THE FIRST ELECTRIC TELEGRAPH.

The idea of the practical application of the electric telegraph to the transmission of message s was first suggested by an anonymous correspondent of the *Scots Magazine*, in a letter dated Renfrew, Feb. 1, 1753, signed C. M., and entitled "An Expeditious Method of Conveying Intelligence." After very considerable trouble, Sir David Brewster identified the writer as Charles Morrison, a native of Greenock, who was bred a surgeon, and experimented so largely in science that he was regarded in Renfrew as a wizard, and eventually found it convenient to leave that town and settle in Virginia, where he died. Mr. Morrison sent an account of his experiments to Sir Hans Sloane, the President of the Royal Society, in addition to publishing them anonymously as stated above. The letter set forth a scheme by which a number of wires, equal to the letters of the alphabet, should be extended horizontally, parallel to one another, and about one inch apart, between two places. At every twenty yards they were to be carried on glass supports, and at each end they were to project six inches beyond the last support, and have sufficient strength and elasticity to recover their situation after having been brought into contact with an electric gun barrel placed at right angles to the length about an inch below them. Close by the last supporting glass a ball was to be suspended from each wire, and at about a sixth or an eighth of an inch below the balls the letters of the alphabet were to be placed on bits of paper, or any substance light enough to rise to the electrified ball, and so contrived that each might resume its proper place when dropped.

With an apparatus thus constructed the conversation with the distant end of the wires was carried on by depressing successively the ends of the wires corresponding to the letters of the words, until they made contact with the electric gun barrel, when immediately the same characters would rise to the electrified balls at the far station. Another method consisted in the substitution of bells in place of the letters; these were sounded by the electric spark breaking against them. According to another plan, the wires could be kept constantly charged and the signal sent by discharging them. Mr. Morrison's experiments did not extend over circuits longer than forty yards, but he had every confidence that the range of action could be greatly lengthened if due care were given to the insulation of the wires.—*Engineering.*

NEWS AND NOTES.

"Adamscobite" is a mineral of peculiar structure, and so hard that it will cut steel without losing i s edge. It is found as yet only in the State of Missouri.

Atterbury &Co., of Pittsburg, Pa., have made a new departure in the use of glass, a patent having recently been granted to them for the manufactory of glass shingles.

"I hope that my children at least, if not myself, will see the day when ignorance of the primary laws and facts of Science will be looked on as a defect only second to ignorance of the primary laws of Religion and Morality."—*Rev. Charles Kingsley.*

A party of Italian scientists have just returned from an expedition to the South Pacific, having proved to their own satisfaction that a race of giants once existed in Patagonia. In wandering over Terra del Fuego they found human bones of marvelously large size.

The main purpose of education is not to promote success in life, but to raise the standard of life itself; and this object can be attained only by those higher studies which call forth the powers of reason, moral feeling, and artistic taste. Even in professional education, our aim ought rather to be usefulness in life than mere success, and we have great distrust of all theories of education that put success in the first place. . . . We believe that education should be of a kind in sympathy with the present age, and that it should by no means neglect to fit its recipient for the struggle of life; but we object to Professor Jevon's theory because it puts worldly success before beauty and truth; and we should be sorry to see such theories find acceptance with American educators.—*Century, Oct.*