

SCIENTIFIC AND SANITARY.

The fiercely contending waters of a rocky coast-line afford a singularly favourable place for animals to find food. Every stroke of the waves rends away bits of seaweed from the rocks and grinds the fragments into bits which may be seized on by the expectant mouths. The winds drift vast quantities of organic matter from the deeper sea, which receives like treatment from the mill of the surf. The result is that the water next the shore is a rich soup or broth capable of nourishing a vast amount of animal life. On sandy shores there is no foothold for such creatures; if they were placed there the first wave would cast them into the mill, but on the firm-set rocks they can, by various most ingenious devices, manage to make avail of this chance for subsistence. One may judge how well spread is this table of the shore by taking a glass of water from the turmoil of the surf; we see that it is crowded with the debris of animals and plants, all of which is good nutrition for these marine creatures. To win security against the waves, and thus to be able to get safety and feed at this richly furnished board, the shore animals have for ages been most assiduously contriving ways of securing themselves to the rock. Thus the barnacles, whose remote ancestors were free-swimming creatures somewhat like the shrimps, began by adhering by their head-parts to floating timber or rocks not much exposed to the waves, and gradually, by one change after another, all apparently designed to the one end, have come to a nearly perfect reconciliation with the conditions which surround them. Their original form is no longer recognizable, for they are now cased in a cone formed of stony plates, and only these parts fairly anchored to the rock on which they rest. Their net-like fringe of arms can, whenever for a moment the sea is still, sweep the water about them, and when the surge is about to strike, withdrawing in their shells, which by their shape part the wave, they are perfectly protected. So, too, the limpets have converted the ordinary snail-like shell into a stout buckler, which when lifted as the wave withdraws, admits the sea water with its nutriment. As the water closes down on it the edge of the shield comes upon the surface of the rock and is held there by the short muscle which forms a large part of the animal's body. Animals and plants pay with infinite toil and pains for their chance to secure food in places where they are fairly protected against organic enemies. The surf line is by its conditions the best provisioned part of the sea; it is free from creatures which can prey upon its inhabitants, and to gain a place in it is worth while for any creature to make many sacrifices.—*Prof. N. S. Shaler, in Scribner's Magazine.*

"August Flower"

How does he feel?—He feels cranky, and is constantly experimenting, dieting himself, adopting strange notions, and changing the cooking, the dishes, the hours, and manner of his eating—**August Flower the Remedy.**

How does he feel?—He feels at times a gnawing, voracious, insatiable appetite, wholly unaccountable, unnatural and unhealthy.—**August Flower the Remedy.**

How does he feel?—He feels no desire to go to the table and a grumbling, fault-finding, over-nicety about what is set before him when he is there—**August Flower the Remedy.**

How does he feel?—He feels after a spell of this abnormal appetite an utter abhorrence, loathing, and detestation of food; as if a mouthful would kill him—**August Flower the Remedy.**

How does he feel?—He has irregular bowels and peculiar stools—**August Flower the Remedy.** ©

Minard's Liniment for sale everywhere.

PROFESSOR VOGEL, the distinguished chemist of Berlin, says that he has perfected a process by which it will be possible for skilled operators to reproduce the natural colours of animate and inanimate objects by photography. He says that he can photograph people in natural colours as perfectly as he can reproduce pictures. He admits that he has not yet practically demonstrated his theory, because the light in Berlin has not been favourable to his experiments, but says that when the summer comes with its more brilliant light he shall do so, and has no doubt of perfect success. The subject of photographing in colours is one that has been debated very extensively during the past few years, and the general opinion has been that it is impracticable; but that, of course, does not determine it. There have been so many cases where theory has been so completely upset and overturned by the logic of facts that it is never safe to say what can or cannot be accomplished. If Professor Vogel is right and his discovery is a genuine one, the vista it opens is almost infinite, and that, too, not only in an artistic, but in a practical sense. The uses to which colour photography could be applied, if the art were perfected, are practically numberless. Illustration, for example, will become something wholly new and different, and the slow and tedious process of printing in colours will be superseded by a method which successive improvements will render as easy and simple as printing in black and white. Then, too, the exact reproduction of tints and colours will have its uses in a great variety of ways in different arts and sciences. Colour is now the despair of the painter, whether he be artist or mere copyist, but an exact reproduction of colour may lead to new discoveries in the art of combination, and open new vistas to those who are concerned more with the material than with the artistic side of painting.—*San Francisco Chronicle.*

