

(No Model.)

S. N. STEWART.
PONTON BRIDGE.

No. 407,422.

Patented July 23, 1889.

Fig. 2.

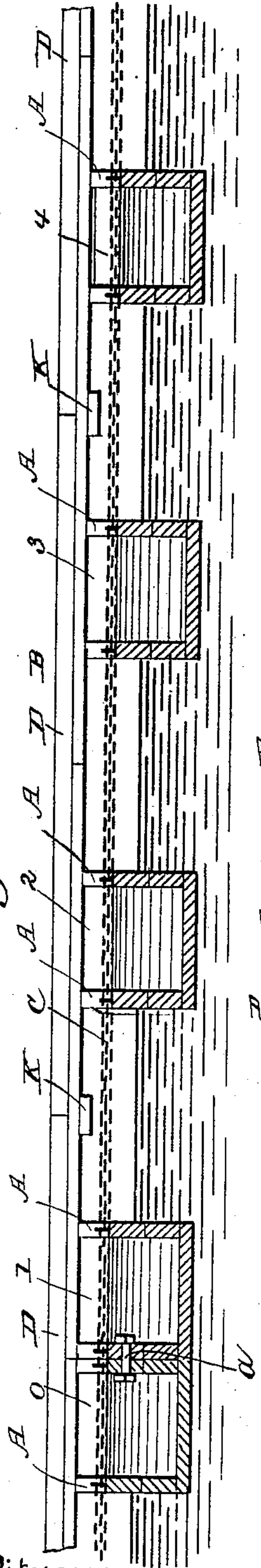


Fig. 1.

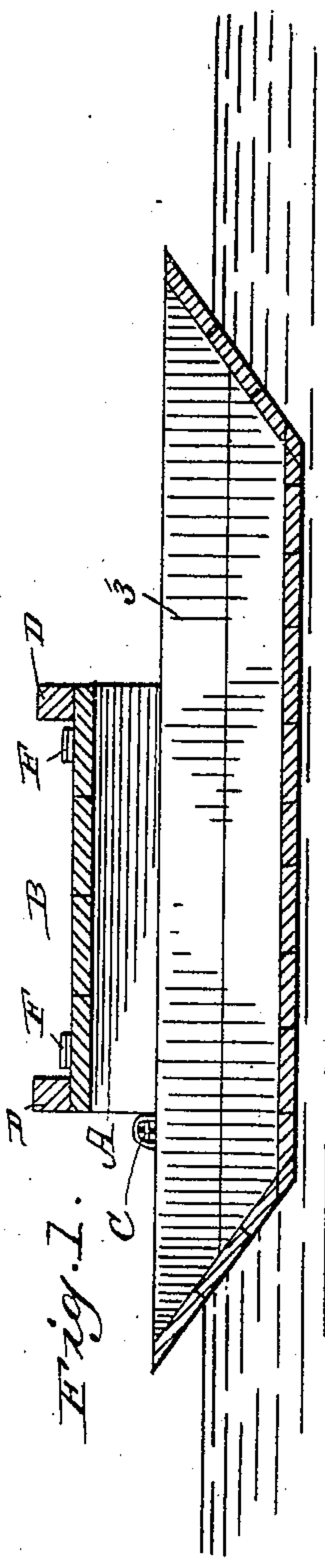
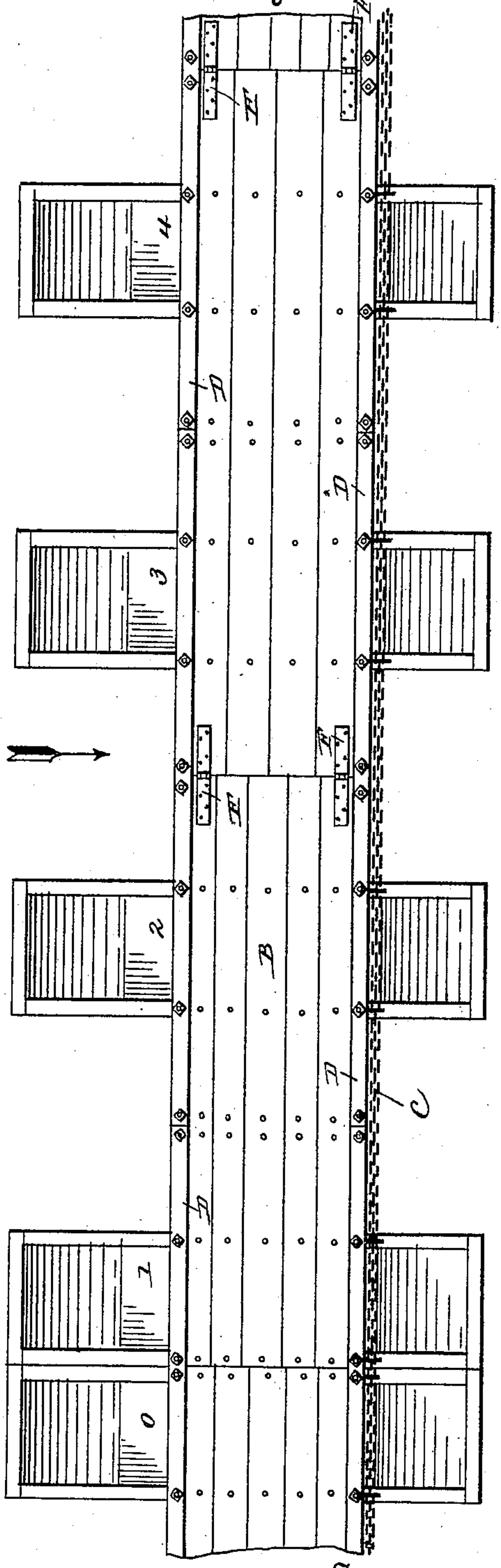


