

READINGS FROM CURRENT LITERATURE.

THE SALT MARSHES.

HERE clove the keels of centuries ago,
Where now unvisited the flats lie bare.
Here seethed the sweep of journeying waters, where
No more the tumbling floods of Fundy flow,
And only in the samphire pipes creep slow
The salty currents of the sap. The air
Hums desolately with wings that seaward fare,
Over the lonely reaches beating low.

The wastes of hard and meagre weeds are thronged
With murmurs of a past that time has wronged ;
And ghosts of many an ancient memory
Dwell by the brackish pools and ditches blind,
In these low lying pastures of the wind,
These marshes pale and meadows by the sea.

—Charles G. D. Roberts, in Canada.

TOPE SIGNALLING.

WE looked in at the Royal Naval Exhibition, when Mr. W. B. Chalmers was about to give a demonstration of his system of signalling at night or in foggy weather, by means of musical tones. In a little kiosk at the side of the lake, and immediately facing the grand stand on the opposite shore, we found the apparatus which is used for the purpose, and which we will endeavour to describe. In front and with the mouths of the trumpets facing outwards is the loud-speaking or transmitting instrument. The reeds which produce the tones are inserted for protection in turned gun metal boxes, and are turned by means of screws, travelling up or down the sides of the tongues, and held in the required position by horizontal screws. By this method and by the use of the gun-metal throughout in place of steel, damp or even wet have no material effect upon the tone. The tongues of these reeds vibrate under a pressure of about four pounds (steam gauge) to the square inch as compared with about half an ounce to the inch in a large organ. Many experiments had to be carried out to get the first set of reeds to "speak," but once the size and weight of the material was accurately determined, there was no difficulty in multiplying the "tones" indefinitely. Immediately behind the "speaking instrument," but with a coil of one hundred feet of pipe between them to show that they may be placed at two entirely different parts of a ship, is the keyboard, from which the speaking apparatus is operated, and which is further available as an independent instrument for proving or verifying any tone sent from a distance, as to which the signal man may be in doubt about. In conjunction with this is a simple automatic recording apparatus, by which the messages despatched or received, or both, are jotted down for future reference. In a collision case this will probably do away with much of the usual hard swearing. The keys, ten in number, are respectively printed in bold type:—

B C D E F G A B C D
0 1 2 3 4 5 6 7 8 9
t d r m f s l t' d' r'

It will be seen that an octave is used, with one tone above and one below. "Do" is 1, so that by using an indicator, the ten tones become numbers, and the numeral code can be used for conveying ships' numbers, latitude and longitude, days of the month, hours or minutes, distance, rate of speed, depth of water, etc. Mr. Chalmers determined to use compressed air in place of steam, as he is a strong believer that in music purity means power, and so far no one has succeeded in getting a steam whistle to sound a pure note. The model shown is supplied with the necessary air by a bellows worked by a couple of Blue Jackets, the space being too small for a donkey-engine. On a man-of-war the wind-boxes will be fed from the air-compressor. At six o'clock exactly Sergeant Gay announced his arrival at the top of the "Eddystone Lighthouse" by playing "Do," "Re," the tone signal for "Ready ; All Right." The cornet at this distance may be taken to represent a tone-signalling machine about two miles distant, and heard through a dense fog. The Blue Jacket who works the signals then commenced by sounding Re and Fa, startling those unprepared for the power of the tones, and causing a rush of curious visitors up the sides of the lake, to see what was going on. R, f means "I am steering south-east," and it is intended that when steamers enter a fog they should at once begin sounding their course, most valuable information to those within hearing. "Te, do," comes clear from the lighthouse, "I want to speak to you," "Do, re," "all right," peals out the machine. "Sol, fa, re sol," "What ship is that?" and so on through a short popular code. The two things that struck us most were the power and purity of the tones, and the great rapidity of the conversation. To signal similar sentences by fog-horns we are assured would take from thirty to thirty-five minutes, allowing for high and low blasts of half a minute each. The tone signals are thus much more rapid, and as they are for use in fogs, time is most essential. Half to one minute suffices for most ordinary questions or answers. Mr. Chalmers finds no difficulty in getting men who can work the signals with very little practice ; many can recognize the various notes at once, and in case of mistake there is always the verifier at hand to be switched on, and to check the tone which seems doubtful. Every ship probably carries two or three men, whose musical ear is quite sufficient to enable them with very little knowledge to work

the system without the slightest trouble. Here is an example of vessels meeting in a fog and indicating their courses as per code :—

- (1) d' f I am steering N.E. (1) r, l I am steering S.W.
(2) m m m d' Danger! Stop. (2) d' r' All right.
(3) d' t' l I am in distress, (3) d, m r, f Do you know
stand by me. where you are?
(4) t, d, s I am going to use (4) d' r' All right.
numeral code.
(5) m t' f 374 (37 N. 4. W). (5) s s m l I will send a
boat to you.

