

NE SUNDAY AFTERNOON last summer, a group of climbers gingerly descended 9677-foot Mt. St. Helens, a volcanic peak in the Cascade Mountains, Washington. One of their party had sprained a knee and now hobbled in pain. And, still ahead, lay crevasses and steep snow fields.

But luck was with the injured climber. Quickly catching up with the group were two wiry men in their late 50's, who also had made the summit. It so happened that these two men were the founders of the Mountain Rescue Association—Ome Daiber and Dr.

Otto Trott.

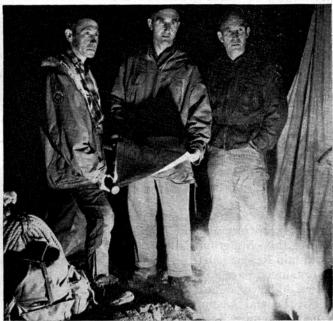
"You'll never make it all the way down on that knee," Doctor Trott observed. Acting quickly, he sat the man down on the glacial snow and splinted the leg, using an ice axe handle for support. As the doctor worked, Daiber plunged another ice axe into the snow, tied a climbing rope around it, then worked down the slope, running out the rope's 100-foot length. Anchoring another ice axe, he pulled the rope taut around it.

Doctor Trott hauled from his pack a metal snap ring that mountaineers know as a carabiner, enclosing a small pulley wheel that then could serve as a trolley. Quickly, the two men fashioned a rope sling to hold the injured man, face down, and hoisted him onto the improvised trolley, to which they tied a guide rope. The rest was simple. As soon as their passenger reached the bottom of the 100-foot run, one of the mountaineers scrambled back up to pull out the top ice axe, then relayed it down the slope for another 100-foot ride. Alternating the "trolley poles," they soon had the crippled hiker down to timberline, where his impairment no longer presented the threat of a serious fall on the treacherous snow.

It was all in a day's work for Daiber and Trott and, as mountain rescues go, one of their easier successes. They've seen far more than their share of spine-tingling drama—and tragedy—in the 20 years since they sat down with another Seattle mountaineer to conceive what now has become the nationwide Mountain Rescue Association.

This third mountaineer is Wolf Bauer, a consulting engineer who, late in 1947 during a business trip to Europe, visited his native Bavaria for an alpine outing. There, he found an organization known as the *Bergwache* (which translates roughly to "mountain guard"), and could hardly wait to get back to Seattle and tell his colleagues.

They knew that in the Pacific Northwest thousands of hikers, fishermen, hunters, and picnickers head for the mountains as soon as the snow melts—and sometimes before. Inevitably, some of these people get lost, skid over cliffs, are hit by falling rock, and otherwise suffer an endless variety of injuries. In the 15-year period to 1964, for example, 459 people were injured in reported mountain accidents in the United States, and another 204 were killed. The problem is that most of



Left to right: Ome Daiber, Dr. Otto Trott, and Wolf Bauer, founders of Mountain Rescue, plan the next day's search.

these mishaps occur far from the nearest highway, and not many government agents have the skills or equipment to help them in such remote areas.

Daiber, a Seattle housing contractor who has been scaling peaks for 40 years, had been helping deputies and state troopers cope with such emergencies. There was nothing organized—he would simply round up a

few fellow mountaineers, and off they'd go.

One of these usually was Doctor Trott. A native of Germany who came to this country in 1937, Trott spent most of the time he could spare from his general practice skiing and mountain climbing—and, invariably, devoted much of this time in the mountains to patching up people who had taken a tumble. (One of these patients, whose broken leg he treated after a skiing accident on Mt. Baker, subsequently became his wife.) Another of the mountain rescuers was Jim Whittaker, later to win world fame as the first American to climb Mt. Everest, and since then a frequent escort for Sen. Robert Kennedy's mountain climbing and river running trips.

Out of this three-man conference came the Seattle Mountain Rescue and Safety Council (the words "and Safety" later were dropped to simplify the title). Doctor Trott designed a patch which since has become the national symbol—a white cross superimposed on the sil-

houette of a mountain.

The new council won quick acceptance from harried law officers and military men who had tried to cope with the increasing number of mountain casualties. Now, they had the vital link in search and rescue operations—a cadre of men with the skill and equipment to challenge the rugged mountain wilderness when lives were at stake.

