



### Gold, Gold.

News has reached us from California, of the discovery of an immense bed of gold of one hundred miles in extent, on American Fork and Feather rivers, tributaries of the Sacramento, near Monterey. Mr. Colton, the Alcalde of Monterey, states that the gold is found in the sands, in grains resembling squirrel shot, flattened out. Some grains weigh an ounce each. It is got by washing out the sand in a vessel, from a tea saucer to a warming pan. A single person can gather an ounce or two in a day, and some even a hundred dollars worth. Two thousand whites and as many Indians are on the ground. All the American settlements are deserted, and farming nearly suspended. The women only remain in the settlements. Sailors and captains desert the ships to go to the gold region, and laborers refuse ten dollars a day to work on the farms.

If the crops should fail around Monterey, the golden sands would make fine pudding.

### Another Gold Mine.

The Frederick (Va.) News, noticing recent retirement of Mr. Heiss from the Washington Union, who has acquired a large fortune in that establishment, says that in connection with Commodore Stockton, he has become the purchaser of the White Hall Gold Mine in Spottsylvania, within eighteen miles of Fredericksburg. It learns that a vein was struck a few days since, of incalculable value, so valuable that a large standing guard is employed to protect it against depredations.

This mine is nearer home than the one in California, but it is a real anti-republican concern in comparison,—for in California every decent man can dig that chooses.

### Copperas a Disinfectant.

If the sulphate of iron be dissolved in water and thrown into cesspools it renders them pure, even where the gas is in such quantity as to be oppressive to the lungs and irritating to the nose. The rationality of the process is this. The sulphuric acid of the salt combines rapidly with the ammonia, forming a sulphate of ammonia, and the iron is thrown out as an oxide. This salt of ammonia (sulphate) is very soluble in water, and to a great extent inodorous. In addition to this, the ammoniacal gas is most rapidly absorbed by the water of the solution and thus arrested until the sulphuric acid has time to leave the iron and unite with the ammonia.

### Turnip Meal.

A kind of meal made from turnips has been introduced in Scotland. It is made by passing Swedish turnips through a potato starch mill. After having been passed through the washing machine, they are ground down by the rasping apparatus, and the pulp is passed between rollers which squeeze out the greater part of the moisture. The squeezed fibre is then dried on a kiln and ground into meal by mill stones. The liquid which is expressed is evaporated, and the dry solid part is mixed with the meal. The meal therefore contains nearly all the solid parts of the turnip in a state which prevents decay, and in a light and portable form. It is confidently expected that this article will prove a good substitute for grain for feeding stock in that country. — Prof. Johnston, analysing it, found it to contain 13.68 per cent. of protein compounds, 48.72 of sugar, 4.14 of gum, and 1.11 per cent. of oil.

Zouidon says that a distance of 25° of latitude occasions a total change not only of vegetable production, but of organized beings. Each separate region, both of land and water, from the frozen shores of the polar circles to the burning region of the torrid zone, possesses some peculiarity of its own. Botanical geographers have divided the globe into 27 botanical districts, differing almost entirely in their specific vegetable productions.

### New Locomotive Boiler for using Anthracite Coal.

The American Railroad Journal of the 9th inst., contains a beautiful lithograph drawing of an improved Locomotive Boiler for using anthracite coal, invented by Mr. S. Norris of Philadelphia. The idea of using anthracite coal for any purpose that wood is now used as a heat generator, has never appeared to us problematical and we hope this invention will demonstrate this fully. We have in some instances seen anthracite adopted successfully in place of wood, in the face of much doubt.

The difference between wood, bituminous and anthracite coal, for generating steam for locomotives, is this. The two former generate a more volatile, the latter a more concentrated heat, and the present locomotive boilers are constructed to use wood in the most perfect manner for the quick generation of steam (the only limit we may say to the speed of the engine.) To render anthracite as available for locomotive purposes as wood or bituminous coal, Mr. Norris constructs a far larger grate surface, and brings it closer to the absorbing surface of the boiler. This is correct undoubtedly, and he will thus render available in the highest degree all the radiant heat of the anthracite. Mr. Norris intends to have the blast pipes of larger diameter than those now used, so as to have a smaller amount of artificial draft than the boilers now in use have. We could not give an opinion on this point—practice will alone test its virtue.

