

Bay and also the Ottawa Valley had a considerable quantity. In Toronto less than eight inches fell, but Lucan had 38 inches, Owen Sound 32, Stratford 27, Penetanguishene 26, Orillia 27, Beatrice 20, Rockliff 24. At Montreal 28 inches fell, at Quebec 5 feet and 1 inch, and at Charlottetown, P. E. I., 52 inches.

#### SUNSHINE.

Toronto actually rivalled Winnipeg in January in the amount of sunshine, the difference being only one per cent. Fredericton was the largest of all the sunshine stations. Winnipeg usually is.

#### YOUNG PROBS.

Young Probs didn't do as well as usual last month, being wrong 14 times out of every hundred in the Lake Region. In the Maritime Provinces, 96 per cent. of his predictions were fully or partly verified.

#### EXTRAORDINARY WIND STORMS.

January had a few famous blows. At Toronto Observatory the average velocity of the wind on the 22nd was 26½ miles an hour. Up till 1820 the windiest day in 40 years was only 32 1-6 miles an hour, but on November 7, 1830, the average was 41:67 miles. Many will remember the heavy night wind on the 27th when a perpetual din from flying shingles, cracking and breaking signboards was kept up in Toronto. The wind at the Observatory blew 46 miles an hour from 3 and 4 a. m. of that night, and the gusts recorded by the Island anemometer blew with the hurricane velocity of 70 miles an hour. On November 7, 1830, between 3 and 4 a. m., the average velocity was 55½ miles at the Observatory. On January 26th, 1879, the average from 1 to 2 a. m. was 43 miles an hour, but previous to that, no hour in 36 years was as windy as that from 3 to 4 a. m. on the 27th of January.

#### THE WEATHER IN OSCEOLA CO., IOWA.

NOTES FROM THE WEST.—The following notes are from a letter written from Ocheyedan, Osceola county, Iowa, under date of January 5th, 1882. He says: "Help in this section of the country is very scarce and wages high. Crops of all kinds for the past season were only middling, owing mainly to the wet weather. While with you of the East it was very dry, the season with us was unusually wet. Since the first of November, however, we have had splendid weather—a very light fall of snow, and the past week colder and more blustery. We have scarcely any rain, and very little if any, mud here in the winter. Emigration is coming in rapidly, and thousands of acres of land were broken up last year. Five different railroads are on the tapis from the East, built to a point thirty-three miles east of us, and destined north-west and west of us to Dakota and the Hills. Land and property are on the rise (boom they call it here), in some cases as high as 500 per cent." Mr. Raudall is a native of Buksa county, served three years in the 104th regiment and re-listed as a veteran in Hancock's corps. We hope the boom may benefit him, and that he may do well in his new home in the far West.

A few days ago the proprietor of the Parkhill Gazette returned from Winnipeg, and this is his experience with the weather:—While in Winnipeg the temperature ranged from a few degrees above to twenty-six degrees below. We were not able to discover that twenty-six degrees below zero there was any more comfortable than the same degree of cold would be here. Notwithstanding, it is impossible to fully appreciate how easily one becomes accustomed to the more severe weather, and how the bracing of one's self for the ordeal enables one to be very comfortable and contented with life at many degrees below zero. A few weeks' experience of this severe cold dispels nearly all discomfort from it.

#### FORT McLEOD, Feb. 1.

The winter, so far, has been an unusually mild one, chinooks following each other in rapid succession, until the 23rd ult., when the thermometer dropped to 23° below zero. This cold snap only lasted for three or four days, and we again have a mild temperature. The pleasant winter weather has had a beneficial effect on the cattle belonging to Mr. Cochrane and others, which arrived in the territory late last fall. At the time of their arrival they were in very poor condition, and had the winter been a severe one the loss of stock would probably have been heavy. As it is they have rapidly picked up in flesh, and are now looking well.

#### WEATHER-CYCLES.

Nine years, or some multiple of nine years, has been generally fixed upon as the period of such a cycle. It does not appear, however, that there is any satisfactory evidence that such is the case, while my own observations and comparisons tend to show that the recurring periods of similar weather come around at irregular intervals of time. According to Toaldo, the cycle consisted of nineteen years, and upon this supposition a table was at one time made out illustrative of the weather for several centuries. This table, however, itself very soon demonstrated glaringly the utter fallacy of the conjecture. In like manner, the eighteen-year cycle has been proved untenable, as has also that of the nine years.

A cycle of fifty-four years was some time ago advanced by one George Mackenzie, who at the time issued annually "a small quack-looking publication, entitled a *Manual of the Weather*, in which he pretended to foretell the character of the weather for every month of the succeeding year." This manual, however, was short-lived, owing to the frequent and glaring inaccuracies it contained.

According to Humboldt, the years in which the greatest amount of rain fell in Mexico (as an example) were 1553, 1580, 1604, 1607, 1629, 1648, 1675, 1707, 1732, 1748, 1772, 1795. Now, not only are the intervals between these years irregular, but they are as well at variance with any of the periods assigned for the duration of the cycle. It has been further suggested that as in every eighteen years or a little more the sun, moon, and the moon's node arrive at the same relative positions, therefore the eighteen-year cycle is the one more worthy of consideration. But even this plausible-looking conjecture has failed to bring about a recurrence of the same kind of weather at the proper periods.

