

remote corners of the earth lifted up as it were, and set down nearer to our own doors by many days' sail than they were before. The commercial distance *via*. Cape Horn to California was reduced from a voyage of upwards of six months on the average to one of a little over four months, and by a similar process the golden colony of Australia was placed just one month nearer to the ports of the mother country than it was before; the saving this effected to British commerce alone has been estimated in England to be worth to the merchants and people of that country not less than ten millions of dollars a year. Now mind, gentle, prudent, and cautious farmers, the sea captains and merchants to realize these gains did not have to incur any additional outlay—all the costs to them was in the pens and ink necessary for recording the observations they were requested to make. The instruments used were required for the proper navigation of the ship at any rate. And the necessary instruments for the observations now required to be made on land, are such as every good farmer ought to have also at any rate. Thus was commenced the first systematic attempt to study the Meteorology of the sea and to investigate by an extensive co-operation among mariners, the laws which govern the movements of sea and air.

Other maritime nations, foreseeing the benefits arising from this plan, signified a desire to take part in this system of research as co-laborers.—Accordingly the leading powers of Europe, sent their own chief hydrographers, being officers noted for their accomplishments in the walks of science, to meet the Superintendent of the Washington Observatory in conference, and to consult together as to the best plan of a general and uniform system of Meteorological Observatories at sea.

These officers met in Brussels about three years ago, and there devised a plan of physical research for the sea, which at their recommendation, has been adopted by sea-going people generally. The observations that are made on board English ships are sent to an office, that has been established in London for the purpose, where, at the expense of the crown, they are discussed and published for the benefit of the sea-faring world, as they are in Washington, and also in Holland, Denmark, Russia, and other countries.

This beautiful system of research, with its magnificent results which are estimated to be worth millions annually to the people of this country and their factors, is carried on under an annual appropriation by Congress of less than twenty thousand dollars.

Thus we have two-thirds of the surface of our planet already occupied by meteorological stations and we appeal to the farmers and to the lovers of science to help us to occupy the other third.—The Brussels conference advised that it should be so extended, and held that the laws which govern movements of the air can neither be thoroughly, studied nor understood until the land should also be included as part of the system.

There are in this country men enough—amateur meteorologists—already engaged in making, each for his own satisfaction, observations that would suffice for extending this system over the United States. All that remains to be done thus to extend it, is to organize these observers into a corps, so that they may co-operate and observe according to the same plan; and that they should be so organized and set to work, it is only necessary that the friends of the measure generally, and the farmers in particular, should so exert their influence, that Congress may give the Superintendent of the National Observatory authority for such extension of his researches, with the means of collaborating the observations to be procured, and of publishing for the benefit of the whole human family the results to be obtained therefrom—for, where is the man, woman or child, that is not concerned in the laws that govern this wonderful machinery, which we call the atmosphere.

We appeal to the farmers especially to use their influence to procure the requisite votes in Congress, because the benefits which agriculturists would secure from the plan, are paramount. The whole business of Agriculture is, to a certain extent, an affair of meteorology—of wet and dry, hot and cold, cloud and sunshine,—and the convenience of the public is to be affected, and the business of the people in a great measure regulated and controlled, by the weather we shall have to-morrow. We cannot pretend to specify the results that the spreading out of this system of meteorological research over the land would give.

But it is obvious that our observers must cover the land as well as the sea, and that in order to study the operations of this atmospherical machine, and comprehend its movements, we must treat it as a whole.

HUMBOLDT and DOVE, KRIEL, QUETELET, KUPFFER, JOMARD and LE VERRIER, with a host of other lights of science in Europe, stand ready to co-operate with us in maturing