40° to 45°, capped by a fine granite pinnacle. Eight or ten pitches of F5 of F6 on excellent rock put us on the summit. We found no evidence of previous climbers. NCCS III, F5 or F6.

MICHAEL HELMS

Washington-Cascade Mountains

Witches Tower, Northeast Face. In August, 1976, Bob Gundrum, Paul McKnight, Dave Fox and I completed a new route on this face, starting in the lower left of the face. We had several hundred feet of easier climbing until we crossed the central depression to the right. Higher we recrossed the depression to the left (F8) and followed up a dihedral (F8). From there the climbing eased to the summit. NCCS II, F8.

DUANE CONSTANTINO

Three O'Clock Rock, Darrington Area. In April Tom Saunders and I completed a new four-pitch route on this formation, "Tidbits." Somewhat left of the Big Tree 1 route, we climbed a dike on an apron below several large roofs. Near the top of the slab, we moved right to belay. We followed the slab to just below a roof (F10), crossed the roof to a horizontal crack, proceeded up and left on a crescent-shaped ledge (F9) and moved right to belay. We climbed left on a ledge for 20 feet, diagonaled back right to a small tree and ascended left of the tree to a belay (F10). We climbed to a roof, which we crossed on the left, diagonaled back right to a small tree and ascended left of the tree to a belay (F10). We climbed to a roof, which we crossed on the left, diagonaled back right and up ledges to a bolt and moved 50 feet up to the right to a belay (F8). We rappelled down the route. Dave Whitelaw and I did the "Kone" just left of Big Tree 1, which it parallels for two pitches before veering up to the left to finish at the final "Tidbits" belay. (F8 to F10.)

DUANE CONSTANTINO

Blueberry Hill, Darrington Area. Chris Greyell and I made a new route on this face in June. We started well to the left of the Sumner-Gerhardt route in a large central depression. The first pitch follows a low-angle slab to where the wall steepens. The next four pitches consist of mixed free and aid climbing. Here the angle lessens and the climbing follows an easier straight line to the summit. The route contains two blank sections, each of about 20 feet, on the second and fifth pitches; we used bat hooks.

DAVID WHITELAW

Mount Adams, Rusk Ice Cliff. In February Chet Sutterlin and I made a new route on the east of Mount Adams. From the upper right of the

Rusk Glacier we quickly climbed a 40° snow-and-ice gully until we could traverse left over verglased rock for a pitch to the base of the ice cliff proper. Five pitches of steep ice climbing brought us to a 30-foot overhang, which we climbed directly to the top of the ice cliff. We took 21 hours round-trip from Mazama Saddle. NCCS IV.

RICHARD MORSE, Unaffiliated

Burgundy Spire, Annie Green Spring Route. David Jay and I climbed this new route on the south ridge and southwest face in mid-October. We scrambled up the obvious gully to a large chockstone and moved right to the ridgecrest. We followed the ridge for three and a half pitches (with some F8) to a large ledge. We climbed up the center of the face for four pitches (Class 4). At the base of a large overhang, we moved right to slabs (F8) to gain ledges above. From the left end of the ledges we climbed cracks for 300 feet to just below a square roof (F9). We traversed left (F9) to the ridge and followed it for three and a half pitches to the summit. NCCS III, F9.

CHRIS GREYELL

Black Peak, Northwest Face. On August 27 my brother Carl and I, from Wing Lake, crossed the northeast col and descended to Shelockum Glacier. We ascended the glacier to gain a rib on the face which led directly to the summit. NCCS II, F5.

GORDON R. SKOOG

Whitechuck Mountain, North Face. On June 5 Larry Cooper, Don Page, Steve Kieffer and I climbed the north face of Whitechuck Mountain, completing eleven roped pitches on rock, snow and some ice. We needed snow flukes and small knifeblade pitons. NCCS III, F7, A3.

MICHAEL G. ODENIUS

Mount Goode. Bill Fryberger and I climbed the couloir to the south of the northeast buttress on July 3, 1977 and exited between the main and southeast summits. The couloir provided a fine, sustained route of about 2000 feet mostly on hard snow with some ice. It took about 3½ hours. We kept to the right and had mixed climbing for the last 100 feet on rotten rock.

