

to reconcile the differences observed. Mr. Buchanan, however, does not enter into the question, but restates the position he took up in a paper read at the International Geographical Congress in 1895, to the effect that this type of hydrometer gives not comparative but absolute results, and is "a pyknometer where the volume of liquid *excluded* up to a certain mark is weighed instead of that *included* up to a similar mark."

GERMAN METEOROLOGICAL REPORTS.

THE organisation reports of (1) the Royal Prussian Meteorological Institute (Berlin) and (2) the Deutsche Seewarte (Hamburg) for the year 1912 have been recently published. The operations of these establishments are quite distinct; the institute dates from 1847, as a department of the Statistical Bureau, under Dr. W. Mahlmann, to whose life and work a special article is devoted in the report for this year. The work of the institute (which became an independent meteorological organisation in 1886) consists to a considerable extent of special scientific researches which appear in the *Abhandlungen* and elsewhere, and in the preparation and publication of the observations made at a large number of stations, separate departments dealing specially with meteorology, rainfall, and thunderstorms. It also controls the work of Potsdam Observatory, which undertakes various branches of geophysical investigation. Among the various discussions in this year's report we may mention an interesting inquiry into the Thuringian deluge of May, 1613, by Dr. Hellmann (director).

The Deutsche Seewarte (Hamburg) may be said to date from 1867, under Dr. W. v. Freeden, and was established as a Government institution in 1875; its great work, which is well known to our readers, will always be associated with the name of Dr. v. Neumayer. It deals with all branches of maritime meteorology and weather telegraphy, and controls a limited number of meteorological and storm signal stations. Among its many useful publications may be mentioned (1) monthly meteorological charts of the North Atlantic, observations at many oversea stations and colonies, a laborious and useful atlas of daily synchronous weather charts for the North Atlantic (in conjunction with the Danish Meteorological Institute), also scientific discussions in the *Archiv der Deutschen Seewarte* and elsewhere. During the year 1912 it received 4391 months' observations taken on board ship, and made 351 ascents by kites, captive and pilot balloons, in connection with the exploration of the upper air.

ORNITHOLOGICAL NOTES.

ACCORDING to the Journal of the South African Ornithologists' Union for December, 1912, a special effort is being made to arouse interest in the dates of arrival and departure of the local migratory species, such as the bee-eater, red-legged kestrel, swallow, and golden oriole. With this object in view, school teachers willing to assist are to be admitted to associate membership at a greatly reduced subscription.

Mr. Gregory Mathews is to be congratulated on the completion, with No. 8, of the first volume of *The Austral Avian Record*, this part including a notice of birds described by Gould from Norfolk, Lord Howe, and Philip Islands.

It has long been known that certain kinds of birds—especially hornbills—are in the habit of periodically shedding and casting the lining membrane of their gizzards. According to a letter from Mr. D.

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Macintyre published in *The Field* of March 31, and an article by Mr. H. H. Smith in the April number of *British Birds*, the curlew must be added to the small list of species in which this strange act occurs.

In the January issue of *The Ibis* Dr. Sclater contrasts the new "Hand-List of British Birds," by Dr. Hartert and others, with the list issued by the British Ornithologists' Union in 1883, and points out that out of the 376 species included in the latter the names of no fewer than 200 would have to be changed if the nomenclature of the "Hand-List" were accepted. Dr. Sclater considers it undesirable to take the tenth, in place of the twelfth, edition of the "Systema Naturæ" as the basis of our zoological nomenclature, and points out that according to the Stricklandian code "tautonyms" are prohibited, while liberty to correct mistakes and bad grammar is permitted. "If," he adds, "we take Latin for the language of science, we are surely bound to follow its grammatical rules."

PROMOTION OF RESEARCH BY THE CARNEGIE INSTITUTION OF WASHINGTON.

THE Year Book for 1912 of the Carnegie Institution of Washington has now been issued. The record of work accomplished contained in its pages shows there has been no diminution in the efforts of the trustees to secure a wise expenditure of the funds placed at their disposal for the advancement of research in science.

The following list shows the departments of investigation to which the larger grants were made by the trustees and the amounts allotted from these grants by the executive committee during the year:—

	£
Department of Botanical Research	7,600
Department of Economics and Sociology	2,500
Department of Experimental Evolution	7,500
Geophysical Laboratory	15,000
Department of Historical Research	5,300
Department of Marine Biology	3,600
Department of Meridian Astrometry	5,200
Nutrition Laboratory	9,700
Division of Publication	2,000
Solar Observatory	51,000
Department of Terrestrial Magnetism	19,600
	129,000
Transferred from Nutrition Laboratory to un-	
appropriated fund	1,000
	130,000

Numerous minor grants were made, amounting to over nearly 40,000*l.*, and grants for publication authorised during the year reached a total of about 86,000*l.* During the year 1912 the income of the institution was almost 250,000*l.*, and the total expenditure some 229,600*l.*

The following extracts from the *résumé* of the investigations of the year included in the report of the president of the institution, Dr. Robert S. Woodward, will give some indication of the work which has been inaugurated and encouraged:—

Although the departments of investigation, like the institution as a whole, have fallen short of popular expectations in the rapidity of their growth, it now appears plain, in the light of their actual experience, that this growth has been somewhat too rapid for safety. Along with this rapid growth and with the signal success of the departments in their several fields of research, there are now coming also numerous requests for cooperation with other organisations and