Science News a Century Ago

WHEN we were arranging for the publication during 1934 of notes on topics and events of scientific interest week by week a century ago, and of industrial changes or incidents in public affairs having contacts with science, we invited several contributors familiar with particular fields to send us occasional notes for this new "Calendar" of past occurrences. One of these contributors, who has special knowledge of social and political subjects, has carried his mind back to the beginning of the year 1834, and has sent us what might have been editorial comments upon some matters then under discussion. The columns of "Science News a Century Ago", which we propose to publish throughout the year, will not usually be of the nature of comments but rather selected notes from papers or other publications during 1834. There is, however, so much of interest in our correspondent's retrospective remarks on the first day of that year that we have no hesitation in reproducing them below. The notes accurately represent the atmosphere at the time, and they remind us, among other things, that the United States had its gold problem then as now, and also that Empire communication as we know it to-day had no existence then.

January 1, 1834

"IT is natural on New Year's day to look both backward and forward—to take stock, and even to speculate as to the future. This coming year will bring the commencement of the fifth year of the reign of His Gracious Majesty King William IV; and it finds that eminent Whig, Earl Grey, who some two years ago piloted the Reform Bill to the Statute Book, still in the saddle as Prime Minister. Perhaps the most notable piece of legislation during the year which has just closed was the enactment of the abolition of slavery in Great Britain and its Colonies, despite the opposition of that rising hope of the younger Tories, Mr. William Ewart Gladstone, M.P. for Newark. Probably a century hence this measure will be regarded as one of the boldest and most enlightened efforts of the Reformed Parliament, as well as one of its earliest. Who can tell?"

"LOOKING abroad, we cannot fail to be interested in what goes on in the United States of America. Their recent severance from the British sovereignty, and their close ties of consanguinity, militate against indifference to their welfare in this country. Like most young communities, they have their own troubles to face; and, economically, the welfare of the whole world has been adversely affected by the prolonged Napoleonic wars. We feel the pinch here, even yet, most acutely, but our economic fabric is more firmly established than theirs. It is an object-lesson in the far-reaching effects of these factors that this overseas community, situated so far from the seat of the Napoleonic conflagration, is nevertheless so seriously affected. American citizens continue to be agitated by the contest which began last year as to the legality of the conduct of their President in withdrawing the public deposits from the National Bank. Meanwhile, the importation of gold into the States has assumed unprecedented proportions since January, 1833. Some there are who attribute all these happenings to a republican form of government; but that is probably too sweeping a generalisation. The States are young, vigorous, and are as yet developed to nothing like their full extent. On the other hand, many believe that they have before them a future the brilliance of which has never been matched in the Old World. Time alone can show. Anyway, these happenings are of absorbing interest, and make us increasingly impatient for the arrival of each sailing packet with mails. In some quarters this impatience takes the form of suggesting that matters would be improved if the new motive agent —the steam engine—could be brought to such a state of perfection as to replace sailing ships by steam ships: but that day is not yet, and the Atlantic is a turbulent piece of water to be conquered by so new an invention."

Centenary of Philipp Reis, 1834–1874

On January 7 occurs the centenary of the birth of the German physicist, Johann Philipp Reis, one of the earliest pioneers of the telephone. Reis was born in Gelnhausen, and died at Friedrichsdorf near Homburg on January 14, 1874 at the early age of forty years. Left an orphan, he had to struggle against many difficulties and it was while an apprentice to a painter that he laid the foundation of his knowledge of chemistry and physics. Eventually he was offered a post as a teacher at the Institut Garnier in Friedrichsdorf, which he had attended as a boy. It was in his own private workroom that he made the apparatus which he called the "Telephon". His work was based on the true theory of telephony, and he probably designed ten distinct forms of transmitter and four forms of receiver. On October 26, 1861, he exhibited his apparatus before the Physical Society of Frankfort-on-Main and a year or two later lectured on it at Giessen. His apparatus was also placed on the market, and when D. E. Hughes went to Russia in 1865 in connexion with his printing telegraph, he took one of Reis's telephones with him and exhibited it to the Emperor Alexander II at Czarsko-Zelo. But in spite of the correctness of his views and his ingenuity, Reis failed to impress others of the value of his invention. Towards the end of the 'sixties he was attacked by consumption and this led to his early death. He passed away entirely unnoticed, but after the telephone came into common use his country attempted to make some amends for the neglect he had suffered, and the Government erected a monument over his grave in the cemetery at Friedrichsdorf. His biography was written in 1883 by Silvanus Thompson, and on January 7, 1884 the Electrotechnische Gesellschaft of Frankfort held a special meeting followed by a banquet to commemorate the fiftieth anniversary of his birth.