DAVID HAMBLY

South Early Winter Spire, Southeast Face. In July, 1977 Duane Constantino and I completed in a single day a route which I had begun a year earlier on the southeast face of South Early Winter Spire. The route begins just right of the center of the broad southeast face and for four

leads follows a shallow corner dividing dark lichened rock on the left from steeper white rock on the right to a ledge underneath a yellow block. We ascended the right side of the block and up an obvious steep gully for several more pitches into a dirty gully just below the ridge. We rappelled right to a sandy ledge at the end of the fourth pitch where we found a bong half buried in sand. However, our route did not match the description of the route from the late 1950s. NCCS III or IV, F9, A2. (The aid consisted of 45 feet of aid from 4" to 5½" tube chocks on the fifth pitch.) There are several bolts in place for belays and the route goes clean. The second ascent was done solo in two days during July by Quin Koenig.

DAVID WHITELAW

Mount Rainier, Willis Wall, Thermogenesis. On the last day of winter March 20, Jerome Eberharter, Jon Olson and I ascended the seldom climbed Willis Wall on Rainier. Jerome christened the new route "Thermogenesis." It followed the 55° couloir to the right of the west rib and to the left of Liberty Ridge. The climb to the termination of the couloir at the 12,500-foot level was accomplished in seven hours from a crevasse bivouac at 10,000 feet. Firm snow, water-ice and some loose rock were encountered on a clear, near freezing day. None of the climbers were struck by stonefall. A speedy descent was made the same day down Liberty Ridge. This climb is to be recommended for generally colder conditions, as the route avalanched in its entirety twice the following day.

STEVE DOTY

Jack Mountain, North Face. On July 18 and 19, Fred Beckey, Dallas Kloke and I climbed the north face of Jack Mountain (9066 feet) via an approach through the 7000-foot pass between East and West Crater Mountains. From camp at 6000 feet just east of Jack, we climbed and traversed to a narrow and badly broken glacier on the north face. we climbed this until objective dangers forced us to a ridge to the right. We ascended this for 500 feet until we got to an interesting snow traverse and a steep rock scrambler to the summit.

REED TINDALL

The North Face of Storm King. On July 1 Dick Emerson and I camped at the snow line on the south side far below the saddle that connects Goode and Storm King. On the next day it took some time to reach the saddle, where I found the angle piton Dick and I had used as a rappel anchor in 1975, on our return from the climb of the northeast buttress of Goode. With a couple of taps, it was again securely placed. One rappel and we were on the glacier. In 1975 a very wide overhanging

schrund cut across the entire slope, but this year, by keeping to the left, we found the upper part of the descent straightforward. Lower down we maneuvered through crevasses which forced us to the right (east) where we hit an open steep snow slope which we descended. Near the bottom of the glacier we cut left under an ice cliff across a rock rib, through crevasses, and then along a horizontal snow fissure to the base of the 3000-foot rock rib which leads directly to the main (east) summit of Storm King. We arrived in time to cook supper and bivouac before dark. The next morning route-finding problems were minimal as we either stayed on or near the crest of the rib. The first few leads contained some scrubby pine trees to which we attached runners. In the mid-section of the climb the rib flattens into the face and we kicked steps in the snow. The rock was mostly loose. As we neared the top, the rib steepened. We bypassed this pitch by traversing right on a band of snow and then climbed left up a steep snow gully to the crest of the rib. Soon we reached the top of the rib which terminated at the bottom of the narrow notch between the two sharp prongs which make up the main summit. A short lead up the left (east) prong and we were on top. We had been climbing for about 12 hours.

WALTER R. GOVE

Mount Buckner, North Couloir Correction. Walter R. Gove points out that he, John Holland and three teenagers whose names he does not remember in August 1967 climbed the north couloir of Mount Buckner but did not report it. This was given in A.A.J., 1977, page 171 as a new route.

California-Sierra Nevada

Castle Dome, Silmarillion. In October Mark Menge and I put up a new route on the south face of this dome. The route takes a hard line in the main dihedral of the face. NCCS IV, F11.