At the anniversary of the British Geological Society the retiring president, Sir Archibald Geikie, gave the annual address, which was devoted to a continuation of the subject treated of by him last year. He now dealt, according to *Nature*, with the history of volcanic action in this country from the close of the Silurian period up to older Tertiary time. The remarkable volcanic outbursts that took place in the great lakes of the Lower Old Red Sandstone were first described. From different vents over central Scotland, piles of lava and tuff, much thicker than the height of Vesuvius, were accumulated, and their remains now form the most conspicuous hill-ranges of that district. It was shown how the subterranean activity gradually lessened and died out, with only a slight revival in the far north during the time of the Upper Old Red Sandstone, and how it broke out again with great vigour at the beginning of the Carboniferous period. Sir Archibald pointed out that the Carboniferous volcanoes belonged to two distinct types and two separate epochs of eruption. The earlier series produced extensive submarine lavasheets, the remains of which now rise as broad terraced plateaux over parts of the lowlands of Scotland. The later series manifested itself chiefly in the formation of numerous cones of ashes, like the *puy*s of Auvergne, which were dotted over the lagoons and shallow seas in central Scotland, Derbyshire, Devonshire, and the south-west of Ireland. After a long quiescence, volcanic action once more reappeared in the Permian period; and numerous small vents were opened in Fife and Ayrshire, and far to the south in Devonshire. With these eruptions the long record of Palaeozoic volcanic activity closed. No trace has yet been discovered of any volcanic rocks intercalated among the Secondary formations of this country, so that the whole of the vast interval of the Mesozoic period was a prolonged time of quiescence at last when the soft clays and sands of the Lower Tertiary deposits of the south-east of England began to be laid down, a stupendous series of fissures was opened across the greater part of Scotland, the north of England, and the north of Ireland. Into these fissures lava rose, forming a notable system of parallel dykes. Along the great hollow from Antrim northwards between the outer Hebrides and the mainland of Scotland, the lava flowed out at the surface and formed the well-known basaltic plateaux of that

region. The address concluded with a summary of the more important facts in British volcanic history bearing on the investigation of the nature of volcanic action. Among these Sir Archibald laid special stress on the evidence for volcanic periods, during each of which there was a gradual change of the internal magma from a basic to an acid condition, and he pointed out how this cycle had been repeated again and again even within the same limited area of eruption. In conclusion, he dwelt on the segregation of minerals in large eruptive masses, and indicated the importance of this fact in the investigation, not only of the constitution and changes of the volcanic magma, but also of the ancient gneisses where what appear to be original structures have not yet been effaced.—*Science.*

SOME trials with solidified petroleum were made a few weeks ago at the works of the Solidified Petroleum Corporation at Hackney Wick, London, and they demonstrated that a six horse-power tubular boiler containing eighty gallons of water could be heated by sixty-two pounds of the Chenhall fuel (or solidified oil), and in 36½ minutes steam raised to indicate sixty pounds to the inch, while it took 106 pounds of coal and wood to raise steam sixty pounds in one hour's time.—*Engineering and Mining Journal.*

ENTERPRISING proprietors of large farms would do well to look into the subject of electric power to perform their farm work. Some interesting experiments have been made in this direction by the State Agricultural and Mechanical College of Alabama, at Auburn, Ala., and the electric plant is now running successfully. The power is put to various uses, such as ginning, pressing cotton, cutting up feed stuff, thrashing grain, etc. This plant is the first of its kind ever established.—*Electrical Age.*

HOOD'S SARSAPARILLA absolutely cures all diseases caused by impure blood and it builds up the whole system.

THE need for telegraphic and telephonic intercommunication between lighthouses, lightships, life-saving stations and the coast is so apparent as to require no argument. The Government should take the matter up at once and provide a complete and serviceable system of communication.—*Electrical Review.*

EVERY TESTIMONIAL in behalf of Hood's Sarsaparilla is strictly true and will bear the closest investigation. No matter where it may be from, it is as reliable and worthy your confidence as if it came from your most respected neighbour. Have you ever tried this excellent medicine?

FOR a general family cathartic we confidently recommend **Hood's Pills**. They should be in every home medicine chest.

