

THEORETICAL MECHANICS. By J. Spencer. London: Percival & Co. 1892. Pp. viii, 243. No index. Price 80 cents.

This is a class book for the elementary stage of the English Science and Art Department. Being written for a limited and sharply defined field, its scope appears somewhat contracted. It is well printed and illustrated, however, and naturally possesses a value of its own.

LE POIL DES ANIMAUX ET LES FOURRURES. Lacroix-Danliad. Paris: J. B. Baillière et Fils. 1892. Pp. 419. No index. Price 80 cents.

An excellent illustration of the thorough French treatment of a subject as afforded by this book, which is really a monograph, and which treats of furs and skins of animals from every point of view. It is especially commendable from the illustrations, which in their sketchy French style are peculiarly effective. Many of them refer to the animals themselves and make a most attractive portion of the work.

The Californian Illustrated Magazine for July has over a hundred pages of excellent reading matter, and many attractive illustrations. Most noticeable of the general articles is one on "The Florence of the English Poets," and one on "Pompeii," with many recent photographs. First in interest, however, is a paper entitled "In the Yosemite," illustrated from paintings and photographs, while the descriptions of the Pasadena Southern California Mountain Railroad and the Schools of San Francisco, both amply illustrated, also contribute to the making of a highly interesting number. The magazine is published by the Californian Publishing Company, San Francisco. Price \$3 a year.

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SCIENTIFIC AMERICAN BUILDING EDITION.

JULY NUMBER.—(No. 81.)

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3. Perspective view and floor plans of a brick house at Chambersburg Pa., recently designed and built at a cost of \$2,500.
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9. A cottage at Babylon, Long Island, N. Y., erected at a cost of \$3,700 complete. Plans and perspective elevation.
10. Sketch of an Australian bush home. Cost from \$1,200 to \$1,500. A simple and economical design for a summer house.
11. Miscellaneous contents: Electrical cotton gin.—Aluminum.—The efflorescence on brickwork.—Leaf photography.—Car roofing.—Superior steel furnaces, illustrated.—How to stain wood yellow and gray.—Ink for writing on glass or porcelain.—An improved wood-working machine, illustrated.—An improved revolving chimney top, illustrated.—Elevators in the amphitheater of Rome.—An improved hot water heater, illustrated.—Natural wood grille and screen work, illustrated.—Galvanized eaves troughs and conductors, illustrated.—Sliding blind patents.

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Notes & Queries

HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters, or no attention will be paid thereto. This is for our information and not for publication.

References to former articles or answers should give date of paper and page or number of question. **Inquiries** not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each. **Books** referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(4451) F. W. D. asks: The relative durability of yellow poplar, white pine and hemlock, used as lap siding, also how long can yellow poplar be exposed to the weather before it commences to decay? A. White pine is the best for building purposes under all conditions and for siding is far superior to poplar or hemlock, which curls and disintegrates by exposure to the weather, and will decay by the action of moist air much quicker than pine.

(4452) R. N. C., being an amateur photographer, asks advice in regard to whether he shall sell his prints. A. If you take photographs for the love of the thing or, in other words, if you are an amateur, do not commence to bother for the results of your work. If friends particularly want copies, and you cannot afford to give them away, lend your negative to some struggling professional in your neighborhood, and refer them to him. You will thus be helping the profession without doing anything to interfere with it or injure it in any way.

(4453) J. L. W. asks: 1. Would an iron rod connected with the iron cresting on peak of a house and carried into the ground protect a house from lightning? A. A lightning rod erected in the manner proposed and merely inserted in a hole in the ground would be worse than nothing, but if you were to dig a trench in earth that is constantly moist, put in a layer of coke and then lay your rod along the coke bed for 3 or 8 feet, cover the rod with coke and fill up the trench, you would have a lightning rod that would be serviceable. 2. Would it hurt a boiler to allow the steam to blow out all the water and sediment after the fire was drawn? A. It depends something upon the construction of the boiler. If the boiler were one in which rapid cooling would cause irregular expansion and consequent severe strain, of course it would be injured by the treatment suggested.

(4454) F. A. L. asks how the storage batteries which I see moved about as dry batteries are made so they can be handled so, and if they could be recharged from gravity batteries? A. Storage batteries can be readily moved about after the electrolytic liquid is removed. After they are put in place the same liquid or a liquid of the same specific gravity should be placed in the cells. We know of no dry secondary battery.

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