JACK ROBERTS, Buff Alpine Club

Whitney Portal, El Segundo Buttress, Too-Loose-To-Trek. In October Alan Roberts, Mark Menge and I put up this new route taking a line to the left of the Beckey route. It is a route of fine and unusual quality. NCCS III, F9.

JACK ROBERTS, Buff Alpine Club

Stonehouse Buttress, Dynamo-Hum. In November Dick Swindon and I climbed the first right-facing dihedral from the C.A.F. route. After staying in the dihedral for three F10 pitches, we turned the roof at the top on the left, then the route follows the upper crack system for four

pitches. From the end of the cracks follow the line of small right-facing cracks to the top. NCCS IV, F10+

JACK ROBERTS, Buff Alpine Club

Whitney Portal, El Segundo Buttress, Brainstorm. In May Bob Harrington and I ascended this route about 150 feet right of the Beckey-Heath route. Climb a steep wall past a fixed pin, then make a long traverse left around a corner and past a bolt to a belay at a crack. Follow the crack, then work up and left on a knobby face to a bolt protecting difficult moves to a belay at an enormous chickenhead. The last two pitches go straight up, then up and right to the top. NCCS III, F9.

ALAN BARTLETT, Buff Alpine Club

Isosceles Peak, West Face. In August Allan Pietrasanta and I made the first ascent of this face, the one for which the peak is named. Our line follows the central crack and chimney system that almost perfectly bisects the isosceles triangle. NCCS II, F9.

ALAN BARTLETT, Buff Alpine Club

Mount Powell, Broken Rainbow Route. Kim Walker and I climbed this route up the east face of Mount Powell. Climb a crack straight up to an obvious large, orange bulge about half-way up the face, then traverse left and ascend the crack that forms the left side of the bulge. Tube chocks are advisable. NCCS III, F10.

ALAN BARTLETT, Buff Alpine Club

Mount Russell, New Era. In October Kim Walker and I climbed this route on Russell's west face, about 100 feet left of the Rowell-Jones route. Ascend an obvious right-facing book with many cracks on its left wall. The second pitch continues out and right in the arching book. A pitch goes up then right, then up to the base of a long right-facing corner. Climb cracks on the left wall of the corner, then move to the main dihedral and to the top. NCCS III-IV, F10.

ALAN BARTLETT, Buff Alpine Club

Wheeler Crest. An upsurge of climbing activity around Bishop led to a number of outstanding new routes in this expanse of granite towers and buttresses. The routes are listed south to north: 1) The Great Escape. In March Kim Walker and I ascended the right side of the buttress that drops into the canyon immediately south of the Smokestack approach gully. The climb follows a right-facing book for four or five pitches of crack and chimney climbing, then moves up and left to a bushy ledge. From here face-climb right to a flake that is aided to a bolt from which

an enormous pendulum/rappel right to a ledge system leading to fourth class. A direct finish from the bushy ledge seems feasible, but would require protection bolts. NCCS III, F10, A2. 2) Growler. In June Bob Harrington, Joe Rousak and Kevin Leary ascended the narrow rib immediately south of Hot Tuna Tower. The initial part of the climb is on the right side of the rib, but the upper part moves around to the left. NCCS II, F9. 3) Hot Tuna Tower, Sorry Charlie. In May Bob Harrington, Will Crljenko and I climbed this route that starts near the left side of the tower and works up into a left-facing book that is ascended to a point where one goes right, then up an easy face. The third pitch goes left to a pin, then up and right past three bolts to a two-bolt belay. From here we went up and left past two bolts to a crack that led to a bushy ledge. We climbed the book off the right side of the ledge, then up past a bolt to a second bushy ledge. Two easier pitches led to the top. NCCS IV, F10+. 4) Hot Tuna Tower, Violet Green. In June Bob Harrington and James Wilson climbed this route just left to the Rowell-Belden route. It starts in a right-facing book. From its top, one climbs an easy but unprotected face. The fourth pitch ascends cracks to a two-bolt belay. Two more steep, difficult pitches lead to a traverse right to join the Rowell-Belden route a short distance below its impressive roof. NCCS III-IV, F9. 5) Hot Tuna Tower, Open Book Route. In April Bob Harrington and I made the first free ascent of this route. NCCS III, F10. 6) Hot Tuna Tower, Starkissed. In June Paul Brown, Kim Walker and James Wilson followed the striking right-facing book that lies half-way up this route, and is about 150 feet right of the Open Book route. Cracks lead to the base of this corner that is chimneyed and exited halfway up on face holds. An F9 pitch, then two easier pitches, lead to the top. NCCS III, F9. 7) Soaring Eagle Tower, Chicken Delight. In 1978 several routes were reported on the incredibly knobby face to the left of the Rowell-Vandiver route, ranging from F4 to F7. Apparently the farther one goes to the left, the easier. This has proved the most popular route in the Wheeler Crest area. 8) Cobbler's Bench, The Weary Leader. In May Rick Wheeler and Kevin Leary climbed this obvious grey tower to the north of Big Grey Pinnacle. The route starts on a ledge "a pitch up". Two pitches lead straight up to a ledge, then climb right on a marvelous dike. One follows a corner to a belay on the face to the right. The fifth pitch, the crux, follows a corner, then works right, passes two bolts, then left to a finger crack. Two pitches lead to the top. NCCS III, F10. 9) Botanist's Holiday. In December Bob Harrington and Will Crljenko ascended "the most obvious line on the most obvious formation on the right side of the canyon two canyons north of the Hot Tuna Tower approach canyon." The approach starts in Swall Meadows, and the climb follows a right-facing chimney system. NCCS III, F7.

