

the customs and beliefs of its Indian population, as well as in preserving a record of such of their traditional songs, legends, and ceremonies as have not already passed beyond recovery, is furnished by the Report of the Department of Mines for the period ending March 31, 1924, which has just been issued. The section dealing with the work of the Anthropological Section of the Victoria Memorial Museum shows that, in the course of the year, six scientific trips were undertaken which covered investigation among the Bella Coola, the Gitksan of Skeena River, British Columbia, the Carrier Indians of Bulkley River, B.C., and archæological excavations in Ontario. Some of the results of these expeditions were submitted to the British Association at the Toronto meeting last year. Perhaps the most noteworthy material obtained was that bearing upon the ceremonial dances of the Bella Coola by Mr. McIlwraith, which have thrown much light upon Indian psychology and afforded an opportunity for collecting valuable information on the chieftainship, government, magic, mythology, etc. More than one hundred songs were recorded by phonograph.

In September of last year the Fuel Research Board of the Department of Scientific and Industrial Research issued a pamphlet which described the Arley Seam of the Lancashire Coalfield, and pointed out that this was to be the first of a series of similar pamphlets dealing in detail with the physical, chemical, and other characteristics of the individual coal seams of Great Britain. In pursuance of this scheme the

Board has recently issued Part 1 of a report on the Ravine Seam of the same coalfield. (London: H.M. Stationery Office, 1925. 1s. 6d. net.) The seam is fully described in all its details, as it appears in different parts of the field, the variations which it undergoes being clearly indicated. There are numerous analyses, proximate and ultimate, together with a good study of the composition of the inorganic matter present. Washery tests and microscopical examination of the coal are also included. It is to be regretted that the more modern method of X-ray examination of the coal in order to determine the distribution of its inorganic contents has not been made use of. It is stated in the preface that "large scale experiments, including steam raising tests, the carbonisation of the coal at low and high temperatures, and the utilisation of the coke in a water gas plant, are in progress at H.M. Fuel Research Station, and the results will be published as Part 2 of this report."

APPLICATIONS are invited for the following appointments, on or before the dates mentioned: an assistant lecturer in geography in the University of Manchester—The Internal Registrar (June 8); a probationer for the Indian Forest Service—The Secretary, Services and General Department, India Office, S.W.1 (July 1); principal of Agra College—The Commissioner of Agra, India (July 10); a reader in organic chemistry in the University of the Punjab, Lahore—The Joint Registrar (July 31); a physics laboratory attendant in the Science Department, University of Durham—Head of the Department, South Road, Durham.

Our Astronomical Column.

COMETS.—Mr. B. M. Peek of Boscombe and Mr. G. P. B. Hallowes of Wimborne have succeeded in obtaining a considerable number of observations of Reid's Comet though its meridian altitude was only 11° . Two of Mr. Peek's observations are given (referred to the equinox of 1925.0).

G.M.T.	R.A.	S. Decl.
Apr. 15 ^d 22 ^h 54 ^m	13 ^h 3 ^m 39.68 ^s	25° 59' 37.3"
24 22 13.4	12 50 1.36	28 12 48.0

They are corrected for differential refraction, but not for aberration or parallax. Taken in conjunction with the early observations given a few weeks ago, they will permit the deduction of improved elements.

A new orbit of Orkisz's comet has been computed at Copenhagen; but it differs so slightly from Mr. Merton's orbit (*NATURE*, April 25, p. 616) that it is unnecessary to give it. Prof. Banachiewicz of Cracow has directed attention to the resemblance of the orbit of the comet of 1500, for which Dr. Hind found the following elements from Chinese observations: T 1500 May 17, ω 20° , Ω 310° , i 105° , $\log q$ 0.146. It is desirable to observe the comet as long as possible in order to decide the question of identity. Since it is travelling into high north declination, it is well placed for this purpose.

The following orbit of Schain's Comet has been deduced by Dr. A. C. D. Crommelin from observations on March 23 at Bergedorf, April 2 and 14, by Dr. W. H. Steavenson at Norwood.

T	= 1925 Aug. 6.918 G.M.T. (new)
ω	$200^\circ 31' 10''$
Ω	$357^\circ 29' 12''$
i	$146^\circ 55' 47''$
$\log q$	0.629662

T is not likely to be more than a few days in error. Unfortunately, the comet will be hidden in

the sun's rays at the time of perihelion, but it will be observable again from November onwards.

It should be noted that this comet was independently discovered by Señor Comas Solà at Barcelona a day after Mr. Schain detected it: custom therefore allows the coupling of the two names as joint discoverers, as the second detection took place before the news of the discovery had been distributed. Both discoverers found the comet in the course of their regular photographic search for new minor planets.

PROPOSED NEW ASTRONOMICAL CO-ORDINATES.—In the *C.R. Acad. Sci.*, Paris, March 2, M. C. Solà points out that, in order to study the sun's motion, a system of co-ordinates is required which does not rotate. A uniform rectilinear motion of translation of the origin need not be considered, since in infinite space such a motion has no real meaning. Since the position of the centre of gravity of the Milky Way is not known, it cannot be employed as the origin, and a system of axes based on the stars, particularly the brighter ones, most of which have definite proper motions, cannot be regarded as necessarily free from rotation. Under these conditions, it is better to take the centre of the sun as origin, and to measure the position of the stars in the different streams which form the Milky Way with respect to axes passing through it, and fixed with respect to the most distant objects visible, such as the globular star clusters, or, possibly better still, the spiral nebulae. As these can be regarded as being practically at an infinite distance with respect to the bright stars, the axes so defined could be regarded as practically free from rotation. It is pointed out that modern astronomical knowledge demands the degree of exactitude which could be obtained in this way.