

highest maintained by independent scientific journals, whether in the field of pure or applied science. The journal is being given an extremely comprehensive standard library circulation throughout the world. For the first time it provides a medium of publication, altogether worthy of the best American work in agricultural science.

Will the stations support the *Journal of Agricultural Research* by sending to it specimens of their best output? The past year's experience indicates that the *Journal* meets a real need and will be supported by the stations. Papers have been published or accepted for publication from the following stations: California, Montana, Utah, Minnesota, Illinois, Wisconsin, Michigan, Ohio, Tennessee, Kentucky, both New York stations, Pennsylvania (Institute for Animal Nutrition), New Jersey, North Carolina, Florida and Maine. Which is not a bad showing for the first year!

Altogether it seems to the writer to be inevitable, as the experiment stations take on more and more the character of research institutions, and leave behind more and more that type of activity which was essential at the beginning, but is now being taken over by extension departments, that there will be all the time an increasing proportion of the scientific output published in the standard established scientific journals. In this way only can it take the place which is its due in the world's scientific literature.

RAYMOND PEARL

THE NAVAL CONSULTATION BOARD

THE board appointed by national scientific and engineering societies at the request of the secretary of the navy met in Washington on October 7. Officers were elected as follows:

Chairman, Thomas A. Edison, Orange, N. J.

First Vice-chairman, Peter Cooper Hewitt, New York.

Second Vice-chairman, William L. Saunders, Plainfield, N. J.

Secretary, Thomas Robins, Stamford, Conn.

Assistant to Chairman, M. R. Hutchinson, Orange, N. J.

The board approved a plan for the establishment of a research and experimental laboratory for the United States navy, regarding which a statement was made public as follows:

1. The laboratory should be located on tide-water of sufficient depth to permit a dreadnought to come to the dock. (B) It should be near but not in a large city, so that supplies may be easily obtained and where labor is obtainable.

2. The laboratory should be of complete equipment, to enable working models to be made and tested to destruction. There should be: (A) A pattern shop; (B) a brass foundry; (C) a cast iron and cast steel foundry; (D) machine shops for large and small work; (E) sheet metal shop; (F) forge shop for small and large work; (G) marine railway large enough to build experimental submarines of 1,500 tons; (H) woodworking shops; (I) chemical laboratory; (J) physical laboratory; (K) optical grinding department, etc.; (L) motion picture developing and printing department; (M) complete drafting rooms; (N) electrical laboratory and wireless laboratory; (O) mechanical laboratory and testing machines; (P) explosives laboratory, removed from main laboratory.

3. The building should be of modern concrete construction, with metal sills and doors, wire glass windows, etc. Ample fire protection.

4. A naval officer of rank should be in charge. He should be especially fitted. (B) Under him should be naval heads of broad experience in laboratory methods and science in general—practical as well as theoretical men. They should not go to sea. (C) Under them should be staffs of civilian experimenters, chemists, physicists, etc. (D) Each sub-head should have his corps of assistants, and with shop facilities, without too much red tape. (E) There should be at least two, and possibly three, shifts of men. Time should be the essence of the place.

5. Secrecy should be the governing factor. The place should be surrounded by a high fence and guard maintained at all hours. No visitors allowed.

6. Facilities should exist for enabling the inventor to assist in the development of the idea he has presented, provided he is a practical man.

7. The investment for grounds, buildings and equipment should total approximately \$5,000,000.

8. The annual operating expenses to be between \$2,500,000 and \$3,000,000.