

USEFUL INFORMATION.

Black-Leading Iron.

In these days of general diffusion of chemical knowledge it is scarcely necessary to state that the "black lead" or "plumbago" of commerce, is not lead at all, or any compound of its composition.

It is this wonderful softness, combined with persistent solidity, that enables us to smear it over any other solid surface, and thus obtain a solid paint, all body and no medium.

INSECT ANATOMY.—Dr. R. U. Peppé, the naturalist, in giving an account of some microscopic investigations, in which he has recently been engaged, says: I have managed to make a very careful dissection of the tongue of a house fly, and now I can show the so-called tracheas on the tip of the tongue very neatly dissected by my own hand.

CHEAP TELEGRAPHY.—President Orton's report of the affairs of the Western Union Telegraph company is calculated to inspire much hope in those who believe that the Government can run the lines at cheaper rates to the public.

A NEW PAPER BOARD.—A new method of manufacturing paper board, to make that article more generally useful and durable, is described as follows: When a sheet of paper is immersed in an ammoniacal solution of copper, and then dried, it is said to be quite impregnable to water.

INDIA-RUBBER TIRES.—Messrs. Bird & Co., of London, have lately brought into notice a new and improved wheel, with India-rubber tire, which is claimed to be capable of wearing as long as, or longer than an iron tire, and to have the great advantage of perfect noiselessness and absence of injurious jar.

TO REMOVE NITRIC ACID SPOTS.—The yellow spots produced by nitric acid may be removed from brown or black woolen goods, while fresh, by repeatedly dipping them into a concentrated solution of permanganate of potassa, and then washing them with water.

The United States is now paying over \$100,000 per annum for freight and passage of foreign ships, to be carried abroad and expended in the employment and support of other peoples beyond a vast percentage of what should go to foreign vessels, estimating on the tonnage and travel of each respectively.

CLEANING OUT-DOOR STATUARY, ETC.—It is recommended, in cleaning monolithic statuary in gardens, etc., first to kill the vegetation by the application of petroleum or benzine, which will not injure the stone, and to remove it when dry by brushing, finally rubbing with a rag.

Guns Discharged Without Caps.

It seems almost impossible that a gun should be discharged without the presence of either cap or flint; yet a well authenticated case of the kind seems to have occurred, recently, near Napa, as narrated by the Register of that place. It seems that Benjamin Bergin, being out with some companions duck shooting, had just fired one barrel, and hearing the shot loose in the other, turned up the gun into his left hand to pour out the charge, taking the precaution to first remove the cap.

GUM ARABIC.—This useful product comes from Morocco, instead of Arabia, as its name would imply. About the middle of November, that is, after the rainy season, a gummy juice exudes spontaneously from the trunk and branches of a species of the acacia in that country.

HOW TO USE A GRINDSTONE.—Common grindstone spindles, with a crank at one end, are open to the great objection that the stone will never keep round, because every person is inclined, more or less, to follow the motion of his foot with his hand, which causes the pressure on the same to be unequal.

"The Cow Theory."

Speaking of the cow theory—that is, that a man with five acres of land can maintain himself, his family and his cow—a writer in the Farmers' Magazine for last month, has the following:

"On Sir Baldwin Leighton's estate in Shropshire, Eng., pauperism is almost exterminated by means of the cow, it being the rule rather than the exception for a laborer to have sums varying from £20 to £80 put by in the savings bank, out of the proceeds of the sale of butter."

We have frequently called attention to the great boon a cow is to the poor man, and the large profits of a good dairy. This especially the case where only a few cows are kept and are well cared for.

The second condition for success with the dairy cow, is that she have plenty to eat and the best and kindest treatment. All farmers understand the importance of crowding her, designed for slaughter—that it takes as much to make an animal "hold its own," as to keep up the highest degree of gain, and that, therefore, if we only half feed, what is consumed is a dead loss; so it is when we merely keep alive young cattle or other stock.

RECIPROCIITY WITH HAWAII.—Dispatches from Washington say that if the negotiators act promptly in settling up the details of the Hawaiian reciprocity treaty upon such a general character as is understood to be contemplated, there is no doubt of its prompt ratification by the Senate.

SCOTT'S RAILROAD BILL.—Efforts are being made in Congress to have Tom Scott's bill amended so as to connect the Texas Pacific railroad with the Central Pacific railroad at Fort Yuma, and thus leave the latter undisputed control of the great route with California.

