

able and otherwise, having mechanical devices for applying a disinfectant to the fecal substances deposited therein.

As to the first claim, it is to be considered that commodes were not new at the time when the invention of the present parties was made, as is to be seen by reference to the Legras patent; that it was a part of the plan of prior inventors to employ in their commodes any disinfectants which might be suited to the purpose, as is also to be seen by reference to the same patent; and that the disinfectant properties of earth were previously well known, as is abundantly shown in "Ure's Dictionary," vol. 2, p. 29, cited by the examiner, as also in the twenty-third chapter of Deuteronomy, to which reference is made by the examiners-in-chief.

The third claim relates to a stirrer or mixer, placed in the receiving chamber of the commode, and moved by any appropriate means, for the purpose of thoroughly mixing the earth with the other contents of the chamber.

As the case now stands, however, the decision of the examiners-in-chief is confirmed, and the application refused.

The Largest Newspaper Mail

Which goes to any firm in this country, is received by Geo. P. Rowell & Co. the New York Advertising Agents.

Business and Personal.

The Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, One Dollar and a Half per Line will be charged.

The paper that meets the eye of manufacturers throughout the United States—Boston Bulletin, \$4 00 a year. Advertisements 17c. a line.

For the best, purest, and most economical Machinery Oils, of all kinds, send to Oil House of Chard & How, 131 Maiden Lane, N. Y.

We will pay more money for Brass Turnings, old Brass, Copper, Lead, and Zinc than any other establishment.

The best Anti-Friction Metal is made by the Tubal Smelting Works, Philadelphia, Pa. Buy it and prove it.

The undersigned, patentee of a valuable improvement in Window Sash Attachments, is desirous of making arrangements for the manufacture thereof, by parties who have good facilities.

John A. Sears, Rockford, Corsa County, Ala., has for sale 80 Beaver Hides. He wishes a receipt for baiting Beavers.

Railroad Companies reach all trustworthy contractors by advertising in the RAILROAD GAZETTE.

Machinists' Grindstones. J. E. Mitchell, Philadelphia.

Face Grindstones, for Nail Cutters. Mitchell, Philadelphia.

Craighleith, for Glass Cutters. Mitchell, Philadelphia.

Soap Stone Packing, in large or small quantities. Greene, Tweed & Co., 13 Park Place.

Wanted.—Iron Planer, new or secondhand; bed short, and over 30 in. wide. Send prices and cuts to Trevor & Co., Lockport, N. Y.

Wanted.—New or secondhand Carwheel Borer, Axle Lathe, double head preferred; Wheel Press and Centering Lathe. Address, with description, maker's name, and price, Michigan Car Co., Detroit.

Best Cement Water and Drain Pipe Machinery. Works by hand, horse, water, or steam power! State and County Rights for sale. J. W. Stockwell & Co., Nos. 28 and 163 Danforth st., Portland, Me.

Railroad Bonds.—Whether you wish to buy or sell, write to Charles W. Hassler, 7 Wall street, New York.

Cotton Machinery for sale. See advertisement. Also, a three-story Brick Mill. R. H. Norris, Paterson, N. J.

Manufacturers of Fire Engines (hand or steam) and Hose, please send circulars, with prices, etc., to J. P. Hale, Mayor, Charleston, Kanawha C. H., West Va.

Engine Lathe wanted, about 30 inch swing, 12 feet bed, in good order. Pratt & Co., 87 Chambers st., and Buffalo, N. Y.

The Philadelphia Scientific Mechanics' Circle will answer any mechanical question for 25 cts. Address as above, 125 N. 7th st., Philadelphia.

Electrical Instruments, Models, etc., made to order, and Gear Wheels and Pinions cut, by W. Hockhausen, 113 Nassau st., Room 10, N. Y.

Peck's Patent Drop Press. Milo Peck & Co., New Haven, Ct.

Millstone Dressing Diamond Machine—Simple, effective, durable. For description of the above see Scientific American, Nov. 27th, 1869. Also, Glazier's Diamonds. John Dickinson, 64 Nassau st., N. Y.

Experimental Machinery and Models, all sizes of Turned Shafting, Paper Box, Paper Collar, and Boston Plating Machines, Self-operating Spinning Jack Attachments. W. H. Tolhurst, MacLain Shop, Troy, N. Y.

Best Scales.—Fair Prices. Jones, Binghamton, N. Y.

Steam Watch Case Manufactory, J. C. Dueber, Cincinnati, Ohio. Every style of case on hand, and made to special order.

Agents Wanted.—on a new plan—to sell a patent Collar Stud. Send for Circular. S. E. Williams, Hartford, Conn.

L. & J. W. Feuchtwanger, Chemists, 55 Cedar st., New York, manufacturers of Silicates of Soda and Potash, and Soluble Glass.

For Hydraulic Jacks, Punches, or Presses, write for circular to E. Lyon, 470 Grand st., New York.

