



* Persons who write to us, expecting replies through this column, and those who may desire to make contributions to it of brief interesting facts, must always observe the strict rule, viz., to furnish their names, otherwise we cannot place confidence in their communications.

C. F. A., of Mass.—The best way of honing down a razor is on an Arkansas stone, with a little sweet oil. We are not acquainted with the blacking you mention, but a good one may be made as follows:—Ivor black, 20 ounces; molasses, 15 ounces; linseed oil, 5 ounces; sulphuric acid, 3 ounces; indigo, 3 drachms; mucilage, 1/2 ounce. Mix the molasses and black well, and the other ingredients with as much water as may be required.

SAND IN PAPER RAGS.—A company in Boston lately purchased sixty bales of rags, which were stated to have been imported from Egypt, and obtained from nummies. Suspicious that they were rather heavier than they ought to be, they submitted them to a good threshing, and obtained 13,000 pounds of sand from the lot. The company refused to pay for the sand, and their claim was allowed by the parties from whom the rags were purchased. The Egyptians are a keen set of sharpers, but they can't throw dust in the eyes of the Yankees.

HOW TO TIN CAST IRON.—If the articles are of such a form that they cannot be filed down, they must be scoured bright, and perfectly freed from oxyd and dirt, with sand in dilute sulphuric acid and hot water, after which they are washed, and placed in soft warm water. Some zinc must now be melted in an iron vessel, and its surface covered with ground salammoniac. The iron articles are now dipped, and kept in this for five minutes, after which they are lifted out, and plunged in another iron vessel containing molten tin. In five minutes they will be covered with a coat of tin, and are ready to be lifted out. It will facilitate the zining process if the articles are plunged into a solution of salammoniac before being dipped in the zinc. Wrought iron does not require to be zined before it is tinned; by decarbonizing cast iron it can also be tinned without zining.

J. W. H., of Ala.—About sixteen years since a company was formed in this city to apply the balloon principle to steamboats, to buoy them in the water, and were intended to run from New York to Albany at the rate of fifty miles per hour. A boat called the Dove was to be built for this purpose, but the scheme of the enthusiastic projector began and ended on paper.

A. B. C., of Iowa.—The cheapest way to obtain the silicate of soda is to make a strong caustic lye with equal parts of quick lime and soda ash, then subject the silica, in a finely subdivided state, to the action of this lye in a close vessel at a boiling temperature.

T. Y., of Iowa.—We have received the rude specimen of paper which you state was manufactured by the natural action of the Mississippi water. We regret that you did not send us your theory of its formation, as it would, no doubt, have been interesting.

M. C. T., of N. Y.—The method you propose for preventing the malaria exhaled from marshes from entering dwellings, by using window frames packed with some material to strain the malaria, is not altogether new. In Vol. IX, Ser. Am., page 290, we published an article taken from a London journal, in which the same theory is set forth, the only difference being in the materials employed for this purpose.

HEAT AND WATER.—There are some peculiar phenomena connected with heat and water. If a ball of low red-hot iron is placed in a vessel containing cold water, the latter is agitated violently. If we take a ball of molten glass on the end of a glass-blower's rod, and introduce it into the cold water, it will produce no agitation—the water will remain for some time quiescent. It would naturally be supposed that the higher heat of the glass would cause a more violent action in the water than the lower heat of the iron, but such is not the case. When the glass is cooled to about half its highest temperature it agitates the cold water vehemently.

G. L. B., of Me.—It has been asserted that the warm moist breezes which flow up the Mississippi valley from the Gulf of Mexico, generate our thunder storms, and that they are carried by western breezes to the Atlantic seaboard. This is the only theory we have heard suggested why thunder storms very often arise in the West.

GRAPES.—Doctor Underhill, who has probably devoted more attention to the cultivation of the grape than any other person in this vicinity, gives the following rules for the eating of this wholesome fruit:—If a person is in perfect health, he should swallow the pulp only, ejecting the seed and skin. If constipated, he should swallow both the pulp and seed, ejecting only the skin. When the bowels are too relaxed, the pulp and skin may be swallowed, ejecting the seeds. The above hints are reasonable, although we would not recommend the taking of too much of the skin of the grape into the stomach.

TO IMPROVE PLASTER CASTS.—Plaster of Paris busts and figures may be made to have the appearance of polished marble by the following process:—Put into four pounds of clear water, one ounce of pure curd soap grated and dissolved in a glazed earthen vessel; then add one ounce of white beeswax, cut into thin slices; as soon as the whole is incorporated it is fit for use. Having well dried the plaster figure or bust, &c., before the fire, suspend it by a piece of string, and dip it at once in the varnish; upon taking it out, the varnish will appear to have been absorbed; in a few minutes stir the varnish, and dip the plaster a second time—this usually suffices. Cover it carefully with the dust for a week, then with a soft muslin rag, or some cotton wool, rub the figure gently, when a fine gloss will be produced.

DITCHING MACHINES.—We have latterly had a great number of inquiries from the southern and western portions of our country for ditching machinery. Some patents have been taken on machines for this purpose, and engravings and descriptions of several may be found in the back volumes of our paper; but it seems that there is a greater demand than supply for this kind of machinery at present. We would suggest to inventors that this is a good field for their ingenuity. If there are any manufacturers of such machines, they would find it to their interest to advertise them in the SOL. AM.

MEGASCOPE, of N. Y.—Your communication upon the megascopic camera contains personal reflections, such as we should not wish to publish; it is, therefore, rejected.

