

be necessary to the full success of the object of their organization, would materially interfere with the views entertained by Captain Hall, and the purpose for which the appropriation was evidently intended by Congress.

Although the special objects and peculiar organization of this expedition are not primarily of a scientific character, yet many phenomena may be observed and specimens of natural history be incidentally collected, particularly during the long winter periods in which the vessel must necessarily remain stationary; and therefore, in order that the opportunity of obtaining such results might not be lost, a committee of the National Academy of Sciences was appointed to prepare a series of instructions on the different branches of physics and natural history, and to render assistance in procuring the scientific outfit.

Great difficulty was met with in obtaining men of the proper scientific acquirements to embark in an enterprise which must necessarily be attended with much privation, and in which, in a measure, science must be subordinate. This difficulty was, however, happily obviated by the offer of an accomplished physicist and naturalist, Dr. E. Bessels, of Heidelberg, to take charge of the scientific operations, with such assistance as could be afforded him by two or three intelligent young men that might be trained for the service. Dr. Bessels was the scientific director of the German expedition to Spitzbergen and Nova Zembla, in 1869, during which he made, for the first time, a most interesting series of observations on the depths and currents of the adjacent seas. From his character, acquirements, and enthusiasm in the cause of science, he is admirably well qualified for the arduous and laborious office for which he is a volunteer. The most important of the assistants was one to be intrusted, under Dr. Bessels, with the astronomical and magnetic observations, and such a one has been found in the person of Mr. Bryan, a graduate of Lafayette College, at Easton, Pennsylvania, who, under the direction of Professor Hilgard, has received from Mr. Schott and Mr. Keith, of the Coast Survey, practical instructions in the use of the instruments.

The Academy would therefore earnestly recommend, as an essential condition of the success of the objects in which it is interested, that Dr. Bessels be appointed as sole director of the scientific operations of the expedition, and that Captain Hall be instructed to afford him such facilities and assistance as may

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