My own opinion, after a number of years of painstaking observation in Canada and study of American weather-records stretching over a great number of years, is, that no definite number of years can be given as representing the duration of the intervals of time between recurrences of the same kind of weather. Or, to put it in the words of Graham Hutchison, who about half a century ago wrote upon the same question, "it is obvious that as changes are continually going on with unequal degrees of rapidity on different parts of the earth's surface, the causes which disturb the uniformity of the weather in different years must be ever varying. Hence, cycles, or an exact periodical recurrence of the same kind of weather after any given number of years, need never be expected to take place. And as the unusual magnitude of any particular wave is occasioned by the union or coalescing of smaller undulations, so summers and winters remarkable for heat or cold or any other peculiarity may result at irregular intervals from the accidental co-operation of a favorable combination of antecedent and existing circumstances for producing the effect."

#### Weather Wise or Otherwise.

Among weather prophets the goose-bone more than holds its own. In some of the back counties of Kentucky it is held in such esteem that farmers are said to be governed by its predictions. The goose in order to show (by means of spots and colors of different degrees of shade upon its breast-bone) the character of the coming winter weather, must be hatched in the preceding spring. It is, therefore, a spring goose. By some mysterious process the coming weather then gradually unfolds itself upon the translucent breast-bone of the historic bird. A pectoral and pictorial presentment of the periods of wet and dry, of warm and cold is disclosed when the fowl is souly dealt with for Thanksgiving purposes, and it only remains to read correctly this hand writing on the bone. The hieroglyphics deciphered, the bone is labeled with the year and carefully filed away with previous ones, like so many scientific papers of the Weather Bureau.

Alongside of the goose VENNOR *et id omne genus* appear to be spring-chickens. The goose, perhaps unfortunately, has no publisher of its vaticinations except the farmer, who also has become the vaticide.

There may be an advantage in this, for should the prognostications of the prophetic bone fall short of the mark, that goose is cooked. The same, more's the pity, can not be said of other prophets. The goose

does not, like its brother prophets, attempt to forecast weather in detail. It grasps the character, as a whole, of the approaching season. It is claimed for the goose-bone that it never yet was mistaken in the weather. Can VENNOR *et al*, lay this flattering unction to their prophetic souls? It must be admitted its indications for the present winter have so far been fairly verified, and it has rendered signal service. Lumping the business, it gave signs that the winter would be a motley one, but with no protracted cold weather. There was to have been no very cold weather in December in these latitudes, and there was not. January was to have a few cold days, sandwiched between much rain and snow, and it had. With the prophecies of the other members of the family, and how they agreed with subsequent facts, all are familiar. But it is the little month of February, that has just entered, that is now of interest. The goose-bone foreshadows more genuine winter weather in February than in December and January combined, but with no intense cold. With that it rests its case. VENNOR, more ambitious, declares this month will give a good deal of mild and open weather, and that it will be a somewhat exceptional month, with some very sudden transitions from frost to mildness, specifying dates for the various changes. As if all this warning were not enough, here comes a New York prophet who predicts that February will be a month long to be remembered. Rubber boot dealers are encouraged and ladies are warned in respect to their Gainsboroughs. Coal dealers are informed that the river will be frozen up so tight that steamboating will be suspended until late in the spring. The prophet, however, neglects to say which river, whether the Ohio, the Hudson or the Saskatchewan. The only definite portion of this New York seer's prediction is that snows are to be especially deep in the Ohio Valley.

So wrote the Editor of the *Cincinnati Commercial*, but "Goose VENNOR" was right, and the "Goose bone" quite astray, notwithstanding for February.

#### A GOOD OUTLOOK FOR WESTERN FARMERS.

CHICAGO, Feb. 10.—Despatches to the *Times* from many points in the corn and wheat producing States of the Northwest show that the winter has been remarkable for its mildness, and that spring work among the farmers is about six weeks advanced. In many localities there is not enough frost in the ground to prevent ploughing and seeding now, but farmers will wait two or three weeks before putting in their crops. In Minnesota and Dakota it is asserted that the acreage of wheat will be increased twenty-five per cent. Farmers have very generally sold out last year's crop, and it is thought that in Dakota especially there is not now on hand more than enough to supply the demand for seed. In Minnesota there is a considerable stock on hand, which will be held for higher prices. Farmers in Iowa, Illinois, Michigan, Kansas and Indiana, are universally hopeful. They have had good prices all the winter, and have disposed of their produce and hogs at remunerative rates. It is evident that there are at present comparatively few hogs fit for the market. Winter wheat is generally looking very fine.

THE JANUARY WEATHER.—It appears now, from the report of the meteorological service, that the generally entertained opinion that January was a mild month, was wrong. The first part of the month was mild, but the cold of the second lowered the mean at Toronto to 23.17, or only one-sixth of a degree above the usual. In the past forty-one years there have been twenty-one warmer Januaries and twenty colder. In western Ontario the month was from one to two degrees warmer than usual, in northern Ontario and in Quebec it was two degrees colder than the average, and in the Maritime Provinces slightly below the average.

One of the most amusing sights is afforded by the man who walks carelessly and quite unconcerned along until he reaches the thermometer which is exposed to view on the street. He looks at it a moment, sees that the mercury is very low, pulls his collar up to his ears, slinks up in his coat, walks frigidly away, and exclaims, "gracious how cold it is!"