NEW BOOKS AND PUBLICATIONS.

THE YACHTS AND YACHTSMEN OF AMERICA. A standard work of reference. Edited by Henry A. Mott. Vol. I. New York: International Yacht Publishing Company. - Pp 692. Price \$20.

This work, the first volume of which has been re ceived, will undoubtedly be the most important contribution to the history of yachting that has ever been written, and the enterprising publishers are to be conratulated upon the success attained in the making of the book, in the cuts and type; while the editor, the wellknown Professor Henry A. Mott, here appears in the new and well filled role of a yachting editor. The work begins with a historyof early yachting and descriptions of many types of sailing vessels of different kinds, from the five masted ship to the house boat. Accounts of yacht clubs and yachting regattas, and descriptions of a vast number of yachts, with a quantity of illustrations of vessels of all types, constitute the text. Numerous portraits are given. Many of the cuts are most elegant photogravures, and some views of the interiors and exteriors of club houses are very attractive. Under each club the general by-laws are given. The many illustrations of yachts, each one famous in its day or at the present time, illustrate most interestingly the gradual evolution of the modern type of American sailing yacht, which now approaches so nearly to the English that there is little difference between the yachts of the two countries. The frontispiece shows the Vigilant in a very handsome photogravure, and other yachts of the latest type are likewise given, so that anybody who appeals to it will find the most recent information on the subject The great size of the book, its thoroughness, and the exhaustive treatment of the subject make it utterly out of the question for us to adequately review it. so that this short notice must be taken in place of an adequate review. The work itself speaks for its own merits

SCIENTIFIC AMERICAN BUILDING EDITION

AUGUST, 1894.-(No. 106.)

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- 3. A residence recently completed for J. P. Clarendon Esq., at Hackensack, N. J. Two perspective eleva tions and floor plans. Mr. J. E. Turhune, archi-tect, Hackensack, N. J. An attractive design.
- 4. A dwelling at Erie, Pa., erected for William J. Sell, Esq., at a cost of \$4,500 complete. Two perspec elevations and floor plans. Mr. C. F. Dean, tiv architect, Erie, Pa.
- 5. A beautiful residence recently erected at Belle Haven Conn. Three perspective elevations, one interior view, together with floor and ground plans. Mr. C. P. H. Gilbert, architect, New York City. A model design.
- 6. The beautiful residence of E. Einstin, Sq., at Pompton, N.J. Perspective elevation and floor plans. Cost complete about \$20,000. Architect, Mr. Manly N. Cutter, New York City.
- 7. A conveniently and economically arranged suburban

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The chargef or Insertion under this head is One Dollar a line for each insertion ; about eight words to a une Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue

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 In quiries 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 ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch, and, though we endeavor to reply to all ensearch and the advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.
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Minerals sent for examination should be distinctly marked or labeled.

(6196) G. H. will find a small plating dynamo described in SUPPLEMENT, No. 720.

(6197) J. H. C.-Magneto calls for tele phones may be purchased from any of the dealers in elec trical supplies who advertise in our columns

(6198) D. E. writes: We wish to erect a pole 75 or 80 feet high on our school campus, and would be greatly obliged for information as to the best kind and size of timber to use and the best method of lapping or splicing upper stick to enable us to lower the top. A You probably can do no better than to use pine for your [See note at and of list about copies of these patents.]

tannic acid (all parts by weight) and stir until cold. This is recommended as a valuable grease for russet leather and as a preventive of gumming.

Case, H. Peake

(6201) C. E. B. asks: 1. How many enses in a first class stereopticon and their names, from the light out? A. Generally six. Two plano-convex lenses placed near each other and near the source of light (when the latter is artificial), with their convex surfaces adjacent, but not in contact. The condenser is located between the source of light and the slide. Beyond the slide is the objective, containing (in first class instruments) the rear combination consisting of a meniscus of flint glass, with its convex side toward the slide, and a +meniscus of crown glass with its convex side toward the - meniscus, and the front combination consisting of a biconcave lens of flint glass and a biconvex lens of crown glass. 2. What are the respective sizes of lenses to make a fifteen foot picture at a distance of sixty feet? A. A half size portrait lens is commonly used. The lenses are about 21/2 inches in diameter. 3. Can a fifteen foot picture at sixty feet distance be made with an oil lamp? A. Under these conditions the picture Con will be dim and unsatisfactory. 4. Can the lantern as mentioned in query 3 be used in showing pictures in Cor houses wherean eightfoot picture at a distance of fifteen feet is desired ? If so, with what change ? A. A good picture will be produced, but it will be something less than 8 feet. 5. Please give name and address of parties who sell lenses apart from the instrument. Also give names and addresses of parties who deal in strong oil lamps suited for lanterns. A. Address opticians whose advertisements appear in our columns.

