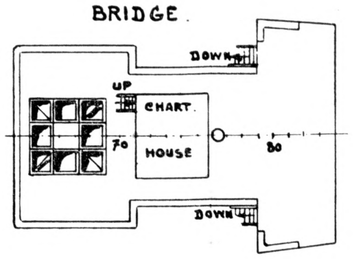
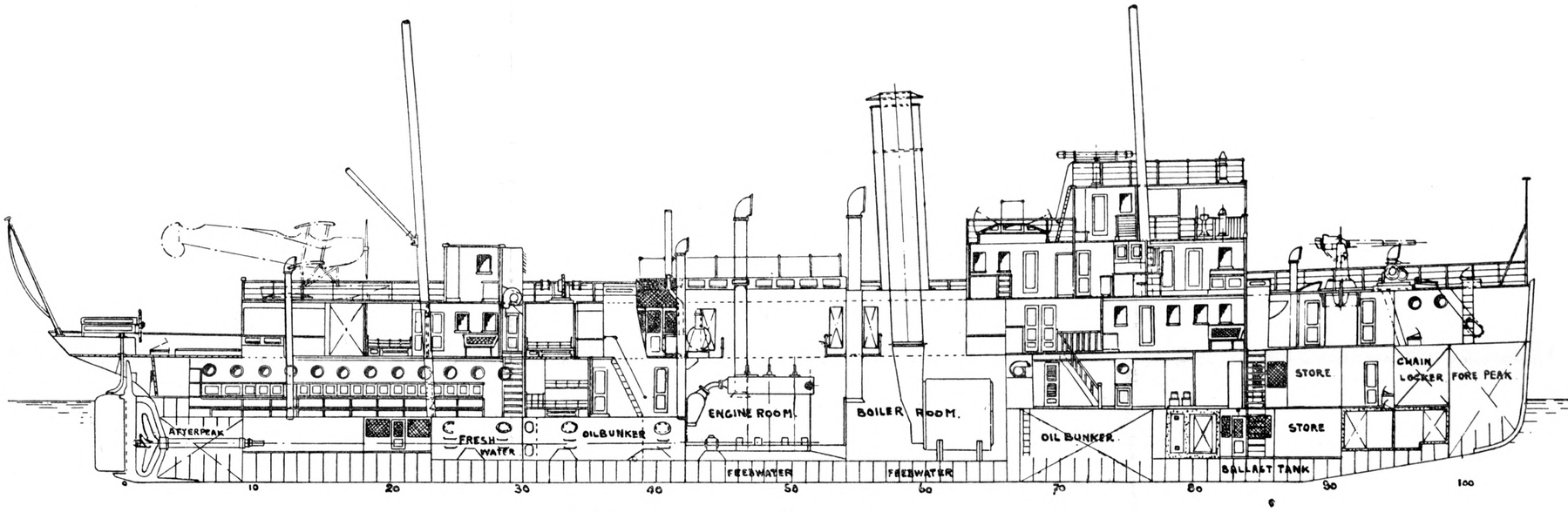
DUTCH SURVEY VESSEL FOR EAST-INDIA SERVICE. „WILLEBRORD SNELLIUS."

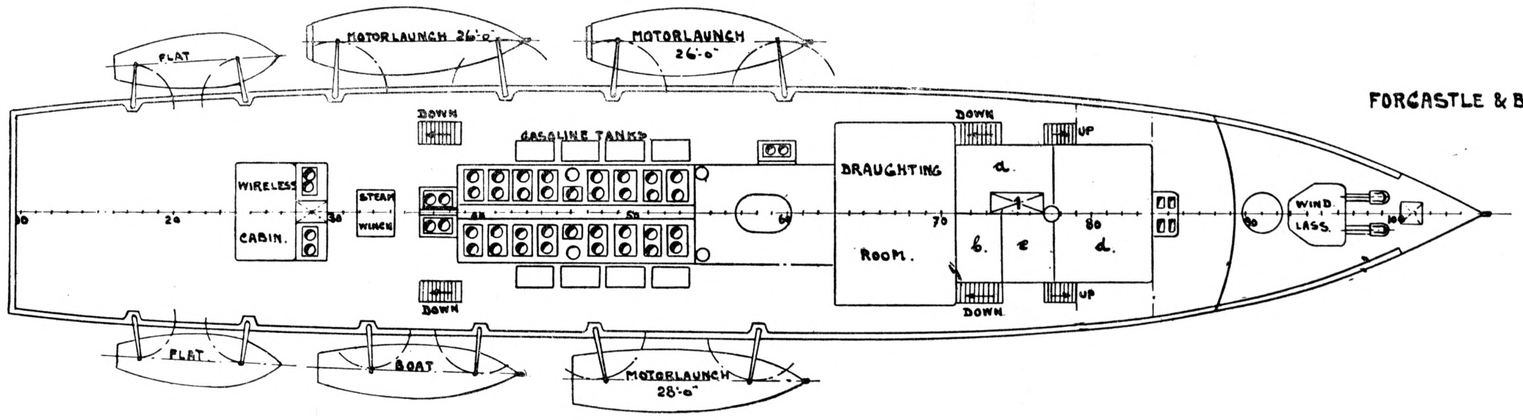
SCALE 1:250

BRIDGE.

