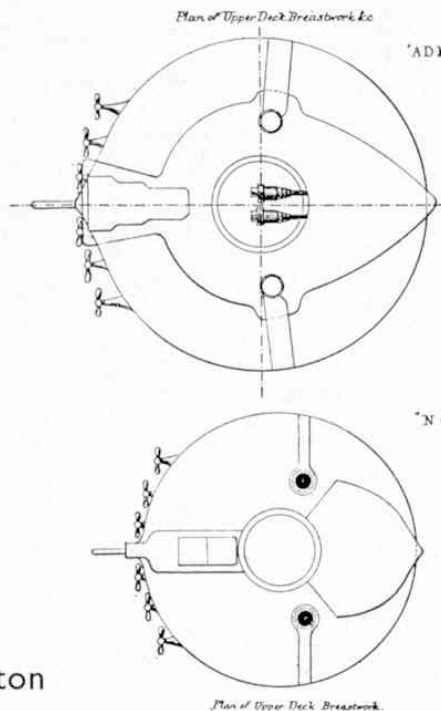
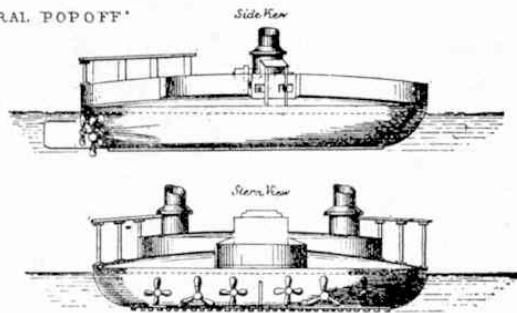


The "Popoff"

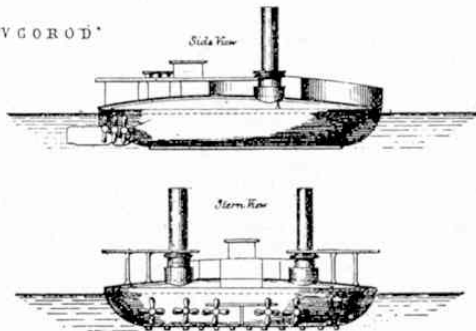
Introducing the Popoffskas, circular Russian warships, with full-size plans for a semi-scale model by A. J. Morton



'ADMIRAL. POPOFF'



'NOVGOROD'



A COMPLETELY circular ship may sound a strange idea, but when the Russians built two back in 1875, it was taken very seriously in naval circles (sorry!) and a naval expert M.P. actually visited Russia specifically to see them.

The two ships were built as coastal defence vessels, virtually to be used as floating forts but capable of moving under their own steam as necessary. The first of the two was the *Novgorod*, 101ft. diameter and almost 2,500 tons, with two 28 ton (11 in.) guns. This was followed by the larger *Admiral Popoff*, 121 ft. diameter, over 3,500 tons, with two 40 ton guns and four smaller ones. The draught of this ship was 14 ft. and she carried a crew of 120.

Apparently the design showed no particular advantages, or rather its disadvantages outweighed its good points, since no further development took place, and the ships thus remain as outstanding oddities, even in the atmosphere of peculiar designs which surrounded the arrival of ironclad warships.

The drawing overleaf shows how to make a working semi-scale model of these unusual vessels, using a circular biscuit tin or something similar as a basis. That used on the original was just under 8 in. diameter and about 3 $\frac{5}{8}$ in. deep.

Most of the work takes place on the lid, so we can dispose of the base by outlining the motor installation. Instead of the six propellers of the original we can reasonably use two, and if these are connected to the motor by pulley drive, line-up and construction are simplified. Before piercing the tin for the shafts, you may like to put equivalent ballast in the tin to check its waterline, although as the contemporary illustrations above show, there was very little freeboard and you will probably have to fit permanent ballast in the tin anyway.

A tinfoil motor mount was used on the original model, but a wood one could be made, just soldering a

couple of tinfoil tags to the tin's bottom to secure it. A Mabuchi 15 or 25, or Orbit 105/205, or similar motor, will give adequate power. Use brass stern tubes, so that they can be soldered into the tin, though epoxy could be used with aluminium tubes. If you use 1 $\frac{1}{4}$ in. propellers and $\frac{3}{8}$ in. pulleys on their shafts, with a $\frac{3}{8}$ or $\frac{1}{2}$ in. pulley on the motor, good battery life and reasonable scale speed should be obtained. Solder or epoxy a bracket to support the inboard ends of the prop tubes, reasonably lined up with the motor, and use ordinary thin rubber bands as driving belts.

Most of the superstructure is $\frac{1}{16}$ in. sheet balsa, card, wire, and odds and ends. It is advisable to use epoxy resin to glue anything to the tin lid itself, though metal parts such as handrail stanchions and davits are obviously better soldered in place. Holes can be punched for these with a suitable nail, supporting the tin underneath where you're tapping with a block of hard wood. It is best to solder everything in place before starting on the wood work.

