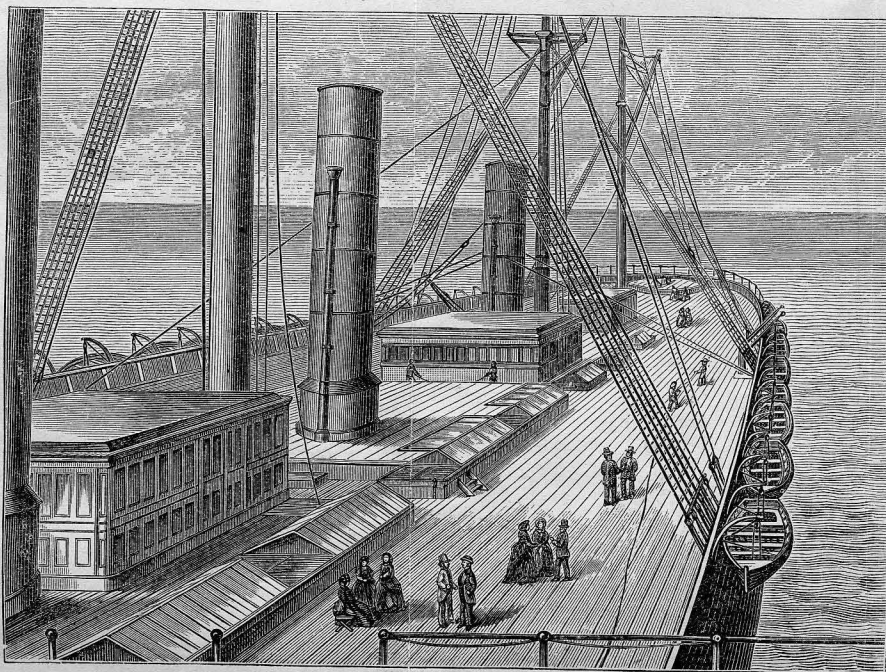
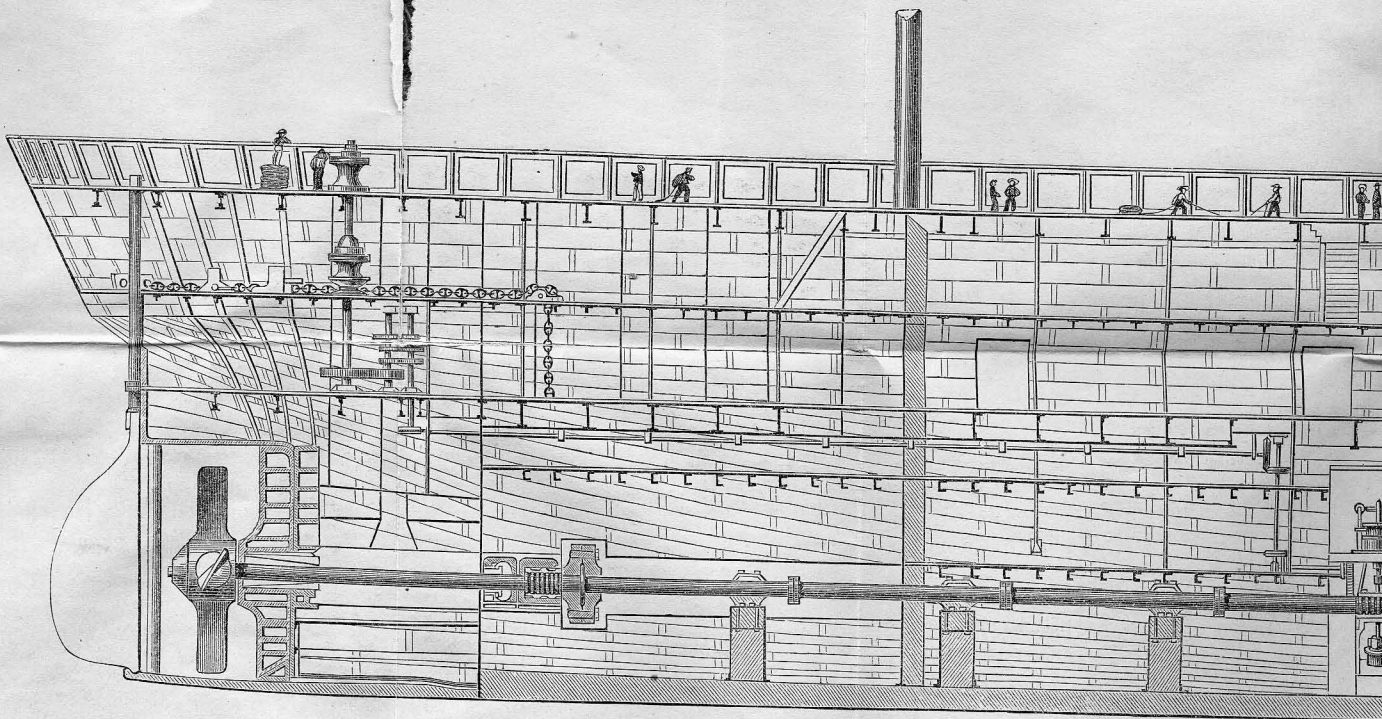


