## ACCIDENTS IN AMERICAN MOUNTAINEERING TENTH ANNUAL REPORT OF THE SAFETY COMMITTEE OF THE AMERICAN ALPINE CLUB 1957

This, the tenth report of the Safety Committee, records the accidents which occurred in 1956 and have been reported to the Committee. In addition there are a number of accidents which occurred in 1955 whose reports came in too late to be included in last year's report. The statistics for 1955 have been corrected to include them. By and large the Committee has tried to select those accidents in which mountaineering was involved. There were many other accidents which, strictly speaking, were not mountaineering accidents, although they may have resulted in a fatality. In addition some accidents have been included which it was felt had a specific lesson to teach. For example, this year we have included a lightning accident which occurred in mountainous country to persons not strictly engaged in mountaineering. The purpose is to emphasize the danger of lightning in the mountains and the necessity to seek a sheltered spot promptly if a lightning storm is suspected.

The total number of accidents and the number of deaths are recorded in Table I. Although there were a large number of accidents reported, some fortunately had only minor consequences. There were eight deaths which appear to be about the number to be expected on the basis of the past ten years experience. Over the past ten years the deaths have averaged 9.5 per year and ranged from 15 to 4 per year. The accidents have averaged 27.3 per year and ranged from 46 to 15 per year. Much of the variation is undoubtedly random, but also there have been changes in the criteria for including accidents as well as in the completeness of reporting of accidents.

It is this last condition which accounts for most of the progressive rise in the number of accidents reported. This is a good sign since it indicates awareness of the importance of the accident report. The purpose of the reporting is not to condemn but rather to use each case as a means of teach-

ing others in the hope that similar accidents may be prevented.

Attention should be called to certain accidents that occurred during this past year. Two accidents were caused by failure to recognize wind slab and the potential danger of such condition on slopes. As mentioned in one of the analyses, wind slab is extremely unstable, particularly if it rests on soft snow that can act as a lubricant if the slab begins to slide. Wind slab is definitely to be avoided.

There were a large number of accidents due to loss of control during voluntary glissade. This technique must be practiced repeatedly until the climber can control his rate of speed with ease. Perhaps in areas where there is insufficient snow and slopes for practice, hay-covered wooden slopes could be used similar to those on which indoor skiing is taught. It would also be advisable to teach the use of crampons, how to walk in them, and how to keep balance on steep slopes. It is also important to strengthen the ankles which are subjected to tremendous strain particularly when traversing steep ice slopes. The need for snugly fitting pants or gaiters is reemphasized this year. Loose trousers can be pierced by a crampon spike especially

during the descent with the result that the climber is tripped and in all

probability will fall.

The pattern of accidents has been relatively constant over the years. Rock climbers are involved in more accidents than snow climbers probably because there are more rock climbers. The descent is still more dangerous than the ascent; here such factors as fatigue, decreased attention after reaching the summit, and others such as deterioration of weather are all active.

In order to enjoy climbing, one must be in good physical condition and obey the various safety regulations and precautions. Climbs on the bigger peaks such as Rainier, or winter climbs on peaks like Mt. Washington in N. H. require extra clothing as well as proper equipment and emergency food rations as a minimum. Sleeping bags or equivalent bivouac equipment could also be included as an extra safety precaution. This past summer two Canadian climbers were assisted off Mt. Rainier which they had attempted clothed in light cotton shirts, light jackets, tennis shoes, and no emergency food or bivouac equipment. One must not underestimate the experience and equipment required to climb a major peak.

Climbers should be aware of their capacities and try not to exceed them. The accident which involved Whitmore demonstrates that one's emotional state is important and if disturbed can endanger one and/or his companions.

We climb mountains because "they are there" and for the joy of effort and accomplishment. A certain humbleness and respect for the powers of nature will permit reaching this goal safely.

## ACCIDENTS, 1955 (NOT PREVIOUSLY REPORTED)

California, Berkeley—On April 3, 1955 Alfred E. Young (20) was involved in an accident at Pinnacle Rock, a site frequently used for training and practice by the Sierra Club. This, however, was a private climbing party and not sponsored or supervised by the Rock Climbing Section of Sierra Club. The rock is sound, about 25 feet high, and on the day of the accident it was dry. The rappel rope had been tied to a permanent, heavy, steel anchor and had been used several times prior to the accident. When Young started his rappel, the rope had accidentally become detached from the anchor. He used a seat sling and carabiner rappel arrangement and was not belayed. Young fell about 25 feet facing the rock, and landed on the sloping ground at the base, which helped reduce the impact. He suffered a fractured ankle, two sprained ankles, and torn ligaments in the groin. Recovery has been complete.

Source: William Siri.

Analysis: (William Siri) Rappel rope was not properly anchored and became detached from anchors before climber started rappel. No belay was

used. General inattention to sound climbing practice.

California, Yosemite (1)—On April 2, 1955 a two-man team of George Sessions (22) and Richard Calderward attempted Rixon's Pinnacle by an extremely difficult 6th class route that had been climbed once previously by another team. They were fully and properly equipped and possessed adequate skill and experience for the climb. At a questionable point a round expansion bolt was placed and Sessions then proceeded placing pitons beyond. Each piton was tested but because they were driven behind an over-