A. G. Bissell & Co. manufacture packing boxes in shooks at East Saginaw, Mich.

For mining, wrecking, pumping, drainage, and irrigating machinery, see advertisement of Andrews' Patents in another column.

Wanted.—A responsible dealer in every town in the United States, to sell "The Tanite Co.'s" Emery Wheels and Emery Grinders.

The new Stem Winding (and Stem Setting) Movements of E. Howard & Co., Boston, are acknowledged to be, in all respects, the most desirable Stem Winding Watch yet offered, either of European or American manufacture.

Belting that is Belting—Always send for the Best Philadelphia Oak-Tanned, to C. W. Army, Manufacturer, 301 Cherry st., Phila.

Ashcroft's Low Water Detector, \$15; thousands in use; can be applied for less than \$1. Names of corporations having thirty in use can be given. Send or circular. E. H. Ashcroft, Boston, Mass.

To Cotton Pressers, Storage Men, and Freighters.—35-horse Engine and Boiler, with two Hydraulic Cotton Presses, capable of pressing 15 bales an hour. Machinery first class. Price extremely low. Wm. D. Andrews & Bro., 414 Water st., New York.

Tin Presses & Hardway Drills. Ferracite Works, Bridgton, N. J.

Brown's Coalyard Quarry & Contractors' Apparatus for hoisting and conveying material by iron cable. W. D. Andrews & Bro., 414 Water st., N. Y.

American Boiler Powder Co., P. O. Box 315, Pittsburgh, Pa.

Carpenters wanted—\$10 per day—to sell the Burglar Proof Sash Lock. Address G. S. Lacey, 27 Park Row, New York.

Improved Foot Lathes, Hand Planers, etc. Many a reader of this paper has one of them. Selllog in all parts of the country, Canada, Europe, etc. Catalogue free. N. H. Baldwin, Laconia, N. H.

Twelve-horse Engine and Boiler, Paint Grinding Machinery Feed Pumps, two Martin Boilers, suitable for Fish Factory. Wm. D. Andrews & Bro., 414 Water st., New York.

Cold Rolled-Shafting, piston rods, pump rods, Collins pat. double compression couplings, manufactured by Jones & Laughlins, Pittsburgh, Pa.

For Solid Wrought-iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

The Merriman Bolt Cutter—the best made. Send for circulars. H. B. Brown & Co., 25 Whitney ave., New Haven, Conn.

Glynn's Anti-Incrustator for Steam Boilers—The only reliable preventive. No foaming, and does not attack metals of boilers. Price 25 cents per lb. C. D. Fredricks, 587 Broadway, New York.

For Fruit-Can Tools, Presses, Dies for all Metals, apply to Bliss & Williams, successor to May & Bliss, 118, 120, and 122 Plymouth st., Brooklyn, N. Y. Send for catalogue.

Presses, Dies, and Tanners' Tools. Connor & Mays, late Mays & Bliss, 4 to 8 Water st., opposite Fulton Ferry, Brooklyn, N. Y.

Taft's Portable Hot Air, Vapor and Shower Bathing Apparatus. Address Portable Bath Co., Sag Harbor, N. Y. (Send for Circular.)

Winans' Boiler Powder.—15 years' practical use proves this a cheap, efficient, safe prevention of Incrustations. 11 Wall st., New York.

To Ascertain where there will be a demand for new machinery or manufacturers' supplies read Boston Commercial Bulletin's Manufacturing News of the United States. Terms \$4 00 a year.

Queries.

[We present herewith a series of inquiries embracing a variety of topics of greater or less general interest. The questions are simple, it is true, but we prefer to elicit practical answers from our readers.]

1.—EXPLANATION WANTED.—I am running an engine lathe, twenty-four inch swing, and a short time ago, I tried to bore a pair of sixteen inch cylinders, and could not do it, as the gearing gave way at every trial.

2.—ELECTROPLATING.—How can I prepare Britannia metal, tin, and ordinary soft solder, so that they can be electroplated or gilt in a cyanide solution? I cannot get the information from Smees or Napier, but have no doubt that some of your readers can readily describe the desired process.—J. F.

3.—ICE BOAT.—Will some one tell me the dimensions of an ice boat which would carry two medium sized persons?—C. S. M. K.

4.—FIXING LEAD PENCIL MARKS.—I would like a ready way of fixing lead pencil marks to paper.—J. H. R.

5.—JAPANNING.—I wish a recipe for making and using the quickest baking and best Japan.—B. B. C.

6.—MALLEABLE IRON.—Will some one give me practical information how to make malleable cast iron? Or, are there any works explaining the theory?—E. D. P.

7.—SPECTROSCOPE.—I have a hollow glass prism, filled with sulphuric acid of carbon, two inches on each face. I would like to know what the width and depth of the slit should be, through which the light first passes, what should be the diameter and focal length of the lens in the first tube, and what distance should it be placed from the prism?

8.—MUCILAGE AND INK.—Will some of your readers give me a formula or making mucilage, such as sold by stationers, and also a formula for a good, cheap, black copying ink?—A. S.

