

tion behind the flake at the start of the rappel. Had the pressure on the piton been from below, the piton would have held.

The weather conditions were good at the time of the accident. It was partly cloudy, but the wind had stopped. The accident occurred at 0900. We were both *experienced* mountaineers and had done a great deal of climbing together. We were climbing within our abilities, had the best of equipment, and considered that we had a good margin of safety.

A forced rappel is one of the most dangerous maneuvers in rock climbing since the last rappeller cannot be belayed unless additional equipment is left in place on the rock. The angle piton which failed appeared to be well placed in a good granite crack and apparently had not shifted when we used it as a belay anchor. I rappelled on the piton and there was no indication that it was unsafe. A thorough check of the piton before rappelling might have prevented the accident.

*Colorado, El Dorado Springs Canyon.* On 24 November Mark Schemmer (18) was rappelling off the "Rosy Crucifixion" at dusk when his hammer became slightly tangled in his rappel rope, after having already cleared a rope tangling problem. His rappel system was a swami seat and brake bar, and he had a fully independent chest harness with prussik safety to one of the rappel ropes. To free the hammer, he let his weight be taken by the prussik and chest harness, but the latter slipped up under his armpits and upper arms; his weight was supported by his upper arms only. As circulation was reduced in his arms, they became useless. At this point on the rappel, the rock face was overhanging slightly, and he was dangling completely free from the rock. Schemmer's partner, Rod Black, who had already rappelled off with some problems of rope tangling, was unable to use the rope to pull Schemmer to the rock for weight relief, and Schemmer did not work a hitch in a rappel rope around a boot to take his weight and relieve his arms. With Schemmer isolated and helpless, Black descended the rest of the route for assistance. Rescue was accomplished later. Victim was lowered to a litter and evacuated. Victim also suffered from hypothermia. Several weeks after accident he still had some paralysis in his hands.

Source: W. G. May, Rocky Mountain Rescue Group.

*Analysis:* Schemmer had the technical ability to climb this difficult route, but on his rappel he lacked the experience and insight to, first, take precautions that would have prevented the minor problem of the hammer getting tangled, second, recognize that allowing his weight to go to his safety would make continuing the rappel difficult when hanging free, and third, have knowledge of a technique to transfer his weight off his safety and back to his brake bar. He had adequate equipment to perform self-rescue.

*Wyoming, Grand Tetons, Moran Canyon.* On 14 July Van Yancey (19) was in a belay position when a test pull from below pulled him from the position and *his single nut anchor pulled out*. He fell about 20 feet landing on his hands and the back of his neck. He rolled an additional 25 feet down a rock and grass covered slope. Members of the party put Yancey on an improvised litter and carried him a quarter mile to a meadow where he