areas of low barometric pressure than it is over the adjacent areas of high pressure. Kite flights on Blue Hill are now usually made once a month—upon the day fixed by the International Committee for Scientific Aeronautics.

CYCLONIC DISTRIBUTION OF RAINFALL.

Too much attention has always been paid to the annual, monthly and daily rainfalls, while far too little study has been made of the distribution of rainfall in individual cyclones. Cyclones are not regular in their occurrence, that is true, but they are our great rain-producers and from that point of view they deserve more attention. An important paper by Dr. H. R. Mill, 'On the Unsymmetrical Distribution of Rainfall about the Path of a Barometric Depression,' read before the British Association last August, deserves special mention as an investigation of a kind of which we have far too few. Ten instances of severe and widespread cyclonic rains have been investigated by Dr. Mill, and maps have been drawn showing the amounts of rainfall in each case, and the paths of the depression which brought the rain. It is found that the belt of cyclonic rains is much wider on the left of the path than on the right, and the heaviest falls occur in advance of the center. One of the most remarkable facts discovered is that the widespread cyclonic rains appear to bear no relation to the physical features of the country (*Symon's Met. Mag.*, October, 1904).

MORE LIGHT ON ANTARCTIC METEOROLOGY.

METEOROLOGY is coming to the aid of the geography of the lands in rather an interesting way in the Antarctic. To the *Geographical Journal* for August, Dr. Drygalski, leader of the German Antarctic Expedition, contributes a paper on some of the notable results obtained by the expedition. Dr. Drygalski believes that the new land discovered by the *Gauss*—Kaiser Wilhelm II. Land—is a part of the Antarctic continent, basing his opinion largely upon the meteorological conditions, especially the frequency and uniformity of the easterly gales. These gales have a *fœhn*-like character, and sweep down from the south over the vast, uniform, and but slightly inclined surface of the inland ice. The gales raged through nearly all of May and August, and were numerous in April and September. They even occurred in midsummer, but while they sometimes lasted from three to five days in winter, they only lasted for a day or two in summer. These storms were always accompanied by a heavy snowfall, and were a great obstacle in the way of scientific work.

THE PHYSICS OF THE FREE AIR.

UNDER the general supervision of Drs. Assmann and Hergesell, a new publication has been issued under the title, 'Beiträge zur Physik der freien Atmosphäre,' which is to be devoted to a discussion of the results obtained by means of balloons and kites. Mention has so often been made in these columns of the importance of the meteorological observations made in the free air during the last few years that there is no need of emphasizing the matter further at present. That there should be a field for an independent journal devoted solely to balloon and kite meteorology is very significant. There is a strong corps of associate editors, including Messrs. Rotch and Clayton, of Blue Hill Observatory, who have done so much work in 'sounding the ocean of air' in this country. In the same list we note also the following: Hann, von Bezold, Hildebrandsson, Pernter, Sprung, Abbe, Köppen, Shaw and others. The first number appeared in August, 1904, and is a quarto of 54 pages. The price per volume is 15 Marks.

NOTE.

IT is announced that the arrangement and discussion of the meteorological records obtained by Dr. Sven Hedin during his travels in Central Asia have been intrusted to Dr. Nils Ekholm, of Stockholm. The observations are to be ready for publication at the end of this year; the discussion is expected to appear next spring. R. DEC. WARD.

THE ISAAC NEWTON STUDENTSHIPS AT CAMBRIDGE.

PROFESSOR G. H. DARWIN writes as follows to the editor of the London *Times:* In 1891

the late Mr. Frank McClean, F.R.S., offered a large sum of money to the University of Cambridge for the foundation of three studentships, to be named after Sir Isaac Newton, for the promotion of the study of astronomy amongst our younger graduates. By the regulations adopted on the acceptance of this large benefaction by the university, the candidates must be under 25 years of age, and the student chosen at each annual election holds his studentship for three years. The income of the fund now amounts to close on £750, so that the stipend payable to each student suffices for his support. Since the object of the endowment was the promotion of scientific research, the students are prohibited from taking any other paid employment; and a succession of young men have thus been enabled to devote three of the best years of their lives to the untrammelled pursuit of science.

The recent death of Mr. McClean has naturally led us at Cambridge to review the effects which have resulted from his generous gift. The records of the electors to the Isaac Newton studentships, of whom I am the secretary, have fully confirmed the prevision of the founder as to the value of such an endowment of research; for we find on the list of past students the names of Professor Sampson, the editor of Adams's papers and director of Durham Observatory, of Mr. Dyson and Mr. Cowell, chief assistants at Greenwich Observatory, and of Mr. Hough, the chief assistant of the observatory at Cape Town. There are besides other past students who have already made their mark in those branches of physics and astronomy which fall within the scope of the endowment.

Mr. McClean was himself fully competent to estimate the effect of his own foundation, for he had attained to the high distinction of the award of the gold medal of the Royal Astronomical Society, which is open to the astronomers of all nations.

The large benefaction of which I have spoken is, however, by no means all that Mr. McClean has done for Cambridge and for other places. Only last year an anonymous donor, whom we now know to have been Mr. McClean, gave a considerable sum for the augmentation, during a period of five years of the stipends of two of the most distinguished of our mathematical lecturers. The foundation of the Stokes and Cayley lectureships, by means of this gift, practically makes a substantial, although temporary, augmentation of the mathematical professoriate of the University. I know from the men who have been nominated to these posts how great is the boon conferred on them, since they now have that leisure for which they had previously longed to devote themselves to science. We hope that the example thus afforded may induce other donors to make this endowment a permanent one.

Mr. McClean had, as the guest of Sir David Gill at the Cape of Good Hope, devoted himself to making a spectroscopic catalogue of southern stars, and he marked his visit to the Cape by presenting a fine telescope to that observatory.

Finally, since his death we learn that he has left a large bequest to the University of Cambridge for the adequate equipment of our observatory with spectroscopic appliances, and further that he has bequeathed to the Fitzwilliam Museum his valuable illuminated manuscripts and printed books, the collection of which formed the amusement of his leisure hours.

We residents at the university think we owe it to the memory of our benefactor to acknowledge the great value which we attach to all that this loyal son of Cambridge has done for us, and, at the same time, to record our sense of the great loss suffered by science and the university by his death.

Such magnificent and wise generosity has unfortunately been but too rare in this country. Is it too much to hope that this example may be followed by others whose wealth enables them to do inestimable service to science and letters by enlightened benefactions?

THE ROYAL SOCIETY.

The Royal Society held its annual meeting on November 30.

The report of the council as summarized in the London *Times* stated that one of the chief