

NOTES

The Admiralty Marine Propulsion Committee

The Admiralty Marine Propulsion Committee has been set up to consider the possibilities of improving existing propulsion systems employed in naval surface vessels and submarines and the employment of prime movers alternative to those at present in use ; it will investigate the possible use of alternative fuels and lubricants and formulate material requirements to meet design conditions. It will recommend what experimental and development work should be carried out and keep in touch with any put in hand.

The Engineer-in-Chief of the Fleet is Chairman of the main committee on which are represented all the Admiralty Departments and Divisions concerned with such work. Admiral Submarines is also represented and the attendance of a U.S. Naval observer has been authorised.

Seven Panels have been established under the control of the main committee to consider in detail specific problems in each of the following fields :—

- (a) Steam Plant.
- (b) Gas Turbines.
- (c) I.C. Engines.
- (d) Propellers.
- (e) Special Cycles.
- (f) Materials.
- (g) Fuels and Lubricants.

The Panel Chairmen are all Admiralty Officers, the Panel members being representatives from relevant Admiralty Departments and the research establishments of Admiralty Engineering Laboratory (A.E.L.), Admiralty Experimental Works (A.E.W.), Ministry of Supply, National Physical Laboratory, National Gas Turbine Establishment (late Power Jets), C.S.A.R. and from commercial research organisations associated with this work, such as B.S.R.A., B.E.A.I.R.A. and B.I.C.E.R.A., details of which are given below :—

- (a) B.E.A.I.R.A.—British Electrical and Allied Industries Research Association.
- (b) B.I.C.E.R.A.—British Internal Combustion Engine Research Association.

These last two Associations have been instituted by industry to co-ordinate research and development. They are representative of all firms engaged on electrical and I.C. engine work.

- (c) B.S.R.A.—British Shipbuilding Research Association, is the research organisation that has been set up by the Shipbuilding Conference to handle development problems associated with merchant shipbuilding.

Evaporators

One difficulty often experienced with evaporators is the choking of the brine suction pipes with loose scale from the evaporator shell. The Engineer Officer, H.M.S. *Indefatigable*, has reported that they found a convenient boss on the underside of the brine suction valve to which an adaptor was fitted to take an L.P. hose. The loose scale is blown back into the shell, where it is scooped out in the usual way with good results.

Correspondence

I notice in No. 19 of your magazine on page 77 an interesting case of fittings being wrongly placed on funnels.

This reminds me of a similar occurrence which happened when H.M.S. *Frobisher* was being completed at a Royal Dockyard. In those days it was customary to mount searchlights on the funnels and owing to a misunderstanding the searchlight platform was attached at the wrong height. In order to avoid removing the platform and altering the stiffening in the funnel casing, which would have been a costly business, the job was given to the boilermakers, who cut a piece off the top of the funnel and stuck it on the bottom.

Yours, etc.,

W. F. Baily, Captain (E).

Hundred years ago

The following are a few of the incidents mentioned in the old Admiralty records now kept in the Public Record Office. In 1846 there was no technical engineering staff at the Admiralty. The technical adviser to the Comptroller of the Steam Machinery was the Chief Engineer of Woolwich Dockyard, Thomas Lloyd, who had as his assistants for some of the time he was there Charles Atherton, Andrew Murray, John Kingston, John Dinnen and John Trickett. Naval engineers at this time were not shown in the Navy List, their records being kept by the Captain Superintendent of Woolwich, who was their appointing authority.

1846

January 6th.—H.M.S. *Phoenix*. New propeller to be made and Mr. Steinman acquainted with Board's displeasure that a fraud should have been attempted by filling up flaws with lead.

January 14th.—Sir F. Collier (Captain Superintendent, Woolwich) to ascertain if there are any workmen in his factory at Woolwich fit for engineers and if they can be procured elsewhere.

June 23rd.—Mr. Lloyd to attend weekly at Comptroller of Steam Machinery Department.

August 10th.—Engineers to be examined at the Port of entry previous to sending them to Woolwich.

August 22nd.—Mr. Atherton to proceed to Glasgow to raise Engineers.

September 19th.—Licut. Forrest (Glasgow) to continue to forward engineers although rendezvous is closed.

December 2nd.—Captain Alexander Ellice appointed *vice* Captain Sir Edward Parry as Comptroller of the Steam Machinery.

1847

January 26th.—Mr. Lloyd proposes an increase of expenditure to the amount of £24,000 for wages, 1847/48.

January 29th.—Captain Ellice to have a list of engineers, describing their classes and dates of their appointments.

February 23rd.—Mr. Dinnen's proposals relative to engineer's cabins in steamers.

February 27th.—Classification of engineers. Includes introduction of commissioned ranks of Inspectors of Machinery Afloat and Chief Engineers.

March 16th.—Mr. Lloyd's report for obviating difficulty in screw propeller.

- April 9th.—Mr. Lloyd appointed inside Admiralty as Assistant to Comptroller of Steam Machinery.
- July 19th.—Instructions for Mr. Dinnen. Inspector of Machinery attached to Sir Charles Napier's Squadron.
- October 8th.—Care and management of engines and boilers. Draft submitted from Comptroller of Steam Machinery.
- October 10th.—Mr. H. Pardos, Assistant Engineer. Requests to be allowed a cabin. *To be discharged to Woolwich.*
- October 28th.—Mr. Atherton proposes a plan for the construction of boilers in parts of an invariable size. *Comptroller advises further enquiries. Woolwich Officers to afford Mr. Atherton every facility.*
- November 5th.—M. Magnenat offers his submarine propeller for £60,000 ! *Declined.*
- November 18th.—Comptroller of Steam Machinery reports upon enclosed application for additional stokers to be borne on ships' books and proposes to draw out table of number of engineers and stokers required.
- November 20th.—Mr. Lloyd reports on plans of the engine works proposed at Keyham.

Rust joints

Rust joints are not now much used in marine engines, yet it is necessary that we should state how they are made. One ounce of sal ammoniac in powder is added to 18 ounces or a pound of borings of cast iron, and a sufficiency of water is added to wet the mixture thoroughly, which should be done some hours before it is wanted for use. Some persons add about half an ounce of flowers of brimstone to the above proportions and a little sludge from the grindstone trough. This cement is caulked into the joints with a caulking iron. Copper-smiths staunch the edges of plates and the rivets by means of a cement formed of pounded quick-lime and serum of blood, or white of egg, and in copper boilers such a substance may be useful in stopping the impalpable leaks which sometimes occur. It would be worth trying whether the mixture would not prevent the internal corrosion of boilers if laid on as a paint.—*Bourne's Treatise on the Steam Engine* (1846).