

THE SUMMER WINDS.

Blown softly down from the green hill's crown,
Uplifted towards the sky,
Faint whispers move through the waiting trees,
The summer winds pass by.
O'er and o'er from the pine groves dark,
Through the maples out on the ridge,
And down where the bending elm boughs
Meet the willows grouped by the bridge.
Beyond the stream to woodlands dim
That lie in the valley's breast,
The whisper passes and goes away
Then comes again in its quest.

And something sweet from the sky-touched hill
Steals gently to the ear.
The quiet whisperings through the trees
Of zephyrs fitting near
A message bring and its joy repeats
Where the thoughtful, walking apart
From clamors that ring through toiling earth,
Seek nature's welcoming heart,
Midst leaves that move like light-winged
thoughts
Ne'er ceasing in swiftest flight,
They pass through shimmering veils o'erhead
Like hidden rays of the light.

Envoys sent from the sky and hill
I hear you o'er and o'er!
You thrill my heart as if friends long lost
Held speech with me once more.
Your laden breath brings a tenderness
And the moving leaves murmur "Hush!"
The air holds a balm of gracious peace,
And thoughts of life's heedless rush,
Of cares grown old and of sorrow's pain,
Seem dim; uplifted, they float away.
Your whispered joy in the trees I hear,
The summer's gift to the day.

—MARY FRENCH MORTON.

SCIENTIFIC MISCELLANY.

Berlin has a cancer commission, and Dr. Paul Ehrlich has been provided with \$10,000 a year to enable him to carry out his special study of the disease.

A simple decoction of hemp was used in China 1700 years ago as an anæsthetic in surgical operations, according to a newly-discovered Chinese manuscript in a Paris library.

Lisbon's plague of rats—which resisted cats, traps and poison—seems to have succumbed to an infectious disease, harmless to man, which has spread among the rodents with great rapidity since the first inoculation of a few of them. This plan of extermination is to be tried on ships.

The automatic train recorder of the Brooklyn Rapid Transit Company consists of a ruled record paper, divided into five-minute spaces, and revolved by clock work. In front of the paper is a series of needles, each operated by an electromagnet and connected with a division of the road. As a train passes a suitably arranged insulated rail in any division, the corresponding electromagnet is energized and a dot is made on the paper.

That the moon actually has an in-

fluence upon the weather, an eminent Australian meteorologist, Mr. H. C. Russell, is quite prepared to believe. The rainfall on the coast of New South Wales is irregular, but in the interior three distinct periods have been traced, beginning with 1851, 1870 and 1889. In the first six years of each period the rain was abundant, this being the time when the moon was nearing its farthest point south in declination. But other years, after the moon had started north, were dry, and the drouth in 1885 to 1890 was severe enough to cause the starvation of 25,000,000 sheep.

The present state of radiography has been outlined by Dr. S. Henry Smith, an English expert. After making thousands of electrographs, or skiagraphs, he has discarded all other apparatus in favor of a 14-inch-spark Ruhmkorff coil, a lithanode accumulator and a home-made Wehnelt break, using the mechanical break worked from the accumulator for soft tissues, the Wehnelt direct from the mains through a resistance for the bones and thick parts. He insists, contrary to a recent London hospital opinion, that all pictures should be true photographs, timed to show in detail the bone-ulcer or other feature to be studied. It is now possible to locate all foreign bodies, to show fractures and dislocations, and to prove in some cases stone in the bladder or kidneys, but a negative result does not always prove the absence of stone. Aneurism of the heart and disease of the lungs may be shown occasionally, though not infallibly. Curative effects have been produced in several cases of stiff joints, with exposures of thirty seconds at intervals of three days, and in this promising field of usefulness there seems to be much to learn. Burns and harm to patients generally result from ignorance of the operator.

What other creatures feel and know still offers a wide field for investigation, Lord Avebury, unlike Descartes and other great authorities, is forced to conclude that animals possess some glimmers of reason, and that their minds differ from ours more in degree than in quality, while he has demonstrated that they may have senses quite unknown to us. He has shown by tests that they hear higher notes than are audible to us and see ultra-violet rays that do not effect our eyes. Our organs enable us to perceive vibrations in the atmosphere from about 30,000 to 32,000 per second, which give us the impression of sound, and beyond 400 millions of millions per second, which give us the impression of light. The intermediate vibrations, to which we are insensible, may give to responsive organs several senses as different from ours as sound is from sight. To our animal friends they may transform our familiar world into a very dif-

ferent place, full of music we cannot hear, of colors we cannot see, and of sounds we cannot conceive.

Summing up the epoch-making work of the London Royal Institution in connection with low temperatures, Miss Agnes M. Clerke reminds us that the researches, which in 1893 were being devoted by Profs. Dewar and Fleming to resistances of materials in the greatest attainable cold, were continued through a gift in 1895 of \$100,000 from an American, Mr. Thomas G. Hodgkins, and two later donations from the Goldsmiths' Company. The liquefaction of hydrogen proved to be colorless, only a fourteenth as heavy as water, with a boiling point of -252.5° C., and it was soon solidified and found to have a freezing point about 15 degrees C. above absolute zero. Helium, the new gas, has taken the place of hydrogen as the last of the so-called permanent gases. This has stood unchanged a temperature of 262 degrees C., but it is hoped soon to cool it to within 5 degrees C. of absolute zero. An outcome of these investigations has been the discovery that the air contains 1 part of hydrogen in 8,000, together with four previously unsuspected gases.

Just now the external ear is receiving the attention as an alleged index of human capacity and tendencies that has been given in turn to the bumps of the head, the lines of the hand, and so on. Dr. Arthur Keith, who has been investigating the subject from a scientific standpoint, divides ears into two strongly contrasted types, marking the opposite poles of development. In one, which he calls the orang-type, the ear is small and shell-like, with narrowed descending helix and in-rolled margin; in the other, or chimpanzee-type, the ear is large and broad, and the margin is not in-rolled. Though the orang-type may seem to justify the impression that the human ear is a decaying structure, the central—or active—part is more highly developed than ever, the truth probably being that man is evolving a new type of ear. A striking peculiarity of some ears—noted by Darwin—is the remnant of a tip pointing backward from the top, and this seems to be a reversion to an ancestral type. In general, most females have ears of the orang-type, while the chimpanzee-type is chiefly characteristic of males. Considering the researches thus far made, with the influence of age, sex, race, etc., Dr. Keith finds only one deduction possible—that a slightly greater proportion of criminals exists among people with ear tips and retrograde (or orang) helices than among others. The evidence, which cannot yet be applied to individuals, is just enough to give suspicion that a few criminals are criminals, as Lombroso has contended, because of defective brain development.