

unfamiliar mountain terrain is first to consult men who know the area. In the case of young Wasserman and Reynolds, they should have consulted the forest rangers.

*California: (2) Devil's Slide, near San Francisco.* On 24 September 1950 Harry E. Bates, 46, of Oakland, fell 75 feet to his death while trying to climb down the sheer face of this sea cliff. He had climbed about 20 feet down the side when he suddenly lost his footing and fell to the rocks below.

*Source of information.* newspaper report and Mountaineering Committee of the Sierra Club.

*Analysis.* Apparently a result of inexperience; but certainly also a result of the fact that he was alone and unroped. At least one or two persons a year are killed at this point, which is only 15 miles south of San Francisco. The county authorities would probably build a fence around it if they could afford the cost. They have threatened from time to time to prohibit anyone going there, but probably that would be quite futile.

*California: (3) Stinson Beach Cliffs, Warm Springs, Marin County.* On 12 February 1950 Robert L. Swift, 19, an experienced member of the Sierra Club, from Alameda, California, fell during a scheduled Sierra Club practice climbing trip on which he was trying to practice rappelling from a steep cliff face along the ocean. He was climbing with W. W. Dunmeyer, 20, of Berkeley. Their 5/16-inch rappel rope broke, causing the fall.

*Source of information:* newspaper account, Mountaineering Committee of the Sierra Club and Swift himself.

*Analysis.* This shows that even an experienced climber on a well organized and scheduled climb can receive serious injury. Swift's own explanation:

A sling of seven sixteenths inch manila climbing rope had been tied around a projecting rock at the top of a thirty foot practice rappel pitch. The rappel had been made fast to this sling by means of a bowline, using the center of the rappel as an end. This knot secured each strand independently, so that neither depended on the other. It should be noted that, had either strand parted, the other would have prevented a fall.

After completion of rappel practice, I went to the top of the practice rock to retrieve the rope. Before starting down, I untied the bowline and looped the mid-point of the rappel through the sling, so that it could be recovered from below. The face down which the rappel ran was of sufficiently high angle to allow a fast descent. After a few short preliminary hops I took one bound of about six feet and then a slightly longer one. As I was checking my speed, one strand of the rappel parted, dropping me about ten feet onto the talus. Prompt and efficient first aid measures by other members of the party minimized the effect of injuries which might easily have been more serious.

It is my personal contention, unsupported by any direct evidence, that somewhere in the length of rope which lay coiled at the top of the pitch throughout most of the day there was a point of weakness which did not become evident until the rope was re-rigged. Although the rope had been in service for less than a year at the time of the accident, it had possibly seen enough use to have acquired some scarcely perceptible weakness or damage. The accident clearly emphasizes the importance of belays when rappelling and the absolute necessity of protection for the first person to descend on a newly placed rope.

The Mountaineering Committee, after the accident, reported that the Sierra Club had, in the last several years, experienced more accidents from rappelling than from any other source. They state that "in practice, however, not more than 50% are belayed because of the nuisance involved." Thus it seems advisable to continue publicizing these dangers so that all of us will be more willing to accept the inconvenience which really effective safety precautions sometimes require.

*California: (4) Morro Rock, near Morro Bay.* On 9 October 1950 Pvt. Miles T. Armstrong, member of an Army medical detachment at Camp Roberts, and two other soldiers narrowly escaped death while attempting to scale precipitous Morro Rock. Armstrong received severe injuries when he fell about 200 feet to a ledge above the ocean, where he clung to a jagged rock until rescued by Morro Bay firemen and Coast Guardsmen. He had been in the lead as the three climbed within 100 feet of the top of the 500-foot rock, when the crumbling shale on the side of it gave way and he fell approximately 30 feet down the northeast side to a ledge. After clinging momentarily there, he fell