

(28) J. P. F. asks: When ironing shirts, etc., what is the best way to put on a gloss? A. Raw starch, 1 oz.; gum arabic, 1 drachm; white of egg or blood alum, 1/2 oz.; soluble glass, 1/4 oz.; water, q. s. Make the starch into a fine cream, dissolve the gum in a little hot water, cool and mix it with the albumen, and beat up the mixture with the starch liquid. Then add the water-glass (solution) and shake together. Moisten the starched linen with a cloth dipped in this liquid, and use a polishing iron to develop the gloss.

(29) G. A. C. asks if paper is saturated with cupric ammonia can metallic copper be reduced on the surface and in the fibers of the same, and by what process? Iron will not. Will an acid, hydrogen, or tin dust, will anything? A. Try exposing the paper for some time in a current of heated hydrogen; or dip the saturated paper in ammonium sulphide; rinse, spread on a plate of copper, dip in dilute sulphuric acid, connecting the copper by wire with the zinc pole of a good battery, the other pole being connected with a second strip of copper also immersed in the dilute acid. If the current is strong enough to decompose water it will reduce the copper on the paper.

(30) A. M. F. asks as to the average number of tons of coal consumed daily by any steamer of the following lines, on a voyage across the ocean: White Star, Cunard, Inman, Anchor. Also the number of firemen generally employed on any one ocean steamer. A. White Star steamers, 95 to 100 tons per day; 18 firemen. City of Berlin. City of Brussels, each 110 tons per day; about 28 firemen. Ansona, 120 to 130 tons per day; 24 firemen.

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

F McL.—Nos. 1 and 2, calcite-carbonate of lime. No. 3 is quartz.—M. M. R.—It is a split leather—that is a thin sheet cut from thick tanned leather by appropriate machinery. It may be purchased from leather dealers.—J. M. P.—No. 1. Quartzose rock with horn silver—a rich ore. No. 2. Quartz rock with selvage. No. 3. Chiefly iron—copper sulphides.

COMMUNICATIONS RECEIVED.

On a Growth of Grain in Ice. By D. J. B. Electric Light for Purifying Sewers. By J. G. S.

NEW BOOKS AND PUBLICATIONS.

THREE HUNDRED YEARS HENCE: OR, A VOICE FROM POSTERITY. By William Delisle Hay. London: Newman & Co.

A highly imaginative forecast of human affairs, in the guise of a series of lectures delivered by a Professor of History in the year A.D. 2180, tracing the progress of humanity from the beginning of the "Era of Development," A.D. 1880. The author has a curiously inventive turn of mind, and has filled his book with novel ideas and pictures at once original, whimsical, and plausible.

THE STUDENT'S DREAM. Published for the author. Chicago: Jansen, McClurg & Co.

If the author is, as he professes to be, a youthful student, his ambitious attempt to forecast the philosophy of the future is not a discreditable performance. When he is older and knows more he will dream less.

PEACE MAKER GRANGE; OR, CO-OPERATIVE LIVING AND WORKING. By Samuel Leavitt. New York: Published by the author, No. 5 Worth street. 25 cents.

A suggestive story, reprinted from the Phrenological Journal, describing the development and working of an ideal yet entirely human, thrifty, and practical community. Unlike most social reformers Mr. Leavitt sedulously conserves what is good in human experience, and seeks to reconstruct society by lifting life and labor to a higher, purer, and kinder level, by sloughing off the barbaric elements of modern civilization, not by relapsing toward barbarism. The work is germinal and is worthy of a better dress.

DR. J. H. McLEAN'S PEACE MAKERS. By Dr. James Henry McLean, St. Louis, Mo., projector, inventor, and patentee, with Myron Coloney, New Haven, Conn., mechanical inventor and patentee. New York, 1880.

An illustrated catalogue of deadly engines, by means of which the inventors expect to command peace throughout the world, by making war so terrible and destructive that nations shall not dare to engage in it. How many of Dr. McLean's devices—which are as marvelous in number, variety, and scope, as they are threatening on paper—will prove of practical utility, remains to be seen.

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were Granted in the Week Ending

June 7, 1881,

AND EACH BEARING THAT DATE

[Those marked (r) are reissued patents.]

A printed copy of the specification and drawing of any patent in the annexed list, also of any patent issued since 1866, will be furnished from this office for one dollar. In ordering please state the number and date of the patent desired and remit to Munn & Co., 37 Park Row, New York city. We also furnish copies of patents granted prior to 1866; but at increased cost, as the specifications not being printed, must be copied by hand.

Advertising balloon, H. T. Sisson..... 242,483 Amalgamation of gold and silver, compound for facilitating the, W. H. C. Mathews et al..... 242,669

Table listing various inventions and their patent numbers, including items like Gas regulator, Gate, Axle support, and many others.

DESIGNS.

Table listing designs and their numbers, including items like Bottle, Chair, and Lamp.

TRADE MARKS.

Table listing trade marks and their numbers, including items like Articles for gentlemen's wear, Canned or preserved fruits, and Cigars.

English Patents Issued to Americans.

Table listing English patents issued to Americans, including items like Bed bottom, Electric machine, and Electric circuit.