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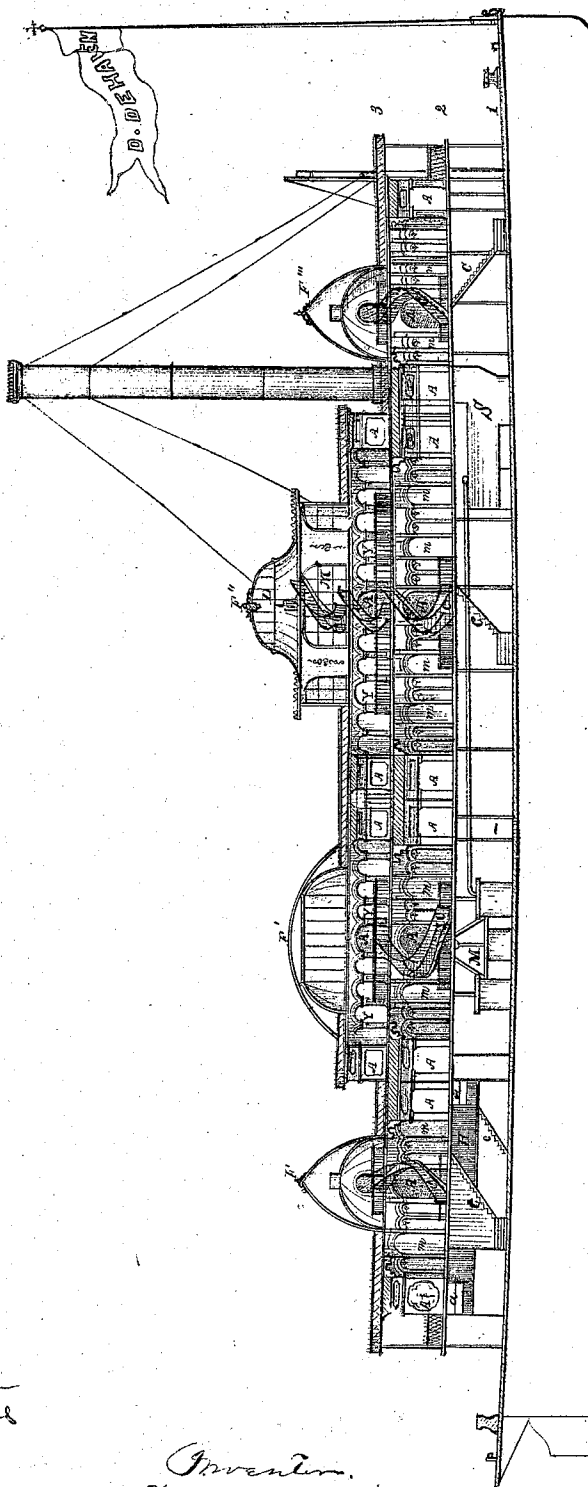
*4, Sheets, Sheet 1.*