—Musical News.

AN EAST INDIAN BILL OF FARE.

A CORRESPONDENT sends the following to an Indian paper, which he guarantees to be a *verbatim et literatim* copy of an estimate and bill of fare for a dinner for twenty persons sent to him by a *khansama* at a hill station : "Honoured Sir,—I will give this is article for dinner for all gentlemen, but each gentlemen I will take 2r. and twenty gentlemen for ever I will give dinner if being sixteen after account I will do charge twenty gentlemen, and if from twenty gentlemen more, I will taking extra charge 18. A cook, two Khitmatgars, one Masalchie, one mate and all knives and spoons and kitchen articles hire kindly will give you.

Moltani Soup
Samin Haspic
Filt of Beef alla Sobis
Lamb Cuttles alla Diches.

Joint.

Rose Saddl Mutton.
Rose Serlion Beef.
Foling Baking.
Max pay.

Second course.

Sdin Tose.
Uuchobi eggs.
Sweet pudding.
Jally Lemon.
Blang Mangell.
Cabnut pudding.
Chease and Butter, &c.
Coffee.
Fruits.

After some study, the meaning of "Foling Baking" was ascertained to be Fowl and Bacon, whilst "Max pay" was found to mean nothing less than Mixed Pie. Two other well-known dishes have also been transformed from their ordinary names of Sardine Toast and Anchovy Eggs. —The Colonies and India.

A LAND-LINK WITH AMERICA.

At a recent meeting of the Academy of Sciences, Paris, M. Emile Blanchard read a paper on the existence of a terrestrial connection between Europe and America during the present geological age of the earth. M. Blanchard began by pointing out that a line from the north of Scotland through Orkney, the Faroe Islands, Iceland, Greenland and Labrador, by way of Davis Straits, passes from one island to another across comparatively shallow seas. Another evidence of land connection exists in the prevalence of European species of animals and plants in the eastern parts of America, especially in Greenland, where the flora of the west coast is American and that of the east coast is European. Anemones from Northern Europe are found in the Southern States. Violets, too, grow there, as well as wild roses ; and the astragale of the Alps flourishes in Canada. Among other plants common to the two hemispheres may be mentioned rhododendrons, saxifrages, gentians, and so on. Willows, ivies and brooms exist in both regions. Grasses may be omitted because their seeds could be transported for great distances by water ; but orchids and lilies of Northern Europe are common in North America. Three or four hundred species of beetles, an insect incapable of long flight, are denizens of both continents. The Carabides especially, which live under stones, and spread slowly, can be traced from Europe through Iceland to Greenland, Labrador and Canada. The Argymies of Lapland and Iceland are also found in Labrador ; and it would be easy to give other instances of the kind. Spiders of the Alps and the north of Europe have been observed in Greenland ; beavers are found in Europe and America ; the reindeer is plentiful in the Hudson Bay Territories, and so is the Norwegian lemming. Several species of fish are characteristic of both regions ; for example, the river perch, which never quits fresh water. These proofs of a belt of land connecting Europe with Labrador open up some interesting questions ; for instance, the physical basis of the old traditions of a lost continent of Atlantis, which would seem to be America, and the origin of the American Indian race, which may have had congeners in the aboriginal tribes of Europe.

MIDNIGHT OIL OR MIDNIGHT SLEEP.

