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## NOTES AND EXTRACTS.

## THE PIONEER FORECASTERS OF HURRICANES.

WASHINGTON, D. C., August 24, 1905.

THE EDITOR,

THE WASHINGTON POST,

Washington, D. C.

DEAR SIR:

In answer to your editorial of this morning, in reference to a pamphlet published by Father Drum, permit me to say that there is no disagreement between the observers of Bélen College and the Weather Bureau, as is evidenced by the following communication:

GEORGETOWN UNIVERSITY,  
WASHINGTON, D. C., August 24, 1905.

MR. WILLIS L. MOORE,

Washington.

DEAR PROFESSOR MOORE:

From the Washington Post of August 24, I observe that the brochure "The Pioneer Forecasters of Hurricanes" has given occasion to the conviction that there exists some friction between the Bélen College Observatory and the U. S. Weather Bureau, of Washington.

For four years I have been engaged in the Bélen Observatory and I can attest that the famous Father Viñes, as well as the present director, Father Gangoi, have always appreciated and highly esteemed the labors of the Washington Weather Bureau, and that their relations with the same have at all times been most amicable.

It is well known that your officials and yourself, not on one occasion only, but repeatedly, have honorably and favorably referred to the forecasts and labors of the Bélen Observatory, and I am confident that what has been written concerning the change brought about by the introduction of the U. S. Weather Bureau into all the Antilles did not emanate from headquarters, and could not in the least refer to the island of Cuba or its meteorologists.

In behalf of my confrères of Bélen I wish to make this very sincere acknowledgment of the merits of the U. S. Weather Bureau, and of its undoubted services to the advance of science and to the profit, not only of the inhabitants of the States, but also of all neighboring countries.

I conclude,

Very truly yours,

S. SARASOLA, S. J.

(Signed)

I am sure that Father Drum would not knowingly do an injustice to the Weather Bureau, which issued ample warnings to all shipping from one to two days in advance of the Galveston hurricane. A careful reading of his pamphlet will show that he was comparing the forecasts of Bélen College with the statements of some one of our local observers. He did not intend to criticise the Bureau as a whole; but the local observer had no authority to issue warnings for Gulf ports, and was not the official spokesman of the Bureau.

WILLIS L. MOORE,  
Chief U. S. Weather Bureau.

## SIMULTANEOUS WEATHER ANOMALIES IN ICELAND AND EUROPE.

In the Meteorologische Zeitschrift for February, 1905, Dr. Julius Hann publishes under the title "Anomalies of the weather in Iceland, 1851-1900, and their relations to the simultaneous weather anomalies in northwest Europe," a short extract from a paper by him in the Sitzungsberichte der Wiener Akad., vol. 113, January, 1904. An English translation of the former by Dr. R. H. Scott appears in the Quarterly Journal of the Royal Meteorological Society, April, 1905, vol 31, No. 134, page 152. The following account has been compiled by consulting all three of these. The data here given are in English measures.

Doctor Hann discusses his subject in two phases, viz: (A) The simultaneous anomalies of temperature, pressure, and rainfall during the winter months at Stykkisholm, Greenwich, Brussels, and Vienna. (B) Relations between the oscillations of pressure at Stykkisholm and Ponta Delgada, Azores, or between the two centers of action of the atmosphere over the North Atlantic Ocean.

So far as Iceland is concerned the inquiry is based on the means of pressure and temperature for Stykkisholm, 1846-1900, for which station a long series of records, embracing all elements, was carried out by one man, Olaf Thorlacius, who observed from November, 1845, to the end of 1891, and has left the record for this long period without any gap. For Europe Hann used the records for Greenwich, Brussels, and Vienna for the period 1851-1900, and for the Azores the records for 1865-1890 at Ponta Delgada.

The great permanent subtropical area of high pressure about the Azores and the deep barometric minimum around Iceland, at the centers of which are situated Ponta Delgada and Stykkisholm, respectively, are designated "centers of action of the atmosphere" by Teisserenc de Bort.

Doctor Hann's study of the relations between these centers and the weather of western Europe tends to show that the weather anomalies of western Europe are closely and causally related to the occasional extensions of the Icelandic area of low pressure.

(A) In the discussion of the simultaneous anomalies at Stykkisholm and at Greenwich, Brussels, and Vienna, which is restricted to the winter months, as the phenomena are more marked at that season, Doctor Hann finds the following results:

(1) The probability of a simultaneous opposition in the pressure departure at Stykkisholm and that in northwest and