NEW BOOKS AND PUBLICATIONS.

THE SENILE HEART. Its Symptoms, Sequelæ, and Treatment. By George William Balfour. New York and London: Macmillan & Co. 1894. Pp. 300. Price $1.50.

Much of this work is sad reading. It describes the heart troubles, one of the great dreads of humanity. It is, of course, especially designed for physicians, but to those who are willing to investigate these ailments, and are able to do so without being frightened by possibilities of disease, it will, no doubt, be found very interesting. A full index is appended.

A TEXT BOOK ON ROADS AND PAVEMENTS. By Fred P. Spalding. New York: John Wiley & Sons. 1894. Pp. viii, 213. No index. Price $2.

Good roads is to-day one of the subjects attracting the most widespread interest of the public. The fact is coming to be recognized that a civilized country should have the best possible roads and highways, and that the modern streets should not be disgraced by cobblestone pavements, and that the use of these inferior traction surfaces involves a great loss of energy in the conduct of everyday business. The different classes of pavements, such as macadam, asphalt, wood and stone block pavements, are all treated here in detail with numerous illustrations, and the work is in every way to be strongly recommended, except in the omission of an index.

GEOMETRY FOR GRAMMAR SCHOOLS. By E. Hunt. Boston, U. S. A.: D. C. Heath & Co. 1894. Pp. iv, 99. Price 25 cents.

SCIENTIFIC AMERICAN BUILDING EDITION.

OCTOBER, 1894.—(No. 108.)

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1. Elegant plate in colors showing a Colonial residence at Plainfield, N. J., recently erected for B. A. Hegeman, Jr. Two perspective elevations and floor plans, also an interior view. Cost $6,000. A picturesque design. Mr. Frank W. Beall, architect, New York City.
2. Plate in colors showing a very attractive stone dwelling recently erected for H. J. Peet, Esq., at Buena Park, Ill. Two perspective elevations and floor plans. A pleasing design. Mr. J. L. Silsby, architect, Chicago, Ill.
3. A dwelling at Bridgeport, Conn., recently erected for Frank Fowler, Esq. Two perspective elevations and floor plans. Cost complete $5,600. Mr. A. H. Beers, architect, Bridgeport, Conn.
4. A cottage at Stratford, Conn., recently completed for Robert Wheeler, Esq. Perspective elevation and floor plan. A unique design presenting pleasing elevations and a well arranged plan. Cost $6,200 complete. Mr. Edgar Osborne, builder, Stratford, Conn.
5. The residence at Belle Haven, Conn., recently completed for J. E. Kent, Esq. An attractive design in the modern Colonial style. Two perspective elevations and floor plans. Cost $6,850 complete. Messrs. Rossiter & Wright, architects, New York City.
6. A Colonial double house recently completed at Bayonne City, N. J. Perspective elevation and floor plans. Cost $4,800. Mr. Arthur C. Longyear, architect, New York City.
7. A dwelling at Bensonhurst, L. I., recently erected for John P. Jepson, Esq. An excellent example for a suburban home. Two perspective elevations and floor plans. Cost $5,620 complete, ready for occupancy. Mr. William H. Mersereau, architect, New York City.
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References to former articles or answers should give date of paper and page or number of question.

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(6283) H. E. writes: Why is it necessary to use such powerful engines to run dynamos? I cannot see why they should offer any great resistance, other than that caused by their great weight. A. A dynamo converts mechanical energy into electric energy. This it does by the forcing of the armature coils through a magnetic field. The resistance to its motion is almost identical with that offered by an armature of a magnet when drawn away from the pole of a magnet. The weight produces no resistance except as it increases journal friction.

(6284) F. G. C. writes: I have a telephone wire stretching from a pole to the house, a distance of 40 feet perhaps. It hums a great deal, and particularly at night and in cold weather. I have put an appliance called an anti-hummer or anti-singer at the house end of the line, but it does no good. Could you tell me, if I also put another anti-singer at the pole end, if it would help it? Also, what is the reason it sings in the night time? A. Try changing the tension of the wire. An intermediate insulator placed to one side of the center of the wire might answer. It hums when its natural period coincides in some way with the wind actuating it. The extra anti-hummer would probably improve it.

Communications Received.

"On Concrete Construction." By E. L. R.

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