### Hydrophobia—Important Theory.

The Philadelphia Ledger says that Dr. G. Spackman, of that city, from a recent discovery and the confirmation of an indulged opinion in several cases, as to the cause of this dreaded and incurable malady, is induced to offer a theory which may prove of inestimable benefit to science and humanity generally. He suggests that it arises from the deposit of a poisonous virus introduced by the perforation of the animal's teeth; that it remains latent for a time, by the absorbents is taken up, and by a combined chemical action with the blood, generates a gaseous or aeriform fluid, which results in congestion, producing the usual spasmodic action terminating in death.

### Secrets of Ventilation.

Let the air enter the house freely by a large aperture, like a common window, and capable of regulation in the same way. Let it enter a stove-room, and be there completely warmed, and then let it pass freely through the whole house, and enter all the apartments either at the doors or by express channels.—Take off the used air by the chimney and an open fire; or for crowds, provide a larger and express opening—there is no more to be done. Houses that we have seen ventilated in this simple, unpretending, unmysterious manner, are the best ventilated we have ever entered. It is too often the fate of the mysterious little pipes, funnels, tubes, and valves by which ventilation is frequently symbolized, rather to indicate ventilation than to effect it.

### The Ring of Saturn.

The ring of Saturn is not visible at the present time. This phenomenon takes place once in fifteen years. A writer at the Cambridge observatory, says: "with the Cambridge telescope the ring was constantly seen whenever the state of the atmosphere was favorable. While the Earth continued above the plane of the ring, the unilluminated side was presented to us, and appeared like a dark belt stretched across the body of the planet, and extending on each side as a delicate thread of light, with, generally, two minute beads on the preceding side. The same beaded or broken appearance was also noticed on several occasions on the right, or following side of the planet. The distance of these points of light from the limb of the planet, were repeatedly measured; the result showed no change of distance. They were in comparison with the smaller, quick moving satellites. The conclusion derived from these points of light were occasioned by the reflection of the sun-light from the inner edges of the outer and interior rings. The disc of Saturn, as seen with the Cambridge telescope, has extensive dark spots, indicating a variety of surface similar to what is seen on the nearer planets."

### Quince Marmalade.

Let the fruit hang on the tree till one falls to the ground, then gather the crop. Pare, quarter, and core them; but scrupulously save every pip. The pips of quince abound in mucilage as may be perceived by taking one into the mouth and chewing it well it will make the lips stick together as a piece of gum arabic would. Put the quinces with pips into a stew pan, with a sufficiency of lump sugar, and just enough water at the bottom to keep them from burning. As the sugar dissolves and the liquor boils continue stirring the whole mass. When the fruit becomes tender, break and mash it well with a spoon. In about an hour from the commencement of the operation it will be cooked enough. It may then be turned into preserve jars; a portion should be put into shape, to be used at dessert in the same way as Bunsell and Damson cheese. The next morning it ought to be perfectly stiff and gelatinous, from the strong mucilage of the pips having been thoroughly incorporated with the whole mass. The quantity of sugar used may be rather less than is necessary for other preserves. If tied down the usual way it will keep good for a long time. The medicinal qualities of this preparation are applicable to those cases in which mucilage is administered internally; and a pot of quince marmalade would be as agreeable a prescription to a dysuretic patient, as a dish of roasted onions or a dose of linseed jelly.

Everybody whose garden or orchard is above the very smallest size ought to have at least one quince tree, particularly if it contain any low moist corner. To such a situation they may be removed at a considerable size; their cost at the nursery is trifling, and many a useless shrub, such as the Snowberry or the Privet, might advantageously be uprooted to make way for them. Few low growing standards are more ornamental. In a small space they exhibit all the members and proportions of a full sized tree; something like the Chinese Koo-shoo, or artificially dwarfed Oaks, Hornbeams, &c., that are grown in pots; there is the old looking trunk, the pendant and grotesquely contorted branches; there is the scattered foliage, like the natural day, dark one-half and light the other; in the spring there are large, delicate blossoms, and in the autumn drooping fruit.

### Irish Trade since the Union.

It appears from Parliamentary returns that the tonnage of shipping three years before the union was 112,333, while in 1842 it reached 569,304, showing an increase of 456,971 tons. In 1823 there were no steam vessels in the coasting trade of Ireland, but in 1836 which is the date of the last official returns, the tonnage entered inward amounted to 579,395; since that period there can be no doubt that the increase has been very considerable. It is not true that the linen trade was destroyed by the union. It appears from Moreau's tables, that from 1781 to 1800 there were exported 678,798,721 yards of linen, while from 1802 to 1821 the quantity was 832,403,860 yards, showing an increase of 153,605,139 yards.

