

Quartz-breaker—In this device the quartz is introduced within a hopper formed by the Union of two crushing jaws, one of which is stationary, the other movable. A special feature consists in imparting a downward motion to the movable jaw, as well as a lateral movement toward the stationary jaw. The quartz is thus crushed and ground in the most effective and speedy manner. J. W. Staunton, of Black Hawk Point, is the inventor.

Sorghum Evaporator.—Several novel features are represented in this improvement, one of which consists in proving the front edge of each of the evaporative compartments with a permanent skimmer, so arranged that, as the liquid flows down from one division into that next below, its floating scum will be completely arrested and removed by the skimmer. The labor of the attendant is thus very essentially reduced. L. Wright, Wapella, Ill., is the inventor.

MISCELLANEOUS SUMMARY.

THE RAVAGES OF INSECTS A CAUSE OF THEIR DESTRUCTION.—It is well known that after worms have for five or six years committed their ravages on the trees of a region, they suddenly disappear, and have no full return again for two or three or more years to come. It has been shown that the destruction is sometimes at least a result of their numbers. The larvae or worms, when very numerous, consume the leaves of the tree on which they are before they attain full maturity, and, as a consequence, they never pass to the chrysalis state; they remain for a while as larvae, often showing by their movements that they are half-starved, and then die.

MORID'S PROCESS FOR RECOVERING WRITING ON PAPER OR PARCHMENT WHICH HAS BECOME NEARLY EFFACED.—The paper or parchment written on is first left for some time in contact with distilled water. It is then placed for five seconds in a solution of oxalic acid (1 of acid to 100 of water); next, after washing it, it is put in a vessel containing a solution of gallic acid (10 grains of acid to 300 of distilled water); and finally washed again and dried. The process should be carried forward with care and promptness, that any accidental discoloration of the paper may be avoided.—*Cosmos*.

PATRIOTIC AND GENEROUS.—Borden & Co., owners of a factory for condensing milk and the manufacture of cheese, in Winsted, Conn., offered recently to condense and forward to the army all the blackberries the people of the surrounding country would furnish them. At last accounts over eighty bushels of berries had been deposited at their factory for that purpose. The company are making meat biscuit for the army, and have recently "condensed" an entire ox.

EFFECT OF ATMOSPHERIC PRESSURE IN GUNNERY.—The French artillerymen in Mexico have recently found, to their surprise, that the angle of elevation used in range for their guns, for any given range, does not afford the calculated results; and have ascertained that this is owing to the diminished pressure of the atmosphere on the Mexican plateau. It follows that cannon may serve as a kind of barometer for measuring altitudes.—*Les Mondes*, July 7.

ACCLIMATION OF ENGLISH BIRDS IN AUSTRALIA.—The thrush, black bird, skylark, starling, chaffinch, various sparrows, and the wild duck, are already domesticated in Australia through the efforts of the Acclimatization Society of Victoria. Great success has also attended the Society's efforts to introduce good fresh-water fish into the rivers, and it is expected that the salmon will soon be naturalized in Tasmania.

PRIZE TO MR. RUHKORFF.—The prize of 50,000 francs, offered by the Emperor Napoleon for the most useful application of electricity, has been awarded to Mr. Ruhmkorff for his induction coil. The king of Hanover, having heard of the award, forwarded to Mr. Ruhmkorff a large gold medal, "pour le merite," *Reader*.

A NATIONAL Boiler Insurance Company has been formed in London to afford the means of providing against the risks of loss, both of property and life, from the explosion of steam boilers.

[The best insurance for steam boilers is good engineers.—*Eds*

PLEASURE SEEKING AT SOME PROFIT.—A Saratoga letter writer records the following novel mode of paying hotel bills:

Among the anomalies of a depreciated paper currency the following is noteworthy: There are at present at the Springs quite a number of Cubans—never before so many. They all come laden with gold, on which at home they have paid no premium. On the liquidation of their board bills they are allowed the premium, of course. The practical result is, that when a Cuban has been here a month, and feasted well, he lays down one hundred dollars in gold, and receives in return a receipted bill, with one hundred and fifty-six dollars in change! The Cubans, hence, are living gratis, and making money by it besides! Of course, they are greatly enjoying themselves at our expense.

FERMENTATION AND FERMENTS.—M. Lemaire denies that a special ferment for every kind of fermentation exists. He finds the same microscopic beings present whether sugar is being changed into alcohol, or alcohol into acetic acid. But in the case of natural animal and vegetable matters he has assured himself that microzoa begin the decomposition, which, when the matters become acrid, is carried on by microphytes. By means of a little acid, these latter may be made to appear at will, and the author consequently argues that mycodermis do not make the acid but appear in consequence of its presence. The acidity of the perspiration it is thought may cause the development of certain microphytes which are observed in some obstinate cutaneous affections.—*Dublin Med. Press*.