Mount Russell, Startrekkin'. In July Alan Bartlett and I climbed a new route on the southwest buttress. It is located between the Direct Buttress and the Mithral Dihedral. After sharing the same start as these other two routes, we continued up a vertical crack past a small overhang for several pitches to the top. High quality rock and exposure make this route well worth the approach. NCCS III, F10.

ROBB DELLINGER, Buff Alpine Club

Consumnes Gorge. In February Ron Vardanega and I put up three new routes on the dome across the river from the popular bouldering area: 1). Grandma Buttons. Go over the overhang at the bottom of the central crack system. Traverse above the arch one rope-length on knobs to a belay bolt on a clean apron below a prominent overhang. Climb the overhang and continue straight up. NCCS II, F8. 2). Grandpappy. This was climbed with Steve Iverson. Do the overhang again, then go up the center of the slab left of the central crack system to a belay bolt above and left of a shaky flake. Continue up the fine slab above past three bolts to a belay bolt. From here, go straight up to the unrope area. NCCS II, F9. 3). Grizzly Green. Go up to the ledge with two bolts at the base of Gutenburger Wall. Walk to its left end by a small oak tree. Go up an overhang to a pocket, then up and right to a poor bolt, then left and up a slab to a bolt. Continue up the slab to a crack and then up and left to a bolt. The slab above leads to the finish. NCCS II, F9. One should note that the owners of the property want climbers to use only the trail from the bridge at Bucks Bar, not the trail from the upper parking lot. Also, they don't want campfires. They are good people, and in order to keep this fine area open all users should respect their reasonable requests.

BOB BRANSCOMB

P 13,267, Clyde Spires, North Face. Al Stone and I climbed this route following the left couloir. Follow the main couloir for several hundred feet, then traverse left to a small subsidiary couloir on the left wall of the main couloir, and follow it to the summit ridge exiting between the two spires. The route contains about 600 feet of fine climbing on mixed ground. NCCS III, F7.

MARTY ROSS

Mount Russell, Beowulf's Revenge. In October Fred Beckey, Mark Fielding and I climbed the farthest line to the north on Russell's west face. The route starts among ledges in a semi-rotten chimney approximately 100 feet left of an obvious large right-leaning arch. The first three pitches go up and left with continuously improving climbing. From the fourth pitch to the top the rock is high quality, the climbing exposed, and the belay ledges roomy. The last fifth-class pitch is an exposed tra-

verse left onto smooth stepping stones and finishes in a classic F7 layback. NCCS III-IV, F8.