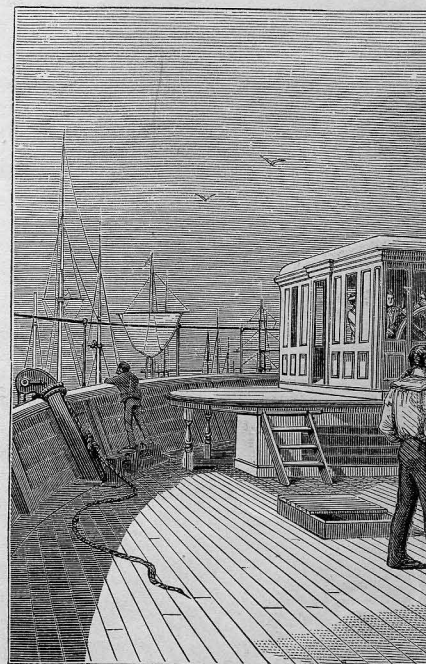




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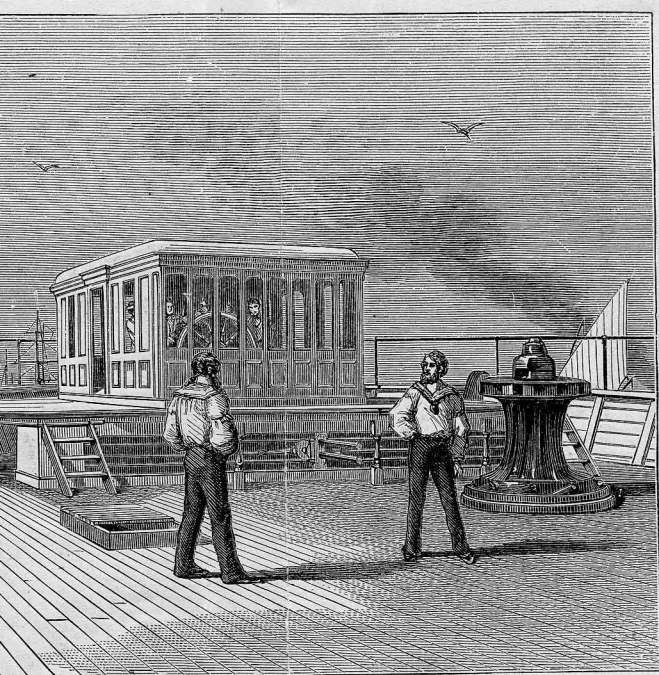
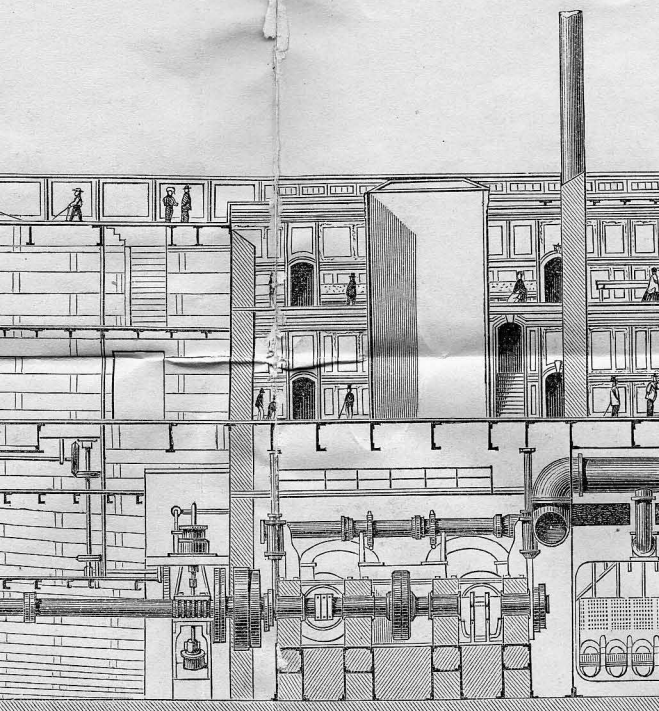
VIEW OF DECK.



