

furring and then the usual lath and plaster, be as warm or warmer and much cheaper than any hollow wall? And also do you think that plastering a rough coat on to the brick wall inside, then felting, then furring, then the usual lath and plaster, would answer the purpose better—namely, keeping out the cold and being cheaper? And would not the same methods of finishing a brick wall inside apply to a stone wall? A. The methods you suggest will, no doubt, be somewhat cheaper, but will not give as good an insulator, for the reason that in saving the cost of the inner 4 inch wall, you lose not only the value of the 4 inch wall as an insulator, but also the air space, which by itself is better than the tarred felt or the plaster; besides, the two thicknesses of tarred felt would become a nuisance to most people, as the tar odor would penetrate the whole house for a long time. The plaster upon the inside and felting would only add a half or three-fourths inch to the thickness of a solid wall and complicate the putting on of a substantial furring by hiding the brick courses and make the nailing of the strips uncertain. Cheapness may be good in some places, but in your severe climate no dwelling should have less than 12 inch walls.

(5068) C. D. asks: 1. What is the most economical battery for silver plating? I want to do some plating in one gallon solution. Give description, dimension, and mode of construction of battery. A. Forsilver plating on a small scale, probably the Smee battery is the best. These batteries are made in different sizes. You might make or purchase one with two zinc plates, 4 x 8 inches, 1/4 of an inch thick, and a platinized silver plate, 4 x 8 inches, or, in lieu thereof, a platinized carbon plate. The zincs must be thoroughly amalgamated. The solution used is acid 1 part, water 10 to 11 parts. 2. I want, for sake of novelty, to have an electric light in my workshop. What battery and how many cells are necessary? I intend to use an ordinary incandescent lamp. I don't intend to use steady. A. We think you will find lighting your shop with incandescent lights with a current derived from primary batteries will prove expensive and troublesome. If you use a 20 volt lamp, you might be able to light it by the use of 14 or 15 Bunsen cells. 3. How is that battery made from tomato cans? A. We would not recommend it for electric lighting. It is described in "Electric Toy Making," \$1 by mail.

(5069) M. O. G.—For carbon paper: Melt 10 parts lard, 1 part of wax and mix with a sufficient quantity of fine lampblack. Saturate unglazed paper with this, remove excess and press. Use tissue paper. A rather fine pointed bone stylus is excellent for tracing designs, etc.

TO INVENTORS.

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Truck, store, S. M. & M. M. Duffie. 497,444
Trunk, wardrobe, J. Rundback (r). 11,339
Typewriter, portable, W. A. Alderdice. 497,433
Typewriting machine, H. L. Wagner. 497,560
Typewriting machine key, D. P. Wolhaupter. 497,483
Umbrella, folding, R. E. Johnston. 497,678
Valve, direct-acting engine, M. T. Davidson. 497,442
Valve, rod adjuster, B. D. Nortrup. 497,681
Valve, steam-actuated, R. L. Frost. 497,470
Valve, with governor attachment, brake, W. F. DeForest. 497,405
Vanilloyl-carbonic acid and vanillin, making, G. De Laire. 497,546
Vault cover, ventilating, C. H. Ross. 497,338
Vehicle equalizing device, H. B. Cross. 497,309
Vehicle seat, A. DeWetter & Co. 497,311
Vehicle spring, C. L. Bellamy. 497,457
Vehicle spring, O. T. Enskun. 497,372
Vehicle, spring, H. A. Moyer. 497,548
Vehicle spring equalizing device, D. C. Willett. 497,396
Ventilating wheel, M. R. Ruble. 497,413
Vessel for shallow water navigation, C. G. Keel. 497,325
Veterinary obstetrical forceps, D. M. Jones. 497,720
Wagon box fastener, M. A. Johnson. 497,577
Wagon, lunch, C. H. Palmer. 497,538
Wall paper trimmer, J. Reading. 497,528
Washboard, H. Purcell. 497,342
Washer, flat, and separator, A. H. Tench. 497,455
Washing apparatus, R. Talbot & Hughes. 497,743
Washing machine, S. B. Bowles. 497,781
Watch manshiping, J. B. Jobson. 497,429
Watch, safety guard, I. C. Carmona. 497,705
Water closet demonstrator, W. H. Lloyd. 497,584
Water gauge safety attachment, G. Benke. 497,614
Water gauge, safety, H. C. Fenner. 497,443
Weighing apparatus, meat, J. T. Tawerner. 497,302
Well, tubular, J. Burke. 497,302
Wheel. See Ventilating wheel.
Whiffletree attachment, W. Fitz Henry et al. 497,496
Whiffletree hook, H. Lemm. 497,328
Wire, electric, A. H. C. 497,474
Wire tightener, H. C. Fenner. 497,783
Wood, etc., compound for preserving, W. A. Gayle. 497,471
Wooden tubes, machine for forming, M. E. Brigham. 497,299
Wrench, F. B. Wells. 497,618
Wringer. See Clothes wringer.