MARIE GRAYSON

Mount McAdie, Northeast Face. Mike Daughtery, Jeff Lee and I climbed this face in July. A large bowl is evident from Consultation Lake. Enter a recess below this bowl by traversing from the east (exposed fourth class). After entering the recess, climb mixed third and fourth class to the bowl and headwall. Exit the bowl to the left and climb directly up for 2½ pitches. After gaining the east buttress, climb to the summit via the north side of the buttress. NCCS III, easy fifth class.

WOODY STARK

Tranquility Dome, Blind Ambitions. In August Fremont Bainbridge and I climbed a new route on this dome near Mammoth Pool Reservoir. Our route is to the right of Visions (A.A.J., 1976), and lies between the central arch and the prominent, left-facing dihedral system to its right. Starting about 200 feet up the right edge of the face, climb left to a small ledge. From here, climb up and right to a bolt, then past another bolt to a belay bolt. The next pitch follows two bolts to a belay bolt. On the fourth pitch, rather than climbing into the dihedral above, cross the face between the book systems to a bolt. This bolt protects the crux move to a belay from thin pitons at the base of a crack system. The last pitch follows these cracks to the main dihedral. NCCS II, F10.

CONRAD VAN BRUGGEN

Bear Creek Spire, South Face, British Chimney Route. On July 5, I took Nigel Gifford, a veteran of British Army expeditions to Nuptse and Everest, on a day climb in the gentle wilderness of the High Sierra. While I hoped to introduce him to a challenging climb in my home mountains, I never anticipated that I was leading the two of us into an alpine epic. The approach from Rock Creek normally takes a brisk 3-hour walk. In the early summer of an unusually high snow year, we spent eight hours traveling through the worst sun cups we ever experienced in any mountains anywhere. The crests would not support body weight, while the troughs, always a few inches deeper than thigh-height, were filled with icy water. The one existing route on the south face, climbed in 1970, is, to the best of my knowledge, unrepeated. We chose a prominent chimney on the west side of the 1200-foot wall. The first few pitches were of medium difficulty and straightforward. Then came an overhanging alcove that we climbed by delicately bridging against a pillar of rotten snow. Hidden from view was the upper chimney, which had a back wall coated with a foot of bulbous water-ice. After numerous efforts to place nuts behind the ice, to throw #11 chocks over the top into a slot, and to climb the ice in EB's, I discovered, to my chagrin, that the chimney could be bridged with very wide stemming. We avoided the ice altogether and continued up chimneys and jams to a steep headwall that required a short pendulum near the top. This was our only point of aid on the route, and we have no doubt that a party in less of a hurry could eliminate it. We reached the summit ridge just as the sun set, and decided not to go the last fifty feet for the summit. We had 2000 feet of fourth class rock and snow to descend to reach a campsite on the opposite side where we had left our bivvy gear. We reached the snow in total darkness, and proceeded across two miles of sun cups in EB's. Several times I lost muscle control in my legs because of constant contact, from thigh to toe, with the wet, sun-cupped snow. We reached camp after midnight, where Nigel massaged my feet for a long, long time. The next day we drove 300 miles to get him onto a plane to England with minutes to spare. I lost sensation in one foot for three months, and Nigel must still feel that the Sierra Nevada is a rather formidable range. NCCS IV, F9, A1.

GALEN A. ROWELL

Aiguille Extra, East Buttress, near Mount Whitney. This hiding giant surprisingly had only one route on it, which follows an obvious large dihedral. Kenny Cook and I hiked on July 1 from Whitney Portal to the base of our proposed route, the unclimbed east buttress. The first pinnacle we fourth-classed from the right under a constant barrage of ice and rock from the walls above. The climbing began with a pitch of loose, friable rock (F6) to a good crack at the right of the base of a chimney. Kenny led up the crack (F9) to a good ledge. I climbed up a thin crack and then tensioned into an off-width crack (A2, F9). Kenny went up left (F7) through a slot below a ledge system, up a short F10 section. A little third-classing brought us to a comfortable bivouac. In the morning, the fifth pitch (F7) tended right and ended on a ledge. Some third-class scrambling to the left took us to the large ledge at the bottom of a headwall. A large block on the left formed a perfect hand-crack for 25 feet. Kenny led this vertical wall (F10). I moved up a flaky layback to small footholds and traversed right for 30 feet to a good hand-crack (F8) which ended at a good belay atop large blocks. Kenny led the last pitch from an ice-covered corner to the right. A few aid moves took him up an overhanging wall to F4 climbing and a pedestal just below the summit. NCCS V, F10, A2.