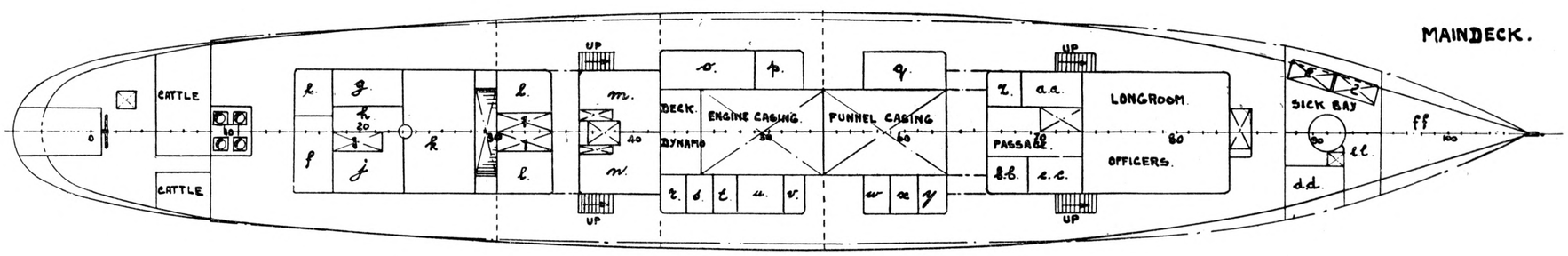




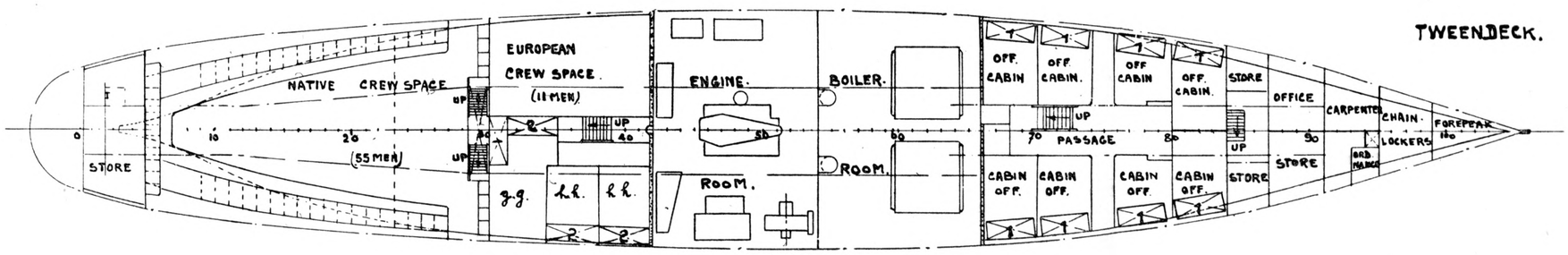
FORCASTLE & BOATDECK.



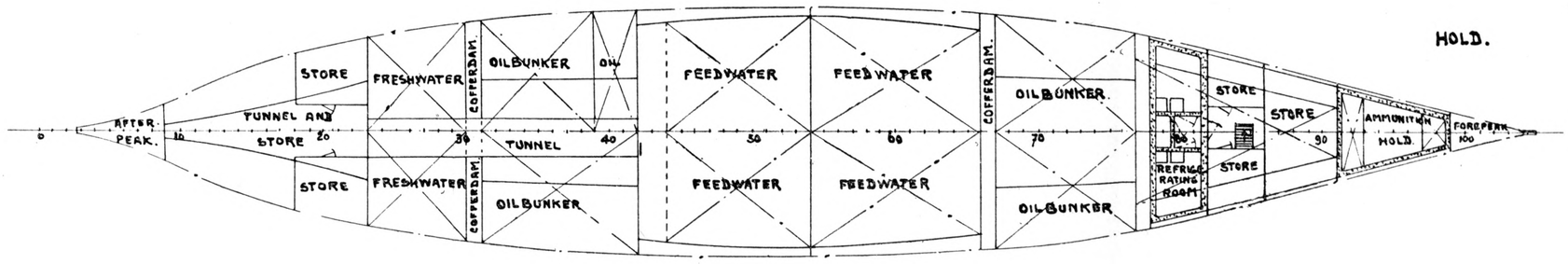
MAINDECK.