Fig. 3.



Witnesses
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SYLVESTER N. STEWART, OF PHILADELPHIA, PENNSYLVANIA.

PONTON-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 407,422, dated July 23, 1889.

Application filed March 15, 1889. Serial No. 303,462. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER N. STEWART, of Philadelphia, in the State of Pennsylvania, have invented certain new and useful
5 Improvements in Ponton-Bridges, of which the following is a specification.

My invention may be stated to consist of mainly a ponton-bridge composed, essentially, of pontoons or scows assembled in the form of
10 catamarans in conjunction with a roadway supported on and carried by said catamarans.

It also consists in certain details directed to the joining of the parts of the bridge and to providing a road way or bed elevated above
15 the bodies or hulls of the pontoons or scows to permit the passage thereunder of trees and other drift which may be carried by the stream.

In the accompanying drawings, Figure 1 is
20 a side elevation of one of the scows or pontoons with the road bed or way thereon in section. Fig. 2 is a side elevation of the bridge with the pontoons in cross-section on line 2 2, Fig. 1. Fig. 3 is a plan of the structure.

25 The pontoons or scows may be of any suitable construction. In the form represented in the drawings they are without decks, save such as furnished by the road way or bed. Upon the gunwales of the pontoons are erected
30 planks or supports A of a length equal to the width of the roadway B. The planks constituting the roadway are laid upon the supports crosswise of the pontoons. The object and effect of this construction are to ele-
35 vate the roadway above the water sufficiently to permit the free passage thereunder of drift, floating trees, &c.

The hulls or pontoons are assembled in the form of catamarans, as shown. For example,
40 the two hulls 1 and 2 constitute one catamaran, of which the deck is in this instance the roadway. The planks forming the roadway extend across from hull to hull and are firmly spiked or otherwise secured to both of them.
45 Hulls or scows 3 4 constitute another catamaran, &c. In order to make a bridge of these catamarans, they are brought together, or nearly together, side by side, as shown, so that their roadway will join, and are securely
50 fastened together in this position. The ad-

joining scows or hulls of two contiguous catamarans may be brought closely together with their sides in contact, as shown at 0 1, and they may be bound together in this position by bolts *a* or other fastenings, which pass
55 through their sides, or they may be set at some distance apart, as shown at 2 3. In the latter instance the decks of the catamarans project laterally far enough to bridge the space between adjoining catamarans. 60

K are stays which extend crosswise of and bind together the planks of the roadway. The catamarans and the sections of the roadway which they carry are bound together by stringers D, preferably of hickory. These
65 stringers bound the roadway on each side, each stringer extending from about the middle of one catamaran to the middle of the next and being firmly bolted or otherwise secured to the same. Large strap-hinges F are
70 also used at the meeting-point of adjoining sections of the roadway; and in order to still further insure the permanency of the structure the catamarans are bound together also by one or more chains or wire ropes C
75 stretched lengthwise of the bridge and secured by staples or other fastenings to the hulls of the catamarans.

On the score of simplicity and economy I prefer that the decks of the catamarans shall
80 also form the roadway; but if desired the roadway may be a structure separate and distinct from the parts which unite the pontoons as catamarans.

In practice the roadway is located slightly
85 nearer to the stern than to the bow of the ponton in order to raise the bow slightly, so as to facilitate ice passing under the ponton.

What I claim herein as new, and desire to
90 secure by Letters Patent, is as follows:

1. The catamarans or pontoons and the sectional roadway thereon, in combination with the stringers or binders D, extending each
95 from about the middle of one section of the roadway to the middle of the next adjoining section, as described.

2. The combination of the catamarans or pontoons, the sectional roadway thereon, the longitudinal stringers or binders D, and the 100

transverse stays K for stiffening and binding together the roadway, substantially as described.

5 3. The catamarans or pontons, in combination with the sectional roadway thereon, the stringers or binders D, the chain or rope C, and the hinges F, substantially as described.

In testimony whereof I have hereunto set my hand this 14th day of March, 1889.

SYLVESTER N. STEWART.

Witnesses:

EWELL A. DICK,

WILL. E. AUGHINBAUGH.