WERNER R. LANDRY

Kerckhoff Dome, "Pinup." In March Brian Cox, Ian and Darien Raistrick and I made a new route on the south face of Kerckhoff Dome. We began on a slabby wall directly beneath a gaping chimney high on the wall above. About 150 feet left of "Centerfold" (A.A.J., 1973, p. 425), we climbed a small rib up to a blind F10 layback and finally belayed on a ledge beneath a prominent arching overhang. Then an awkward move





took us over the roof to a small stance. Rather than climb into a bottomless off-width crack, we aided an 80-foot A2 to A3 crack to the top of a pedestal. By very tenuous face climbing, we gained entry to the crack, which we followed to a tree beneath the big chimney. From there it was a long easy pitch to the summit. From the many traces of climbing activity, it appears that Kerckhoff Dome now has several established routes.

GREG DONALDSON

"Kammerlander" and "Water Music," Fresno Dome. Ruprecht Kammerlander and I made two new routes on Fresno Dome on August 14 and 15, neither of which represents the culmination of Ruprecht's climbing, yet they were his last first ascents before his recent death in a motorcycle accident. I have named the better after him and the other after the music we talked about on the climb. Kammerlander begins just right of a dead tree which has fallen against the west face. It is F10 on the second pitch if the most direct line is taken up the headwalls protected by bolts. NCCS II, F10. Water Music starts a little left of the dead tree. One bolt protects the first pitch. NCCS II, F8. Both climbs range over colorful, undulating rock.

THOMAS HIGGINS

Resurrection Wall, Pinnacles National Monument. Ruprecht Kammerlander and Anton Kuruza climbed the impressive Resurrection Wall in Juniper Canyon on Easter Sunday. The rock is a great, shadowy mass a half-mile up the High Peaks Trail. Few Pinnacles devotees had contemplated climbing the wall because of its steep, awesome appearance, but Ruprecht and various partners gradually worked out a route on the north face which involved sky-hook placements, tie-offs on flakes and a bolt ladder 15 placements long. On May 14 Frank Sarnquist and I free-climbed the same route and found it to be outstanding on generally good rock. Done with aid or free, the climb stands a tribute to the vision and energy of Ruprecht who made other fine routes in the Pinnacles National Monument before his recent sorrowful and maddening death. NCCS F10 or F11.

THOMAS HIGGINS

"Crown Prince Spire", North Face, Minaret Group. On July 16 Kim Grandfield and I did the first ascent of the north face of "Crown Prince Spire", a half-mile south of Dead Horse Lake. There were five pitches. NCCS F6.

AMADEO TAGLIAPIETRA, Unaffiliated

Domes at Courtright Reservoir. During the spring of 1978 I made my first visit to the Courtright Reservoir area on the west side of the Sierra Nevada. One needs the help of someone who has spent hours driving the tiny, winding roads that guard it. In the company of Fred Beckey, I arrived there in the shortest possible time. There are several impressive domes at the head of the reservoir. Fred kept us to our original plan of a beat-out trip to Dog Tooth Peak on the northeast side, a classic. In July Lynada Bozman and I returned and climbed a most enjoyable route on the dome nearest the reservoir's southeast side. The climb started in the dihedrals in the middle of the dome's steep south face. At the top of the dihedrals, we proceeded directly up the blank headwall above to the summit. The route was of four pitches. With Bob and Linda Mantynen we also climbed the large corner system on the right side of the south face. This line turned out to be an interesting one of four pitches of moderate difficulty.

LANNY JOHNSON

Chiquito Dome, "Cheeseburger in Paradise". On May 11, Conrad Van Bruggen and I climbed this route on the east face of this small dome located near the Mammoth Pool Reservoir. Start in the last right-facing book before the dome turns to brushy slabs. Four pitches of moderate climbing lead to the summit slabs. NCCS II, F7.

