

tion is obviously structural, for the prevailing dip of the beds in all these ranges west of Pahrump Valley is eastward.

TERTIARY ROCKS

The Tertiary rocks are very widely but irregularly distributed throughout the Death Valley area. There is good reason to believe that they underlie the entire Death Valley trough and the parallel Amargosa Valley trough. They underlie the embayments occupied by Furnace Creek and by Emigrant, Wingate, Owl Spring, Ibex and Rhodes Washes, although they are concealed at many places under Quaternary alluvial deposits. In the southern part of the Death Valley trough, as, for example, in the Confidence Hills, they are bent into sharp folds parallel with the axis of the trough, a feature indicating intense compression. They lie irregularly upon the mountain ranges, at places covering the slopes, and at other places forming the entire mountain mass. As a rule the beds dip eastward with the eastern slopes of the ranges, a feature which suggests that the ranges are tilted blocks. Tertiary rocks constitute all the main mass of the Black Mountains from Furnace Creek southward nearly to Bad Water and make the crest and eastern slope of these mountains all the way from

Furnace Creek to the Ibex Hills. Several patches of them are involved in the faulting along the western face of the mountains—for example, a small area bordered by Archean rocks lies in Copper Canyon and another similar area lies at the tip of Mormon Point. A small area east of Shoshone is involved in the faulting along the west face of the Resting Springs Range. This area contains a colemanite deposit.

The largest continuous section of Tertiary rocks in the region lies along Furnace Creek and is familiar to all travelers who enter Death Valley by this route. The road that follows Furnace Creek is bordered by these Tertiary rocks all the way from Furnace Creek Inn to Dante's View. Just before reaching Dante's View the road ascends a picturesque canyon in rhyolite tuff and emerges upon rhyolite at the view-point. The Tertiary rhyolite is in contact with Archean gneiss just under and west of the view-point. An even more spectacular exposure of this Furnace Creek section of Tertiary rocks may be examined from the road that runs southward from Furnace Creek Inn to Bad Water. Along this road the rocks border Death Valley for 15 miles south of the Inn and their coloring is even more striking than along Furnace Creek. Golden Canyon, reached by a branch of the road, is in these rocks.

SCIENTIFIC EVENTS

THE INTERNATIONAL CONGRESS ON THE ANTHROPOLOGICAL AND ETHNOLOGICAL SCIENCES

THE International Congress on the Anthropological and Ethnological Sciences was concluded at University College, London, on August 4. Lord Onslow, the president, presided over a general meeting of the delegates in the Great Hall, and presented the report of the permanent council.

A general summary of the business transacted is given in the London *Times*. The congress passed a resolution expressing the opinion that representations should be submitted through the Secretary of State for India to the Government of India urging the need of a permanent organization for the census of India, accompanied by measures for the scientific and continuous collection of information relating to the Somatic types, religions, manners, customs, social organization and social linguistics of India. The resolution added that the system of honorary direction and organization in Assam might be suggested as likely to be of practical value if extended to the whole of India.

Another resolution which was passed recommended to the British Government and to all other governments engaged in the administration of native peoples that

it was desirable that in each territory so administered one or more government anthropologists should be appointed as specialist officers, with a view to facilitating a deeper scientific appreciation of native customs and contributing in a scientific manner toward the solution of problems of the contact of native people with European civilization. The congress strongly supported the training in social anthropology of missionaries and government officers who were to work in native territories.

It was decided also to call attention to the urgent need of further research into the methods of investigating the mental aptitudes of African peoples. In a further resolution the need was urged for establishing courses of study in anthropology and ethnology in certain types of schools, and for organizing independent chairs in these subjects in universities.

It was agreed that the next congress should be held at Copenhagen in 1938, with Professor T. Thomsen (Denmark) as president, and that Professor John L. Myres and Alan H. Brodick should be retained as general secretaries. The inclusion in the 1938 congress of a section dealing with biometrics and biotypology was decided upon.

A permanent committee was set up to deal with the

question of scientific film documentation as relating to anthropology. This consists of Professor P. Rivet, Paris; Professor F. Krause, Leipzig; Professor Giuseppe Sergi, Rome; Professor Frans Blom, United States; Captain Thomas A. Joyce, of the British Museum, and Alan H. Brodrick, who will act as rapporteur and organizing secretary. The committee stated that the work which they sought to do was of prime importance and urgency. In less than a generation invaluable material would be lost forever. Primitive races were dying out everywhere.

