

properties in the classical way, and we have now decided to make use of the Swiss conical borer as our main apparatus in these mountain stations, but to modify it to remove some of its disadvantages. We have adapted it both for station and field measurements, and have constructed a more easily transportable type of rammsonde, which, since it has an enlarged borer point, eliminates the distorting effect of the friction of snow on the stem¹.

Our method of making tests and of calculating and graphically recording the penetration resistance is much the same as with the Swiss conical borer. Apart from the rammsonde tests, our avalanche stations make regular measurements of the depth and structure of the snow cover, humidity, temperature and density of the snow, air temperature (using a thermograph), wind speed and direction, type and quantity of precipitation, duration of sunshine, etc. These data are all recorded on a form which serves both for determining the immediate avalanche situation and also as a documentary record for future research (Fig. 4, p. 75).

The avalanche danger is determined by comparing the "Daily Measurement Survey" with typical data on the structure and penetration resistance of the snow cover in known avalanche situations. If a distinct similarity is found, the avalanche station at once publishes a warning and forbids entry to those slopes on which avalanches might occur. If there is only an approximate similarity, the station measurements are extended and checked by rammsonde tests at safe places on slopes which might produce avalanches owing to their different meteorological situations such as higher wind speeds and thicker, softer or harder layers of snow at the dangerous levels⁶.

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REVIEWS

LES APPLICATIONS DE L'EXPLOSION THERMONUCLÉAIRE. CAMILLE ROUGERON.

Paris, Berger-Levrault, 1956. 307 pages. 18.5 cm. Fs. 600.

CHAPTER 4: "La climatologie thermonucléaire", is not without interest for glaciologists as regards the peaceful uses of nuclear energy. The views expressed seem futuristic only to those who are behind the times. The hydrogen bomb is a reality; it only needs to be tried in the attack on the cryosphere instead of the biosphere!

A hydrogen bomb of 20 megatons, as also a superbomb of 60 megatons, could be used to melt the cryosphere, so to speak, in order to use geothermal energy to ameliorate climates and make the Volga and the St. Lawrence navigable, as also the Great Lakes. The subterranean explosion of hydrogen bombs would give craters of enormous dimensions permitting the utilization of this energy. Artificial gulf streams could be created, which could change regional climates and render navigable the arctic seas. The author even envisages electric power stations constructed under the Greenland and Antarctic Ice Sheets.

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