SIMON KING, Unaffiliated

Chiquito Dome, "Jigsaw Puzzle". In May, Conrad Van Bruggen and I also climbed this route just left of Cheeseburger in Paradise. Start on a smooth face leading to a four-foot roof 200 feet above the ground. A F8 pitch ends on a ledge (pins useful for anchors). Climb past bolts and then over a roof on a not obvious flake to a spectacular belay ledge on the edge of the roof. The next pitch starts with a F8 move and ends on good ledges. Climb an obvious book and some third class to the top. NCCS II, F8.

SIMON KING, Unaffiliated

California-Yosemite

Half-Dome, Northwest Face, Zenith. Zenith follows a line between Tis-sa-ack and Bushido. It joins Tis-sa-ask's famous bolt ladder near the top. Jim Bridwell and I climbed the route in July. We watched two helicopter rescues and about fifteen ascents of the northwest regular and direct routes during our six-day climb. Zenith is typical of Yosemite's new wall routes. It requires many hooks, copperheads, knifeblades, Friends*, and rivets to connect expanding flake systems. This route follows beautiful overhanging rock to the summit. When in doubt where to go, use your hooks. NCCS VI+, F9, A5.

KIM SCHMITZ

^{*} Friends are designed by Ray Jardine. Though expensive, they are necessary in today's new routes. They make new climbs possible and many safer.

Mount Watkins, South Face, Hook, Line, and Sinker. In May Mike Munger, Steve Larsen and I finished the second route on Watkins' south face. From the top of the 800-foot, left-hand buttress, the first technical pitches gain the left-tending ramps to the first bivouac. Above a long, left-arching roof the next two pitches diagonal up and right across a face with many hook moves and a pendulum right. From our bivouac on a flake—the Cat's Eye—two more pitches, including hook moves and a swing right from a bolt, lead to the big central ledges. From the right end of the ledges climb the left-hand and smaller of the two arching dihedrals. The second pitch off the ledge goes through the roof of the dihedral and up more cracks to a small ledge. Two pitches, one involving more A3 hooks and the other predominantly free climbing in wide cracks with a pendulum left got us into the great summit dihedral that parallels the last pitches of the original route. The remainder of the climb follows the dihedrals to the summit. NCCS VI, F10, A3+.

ANGUS M. THUERMER, JR.

Leaning Tower, Wet Denim Daydream. In the summer, Darly Hatten and I climbed this variation of the Harding route. It involves five pitches of overhanging aid up to A3. Begin on the left end of Awahnee Ledge nailing in a white curving dihedral, and above pendulum right from a bolt to a right-tending crack. Nail the crack, then round the corner and continue nailing loose flakes to the base of a dihedral. Pitches 4 and 5 follow the dihedral and a crack through the spectacular 15-foot summit roof. A3.

ANGUS M.THUERMER, JR.

Idaho

Elephants Perch, Southwest Face, Sawtooth Range. On August 9, 1977, Ried Dowdle and I completed a very fine route on the prow of the "perch", where it turns from a south into a west face. The route follows the large corner system located on the prow. Two leads of moderate free climbing end on a small ledge down and to the right of the large corner. A pitch of shallow cracks and hard face (F9 or F10) lead to the base of the corner. A short aid pitch ends on a good belay ledge. From this ledge a long, hard aid pitch (A3) brings one to the upper less steep part of the corner. Two pitches of free and aid leading up and right brings one to a crack and corner system which slants up and left. Four obvious free and aid pitches on this lead to a sloping ledge, the first decent ledge in six pitches. Three more awkward pitches end on the summit. NCCS V, F9, A3.

DAVID HOUGH, Unaffiliated

Elephant's Perch, Northwest Face, Sawtooth Range. Chris Puchner and I attempted a new route on the northwest face of Elephant's Perch in 1975 but ran out of thin-crack aid gear. In 1977 Mike Paine, Jennifer Jones and I completed the eleven-lead route in two days. The route is 150 to 200 feet south of the route Bill March did (A.A.J., 1976, p. 455). Our route went up the right side of a huge flake, while he went up the left side of it.