TRADE MARKS.

Alteratives, tonics, and blood purifiers, Sawyer Medicine Co. 23,037
Baking powder, W. J. Stone. 23,048
Beer, lager, Bartholomay Brewery Company of Chicago. 23,039
Beer, lager, Bohemian Brewery Company of Chicago. 23,040
Beer, lager, Wacker & Birn. Brewing and Malting Company. 23,041
Brandy, E. Martell. 23,042
Clothes wringers, Bissell Carpet Sweeper Company. 23,054
Coffee and tea, Wing Brothers & Hart. 23,044
Cosmetic, South Bad Medicine Co. 23,043
Cotton goods, Massachusetts Cotton Mills. 23,019
Cotton goods, bleached, brown, and printed, G. Willis. 23,022
Dental remedies and specifics, M. L. Pine. 23,027
Firearms, revolving, Smith & Wesson. 23,056
Flour, Wheat, Spangle & Yeager. 23,045
Gloves, Powers Brothers & Co. 23,017
Hams, shoulders, breakfast bacon, and lard, sugar-cured, Swift & Company. 23,050
Insulating varnish, Massachusetts Chemical Company. 23,061
Jewelry, formed of artificial flowers, ornamental. C. Fishel. 23,016
Medicated beverage, Lundin & Co. 23,055
Medicinal tea, E. B. Schoenke. 23,036
Medicine for diseases of the blood and resultant disorders, Rogers, Moore & Bunting. 23,034
Metals, anti-rustion and babbitt, New York Smeiting and Refining Company. 23,057
Milk, for nursery and room use, pure, Walker-Gordon Laboratory Co. 23,04
Mineral water, Waukesha-Lithia Spring Company. 23,038
Oil, J. Insead, S. Kellogg. 23,052
Perfumery, Oakley Soap and Perfumery Company. 23,024
Perfumery and perfumed soap, J. L. Grossmith. 23,028
Pills, M. De Pa. 23,028
Pills, medicinal, P. B. MacNamara. 23,029
Pop corn, shelled, J. L. Douglass. 23,047
Printed and dyed fabrics, Arnold Print Works. 23,021
Prints and cotton piece goods, Arnold Print Works. 23,020
Remedies for cancer and other blood diseases, C. H. Mason. 23,033
Remedies for coughs and diseases of the throat, Occidental Manufacturing Co. 23,02
Remedy for chills, W. A. Perkins. 23,030
Remedy for piles, J. Senior. 23,031
Ribbons, Whitney & Co. 23,018
Rubber goods, Eastern Rubber Manufacturing Company. 23,023
Saddles, harness, robes, blankets, horse clothing, and like goods, Chickasaw Saddlery Company. 23,046
Sirup, Bliss Strup Refining Company. 23,046
Spices and mustard, Wing Brothers & Hart. 23,045
Steel sheets, strips, bars, and rods, Wilcox & Hobbs Manufacturing Company. 23,049
Steel suitable for files and other tools, tool, Jonas & Colver. 23,058
Woodworking machines, Hall & Brown Wood Working Machine Company. 23,065

DESIGNS.

Bottle, F. M. Winn. 22,441
Carpet, T. L. Lawton. 22,436
Curtain, etc., T. L. Lawton. 22,435
Curtain, cellar, F. A. Peter. 22,448
Lamp base, F. C. O'Brien. 22,442
Horsehoe, J. A. Wright. 22,450
Plate, T. Haviland. 22,440
Spoon, M. A. Fisher. 22,438
Stove, cooking, C. Wipier. 22,445
Stove, gas or oil, A. C. West. 22,446
Stove, heating, Schermerhorn & Weller. 22,4