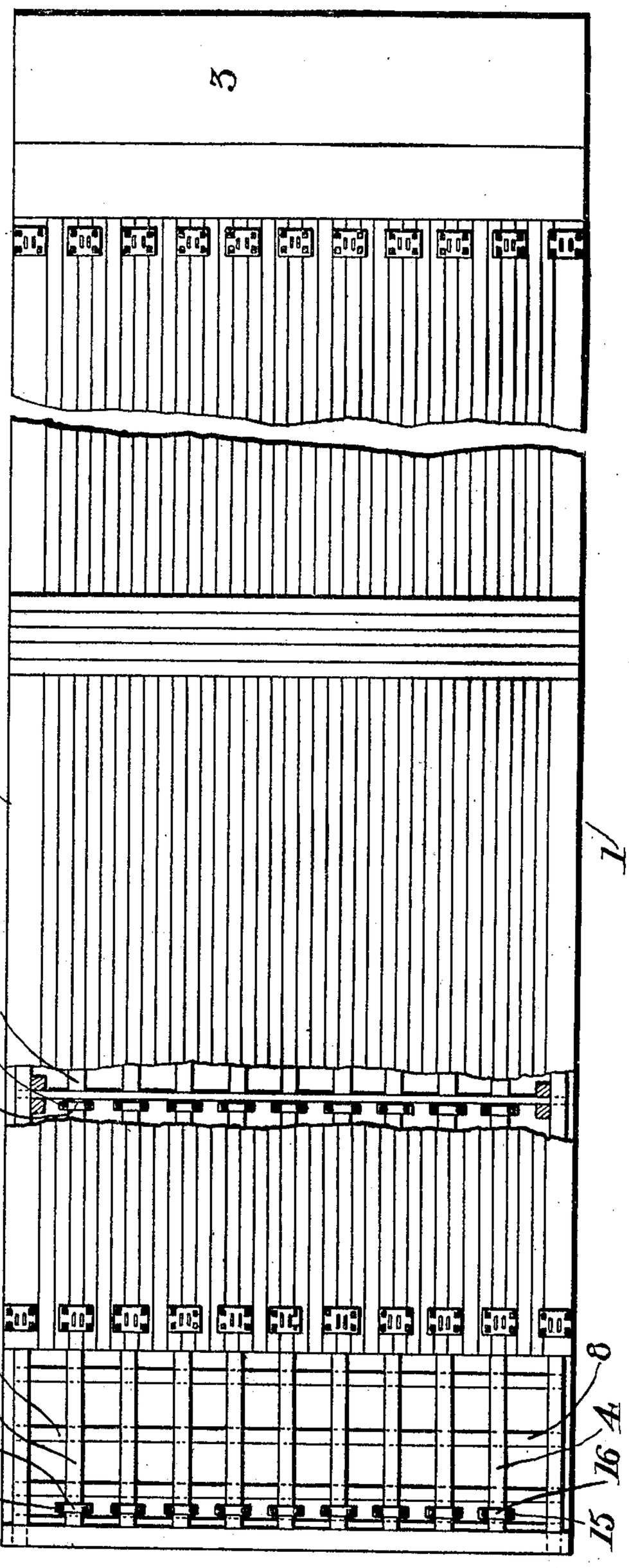
Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM THOMAS DONNELLY, OF BROOKLYN, NEW YORK.

FLOATING DRY-DOCK.

No. 920,283. Specification of Letters Patent. Patented May 4, 1909.

Application filed June 12, 1908. Serial No. 438,143.

To all whom it may concern:

Be it known that I, WILLIAM THOMAS DONNELLY, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Floating Dry-Docks, of which the following is a specification.

My invention relates to improvements in floating dry-docks and more especially to dry-docks constructed of wood.

It is a well known fact that wood immersed in water will not deteriorate with age and that fastenings, such as drive bolts and spikes, when inserted so as to be completely inclosed in wood will last indefinitely, but it is also well established by practice that large tension rods used to hold and clamp together the several timbers, such as beams trusses &c., used in connection with the construction of pontoons are a necessary part of such structures and that it is impracticable to insert rods in or through the timbers to protect them as they will weaken them.

In the construction of the pontoons by my invention I arrange the members so that the tension rods are wholly on the outside of said members and can be removed at any time without disturbing the structure of the dock.

My invention has for its object to provide means for bracing, strengthening, stiffening and binding together the several trusses, floor beams &c., of a wooden pontoon so that a very rigid structure is maintained and to so arrange such means that it can be renewed at any time.

It further has for its object to provide a dock which is simple, durable and strong in construction.

In the drawings:—Figure 1, is an end elevation of a wooden dry-dock with a portion of one of the pontoons in section. Fig. 2, is a top plan view of one of the pontoons, one end being shown in section. Fig. 3 is a side view of one of the plates or stirrups. Fig. 4, a bottom plan view of the plate or stirrup. Fig. 5, is a transverse section on the line *x*—*x* of Fig. 1 of a portion of the pontoon.

In the drawings in which like numerals of reference denote like parts throughout the several views, 1 represents the floating dry-dock which as shown is composed of wood and provided with pontoons 2 and sides or wings 3.

The side walls or wings are mounted on the pontoons in the usual manner. Each of the pontoons is provided with a truss which comprises longitudinal top and bottom beams 4 and 5 respectively, diagonal braces 6 and an arched member 7. Supported on the top beams 4 are a series of transverse beams 8, arranged at intervals, to which the deck planking 9 is secured. The bottom beams 5 have a series of transverse beams 10 secured to them, at intervals, and to said bottom beams the bottom planking 11 of the pontoon is secured.

By the above construction spaces 12 are formed between the top beams 4, deck planking 9 and transverse beams 8, of the truss and spaces 13 between the bottom planking 11, transverse beams 10 and bottom beams 5.

A series of tension members 12^a are provided for clamping or holding the several members of the pontoon together, said members comprising tension rods 13^a and 14 having nuts 15, and plates or stirrups 16 and 17 connecting the ends of said rods and designed to bridge the beams 4 and 5 of the pontoons.

The spaces 12 and 13 are especially provided to afford sufficient space for the placing of the rods and plates of the several tension members and to provide easy access to the nuts on said rods so that they can be readily unscrewed and the rods and plates removed.

I do not desire to be understood as limiting myeslf to the specific details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

What I claim is:—

1. In a floating dry-dock, pontoons having longitudinal top and bottom beams, transverse deck beams with deck planking thereon, said top and bottom beams and deck beams arranged to leave a space between

them, a plate placed over each of said longitudinal top and bottom beams, and rods connecting said plates and clamping them against said top and bottom beams, substantially as described.

2. In a floating dry-dock, pontoons comprising transverse beams at top with spaces between them, transverse beams at the bottom with spaces between them, longitudinal beams at the top and bottom, a truss member, diagonal braces, and tension members having plates that are mounted on and bridge the longitudinal beams in the spaces between the transverse beams, substantially as described.

3. In a floating dry-dock, pontoons having transverse beams at the top with spaces between them, transverse beams at the bottom with spaces between them, longitudinal beams at the top and bottom, truss members, braces, and a rod on each side of said longitudinal beams, a plate mounted and bridging the top of the top longitudinal beam and a plate mounted on and bridging the bottom longitudinal beam, said plates being connected by means of the rods, substantially as described.

In testimony whereof, I have signed my name in the presence of two subscribing witnesses.

WILLIAM THOMAS DONNELLY.

Witnesses:
WM. H. ZANTZINGER,
A. L. ANDERSON.