UNITED STATES COAST AND GEODETIC SURVEY.

D. Learly, of Brooklyn, N. Y. The contract was signed July I, and Commander Chester was appointed inspector on the part of the Government. Lieut. Richardmow, C. S. N., and Passed Assistant Engineer, H. S. Stevenson, U. S. N., being assigned as his assistants.

Lieutenant Clover, who had been associated with Commander Chester in the preparation of the data, from the inception by the late Superintendent of the project of building a vessel especially adapted to the project, volunteered to undertake the insubordinate charge of the work, and under his constant watchfulness nearly ever timber and bolt that went into the construction of the steamer received careful inspection. It is believed that the plan of having the officer upon whom was to rest the responsibility of commanding the vessel in her voyage to the Pacific appointed as the immediate supervisor of her construction, was fraught with good results to the Government, and that he acquitted himself with credit is well known.

Mr. Stevenson was located at Philadelphia, where the steamer's machinery was being manufactured and by Messrs. Neale & Levy. This officer had also been associated with Commander Chester in planning the machinery, and, as her future engineer officer, was deeply interested in the careful construction of the motive power of the vessel.

The duties left Commander Chester free to proceed from point to point where he was needed to decide questions of construction, and to see that all workmanship and material were of the best quality and satisfactory to the inspector.

The steamer, named the Carlo F. Patterson, after the late Superintendent, was launched January 15, 1854, and at the date at which this report closed had made two satisfactory trial trips, and was nearly fitted for her voyage to the Pacific coast.

Charge of the Coast and Geodetic Survey Exhibit at the Southern Exposition, Louisville, Ky.—The Southern Exposition, held at Louisville, Ky., in the summer and autumn of 1853, was, as a whole, principally illustrative of the manufacturing and agricultural interests of the country; but there were many fine commercial exhibits, and the display was national in its character, exhibits being centered from all parts of the United States, and the following departments or bureau of the Government being represented in addition to the Coast and Geodetic Survey, viz.: The Geographical Survey, the Signal Service, the National Museum, the Bureaus of Education and of Engraving and Printing, the Life-Saving Service, the Fish Commission, and the United States Mint at Philadelphia.

Mr. Blair, having been assigned the charge of the exhibit by this Survey left Washington for Louisville in the latter part of July.

In the arrangements for placing the instruments, charts, and other articles illustrating the methods and appliances of the Coast and Geodetic Survey, Mr. Blair displays his great indefatigability for kindnesses rendered and assistance rendered by Maj. J. M. Wright, the manager of the exposition, and by Prof. J. R. Proctor, State geologist, who had general charge of the placing of the Government exhibits.

Mr. Blair remarks that to the general visitor the display made by the Government seemed to be one of the most attractive ones. That of the Coast and Geodetic Survey showed the principal instruments used in its geodetic, astronomical, topographic, hydrographic, and magnetic work, with illustrations of the results of the work by selections from the published charts, collections of the Annual Reports, Coast Pilots, and Tide Tables, and by a model of the basin of the Gulf of Mexico constructed in the office from the results of soundings made between 1876 and 1878. This model attracted special attention; applications for copies of it were made, and it had many visits from schools and classes of advanced students.

For the exhibition management Mr. Blair prepared a concise description of the articles forming the Coast and Geodetic Survey Exhibit, together with a short account of their use. This paper appears as Appendix No. 18.

At the close of the exhibition two awards were made to the Survey; one a medal for the exhibit as a whole, and the other a diploma for the line and end comparator.

Comparisons of standards of weight and measures, and investigations relating to determinations of gravity.—The special investigations relating to determinations of gravity, and to comparisons of standards, carried on in Great Britain and on the continent during the summer of 1853 by Assistant C. S. Peirce have been already referred to in Parts I and II of this report; in the former under the heading "Special Scientific Work," and in the latter under the heading of Section III.