

words in brackets altogether, or say "old snow which has outlasted one summer at least and is transformed into a dense material." Polar, as indeed all, firn is characterized by the fact that (a) the particles are to some extent cemented together, but that (b) the air interstices still communicate with each other. (a) distinguishes it from snow, (b) from ice.

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12 December 1952

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SIR, "Processes of ice deformation within glaciers" by the late Max Harrison Demorest

In reference to the last paragraph of the very interesting comments by Mr. J. W. Glen, of the Cavendish Laboratory, on the paper by the late Max Harrison Demorest (*Journal of Glaciology*, Vol. 2, No. 13, 1953, p. 219 and 201-3 respectively), the recrystallization induced by deformation in Demorest's experiments was, in reality, so rapid as to be practically *instantaneous*. In fact, it was so rapid that the process is recorded in moving pictures that were taken by Dr. Demorest during the course of an experiment. The recrystallization could be observed to have taken place as a sudden change during the passage of a few frames, at minute intervals, of the moving picture film.

Since recrystallization in metals proceeds with variable speed at different temperatures, it may be that the instantaneous recrystallization in ice is caused by the fact that Demorest's experiments were carried on at temperatures that were relatively near the melting point of ice.

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## REVIEWS

SIR DOUGLAS MAWSON ANNIVERSARY VOLUME. Contributions to Geology in honour of Professor Sir Douglas Mawson's 70th Birthday Anniversary, presented by colleagues, friends and pupils. *Eds.* M. F. Glaessner and E. A. Rudd. University of Adelaide, 1952. ix+224 pages.

SIR DOUGLAS MAWSON, who is so well known to glaciologists for his work in the Antarctic—member of Shackleton's Expedition 1907-08, leader of the Australian Expedition 1911-14 and of the British, Australian and New Zealand Expedition 1929-31—was born at Bradford, Yorkshire, in May 1882. Since 1905 he has been lecturer and professor in geology in the University of Adelaide, and in honour of his 70th birthday anniversary his colleagues, friends and pupils have presented him with this volume of contributions to geology. All members of the British Glaciological Society will wish to be associated with their Australian colleagues in paying honour to their fellow member.

The book consists of sixteen articles, all but one of which deal with geological subjects. It is the exception which is of particular interest to glaciologists, for it is an article on "Pleistocene glaciation in the Kosciusko region," by W. R. Browne. The Kosciusko plateau, in the south of New South Wales, is the only region in Australia known to contain traces of extensive glaciation. There can now be little doubt that this glaciation is of Pleistocene age, and therefore may be expected to throw some light on the extent and development of the Pleistocene Ice Age in the southern hemisphere. Considering the importance of the questions involved it is surprising how little it has been studied. Glacial features were first reported from the Kosciusko area in 1851, but it was not until fifty years later that the first detailed account was given by Professor David in 1901. Nearly another fifty years passed before further extensive work was undertaken, in 1946 and 1951, by a Joint Scientific Advisory Committee of several Australian scientific societies and