*Ship Building.*

*No. 105,438.*

*Patented July 19, 1870.*

*Long. Vert. Sec. Annuelskip.*



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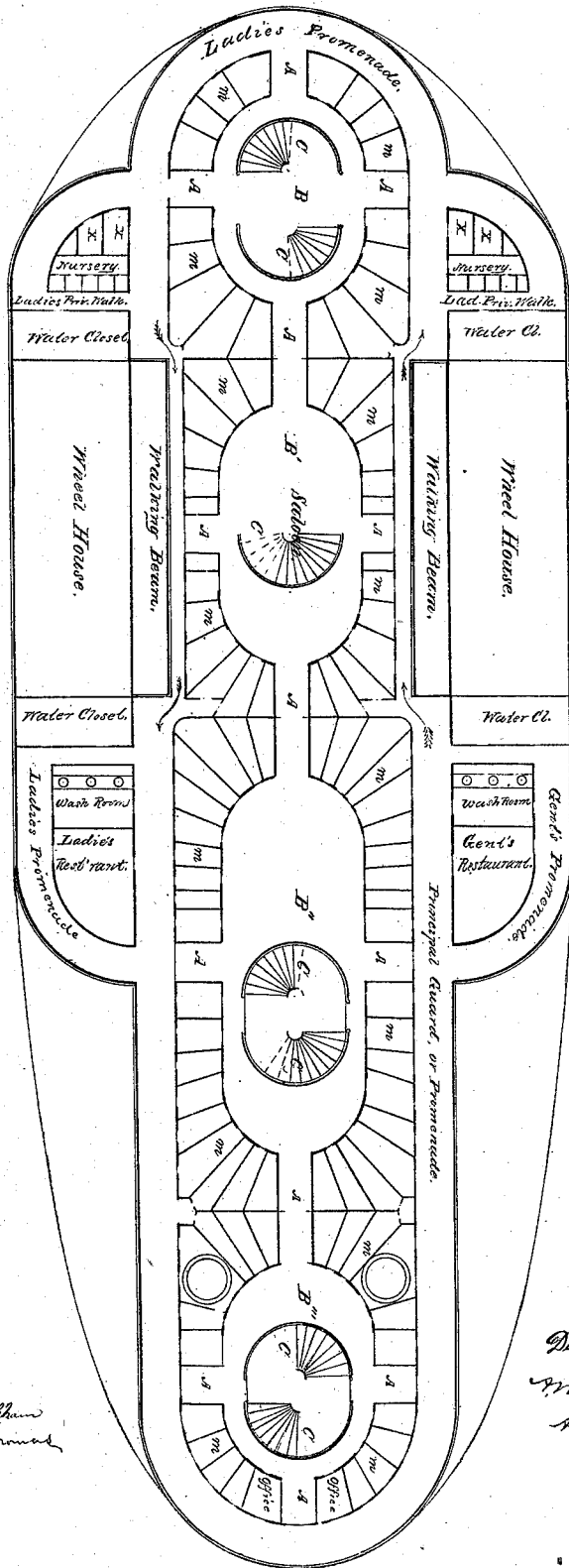
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*4, Sheets, Sheet 2.*

*Ship Building.*

*No. 105,438.*

*Patented July 19, 1870*



*Plan of Boiler Deck.*

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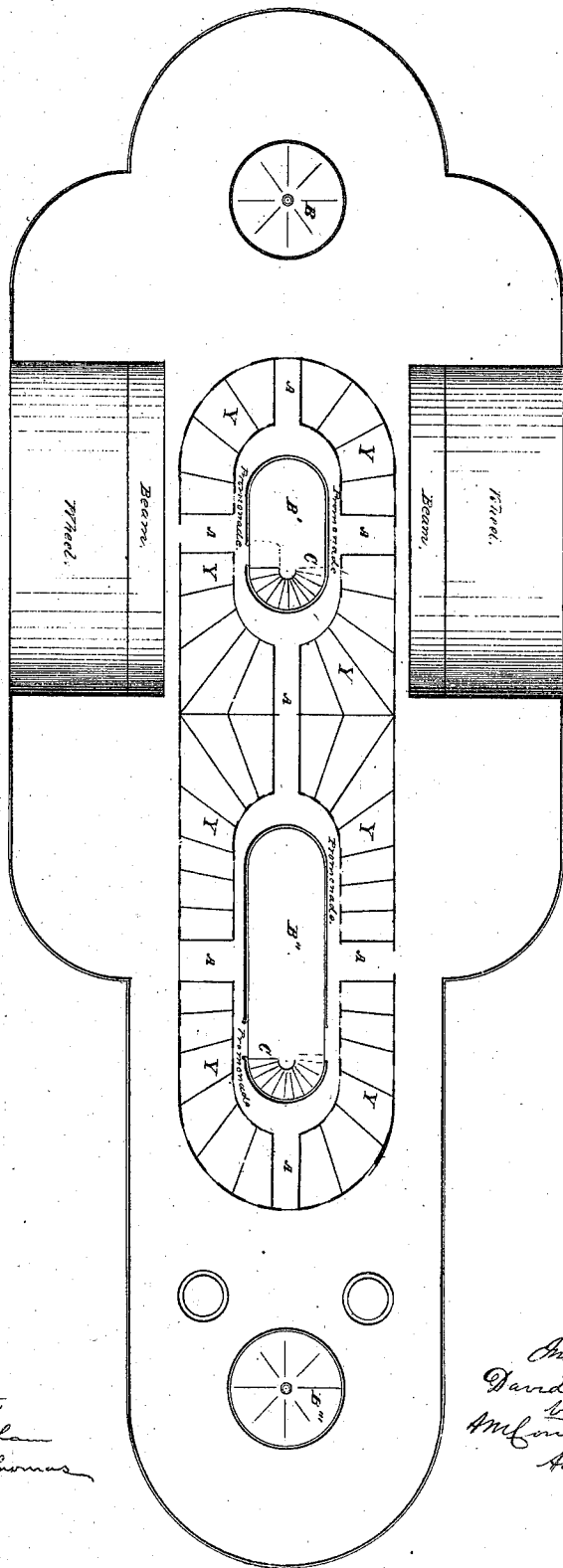
*4 Sheets, Sheet 3.*