(6202) O. H. says: If a certain pendulum vibrates say once in three seconds and a second pendulum once in two seconds, what rule would be required to find the ratio of the lengths of these two pendulums? What were the so-called Alabama claims spoken of in American history? A. The length of pendulums for time beats are as the squares of the time mulplied by the standard length for a given latitude. Thus for New York the standard seconds length is 39'1017 inches. For a 2 second beat the square of 2 is 4×39 1017 =156.4068 inches and for 3 seconds is 9×39.1017=351.9153 inches and for half seconds $\frac{1}{2}^2 = \frac{1}{4} \times 39 \cdot 1017 = 9 \cdot 7754$ inches. The Alabama claims were made by the United States government against England for the destruction of American vessels by the warship Alabama, which was built and equipped in Englandfor the confederate States.

(6203) J. T. G. asks directions for making sulphate of mercury batteries, suitable for running small electric motor. A. Use a zinc and a carbon plate. No porous cupis needed. Charge with a mixture of sulphate of mercury and ammonium chloride in equal parts, mixed to a thin paste with water.

TO INVENTORS.

An experience of forty-four years, and the preparation of more than one hundred thousand applications for pa-tents at home and abroad, enable us to understand the laws and practice on both continents, and to possess un-equaled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices which are low, in accordance with the times and our ex-tensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broad-way, New York.

INDEX OF INVENTIONS For which Letters Patent of the

> United States were Granted August 21, 1894,

AND EACH BEARING THAT DATE.

cottage recently erected for George W. Payne,	staff. Square off five or six feet of the top and fasten on	[out note at and of his about copies of messe patential]	Harvester, corn, W. K. Liggett. Harvester sheaf carifer and dumper, S. D. Locke, Jr. Hay press, J. A. Stokeley Heater. See Electric heater. Water heater. Hod, Brandt & Spencer. Water heater. Hoisting and conveying apparatus, bucket, T. F.	524,968
Esq., at Carthage, Ill. An attractive and pictur-	it two mast irons as far apart as the length of the square		Jr	524,991
esque design. Perspective elevation and floor	part. These are a sort of double hoop of iron or figure	Advertising device, E. Walker	Hay press, J. A. Stokeley	524,771
plans. Cost \$3,000 complete. Architects, Messrs.	of eight shape, one section fitting the squared mast, the	Aerating and carbonating water, apparatus for, T. Craney. 524,888 Air brake, C. R. James. 524,990 Antispattering puard, C. Swayze. 521,795 Apothecary's graduate, T. E. Ogram. 524,786 Atomizer, A. M. Shurtleff. 524,786 Awming, E. V. Gaudin. 524,712 Azle yebicle. W. L. Massengale. 524,703 Bag. See Striking bag. 524,903 Bag. V. W. Romert. 524,811	Hod, Brandt & Spencer	524,799
G. W. Payne & Son, Carthage, Ill.	other section projecting therefrom, giving a round aper-	Air brake, C. R. James	Hoisting and conveying apparatus, bucket, T. F.	594 000
	ture for the top mast to slide through. A sheave or	Antispattering guard, C. Swayze	Moore Horse checking device, J. Davie	524,806 524,988
8. Perspective elevation and floor plans of a well arrang-	grooved pulley wheel is mortised in the foot of the top	Atomizer, A. M. Shurtleff 524.958	Horses from vehicles in motion. safety device for	504.00
ed dwelling, recently erected for A. N. O'Harra,	mast, with horizontal pin or journal. A couple of screw	Awning, E. V. Gaudin	detaching, I. Briggs	524.987 524.945
Esq., at Carthage, Ill. A pleasing design. Cost	eyes are fastened to the top of the lower mast. A rope	Axle, vehicle. W. L. Massengale 524,903	detaching I. Briggs. Hydrocarbon motor, J. H. Knight. Hydrometer, H. S. Keating. Insulator, C. N. Hammond.	524,944
complete, \$5,500. Architects, Messrs. G. W.	eyes are fastened to the top of the lower mast. A rope	Bag, See Striking bag. Bag lock W Roemer 524 811	Insulator, C. N. Hammond	524,550
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9. A stable at Belle Haven, Conn. Perspectiveviewand	top mast; one end is secured to one screw e e, the other	Bar. See Grate bar.	Jack. See Carriage jack.	52/ 090
ground plan. A unique design. Mr. C. P. H. Gil-	goes through a pulley fastened to the other screw eye.	Barber's chair, W. G. Hullhorst		524.848
bert, architect, New York City.	When in place the top mast is secured by a cross pin or	Mathewski, reter as a section of the parallel reter as 54,759 Battery plate separator, W. L. Silvey. 524,242 Bearing, roller and ball, G. J. Cline. 524,755 Bearing, universal adjustable, E. J. Muller. 524,755 Bearing, engine, J. P. Cornett. 524,254	Knob attachment, H. M. Newington	524,861
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tects, Brooklyn, N.Y. A neat design in the Colon-	(0100) C. E. D. asks. I. What power	Bed, folding, J. D. Morarity	Laundry iron, box, Potter & Hewitt	524,752 524,768
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Elevator safety appliance, M. C. Fullen love Elevators, swivel spout for, D. A. Robinson End gate, wagon, F. Varing Engine. See Beating engine. Rotary engine Rotary steam engine. Excreiging machine. R. H. Bath	. 524.979 . 524.984 . 524,741 . 524,846
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