

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 This is for our information, and not for publication.

(1) L. H. writes: A man who has had considerable to do with steam engines and boilers, as fireman and engineer, asserts that it requires more water (more pumping at least) to run an engine when the atmosphere is charged with vapor and the barometer low than at other times.

(2) B. M. W.—The gas which escapes from the earth in the localities of natural gas wells is supposed to have been generated by the internal heat of the earth, and confined to the porous or cavernous lower strata of rocks by a later deposit and hardening of a close grained upper strata.

(3) W. L. R. desires (1) a recipe for making varnish black, such as used on iron work, like sewing machines. A. Such work is japanned, not varnished.

(4) J. N. C. desires the formula for making the "walnut hair dye." A. The simplest form is the expressed juice of the bark or shell of green walnuts.

(5) V. G. (Mexico).—Apparently no very complete exhaustive analyses of the poison of the scorpion have yet been made.

(6) F. A. T. asks for any means to prevent hands from perspiring. A. Use the following prescription:

- R. Acid tannic..... ʒij.
Aqua rosal..... ʒss.
Spt. Vin. Rect..... ʒiiss.
Aquea..... ʒiij.

M. S. Use as a wash, each night and morning with a soft sponge. The skin should be thoroughly cleansed with soap and warm water and carefully dried and then apply the wash as directed.

(7) J. P. E. writes: I have been troubled for over a year with pimples on my face, what can I do to get rid of them? I have been taking medicines for nearly three months and find no change.

(8) S. T. B. asks: What material and process to use in order to give the final or black finish to lenses? A. The finest jeweler's rouge on a pitch lap. Vienna lime is used by some for the last finish, in the same manner as the rouge.

(9) A. A. G.—The soot indicator is used as an indicator of electric currents or of the variations in the intensity thereof.

(10) A. H. asks: If it were practicable to use rods of pure iron as carbons in an electric arc lamp, what would be the color of the light?

(11) E. A. H.—One of the simplest and best methods of rendering the basement walls of a building damp-proof is to construct on the outside an area wall so that the earth does not rest directly against the main wall of the house, but only against the outside wall or casing of the area.

(12) H. T. H. asks for a near relative standard amount and size of wire on armature and fields of any dynamo using two field magnets.

(13) C. W. H. asks: How is the gilding done on watch plates and wheels to produce the color and finish, as they are when new?

- Copper sulphate..... 3 parts by weight.
Verdigris..... 7 " "
Ammonium chloride..... 6 " "
Potash nitrate..... 6 " "
Acetic acid..... 31 " "

Use solids in powder. After dipping, heat the articles on a plate of copper until they turn dark or black, and then treat with concentrated sulphuric acid. Or instead of above mixture use:

- Alum..... 3 parts by weight.
Potash nitrate..... 6 " "
Zinc sulphate..... 3 " "
Sodium chloride..... 3 " "

(14) J. D. asks: 1. In making the dynamo electric machine in SUPPLEMENT, No. 161, three or four times larger than the description there, should the wire be also increased in thickness?

(15) M. B. asks how to connect a wire to a chloride of silver electrode. A. Melt the chloride of silver, and cast it in a mould around a flattened silver wire.

(16) J. W. W. asks: Can I deposit iron with the batteries, and how? A. You can do so by following method, as used in nickel plating.

H. Fontaine, Electrolysis, price \$3.50, which we can furnish. 2. How can I make an electro magnet capable of raising about 200 pounds from a distance of 6 inches from the poles, and how many gravity cells will I require?

(17) J. N. asks how to become an electrician. A. Try to get employment at any terms in some neighboring electric light factory or plant, and read standard works on the subject.

(18) J. F. M. says: I wish to know how to fix a piano cover. It is made of rubber, and coated on the outside with a green flock.

(19) M. J. asks concerning weight of hay. A. According to Haswell, loose hay weighs 5 pounds to the cubic foot; pressed as in stack, 8 pounds; close pressed as in bale, 12 to 14 pounds.

(20) T. H. H. says: I observe that some at least of the ordinary batteries, with induction coil, for medical use, represent the secondary or induced current as having definite polarity like the primary.

(21) J. B. B. asks: 1. Is the use of brass spigots in drawing beer or porter injurious. If so, what would be the best kind to use?