*Ship Building.*

*No. 105,438.*

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*Plan of Hurricane Roof.*



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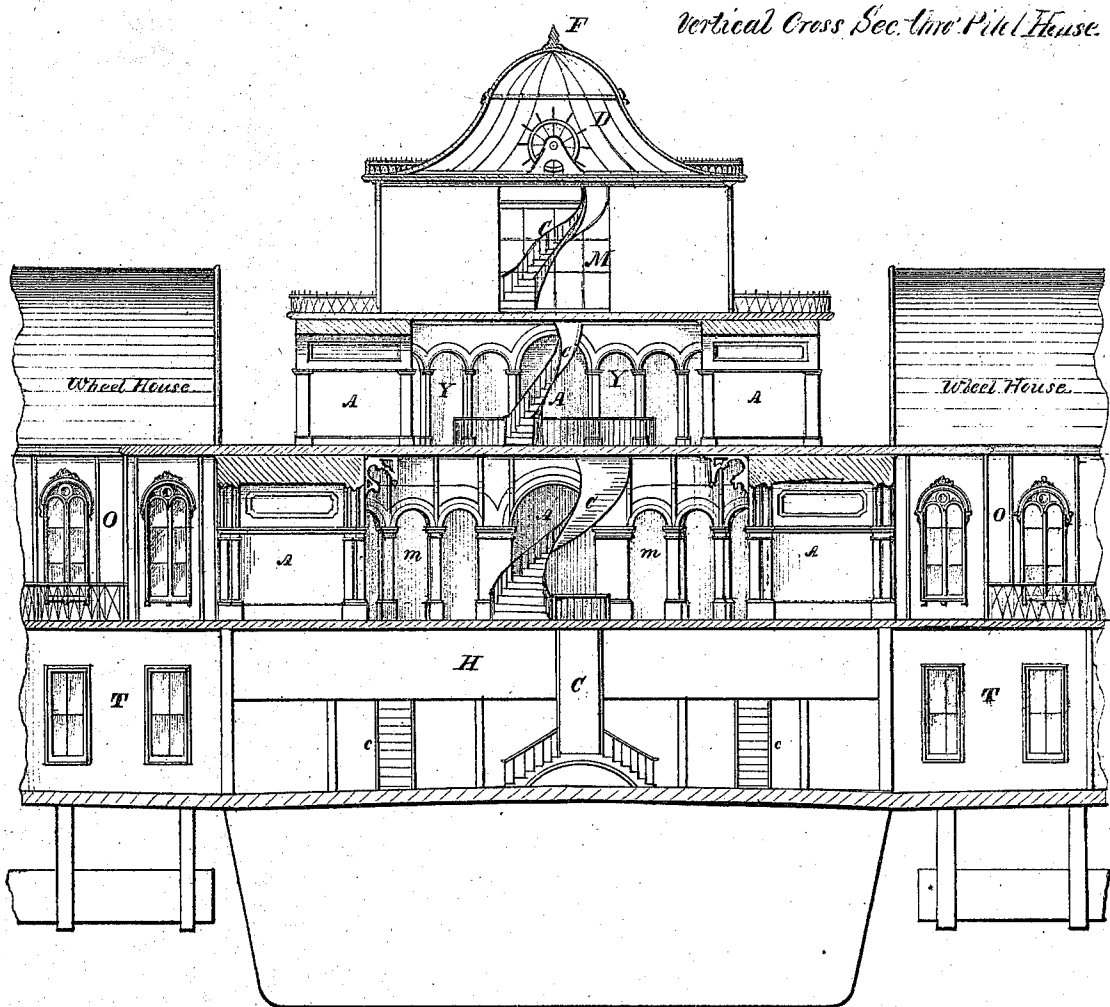
*D. De Haven,*

*4. Sheets, Sheet 4.*

*Ship Building.*

*No. 105,438.*

*Patented July 19, 1870.*



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# United States Patent Office.

