

rubber is as good as natural rubber, why the two should not exist side by side." But the rubber planter is bidden take heed of the lesson taught by the fate of the natural alizarin and indigo industries and consider possibilities of improving the yield of natural rubber by better methods of tapping, coagulation, the study of agricultural conditions, and possible improvements by fertilisation and the suppression of insect pests, which play havoc with the young trees. It is a significant fact that the Badische Anilin und Soda-Fabrik has agreed to put by 1,000,000*l.* for research in connection with synthetic rubber, just as nearly 1,000,000*l.* was expended by the same firm in research before synthetic indigo was placed on the market.

MOVEMENTS OF GLACIERS.¹

THE seventeenth report of the Commission Internationale des Glaciers makes its appearance for the year 1911, in conformity with the decision at the Stockholm meeting, without waiting for laggard documents. We learn from it that on the Swiss Alps the majority of the glaciers are still decreasing, probably in consequence of the hot summer of 1911, only three showing signs of an advance, the reason of which remains to be discovered. In the Eastern Alps the observations include eight groups out of twelve, and these show that the fairly general advance of 1910 has not been maintained. In the Italian Alps the retreat, except in a few cases, has been general, as in the previous years, that of the southern end of the Brenva Glacier (Mt. Blanc) having been sixty metres.

The report from the French Alps has not yet been received, but it is not likely to differ materially from the others, so that in this chain the diminution which began about half a century ago has now continued considerably longer than the time which was supposed to be its average one. Of the Scandinavian glaciers, four out of the five observed in Sweden show a marked advance. In Norway a larger number has been studied—in Jotunheim twenty-seven, and in different parts of western Norway twenty-three. In the former district only two show an advance, the remainder being in retreat. In the latter about half the Jostedalbræ are moving one way and half the other, but the Okstind (five) and two of the Frostis (three) are advancing.

The report, owing to early publication, does not include returns from Russia, Asia, and America, so that general conclusions cannot be drawn; but we may perhaps infer that no marked change is likely to be indicated. The value, however, of summarised systematic observations such as these is very great, because they form the first step—and a very long one—in ascertaining the causes which bring about these periodic oscillations of the ice-streams.

T. G. B.

¹ "Les Variations Périodiques des Glaciers." xvii Rapport, 1911. Rédigé par Charles Rabot et E. Muret. (Extrait des "Annales de Glaciologie," t. vii., pp. 37-47.) (Berlin: Borntraeger Frères, 1912.)

THE PROTECTION OF ANCIENT MONUMENTS.

THE last report of the Inspector of Ancient Monuments, Mr. C. R. Peers, with an introduction by the First Commissioner, Earl Beauchamp, describes the limitations under which the work of the Department is conducted at present. The existing Acts are merely permissive, and the State can exercise no supervision, except with the consent, and indeed by the desire, of the owner. Earl Beauchamp believes that his Department should be invested with the power of intervention when monuments are suffering from neglect, or are threatened with actual damage or destruction, a view in which all antiquaries will concur.

Even under the present restrictions much useful work is being done. The most important operations were at Carnarvon Castle in anticipation of the investiture of H.R.H. the Prince of Wales, in the course of which much ancient work was cleared and repaired. At the Chapel Royal, Holyrood, the discovery of the foundations of an ancient church, with apparently contemporary interments, has disproved the legend that the palace was founded in 1124 on a site till then uninhabited. At the Tower of London the Bell Tower and the turret flanking the Byward Gate had been repaired. At Old Sarum the excavations conducted by the Society of Antiquaries have disclosed the plan of the Castle buildings.

Among the most interesting buildings placed in charge of the Department during the year were the Old Machar Cathedral at Aberdeen; the Gateway Tower of Chester Castle; Richard III.'s Tower at Carlisle; Kirby Muxloe Castle in Leicestershire; and the Bishop's and Earl's Palaces at Kirkwall.

Good progress has been made in the preparation of the County Inventories of Historical Monuments, of which five volumes have been issued, and scientific inquiries are in progress for the prevention of decay in stone-work. It may be hoped that Parliament will soon find time to complete the measures for the adequate protection of historical monuments throughout the country.

NOTES.

THE names of few men associated with scientific work appear in the list of New Year Honours. Three fellows of the Royal Society are among the recipients of honours, namely Mr. Francis Darwin, upon whom a knighthood is conferred; Dr. A. G. Bourne, Director of Public Instruction, Madras, who is made a Knight Commander of the Order of the Indian Empire (K.C.I.E.); and Dr. W. R. Dunstan, director of the Imperial Institute, who has been appointed a Companion of the Order of St. Michael and St. George (C.M.G.). Other names of men known in the scientific world are Sir Frank Crisp, a new baronet, for many years treasurer and vice-president of the Linnean Society, and honorary secretary of the Royal Microscopical Society from 1878 to 1889; Dr. R. W. Philip (knighthood), distinguished by his work