As a foreigner, I cannot refrain from remarking that it seems strange to me that, because a man has paid a few weeks' visit to Norway, and even "halted in front of the North Cape for half an hour," he can claim to have become an authority on all scientific and other matters connected with that country among a nation which can boast of such distinguished explorers and *savants* as the English.

A NORWEGIAN

The Scandinavian Club

Our Future Clocks and Watches

IN connection with the indication of universal time by our future timepieces, I venture to suggest that the hours should be contained in one circle; but, instead of being numbered consecutively from 1 to 24, they might be arranged in Roman numerals, as at present, and if figured alternately would be almost, if not quite, as distinct as on the faces of our present style of clocks. Thus, the hours 2, 4, 6, &c., would be shown in figures, but the intermediate or odd hours, as 11, 13, 15, &c., would be more advantageously distinguished by an arrow-head or circular dot.

As regards the striking of the hours by our public and private clocks, they might strike up to twelve, as at present; the suggestion of your correspondent "R. B." (*NATURE*, vol. xxxi. p. 80), that they should not strike any number above six, appears to me as objectionable as if they struck up to twenty-four; but to distinguish between the afternoon and morning hours, the hours from thirteen to twenty-four might be distinguished by being preceded by two strokes in rapid succession either upon the bell which strikes the hours, or, preferably, upon a bell of a different tone.

B. J. HOPKINS

Leyton, Essex

Singular Optical Phenomenon

ON the night of November 28, at about six in the evening, I went to the window to look at the moon, and saw, as it were, a *second* moon behind the other. The effect was so like what one sometimes experiences from suddenly going out of a very light room, or other causes, that at the time I fancied it was only a defect in my sight. On going into my son's room an hour afterwards he said: "If something is not gone wrong with my eyes, there are two moons out to night." On this I went out again, but saw only the one moon as usual. Later in the evening a young girl who had been meeting a friend at the Montreux train, said her friend had said the moon looked *queer* all the while she was in the train. The night previous a pretty severe shock of earthquake occurred in Geneva and Lausanne, and a few hours after we had observed the moon on the 28th, a very violent gale and snowstorm took place, and lasted for about six or eight hours. I am not scientific enough to know whether the "rosy glow," reported on November 28 by Mr. Leslie of Southampton, can have any connection with this, or whether my letter will interest your readers.

X.

Vevey, Canton de Vaud, December 6

The Aurora Borealis

WITH the view of making the Norwegian catalogue of the aurora borealis, at which I am now working, as complete as possible, I take the liberty of asking meteorological societies which are in possession of journals supplied by those who have navigated *Norwegian waters*, to be good enough to place within my reach a copy of the observations which these journals contain respecting the aurora borealis seen near the coasts of Norway or in their neighbourhood. I should also be equally grateful for all information with regard to other unpublished observations of auroras of Norway, which may perhaps be found in the archives of meteorological institutes.

SOPHUS TROMHOLT

The Meteorological Institute of Christiania, November 19

THE UNITED STATES FISH COMMISSION

IN the year 1871 the Congress of the United States had its attention directed to the alarming decrease in the abundance of its east coast food fishes, and appointed a Commission to investigate the matter, with the idea of preventing the decrease. Prof. Spencer F. Baird, then Assistant Secretary of the Smithsonian Institution, was

appointed at the head of this Commission, and in the early summer of 1871, with a small but efficient corps of naturalists, he established himself upon the southern coast of New England at a place called Wood's Holl. Among the most noted of the members of that party were A. E. Verrill, S. J. Smith, and Sanderson Smith, all of whom have remained with the Commission every summer since its foundation. The first work of the Commission was to investigate the fauna, which then was comparatively unknown to science. In this way the food-supply of the food fishes and the food fishes near shore were carefully studied. During this one summer the fauna of this region was so carefully studied specifically that few new species have since been discovered. The main results were set forth in a very extensive report upon the invertebrate animals of Vineyard Sound by Profs. Verrill and Smith, and published in the first Fish Commission Report. In the summer of 1872 Eastport, Maine, was chosen as the station, and here the same systematic study was carried on with the addition of some dredging work done in shallow water with small boats. The summer of 1873 was spent at Portland, Maine; 1874 at Noank, Conn.; 1875 at Wood's Holl again; and 1876 being Centennial year, there was no summer station, but the energies of the Commission were exerted upon the Centennial Exhibition at Philadelphia. In 1877 a part of the year was spent at Halifax, Nova Scotia, arranging a fisheries treaty, and the remainder at Salem, Mass. The headquarters for the summer of 1878 were at Gloucester, Mass. Up to this time, and, in fact, until 1880, the Fish Commission had carried on all its off-shore work in steamers placed at its disposal through the courtesy of the Coast Survey and Navy Department, but had owned no boat of its own with the exception of small sailing-boats and a steam-launch in which the shore work could be done. Thus under a decided disadvantage, it would hardly be expected that a great amount of work could be carefully done; but, notwithstanding this, a large part of the Gulf of Maine was very carefully explored, under the direction of the Fish Commission. During the years 1878 and 1879 the fishermen of Gloucester very materially aided the Commission in its work of investigating the fauna of the shallower water of New England by preserving such specimens of animals as they happened to meet on their fishing trips. Scores of animals new to the American waters were taken from the fishing-banks by these fishermen, and the importance of their work should not be underestimated.

As yet the Fish Commission had done little practical work in its marine departments. It was for practical work that the Commission was established, and all its scientific work had some practical object in view. In the winter of 1878 and 1879 the Commission began important experiments upon the hatching of deep-water fish, but more especially cod. When America was first discovered, cod were found on all its shores in great abundance, and from this abundance the headland of Cape Cod received its name. As white men became more numerous on the shore and cities began to grow, the fish began gradually to decrease in number and be driven off into deep water because of the impure condition of the water. Now, in places where fifty years ago cod could be caught from any point of rocks, it is a rare thing indeed to catch this fish within several miles of shore. Men, who not many years ago could anchor a boat within a few rods of shore and catch fish in large quantities, are now obliged to visit the more remote ledges several miles from shore, and be satisfied with a light catch. Even in the deep water they are becoming scarcer. It was with the hopes of finding some remedy for this decrease that in 1878 and 1879 Prof. Baird began experiments upon artificially hatching these fish. Millions of eggs are laid where few come to maturity, the larger part being destroyed before they are hatched from the egg. Thus, if the eggs could be hatched and the