

solar outbursts in 1872, which were each accompanied by sharp fluctuations in the magnetic tracings at Kew and Stonyhurst. Since the experiments began, volcanic explosions have produced such ether waves, which have been simultaneously recorded over the continents of Europe and America.

Mrs. Eliza McMillan and Mr. Wm. Northrop McMillan, the donors to the academy of a home, as noted elsewhere, were elected patrons of the academy.

WILLIAM TRELEASE,  
*Recording Secretary.*

#### DISCUSSION AND CORRESPONDENCE.

##### THE FIRST USE OF THE WORD 'BAROMETER.'

TO THE EDITOR OF SCIENCE: I quite agree with Dr. Bolton's conclusion that Robert Boyle introduced the word 'barometer' into our language about the year 1665 (SCIENCE, p. 548). Although Dr. Bolton finds that the first use of the word by Boyle was in the *Philosophical Transactions* of 1666, yet he suspects him to be the author of an anonymous communication to that journal the previous year, in which the 'suspended Cylinder of Quicksilver' was called a 'Barometer or Baroscope.' For conclusive proof that Boyle really used these terms in the year 1665, I would cite a work that appears to have escaped Dr. Bolton's notice, viz., 'The General History of the Air \* \* \* by the Hon. Robert Boyle, Esq.,' published in London in 1692, which contains 'A short Account of the Statical Baroscope, imparted by Mr. Boyle, March 24, 1665.' In this letter to Mr. H. Oldenburgh, Boyle describes the instrument as some large and light glass bubbles, counterpoised in a pair of scales, and placed near a 'Mercurial Baroscope' (also called a 'Barometer' in the same letter), from which he might learn the present weight of the atmosphere. The same work contains probably the earliest systematic register of thermometer, barometer, hygrometer, wind and weather in England, viz., that kept by J. Locke, the philosopher, at Oxford and at London, between 1666 and 1683, with interruptions. The reading of the mercurial barometer, design-

nated at first 'baroscope,' was recorded in inches and tenths, but in another register, kept at Townley, in Lancashire, during a portion of the years 1670 and 1671, it was recorded to hundredths of an inch.

Professor G. Hellmann, the eminent German meteorological bibliographer and historian, although cognizant of Boyle's 'General History of the Air,' seems to be unaware of the letter quoted, since he also states in the introduction to No. 7 of his 'Neudrucke von Schriften und Karten über Meteorologie und Erdmagnetismus' that the word 'barometer' was first used by Robert Boyle in 1666, whereas it is certain, from what I have shown, that Boyle had already employed it the year before.

A. LAWRENCE ROTCH.

BLUE HILL OBSERVATORY,

April 13, 1903.

#### SHORTER ARTICLES.

##### A PRELIMINARY ACCOUNT OF THE EXPLORATION OF THE POTTER CREEK CAVE, SHASTA COUNTY, CALIFORNIA.

THE Potter Creek cave lies in a belt of gray Carboniferous limestone, about a mile southeast of the United States Fishery Station on the McCloud River at Baird, Shasta County. The mouth of the cave is situated in a bluff on the north side of Potter Creek, at an elevation of 1,500 feet above sea level, and about 725 feet above the McCloud.

The existence of bones in the cave was first discovered in 1878 by Mr. J. A. Richardson, who found there the skull of a large extinct bear afterwards described by Professor Cope as *Arctotherium simum*.\* This specimen is now in the Cope collection at the American Museum of Natural History, New York.

The cave was rediscovered by Mr. E. L. Furlong, of the University of California, in July of the past year. Mr. Furlong penetrated the deposit on the floor of the main chamber, with the result that a large number of bones representing a Quaternary fauna were found in a series of stratified deposits of pebbly clay, cave breccia, stalagmite and volcanic ash. On Mr. Furlong's return to

\* Cope, *Am. Nat.*, XIII., p. 791; XXV., pp. 997-999, Pl. XXI.