

Scientific, &c.

MICROSCOPIC WONDERS.

We recently looked through a microscope in the office of Sanford C. Hull, the almanac maker, at East Liverpool, Ohio, and examined a drop of rain-water. In that single drop we counted nearly a hundred playful little creatures, apparently as large as the common house-fly, frolicking and frisking about as merrily as minnows in a meadow-brook. Then we reached a book from the shelf, and detected a speck of a white insect burrowing off at a double-quick, to hide behind a grain of dust; for we had opened on him by surprise. The little fellow was retreating rapidly; for the shaking of a book-leaf, or even causing as much of a leaf to tremble as would hold a single letter, was to him a commotion equal to a hundred earthquakes. But we pursued him, excited as he was, until we chased him on a bar of polished brass, and, by a strange stratagem, drove him to an entrenchment on the bar. He was smaller than the dot of an 'i' in your pocket bible. But we pressed him into our service, a prisoner in his house of brass, and snugly covered by a glass slide, until we reviewed him beneath the microscope. His prison was less roomy than the eye of a fine cambric-needle, yet, under the microscope, his liberties as well as his body were greatly enlarged. The creature, to the naked eye so small, was now apparently as big as a bee, and white as snow, with limbs of perfect symmetry and proportion. We were affected by his efforts to get free. He hurried from side to side of his prison-house, and tried to force the walls apart. Through his clear, transparent flesh could be seen the beatings of his heart and the purple veins of his blood. His movements were restless and pitiful as those of a newly caged bird. If we could, by some magnifier of sound, have heard his voice, and understood his language, doubtless it would have been a plaintive cry for liberty. How wonderful are the works of the Almighty Hand!—Jou of Microscopy.

THE USES OF SALT.

The extent and importance of the uses of salt can scarcely be better described than in the words of Dr. Bolley, which we translate from his work, entitled "Das Kochsalz." "We awake in the morning; the linen which we put on betrays by its whiteness that it has been bleached by the chlorine derived from salt; the shoes with which we cover our feet required salt in the hands of the tanner; in the soap that we use for the toilet, we seize a transformed piece of salt; the glass which we bring to the mouth, hides the chief ingredient of salt; from the crude ore by means of salt, was produced the bright, white metal of the teaspoon, which is so highly esteemed by the world; the teakettle is soldered with borax which holds soda produced from salt; the milk before us contains salt; the butter has been preserved by salt perhaps for months; the bread betrays to the palate that the dough has been mixed with salt. We grasp the paper; it required the application of chlorine from salt in order to please us by its whiteness. The clean spectacles through which we see are partly composed of what once was salt. A visit is announced; a patient wishes to consult us; he enters, and, seeking scientific aid, we reflect upon the remedies at our command, and commence to write. Out of ten medicines we find that five of them owe their origin, either by their composition or the mode of their preparation, to salt. Who is able to forget for one moment this ever-present Proteus that appears in a thousand forms?"—Scientific American.

IRISH WORKS OF ART.—A somewhat novel branch of industry for Ireland has been developed at the potteries of Belleek. Statuettes and other Art works of unusual beauty are now produced there. Much praise is bestowed by English critics upon a copy of Fontana's statue of "The Prisoner of Love" executed in porcelain at the Belleek pottery, and the floral and other devices produced by the artists of the establishment are said to be exquisite for fancy and execution. Belleek is a small town in the County of Fermanagh, situated on the beautiful River Erne, and containing a population of about three thousand.

In any business never wade into water where you cannot see the bottom.

Agriculture, &c.

APPLICATION OF MANURE.