WHEEL HOUSE AND S

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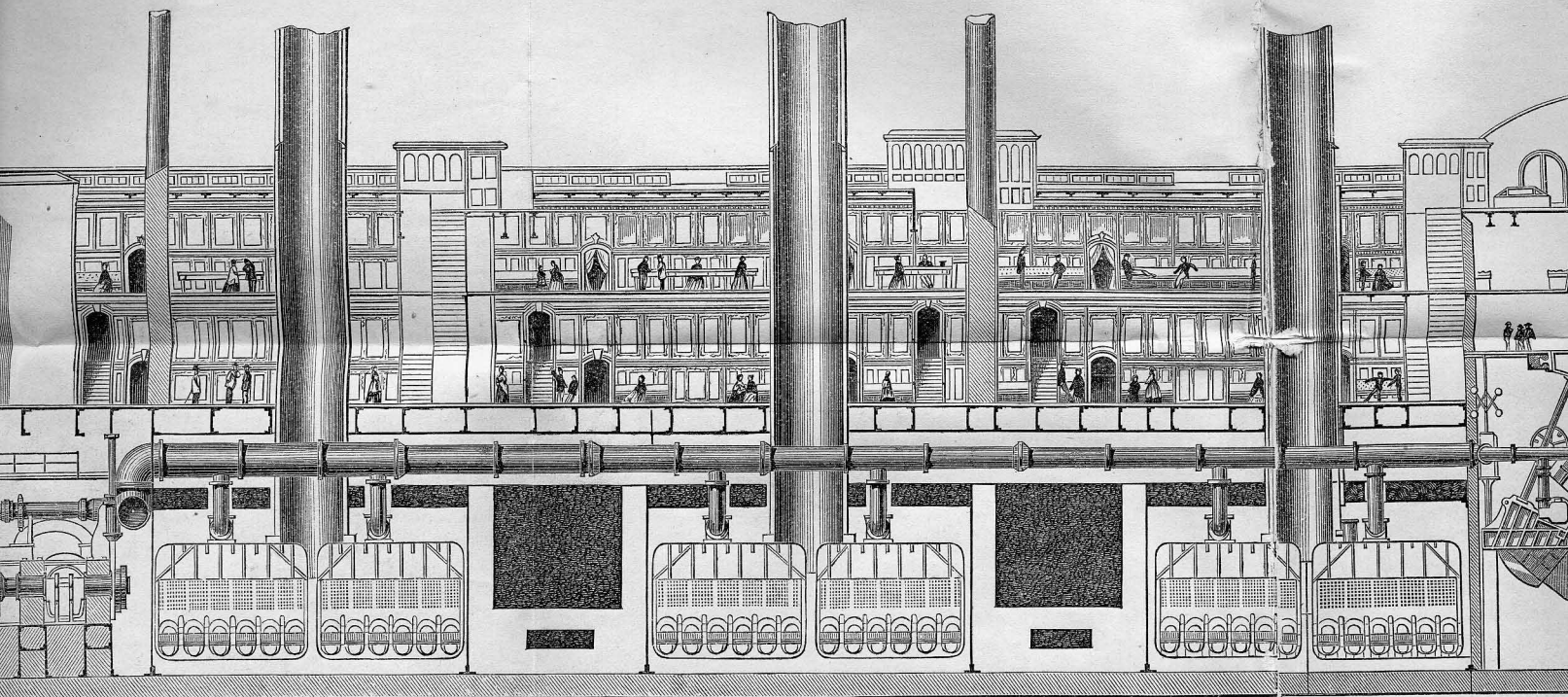


