

burner it is necessary ordinarily to furnish some means for heating the generator to volatilize the oil.

Designs.

NECK-BAND FOR VESSEL-CARRYING DEVICES.—JOSEPH RITTENHOUSE, Philadelphia, Penn.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each.

NEW BOOKS ETC.

ELEMENTARY CHEMISTRY FOR HIGH SCHOOLS AND ACADEMIES. By Albert L. Arey, C.F.E. New York: The Macmillan Company, 1899. 12mo. Pp. 300. Price 90 cents.

The author has produced an excellent text book which compares very favorably with those of the same grade which we have examined.

HOME PORK MAKING. By A. W. Fulton. New York and Chicago: Orange Judd Company, 1900. 16mo. Pp. 124. Price 50 cents.

The present volume is a complete guide to the farmer, the country butcher, and the suburban dweller in all that pertains to hog slaughtering, curing, preserving and storing pork product from scalding vat to kitchen table and dining room.

WATER AND WATER SUPPLIES. By John C. Thresh. Second Revised Edition. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. 438. Price \$2.

A thoroughly practical work of value to all sanitary engineers and to others who deal with water supplies.

FORAGE CROPS OTHER THAN GRASSES. How to Cultivate, Harvest and Use Them. By Thomas Shaw. New York: Orange Judd Company. Illustrated. 1900. Pp. 281. Price \$1.

The work has practical ring about it that betrays confidence. It will prove of immense value to every farmer who will give it careful study.

FORMULAS AND TABLES FOR HEATING. Being German Formulas and Tables for Heating and Ventilating Work for Those Who Plan or Erect Heating Apparatus. By J. H. Kinealy. New York: David Williams Company, 1899. Pp. 53.

This work will prove of value to all who have occasion to arrange heating and ventilating plants.

THE DIURNAL THEORY OF THE EARTH. Or, Nature's System of Constructing a Stratified Physical World. By William Andrews. New York: Myra Andrews and Ernest G. Stevens, 1899. Pp. 551.

THE ART OF THINKING. By T. Sharper Knowlson. London and New York: Frederick Warne & Company, 1899. Pp. 180. Price \$1.

A valuable little book which makes us see how defective we sometimes are in the art of thinking.

ESSAYS ON THE FOUNDATION OF EDUCATION. By Rev. J. Godrycz, Ph.D. Lansing, Mich. 1900. 12mo. Pp. 168.

The author deals with "Intellectual Education," "Methods of Teaching History," "Religious Education," "International and Civil Law," "Moral Education," "Physical Education," etc.

CATALOGUE OF THE ANNUAL ARCHITECTURAL EXHIBITION, 1899-1900. Philadelphia: T Square Club, 1899. Small quarto. Pp. 210. Price 50 cents.

This handsome volume is filled with excellent architectural designs, both projected and actually executed.

SEEGER AND GUERNSEY'S CYCLOPEDIA OF THE MANUFACTURES AND PRODUCTS OF THE UNITED STATES. New York: The United States Industrial Publishing Company, 1899. 8vo. Pp. 1356. Price \$10.

That the earlier edition has been in constant use in our office for some years in answering manifold queries as to manufacturers of all kinds of goods is a sufficient guarantee of the great excellence of the work.

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(7830) W. F. asks: What magnifying power (number diameters) a microscope should possess to reveal spermatozoa and the consumption germ?

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

FEBRUARY 13, 1900.

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

- Acetone, preparing haloid derivatives of, L. Lederer, 643,144
Acetylene generator, R. L. Beck, 643,243
Acid, nitroamidantbraquinone sulfo, O. Bally, 643,451

- Bait, artificial, Votaw & Thomas, 643,573
Banana shipping case, F. Schmitz, 643,163
Banjo tailpiece, G. A. Rapp, 643,159
Barrel locking mechanism, F. A. Hollenbeck, 643,601

- Flail S. R. Divine, 643,196
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Fly exit for screens, H. N. Sheek, 643,355
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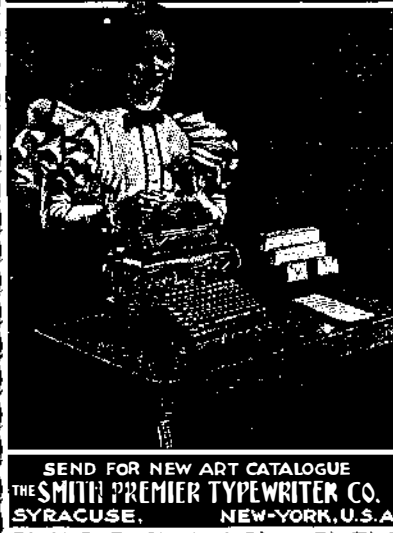
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