

that news and censorship will now, generally speaking, be separated from the Ministry of Information, may make such criticism irrelevant so far as the Ministry is concerned, but the Government would do well to take the lesson to heart, for other departments also have tended to make the mistake of formulating complete plans of their own instead of making the utmost use from the start of existing organizations and facilities. The collection of information is one activity demanding a particular technique and type of mind; the dissemination of information is another activity and may require entirely different gifts. Incidentally, most information departments are concerned with both these activities in that they collect information for use. The first essentials in handling information are sound judgment and a clear understanding of the extent to which the use of a particular piece of information is to be limited, either in the general interests of the industry or organization which an information department is serving or, as with the Ministry of Information, of the national interests in the widest sense. The work of the ablest information bureaux, however, can be seriously injured by departmentalism which is lacking in vision or a sense of proportion. Sir Edward Grigg, Parliamentary Secretary to the Ministry, was able to give a welcome assurance that no effort would be spared by the Ministry to see that the country preserved its right to know the truth about the war in which we are engaged and its right to comment with absolute freedom on that truth.

Peace Aims

THE correspondence columns of the leading lay journals have given ample evidence of the lively concern felt by thoughtful men everywhere as to the ultimate goal towards which Great Britain and France are striving through the present conflict. A noteworthy pronouncement in the form of a manifesto signed by no fewer than fifty-seven men of science, all of whom are fellows of the Royal Society, appears in the *Manchester Guardian* of October 13. The names of the signatories represent many branches of scientific investigation, but in the covering letter sent with the manifesto and signed by the Bishop of Birmingham, Sir Richard Gregory, Prof. Lancelot Hogben, Sir John Orr, Prof. A. J. Clark and Sir Peter Chalmers Mitchell, it is pointed out that they "do not claim to speak for their scientific colleagues as a body". The manifesto points out that the "progress of science and its application to human well-being are threatened by the prevailing anarchy of international relations", and states that a new international order, going far beyond the provisions of the Covenant of the League of Nations in its claims on individual States, should be set up when the war ends. All nations prepared to renounce war between themselves should be invited to unite under a federal Government, which would have power to use armed force against aggression, would control the raw materials of undeveloped territories in the possession of member States, and would undertake the education of backward communities without racial discrimination. Although experience of the League of Nations shows that

these provisions are bristling with practical difficulties, there will be general agreement that a new world order based upon them would command the support of a considerable body of informed opinion.

T. K. Penniman

THE curatorship of the Pitt-Rivers Museum in the University of Oxford, which has been vacant since the death of Dr. Henry Balfour earlier in the year, has been filled by the appointment of Thomas Kenneth Penniman, the appointment being for a period of seven years dating from October 1, 1939. Mr. Penniman is a member of Trinity College, Oxford, and holds the diploma in anthropology of the University of Oxford. He is the secretary of the Board of Anthropological Studies in the University, and is the author of a history of the progress in anthropological studies in the last hundred years, which in its introductory chapters traces the beginnings of anthropological observation, the work thus being a complete survey of the development of the science. Mr. Penniman was also joint editor with Dr. R. R. Marett of the correspondence of the late Sir Baldwin Spencer, the distinguished authority on the primitive tribes of central and northern Australia.

Robert Henry Thurston (1839-1903)

ON October 25, Cornell University will celebrate the centenary of the birth of Robert Henry Thurston, the distinguished American professor of engineering, who by his work at the Stevens Institute of Technology, Hoboken, and the Sibley College of Engineering, Cornell University, contributed more than any other man of his time to the advancement of engineering education in the United States. Thurston was a man of great force of character, but sympathetic, the friend of all his students, and he was possessed of a wide and generous outlook. With a remarkable memory, great powers of concentration and unceasing industry, he was not only a teacher and engineer, but also an original investigator, an expert, and a public servant. He published some 300 scientific and technical papers and twenty separate works. When engineering education was in its infancy he founded the first engineering laboratory in the United States, and he was the first to serve as president of the American Society of Mechanical Engineers.

THURSTON was born at Providence, R.I., the son of Robert L. Thurston, one of the pioneers of steam engineering in America. At the age of sixteen he entered Brown University, and after graduating, went into his father's workshops. The Civil War saw him an assistant engineer in the U.S. Navy, and at its close, in 1865, he was made an assistant professor of natural philosophy at the Naval Academy, Annapolis. This, however, was but a stepping stone. On the inauguration in 1870 of the Stevens Institute of Technology, Hoboken, the president, Henry Morton, invited him to become professor of mechanical engineering. For fifteen years he laboured at Hoboken and then, in 1885, the trustees of the Cornell University asked him to undertake the organization and development

of the Sibley College of Engineering. When he took charge the total attendances in all classes was about 60; at his death in 1903 the attendances were about 960. The teaching staff had grown from 7 to 43. Besides his work as a teacher, writer and experimentalist, Thurston served on various committees and was a member of numerous societies both at home and abroad. The gathering at Ithaca on October 25 will pay tribute to his memory, and will also discuss ways in which engineering may meet the crucial challenge of our rapidly changing world.

