

THE WEATHER MAN.

METHODS OF THE DOMINION METEOROLOGICAL BUREAU.

Chief, Mr. R. A. Stupart, is the most eminent authority in the country. Outposts of the Weather Man—Distributing the News—The Cones and the Drums—History of the Bureau—Two Kinds of Weather Talk.

Talking about the weather has long been considered one of the most commonplace, puerile of occupations. For generations the fatuity of remarks such as "Hot enough for you?" or "See any mosquitoes out to-day?" has maddened highly-strung people, and goaded them into profane wishes to the effect that the weather as a topic of conversation should be prohibited by law. All the same, the weather persists, and it is safe to prophesy that for all time it will be the hub in the wheel of oral intercourse. Taken altogether, there are two kinds of weather talk—the common or garden variety, a sample of which has been given, and the scientific or advanced. Everyone is an exponent of the former, but on the latter Mr. R. A. Stupart, chief of the Dominion Meteorological Bureau, is the most eminent authority in the country. His views on the shifting conditions which combine to give us our weather are published in every daily paper in Canada, and a few remarks on the manner in which these opinions are formed and how disseminated cannot fail to be of interest.

Outposts of the Weather Man.

From Dawson City to Cape Breton Canada is dotted with meteorological stations, established, as nearly as possible, at regular intervals. Of these there are five kinds, classified according to the importance of the work they do. Altogether there are 238 of these weather watch-towers, whence scientific soldiers, armed with weapons of precision, send in reports of the movements of the enemy, the weather. In 244 of these stations the observers are volunteers, most of whom are gentlemen of scientific proclivities. The Government, through the Central Bureau at Toronto, provides them with the necessary instruments, and in return they forward to Mr. Stupart the information he needs. In a few lighthouses and ports in the far north, small sums are paid for the reports, and in the other stations trained weather men are employed. From 36 stations in Canada and 60 in the United States despatches are sent to the quaint old building in Queen's Park twice every day. These give the barometrical pressure, readings of wet and dry thermometers, velocity and direction of the wind, the rain precipitation, and the maximum and minimum temperatures for the past twelve hours. At about 8:30 a.m. and 8:30 p.m. the telegraph instrument begins to tick, and for an hour the messages from Canadian points between Lake Superior and Cape Breton continue to arrive. They are at once forwarded to the United States Bureau at Washington. Then the American bulletins are received, and afterwards the Canadian reports from Manitoba, West, which are filed at the United States Weather Bureau in St. Paul, Minn.

Distributing the News.

Having gathered its news, the great object of the central office is to distribute it as quickly as possible. Fifteen minutes after the telegraph has been received the working chart for the weather map is ready. By ten o'clock the isobars have been drawn, and some of the forecasts sent out. (The isobars, it may be explained for the benefit of those who have never noticed them on a clear, starlight night, are lines on the weather map drawn through points where the atmospheric pressure is equal at given periods.) Ninety copies of these maps are issued daily, and are forwarded to newspaper offices, the Board of Trade, and any places of business where their regular posting will be guaranteed. The evening report furnished for the morning papers contains a synopsis of the day's weather, the chief stations throughout the Dominion, a description of the meteorological conditions prevailing generally, with representative temperatures, and forecasts for the 24 hours beginning at 8 o'clock the following morning. This, the chief report of the day, is sent to every telegraphic station of any importance in the country, and is there bulletined. It is the first message over the wires in the morning. The morning forecast was issued to supplement it when Mr. Stupart took charge of the department in 1894, and is published in the evening papers.

The Cones and the Drums. As far as the average conversationalist is concerned this is the weather. It comprises, however, a small part of the bureau's work. Of the other branches, the most important, perhaps, is the storm-warning service supplied to 73 stations. The signals for which the mariner turns an anxious eye are in two shapes—cones and drums. When moderate gales are expected the cone is displayed, and when heavy storms are imminent both cones and drums are shown. When the apex of the cone points downward, the storm is coming from the south or east, and when upward, from the west or north. It is noted in Mr. Stupart's report to the Government in 1901 that the Bureau's warnings were verified in 88.4 per cent. of the cases in which they were issued. When not engaged in preparing other forecasts or warnings, the staff of 20 at the observatory works are compiling statistical information regarding the climate, or in advancing the monthly weather chart. For some years bulletins were supplied trains at different points, and travelers appreciated this convenience. The practice was discontinued, however, because of the train conductors' failure to regularly post them. Within the past few days an important improvement in the daily Bulletin has been made by adding 656. Catharines to the list of points

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which receive complete daily bulletins. This enables every captain of a boat, as he passes through lock three at Welland, to receive a weather report. The other cities in receipt of this morning service are, besides Toronto, Halifax, St. John, Quebec, Montreal, Ottawa, London, and Hamilton.

