

Natural Selection at Fault.

I AM truly sorry if, in my remarks on this subject, I have failed to make myself understood. As regards the common cat, I have seen not merely half-grown kittens, but middle-aged mousers, play with their booty and lose it.

The idea of this practice having the object of cultivating agility seems to me exceedingly far-fetched.

I have not sought to account for the cackle of hens, but have merely pointed out the undeniable fact that it is very liable to attract the attention of any ovivorous bird or beast to the probable presence of an egg.

The rarity in man of the power to erect the ear, or to turn it so as to catch any faint sound-waves has been repeatedly noticed, as also the fact that it does not collect all the impinging sound-waves into the orifice of the ear. My only merit, or demerit (?), has been to cite the abated condition of the ear-muscles as an instance of natural selection at fault. The ear is probably in a state of transition, but in what direction?

J. W. SLATER.

London, England, April, 25.

The Habitat and the Diet of the Lepidoptera.

A FEW lepidopterous species select in different countries widely different habitats and food plants. Thus *Papilio machaon*, the most common European species of papilio, is confined in England to the fenny districts of Cambridgeshire, and occasionally extends to small portions of the adjoining counties. What with the greediness of collectors for "British specimens" of any remarkable insects, and with the drainage of the fields, it is feared that this species will soon be extirpated. The caterpillar of this species, in England, feeds on swamp plants.

In central Europe *Papilio machaon* is fairly abundant on the dry, gravelly hills and certain parts of lower Silesia, Bohemia and Saxony, the very opposite in their character to the fields of Cambridgeshire. The larva in Silesia and Bohemia feeds frequently on the mountain ash.

The three hawk moths, *Chano-campa celerio*, *Ch. elpenar* and *Ch. porcellus*, on the European continent, feed chiefly upon the vine. But in England they feed on bed straw, willow herb and sometimes on the fuchsia. I have in vain tried to induce larvæ of elpenar or porcellus to feed on vine leaves, probably if the ova had been placed upon vine leaves the young larvæ would have not refused this, their normal food.

J. W. SLATER.

London.

Beaver Creek Meteorite.

Between the hours of 3 and 4 P. M. on the 26th of May last, a meteorite was heard by many persons, and three of the fragments were seen to fall near Beaver Creek, West Kootenai District, B. C., a few miles north of the United States boundary.

The two smaller of these fragments, weighing perhaps 5 to 6 pounds in all, were picked up at once; the larger one, weighing about 25 pounds, was not found until the next morning. It made a hole in the wet earth about three feet deep, two feet in soil and one foot in hard pan. The direction of the hole was south 60° east, true meridian, and at an angle of 58° with the horizon.

Fresh earth was scattered about the hole in all directions, but farthest (10 feet) in the direction from which the stone came.

On the 6th inst. I saw and purchased this stone from Mr. James Hislop, a civil engineer, who found it and brought it to Washington.

It is a typical aërolite of very pronounced chondritic structure. It is completely coated with the usual black crust, except at one end, where about three pounds have been broken off and scattered, like the two smaller stones, mostly among mere curiosity hunters. The mass now weighs 22½ pounds, measures 6 × 7½ × 9½ inches, and approaches in shape an acute octahedron.

I propose for it the name of *Beaver Creek*, from the stream by the banks of which it fell.

A microscopical examination and chemical analysis will be made soon.

EDWIN E. HOWELL.

Washington, D.C.

Delicious Drink.

Horsford's Acid Phosphate

with water and sugar only, makes a delicious, healthful and invigorating drink.

Allays the thirst, aids digestion, and relieves the lassitude so common in midsummer.

Dr. M. H. Henry, New York, says: "When completely tired out by prolonged wakefulness and overwork, it is of the greatest value to me. As a beverage it possesses charms beyond anything I know of in the form of medicine."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 374 Broadway, New York.]

For sale or exchange.—A complete set of the report of the last Geological Survey of Wisconsin, T. C. Chamberlin, geologist. It consists of four large volumes, finely illustrated, and upwards of forty large maps and charts. Will sell for cash or exchange for a microscope. Address Geo. Beck, Platteville, Wis.