T. W. C., of New Orleans.—We have no positive recollection of your communication signed "Yellow Fever." Please to repeat it. The idea seems not to be a bad one.

Money received at the Scientific American Office on account of Patent Office business, for the week ending Saturday, October 2, 1858:—

- R. H. M., of N. Y., \$25; A. McV., of Ohio, \$25; D. W. C., of N. Y., \$30; M. B., of La., \$55; N. B. P., of Conn., \$30; J. F. C., of N. Y., \$20; S. Y., Jr., of Pa., \$25; E. A. J., of N. Y., \$32; J. E., of N. Y., \$55; G. H. M., of N. Y., \$30; J. E. R., of Ill., \$25; W. H. B., of Ala., \$30; R. & S., of N. Y., \$30; T. J. S., of La., \$30; C. C. B., of W. Va., \$55; A. S., of N. Y., \$25; D. & K., of N. Y., \$50; E. G. B., of Conn., \$37; W. & N., of Ill., \$25; G. E. S., of N. H., \$25; J. E. S., of Me., \$32; E. M. J., of Conn., \$25; W. H., of Mass., \$90; F. & M., of Mass., \$30; P. E., of Ill., \$55; F. & B., of Wis., \$30; D. V., of Ohio, \$30; A. L. H., of N. Y., \$30; A. F. R., of Ill., \$25; C. W., of N. H., \$40; G. L. D., of Pa., \$20; E. M. & J. E. M., of N. Y., \$25; N. P., of N. Y., \$100; P. C. F., of N. Y., \$25; L. R., of Pa., \$55; J. F., of Mass., \$25; W. Y. H., of Ill., \$25; T. H. K., of Ga., \$5; H. B., of Pa., \$25; J. A. E., of N. Y., \$30; R. M., of N. Y., \$25; J. M., of Ohio, \$30; D. S., of Cal., \$35; C. E. B., of N. Y., \$25; J. S. R., of Conn., \$30; H. T., of N. Y., \$30; C. T. P., of N. Y., \$250; J. F., of Ky., \$55; W. & J., of Ill., \$55; E. W., of Mass., \$25; W. W., of N. Y., \$22; C. & H., of Ohio, \$55.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, October 2, 1858:—

- W. Y. H., of Ill.; R. H. M., of N. Y.; E. W., of Mass.; A. S., of N. Y.; E. M., of N. Y.; J. E. R., of Ill.; J. C. N. Y.; J. F., of Mass.; H. K. of Ill.; H. S., of N. Y.; P. C. F., of N. Y.; A. F. R., of Ill.; E. L., of Conn.; C. & H., of Ohio; G. E. S., of Me.; P. H., of Ohio; G. H. M., of N. Y.; W. W., of N. Y.; S. Y., Jr., of Pa.; D. S. McN., of N. Y.; G. B., of Ct.; W. W. L., of Ohio; H. B., Pa.; W. H. C., of Wis.; E. M. J., of Conn.; C. E. B., of N. Y.; E. M. & J. E. M., of N. Y.; J. W. M., of Pa.

Literary Notices.

Mrs. PUTNAM'S RECEIPT BOOK AND YOUNG HOUSEKEEPER'S ASSISTANT. Boston: Phillips, Sampson & Co. This well-known collection of useful household receipts has just attained its eighth edition, which demonstrates the popularity and utility of the work. In this edition numerous bills of fare are added, and it is just the book which every one who likes their meals well cooked (and who does not?) should have.

NORTH BRITISH REVIEW.—The number for the present quarter of this profound Review contains twelve able essays; one on the "Researches of Light," we believe, is by Sir David Brewster, the ablest living writer on such subjects. The other articles embrace various topics—history, religion, and politics. This with all the British Reviews, is published by L. Scott & Co., No. 64 Gold street, New York. They also publish "Blackwood's Magazine."

VALUABLE HINTS TO OUR READERS.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona fide* acknowledgment of the receipt of their funds. The Post Office law does not allow publishers to enclose receipts in the paper.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within fifteen years, can obtain a copy by addressing a letter to this office, stating the name of the patentee, and date of patent when known, and enclosing \$1 as fee for copying.

BINDING.—We would suggest to those who desire to have their volumes bound, that they had better send their numbers to this office, and have them executed in a uniform style with their previous volumes. Price of binding 75 cents.

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Consultation may be had with the firm, between nine and four o'clock, daily, at their principal office, 125 Fulton street, New York. We established, over a year ago, a Branch Office in the City of Washington, on the corner of F and Seventh streets, opposite the United States Patent Office. This office is under the general superintendence of one of the firm, and is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office to all such cases as may require it. Inventors and others who may visit Washington, having business at the Patent Office, are cordially invited to call at our office.

Inventors will do well to bear in mind that the English law does not limit the issue of patents to inventors. Any one can take out a patent there. Circulars of information concerning the proper course to be pursued in obtaining patents through our Agency, the requirements of the Patent Office, &c., may be had gratis upon application at the principal office or either of the branches.

The annexed letter from the late Commissioner of

Patents we commend to the perusal of all persons interested in obtaining patents:—

Messrs. MUNN & Co.—I take pleasure in stating that while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE came through your hands. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the Office, a marked degree of promptness, skill, and fidelity to the interests of your employers. Yours, very truly, CHAS. MASON. Communications and remittances should be addressed to MUNN & COMPANY, No. 128 Fulton street, New York.

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