

-E. Z. SMITHPETER, Bogard, Mo. The usual means for hitching harness with the neck-yoke of a collar...

POLISHING COMPOUND.—G. SHAMBECK, Salt Lake City, Utah. The object of this invention is to provide a polish for use on any article of furniture, vehicles, and woodwork...

HOSE-COUPLING.—H. E. SMITH, Roslyn, Wash. The purpose of this improvement is to provide details of construction for hose-couplings which are simple and practical...

TRUSS-PAD.—I. B. SEELEY, New York, N. Y. In this case the invention refers to improvements in support and retention hernial pads...

COMBINED ASH-RECEIVER AND PAPER-WEIGHT.—P. A. ROBSON, Westminster, S. W., London, England. This article serves both as an ash-receiver and as a paper-weight...

GAME-BOARD.—H. A. ROAT, JR., Harrisburg, Pa. The principal object in this instance is to provide a board which may be readily manipulated by one person...

GARMENT-SUPPORTER.—FRANCES C. McDONALD, P. O. Box 399, Chicago, Ill. The present invention is in the nature of an improvement upon the device forming the subject matter of a former patent...

HORSESHOEING-STOCK.—M. M. MAY, Rulo, Neb. Among other things this invention has for its object the provision of a stock which may be readily opened for the introduction of the animal...

PROTECTING HEAD-GEAR OR HAT.—ANNA MIKOSLAWSKI, New York, N. Y. The object of the invention is to provide a head-gear protector, more especially designed for protecting ladies' hats...

CARD GAME.—H. E. GAVITT, Topeka, Kan. The cards used in this game bear indicia of different money values. The cards of a pack are divided into groups of eight...

CESSPOOL.—H. D. GARDNER, New York, N. Y. This cesspool is constructed of cement, or the like, and is adapted for draining surface water...

CONDUIT FOR HOSE, CABLES, ELECTRIC WIRES, OR THE LIKE.—J. BURNSEN, West Superior, Wis. The invention pertains to improvements to be placed across a street below the surface...

FISH-HOOK.—W. E. KOCH, Whitehall, N. Y. In this patent the invention has reference to improvements in fish-hooks, an object being to provide a hook with a sliding weight whereby the weight will not only serve as a sinker...

BOTTLE-CLOSURE.—J. F. PERRY, Dec'd, Chicago, Ill. In this patent the invention is an improvement in that class of bottle-closures in which a seal of some form engages a fillet or shoulder of a bottle-neck...

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

Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once...

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 4925.—For parties to manufacture, in quantities, a flat, indelible pencil about 3/4 inch long when inclosed in a nickel-plated metal case...

"U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 4926.—For parties engaged in raising skunks.

AUTOS.—Duryea Power Co., Reading, Pa.

Inquiry No. 4927.—For manufacturers of small leather washers 1/2 inch inside and 9/16 outside.

Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

Inquiry No. 4928.—For manufacturers of chain adders.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 4929.—Wanted, oboe and bassoon gouging machines and tools for making the reeds for same. Also for makers of brass staples for the oboe.

American inventions negotiated in Europe, Felix Hamburger, Equitable Building, Berlin, Germany.

Inquiry No. 4930.—For manufacturers of a movable saw operated by horse power, with hollow shaft, made in several sections and telescopes, so that the saw can make several cuts from a tree or log at one setting.

Gear Cutting of every description accurately done. The Garvin Machine Co., 149 Varick cor. Spring Sts., N. Y.

Inquiry No. 4931.—For makers of gage wire stitching or stapling machines.

I would like to furnish new and interesting games to some company to make a place on the market. Wm Eick, Franklin, Neb.

Inquiry No. 4932.—For makers of machines for making shot.

Edmonds-Met el Mfg. Co., Chicago. Contract manufacturers of hardware specialties, dies, stampings, patented devices, etc.

Inquiry No. 4933.—For a machine for making cement bricks, of capacity of 5,000 bricks daily.

Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway New York. Free on application.

Inquiry No. 4934.—For makers of drop forgings for dental forceps.