Fit the coffee jar lid to the centre and surround it with a strip of card. Glue the bottom decks in place. Make up the four separate deckhouses, two of which glue to the centre circle, and paint the sides, draw on the windows etc., before gluing in place. Add the top decks, which should just lap over the centre circle, and paint before attaching the details to them.

Suggestions for making the various bits and bobs are included on the drawing but their final appearance depends on your ingenuity and particularly how well you pick out the small details with paint. Run a strip of foam plastic draught-stop round the edge for a rubbing strip and you will be surprised how attractive and colourful a model results. You're bound to have a lot of questions asked at the pondside when you go to sail this most unusual vessel!

The Popoff

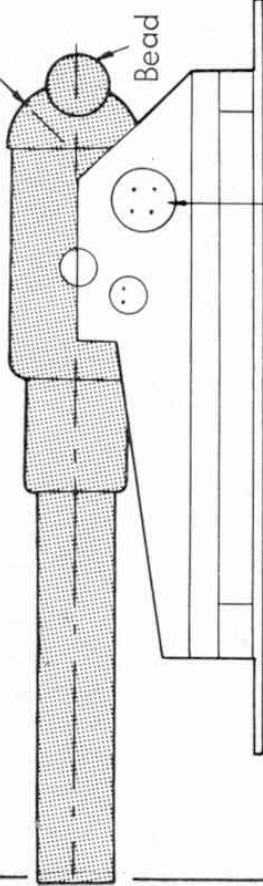
Imperial Russian Navy

POPOFFSKAS

2 Guns

paper + card, balsa end, black picked out with white

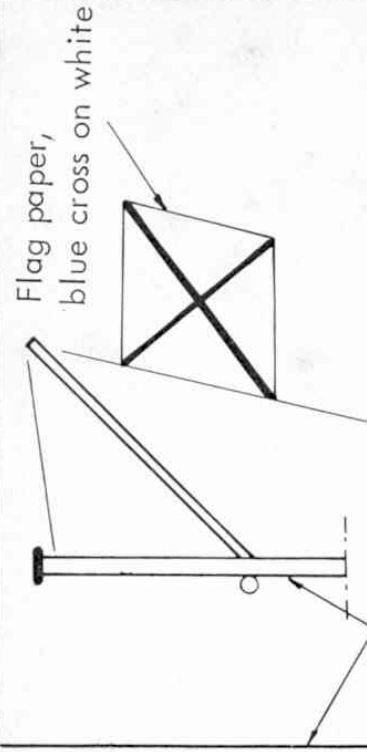
Balsa Cap



Circle of card grey, to fit in A, to allow rotation

Shirt Button Wheels

Copper wire exhausts



1. Mast, wood, white
Cap card, black

1 Binnacle balsa, 2 beads

White
Gold
Brown
1 Wheel card rim,
Black
wire spokes,
brown.

