

Atlas the nimbus and the strato-cumulus are placed together under the heading *Lower Clouds*, and their average height is given as about 6,600 feet, or considerably over a mile, while the Blue Hill measurements make the height of the nimbus less than half a mile. The more the future of kite meteorology is considered, the more numerous do the opportunities seem to become in which kites will be of great service. This measurement of cloud heights by means of kites is certainly one of the most important uses to which they have yet been put.

FOG POSSIBILITIES.

In a short article under the title *Fog Possibilities*, in Harper's Monthly Magazine for January, McAdie regards it as a possibility of the future that fogs will be dispelled by artificial means. Lodge has shown by his experiments that the dust in the air, which is of such importance in fog and cloud formation, can be removed by electrification. The fog may be dissipated by gentle electrification, which increases the size of the dust particles until they settle, or by strong electrical discharges, which scatter and precipitate the particles. McAdie believes that "fog dispellers might be placed upon war ships, ferry boats and at all terminal depots and crowded thoroughfares." "We cart away," he says, "from our busiest streets the snow or solidified vapor of the air. Is it not better economy to attempt the conquest of the water vapor in another form?"

INTERNATIONAL BALLOON METEOROLOGY.

COMMENTING on the subject of balloon meteorology, M. de Fonvielle, in a recent letter to the editor of SCIENCE, says: "It should be deeply regretted if your great nation should not join in these experiments, which are executed in a friendly spirit by three fractions of the European family

which are not always in harmony on the surface of the earth. * * * One important fact seems to result from all the experiments tried in France. When the balloon reaches a high altitude, 30,000 feet, at least, it is sure to be discovered in some locality eastward from the Paris meridian. This observation, which is * * sufficiently well established, gives a warning against the execution of these experiments from the eastern coast of the Atlantic. Neither New York, Philadelphia nor Washington are to be selected as a proper starting point. St. Louis should be eligible and a lot of other cities. The same might be said of any place west of the Rocky Mountains, especially of any place selected in California, as the Mt. Hamilton Observatory."

R. DEC. WARD.

HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

THE SHELL GORGETS OF NORTH AMERICA.

THE study of this interesting class of antiquities is aided by the description of one from Mexico by Professor Frederick Starr in the 'Proceedings' of the Davenport Academy, Vol. VI. It was found in the State of Michoacan, and a cut of it is inserted. Many points of similarity are noted between it and those from Tennessee, Georgia and Missouri, described by Holmes and Thruston. These are sufficient, in Professor Starr's opinion, to affiliate the Mexican example to those of the Mississippi Valley as members of one and the same art-development.

The possibility that these objects might have been carried as articles of trade from one region to another is considerable. The finding of one or several in a spot does not of necessity infer the identity of culture. The motives are Aztecan, but, unless supported by other indications of that peculiar school of design, it is more likely they were 'intrusive' objects.

THE RED RACE OF MADAGASCAR.

It is a curious fact that the older navigators who visited Madagascar describe a red race there, which now seems to be extinct. In the 'Bull. de la Soc. d'Anthropologie,' of Paris (Tome VII., fasc. 5), Dr. Bloch collects a number of extracts bearing upon this. The red people are described as tall, without beards, nose prominent, hair straight and long, the features of the European rather than Mongolian type, and the color of the skin red or reddish. This race, the description of which corresponds singularly with that of the North American Indian of the Algonquian or Iroquoian stock, appears to have passed out of existence about the middle of the last century. It is to be hoped that at least some ancient cemeteries may supply their osseous remains. One writer, Flacourt, believes them to have been the ancestors of the Hovas, but the physical traits do not correspond.

GLACIAL MAN IN OHIO.

ESPECIAL interest attaches to an article in the *American Geologist* for November, 1896, by Professor E. W. Claypole, on 'Human Relics in the Drift of Ohio.'

It is principally taken up with the description of a polished slate axe disinterred in 1886 from the bottom of a well, 22 feet deep, near New London, Ohio. It was neatly and symmetrically carved, and deeply weathered. The stratum was a late glacial deposit, lying directly upon the boulder clay.

Professor Claypole used all practicable precautions in examining the well digger who found the specimen (ten years before), and in confirming his statements. He presents the evidences of authenticity with as much conclusiveness as they will bear; and he meets the various objections which will arise from the length of time, from the artistic finish of the specimen and from the veracity

of the witness. His article is excellently studied, and if it fails to convince, it will be from the weakness of the case, not from deficiencies in presenting it.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

NOTES ON INORGANIC CHEMISTRY.

THE question as to whether illuminating gas or fuel gas is completely consumed in an ordinary burner possesses a considerable interest, not only from an economic, but also from a hygienic standpoint, since even small quantities of carbonic oxid are dangerous to health. Investigations have shown that in free burning flames, as well as in the Welsbach burner, practically no unconsumed gas is given off, but doubt has been thrown by the experiments of Vivian B. Lewes on flames which impinge on cold surfaces, as in gas stoves for cooking and under water baths in the laboratory. This point has been carefully studied at the Technische Hochschule at Karlsruhe by F. Haber and A. Weber, and their results show that with a sufficient supply of air, even under cold surfaces, the gas is completely burned, but if the air supply is insufficient decided quantities of carbonic oxid may be formed. Thus with the laboratory Bunsen no danger is to be apprehended, but with gas stoves care is necessary to see that there is a plentiful air supply.

In continuing his work upon metallic lithium M. Guntz finds that it has a strong affinity for carbon, forming a carbid Li_2C_2 , which is decomposed by water with the formation of acetylene. When lithium is heated in contact with carbon it unites with it directly. When compounds which give lithium by dissociation, as lithium hydrid or lithium nitrid, are heated with carbon, the carbid is formed, in the latter case accompanied by large quantities of lithium cyanid. Carbonic oxid and carbon dioxid