

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 Psychological 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