

Truth's Contributors.

FROM WINNIPEG TO THE ROOKIES.

BY REV. E. A. STAFFORD, A.B.
No. 1.

This trip is certainly full of high promise. It was much written of before the C. P. R. had penetrated the dense solitudes that still enwrap nearly half a continent. During the summer of 1884 it probably had more advertising by distinguished foreigners, travelling on free passes, than any other route on this much trampled earth ever had. Then it is supposed to exhibit to the tourist's eye that field of agriculture which, only a short time since, was thought to offer to the industrious yeoman the best chance to become an owner of some portion of this earth's surface, and, in the fear that very soon it would be all taken up, men rushed forward, trampling upon each other, in the breathless haste of a genuine land craze, each striving to cover, in his covetous expansion of himself, as large a portion as possible. Private enterprises rivalled great land companies in the zeal of appropriation, and in the gilded hope of vast and easy wealth for all. How animating the prospect of seeing the field of all this desire and disappointment!

It was, therefore, with feelings not unlike what I have had in looking upon the field of a great battle, heightened, of course, by the expectation of grandeur where nature has done her best, that I boarded a train for the west. It was September, the harvest month here. The rural life of my childhood had taught my eyes the correct appearance of valuable fields of wheat; but they were now to open with a new delight upon such vast fields of truly golden grain as they had never before beheld. Hundreds of acres, unbroken by a line, as even as if the tops had been clipped, after the manner of a hedge, in not one only, but in many places, rewarded a short excursion north or south of the nation's great commercial artery—the C. P. R. main line. O, hurrying tourist, make the most of the fields of wheat, for you are speeding on into a wide world of monotonous silence, that will start many a strange question in your thoughts. We breakfast at Moose Jaw, in the twenty-fifth hour from Winnipeg, and then on for the whole day without meeting any kind of a train, or seeing a living creature except our own company; occasionally, but not always, some one at a way station, and the countless birds that, yet unhunted, throng upon and about the small lakes in sight of the track. The prairie is not green. No flower blooms upon it. It appears gray and dry as a desert; and on every side this silence and desolation stretches away for hundreds of miles! They tell us there will be 400,000,000 of people on this continent in the year 2000. Out on this wide waste you ponder upon this calculation. Except for less than a hundred miles about Portage La Prairie you have seen nothing approaching a fairly well peopled section of country. At Moose Jaw you left human habitations far behind. It is hard to believe, in this solitude, that one hundred years hence anything but an echo will answer to the voice of man. There will yet be room for the crowding millions to scatter.

It fiendish ingenuity had determined to blast the prospects of this country it could not have devised a better plan than to supply the names of localities. Stinking and Belly Rivers, Seven Prisons and Snake Creeks, Moose Jaw and Medicine Hat; what land could survive such names?

At the last named place, about forty hours from our starting point, we came into con-

tact with the first native coal produced by regular mining operations. The Saskatchewan Mine is located near here. It is 600 miles from Winnipeg. At a cent per mile per ton, which is thought a fair rate for carrying coal, \$6.00 a ton is required to carry a ton of this coal to Winnipeg. It has been selling this winter at \$7.50 per ton. It is well adapted for heating in this cold country, as it burns quickly, throws out a great heat, and lasts fairly well, though not as long as anthracite coal. The Galt Mine produces rather a better quality of coal, and is about 100 miles from Medicine Hat. A branch line is being built to it, and it is expected that its product will be sold in Winnipeg next winter at about \$7.50 per ton.

This Medicine Hat is a division town on the main line of the C. P. R. main line, and the coal interest added to that fact furnishes its *raison d'être*. An abrupt turn in the great Saskatchewan, causing on one side a break in its high banks, creates a really beautiful basin, bounded by pretty high cliffs, covering about one thousand acres; and the town lies on one side of this basin. Here three or four hundred people form a very pleasant community, with no outside world very near to them. A detachment of the mounted police, encamped on the hill across the river, a mile away, gives a sense of dignity and security to this quiet town. Beyond, but not far, is the camping ground and the breeding place of such an army of rattle snakes as causes a creeping sensation to think upon. But they are over the stream, and so far away that the citizens are never troubled by them, except when the adventuresome go on a hunt, and expose themselves to these ungenerous enemies. Here the cactus abounds. A flowering cactus, and a species bearing a wholesome berry, in shape and taste very much like the domestic gooseberry, is found in great quantities. Other varieties infest the prairie, growing in patches from one to three or four yards in diameter, and scattered at frequent intervals. Here the cowboy comes to view, and one can learn true economy in modes of transportation by observing the horse trains made up at this point for Fort McLeod, away to the south. Instead of one team attached to each wagon, half a dozen wagons are coupled together after the manner of a train of cars, then as many teams are attached one after another to the forward wagon. In this way John, seated in a great saddle, astride the near wheel horse, manages the whole train, and saves the skill, time and pay of four or five extra men. This is but one illustration of the fact that the great need of this vast west is population. The present generation would be grateful, if, instead of promising one hundred millions of people in the year 2001, an instalment of, say five per cent., were hurried out there now very soon.

This need was forcibly impressed upon my mind while stopping at Medicine Hat. Here I met, for the first time, one of those ghosts of sad disappointments in land speculation, which now stalk about in countless numbers over all this western world. It appeared in the form of a very small horse, smaller still by reason of exceeding poverty of flesh, and over his frame hung a harness which, though taken up to the last buckle, appeared like the garment of a very large father upon the body of his very little son. All this harness and horse were attached to the most demoralized buck-board any one ever saw. The friendly driver had me at his side, to give me the recreation of a drive over the sun-scorched prairie, on a day so warm that anything with a leaf upon it must have appeared restful and refreshing.

