Business and Personal.

The Charge for Insertion under this head is One Dollar a line for each insertion : about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in next issue. cialty, by E. & B. Holmes, Buffalo, N. Y. The publishers of this paper guarantee to advertisers a circulation of not less than 50,000 copies every weekly issue.

EXTRACT FROM COPY.

POST OFFICE DEPARTMENT, Office of the 1st Asst. P. M. General, WASHINGTON, D. C., Oct. 21st, 1879.)

POSTMASTER, Rahway, N. J.

SIR Complaint has been made that you are withholding letters addressed to M. A. Dauphin. The simple fact that a letter is addressed to M. A

Dauphin does not, under the present ruling of the Department, warrant its detention at the mailing office.

Very respectfully, (Signed)

JAMES H. MARR, 1st Asst. P. M. General.

Thomas D. Stetson, 23 Murray St., New York, serves as Expert in Patent Suits.

Engines repaired without loss of time, L. B. Flanders Machine Works, Philadelphia, Pa.

Blake's Belt Studs. The strongest, cheapest, and best fastening for all belts. Greene, Tweed & Co., New York.

Mineral Lands Prospected, Artesian Wells Bored, by Pa. Diamond Drill Co. Box423, Pottsville, Pa. See p. 285. For Reliable Emery Wheels and Machines, address The Lehigh Valley Emery Wheel Co., Weissport, Pa.

Planing and Matching Machines, Band and Scroll Saws, Universal Wood-workers, Universal Hand Joint ers, Shaping, Sand-papering Machines. etc., manuf'd by Bentel, Margedant & Co., Hamilton, Ohio. "Illustrated History of Progress made in Wood-working Machinery." sent free.

Drawing Instruments. G. S. Woolman, 116 Fulton St., N.Y RubberBelting, Packing, Hose, and all kinds of manu-

facturers' supplies. Greene, Tweed & Co., 18 Park Pl., N.Y. The Baker Blower ventilates silver mines 2,000 feet deep. Wilbraham Bros., 2318 Frankford Ave., Phila., Pa.

Carbon Plates. 48 Railroad Ave., Jersey City, N. J. Fairbanks' Scales.-During the week ending 18th of

October, 1,635 scales were shipped from the factory at St. Johnsbury, Vt., leaving then unfilled orders for nearly three thousand scales. The Messrs. Fairbanks are running their factory evenings, and are melting 22 tons of iron daily.

For Sale, very low. -24 dismounted 20lb. Parrott Guns in good order. "Relics of the late war." Suitable for corner posts or ornaments for parks or cemeteries. Address R. W. Dugan, No. 323 N. 3d St., St. Louis, Mo.

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Park Benjamin's Expert Office, Box 1009, N.Y. Recipes and information on all industrial processes

Jig Saw Machines. P. Prvibil, 467 W. 40th St., N. Y. For Pulley Blocks, write Block Works, Lockport, N. Y. name the date of the paper and the page, or the number

Patent Steam Boiler Damper Regulator; most reliable of the question. and sensitive made. National Iron Works, New Brunswick, N. J.

One inch in thickness of H. W. Johns' Asbestos Cement Filling, applied to hot air and steam pipes, boilers, etc. is equal in effectiveness as a non-conductor of heat to double the quantity of any other cements or fill-Be sure and get the genuine. H. W. Johns Manufacturing Company, solemanufacturers, 87 Maiden Lane. as we cannot be expected to spend time and labor to

To stop leaks in boiler tubes, use Quinn's Patent Ferrules. Address S. M. Co., So. Newmarket, N. H.

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Steam Traps; best and cheapest in use. No blowing through to start. T. Sault, New Haven, Conn. Brass or Iron Gears; list free. G. B. Grant, Boston.

satisfactorily, that has never been done by any other, name? A. can be seen at Institute Fair, New York. D. Frisbie & (purified). Co., New Haven, Conn.

Nickel Plating .- Sole manufacturers cast nickel and odes, pure nickel salts, importers Vienna lime, crocus etc. Condit, Hanson & Van Winkle, Newark, N. J., and 92 and 94 Liberty St., New York.