A National Atlas of Great Britain

THE report of the committee appointed by the British Association in 1938 to prepare a scheme for a projected National Atlas of Great Britain and Northern Ireland was presented to the Association at the Dundee meeting and contains provisional details of the format and contents of such an atlas. "The proposed atlas," the report runs, "aims at a strictly objective and scientific presentation of the natural conditions, natural resources and economic development of the land (and adjacent seas), of the history and pre-history of the country, and of the distributions, occupations, movement and social conditions of the population." To this very comprehensive programme the proviso must be added "in so far as they provide suitable material for cartographic exposition", since it is not intended that there shall be any accompanying text to the maps. Such a work necessarily involves the collaboration of scientific workers in very different fields, and six sections of the Association were represented on the reporting committee, which sat under the chairmanship of Prof. E. G. R. Taylor (Section E).

THE complete Atlas will be in two large folio volumes, each volume containing 60-70 plates. The number of maps will, of course, be many times greater than the number of plates, but the sheet size has been selected so as to show the whole of England and Wales at a single opening on the scale of one to a million, a scale which experience has shown to be appropriate for many types of general map. The maps are grouped under four general headings: physical geography, bio-geography, industry and commerce, and human geography. Under physical geography are included cartography, orography, geology (with geomorphology), climatology and hydrography. Under bio-geography the sub-headings are soil, vegetation, distribution of species, pre-history (of plants), land utilization, forestry and agriculture. Many of the maps will be of types not hitherto constructed, or at least not hitherto published for Great Britain. Such, for example, are maps dealing with health and disease, recreation and amenities, which fall within the human geography section, and maps of accessibility from and to the leading cities, in the section devoted to industry and commerce. For certain sections and sub-sections, the contents of individual maps are indicated in the report, the object being to ensure constructive criticism and co-operation from workers engaged in particular

fields of research. As the report states, the success of the enterprise "must depend on scientific workers and scientific bodies willing to undertake responsibility for the accuracy of maps within particular fields".

Contemporaries of the Mammoth

IN an article contributed to "Russia To-day Press Service" (Sept. 12, 1939) Prof. P. Kaptelev gives an account of his experiments with organisms contained in frozen soil from Siberia. A paper by Prof. Kaptelev on his discoveries was read before the Academy of Sciences of the U.S.S.R. during 1936 (see NATURE, 138, 714; 1936). The flora associated with the mammoth has been known for years from the contents of the food canal of frozen individuals, but it is astounding to learn that plants and animals contemporary with the mammoth have been brought to life after remaining in a state of suspended animation which at a low computation must have extended over twenty thousand years. The soil from which the organisms were obtained consisted of silt strata obtained in the galleries of mines in the taiga of Siberia at a depth of 131½ feet, far within the limit of the permanently frozen soil, for even in the hottest summer the thaw never penetrates deeper than seven to ten feet. In contemporary strata the explorers found the bones of mammoths, the woolly rhinoceros, bison, and musk-ox, indicating a period contemporary with the interglacial period which came between the last two Ice Ages (Riss-Würm period) or with the last Ice Age (Würm period). The soil samples were placed in sterilized containers in a sterilized atmosphere, and they eventually yielded living organisms which included several kinds of soil bacteria, including a distinctive nitrogen bacterium, fungi and water plants, the majority being closely related to present-day forms. From another sample of later geological date, taken at a depth of 14 feet, twenty different kinds of water-plants, mosses, filaments of fungi and a crustacean (entomostracan) were obtained, and placed in favourable laboratory conditions these organisms began to multiply rapidly. But this stratum is reckoned to have been only from one to three thousand years old!

Archæological Excavations in Northern Syria

MR. M. E. L. MALLOWAN'S account of his further excavations in Northern Syria in the report of the British School of Archæology in Iraq (Gertrude Bell Memorial) for the year ended June 30, 1939, again records a striking frequency in the occurrence of amulets of various kinds among the finds—a feature to which attention was directed in earlier reports. The report on Mr. Mallowan's work covers the fifth expedition to Northern Syria and the third consecutive season's excavations at Brak, one of the largest of the mounds in this part of Syria. The great mud-brick temple, which Mr. Mallowan has named "The Temple of a Thousand Eyes" on account of the enormous number of alabaster "eye idols" found in the foundations of the platform on which the temple is built, has so far produced the most