TWEENDECK.



HOLD.



DESCRIPTION.

a = CAPTAIN'S BEDROOM.
b = „ BATHROOM.
c = „ PANTRY.
d = „ STATEROOM.
e = DETENTION ROOM.
f = HAMMOCKS.
g = PANTRY P.O.
h = MOTOR DYNAMO'S.
j = BOATSWAIN'S CABIN.
k = MESSROOM P.O.
l = CABIN P.O.
m = NATIVE'S GALLEY.
n = EUROPEAN GALLEY.
o = NATIVE'S WASHPLACE.
p = EUROPEAN CREW'S WASHPLACE.
q = BAKERY.
r = EUR. P.O. BATHROOM.
s = EUR. P.O. LAVATORY.
t = NATIVE P.O. BATHROOM.
u = STORE-ROOM.
v = TOKO.
w = NATIVE P.O. LAVATORY.
x = EUR. CREW. „
y = PROPHYLACTIC ROOM.
z = OFF. LAVATORY.
a.a = OFF. BATHROOM.
b.b = DARKROOM.
c.c = OFF. PANTRY.
d.d = MEDICINE ROOM.
e.e = BATH & W.C.
f.f = BOATSWAIN'S STORE
g.g = 3 NATIVE P.O.
h.h = 2 EUR. P.O.

THE NEW DUTCH SURVEYING VESSEL « WILLEBRORD SNELLIUS »

by Captain J. L. H. LUYMES.
Hydrographer of the Duteh Navy.

The Fyenoord shipyard at Rotterdam is building a surveying vessel destined for service in the Netherlands Indian Archipelago, named after the professor of the Leyden University who lived in the beginning of the seventeenth century and distinguished himself by the first modern triangulation ever made, executed between Bergen op Zoom and Alkmaar; by the calculation of nautical tables and by the invention of the problem how to fix a position by two observed angles between three known points, which problem in other countries was later, but erroneously, named after Pothenot.

The plans for the vessel had to comply with the following demands: — Good sea qualities, not only for surveying work in the tropics, but also for the outward journey; ample provision of fresh water and fuel, to allow rather lengthy stays at sea.

Large and airy accommodation for 8 officers, 7 European and 3 native non-commissioned officers and 66 sailors and artificers, mostly native.

A draught not exceeding 3.6 m. and a moderate length to enable passing through rather shallow and sinuous channels.

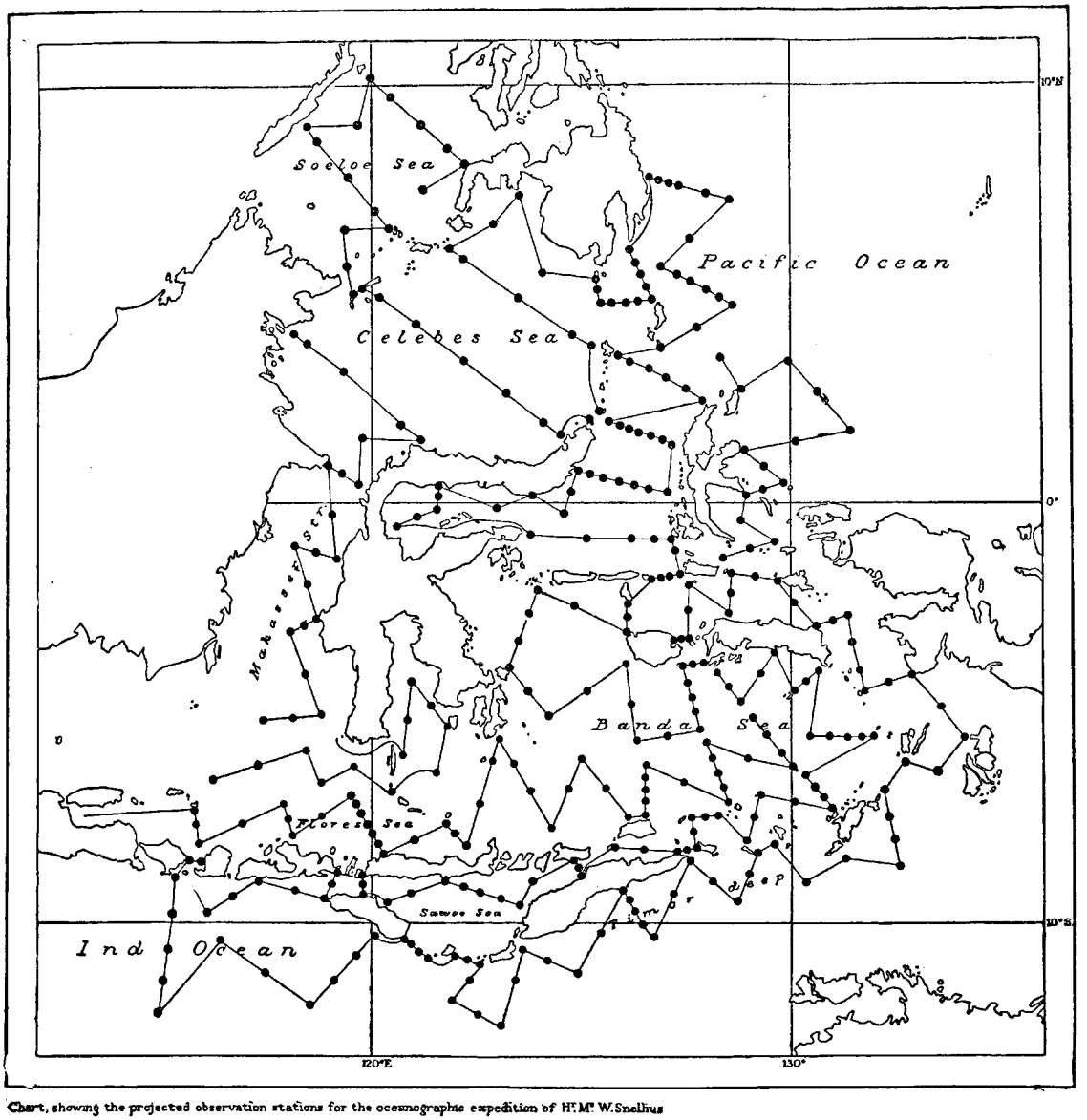
No motor — but steam propulsion to reduce vibration.