For the next few years, the Seattle group was kept busy snatching victims from death in mountains all over the state of Washington, and even in Alaska. Their dramatic rescues made headlines up and down the West Coast, and encouraged mountaineers in other cities to form their own rescue councils. Twelve years after that decisive meeting of Daiber, Trott, and Bauer, more than 400 mountaineers from all over the West jammed into Mt. Hood's Timberline Lodge for the annual spring rescue training session conducted by the Seattle veterans. It was at this meeting, in 1959, that the several dozen councils incorporated as the Mountain Rescue Association.

MRA now has units in all the Western states and Canadian provinces, and in Vermont—but total membership in this elite group is less than 1000. To wear the Mountain Rescue patch, each member must be a skilled mountaineer, have an advanced first aid certificate, and possess his own mountaineering equipment.

The Federal Communications Commission has assigned Mountain Rescue its own short wave radio frequency, while each unit maintains a telephone hookup of men who will drop whatever they're doing to go out on a rescue mission when they're needed.

"The theory of mountain rescue is to go fast," Daiber explains. "When lives are at stake, we know we have to

hurry. Sometimes only a few minutes may mean the difference between life and death."

Once arrived at the end of the road, the rescue men are divided into teams, usually six men in each. Usually, two of these men will peel off as an advance party, often starting on the trail in the dead of night. Their aim is to reach the victim as quickly as possible and do whatever is needed to help. They are followed by the first pair of litter bearers, then by more men packing extra clothing, food, and medical supplies. More teams spread out along the trail to spell the litter bearers when they start down, and to supply support as needed. It's not unusual for 100 men to be involved in rescuing an injured person far back in the wilderness.

To speed them on their way, most Mountain Rescue units maintain a four-wheel drive truck stocked with extra food, clothing, medical supplies, and increasingly complex gear designed to lift a person out of the most challenging terrain. Military helicopters play an important role in mountain rescue. But sometimes bad weather keeps the birds on the ground. And, in any case, someone has to prepare the victim for the airborne trip. "I've probably spent more time dangling from a helicopter cable than any doctor outside of Viet Nam," says Doctor Trott.

One such occasion was on December 29, 1964, when a light plane crashed into Mt. Si, a rugged peak east of Seattle. Mrs. Norma Newell, a Seattle secretary, was

Three men handle the stretcher while a fourth anchors it. For travel over snow and ice, the stretcher is fitted with a ski.



taking flying lessons from Lawrence E. Clarke when the plane iced up and crashed on the mountain. She had the presence of mind to flip on the plane's emergency radio and send out a call for help. The call was picked up by a radio operator at a nearby Air Force base, who in turn notified the King County (Seattle) sheriff.

At 5:15 p.m., the sheriff's office called Daiber's home, which still serves as the Seattle Mountain Rescue Council's dispatching center, and the telephone relay went into action. Within three hours, about 90 men had assembled at the State Patrol office at North Bend, nearest community to Mt. Si. They still had to travel 20 miles to the crash scene, over snow-covered logging road and trail. By midnight, the mountain was wrapped in a driving snowstorm, and the search for the downed plane was suspended, the men huddling in their rescue vehicles in near-zero temperatures.

The search resumed at dawn, and at 10 a.m. a helicopter spotted the plane, by then covered with new snow. Two paramedics were lowered to hoist Clarke to the chopper to be flown to a hospital for treatment of head injuries. But it was obvious the woman needed

special attention.

Doctor Trott had been on a hospital call when Mountain Rescue went into action. He drove to North Bend as soon as he was free, arriving shortly after midnight. The helicopter took him to the downed plane, where he was lowered to Mrs. Newell's side.

She had a broken leg and back, and facial injuries. Doctor Trott scooped out a "bed" in the snow, laid her on a foam rubber pad, covered her with a down-filled parka and a tarpaulin to ward off the cold, then blew up a collapsible splint to immobilize her leg. Then he slipped a "horse collar" (supporting device) under her arms so she could be lifted vertically to the hovering helicopter. An hour later, she was in satisfactory condition at a North Bend hospital. Doctor Trott got back to Seattle at 3:30 p.m.