(22) J. W. P.—We are not familiar with the exact formula of the laryngeal lozenges you ask about, but Wistar's cough lozenge, which is of the same character, is prepared by mixing gum arabic, extract of licorice, and sugar, of each 2½ ounces, powdered opium 1 drachm, oil of anise seed 40 drops, for 60 lozenges.

(23) W. L. J.—Flowering plants may be kept over winter by packing their roots in a box of sand in a cellar; bulbs, by hanging in bunches in a cellar.

(24) C. N. Y. writes: I have a marble statue to repair. It is 3 feet high, and the feet are broken off. Can you inform me of a good cement that I can cement it with, or what do they cement marble together with?

(25) J. W. G.—The water of condensation in steam pipes can be returned to the boiler only by gravity, which requires that the water line in the boiler should be below the level of the coils or pipe work.

(26) J. P. D. asks (1) the kind of iron that should be used in the construction of spoke wheels for a light hand car. A. Make rim and hub of cast iron with wrought iron spokes.

(27) C. S. S. asks whether annealing boiler lines is an injury or not. A. Boiler makers sometimes anneal the ends of tubes for one or two inches when they are found to be brittle.

(28) Inquirer asks (1) what chemical preparations will render fabrics fireproof or incombustible. A. You will find several recipes for rendering fabrics incombustible, in the SCIENTIFIC AMERICAN SUPPLEMENT, No. 245.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined with the results stated.

J. M. H.—The specimen has the appearance of being pipe clay. On account of the nearness of excellent qualities of clay in New Jersey, it would have no commercial value in New York.

tested in a potter's kiln.—A. B.—The specimen appears to be infusorial earth, and is useful in polishing metal surfaces, etc. It would be impossible to find a market for it in any city, as the supply already exceeds the demand.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted, May 11, 1886,

AND EACH BEARING THAT DATE.

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

Table listing various inventions such as Aging liquors apparatus, Air compressor, Air heating apparatus, Alarm, Amalgamator, Ammoniacal liquor, Apparatus for concentrating, Bags, etc., holder, Barnes Edmonds, Baling press, Band cutter's platform, Bar, Barber's register, Barometer for indicating dredging, Barrel trimming machine, Bearing for vehicles, Bed bottom, Bedstead, Belting machine, Bevel, carpenter's, Bicycle, Bicycle saddle, Billiard table leveler, Binder, Bird cage protector, Blind for windows, Blind, inside, Blind, window, Block, Blotter support, Board, Boiler, Boiler furnace, Boiler scale, Bolt, Boneblack drier, Boot or shoe uppers, Boots and shoes, Boots and shoes, attaching shank buttons to, Boots and shoes, seam stay for, Boots, making felt, Boots or shoes, tack driving mechanism for last, Boring bar, Boring machine, Bottle stopper, Box, Brake, Brick machine, Bridle, harness, Bridle winker, Buckle and chain supporter, back band, Buffer, Buoy, automatic signal, Buoy, adjustable red for signal, Burglar alarm, Burnishing machine, Button, Button, cuff or collar, Cane, etc., extensible, Cans, filler and faucet for, Car and locomotive frames, Car, cable, Car coupling, Car coupling, J. F. Pendexter, Car coupling, J. D. Ripson, Car coupling, Rivett & Macfarlane, Car coupling, J. T. Wilson, Cars, grip for cable motor, Card engine, Carriage, baby, Carriage top former, Carrier, Cart, dumping, Cart, road, Case, Cash and parcel carrier, Cash carrier, Cash carrier, vacuum, Centerboard for vessels, Chain link, ornamental, Chimney protector, Chuck, truck brass, Churn, Wehmeyer & Alford, Cider press, Cigar bunches, machine for making, Cigar bunches, machine for making, Cigar bundling machine, Clamp, Cleaner, Clock and clock system, electric, Clock, electric pendulum, Clocks, winding and controlling system for electric, Clothes wringer, Cocoa, method of preparing, Collar or cuff, Gates & Sargent, Collar or cuff, V. H. Rothschild, Collar pad fastener, horse, Coloring or waterproofing compositions, machine for coating textile materials, Combustion, apparatus for promoting, Corset, J. Stone, Corset shaping machine, Cotton scraper,

