MODERN AMERICAN DWELLINGS. With Constructive Details. By Numerous Architects. Practical Designs for Builders and Those Intending to Build. Illustrated by means of 33 half-tone engravings and 127 full-page lates of details. New York: David Williams Company. 1897. Price \$2.

The selection of designs of residences in this volume is intended for the practical huilder, who is frequently called upon to act as his own architect in the erection of dwelling houses. The designs range in cost from \$2,000 to \$5,000, and there is also a large number of details of the interior and exterior construction, a feature which the practical builder will recognize at once as of inestimable value in the building of houses. The designs represent work already executed and illustrate the efforts of architects scattered over a territory which includes practically the entire country. The half-tone engravings are well reproduced, but the elevations, while useful, are not particularly handsome. The floor plans are on a rather small scale. The details are specially to be com-

MODERN SWITCHBOARDS. B. Herrick. Philadelphia: The Cutter Electrical and Manufacturing Company. Pp. 200. Price \$3.

While this handsome quarto volume, full of illustra tions, is published primarily to set forth the business and describe the appliances manufactured by the Cutter Company, it is a book which cannot fail to be extremely valuable to the electrical engineer or to any one engaged in electrical work, as the abundant engravings represent a multitude of minute details not often found in a single volume. The book also has an interesting historical resume of early practices and expedients, indicating the advances recently made in electrical apparatus, and valuable data on approved methods of construction.

GREENHOUSE MANAGEMENT. By Prof. L. R. Taft, of the Michigan Agricul-tural College. New York: Orange Judd Company. Pp. 382. Price \$1.50.

A manual brimful of valuable condensed and well arranged information on the forcing of flowers, fruits and vegetables in greenhouses is here presented to the public, the book also covering the propagation and care of house plants. To the florist especially, who pursues the business as a commercial enterprise, and to the growers of early vegetables and choice fruits, the work should be of great value, as not only are new and improved methods continually being brought into use, but the plants grown change from year to year, and this work of Prof. Taft is up to date in elucidating the most recent methods. 'The same author has also published a standard work on greenhouse construction.

HYDRAULIC AND PLACER MINING. By Eugene B. Wilson. New York: John Wiley & Sons. Pp. 234. Price

The times are especially propitions, since the development of interest in the Klondike region, for publications on placer mining, which so many thousands of inexperienced men are now entering into in our Alaskan territory. The book before us is well adapted to set before the miner in a very practical way the leading features of the work, including methods of panning, cradling, boom ing, sluicing and the construction of riffles, flumes ditches, valves, gates, weirs, etc.

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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.

Bu yers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

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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.

(7436) C. L. P. writes: I have a square dining extension table which has become somewhat marred by use, that is it has lost its polish. Can you tell mewhat I cando to give it the fine polish a new table bas? A. Formulas for furniture polishes are given in our Supplement, Nos. 1067, 1099 and 1145, price 10 cents each by mail.

(7437) H. B. D. writes: I have had great difficulty with X ray tubes becoming punctured by the passage of the current through the glass. What is the cause of this? A. To be punctured is the natural death of an X ray tube. When it will occur no man can tell, whether in infancy or in old age. The static machine seems to use up tubes faster than the induction coil. The spark jumps through the glass because under existing conditions that is the path of least resistance, Sometimes punctures seem to be preceded by a creeping out of an electric discharge upon the tube; at others there is a flash, a stroke and a hole. It is difficult to account for them. Two valuable works may be mentioned. "The Induction Coil in Practical Work," Lewis Wright, price \$1:25 by mall, and "The Roentgen Rays in Medical Work," David Walsh, price \$2.25 by mail.

(7438) P. L. G. asks: Will you kindly inform me, through the Notes and Queries of the Sci-ENTIFIC AMERICAN, the way to astartain the distance from a receiver to the place that a submarine cable is severed? A. The general method of feedlizing a fault is to measure the resistance of the cable. This will be the resistance from the end on shore to the break, since the earth has no resistance. The resistance of the whole divided by the resistance per mile gives the number of miles to the place where the break occurred.

(7439) J. E. W. asks: How are electric lights tested for candle power? What apparatus is re-Electric Light Association has defined power lamp as one consuming 450 watts. This is 10 am peres at 45 volts. Incandescent 15 candle power lamps use from 50 to 55 watts. If the candle power is to be measured, the light of the lamp is compared directly with that of a standard. The legal candle is one consuming 120 grains an hour, made to have 6 to the pound. The method of comparison is to adjust the two lights till they illuminate a surface equally. Then the light of each is represented by the square of its distance from the sur-Thus, if the standard candle were 1 foot and the light to be tested 4 feet from this surface, the lights are as 12 to 42. or as 1 to 16. The light to be tested is giving 16 candles. This is explained in Hopkins' "Experimental Science." Price \$4.

(7440) R says: Please give a receipt for naking Galer, the cost to be about 16 cents per gallon. A. Mix well 10 gallons cold water, 71/2 pounds brown enger, 1/4 pound tartaric acid, add the juice expressed from 2 or 8 pounds dried sour apples, boiled.

(7441) G. says: Kindly let me know how much a knot is. I would like to know whether it is a mile or a little over. A. A "knot" is a nautical mile

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MAY 17, 1898,

AND EACH BEARING THAT DATE.

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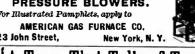
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