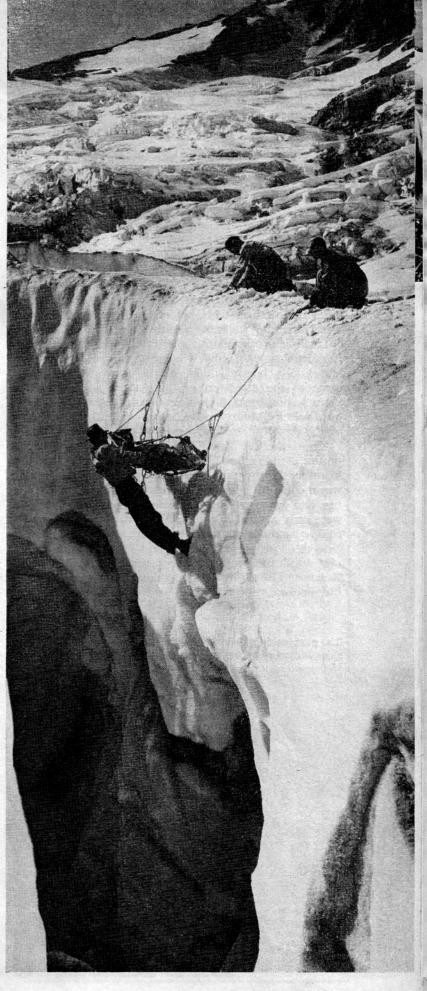
It was no coincidence that the physician's first move

had been to get the patient warm.

"The main danger in all mountain accidents is exposure—that's what makes them different from other types of accidents," he explains. "Sooner or later, a broken bone will heal. But the most urgent need is to restore warmth to the body. You have to get external heat, and do it quickly. Exposure will soon overtake even a minor injury, and if it isn't corrected, death may come even hours later in a warm hospital bed with medical resources used to the utmost."

Doctor Trott first learned this lesson when he sat for six hours in the Black Forest after breaking a leg in a skiing fall. He has hammered away at it ever since in countless medical seminars sponsored by Mountain Rescue and the Ski Patrol. Experience in treating vic-

Victim is lifted out of a crevasse. (Men doing actual lifting by pulley are out of the picture to the right.) Men handling ropes on the lip are safeguarded against slipping.



tims of climbing and skiing accidents has convinced him that rapid application of external heat is the best treatment for exposure and, as a result of his work, some of the old theories for treating frostbite have gone out of the window. ("Rubbing with snow will only invite infection through irritation with snow crystals," he warns.)

A tragic example of the dangers of exposure occurred during the 1963 Christmas season, when a Seattle man took his three sons on a hike into a snowbound lake near Mt. Index, in the Cascades northeast of Seattle. They had been in there before, in the summer. Now it was winter, and the snow was hip deep.

Lacking proper clothing, without skis or snowshoes, the little group found the going increasingly tough, and finally bogged down in the snow. Their plight came to the attention of the outside world when a deputy sheriff met the oldest son, 16, who had made it out for help. Mountain Rescue was called, and soon was on the way. But already it was too late.

The father and his 12-year-old son were dead of exposure. Another son, 13, was huddled beside a fire that his older brother had built on a rock outcropping. He was incoherent when the rescuers reached him, but the fire had saved his life. The father and youngest son were only a short distance away, but too weakened by cold and exhaustion to get to the fire.

Lack of proper equipment and knowledge of mountain conditions cause most of the calls to Mountain Rescue. "The skilled climbers don't often get into trouble, because they carry the kind of equipment to deal

with what they're getting into," says Daiber. "It's the 'Sunday hikers' who account for most of the emergency calls."

Some hunters and fishermen also get into difficulties, but Doctor Trott draws a sharp distinction. "Flk hunters don't often get into trouble; deer hunters do," he explains. "You see, elk hunters are like the guys who fish for steelhead—they know they're going to face snow and cold, and they dress for it. But any city slicker can stumble around hunting deer or fishing for trout, and he's the one who gets lost, or falls off the rocks."