NEW CURE FOR CROUP.—Several cases have been reported in a French journal, in which croup was successfully treated with a mixture of perchloride of iron, in the proportion of fifteen drops in four ounces of water, given in tablespoonful doses every five or ten minutes. The effect is to detach the false membrane, which is expelled by coughing. The remedy can scarcely be called a specific, as there were several failures, but anything promising to afford relief should be known in so dangerous a disease.

EXTENSIVE FROST IN JUNE.—We have received the Bi-monthly Report of the Agricultural Department for June and July, an unbound pamphlet of 23 pages. Among the matter is a collection of reports in relation to the frost which occurred over all the northern portion of the country on the 9th and 10th of June. It extended from Maine to Minnesota, and as far south as New Brunswick, N. J.

VALUATION OF NEW YORK CITY.—The Commissioners of Taxes and assessments of New York value the real estate of the city at \$410,774,435 for the year 1864, against \$402,187,382 in 1863. The personal estate amounts to \$223,920,505, an excess over 1863 of \$31,953 34. The net increase is \$40,640,397.

The costliest Bible ever made in this country was gotten up by the people of Baltimore as a testimonial for the President in honor of his proclamation of emancipation. The cost of the book being nearly six hundred dollars—\$580 75. It is a pulpit Bible, bound in violet silk velvet.

An interesting communication from Mr. V. B. Le Van, of Philadelphia, on the "Power of a newly Patented Steam Engine," has been accidentally overlooked for a month or more. We are obliged to Mr. Le Van, and hope to hear from him on another occasion.

The young lady pupils of the Buffalo schools are to receive prizes for the "best loaves of bread." There is a good deal of common sense in that, Good loaves of bread are quite as worthy of prizes as good essays in Latin.

FASTENINGS OF ARMOR PLATES.—In the experiments at Shoeburyness, it has been found that armor plates fastened to ships' sides by large wood screws hold much better than those secured by through bolts and nuts.

It is stated that in the first two years of the present war 28,000 walnut trees were felled to supply a single European manufactory of gunstocks for the American market.

The American Wood Paper Company at Providence, advertise for 10,000 cords of wood suitable for their purpose. Success to them.

A New Alloy for Bells.

Le Moniteur Illustré des Inventions says that M. M. H. Micolon has just patented a new alloy suitable for numerous articles, such as bells, hammers anvils and other non-cutting instruments. The alloy consists of iron, manganese and borax. The proportions given in the specification are—

- 20 parts of iron turnings or tin scraps.
- 80 parts of steel.
- 4 parts of manganese.
- 4 parts of borax.

But it states that these proportions may be varied. If it is desired to augment the tenacity of this alloy, two or three parts of wolfram (Franklinite) may be added. The iron and steel are placed first in a crucible, afterwards the manganese and borax, and the crucible is then filled with charcoal. It must be poured rapidly into the molds. Bells are thus obtained possessing the sonorosity of silver and costing less than bronze.

SPECIAL NOTICE.

EDWARD HAMILTON, assignor of NELSON GOODYEAR, of Chicago, Ill., has petitioned for the extension of a patent granted to him on May 27, 1851, for an improved mode of preventing the entrance of dust, etc., into railroad cars.

It is ordered that the said petition be heard at the Patent Office, Washington, on Monday, May 8, 1865.

All persons interested are required to appear and show cause why said petition should not be granted. Persons opposing the extension are required to file their testimony in writing, at least twenty days before the final hearing.

A READY way of imitating ground glass is to dissolve Epsom salts in beer, and apply with a brush. As it dries it crystallizes.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, Aug. 31, 1864, to Wednesday, Sept. 6, 1864:—

