

result of changed conditions were pointed out. The effects of the same conditions on the parasite were also considered. Finally attention was called to the cumulative effects of the attacks of parasitic fungi and other organisms. It was shown in certain cases that when plants are attacked by fungi there is a temporary expenditure of vital energy, and as a result metabolic processes are brought about which may put the host in a more receptive condition for further attacks. The following case was cited: "A disease of a greenhouse plant is in a specific case due to the attacks of a fungus which kills the leaf in distinct spots. These spots are frequently so numerous as to entirely destroy the plant. The disease develops naturally under certain rare conditions in the greenhouse. These conditions, however, can be produced artificially in the case of individual plants, and in such instances the spores of the fungus, which are always present in the house, will infect and in a short time produce the characteristic injuries. Now, by following this method for several months and causing the new leaves to become infected as they appear, the plant eventually gets into a condition when it can no longer resist the fungus. If the leaves are all cut off at this time the new leaves will be attacked as fast as they appear, without taking any precautions to surround the plant with conditions that will make it susceptible. The cumulative effects of the fungus, in other words, has probably resulted in bringing about the metabolic changes that at the outset had to be brought on by conditions of light, heat and moisture."

Mr. V. K. Chesnut presented a paper entitled 'The Poison of the Black Nightshade (*Solanum nigrum*. L.),' being a brief account of solanine. This glucoside-like alkaloid, although not a remarkably poisonous substance, is the active constituent of the plant. It is present in the leaf and berry, but in varying amounts according to conditions of growth. It is greatest in heavy-scented plants, but in some the amount is so small that the berry is edible, and has even an attractive taste. Severe cases of poisoning have, however, attended the use of the plant; so it can not be recommended as a food. The variation in chemical composition was at-

tributed to the cosmopolitan nature of the plant which enables it to thrive well in different environments. Attention was called to the fact that the berries of *Solanum triflorum*, a native of the Great Plains region, was poisoning cattle in Nebraska.

F. A. LUCAS,
Secretary.

BOSTON SOCIETY OF NATURAL HISTORY.

A GENERAL Meeting was held April 21st, fifty-nine persons present.

Mr. Herbert Lyon Jones spoke of the biological adaptations of our seashore plants, and defined the physiological differences between them and our ordinary plants. The classes and characteristics of seashore plants were mentioned, the vertical position of the leaves and the reduction of leaf surface noted.

The danger of too great a quantity of salt in the tissues of seashore plants is reduced by changes which reduce transpiration of water; adaptations follow the needs of plants; the fruit is especially adapted to withstand the effects of water. The differences and similarities between the plants of the seashore and desert plants were pointed out and illustrated by a series of lantern slides.

SAMUEL HENSHAW,
Secretary.

NEW BOOKS.

The Chances of Death and other Studies in Evolution. KARL PEARSON. London and New York, Edward Arnold. 1897. Vol. I., pp. xi + 388. Vol. II., pp. 460. \$8.00.

Contribution towards a Monograph of the Laboulbeniaceæ. ROLAND THAXTER. Cambridge University Press, John Wilson & Son. Pp. 398. 26 Plates.

Sight. JOSEPH LE CONTE. New York, D. Appleton & Co. 1897. Pp. xvi + 312. \$1.50.

An Essay on the Foundations of Geometry. BERTRAM A. W. RUSSELL. Cambridge University Press. 1897. Pp. xvi + 201.

The Induction Coil in Practical Work. LEWIS WRIGHT. London and New York, The Macmillan Co. 1897. Pp. viii + 172.