Neither the rig nor those it carried had much spring that day, but as the horse went on, enjoying frequent rests while we tied up the ever-breaking harness, ever and anon leaping abruptly aside to avoid the many cactus beds, and so describing a course inexplicable by geometry, the driver was burning out first-class enthusiasm in the effort to impress me with the superior advantages of that locality for settlement.

I sympathized with him most sincerely. If like Roderick Dhu, by a shout I could have called up strong men covering all the hills, I should have done it. I would gladly have caused a great wave of emigration to break at his feet. But I felt that considering the force of his plea things would have been more in proportion if there had been less of cactus and more of horse; less confidence in his assertion, and more in the buck-board.

We are yet more than 300 miles distant from our western destination. It is a large world! More anon.

VARIOUS FORMS OF LOW FEVERS.

MALARIA AND OTHER CAUSES — PREVENTION.

BY DR. W. CANNIFF, MEDICAL HEALTH OFFICER TORONTO.

The practicing physician meets with not a few cases of disease in which fever is present in varying degrees, which continues for a longer or shorter time. Sometimes it is continuous, sometimes intermittent, or emittent. The fever is often of a negative character, or it may approach in character to that which is present in a genuine case of typhoid when duly developed. Typhoid, due to specific germs, may run its course without the characteristic fever. On the other hand, fever due to other causes may have febrile symptoms of the typhoid type. Consequently it is often impossible to determine whether an attack of fever is the result of typhoid germs, or due to other poisonous elements which have found entrance to the human system. The result is that all forms of low fever are very commonly designated typhoid. Sometimes the term malaria, or typho-malaria, is used. Now, malaria is often met with apart from inhabited districts. It is the product of decomposition and putrefaction of different forms of vegetable matter under certain conditions of heat and moisture. But, while malaria is a frequent cause of fever in low-lying districts, in the neighbourhood of streams and marsh land, and in newly-settled places, it is also often found in thickly-inhabited places, in which cases it is due to drinking water charged with vegetable life, or the specific products of decomposition floating in the air. The malarial poison is regarded as consisting of germ entities possessing great powers of proliferation. It ascends in the air, and may be wafted here and there, unseen and unfelt, by those who may inhale it. Malarial poison may also be taken with drinking water. A characteristic of malarial disease is the intermittent, or remittent nature of the fever.

If we recognize as the factors of malaria, putrefactive decomposition of vegetable matter with heat and moisture, there is no difficulty in determining as to how the development of the germs should, if possible, be prevented.

What the people require to know is—what are the causes of the low fevers, call them what you may? How does the poison enter the system, and how can the fevers be prevented or controlled? While malarial fever is the product of germs developed in decomposing vegetable matter, other forms

with typhoid symptoms, apart from true typhoid, are doubtless the result of putrefying organic matter, both vegetable and animal. Frequently it is extremely infectious material. Low forms of organic matter in abundance wherever organic matter is fermenting. Heat and moisture constitute the necessary additional factors. Exclusion of air and sunlight aid in the work. The essential conditions may be found in many, or in every hole and corner of a house, yard, stable, or factory. It smells generally, though not always, to locate the spot. It may be in the basements where exist collections of garbage, or decaying vegetables, the floor and walls being damp from want of drainage. It may be found in the waste pipe of an imperfectly deficient water closet, or in a privy closet it may come into the kitchen, or chamber or bath-room, from an untrapped waste pipe. It may be in a corner of the yard where kitchen slops are deposited, or a foul water cistern; or a well into which has been soaked, the liquid from the yard or pit. It may be a sink into which is thrown all kinds of filthy material, or a stable floor of which is reeking with animal excretions. And other sources of foul smelling fever germs might be mentioned.

These germs may find their way into the human body by the lungs or the stomach. They may be breathed, or they may be taken with water or milk, or perhaps with food, upon which they have collected, mould is often seen by the naked eye on stale food. The poison of these low fevers is not contagious. Like as in typhoid, or more of a family may have the fever after another, but they all take it from a common source. These fevers are usually rarely infectious, except in cases of typhoid which is not often seen in Canada, or is called ship fever. There is no virus in the excretions; but they are charged with putrefying material and should be promptly disinfected.

The great preventative of these low fevers are removal and destruction of the factors. All refuse organic matter, the refuse of domestic life, should be destroyed or removed before decomposition commences, which is more speedy and acrid in hot, wet weather. The best way is to destroy everything that can be, by fire. The refuse of the kitchen and all of the things can be burned up. Slops should be thrown in the yard; there should be adequate drainage to carry away the water and all fluids coming from the house. In a city, or large town, the privy should be abolished. In fact they should not exist anywhere. Probably the best way is to use the earth, or ash closet water carriage system, unless there is most perfect plumbing, with frequent inspection, is attended with danger. Complicated appliances in a water closet are delusive. House ventilation and also ventilation of waste pipes must be under the hand of a competent and cautious plumber, and it is well to have the guidance and inspection of a sanitary engineer. The purest water possible should alone be used. Disease and decay in many wells, although the water is apparently pure and pleasant to the taste, are many ways by which the well becomes defiled. The more thickly the well is inhabited the greater the likelihood of pollution of the water. The only way to be certain that the water is free from germs is to have it examined by a sanitary expert. Wells in use should be cleaned out every spring. There is also a danger in water cisterns, the water of which is foul. Although not consumed it