

Analysis

The fall would have been much shorter if the leader had placed protection which was easily available. Protection on technical ground is particularly important to protect the belay anchor, as well as to protect the leader.

In this accident the belay anchor was an ice axe sunk to the pick in hard snow, and it is amazing it did not fail when the rapidly falling climber was stopped by the belayer. The relatively light injuries were due to Richardson's wearing a helmet and a large, well-padded pack which absorbed much of the impact of the fall. (Source: Mike Down)

FALL ON ROCK, PITON AND NUT FAILURE

Ontario, Bon Echo Park

Mike Tschipper (16) was leading the last pitch, grade 5.10, of a route on Mazi-naw Rock in the late afternoon of 16 October 1977. Neither he nor his belayer, Rob Rohn (19), were wearing hard hats. Tschipper was using the pins in place for protection as he had none himself. After the first difficult section he traversed above a large tree, which acted as a running belay. He then placed a #4 hexentric before the crux move. The crux move, grade 5.10, was followed by a 5.10 overhang and he placed a #4 and #5 stopper deep inside a parallel crack until they seemed tight. He also clipped into an old 1/2-inch ring angle pin because it was higher and at least seemed to give some protection. He fell from the overhang, expecting to be caught by the pin beside him. It pulled out and so did the two nuts and the hexentric. He fell free about 80 feet and was stopped by his belayer and the rope over the tree. He pendulumed into a ramp, breaking his wrist as he tried to stop himself. (Source: Mike Tschipper, Rob Rohn)

Analysis

This is yet another accident that shows that nuts can be much more difficult to place securely than pitons. It is a good idea before ever using them in "real life" to practice placing nuts and testing them by having weights fall on them. Also to be noted is that old pitons rust away, which sometimes causes them to come loose. They also undergo stress corrosion cracking (see *ACC Gazette*, May 1976, p. 9) which may reduce their strength almost to zero without showing any visible evidence.

It should be noted that the climber was fortunate in not sustaining any head injuries. (Source: Mike Tschipper, Rob Rohn, E. Whalley)

FALL IN CREVASSE, CLIMBING UNROPED

Alberta, Rocky Mountains, Athabasca Glacier

John Howard and a companion ascended the Athabasca Glacier on 23 February 1978 to attempt either Snow Dome or Mt. Kitchener. At 1540 hours, under the headwall of the Athabasca Glacier, a snow bridge collapsed and Howard fell to his death in a crevasse. He was not roped to his companion. The rescue party fol-

lowed the same tracks, and on the return journey another snow bridge collapsed, dropping Howard's companion into a crevasse. Fortunately, he was roped this time and was rescued. The route was described as extremely dangerous by a member of the rescue team. (Source: *Banff Crag and Canyon*, 4 March 1978)

FAILURE OF BOLT ANCHOR

Alberta, Rocky Mountains, Cascade Mountain

Cameron Cairns (20) and Randy Clark (24) had climbed Cascade waterfall on 3 March 1978 and were rappeling down it. Cairns descended about 30 meters to easy slopes. Clark followed him, but when he was about a third of the way down the anchor failed. He fell about 20 meters, then tumbled some hundred meters further down hard snow and was killed immediately. (Source: T. Auger)

Analysis

The rappel anchor was a single 3/8-inch sleeve bolt with a drilled Cassin pin for a hanger. It failed when the limestone around the bolt cracked away leaving a dish-shaped depression. It is bad practice to trust a single anchor, and this is especially so in the friable rock of the Rockies. There was another bolt nearby and, though it would have been hard to reach and would have required several feet of sling, it could have been used. (Source: T. Auger)

FALLING OFF A CORNICE

Alberta, Rocky Mountains, Mt. Assiniboine

Aliester (Bugs) McKeith and two companions were climbing the north face of Mt. Assiniboine on 17 June 1978. About 1500 hours, McKeith went on alone toward the summit in blowing snow with intermittent visibility, while his companions belayed up the final steep section. When they reached the ridge, they found McKeith's tracks ending where a cornice had broken off. He had fallen down the 750-meter east face, and his body was found at the foot three days later. (Source: T. Auger)

Analysis

McKeith was a very experienced climber, but had made a classic mistake. (Source: T. Auger)

STRANDED ON ROCK, INEXPERIENCED

Alberta, Rocky Mountains, Mt. Louis

Three young climbers, Phil Smith, Scott Duncan, and Ron Carmichael, started up the standard southeast face route of Mt. Louis early on 25 June 1978. It requires about 600 meters of moderate to exposed climbing and is slightly devious. Their progress was very slow, and they decided to bivouac without gear some