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the ship in high latitudes, the steersman will have the inestimable advantage of seeing from the wheel at all times a correct standard compass, as well as the one placed on deck near the wheel. This steering standard compass is to have a card of 12 inches diameter, with two needles of the strongest directive power in all "dips" between England and Australia.

We believe that, at the suggestion of Sir John Hay, Mr. Hopkins has been requested to prove the efficiency of his plans for removing the cause of the deviation of the compass needle in iron ships by operating on the armor-plated ship the *Northumberland*.

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*Property of Sulpho-cyanide of Ammonium.* By Mr. F. CLOWES.

From the London Journal of Science, April, 1866.

A notice of an interesting property of sulpho-cyanide of ammonium has been published by Mr. F. Clowes. He finds that when dissolved in water this salt produces intense cold; in a short time the atmospheric moisture being deposited like hoar-frost on the sides of the vessel.

This led him to try a few experiments with weighed quantities of water and of the salt. From a few trials with different proportions, it appeared that the mixture of equal parts by weight gave the most intense cold. By mixing 1368 grains of the salt with its weight of water at 17° C., a cold of 12° C. was obtained. The temperature of the atmosphere at the time of the experiment was the same as that of the water employed.

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*On National Standards for Gas Measurement and Gas-meters.*

By GEORGE GLOVER, Esq.,

Formerly Lecturer on Natural Philosophy, Royal College of Surgeons, Edinburgh, and Vice-President, Royal Scottish Society of Arts and Superintending Medical Inspector General Board of Health, Whitehall.

From the London Journal of the Society of Arts, No. 424.

The subject of gas measurement, which I am about to have the honor of bringing under the notice of the Society, involves the consideration of two kinds of instruments—gasometers and gas-meters. The gasometers are of two kinds—the "national standard gas-holders" deposited at the Exchequer, and those in ordinary use, generally called "testing gas-holders." The gas-meters are also of two kinds—the wet and the dry.

When, more than half a century ago, coal-gas came into use, the want of a measure for its sale was soon felt. Such a measure was perceived to be indispensable in the event of gas becoming a staple article of commerce. To meet this want, Mr. Samuel Clegg invented the instrument which, from its revolving drum or measuring part being partially submerged in water, has been denominated "the wet meter." Ingenious in principle, it was soon found defective in practice. Its principal defect arises from the evaporation of the water, causing constant variation in its measuring capacity. The bottom of the measuring