The Secret Key to Health .- The Science of Life, or Self-Preservation, 300 pages. Price, only \$1. Contains fifty valuable prescriptions, either one of which is worth more than ten times the price of the book. Illustrated sample sent on receipt of 6 conts for postage. Address Dr. W. H. Parker, 4 Bulfinch St., Boston, Mass

Telephones repaired, parts of same for sale. Send The liquid solvents above mentioned are quite volatile; tamp for circulars. P. O. Box 205, Jersey City, N. J. Noise-Quieting Nozzles for Locomotives and Steam-ted is in so finely divided a condition as to inflame stamp for circulars. P. O. Box 205, Jersey City, N. J. boats. 50 different varieties, adapted to every class of spontaneously on contact with air; great caution must,

Stave, Barrel, Keg, and Hogshead Machinery a spe-

Emery Wheel - other kinds imitations and inferior. good corn starch paste, well rubbed in; moisten (sponge) Caution .-- Our name is stamped in full on all our best lightly with solution of 3 parts egg albumen and 1 part Standard Belting, Packing, and Hose. Buy that The best is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, N. Y. The New Economizer, the only Agricultural Engine and friction.

with return flue boiler in use. See adv. of Porter Mfg. Co., page 270.

Wm. Sellers & Co., Phila., have introduced a new injector, worked by a single motion of a lever.

Special Wood-Working Machinery of every variety. Levi Houston, Montgomery, Pa. See ad. page 269.

Silent Injector, Blower, and Exhauster. See adv. p. 302 Atlantic Steam Engine Works, Brooklyn, N. Y.

The Improved Hydraulic Jacks, Punches, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York. Steam Heat. Appa. Superior construction. See illus trated ad. p. 269.

Cut Gears for Models, etc. (list free). Models, workng machinery, experimental work, tools, etc., to order. D. Gilbert & Son, 212 Chester St., Philadelphia, Pa.

Millstone Dressing Machine. See adv., page 301.

Holly System of Water Supply and Fire Protection for Cities and Villages. See advertisement in SCIEN. TIFIC AMERICAN of this week.

The E. Horton & Son Co., Windsor Locks, Conn. manufacture the Sweetland Improved Horton Chuck.

Pays well on small investments; Magic Lanterns and Stereopticons of all kinds and prices; views illustrating every subject for public exhibition and parlor entertain-ments. Send stamp for 80 page Illustrated Catalogue. Centennial medal. McAllister, 49 Nassau St., New York. Electro-Bronzing on Iron. Philadelphia Smelting

Company, Philadelphia, Pa. Improved Steel Castings; stiff and durable; as soft and easily worked as wrought iron; tenstlestrength not less than 65,000 lbs. to sq. in. Circulars free. Pittsburg

Steel Casting Company, Pittsburg, Pa. Fleetwood and Dexter Scroll Saws, Tool Chests, etc. Send for circular. Jas. T. Pratt & Co., 53 Fulton St., N.Y. For Shafts, Pulleys, or Hangers, call and see stock kept at 79 Liberty St., N. Y. Wm. Sellers & Co



HINTS TO CORRESPONDENTS,

No attention will be paid to communications unless accompanied with the full name and address of the writer.

Names and addresses of correspondents will not be given to inquirers

We renew our request that correspondents, in referring to former answers or articles, will be kind enough to grated granitiferous rock. It contains nothing of

Correspondents whose inquirles do not appear after a reasonable time should repeat them. If not then pub-lished, they may conclude that, for good reasons, the Eaitor declines them.

Persons desiring special information which is purely of a personal character, and not of general interest, should remit from \$1 to \$5, according to the subject, obtain such information without remuneration.

Any numbers of the Scientific American Supple-MENT referred to in these columns may be had at this pay to mine if there is enough of it.-T. H. A.-It is office. Price 10 cents each.

(1) S. R. R. F. asks for a receipt for liquid glue, suitable for wood, bracket saw work, etc., requiring no heat when to be used. A. Dissolve best glue in warm acetic acid, q. s. See p. 2510, No. 157, SCIENTIFIC AMERICAN SUPPLEMENT.