For sale or exchange for copper coins or rare postage stamps. Tryon's American Marine Conchology, containing hand colored figures of all the shells of the Atlantic coast of the United States. Presentation copy, autograph, etc. One vol., half morocco, 8vo, usual price, \$25, postpaid, \$15. Botany of the Fortieth Parallel of the Hundredth Meridian of the Pacific R. R. Survey. Other Botanical works and works on Ethnology. F. A. Hassler, M.D., Santa Ana, Cal.

I have a fire-proof safe, weight 1,150 pounds, which I will sell cheap or exchange for a gasoline engine or some other things that may happen to suit. The safe is nearly new, used a short time only. Make offers. A. Lagerstrom, Cannon Falls, Minn., Box 857.

For exchange.—Hudson River fossils in good condition from the vicinity of Moore's Hill, Ind., also land and fresh water shells. Desire fossils and shells from other groups and localities. Address Geo. C. Hubbard, Moore's Hill, Ind.

For sale at low price.—A fine old-fashioned photographic camera, rosewood box, one foot square, lenses, four inches diameter, made by C. C. Harrison. Plateholders, troughs, baths, etc., all in large wooden case, formerly the property of the late President Moore, of Columbia College. This is a fine example of an instrument of the best make for the old wet-process methods, and valuable to any institution or amateur interested in the history of photography in the U. S. Address M. S. Daniel, 236 W. 4th St., New York.

I wish to exchange a collection of 7,000 shells, 1001 species and varieties, American and foreign, land, fluviatile and marine, for a good microscope and accessories. Address, with particulars, Dr. Lorenzo G. Yates, Santa Barbara, California.

For exchange.—I wish to exchange Lepidoptera of South Dakota and other sections, for Lepidoptera of the world. Will purchase species of North America. Correspondence solicited, particularly with collectors in the Rocky Mountains, Pacific Coast and Hudson's Bay regions. P. C. Truman, Volga, Brookings county, South Dakota.

Wants.

A YOUNG man who has been through the course in mathematics in Princeton University, wishes some tutoring this summer. Rates reasonable. Address P. H. Westcott, Cramer's Hill, Camden Co., N. J.

A GRADUATE of an American Polytechnic institution and of a German universit (Göttingen), seeks a position to teach chemistry in a college or similar institution. Five years' experience in teaching chemistry. Address Chemist, 7.7 Cary St. Brockton, Mass.

A N experienced teacher in general biology wishes a position in a first-class college or university. Three years in post-graduate study. Extensive experience. Strong endorsements. Address E. W. Doran, Ph.D., 1327 G St., N. W., Washington, D. C.

THREE teachers wanted for a male and female seminary in central New York. Typewriting, etc., languages, mathematics, sciences, *et. al.* Send stamp with and for particulars. Box 701, Hempstead, L. I.

A ZOOLOGICAL collector and taxidermist of ten years' experience in the field is now open to engagement, for either field or laboratory work. References furnished. Address Taxidermist, Box 75, White Sulphur Springs, West Va.

WANTED, as principal of a flourishing technical school, a gentleman of education and experience who will be capable of supervising both mechanical and common school instruction. Special familiarity with some technical branch desirable. Address, giving age, qualifications, etc., J. B. Bloomington, Fifty-ninth street and Third avenue, N. Y.

WANTED.—A young man as assistant in our microscopical department. Queen & Co., Philadelphia.

THE undersigned desires specimens of North American Gallinae in the flesh for the study of their pterylosis. These species are especially desired: *Colinus ridgwayi*, *cyrtopsis montezumae*, *deudragapus franklini*, *lagopus velchii*, *tympanuchus cupido*, and *pedicocetes phasianellus*. Any persons having alcoholic specimens which they are willing to loan or who can obtain specimens of any of the above are requested to communicate with Hubert Lyman Clark, 3922 Fifth Avenue, Pittsburgh, Pa.

THE American Bell Telephone COMPANY.

125 MILK ST., BOSTON, MASS.

This Company owns the Letters-Patent No. 186,787, granted to Alexander Graham Bell, January 30th, 1877, the scope of which has been defined by the Supreme Court of the United States in the following terms:

"The patent itself is for the mechanical structure of an electric telephone to be used to produce the electrical action on which the first patent rests. The third claim is for the use in such instruments of a diaphragm, made of a plate of iron or steel, or other material capable of inductive action; the fifth, of a permanent magnet constructed as described with a coil upon the end or ends nearest the plate; the sixth, of a sounding box as described; the seventh, of a speaking or hearing tube as described for conveying the sounds; and the eighth, of a permanent magnet and plate combined. The claim is not for these several things in and of themselves, but for an electric telephone in the construction of which these things or any of them are used."

