

hanging bacon is provided by this invention, one which will hold the meat without mutilation and permit it to be sliced uniformly. It is preferably made of steel wire in two sections, one section having a loop, one side of which is free, and forms a pin capable of engaging with the meat, while the second section is capable of being joined to the first section to hold the meat between the two sections.

**SHIRT.**—Bennett Berenstein, New York City. A sleeve piece, according to this invention, extends beyond the armholes and forms the sleeves, extending also over the shoulder and down the back and front, being stitched adjacent to the armholes and at its lower front and rear edges, the central portion forming a bosom and reinforce for the back and shoulders of the shirt.

**WHISTLE DRUM.**—Orville R. Noble, Granville, Mass. On the inside of the shell of a drum, according to this invention, a small casing is secured by an eyelet, thus forming an air passage to the inside of the casing, on an annular shoulder in which is secured a whistle. The whistle is so supported as not to be damaged or injured by a child, and the beating of the drum causes a whistling sound to be produced.

**NOTE.**—Copies of any of the above patents will be furnished by Munn & Co. for 10 cents each. Please send name of the patentee, title of invention, and date of this paper.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

JUNE 29, 1897.

AND EACH BEARING THAT DATE.

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

Table listing inventions with patent numbers and dates, including items like Acid apparatus, Air purifying apparatus, Alarm, Animal trap, Artist's folding frame, etc.

Table listing inventions with patent numbers and dates, including items like Conductor or ground wire attachment, Confection, Copy holder, Copying book, Cotton gin and cleaner, etc.

SCIENTIFIC AMERICAN BUILDING EDITION

JULY, 1897.—(No. 141.)

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- No. 1. Perspective elevation, in colors, and floor plans of a Colonial residence at Overbrook, Pa.
No. 2. Colonial house at Richmond Hill, N. Y., recently erected at a cost of \$4,200.
No. 3. A residence, in the Colonial style, recently erected at Larchmont, N. Y., for Mr. William Murray.
No. 4. A cottage at Prohibition Park, Staten Island, recently erected for Mr. August Mayer.
No. 5. "Wyandauk," the country residence of Lieut. Morton at Southampton, Long Island.
No. 6. A modern dwelling at Binghamton, N. Y., recently erected for Mr. William Mannis.
No. 7. A Colonial residence at Ardmore, Pa., recently erected for Dr. Louis O. Lanson.
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No. 11. Perspective and interior view of the Walhalla of Ratisbon on the Danube.
No. 12. Design for a "cozy corner."
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No. 14. Miscellaneous Contents: Fatalities to workmen.—Scaffolding.—Lime water in freezing weather.—How to make a cheap greenhouse.—Making floors warm.—Inexpensive country homes.—Improved sash lock, illustrated.—An improved door hanger, illustrated.—A novel wood working machine, illustrated.—Gray bricks.—Dixon's silica graphite paint.—A convenient gage for carpenters and builders, illustrated.

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

(7172) W. J. C. asks: Will you kindly inform writer how to plate a round globe outside the same as a looking glass? Have failed to find any receipt. A. You will have to coat your globe with silver on the inside. If you coat it on the outside, it will have a matte surface. The following are directions for silvering glass globes:

- Nitrate of silver..... 1 oz.
Distilled water..... 3 "
Alcohol..... 3 "
Ammonia sufficient, or about..... 1 "
Grape sugar..... 2 "

Dissolve the nitrate of silver in the water, add ammonia in a quantity just sufficient to redissolve the precipitate formed at first, add the alcohol, allow it to rest four or five hours and filter. The grape sugar is dissolved separately in 1 ounce of water, and added to the silver solution at the moment of using. The glass globes being perfectly cleaned, the solution is poured into them, and the globes are turned on all sides in front of a moderate fire, so that the liquid touches every part alike. The coating is done in a few minutes, when the excess of liquid is to be removed and the globe washed with distilled water first, and lastly with alcohol. The success of the operation depends in a great degree on the cleanliness of the surface of the glass to be silvered; the slightest speck of dust or grease spot is sure to show. A good way to clean the globes would be to wash them with a warm solution of soda, then with dilute nitric acid, and lastly with alcohol, care being taken not to touch with the fingers any part of the globes which is intended to be silvered.

(7173) A. H. G. says: Will you kindly give me the recipe for making the composition that takes fire by merely putting a drop of water on it? What I have reference to is an article sold on the streets, that looks like strips of cardboard, and all you have to do is to tear a piece off and wet it to obtain a light. Can it be made in a form that can be painted on, or cardboard or paper dipped into it? A. The substance you refer to is undoubtedly metallic sodium which is cut in thin strips. It flames violently on coming in contact with water. We do not consider its use safe. It could probably be used only in strips or chips.

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STANDARD TEXT BOOK LIST. Containing the Publishers' Authorized Prices of Standard School and College Text Books of all Publishers. Special Priced List of Klemm's Relief Practice Maps, Jackson's Vertical Writing, Evolution of Empire Series and Other Educational Devices and Publications of William Beverley Harrison, 59 Fifth Avenue, New York City. Pp. 190. Price 10 cents.

THE LOCOMOTIVE: ITS FAILURES AND REMEDIES. By Thomas Pearce. Fourth edition. Revised and enlarged. Wolverhampton: Thomas Pearce, 25 Ewins Street, Stafford Road. 1897. Pp. 96. Price \$1.

To any locomotive engineer who has a true scientific interest in his business this work, largely in the form of a catechism, which details the English practice, would be, we should imagine, of very great interest. We cannot but believe that merely as an illustration of the methods