

# THE WEATHER BULLETIN,

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## "OLD SAWS."

### "When the Rivers and Swamps are full, Winter comes."

Some, I may say many, of the "old saws" have a great deal of truth about them, and the above is one of these. Winter often tarries long until this special condition is fulfilled. The past summer (1881) was one of heat and drought. There was great and continual evaporation, but no, or but little, condensation and rain-fall. Consequently, lakes and rivers became exceedingly low and swamps dried up over a very extended area of country. The law of general compensation, however, has been at work, and the rains that the summer refused the autumn has given in abundance; and to-day we have to record even the other extreme, namely, an overflowing or superabundance of water. Now then, all is ready for winter, and it closes in forthwith. There are, however, variations and irregularities connected with this general truth which have to be borne in mind. It does not always follow that because waters are low and swamps dry, we are to expect no severity of cold. On the contrary, I have numerous instances on record of very early and severe cold during such seasons, when waters became ice-locked everywhere as early as the latter part of November and early portion of December, and the result was a water-famine. Such was the winter of 1875-76, when five days of intense cold at the close of November and the first week of December all but closed the mighty St. Lawrence, whilst small and less powerful rivers throughout both Ontario and Quebec were firmly sealed for the winter. But what followed? Why, a general break-up later on and at the entry of the New Year. All will remember the balmy, rainy New Year's week of 1876 and the warm January all through, when the rivers again became insecure, and many of these re-opened. Therefore it is not altogether safe to neglect to prepare for cold weather simply because "waters are low and swamps not yet full." I further

notice that where the heat and drought were not so noticeable a feature during the past summer (1881), as for example in Newfoundland and portions of the Maritime Provinces, in parts of the United States, and in the North-West, there winter set in early and quietly, and sleighing has been enjoyed already for several weeks; as it has likewise been along the whole range of the Laurentian Mountains to the north of the Ottawa Valley. It is by a careful study and comparison of such truths as the foregoing—many more of which yet remain to be discovered—that our attempts at forecasting the weather must ever be based; and though these attempts may for the present draw forth the ridicule and jeers of the non-thinking portion of our community, the time is fast approaching when this interesting and important field of investigation will force itself upon and command the attention of all thinking minds.

## THE CHARACTER OF THE COMING WINTER.

The following revised and general prediction respecting the character of the then approaching winter, appeared in the *Montreal Gazette*, of November 20th, 1881, and after my Almanac had been completed. It was in part reprinted or quoted from by the *New York Herald* and by many other of the leading American journals:—

Were we to judge of this by our migratory birds this autumn, many of which have arrived unusually early, we should be inclined to suspect the approach of a very severe winter. On the other hand, and jumping skyward, if we are to believe what English and American scientists tell us about the activity on the sun's surface and the number and magnitude of "sun spots," we feel disposed to announce the probability of a continuance of heat or warmth and periods of considerable disturbances for the winter of 1882.

The early arrivals of northern birds, such as shore larks, Lapland longspurs and pine-grosbeaks, was this fall followed almost immediately by a frosty wave during the first week of October; but this was of but brief duration, and had the birds known more, they need not have fled with such precipitancy from their northern haunts.

In my own experience I have never yet found the movements of birds worthy of consideration in a weather point of view, except, indeed, as foretelling the approach of such a temporary "cold snap" as that we have recently experienced, and which of itself indicates the very reverse of an early and severe setting in of winter; for early cold and bluster, in general, is not lasting, and is almost invariably followed by an open term.