History of the Bureau.

Like the universe as a whole, and like many of its most important institutions, the Canadian weather bureau evolved itself from nebulae. Its beginnings were very modest, indeed. Founded originally more than half a century ago, it continued for some years as evidence of the insatiable curiosity of some of Toronto's early scientists. Since 1841, indeed, observations have been made in the worn-out old building, worth of thirty years afterward learned gentlemen continued to make observations of sun, moon and stars without the aid of the Government. In 1871 a grant of \$5,000 was made to Prof. Kingston, then in charge, the Government being anxious to give vessels warning of approaching storms. By 1880 the observatory had become a regular Governmental bureau, with Mr. Charles Carpuel, an English scientist, in charge. For fourteen years he continued in this position, to be succeeded by Mr. R. A. Stupart, the present chief, whose special qualifications for the post have been widely acknowledged. The expenditure has increased to \$50,000 a year, and more money is needed to properly equip the present observatory and pay the salaries of the little army engaged in the work. As to the importance of the results achieved by the bureau it is superfluous to speak. Merchants, farmers, mariners and picnickers will vouch for it. Timely prognostications may have saved millions of dollars' worth of property, and hundreds of lives. Untimely prognostications, scarcely less valuable, have given us something to talk about. For all of which we should be grateful to Old Probs, says the Toronto Mail and Empire.

The Burden He Would Bear.

Uncle George—You are always wishing that you were rich. Don't you know that riches are really a burden to the man who has them? Harry—That's just it. I want some sort of a burden to try my endurance and make me a better man, and I don't think of anything that fills the bill better than money, and lots of it.—Boston Transcript.

Lame Back for Four Months.

Was Unable to Turn in Bed Without Help.

Plasters and Liniments No Good.

This was the experience of Mr. Benjamin Stewart, Zionville, N.B.

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Doan's Kidney Pills CURED HIM.

He tells of his experience in the following words: "For four months I was troubled with a lame back and all this time was unable to turn in bed without help. I tried plasters and liniments of all kinds but with no effect. At last I was induced to try Doan's Kidney Pills, and by the time I had used two-thirds of a box my back was as well as ever and as strong as ever and has kept so ever since."

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A NORTHERN FOREST FIRE.

Terrifying Experience of Three Explorers on the Western Shore of Hudson Bay—300 x 45 Miles Burned.

A geologist who explored with two companions a region on the western shore of Hudson Bay had an experience in a forest fire which could hardly be equaled in scope and fierceness farther south, where the woods are broken by settlements. The men had pushed far to the north of Port Nelson into a land inhabited by tribes of Indians, where no white had left a trace. "We had crossed the mouth of a stream," he says, "which forked twice some distance from where it opens into the bay, making two long, narrow deltas. By sundown we had gone a mile or so north of the upper branch. The air grew hot and dry. The light in the western sky was more dense and solid than that of the sunset, and it extended round to the north beyond the range of the setting sun. We knew that it was a fire, and halted on a rising slope, where we could get a broader view of the sky.

"The wind was from the north-west, and the fire must be coming straight toward us. In the hope of reaching one of the deltas of the stream which we had crossed over about a mile to the south, we turned back and walked for our lives. "We reached the upper branch of the stream before the fire overtook us, crossed it, and sat panting on the southern shore. The sun had set, and the fire marked its limits in a wide sweep covering the north-west.

"As we sat waiting, the brush across the stream crackled, and five or six darts broke from the woods and stood on the bank, sniffling.

"The air grew dense. A dull roar like a distant surf was blown to us from the north. I climbed half-way up a small tree, and then I saw a sight. Perhaps five miles away came the fire, a sea of red flame under a wall of smoke that rolled on in advance.

"Before I descended from the tree the smoke was on us. One of my companions, noting that the trees on the delta were of a smaller growth, thought we were safer on the lower delta, with two strips of water and an island between us and the fire. So we moved on for a few hundred yards to the next mouth of the stream.

"We were wrapped in smoke. The roar of the fire grew like a storm. We waded into the water, took off our coats and wrapped them wet about our heads. Then we noticed that we were not alone. Round us, only a few yards away, stood groups of horned creatures. Behind us a black shape lay in the water, evidently a bear. The danger had made the whole world kin, and fear of the common enemy had made all the driven animals tame to each other.