- T. T. & B., of N. Y., \$10; C. E. W., of N. Y., \$45; G. H., of N. J., \$40; L. A., of N. Y., \$40; A. E. K., of Pa., \$50; W. J. W., of Ohio, \$20; W. F. S., of N. Y., \$20; J. S., of Ohio, \$20; E. C. C., of Mass., \$20; A. W. H., of N. Y., \$15; D. N. D., of N. J., \$45; R. R. S., of N. Y., \$45; J. W. N., of Conn., \$45; W. H. G., of N. Y., \$20; F. T., of N. Y., \$15; C. & T., of Conn., \$15; E. R., of N. J., \$32; A. T., of Conn., \$25; B. & G., of Conn., \$25; H. W., of Wis., \$16; M. S., of Ill., \$20; J. A. McP., of N. Y., \$15; E. C., of Conn., \$35; F. C. W., of Conn., \$16; J. J. S., of Conn., \$25; H. G. D., of Ky., \$30; N. N., of R. I., \$25; W. F. Q., of Del., \$16; J. M. H., of N. Y., \$25; N. H. B., of N. J., \$25; J. H., of N. Y., \$20; C. J. VanW., of N. Y., \$40; V. G., of N. Y., \$15; P. L. M., of Ohio, \$10; J. H., of N. Y., \$20; H. R., of Austria, \$15; J. L., of N. Y., \$20; P. L., of N. Y., \$20; J. F., of Ohio, \$30; C. P., of Ohio, \$20; T. G. M., of N. Y., \$20; E. M. C., of R. I., \$20; C. S., of N. Y., \$20; W. E. D., of N. Y., \$35; H. C., of N. Y., \$20; J. E. S., of N. Y., \$15; H. B. M., of Mich., \$30; J. G., of Pa., \$25; T. H. W., of Pa., \$16; W. B. M., of Mich., \$15; A. W. C., of Vt., \$30; H. F. W., of Mass., \$15; C. H. N., of N. H., \$20; H. G. W., of Iowa, \$30; C. M. J., of Ill., \$36; J. S., of N. Y., \$30; T. C. W., of Mich., \$41; G. H. S. D., of N. Y., \$60; C. E. W., of N. Y., \$45; S. G., of N. Y., \$45; L. & L., of Ohio, \$20; E. S. A., of N. Y., \$45; J. N., of Ill., \$20; A. H., of Ky., \$45; A. S. H., of N. Y., \$15; W. H., of Iowa, \$20; G. L., of Pa., \$20; C. A., of N. Y., \$10; J. F., of N. Y., \$15; J. B., of R. I., \$20; W. B., of N. Y., \$15; E. L. P., of N. Y., \$40; H. W. B., of N. Y., \$25; E. R., of Mich., \$15; P. J. G., of N. Y., \$15; J. K., of N. Y., \$30; J. H., of Ill., \$20; E. W. M., of Ill., \$25; W. H. W., of N. Y., \$15; L. M. D., of N. Y., \$25; C. C. B., of Iowa, \$36; D. H. S., of Conn., \$16; L. T. D., of R. I., \$35; F. S., of Pa., \$25; C. A., of N. Y., \$12; E. H. T., of Conn., \$50; W. & S., of N. Y., \$40; S. B. H., of Mass., \$60; C. H. R., of Maine, \$16; G. E. H., of Maine, \$15; J. D., of N. Y., \$450; H. R., of N. Y., \$25; C. C. & V., of N. Y., \$20; W. B., of N. Y., \$28; J. L., of Iowa, \$25; R. & K., of N. Y., \$25; A. B., of Ohio, \$20; G. & C., of Conn., \$19; J. G., of Ohio, \$20; P. D. S., of Nevada Territory, \$25; A. K., of Ill., \$25; J. W. B., of Mass., \$10; J. R. E., of U. S. A., \$25; A. & H., of Conn., \$605; S. S., of N. H., \$20; J. A. D., of Ill., \$20; A. S. of N. Y., \$20; R. T., of N. Y., \$15.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, stating the amount and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office, from Wednesday, Aug. 31, 1864, to Wednesday, Sept. 6, 1864:—

- G. H., of N. J.; N. H. B., of N. J.; J. M. H., of N. Y.; H. G. W., of Iowa; H. W. B., of N. Y.; D. D., of Ill.; E. R., of N. J.; E. W. M., of Ill.; J. J. S., of Conn.; H. N., of R. I.; T. C. W., of Mich.; O. E. W., of N. Y.; B. & G., of Conn.; H. G. D., of Ky. (2 cases); H. B. M., of Mich.; G. D., of Mass.; J. G., of Pa.; E. C., of Conn.; C. C. B., of Iowa; T. T. & B., of N. Y.; J. S., of N. Y.; E. L., of England; J. H., of Ill.; W. T., of Conn.; A. W. C., of Conn.; J. K., of N. Y.; L. M. D., of N. Y.; H. B. S., of Wis.; W. H. G., of N. Y.; E. L. P., of N. Y.; D. J., of England; R. & K., of N. Y.; C. A., of N. Y.; E. H. T., of Conn. (2 cases); J. G., of Ohio; S. B. H., of Mass. (2 cases); H. F. B., of Mo.; P. D. S., of Nevada; N. W. & S., of N. Y.; A. K., of Ill.