Just as firemen preach fire prevention, Mountain Rescue Councils forever carry the banner for mountain safety—even though that word was dropped from the original title. Every mountain accident is carefully analyzed and the causes documented. From this extensive dossier, Mountain Rescue has compiled a list of do's and don'ts which its speakers use all year long to any group that shows interest. Explorer Scouts have been trained in search and rescue techniques, and are a major reinforcement for emergency missions. Movies and slide presentations have been prepared to show the beauty of the mountain wilderness—and how to enjoy it safely.

"People who are impulsive by nature shouldn't be in the mountains," Daiber concludes. "Most accidents are the result of insufficient experience and poor practice in techniques."

Mountain Rescue Council brochures advise hikers always to go in a minimum party of three or four, never alone. Wear proper clothing for rough outdoors travel

It's past midnight in midwinter, as an avalanche-injured skier is brought from a Cascade Mountain by ski-stretcher.



Airplanes are used to locate victim and direct rescuers to the scene. Rescue Council truck stands by for emergency.



(especially suitable shoes), and pack some extras in case the weather turns sour. Carry a map and compass, and stick to known trails. And if you do get lost, sit down, think calmly about how you got to where you are and, if darkness is coming on, build a fire. As exposure is the greatest danger in accidents, so panic is the main hazard of those who are lost.

With all its advice, Mountain Rescue will never talk itself out of work. Inevitably, some careless people will be hurt, and some of these will die before rescuers arrive. Yet, despite the tremendous increase in outdoor recreation, the percentage of mountain accidents is decreasing. And Mountain Rescue can take credit for this, as surely as it gets credit for saving the lives of those who are hurt. By now, this amounts to hundreds who literally owe their lives to the skill and daring of Mountain Rescue.

In the state of Washington alone, Mountain Rescue members spent 12,867 man-hours on emergency missions one year—and not one of those hours was reimbursed. MRA members furnish their own equipment, buy their own gas, take time off from their jobs and families to go out when the call comes, whatever the hour or the weather.

When they go, they go fast. And when they arrive, they're ready to deal with any emergency, from a sprained ankle to a fatality.

But as Ome Daiber sums it up: "We always hope for life. That's why we hurry. We're in the business of saving lives. And to us, that's just about the most important business there is."

Mountain Rescue Council veteran Dr. Otto Trott (center) helps demonstrate new hoist during seminar at Mt. Rainier.





On a practice session, Ome Daiber, left, discusses safe hiking shoes. Members devote many evenings to safety talks.

GUARD AGAINST ALTITUDE SICKNESS

■ SKIERS AND HIKERS ascending from low-lying areas to mountains 9000 feet or higher can suffer fatal altitude sickness if they ignore warning symptoms. And knowledge of these symptoms and the remedies can mean the difference between disaster and a pleasurable outing, says Dr. Herbert N. Hultgren, professor of medicine at the Stanford University School of Medicine.

Presenting this warning in Stanford M.D. magazine, Doctor Hultgren based his article on research conducted since 1958 in the Peruvian mining community of La Oroya, 12,200 feet in the Andes. This project, he said, has revealed that altitude sickness generally involves acute pulmonary edema (movement of fluid from the blood into the air sacs of the lungs) rather than heart malfunction. The fluid froths when the patient breathes and quickly "drowns" him.

Symptoms—a persistent cough, shortness of breath after the slightest exertion, a gurgling noise in the chest, coughing up of blood-tinged sputum, and vomiting—usually do not appear until six to 36 hours after reaching high altitude, says Doctor Hultgren.

These signs resemble those of pneumonia (but without chills or fever) and, says the cardiologist, many deaths previously ascribed to pneumonia may have been high-altitude pulmonary edema, uncomplicated by infection.

Since this condition can be fatal, Doctor Hultgren offers this advice:

- Methods of prevention and treatment should be emphasized to anyone traveling to an altitude of over 9000 feet. Mountaineers should be especially aware of the syndrome because of the frequent lack of available oxygen and difficulty of prompt removal of the victim to a lower elevation.
- Acclimatized persons returning to high elevations and those who have had previous attacks of altitude sickness should be told methods of prevention and treatment.
- Gradual ascent is recommended, to permit full acclimatization. After arrival at high altitude, a rest period of one to two days should be observed.
- All mountaineering parties bivouacking above 10,000 feet should have available emergency oxygen and appropriate tools, and spare parts should be provided to utilize additional oxygen if dropped by plane.