METEOROLOGY FOR FARMERS.

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This is an interesting subject to all, and to Farmers one of great practical importance. We intend to treat it at some length, for we are very utilitarian in our notions. We shall aim first to show the advantages which should ensue from a properly conducted system of Meteorological Observations, not only to the Army and Navy —but to hygiene, to the great industrial pursuits of the country, to the public convenience, and to the advancement of science. Having done this we shall develop a very simple and economical plan for conducting these investigations, and thereby afford to the farmers—to whom we especially appeal, because they have the "deepest stake in the hedge"—an opportunity to lend us their countenance and support in getting these investigations under way. We do not ask them for money, but for good words and a friendly co-operation.

There are no political divisions in the atmosphere—and to understand its movements and the laws which govern them, we must overleap State lines in search of facts; we must study it as a whole, and observe its phenomena both by sea and land. The influence of Canada upon the weather is felt in New York, Pennsylvania, Ohio, and other States just as much as it is in the Gut of Canso. The great chain of the American lakes which contains more than one-third of all the fresh water that is found on the surface of our planet, impresses peculiar features upon the climatology of the lake States, and exerts a marked influence upon the meteorology of an extensive region of this country. Many of the storms of the Mississippi Valley feel the Meteorological force of the Gulf Stream, and show signs of its influence far away towards the Rocky Mountains. And could we trace the snow which now covers the fields of many of our readers with its protecting and fructifying mantle, to the place whence the thirsty winds sucked it up as vapor when last it was in the sea,—we should find, perhaps, that it came from regions far away in the Pacific Ocean, where it had been feeding the coralines with lime, which at a previous period, it had washed away from the monolithic caves of India, the silver mines of Potosi, or the white quarries of Carara marble.

The winds which brought this vapor from the sea, and deposited it as snow before our doors, did it in obediance to laws that are as fixed as those which regulate the seasons and bring about seed time and harvest--and, therefore, to understand the Meteorology of our own country and comprehend the laws which are expressed in its climates we must understand the movements of the great ærial ocean which envelops the earth, and to do this we must push our researches far away into distant lands and establish our observations on the sea as well as the land.

The sea is already thickly studded with floating observatories—and those who do business upon its great waters, are the unpaid volunteer co-operatives in this system of research which we now propose to extend to the land, and on account of which we appeal to the farmers for help of a like sort. We will explain how the co-operation of sea-faring people was obtained, and then it will be easy to show how we propose to obtain that of the agriculturists and landsmen generally.

The Superintendent of the National Observatory, being duly authorized, appealed to the ship masters and owners for co-operation, and invited all under the American flag to send to the Observatory, abstracts of their log books, showing for every day during the voyage, the latitude and longitude of the ship at sea, the direction and force of the winds, the strength and set of the currents, with the temperature of the air and water. and the height of the Barometer.

From these materials, thus obtained, the celebrated "Wind and Current Charts" were constructed. Thus the observations were made gratuitously, and the data furnished by individuals without cost, while the government undertook the expense of colaboration and publication. In acknowledgment of such service, and for encouragement, every Navigator who had contributed observations, was furnished gratuitously with blank forms for records and a copy of the work which the observations contributed by him, had helped to make.

By this simple and economical plan, the ocean in a little time, was dotted over with floating meteorological stations, from which sea and air were watched day and night, and the phenomena presented by them carefully observed and noted.

Among the immediate results of this undertaking, passages were shortened, the dangers of the sea were lessened, navigation was improved, commerce was benefited, and