THE SUMMER DEATH-RATE.—The greatest evidence of the dangers of Cholera Morbus, Diarrhoea, and Dysentery, is the increase in the death-rate of all the leading cities during the summer months. Men and women can not be too careful of their habits of life during the heated term, and particular attention should be paid to the diet of children. A supply of PERRY DAVIS' PAIN KILLER should always be at hand, for it is the only medicine that can be relied on at all times as safe, sure, and speedy. A teaspoonful will cure any ordinary case; but in severe attacks it is occasionally necessary to bathe the sufferer's stomach with the PAIN KILLER. All reputable druggists have it for sale. 25c. price per large bottle.

C. C. RICHARDS & Co.

Gents.—I sprained my leg so badly that I had to be driven home in a carriage. I immediately applied MINARD'S LINIMENT freely and in 48 hours could use my leg again as well as ever. Bridgewater, N.S. JOSHUA WYNAUGHT.

MANGANINE is the name of a new alloy, consisting of copper, nickel and manganese, which has been brought into the market by a German firm as a material of great resisting power, it having a specific resistance higher than that of nickeline, which has hitherto passed as the best resisting metal.

That Tired Feeling

Prevails with its most enervating and discouraging effect in spring and early summer, when the days grow warmer and the toning effect of the cold air is gone. Hood's Sarsaparilla speedily overcomes "that tired feeling," whether caused by change of climate, season or life, by overwork or illness, and imparts a feeling of strength, comfort and self-confidence.

Editor Rowell Talks Common Sense.

"Every one living in our variable climate, particularly as we Americans live during the winter, eating meat, especially fat meat, needs something to cleanse the system and

Free a Clogged Liver

in the spring. Hood's Sarsaparilla completely fills the bill as a Spring Medicine. After taking two or three bottles I always feel a hundred per cent. better, yes, even five hundred per cent. better. The brain is clearer, the body in better condition for work, sleep is sweeter, and the little troubles of life pass by unnoticed."—A. S. ROWELL, Editor *Lancaster Gazette, Lancaster, N. H.*

Hood's Sarsaparilla Cures

Where other preparations fail. Be sure to get Hood's Sarsaparilla. It is Peculiar to Itself.

Hood's Pills cure liver ills, constipation, biliousness, jaundice, sick headache.

At the Royal Gardens in Edinburgh is a large insectivorous plant, of the genus *Roridula*. The plant is a native of Tasmania. It is a branching bush, with filiform leaves, more slender than those of *Drosera*, and, like the latter, furnished with glandular hairs with which it captures flies. The glandular hairs of the leaf of *Drosera* will not move on contact with inorganic matter, but they will contract upon a minute piece of fresh meat in the space of twenty seconds. The insects most abundantly captured by *Drosera* are ants.—*Popular Science News.*

RECENT experiments by Messrs. W. Thomson and F. Lewis on the action of metals on india-rubber, according to *Engineering*, show that that of copper is the most deleterious. Platinum, palladium, aluminium, and lead act only very slightly, while magnesium, zinc, cadmium, cobalt, nickel, iron, chromium, tin, arsenic, antimony, bismuth, silver and gold have no action whatever on this material. Of metallic salts, those of copper are very destructive, but nitrate of silver, manganese oxide, and several less common salts are equally so. The nitrates of iron, sodium, uranium, and ammonia have also a deleterious action, though less pronounced than in the case of the salts previously mentioned.—*Science.*

WHEN the air around us becomes condensed—shrinks into a smaller volume—it becomes heavier, puts greater pressure on the surface of the mercury, and makes it ascend in the tube; then the mercury is said to rise. When the air expands—swells into a larger volume—it becomes lighter, the pressure on the mercury is less, the mercury sinks in the tube, and the barometer is said to fall. Therefore every change of height of the quicksilver which we observe is a sign and measure of a change in the volume of air around us. Further, this change in volume tells no less upon the air inside our cases and cupboards. When the barometer falls, the air around expands into a larger volume, and the air inside the cupboard also expands and forces itself out at every minute crevice. When the barometer rises again, the air inside the cupboard, as well as outside, condenses and shrinks, and air is forced back into the cupboard to equalize the pressure; and along with the air, in goes the dust. The smaller the crevice, the stronger the jet of air, the farther goes the dirt. Witness the dirt-tracks so often seen in imperfectly framed engravings or photographs. Remember, ladies and gentlemen, whenever you see the barometer rising, that an additional charge of dust is entering your cupboards and drawers.—*From Dust and Fresh Air, by T. Pridgin Teale, in the Popular Science Monthly for June.*

Minard's Liniment Cures Burns, etc.