Science and Psychical Research

IT was suggested in a leading article in NATURE of December 23, that investigations in the field of abnormal psychology, and the alleged physical

phenomena said to accompany particular states of mental dissociation, might appropriately be taken up by a department of a university or other responsible scientific institution as subjects of post-graduate research. Since then we have received a circular relating to the formation of a body with the title of the International Institute for Psychical Research, "for the furtherance of knowledge in regard to psychic phenomena". The president is Prof. Elliot Smith, and two of the vice-presidents are Prof. Julian Huxley and Prof. E. W. MacBride. The chairman of the executive committee is Mr. J. Arthur Findlay, a well-known business man in Glasgow, whose book "On the Edge of the Etheric", published last year, described a series of sittings with a Scottish "direct voice" medium. Judging from this book, Mr. Findlay has little conception of the critical attitude of science towards the evidence which he presents and the explanations he gives of the phenomena he describes. In the words of our reviewer of his book: "But from reading Mr. Findlay's records the scientific method might be thought not to exist. He seems to have no appreciation of the implications underlying many of his remarks; no desire to see the phenomena described in accurate and scientific terminology."

PERHAPS the men of science who have become office bearers in the new organisation will be able to see that whatever investigations are undertaken are more in accord with what science demands than are those the explanations of which are accepted by Mr. Findlay. In any event, we need scarcely say that we do not regard the new body as satisfying the conditions of psychical research in a university or similar institution referred to in the leading article in our issue of December 23. Its aims and intentions do not seem to us to differ essentially from those of the Society for Psychical Research or from Mr. Harry Price's National Laboratory for Psychical Research.

The Sea-Fish Commission

IN accordance with the provisions of Section 5 of the Sea-Fishing Industry Act, 1933, the Secretary of State for Home Affairs, the Secretary of State for Scotland, and the Minister of Agriculture and Fisheries, have appointed a Sea-Fish Commission consisting of the following: Sir Andrew R. Duncan (chairman), Viscount Wolmer, M.P., Mr. Francis Beattie, Mr. Edwin Fisher, and Mr. Lawrence Neal. We note with regret that no man of science has found a place on this Commission, notwithstanding that some of its functions make scientific knowledge desirable—particularly piscicultural knowledge. To emphasise this desirability, it may be mentioned that the functions of the Committee will include the investigation of matters relating to the storage and treatment of fish after landing; and it is also inevitable that pre-landing problems will call for investigation. It is most disappointing that the tendency to ignore scientific workers in the personnel of various kinds of commissions and committees should still persist; it is the more difficult to understand when we remember that some members of the Cabinet have hitherto shown themselves to be scientifically minded.

"Codex Sinaiticus"

AN appeal to the public for the amount necessary to acquire the "Codex Sinaiticus" for the British Museum could not fail to meet with a generous response, especially when backed by the offer of the Government to provide an amount equal to that raised by public subscription up to a limit of £50,000. The unique place of the Bible in English life and literature renders it peculiarly appropriate that of the two oldest and most valuable sources of the Greek text, the "Sinaiticus" and the "Vaticanus", one should find an abiding resting place beside the later "Alexandrinus" in the British Museum, while the other lies in Rome. The price to be paid to Russia is undoubtedly large, even though the method of payment will lighten the burden; but it cannot be held too high for the enhanced prestige which it will confer on Britain's greatest national museum and the increased opportunities it will afford British scholarship in biblical studies, which already stands high. The crowds which thronged the British Museum in the days following the Christmas holidays, for a brief glimpse of the manuscript—by the end of the week there had been 20,000 visitors—and the readiness with which small subscriptions poured in, were an eloquent testimony of the extent to which the imagination of the public outside scholastic and learned circles had been touched by the interest of this document of almost unique importance in the history of civilisation.

Archæological Exhibitions at the British Museum

Two loan exhibitions were opened on January 4 in the Department of British and Medieval Antiquities, British Museum, at the head of the main staircase, containing respectively pre-Crag flints from Suffolk and palæoliths from the Raised Beach and Coombe Rock of Sussex. Mr. Reid Moir's exhibit is intended to show at least four periods, indicated by different patinations, for the rostro-carinates and other types from the Bone-bed at the base of the Crag; and one example in particular, which has a sandy deposit adhering, is held to prove its flaking prior to the Diestian deposits of the Lower Pliocene. Excavations by Mr. J. B. Calkin at Slindon Park, between Chichester and Arundel, have produced a series of worked flints which can be dated geologically, as some (mostly rolled) were found in the upper level of the Raised Beach there (surface-level 135 ft. O.D.), others on the top of the Beach and in the lower part of the Coombe Rock above it. Sufficient specimens have been found to prove that the Raised Beach dates from late St. Acheul times, and the Coombe Rock covered a Levallois working-floor as at Northfleet. The Raised Beach a little south, at a height of 80–90 ft. O.D., has not produced enough to establish its identity.