9.—CHEAP LATHE.—I would like practical directions for constructing, at the least possible expense, a slight lathe of about eight inches swing; as great accuracy is not essential, metal need be employed only where absolutely necessary, as for spindles, bearings, centers, etc.

10.—NICKEL PLATING.—I wish plain practical directions and formula for nickel plating?—T. D. T.

11.—DYEING COTTON BLACK.—I want to dye soft cotton black, and have no steam. Can I do it and get a good color without steam, and would it be better to use aniline black, or the usual dye stuffs?—H. W.

12.—GLIDING ON GLASS.—What is the size used for gliding on glass?—M.

13.—TELESCOPE AND HOROSCOPE.—I wish to know, if, with the addition of one more convex lens of one inch diameter I cannot make a terrestrial telescope from the directions given in No. 18, by A. W. G., of Mich.; and will it change the power? I also wish to know the meaning of tracing the horoscope, and how it is done.—E. T.

14.—EMERY WHEEL.—Can any reader of the SCIENTIFIC AMERICAN tell me how to make solid emery wheels that will not gum nor chip?—T. W. B.

15.—OVERSHOT WHEEL.—I wish a rule, simple and practical, for calculating the power of overshot water wheels, and the means of determining with accuracy the power of water in a flowing stream.—T. W. B.

16.—SPEED OF CIRCULAR SAW.—I want a rule for determining the number of revolutions a circular cutting saw of any given size should make per minute.—T. W. B.

17.—REFINING GOLD.—Can some one give me any information on refining gold? I melted over some scrap gold leaf, which appeared to be very free from dirt, but after melting, it looked like a lump of tin instead of gold. When we sell it to the gold beater, he melts it over into fine gold.—F. E. H.

18.—BELT.—Can you tell me why a belt runs to the largest part of a pulley? I have asked a number of mechanics for a year past, but they cannot tell why.—F. E. H.

Answers to Correspondents.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratuitous replies to questions of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisements at 1 00 a line, under the head of "Business and Personal."

ALL reference to back numbers must be by volume and page.

TURNBULL'S BLUE.—With much deference to the undoubted erudition of your correspondent, E. C., of N. J., I must point him to an error into which he has certainly fallen, and into which he is likely to lead J. B., who wants to know how to make "Turnbull's blue." E. C. has given a good formula for the preparation of ordinary Prussian blue (Fe Cy₂). But to make Turnbull's blue, (Fe Cy₂)¹², the ferricyanide (red prussiate), and not the ferrocyanide (yellow prussiate) must be used.

POUNDING OF PISTON.—Let E. S. take out the trap and put in a half inch globe valve at each end of the cylinder, and keep them open while the engine is in motion. The trap, while good in theory, is liable to fall in exhausting the water whenever the spring, which lifts the valve, loses its strength or is held down by weight of water.

TO KILL BEDBUGS.—Any woman ought to be ashamed to ask for an article to kill bedbugs. No one will be troubled with these pests if they will take the trouble to thoroughly cleanse the bed and room once a month. Bedbugs can stand anything better than cleanliness.

TO KILL BEDBUGS.—If "Housekeeper," No. 11, page 346 Vol. XXII, will use benzine or gasoline, she can kill bedbugs as fast as she can find them; and by using a spring bottom roller, the fluid can be forced into cracks and crevices which can be reached only by this or similar means.

HONING RAZOR.—P. R. says that in honing his razor, he always gets a rough wire edge. So he ought to have. Always hone until you turn the edge, or you might as well not hone at all. Now to get a smooth cutting edge is what you want.

MAGIC LANTERN.—Your querist, No. 11, page 282, can construct a magic lantern to meet his requirements, as follows: Use a plain convex lens, 4 inches in diameter, and 8 inches focus; put one double convex lens, 2 inches in diameter, in the focus of the first. The light should be placed three inches from the large lens.—H. W. G., of Mich.

OILING FURNITURE.—In answer to query No. 1, in your issue of May 20, I would state for the information of A. H. that pure linseed oil (raw oil) is used for walnut furniture, applied with a brush.

POUNDING OF PISTON.—Your correspondent "S. E." in issue of May 20th, asks what makes his piston pound. I set up an engine once that was troubled with the same difficulty, and afterwards spent a large amount of time and some money in trying to remedy the trouble.

POUNDING IN STEAM CYLINDER.—S. E. asks "what is the cause of the knocking in the cylinder?" I have known valves in steam closets to knock, and sound as though the trouble were in the cylinder. I suspect, however, that the trouble of which S. E. complains, is that the crank is ahead of the steam pressure at the beginning of the stroke, when the governor valve is hard down, so as not to admit sufficient steam to start the piston in time for the crank.

M. E. Y.—Some medicines appear to operate in a peculiar way upon the retina of the eye. For example: Dr. Rose, of Berlin, has described a sort of color blindness, in respect to blue colors only, produced by taking a dose of Santonine. After the effect of the medicine has subsided, the natural power of the eye to distinguish blue returns.