(2) M. P. H. asks: What is crystallized The Friction Clutch that is doing work in many places : sulphydrate of sodium? Does it not go by some other name? A. Commonly called sulphide of soda, cryst. -

(3) T. B. asks: 1. What will toughen white wax for flower making, at the same time look clean and transparent? A. Fuse the wax with about 5 per cent of pale amber or gum copal. 2. Will spirits of wine melt salmon skin, or the isinglass that is sold for clearing coffee, and would it mix with the wax afterwards? Do you think that would answer, or is there something else better and inexpensive? A. Yes,'ifsomewhat diluted with water and warmed. It would not mix vith the wax as you suggest.

engine. T. Shaw, 915 Ridge Avenue, Philadelphia, Pa. : therefore, be observed in handling them to avoidacci dent.

(7) M. H. C. asks for a recipe for starching Solid Emery Vulcanite Wheels-The Solid Original : linen wear so as to produce a high polish. A. Use a only. of gumarabic, dissolved in 5 parts strong ammonia water and 2 parts soft cold water, before ironing. The perfection of gloss is only developed by heavy pressure

(8) C. W. G. writes: 1. I have several lamb skins with the wool on, which I have dried in the sun with alum and salt, but the skins are hard. What can I do to soften them? They have been washed thoroughly. A. Remove all fragments of flesh with the knife, with care not to cut or bruise the inner skin: dry with towels, lay the skin flat on a board, and scrub Portable Railroad Sugar Mills, Engines and Boilers. the flesh side thoroughly with a stiff brush, soft soap, and hot water. Then sprinkle and scrub it with 2 oz. Machine Diamonds, J. Dickinson, 64 Nassau St., N. Y. of cream of tartar, and 1 oz. ammonia, and dry with sawdust; when dry soak it for 2 days in the following pickle: 1 lb. oatmeal, 8 oz. corrosive sublimate (mercuric chloride), 4 oz. saltpeter, and 1 gall. vinegar; stir and dissolve in the hot vinegar and cool before using. When taken out of the pickle strain it tightly over a stretcher until quite dry-(which usually requires about a week). Comb out the wool while drying. 2. I have several articles of stamped tinware that need new tinning, nothing being worn except the tin. Can you tell me a good way to retin, so that they can be used for cooking? A. Better discard them and purchase new ones.

> (9) C. F. S. asks: What can I do with a cedar water bucket to keep water from tasting? A. Scourit occasionally and rinse with solution of sodium sulphite.

> (10) J. M. H. asks what to do with a stovepipe used through the winter with base burner coal stove, to make it last, for it spoils through the summer, and I am obliged to get a new set of pipe every fall. Would I do better to get galvanized iron pipe, or can I coat it on the inside with anything to protect it? A. The remedy is to use a better anthracite fuel, or to cap your chimney with a weather cap-probably the latter. Painting or galvanizing is useless. See that you get good planished iron in your pipe, clean out the soot, and keep in a dry place when not in use.

> (11) D. L. D. asks for a receipt for the cure of sumac poison. A. Salt water and diluted ammonia are commonly used. Sulphate of zinc and glycerine has also been used (externally of course) with success.

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

E. B. B.-Teeth of No. 1, Oxyrhina desorii, No. 2, Elephas Americanus, and No. 3, Ichthyosaure. Two specimens in unlabeled needle box: No. 1, chalcopyrite, No.2, ferruginous clay, No.3, marcasite.-M. F. C.-It is a variety of infusorial earth. See p. 240, Vol. 35. No. 2 is a micaceous sand from decomposed and disintevalue. Other than the attraction of gravitation, which acts alike between all bodies, there exists no attractive influence between the metals and peach tree limbs (or limbs of other trees). The divining rod is not a scientific instrument, and aside from its employment in sensational tales, its wonderful attributes, like those of the philosopher's stone, are merely delusive fancies.-F. S.'s and P. P. G.'s minerals have not been received .-J. F. Y.-No.1 is coral replaced by silex; No. 2 is Heel, revolving, Massey & Spencer encrinite; No. 3 is cyathyphylloid coral; No. 4 is Hoes. rakes, etc., detachable handle for, Howell millepore coral, and No. 5 an imperfect fossil.-W. H. H.-It contains 85 per cent of metallic lead, and will fibrous steatite, soapstone.-P. G.-No. 1 is quartzite; No.2, ferriginous quartz. We do not find the other specimen spoken of in your letter.-S. A. L.-It consists of heavy spar or sulphate of barytes with oxide of iron. The former is used for adulterating white lead. $-\sigma$. A. B. -tt is quartz rock, possibly auriferous. A careful assay would be required to determine this. - W. H. G.-There are many localities in the United States where specimens of tin ore are found, but no genuine tin mines. Tin is usually associated with fluor, apatite, in New York is from 22 to 24 cents per pound.