The Suro tunnel is in 6,079 feet.

DOMESTIC ECONOMY.

Care of Glass and China.

It ought to be taken for granted that all china and glass-ware is well tempered; yet a little careful attention may not be misplaced, even on that point; for though ornamental china or glass-ware is not exposed to the action of hot water in common domestic use, yet it may be injudiciously immersed in it for the purpose of cleaning; and as articles intended solely for ornament may not be so highly annealed as others, without fraudulent negligence on the part of the manufacturer it will be proper never to apply water to when beyond a tepid temperature.

POISONED BUTCHERS' MEAT.—It is well that all housekeepers, and especially all engaged in furnishing meat for the table should be impressed with the undoubted fact that animals ought not to become excited before they are butchered, because their flesh is injured thereby, and it will spoil quickly.

ROLLED HERRING.—Herrings having hard roes appear larger and finer than those with soft roes; never-hence, the latter are to be preferred, as they rarely have more flesh and are more delicate. Having scraped the fish, cut off the heads, split open, cleanse and take out the roes.

ARTIFICIAL CHEESE.—As a successor to artificial butter we have now an article of artificial cheese. The experiment of its manufacture has been made in Tompkins county, New York, it is said with great success; and the theory is simply that skim milk cheese, a food material of little value, may be so improved by the addition of foreign enriching material as to be much more valuable.

OYSTERS OMELET.—Whisk four eggs to a thick froth; then add by degrees one gill of cream; beat them well together; season the eggs with pepper and salt to taste. Have ready one dozen oysters, cut them in half, pour the egg into a pan of hot butter, and drop the oysters over them as early as possible. Fry a light brown and serve hot.

GOOD HEALTH.

Fatal Effects of Filth.

X. A. Willard in a late address before the Connecticut Farmers' Convention discoursed as follows:—Many cases of fever have been traced to the consumption of swill milk; diseases have been traced to the milk drawn from cows by the attendants of sick persons; also to the impure water with which milk-pans were washed.

Putrid water is often the only kind by which the cow can slake her thirst, and yet it is productive of disease. We have a law to prevent watering milk, and yet a farmer is allowed to permit his cows to quench their thirst in the most filthy and poisonous water. Which is the most deserving of punishment? A case of diarrhea in a family was traced to the milk obtained from a cow confined in a stable without proper ventilation.

Deaths from Lamp Explosions.

There are so many circumstances under which accidents, more or less severe and often fatal, occur from lamp explosions, that people cannot be too studious in informing themselves with regard to such accidents, or too careful in seeking to avoid them. But a few days since the following case occurred at the house of a friend on Ferry street, in this city.

EFFECT OF WARMTH IN PREVENTING DEATH FROM CHLORAL.—Dr. Brunton (who, by the way, has succeeded the lamented Austin as editor of that excellent medical journal, The Practitioner) confirms the observations of Liebreich and others, and finds that the subcutaneous injection of a solution of chloral induces sleep, which is light and easily broken if the dose be small, but passes into coma if the dose be large.

A Paradise for Bees. A correspondent of the S. F. Bulletin writes thus sweetly of the bee pastures about Shasta: "The Shasta woods are full of wild bees, and their honey is exactly delicious. At least such was the quality of my samples, and no wonder, inasmuch as it was in great part derived from the nectar bells of a huckleberry bog by bees that were let alone to follow their own sweet ways.

THE SHASTA BEES.—The Shasta bee lands is easily understood. Shasta is a fire-mountain, created by a succession of eruptions of ashes and molten lava, which, pouring over the lips of the craters, layer over layer, grew outward and upward like the trunk of an oxogenous tree. During the glacial period the whole Shasta cone was capped with ice, which by erosion degraded it to some extent and remodeled its flanks.

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THE VINEYARD.

Grape Culture.

(From the Pacific Rural Press.) EDITORS PAGES:—This branch of business is every year becoming of more importance to the people of California, and hundreds of men are now looking to raise grape culture as being the best business for them to engage in. Many of these, having no experience with the grape, every naturally look to the agricultural books and papers of the present day for information on that subject.

There are certain natural laws governing the growth of trees and vines which should be understood by all fruit growers. One of which is, that all things being equal, the roots and branches will grow in the same proportion. Wide-spreading tops will see wide-spreading roots. A tall, slender tree, with but few branches, will have a deep tap-root with few side roots.

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