Equipment with all modern modifications for surveying work which experience and advance of science dictate.

A set of simplified plans accompany this article.

The vessel has a total length of 62.1 m., a width of 9.7 m. and the draught will be 3.4. m. Two bilge keels of a length of 20 m. are projected. The displacement is 1055 tons, two Scotch boilers with Howden patent and arranged for a pressure of 180 lbs per square inch which will produce 525 I.H.P. and give, by a single screw, to the vessel a speed of 10.5 knots. The bunkers will hold 152 tons of oil, the freshwater tanks 95 tons. A large part of both liquids is stowed in the double bottom, which spreads over nearly the whole length of the keel; several bulkheads are designed.

The vessel is provided with an Oertz rudder, moved by an electrical-hydraulic engine. Ample refrigerating rooms can hold a large provision of meat and vegetables. The ship is equipped with two bow anchors of 1200 kgs. each, one reserve anchor of 1000 kgs. and a powerful windlass. The boats



Chart, showing the projected observation stations for the oceanographic expedition of H.M. W. Snellius

consist of one motor cutter of 8.5 m.. two of 7.8 m. all of them provided with a kitchen rudder; a yawl and two flat-bottomed boats. A steamwinch is placed on the boat deck for hoisting the boats and an aeroplane, which can be placed at the after end of said boatdeck.

The vessel is equipped with wireless telegraph and a radio compass, with the ordinary wire-sounding apparatus and with two echo-sounding instruments, one by the Atlaswerke at Bremen and the other by Hughes of London.

The ship must be ready for sea in the beginning of 1929. Arriving in the Netherlands Indian Archipelago, she will be used in the first place for oceanographic research work in the deep basins of the eastern part. The expedition will last 15 months and include physical oceanographic, geological

and biological work. The accompanying chartlet shows where the stations are planned. In each of these stations a complete series of temperature observations and water samples as well as a bottom-sample will be taken ; and the depth measured by wire.

The scientific staff will consist of three oceanographers, one of them, the Assistant-Director P. M. VAN RIEL of the Royal Netherlands Meteorological Institute, retired naval officer, will be the leader of the expedition ; a geologist, a biologist and a chemist. The nautical staff consists of the commanding officer, Lieutenant-Commander F. PINKE, three lieutenants, a surgeon, a paymaster and an engineer.

Temporarily the ship will be provided with extra lodgings, laboratories and instruments. among which is mentioned a steel wire of 7600 m. for anchoring in great depths, in order to collect current observations at different distances from the surface and to trace periodical changes in temperature and salinity of the water.

Note : The cost of building a vessel of the «*Willebrord Snellius*» model will be approximately 700.000 to 800.000 Dutch florins, exclusive of radio-installations, searchlight, sounding machines by wire and by echo, boats, compasses, instruments and further outfit.