WHEEL HOUSE AND STEERING APPARATUS.



# “GREAT EASTERN” STEAM-SHIP

BUILT BY MESSRS. J. SCOTT RUSSELL AND CO., MILWALL,



LONGITUDINAL SECTIONS.

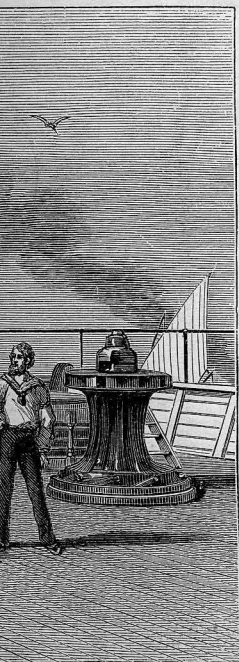
## DIMENSIONS AND CALIBRE.

Length (between the perpendiculars) . . . . .	680 feet
Length (on the upper deck) . . . . .	692 "
Breadth (from side to side of hull) . . . . .	83 "
Breadth (across the paddle-boxes) . . . . .	120 "
Depth from deck to keel . . . . .	58 "
Length of forecastle . . . . .	140 "
Height of ditto . . . . .	8 "
Total length of principal saloons . . . . .	400 "
Height of saloons on lower deck . . . . .	13 feet 8 inches
Number of saloons . . . . .	5
Height of saloons on upper deck . . . . .	12 feet
Number of saloons . . . . .	5
Length of upper saloons . . . . .	70 feet
Width of ditto . . . . .	30 "
Length of lower saloons . . . . .	60 "
Number of decks . . . . .	4
Aggregate length of saloons and berths . . . . .	350 feet
Length of berths . . . . .	14 "
Width of ditto . . . . .	7 feet 8 inches
Height of ditto . . . . .	7 " 4 "
Number of main traverse bulkheads or water-tight compartments . . . . .	12
Ditto partial . . . . .	7
Longitudinal bulkheads running fore and aft at a distance of 35 feet apart for a length of 350 feet . . . . .	2
Width of space between the two skins of ship . . . . .	2 feet 10 inches
Thickness of iron plates in keel . . . . .	1 inch
Ditto inner and outer skins . . . . .	$\frac{3}{4}$ "
Bulkheads . . . . .	$\frac{1}{2}$ "
Iron deck . . . . .	$\frac{1}{2}$ "