The committee proposed to set before themselves three objectives: To secure the establishment of a central film library with corresponding libraries in all the principal countries; to save, collate, and compare examples of material often hidden in unlikely places, and to secure the dispatch of special expeditions to those lands where material was to be obtained, and also to endeavor to secure that "amateurs," explorers, colonists, and others should, if they took films, do so in such a way as to be of scientific value. The committee were to undertake at once the preparation of a handbook in five languages giving instructions on the taking of anthropological films.

Speeches emphasizing the importance of anthropological and ethnological research, and the value of the congress in enabling representatives of different countries to meet, were delivered by many delegates, including Professor Lévy-Bruhl, Paris; Professor Sergi, Rome; Professor G. G. MacCurdy, United States; Professor W. Thalbitzer, Denmark; Professor K. Stoyhwo, Poland; Professor E. Pittard, Switzerland; Professor T. Thomsen and Professor G. Thilenius, Hamburg.

The congress numbered more than a thousand members, and delegates from forty-two different countries were present when Lord Onslow delivered his presidential address at the inaugural meeting.

DATA ON THE DROUGHT

NEVER before in the weather history of the United States has so little rain fallen over so wide a territory throughout the entire growing season as this year, according to J. B. Kincer, of the U. S. Weather Bureau. Record-breaking heat has made conditions still worse. Other years, notably 1894-1895, 1901, 1910, 1914, and 1930, were exceedingly dry in many sections, but no year since the bureau, nearly seventy years ago, started recording the precipitation day by day, has had such generally deficient rainfall in April, May, June and July as 1934. Moreover, most of the dry years of the past were preceded by years of adequate rainfall, whereas the last three or four years have been abnormally dry in many parts of the country most seriously affected by drought this year.

Moisture deficiency in the Central Valley began in

June, 1933, and in general it has continued ever since with no real relief. The year, June, 1933, to May, 1934, was the driest on record in Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Nebraska and the Dakotas. Also, Minnesota, the Dakotas and most of the northwest had been exceedingly dry for several years before that. The moisture shortage from June, 1933, to the end of July, 1934, was 17.71 inches, or 2,000 tons of water for every acre of land, in Missouri; 15.09 inches in Indiana; 13.14 inches in Iowa; 12.89 inches in Ohio; 11.29 inches in Nebraska, and 9.93 inches in North Dakota.

New lows for April-through-July rainfall were set this year in nine western states: Nebraska, with 45 per cent. of its normal rainfall for the period; Missouri, with 47 per cent.; Utah, with 51 per cent.; North Dakota, with 52 per cent.; Oklahoma, with 55 per cent.; South Dakota, with 57 per cent.; Kansas, with 58 per cent.; Michigan, with 58 per cent., and Colorado, with 60 per cent. Past lows for the same period in the same states were: Nebraska, 58 per cent. in 1894; Missouri, 49 per cent. in 1901; Utah, 54 per cent. in 1897; North Dakota, 54 per cent. in 1900; Oklahoma, 67 per cent. in 1910; South Dakota, 58 per cent. in 1931; Kansas, 62 per cent. in 1913; Michigan, 61 per cent. in 1895, and Colorado, 67 per cent. in 1924.

Normal and above normal rainfall for January through July this year was recorded in only the following states: Florida, with 126 per cent.; Georgia, with 101 per cent.; New England, with 104 per cent.; North Carolina, with 105 per cent., and Virginia, with 101 per cent. Four other states—Alabama, with 99 per cent., South Carolina, with 97 per cent., and Maryland and Delaware, with 96 per cent.—lacked but little of having normal rainfall.

The scanty snowfall in the western mountains last winter has aggravated drought conditions in those sections by cutting down the irrigation water supply. The seasonal snowfall in California was less than half of normal and in Colorado it was about half normal. Wyoming's snowfall was about one third the fall of the preceding year. In New Mexico at the end of March nothing remained but drifts on northern slopes at higher elevations in the northern part of the state.

The situation has been even more seriously aggravated by the extremely high temperatures accompanying the lack of rain. Nothing remotely approaching the severity of this combination appears in the annals of the Weather Bureau. The drought and heat of the growing season will not necessarily affect the crops of 1935, according to Mr. Kincer. Although no amount of rain can now help most 1934 crops in the drought area, good fall rains and abundant snows this winter could restore the soil moisture needed for new seedings, both this fall and next spring.