"Ashes and cinders settled over us, and we bowed our heads close to the water. The heat grew intense. Then with a stride the fire burst over our northern bank. We waded to the south shore and waited. Our coats grew hot on our heads, and we ducked again and again. I turned and looked at the fire. I mounted. I should say, more than a hundred feet and leaned across the stream, which was fully two hundred feet wide. Under that leaning bank of flame we crouched in the water, which grew tepid, and was foul with the countless animals that for miles were seeking shelter in it.

"It was impossible for us to push on to the nearest stream. We were surrounded, and if the fire leaped this stream it would have caught us in the woods.

"Suddenly I raised my head, and saw the flames like clouds of fire leap over our heads and seize the tops of the trees on the southern bank. The fire had jumped the stream.

"For an hour we stayed in the water, waiting for the fire to burn out on the northern shore. A great weariness and stupor weighed us down. Presently we felt the air grow cooler. It was raining; and we dragged ourselves to the northern bank, where we lay with our noses close to the baked earth and slept.

"Afterwards we learned that the fire had burned a stretch of timber three hundred miles long and seventy-five miles wide."

About Lord Minto.

Marquis de Fontenoy, in Chicago Tribune: Lord Minto, whose term of office of Governor-General of Canada has just been prolonged for another year, is a man whose life has been more replete with excitement and adventure than most of his predecessors in the Dominion. During the Turkish Russian war of 1876 and 1877, he was attached throughout the campaign to the Ottoman forces, was present at the bombardment of Nicopolis, besides taking part in many other engagements. Subsequently, he served under Lord Roberts throughout the Kurram Valley campaign, and it was only by mere chance that he was prevented from joining the mission of Sir Louis Cavagnari, who with his entire staff and retinue, was massacred at Kabul. He took part in Lord Roberts' celebrated march to Kandahar, was in the Egyptian war of 1882, and in the subsequent Sudanese campaigns, and, while in Canada as military secretary to the Governor-General, in 1885, acted as chief of staff to the expedition for the suppression of the Riel insurrection. He is a fine soldier and a manly fellow, and, as such, the personal popularity which he has won for himself in Canada is great, and the news that his term of office has been prolonged is giving, so I hear, general satisfaction.

Lemons in the Toilet.

Lemons are a necessary adjunct to every woman's toilet; besides their healthfulness, which is not to be questioned, they are also beautifiers. A teaspoonful of lemon juice in a cupful of warm water will remove all stains from the hands and will make the nails soft and pliable, rendering them easy to polish.

LOSS OF APPETITE.



If your stomach is upset or in any way out of order—if food seems distasteful to you—if acidity, burning or fullness of the stomach prevents you from having an appetite—if you wish to eat and eat well—take, before each meal, a wine glassful of

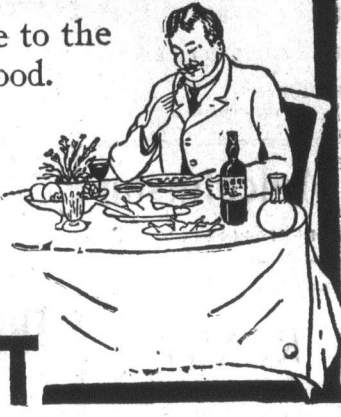
VIN ST. MICHEL

(ST. MICHAEL'S WINE)

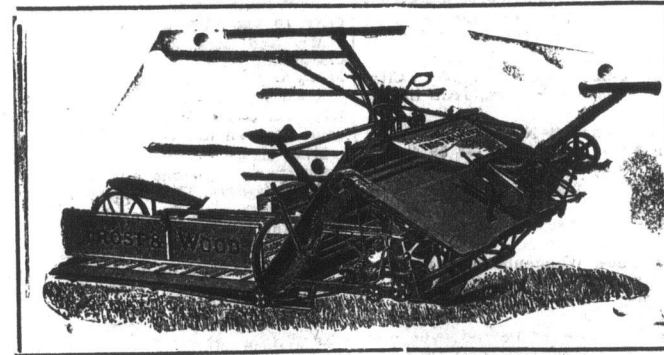
It will create an appetite and restore to the palate that lost relishing taste for food. It will make the digestive organs act naturally and properly digest the food eaten, whether your stomach is in good order or not. No matter if you are young or old, sick or healthy

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