COMMUNICATION RECEIVED. On an Early Blooming Apple Tree. By E. A. M.

[OFFICIAL.]

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Boot and shoe cleaning and polishing machine,

 Dr. W. H. Parker. 4 Bulfinch St., Boston, Mass. The Baker Blower runs the largest sand blast in the world. Wilbraham Bros., 2319 Frankford Ave., Phila., Pa. Wright's Patent Steam Engine, with automatic cutoff. The best engine made. For prices, address William Wright, Manufacturer, Newburgh, N. Y. For Solid Wrought Iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc. H. Prentiss & Co., 14 Dey St., New York, Manufs. Taps, Dies, Screw Plates, Reamers, etc. Send for list. Presses, Dies, and Tools for working Sheet Metal. etc. Fruit & other can tools. Bliss & Williams, B'klyn, N. Y. Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing Metals. E. Lyon & Co., 470 Grand St., N. Y. Sieam Excavators. J. Souther & Co., 12P.O. Sq. Boston. Bradley's cushioned helve hammers. See illus. ad. p. 302. Sheet Metal Presses, Ferracute Co., Bridgeton, N. J. Band Saws a specialty. F. H. Clement, Rochester, N.Y. Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting 	 substance that could be put on a wood surface. 4×8 feet, rendering the surface perfectly smooth and impervious to water, that would not wear much with the continual flow of stamped (crushed) quartz ore over it? I want to use it on a concentration table. A. Plate glass might satisfy your requirements. We know of no coating likely to withstand the wear. (5) N. D. G. asks: Couldn't you give some more common name or recipe for the ink feed with composition pad described in a recent number of the SCIENTIFIC AMERICAN? A. Use a nearly saturated aqueous solution of a good aniline blue or violet. Ordinary copying ink will not answer. (6) J. A. N. writes: I want a clear phosphorus solution, say one half pint of spirits of wine to contain 1-20 of its parts of phosphorus, it must not contain any greasy substance, but be perfectly clear. Will you give me a receipt, and what time will it take before it will be ready for use? A. Phosphorus is very soluble 	FOR WHICH Letters Patent of the United States were Granted in the Week Ending October 14, 1879, AND EACH BEARING THAT DATE. [Those marked (r) are reissued patents.] Aerobat, J. J. Greenough 220,473 Air exhaust apparatus, J. Murphin 220,641 Automatic brakes, regulating valve for, G. West- inghouse, Jr. 220,566 Axle lubricator, vehicle. J. V. Hinkle. 220,656 Bale band bender, L. Miller. 220,656 Bale band tightener, I. Miller. 220,656 Bale band tightener, I. Miller. 220,656 Bale band tightener, J. Miller. 220,657 Bale band tying machine, Matthews & Morehead. 220,559 Ber st., with liquids, apparatus for filling, Trautmann & Humphreys. 220,557 Beer and liquor protector, T. A. Stephan. 220,679 Belts or bands, apparatus for testing strain of,	Oils, apparatus for vaporizing and burning hydro- carbon, J. A. Frey. 220,470 Opera chair, folding, T. M. Foote. 220,523 Optical instruments made of celluloid and other fibrous plastic compositions, frame for, J. S. Spencer. 220,502 Padlock, F. W. Mix. 220,637 Paper pouch, J. H. Weaver 220,624 Patterns to fabrics, transferring, R. Hudson et al. 220,629 Pent, fountain, C. Baur. 220,632 Penci attachment, J. W. McGill. 220,632 Pencil, lead, J. E. Faber. 220,632 Pencil, lead, J. E. Faber. 220,632 Pencil, lead, J. E. Faber. 220,632 Pell box, N. V. Randolph. 220,653 Pillow block, adjustable, W. M. Mills. 220,653
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Scientific American.

DYKES' BEARD ELIXIR



Windmill, Woodmanse & Lebkicker 220,514
 Wire cutter, J. Baker
 220,566

 Wire stretcher, M. Smith.
 220,676

 Yeast compound, Goll & Spinner.
 220,527

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