This Company also owns Letters-Patent No. 463,569, granted to Emile Berliner, November 17, 1891, for a combined Telegraph and Telephone, and controls Letters-Patent No. 474,231, granted to Thomas A. Edison, May 3, 1892, for a Speaking Telegraph, which cover fundamental inventions and embrace all forms of microphone transmitters and of carbon telephones.

BUSINESS OPPORTUNITY.

There is an opening for a young man to open a New York office of the American Lightning Protection Co., operating under my patents. But little capital will be required.

N. D. C. HODGES,
874 BROADWAY, NEW YORK

INDEX TO VOLUME XVIII OF SCIENCE

is in preparation, and will be issued at an early date.

N. D. C. HODGES,
874 Broadway, New York, N. Y.

LIGHTNING DESTROYS!

Shall it be your house or a pound of copper?

Entirely new departure in protecting buildings from lightning.

One hundred feet of the Hodges Patent Lightning Dispeller (made under patents of N. D. C. Hodges, Editor of *Science*) will be sent, prepaid, to any address, on receipt of five dollars.

Correspondence solicited. Agents wanted.

AMERICAN LIGHTNING PROTECTION CO.,
874 Broadway, New York City.

Fact and Theory Papers

- I. THE SUPPRESSION OF CONSUMPTION. By GODFREY W. HAMBLETON, M.D. 12°. 40c.
- II. THE SOCIETY AND THE "FAD." By APPLETON MORGAN, Esq. 12°. 20 cents.
- III. PROTOPLASM AND LIFE By C. F. COX. 12°. 75 cents.
- IV. THE CHEROKEES IN PRE-COLUMBIAN TIMES. By CYRUS THOMAS. 12°. \$1.
- V. THE TORNADO. By H. A. HAZEN. 12°. \$1.
- VI. TIME-RELATIONS OF MENTAL PHENOMENA. By JOSEPH JASTROW. 12°. 50c.
- VII. HOUSEHOLD HYGIENE. By MARY TAYLOR BISSELL. 12°. 75 cents.

N. D. C. HODGES, Publisher,
874 Broadway, New York.

QUERY.

Can any reader of *Science* cite a case of lightning stroke in which the dissipation of a small conductor (one-sixteenth of an inch in diameter, say,) has failed to protect between two horizontal planes passing through its upper and lower ends respectively? Plenty of cases have been found which show that when the conductor is dissipated the building is not injured to the extent explained (for many of these see volumes of Philosophical Transactions at the time when lightning was attracting the attention of the Royal Society), but not an exception is yet known, although this query has been published far and wide among electricians.

First inserted June 19, 1891. No response to date.

N. D. C. HODGES, 874 BROADWAY, N. Y.

SCIENCE CLUBBING RATES.

10% DISCOUNT.

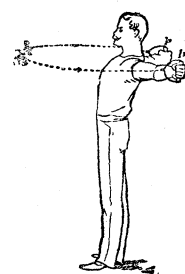
We will allow the above discount to any subscriber to *Science* who will send us an order for periodicals exceeding \$10, counting each at its full price.

N. D. C. HODGES, 874 Broadway, N. Y.

"BUSY FOLKS' GYMNASIUM."



A few minutes' daily exercise on our fascinating apparatus clears the brain, tones up the body, develops weak parts. Our cabinet contains chest weights, rowing-weights, lifting-weights, clubs and dumb bells, adjustable for old and young. *It is the only complete exercising outfit in the world* suitable for use in living rooms. All prices. You can order on approval. Chest machine separate, \$4.50 and up. Educated agents wanted. PHYSICAL CULTURE CHART, with illustrated directions for developing every part of the body healthfully, 50 cts. Sent for half price to those naming this paper.



Shoulders and Upper Back, good for Round Shoulders.

WHITNEY HOME GYMNASIUM CO., Box D., Rochester, N. Y.