Under the able editorship of the present Meteorological Reporter and Director-General of Indian Observatories, Sir John Eliot, this new volume contains all the available data up to, and including, the year 1900, and it is to this volume that inquirers of Indian rainfall statistics will now turn. Several minor changes will be found to have been made in the tables, such as zero (o) instead of (...) when no rain had fallen during a month, the authorised orthography, &c., but the most valuable addition is undoubtedly the insertion of two extra columns for each station giving the total rainfall for each monsoon.

India, as most people know, receives its rain mainly at two periods of the year, namely, during the summer months when the south-west monsoon is blowing, and during the winter months when the north-east monsoon is blowing. In any investigations on the variation of rainfall due to extra-terrestrial origins or involving atmospheric circulation, it is of the greatest importance to be able to treat the monsoon rainfalls separately. Again, some stations are more favourably placed, geographically, to depend chiefly for their yearly rainfall on one or other of the monsoons, or both; thus Bombay's rainfall is entirely due to the south-west monsoon, while the wind which gives Madras its rain is the north-east; further south, in southern India, several of the places are more fortunate, and secure their rains from each monsoon in turn, so that if one monsoon fails them, they still have a chance of obtaining their rain from the other.

In dealing with such a large area of country as is covered by the Indian Meteorological Department, it was found desirable to adopt a grouping of the months for each monsoon that would be general to the whole of India, with the least detriment to some individual areas.

Thus the months finally settled upon were as follows:—N.E. monsoon, December to April; S.W. monsoon, May to November. The two columns, therefore, that are inserted for the first time in this volume show the total rainfall at stations during the five months ending April 30 of the year in question, and the total rainfall of the seven months ending November 30 of that year.

The fact that this volume contains no less than 709 pages and weighs 5lb. 14½oz. in its paper cover, will give the reader some idea of the mass of rainfall statistics it contains and of the labour involved in bringing the information together. The volume should serve as an admirable model for other countries to adopt, and it would be to the advantage, not only of Great Britain and her Colonies, but also of many foreign countries in various parts of the world, to coordinate their rainfall observations in a similar manner, so that such records, which are well worth making, are ready at the hand of any investigator who at the time may be working up the subject.

WILLIAM J. S. LOCKYER.

THE AFFORESTATION OF THE BLACK COUNTRY.

IN the spring of 1892, when marking trees for cutting in the Belgian Ardennes (Chateau de Mirwart), I noticed that a portion of the wood, alongside a meadow and a watercourse, had the irregular shape of spoil heaps. On inquiry, I found that some 200 years before iron-smelting had been carried on at the spot, and that the heaps consisted of old slag and other

débris, such as may be expected under a rudimentary process of iron-smelting. The heaps were stocked with oak and ash trees, some of them of considerable size and value, others of smaller dimensions. I marked the large trees for sale, leaving all middle-sized and smaller trees. The latter girthed up to 4 feet at 5 feet from the ground, while the trees marked for cutting girthed 6 feet, and even more. I considered this a very interesting case, but as I did, at that time, not know the Black Country, it did not strike me to utilise my experience for the benefit of the English mining districts.

Towards the end of the same year, Mr. W. R. Fisher visited me at Mirwart, and when he saw the above mentioned case, it struck him to apply it to the Black Country. He subsequently visited that locality and urged its afforestation on more than one occasion. The honour of having brought the subject prominently before the public belongs to Mr. Fisher.

I have just read an account of a meeting at Birmingham, presided over by Sir Oliver Lodge, to inaugurate a society for promoting the afforestation of the Black Country. As the result of the meeting, a resolution was carried, a committee was formed, and Mr. Herbert Stone was elected hon. secretary of "The Black Country Tree-planting Society."

The area in question is believed to be 14,000 acres, covered with spoil and ash heaps, on which now some grass grows; it is grazed over by sheep. Sir Oliver Lodge, quite correctly, brought the probable financial results of afforestation into the foreground, while some of the other speakers referred to the importance of a sylvan environment for moral, hygienic, and æsthetic considerations, leaving the financial aspect to take care of itself. This I consider a mistake, because, with the best intentions, humanitarian considerations alone are not likely to achieve the object in view; besides, they can very well be realised, alongside of good financial results.

The area in question belongs, I understand, to a number of different proprietors, and this alone would probably be a great hindrance to bringing the undertaking to a successful issue. In my opinion, the adjoining municipalities, such as Birmingham, Dudley, Bilston, Wolverhampton, Darlaston, Wednesbury, Oldbury, &c., should put their heads together, devise a plan of acquiring the land in question, which cannot be of much value, and create a joint municipal forest estate, to be managed by one man. This manager might be made responsible to a joint committee, and under its orders carry out the afforestation of the area on a well-considered plan. In that case, æsthetic considerations can receive full attention, while the woods should be so laid out, as to species, &c., that a reasonable return on the outlay may be expected.

If the plan here sketched should prove to be impracticable, it would be quite worth while for the State to acquire the land and plant it up. In any case, a well-considered plan of action as regards the manner of afforestation, the species to be planted, &c., is a *sine qua non* of ultimate success, and the drawing up of such a plan should be entrusted to an expert, who is fully conversant with the management, and more especially the financial management, of forest estates. I lay stress on this, because I see it stated that sycamore, ash, lime, beech and poplar should be planted. There will, no doubt, be many places where these trees can be introduced, but the bulk of the area should be stocked with fast-growing conifers, the thinnings of which will, at an early age, give large quantities of pit timber, and thus secure favourable financial results.

W. SCHLICH.