PHYSIOLOGICAL resources, although they are very elastic within limits, yet have limits which are sharply defined. There is no overstepping of the limit which is more dangerous than that of doing work which curtails sleep. Sound and sufficient sleep is the most indispensable of all the conditions of a sound and efficient brain. The miseries alone of the sleepless man are creditors which the most stoical may dread ; his incapacities are such that great work and great success are generally as hopeless for him as the possibility of riding through the air without a balloon or wings. Ten years of such sleeplessness as

some men have endured would cure the most ardent medical enthusiasts in the world of his passion for the midnight oil. The greatest and highest success in life is achieved, like the winning of a long race, by him who has the greatest staying power. What is the best of all the possible kinds of brain for a man who has to follow throughout his life an intellectual calling like that of the higher walks of medicine? It is a brain that is at once clear and strong. Undue and prolonged mental exertion in the student period may give great clearness of intellect ; possibly even an abnormal clearness ; but it can never give strength. Clearness without strength can no more win in the long and arduous race of life than speed without staying power can win in a foot race of ten miles. Unintelligent and impulsive medical professors—and there are many such—may urge men to competition for the highest college honours, even at the risk of a total breakdown in brain and body. Such professors are among the worst enemies young men could have, and they are among the worst enemies the medical school and the medical profession can have. What the medical profession demands is men of clear and strong intellect, full of practical resources, not mere dilettanti speculators in incomprehensible medical hypotheses. The day is the time for work ; the night for sleep ; sleep sound, quiet, and peaceful as death. The learned medical professor tells his students all this in his book or his lecture. But he seldom thinks of asking them to apply his lofty and ideal principles to the details of their own lives. The first thing that the world demands of professors and teachers of all kinds is that they shall practise their own principles. A teacher of physiology who encourages brain work at midnight ought to be considered insane.—The Hospital.

JOURNALISM AND LITERATURE.

It is truly a grave question for the young man who desires to follow literature and must work for his daily bread how he shall pay his way. I might say, with Dr. Johnson, that "I do not see the necessity ;" and in fact the greater, far greater part of those who attempt it do not justify the experiment. But I will suppose that the individual in any one case is justified in devoting his life and all its energies to letters ; that his calling is irresistible, or at least so strong that he is willing to do all but starve and freeze to be able to follow it. Even then, I say, with all the energy of a life's experience put into my words, and a knowledge of every honourable phase of journalism to give them weight, Do not go on a daily journal unless the literature of a day's permanence satisfies your ambition. Now and then, with the possible frequency of being struck by lightning, you may, as a special correspondent, find a noble cause for which you may nobly give your whole soul—once it has happened to me ; but even this is not literature. Better teach school or take to farming, be a blacksmith or a shoemaker (and no trade has furnished more thinkers than that of a shoemaker), and give your leisure to the study you require. Read and digest, get Emerson by heart, carry Bacon's essays in your pocket and read them when you have to be idle for a moment, earn your daily wages in absolute independence of thought and speech, but never subject yourself to the indignities of reportorialism, the waste of life of the special correspondent, or the abdication of freedom of research and individuality of the staff-writer, to say nothing of the passions and perversions of partisan politics. That now and then the genius of a man survives all these and escapes above them is not a reason for voluntarily exposing ourselves to the risks of the encounter ; and who can tell us how much of the charm of the highest art those successful ones have lost in the experience? For what we get by culture is art, be it on canvas or in letters. Study, fine distinction, the perfection of form, the fittest phrase, the *labor lima* and the purgation from immaterialities of ornament or fact, and the putting of what we ought to say in the purest, simplest and permanent form—these are what our literature must have, and these are not qualities to be cultivated on the daily press. Of no pursuit can it be said more justly than of literature, that "culture corrects the theory of success."—Prof. W. J. Stillman, in Atlantic Monthly.

THE gross valuation of the county of London will be found to have passed the enormous figure of £40,000,000 sterling, even if all the County Council appeals were to be ignominiously dismissed. The actual figure stated in the return is £39,835,147, but this is subject to additions in respect to the separate assessment of the hamlet of Penge, and to other additions concerning the Government property.

THE earnestness of life is the only passport to the satisfaction of life.—Theodore Parker.

GO AS YOU PLEASE.

THE Canadian Pacific Railway, having met with so much success last winter in their "Around the World" excursions, have just completed arrangements with the Peninsular and Oriental S. N. Company, and the fast steamship lines on the Trans-Atlantic route, to run these "Around the World" excursions at rate of \$610.00. This rate will apply in either direction, and for slight additional cost variation can be made in the route to travel over India, Egypt, and Continental Europe. For further particulars apply to W. R. CALLAWAY, District Passenger Agent, Toronto.