

The Weather Bulletin.

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ADVERTISING RATES.

The last two pages of this paper will be used for advertising purposes, but no cards will be permitted in the body of the text.

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Editorials.

Now stitch your papers for the year together make out a table of the contents, and note what a nice little pile of information you have at your finger ends—and all, just for ONE DOLLAR. Try another year.

We do not think of ourselves more highly than we ought to think. Our failures keep us in a healthy humility; but we do think we are some little way ahead of the *Weather Almanacs* the people have so long pinned their faith to.

We are informed that Dr. Wiggins, of Ottawa, is thinking of publishing an Almanac. He has thought of this before but as yet the thought has not borne fruit. We are anxious to see an astronomical WEATHER ALMANAC and do not think we can express any better wish than that the work may prove as great a success as has the "VENNOR ALMANAC."

Most of the journals who think it fashionable to rail at our predictions only display their utter ignorance of the subject. We are perfectly accustomed to this feature now and pay no more attention to it than we do to the buzzing of a bumble bee on the cool side of a closed window pane. Tacitus wrote a long time ago something to the following effect: "The less we know about a thing the more noise we make about it."

As we have ready our forecasts for December as well as November, we give both in this issue of the BULLETIN, which will probably be the last this year. All further details will be found in the Almanac, which must now be out in a few days. It is possible, however, that a special BULLETIN will be sent to our subscribers prior to CHRISTMAS week.

We are very sanguine as to the success of our 1882 '83 (winter) predictions.

We have no room in the BULLETIN for controversy, both our space and time are too valuable. Consequently those individuals who must ever wrangle will have to find some other conveyance for their wranglings. We do not pretend to be always right and we know we are not always wrong, therefore we shall continue to do our best with the difficult subject we have in hand. To those individuals who assert that they "can do much better themselves," we would reply once and for all—then by all means go and do so.—Adieu

Briefs—November.

An earthquake in Canada during November is not improbable.

Changes in November are likely to occur upon or close to same dates as in 1881.

There will be fair sleighing in November in Province of Quebec, (Canada) and New York State, if not also in adjoining States.

Bad storms in majority of sections in Canada and United States, (northern) about 25th, 26th and 27th November.

Lower Canadian winters used to commence by the 15th November.

The month will terminate severely.

The Weather Subject, Our Plan.

We do not suppose there is another topic of conversation or subject of study in which such ignorance is displayed as on the weather question. Men who never wrote before write on this; modest souls who never contradicted any person or thing in their lives—contradict this. People who have a very humble opinion of their attainments and who do not pretend to know any more than their neighbors in other matters—when the weather is referred to, become arrant boasters. In the hearing of the "oldest inhabitant" a young man must not dare venture an opinion. Hence, the abuse and ribaldry drawn forth by our attempts at forecasting the weather—but, as the old proverb puts it, "curses, like chickens come home to roost." This result, so far, has been that the laughter has turned upon those who laughed loudest, and scoffers have discovered the truth in the old saying "silence is golden." Our views and the nature of our attempts at forecasting ought to be well known by this time. As we have elsewhere stated we make no dogmatic pretensions. We give it as our opinion that such a month, winter or year, will be of such and such a character, we are sometimes wrong, sometimes right—often the latter we are happy to be able to assert as the general tenor of our extensive correspondence clearly demonstrates.

The one great point aimed at in our whole effort is to be able to anticipate the general characters of an approaching season—Fall, winter or summer as well as the year as a whole. To effect this a thorough knowledge of past weather in all of the sections for which the attempt is to be made, becomes an absolute necessity, and the task of collecting this is no light one. The present monthly review of the Signal Office, Washington, however, has of late rendered this department of our work much lighter than heretofore, and we get in a brief and clear form what the weather has been generally over the whole northern hemisphere.

Going as we do upon the undoubted truth that seasons recur again and again, in which the weather is of a very similar kind, we are bound to keep full details of what the weather has been in—not in one section alone, but in all. For example it is not enough to know what the weather was in 1880, in the St. Lawrence Valley, Canada—if we judge that the general characters of that year are likely to be repeated—but we must learn what happened at the same time in the Atlantic Central and Western United States, in our Maritime Provinces and North West Territories. In gathering this information and arranging it, we observe, when we have studied the facts before us, a feature that promises to be of some importance in meteorological enquiry and one that has not received much attention from meteorologists. It may and undoubtedly has been observed, but has been passed over as a mere coincidence, we refer to

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which we maintain are not "mere coincidences," but actual truths of weighty import. Does an observer mean to affirm there is no

thing in the fact that midsummer frosts in Canada and Northern States, are almost invariably accompanied by storms and hurricanes through many portions of the Western and South Western United States; that a wet spring or fall in Canada does not give some indications of other—perhaps diverse but contemporaneously recurring conditions in other sections; that persistently recurring dry easterly winds during the spring months in St. Lawrence Valley and Gulf, do not warn of cold, northerly winds and frosty weather late on in the season; that other like conditions have not something to do with the general character of the summer season over much of the American continent. But we have already, elsewhere dwelt upon the feature in the weather study, and will not further enlarge upon it, suffice it to say, that certain severe periods of storm do recur about the same dates at fixed intervals of time, in different portions of the continent, and that during our winter there are certain dates upon which "cold dips" and snow storms are of more probable occurrence than others. Such we endeavor to anticipate and hold forth to view in sufficient time to be of service to those concerned. In doing so we do not attempt to outdo the Signal service "Bulletins," which are of such great service to the country, but merely to put on record our opinion as to the general probabilities for a longer period in advance. Sometimes these predictions have resulted beneficially to many, and we have yet to learn of their having done harm.

Replies to Correspondents.

THE COMET'S TAIL.

A subscriber wants to know what a comet's tail consists of. So would a thousand astronomers and leading scientists of the world. No time, money or thought is wasted in finding the proper solution to the question. It is even a question, whether or not the real nucleus has ever been observed by any astronomer. From the fact that comets produce no appreciable effect on the motions of the planets, although they have passed through their systems, it is evident their density is very small. The comet of 1770 passed so near the earth that if it had the earth's density our year would have increased but two minutes less than two hours and a half, according to Laplace's calculation, but on the contrary it had not the slightest appreciable effect, therefore its mass must have been one five thousandth part of the earth or less. According to Newton the great comet of 1670 passed so near the sun as to be exposed to heat above 200 times greater than red hot iron—a temperature, that no substance we are acquainted with could resist. The spectroscope has given no decided word on this subject, but the spectra of the tails of large comets are said to resemble that of the Aurora. The connection between meteors and Bielas' comets is treated of in an interesting manner in Vennor's Almanac for 1883.

Since writing the foregoing I have taken the following from the *London Daily Telegraph* as bearing upon the *Comet's Tail*:

What is the feeling which should be uppermost with regard to this awful, but still problematical event? Ought we to be filled with mortal dread, or to rejoice at the near approach of a celestial crisis of which we may be privileged to be witnesses? Nobody can tell us with any certainty. The wisest astronomers fail to return any satisfactory answer to the query. Such a thing as a comet falling into the sun has never been known before, and the results are therefore quite unguessable. Everything depends upon the real nature and constitution of these extraordinary objects. There is no doubt that their habit is to fly

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