Scientific American



Marine Iron Works. Chicago. Catalogue free Inquiry No. 8396.-Wanted, manufacturers of a newly invented rotary gas engine of 8.2 h. p., the cylin-der being contained within a 12-inch fly wheel.

For logging engines. J. S. Mundy, Newark, N. J. Inquiry No. 8397.-Wanted, a machine for making tamales.

J. C. Sparks, B.Sc., F.C.S., Chemical Expert. See adv't. Inquiry No. 8398.-For manufacturers of floor scrapers and smoothing devices.

"U. S." Metal Polish. Indianapolis. Samples free. Inquiry No. 8399.-Wanted. a machine, similar of a typewriter, for the use of the blind, for writing to a type.... musical scores.

Sawmill machinery and outfits manufactured by the

Inquiry No. S400.-Wanted, manufacturers of vapor head screws.

1 sell patents. To buy, or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.

Metal Novelty Works Co., manufacturers of all kinds of light Metal Goods, Dies and Metal Stampings our Specialty. 43-47 S. Canal Street, Chicago.

Inquiry No. 8402.—Wanted, a machine for orna-menting glassware, and having a platinum point to be heated to white heat.

The celebrated "Hornsby-Akroyd" safety oil engine Koerting gas engine and producer. Ice machines. Built by De La Vergne Mch. Co., Ft. E. 138th St., N. Y. C.

Inquiry No. 8403.-Wanted, quotations for print ed boot polish tins to hold one and two fluid ounces.

Manufacturing Company, 18 South Canal St., Chicago

Inquiry No. 8410.-Wanted, a manufacturer of naching ry for making confetti.



price. Minerals sent for examination should be distinctly marked or labeled.

(10174) M. W. and C. P. write: We would like to know, through the columns of, your valuable paper, how a boiler of 15 horse power, that is only in use about three months during a year, should be left. Should it be filled with water or empty, and should the smokestack be protected? A. A boiler to be laid up for a season should be thoroughly cleaned on the inside, filled with water with steam on, so as to be full of hot water that has been boiled, up to the safety valve. The flues and fire surface of the boiler should then be cleaned; ashes and soot removed from every part where such lodge. Then close fire doors, ash pit, and put a cap on the smokestack. With this treatment laid-up boilers do not inside or outside. It is the moist air ust

To Book Buyers

We have just issued a new 112-page catalogue of recently published Scientific and Mechanical Books, which we will mail free to



in Elmendorf's book there is a chapter on working with a camera in slide making. 4. Is there a magic lantern made which takes standard slides and burns oil for the light? Is this done, and are the pictures clear when thrown on the screen? A. Yes. The pictures cannot be enlarged more than four feet in diameter with oil lamps since the light becomes so faint by diffusing it over so large a screen. (10176) E. E. S. asks: 1. What is the

best way to mount a map on a muslin backing, and would a window shade be suitable? A. Moisten the muslin, stretch and tack it down on a table. Then wet the map thoroughly and apply the paste evenly over the entire back of the map, being very careful to bring it to the edges of the paper. Now lay the sheet on the cloth and smooth it out and rub it down upon the cloth so as to remove air bubbles and bring it into contact with the cloth. A roller or squeegee such as is used for mounting photographs will enable you to do the job much better. 2. How can I produce on brass the bronze-like finish used on the instruments of surveyors and engineers? A. Bronzing of brass by dipping in a solution of 5 drachms of perchloride of iron to 1 pint of water, until the desired color is obtained; then wash in hot water, dry, and lacquer with a thin shellac and

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drawn through a laid-up boiler that does damage by rust.

(10175) C. F. C. asks: 1. Are lantern slides (which are printed by contact) more sensitive to the light than carbon velox? For instance, a plate that printed a good clear picture on carbon velox in 15 seconds, being held 12 inches from a large size house lamp, would a lantern slide take longer or shorter time to print it? A. Lantern slide plates are always slow plates, much less sensitive than ordinary plates. A longer exposure is required. 2. Have you a SUPPLEMENT telling how to make lantern slides? A. We can send you "Photo-Miniature Lantern Slides," price twenty-five cents, and Elmendorf's "How to Make and Color Lantern Slides," price \$1 by mail. We can send you SUPPLEMENT 483, 517, 724, 1062, 1082, on slide making, for ten cents each. 3. Also, how to make a lantern slide camera for making slides from 4 x 5 negatives? A. SUPPLEMENT 625 tells how to make a bel-



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