The largest manufacturer in the world of merry-go-rounds, shooting galleries and hand organs. For prices and terms write to C. W. Parker, Abilene, Kan.

Inquiry No. 4935.—For dealers in Indian seed beads, and all classes of fancy olive, spar, jet, pearl and Venetian beads, at wholesale.

We manufacture anything in metal. Patented articles, metal stamping, dies, screw mach. work, etc., Metal Novelty Works, 43 Canal Street, Chicago.

Inquiry No. 4936.—For makers of 2, 3 and 4 inch terra cotta drain and water pipe and fittings for same, also plumbers' tools, books and material.

Empire Brass Works, 106 E. 129th Street, New York, N. Y., have exceptional facilities for manufacturing any article requiring machine shop and plating room.

Inquiry No. 4937.—For manufacturers of laundry machinery.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company, Foot of East 138th Street, New York.

Inquiry No. 4938.—For manufacturers of watch-mechanics.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 4939.—For makers of steam log skidders.

\$12,000 will buy controlling interest in foundry and machine business in Los Angeles, Cal. Paying, and can be worked up without limit. About \$35,000 per year business. Foundry, Box 773, New York.

Inquiry No. 4940.—For machinery for stamping metal souvenirs of soft metal.

Inquiry No. 4941.—For manufacturers of farm and dairy machinery.

Inquiry No. 4942.—For machines for threading cast iron pipe fittings.

Inquiry No. 4943.—For machines for cutting sheet iron washers of special dimensions of No. 12 gauge iron and lighter.

Inquiry No. 4944.—For makers of novelties suitable for the mail order business.

Inquiry No. 4945.—For machinery for making lead pipe for plumbers' use, from 3/8 inch size upward.

Inquiry No. 4946.—For manufacturers of painting and whitewashing machinery.



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.

(9259) A. S. says: Kindly inform me of the best place to take a mechanical engineering course in the city of New York; and also where the State University is situated, and whether they have a course like the above...

(9260) G. E. P. says: Is Manhattan Island sinking? A and B both claim that it is. I claim that it is not. A says it is sinking from the great weight of buildings, etc. B says it is because it is being undermined by the sea, East River and North River...

(9261) M. & M. say: We are in need of a paper, white preferably, which will after being dampened with water or some other fluid, turn color when an electric current is passed through it...

(9262) T. C. R. says: This town (Russell) of 1,200 inhabitants is situated high and dry on the watershed between two rivers (Smoky Hill and Saline), each of which is about 200 to 250 feet lower than the town...

(9263) W. H. says: I want to make a square glass fish aquarium. Will you please tell me how to make a cement to be water-tight and stick to the glass? A. 1. Dissolve 1 part finely shredded India rubber in 64 parts of chloroform...

(9264) J. E. D. says: To what height will a siphon pull water? Please answer this and put several hundred people at ease in our town. A. A siphon would lift water to a height equal to the height of a water column exerting the same pressure as the atmospheric pressure...

(9265) W. G. asks: Would you kindly inform me how many cubic feet of air one cubic foot of kerosene oil requires for complete combustion? A. One pound of kerosene oil requires for its combustion about 17 pounds of air...

In some parts at 20 to 30 feet, which will not furnish large enough supply for any but limited domestic use. The deep wells are practically useless, because of the great amount of salt and other minerals in the water. No one here seems to be informed on the subject, and least of all the workmen who make cisterns. Are there back numbers of the SCIENTIFIC AMERICAN or SUPPLEMENT on this? Can you give any suggestions that would be useful in establishing public municipal water supply for this town?

(9266) C. K. T. says: I desire to learn how carmine is manufactured. A. The preparation of carmine is little understood, but success in its manufacture depends less on any mystery connected with the process than on the employment of the purest water and the best materials...

(9267) A. H. F. says: 1. I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...

(9268) J. G. says: I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...

(9269) J. G. says: I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...

(9270) J. G. says: I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...

(9271) J. G. says: I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...

(9272) J. G. says: I would like to know the height of a locomotive from rails to top of cab roof. Of course I know that there is a great deal of difference in the different locomotives, but what I would like to know is of the average locomotive built at present...