DAVID DE HAVEN, OF NEW ORLEANS, LOUISIANA.

Letters Patent No. 105,438, dated July 19, 1870.

## IMPROVEMENT IN ARRANGEMENT OF UPPER WORKS IN RIVER STEAMERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, DAVID DE HAVEN, of New Orleans, in the parish of Orleans and State of Louisiana, have invented an Improved Arrangement of the Upper Works of Steamboats, of which the following is a specification, reference being had to the accompanying drawing, making part of the same—

Plate 1 being a longitudinal vertical section of the same amidship.

Plate 2, a plan of the boiler-deck or main cabin-floor.

Plate 3, a plan of the hurricane-roof, on a level with the second-class-cabin floor.

Plate 4, a transverse vertical section through the pilot-house, looking aft.

Like letters of reference designate corresponding parts in all the plates.

The main feature of my invention consists in forming the cabin of a series of rotundas, extending fore and aft, connected with each other and with the outer guards and promenades, by means of arched passageways, and surrounded by glazed domes or sky-lights, for the purpose of light and ventilation.

The bulkheads of the state-rooms or berths conform to the curvature of the rotundas within, and to the form of the promenade without, the dividing partitions radiating in a manner similar to that indicated on the plans.

The accommodations for passengers will be divided into three classes.

The first-class cabin will occupy the boiler-deck, (see plan, plate 2,) and a suitable proportion of the rooms may have sliding partitions or bulkheads, so that several rooms may be thrown into one for the accommodation of parties travelling in company.

The second-class cabin is located over the middle of the first, and occupies the hurricane-roof, (see plate 3,) but extends longitudinally only over the two middle rotundas. The rooms in this cabin will be single.

The third-class cabin is located between the first or main deck and the boiler-deck, at the after part of the boat.

In the drawing—

S and M indicate respectively the position of the boilers and engines on the main deck.

A A A are arched passages, provided with sash-doors, connecting the rotundas B B' B" B''' with each other and with the outer guards or promenades.

The state-rooms or berths *m m* (one only of each section lettered) of the first-class cabin open into the rotundas interiorly, and onto the promenades exteriorly.

X X indicate the location of the laundry and cham-

bermaid's rooms; and the various promenades, nurseries, ladies' and gentlemen's restaurants, wash-rooms, and water-closets, are clearly indicated by full name lettering on the plan, plate 2, as is also the position of the walking-beams, should engines of this class be used.

In plate 3 is shown a plan of the second-class cabin, in which Y Y indicate the position of the rooms, one only of each section being lettered.

M' (see plates 1 and 4) is the officers' quarters, usually called the Texas, and over this is the pilot-house D.

The glazed domes over the rotundas are shown at F F' F" F'''

An important feature in my system of construction consists in the arrangement of the stairways C C in the several rotundas. Those above the boiler-deck are spiral in form.

Three ample stairways lead from the boiler-deck to the main-deck, which serve to furnish ready egress for passengers in case of accident.

Four ample spiral stairways lead from the boiler-deck to the hurricane-deck and second cabin, one from the second cabin to the Texas, and one from there to the pilot-house.

Two smaller straight flights of stairs, *c c*, lead from the main deck to the third-class cabin.

O O, plate 4, are the restaurants for ladies' and gentlemen, situated on the boiler-deck; and

T T are the cook-houses on the main deck.

The arrangement of the cabin, as shown, secures greater privacy and comfort for lady passengers, and greater safety for all, in case of accident, than the ordinary mode of construction in use at the present time, and is peculiarly adapted to the European plan of living, so rapidly coming into use.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the upper-works of a steamboat, in the form shown, having a series of rotund cabins, B B' B" B''', extending fore-and-aft, connected with each other and with the promenades, by means of arches A A, and surrounded by the rooms *m m* Y Y, the said rotundas being provided with spiral stairways C C, for ingress and egress, and surmounted by glazed domes F F' F" F''', in the manner and for the purposes set forth.

Witness my hand this 23d day of December, 1869.

DAVID DE HAVEN.

Witnesses:

HENRY CONNETT, Jr.,  
O. V. FLORA.