1 Skylight
balsa,
white

B

J

K

B. Vents balsa, white black mouths

Deck houses 1/16" sheet, white, same each side

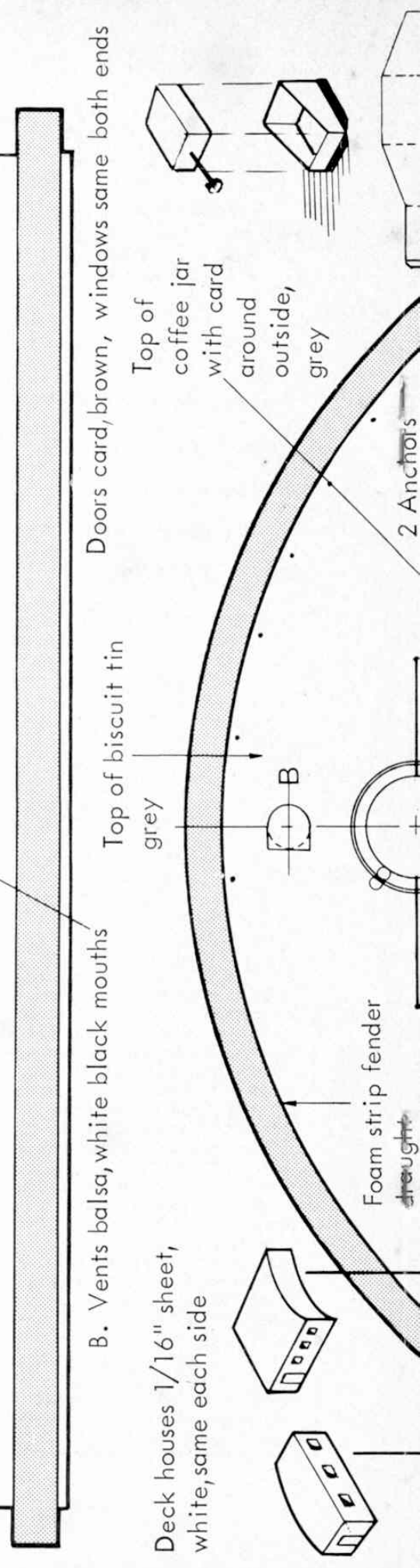
Top of biscuit tin
grey

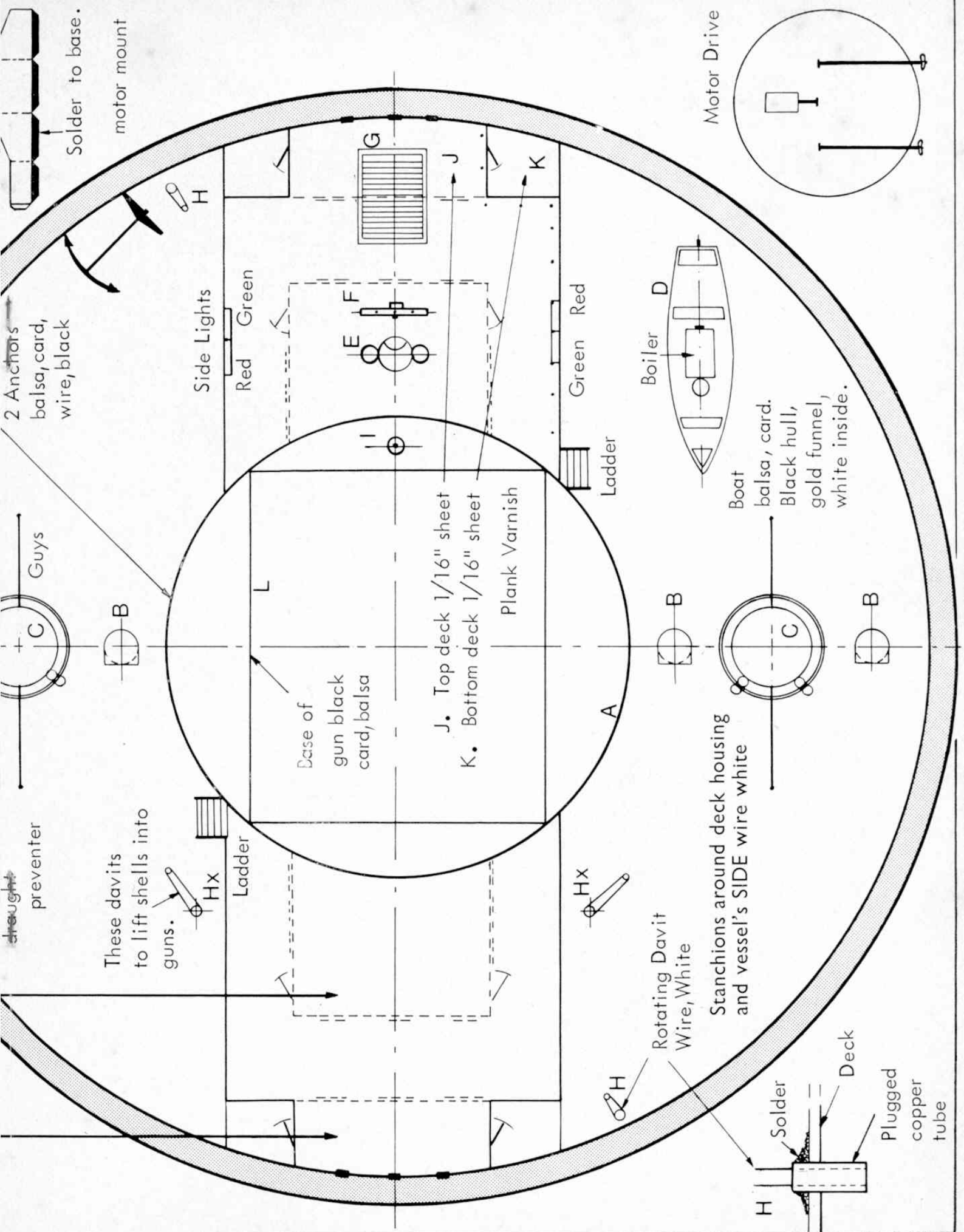
Doors card, brown, windows same both ends

Top of coffee jar with card around outside, grey

Foam strip fender

2 Anchors





2 Anchors
balsa, card,
wire, black

Solder to base.
motor mount

Guys

draught
prevention

These davits
to lift shells into
guns.

Side Lights
Red Green

Ladder

Base of
gun black
card, balsa

J. Top deck 1/16" sheet
K. Bottom deck 1/16" sheet
Plank Varnish

Green Red

Ladder

Boiler D

Boat
balsa, card.
Black hull,
gold funnel,
white inside.

Motor Drive

Rotating Davit
Wire, White

Stanchions around deck housing
and vessel's SIDE wire white

H
Solder
Deck
Plugged
copper
tube

B C

B

A

L

G

J

K

E F