Plates of iron used in the construction of the hull . . . . .	30,000
Average length of plates . . . . .	10 feet
Number of rivets in fastening the plates . . . . .	3,000,000
Weight of iron used in the construction . . . . .	about 10,000 tons
Tonnage . . . . .	22,500 "
Capacity for coals and cargo . . . . .	18,000 "
Weight of iron in the hull . . . . .	8,000 "
Weight of ship, engines, &c., as at its launching . . . . .	12,000 "
Immersion of this weight . . . . .	15 feet 6 inches
Draught of water laden . . . . .	30 feet
Ditto light . . . . .	20 "
Accommodation for passengers, 1st class, 800 . . . . .	4000
Ditto Ditto 2nd " 2000 . . . . .	
Ditto Ditto 3rd " 1200 . . . . .	
Ditto troops alone . . . . .	10,000
Number of anchors . . . . .	10
Weight of anchors, cables, &c. . . . .	253 tons
Number of boats . . . . .	20
Ditto masts . . . . .	6
Quantity of canvas under full sail . . . . .	65,000 square

## Paddle-Engines.

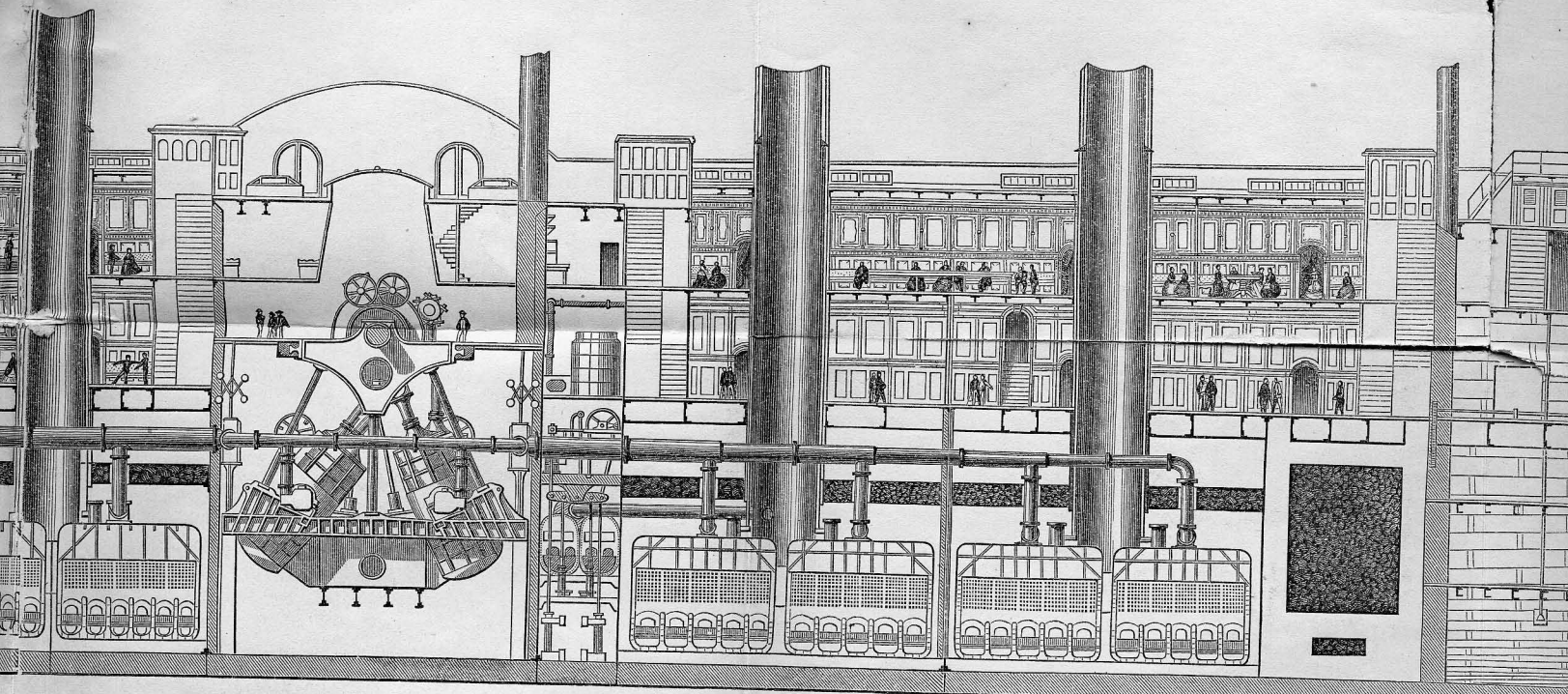
Nominal power . . . . .	1000 horses
Number of cylinders . . . . .	4
Diameter of ditto . . . . .	74 inches
Weight of ditto (each) . . . . .	26 tons
Length of stroke . . . . .	14 feet
Number of boilers . . . . .	4





