

## LIGHTNING

One phase of this ever-interesting subject to the mountaineer has been taken up by Prof. E. Mathias in a recent issue of *La Montagne* (March, 1933) in an article on "Les phénomènes de la foudre ascendante et globulaire dans les montagnes et les plateaux élevés." He accounts for the rarity of this type of lightning at high altitudes by the air pressure and cold.

"The pressure of the air in the mountains is but a fraction of the normal atmospheric pressure. The fulminant material which forms at approximately 2,500° C., where it is a blinding white with a very feeble tension of dissociation  $f$ , increases its tension in cooling. It necessarily decomposes when  $f$  clearly passes the atmospheric pressure. This dispersal temperature therefore rises rapidly with the altitude. At low altitudes, the temperature can be lowered to about 500° C. where the fulminant material, a body *optically black* dark red must decompose. When the altitude is sufficiently great so that the temperature does not sink below 1,200° C., the color is yellow, more or less pale; at higher altitudes the color of the fulminant material is practically white. . . . The blue coloration indicates the presence of sulphur."

We wish that more observations might be made on this subject and would like to see the results of research carried out by our members especially in the western mountains.



## ACCIDENTS

*The Accident on the Minarets.* Walter A. Starr, Jr., left on July 29th, 1933, for a climbing trip in the Sierras alone. When he did not return on schedule, a search was instituted and first his car, then his camp was found obviously untouched for at least a week. Our former western vice-president, now president of the Sierra Club made a search from the air on a Standard Oil Co. plane and organized a group of climbers to make a search on foot. These men made a number of climbs in the course of their work, which have been chronicled elsewhere in this issue, and were finally successful in finding the body. Beyond the fact that he was killed in attempting the ascent of Michael's Minaret, but little is known of the cause of the accident.



*The Accident on Mt. Jefferson.* Labor Day week-end (September 4th-5th, 1933) three Portland, Ore., boys set out to climb Mt. Jefferson by the east face, a steep snow climb. The three, Davis McCamant, Don Burkhart, and John Thomas were first