As to the activity of the sun spots, and the great magnitude of some of these at the present time, there can be no manner of doubt, but that such conditions should effect the weather around our earth must be as yet a more matter of conjecture. If it could be proved that the sun spots had any connection with the heat and drought of last summer on the American continent, we might naturally infer, from the increased activity of these and their growing proportions, a high average temperature for the winter months. Disregarding, however, these sun signs and commotions, I would here state that there were other signs, and from very different sources than those just mentioned, of the approach of the "hot and dry summer" of 1881. These may or may not yet be generally accepted by meteorologists, but, notwithstanding, they were sufficient to enable me to give a very early notice of what proved to be "a very hot and dry season." I refer to weather cycles, or the recurrence of similar weather conditions at irregular but ascertainable intervals of time. Into this oft-mooted subject it is not my intention, at present, to enter, having devoted considerable space to it in my almanac for the coming year.

This hot and dry season has now passed, and a winter of some sort has got to be experienced. Some say it will be this, and others that, but none can give any clear reasons for their statements—it is all

vague conjecture. Perhaps the majority of prognosticators lug to the severe view of the winter, on the very unreliable principle of opposites, or—which is the same thing—the law of general compensation, as regards heat and cold, drought and precipitation; forgetting that in this very principle the past summer was linked more closely to the winter of 1881 than it can possibly be to the winter of 1882. For, in order to fulfill this law of compensation, a great deal of both heat and dryness was required to make up for the cold and precipitation of last winter. The year 1881 thus gives us a very marked example of annual compensation. It closes with accounts well squared, and leaves no balance to be brought forward into the books of 1882. Consequently, we must turn to some other source for our "probabilities" for the approaching year. And, here comes in the value of a good array of past records of the weather and weather charts. By means of such we see that periods of unusual cold or heat have in the past usually extended over more than a single season. We note a great number of couplets and even triads of years of similar weather, and but very few, and these widely separated, in which intense cold or great heat was confined to a single year. By closely following the action of the weather generally of the present time, and at the same time possessing a thorough knowledge of its general behavior in the past, the observer intuitively conceives what is required for the fulfillment of Nature's laws for an approaching period or seasons. Distinct and definite reasons for his conclusions he may not be able to give, if suddenly called upon, but he, notwithstanding, adheres firmly to his impressions concerning the future, and is generally correct. Supported thus by such records of by-gone years and carrying in my mind a clear view of the ups and downs of the twelve months just passing away, I look still to a further continuance of the warm wave on our continent during the approaching winter. Broken, this may and will be, by waves of low temperature, but these will be but brief duration as compared with the protracted periods of mildness and warmth. As usually happens in such winters there may be an advanced and severe term of cold and snow as early as October or November. If so, look out for an open "Christmastide."

Thus, though disregarding the sun and sun-spot theory, I am compelled to predict an open winter.

## A LONG RANGE PREDICTION.

Almost invariably my long range predictions have proved correct, whilst many of my short and more detailed ones have been out on many dates. It seems as if this fact was intended to show us that we must not take too much upon ourselves as regards weather prophecy. It is all legitimate enough to endeavor, by a close study of general compensation and other helps, to arrive at an idea of the character of an approaching Autumn, Winter, Spring or Summer; but to go farther than this and to specify dates for the snow-falls and cold dips of a particular period smacks a little of presumption. By watching the waves of weather, however, such general forecasts as have just been referred to may, and undoubtedly have been, formed to a wonderfully accurate degree, and have proved of great service to the general community.

It is my purpose in the present communication to take a jump off into March next and to state what in my humble opinion is likely to be the character of the weather during the latter portion of the Winter of 1882, including the Spring and fore part of the Summer of the same year. A wave of average low temperature is likely to occur towards the latter part of next February and continue through March, April, May and much of June. This will make March a cold and wintry month, with deep snows throughout Canada and the Northern and Western United States. The temperature of April and May will probably be considerably below the average, and both snow-falls and frosts will continue up to a late period. After a brief period of warmth in June low temperatures for the season will prevail, with cold rains. The Summer throughout is likely to be cool and wet and very unfavorable everywhere to agricultural pursuits, ending in a cold and stormy Fall. There is a possibility of a brief period of heat during the Summer, but this wave is not likely to be of sufficient duration to be of much benefit. H. G. V.