Observation and experience should determine the mind of the farmer in regard to the best plan of applying manure. Whether to plow it under deep, or leave it on the surface. The advocates of surface manuring speak against manure being turned under the deep, while the advocates of deep manuring charge surface manuring with fertilizing the atmosphere. But there is a medium course, and each theory is supported by plausible arguments. However, there are true philosophical principles against burying manure too deeply in the earth. The loss of the saline matter of the manure by solution and infiltration will be great in porous soil, and the evaporation, to which so much loss is attributed by those holding opinions adverse to surface manuring, would be only a small drop in the bucket, compared to the loss by solution. In porous soils, it is well known that manure will penetrate to a great depth, and much animal matter may descend beyond the reach of surface-growing plants. Humus is formed by the decay and decomposition of vegetable matter, which in the philosophy of nature is manipulated on the surface; hence the rule in the application of manure should be taken from the indications of science. The decay and consumption of one crop for the nourishment of another, the droppings of animals and defoliations of trees and plants are all left on the surface. This seems to contradict the idea of any loss by evaporation. It will, therefore, be best to adopt the plan of deep cultivation, but to keep the manure and vegetable matter as near the surface as possible. There is always some loss by evaporation, but much less than by infiltration. But it should be a leading idea with farmers to be close observers of such natural operations, in the growth of spontaneous and cultivated vegetation, and accommodate their practice so as to imitate nature as nearly as possible.—Journal of the Farm.

THE BRONZED TURKEY.—These turkeys said to be a cross between the domestic, or tame, and wild turkey, and make the finest and strongest birds. They resemble as closely as possible the original stock, and look not dissimilar to wild birds, and next to them weigh the heaviest, fatten the most rapidly, and can be reared with much less trouble than any other variety.—Rural New Yorker.

THE California Farmer recommends cranberry-plants for pot or basket ornaments. When thus grown, the long stems, drooping from the basket, together with the rich fruit, form a most beautiful object. Let those who mourn that they cannot afford to purchase foreign novelties, make a rustic basket, and put a few cranberry-plants in it, and hang it in the window.

FLOWERING THE DOUBLE GERANIUMS.—The greatest profusion of bloom will be secured by growing in soil not very rich, and allowing the roots to become pot bound. These beautiful novelties are disposed to make a luxuriant growth, and it is by keeping this disposition in check that their full capacity for floral display can be brought out; but when the wood growth has been checked they flower profusely, and are a most charming sight.

BEES.—The common but ridiculous practice of making a clatter with kettles, tin-pans, coal scuttles, &c. when bees are swarming, is utterly useless, and is resorted to only by old fogy bee-keepers. Moisture sometimes generates in a bee-hive in winter, and runs down the sides to the entrance, where, coming in contact with cold air, it is frozen, filling up the space and stopping ventilation. This matter should be looked to occasionally.

BATTER PUDDING.—Three cups of milk, three eggs, three cups of flour; bake in tea-cups ten minutes by a hot fire. This will make nine cakes. Serve with sauce.

CHICKENS hatched early in the season prove the best ones. So says the Poultry Chronicle, and advises farmers to encourage hens to set early.

Periodical applications of ashes tend to lengthen the integrity of soils by supplying most, if not all, of the organic substances.

MESSENGER ALMANACK.

APRIL, 1871.

Full M-on, April 5th, 10h. Sun. morning. Last Quarter, " 12th, 1h. 37m. morning. New Moon, " 19h, 2i. 49m. afternoon. First Quarter, " 27th, 7h. 33m. afternoon.

Table with columns for Day, Sun, Moon, and other astronomical data. Includes rows for Sun, Moon, and other celestial bodies with their positions and times.

THE TIDES.—The course of the Moon's Sunning gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newpo, and Truro.

High water at Pictou and Cape Tormentines, 2 hours and 11 minutes later than at Halifax. At Annapolis, St. John, N. B., and Portland Maine, 3 hours and 25 minutes later, and at St. John's, Newfoundland 20 minutes earlier, than at Halifax. At C. B. L. town, 2 hours 56 minutes later. At Westport, 2 hours 51 minutes later. At Yarmouth, 2 hours 20 minutes later.

FOR THE LENGTH OF THE DAY.—Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising.

FOR THE LENGTH OF THE NIGHT.—Subtract the time of the sun's setting from 12 hours and to the remainder add the time of rising next morning.

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