### Chinese Barber.

The itinerant barber's apparatus is complete, the water always boiling on a fire over his head, while in his rear, on a pole balanced over his shoulder, are water, basin, razors, towels, &c.; if he be in requisition, he picks out a convenient spot, shaves the head, cleans the ears and eyes, cracks the joints and shampoos the body, in an incredibly short space of time. Hair is only worn on the crown of the head in shape of a queue. The shaving is a matter of necessity to the mandarin and gentleman, while scarcely a laborer goes more than three or four days unshorn. This trade is in constant exercise, but the death of an Emperor is a sure holiday to the barber, shaving and mourning being inconsistent with each other.

Tinker, tailor, and shoemaker, each has his pack, and, basking in a sunny spot, plies his trade, finishes off one job, and utters his peculiar cry for another.

It is said there is a farmer in North Carolina, whose corn crop is about 200,000 bushels a year.

### Chalk in the United States.

It is a generally received opinion that there are no chalk formations in the States, all of that article used in this country being brought from England. A communication from John Pickell, to Professor Silliman, however, controverts this opinion. The writer says that in 1831, being engaged under the direction of the Topographical Bureau, to determine the practicability of the construction of a ship canal across the peninsula of Florida, it became necessary to sink several shafts. At the head of a small stream running into Black creek, and near the Santa Fe river, an excavation was carried to the depth of fifty-five feet, a stratum of chalk was perforated, containing flint nodules of various sizes. The chalk was perfectly white, and by short exposure to the atmosphere indurated to the hardness of the foreign article.—The writer expresses the belief that this chalk formation continues through Georgia and the Carolinas, and perhaps to the coal region in Virginia.

### Salt Water and Fresh.

The London Emigrant says: "We have just had the pleasure of drinking a goblet of water taken from the sea at Margate, as sparkling and aqueable as if drawn from the best pump in London; indeed, it was impossible to tell the difference. The water had been previously distilled in the usual way, and then treated by the simple galvanic process, as patented by Mr. Crosse. The invention, for emigrant ships and others on long voyages, will be invaluable.

### Optical Illusions.

On looking out of the window of a railway carriage, for instance, if the eye be fixed on a row of stones or of palings, the image seems confused and to be rapidly moving away; but if the axes of the eyes be suddenly turned to some nearer spot, then the stones or palings are for an instant distinctly seen stationary. Sir David Brewster said he could not yet account for this phenomenon.

A treatise on Campanology published in Norwich (England) states according to an accurate calculation, that the number of combinations of definite sounds, that can be produced on 24 bells, is so great, that at the rate of 2 in a second it would require to strike them 117,000,000,000,000 years.

### Mercury.

Mercury, is quite pure, is not tarnished in the cold, by exposure to the air and moisture; but if it contain other metals, the amalgam of those metals oxidizes readily, and collects as a film upon its surface. It is said to be oxidized by long agitation in a bottle half full of air.

The receipts at the State Fair in Buffalo amounted to \$6,114 96. It is estimated that at least fifty thousand persons visited it during the two days it was open to the public.

When gutta serena is immersed for a few minutes in water above 150° Fahrenheit, it becomes soft and plastic, so as to be capable of being moulded to any required shape or form, which it retains upon cooling. If a strip of it be cut off and plunged into boiling water, it contracts in size, both in length and breadth. This is a very remarkable phenomenon.

The sunflower is a valuable crop. Its oil burns well, and it does very well to mix with linseed for some kinds of painting. Nineteen bushels of seed make twenty three gallons of oil. It makes good guano when mixed with ashes.

The root of the yellow poplar, or American tulip tree, made into a strong decoction applied outwardly and taken inwardly, is said to be a sure cure for the most venomous snake bite.

In some newly-opened coal mines at North-hope, England, a live caterpillar was discovered in a piece of coal, and lived two days after being taken out. The insect and the coal were sent to King's College, London.

White huckleberries have been found growing in Ipswich upon the lands of Capt. Michael Loard, quietly fraternizing with the blacks.