# STERN" STEAM-SHIP.

SCOTT RUSSELL AND CO., MILWAU, 1857.



LONGITUDINAL SECTIONS.

## SIZE AND CALIBRE.

Construction of the

Plating	30,000
Thickness of plates	10 feet
Construction of the plates	3,000,000
Construction of the hull	about 10,000 tons
Weight of hull	22,500 "
Weight of machinery	18,000 "
Weight of cargo	8,000 "
Weight as at its launch	12,000 "
Length of hull	15 feet 6 inches
Width of hull	30 feet
Depth of hull	20 "
1st class, 800	4000
2nd " 2000	
3rd " 1200	
Weight of hull	10,000
Weight of machinery	10
Weight of cargo	253 tons
Weight of hull	20
Weight of machinery	6
Weight of cargo	65,000 square yards

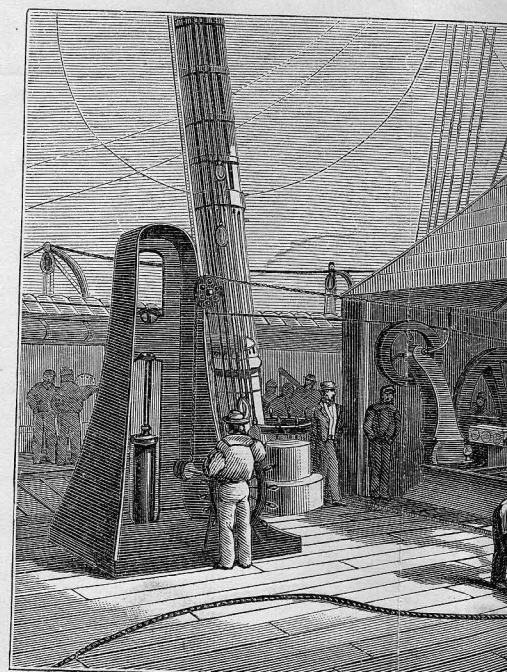
## Paddle-Engines.

Nominal power	1000 horses
Number of cylinders	4
Weight of ditto (each)	74 inches
Diameter of ditto	26 tons
Length of stroke	14 feet
Number of revolutions per minute	4

Weight of boilers (each)	50 tons
Ditto of water (each)	40 "
Furnaces for ditto	40
Area of heating surface of boilers	4800 square feet
Number of tubes	400
Diameter of paddle-wheels	58 feet
Weight of ditto (each)	90 tons
Length of floats	13 feet
Width of ditto	3 "
Number of floats to each wheel	30

## Screw-Engines.

Nominal power	1600 horses
Number of cylinders	4
Weight of ditto (each)	30 tons
Diameter of ditto	84 inches
Length of stroke	4 feet
Number of revolutions per minute	50
Number of boilers	6
Weight of ditto	57 tons
Ditto of water in them	45 "
Furnaces for boilers	72
Area of heating surface	5000 square feet
Number of tubes	420
Number of auxiliary engines	2
Ditto donkey engines	10
Diameter of screw	24 feet
Number of blades to screw	4
Length of screw shaft	160 feet
Weight of shaft	about 60 tons



LAYING CABLE.