RAYMOND BROOKS

Hayburn and Baxton, Sawtooth Range, Winter Ascents. On February 25 Loren Adkins and I made the first winter ascent of Mount Heyburn. (Beckey's April 1961 climb was made under spring conditions.) Throughout the climb it snowed lightly. We climbed the Starr chimney, rated F5 under summer condition. For those who feel the need of the most modern equipment, I mention that we did the climb free using insulated "mickey mouse" boots. On February 26 we made the first winter ascent of Baxton Peak, a straightforward but arduous climb in deep soft snow.

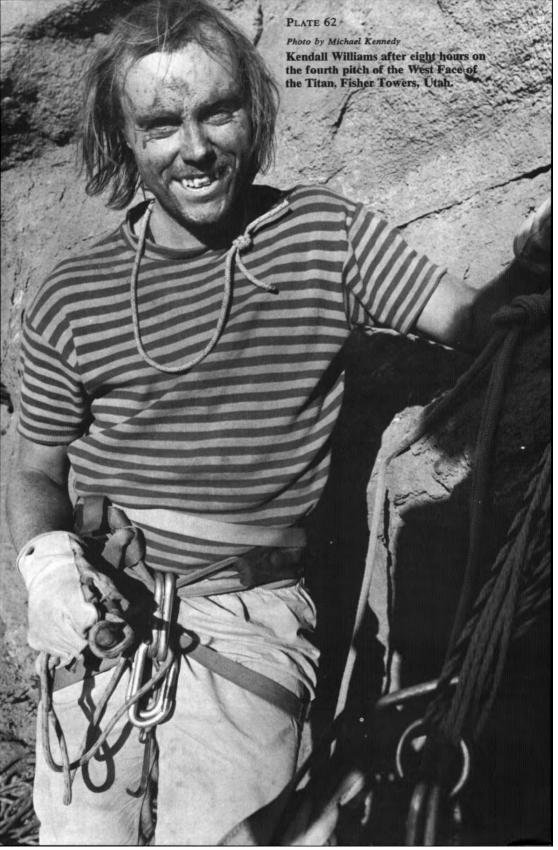
WALTER R. GOVE

Utah

Great White Throne, North Face, Zion National Park. This new route, done by Danny Horton and me on April 23, 1977 in 14 hours, ascended 2200 feet from the road to the top of the hoodoos of the Great White Throne. The first 1000 feet were scrambling, starting right of the large gully below the towers on the northwest corner. The gully is seen from Angel's Landing. We traversed west below the towers around the corner overlooking the Grotto Picnic area and worked up broken ground to the base of the large chimney. The latter is the beginning of the roped climbing (F6). From the top of the chimney we traversed three pitches east, angling up on bushy ledges, and traversed west into a dihedral. We followed a series of cracks and short ledges for two or three pitches to a steep, 50-foot jam-crack in the inside corner. Above, a rambling lead got us to the summit plateau. NCCS IV, F7, A1.

JOHN W. GOTTMAN, Wasatch Mountain Club

Snow Canyon. In December, 1977 Bill March and I did a new route in Snow Canyon, about 20 miles northeast of St. George. Originally Jim Knight and I had tried it in 1972. From Highway 18 near the Snow Canyon turnoff one can walk 100 yards west to the edge of the canyon and look across at the route. It takes the obvious middle buttress in the center of the largest sandstone outcrop and is about 1000 feet high. It is a recommended desert route. The best approach is from the Snow Canyon Ranger Station. A 30-minute walk through the dunes brings one to the northeast-facing wall. To the right the wall makes a huge corner.



In the spring there is a waterfall in the back, but later in the season a black streak surrounded by moss indicates the "cirque" you should be in. The climb is on the main buttress facing the Ranger Station. It is 80° for the first 200 feet and leans back to 70° for the remaining 800 feet.

MURRAY TOFT

Fin Arête, Little Cottonwood Canyon. In November my brother Jonathan and I climbed a new route just left of the "Dorsal Fin." The four pitches, all bolt protected, basically follow the ridge. The crux is the first pitch, but the third is also hard because of a long run-out. NCCS III, F10.

BRIAN SMOOT, Unaffiliated

Wyoming

"Sail Pinnacle", South Face, Wind River Range. This alluring pinnacle lies 1.25 miles due west of the summit of Squaretop Mountain and .4 miles northeast of P 11,530. Our route on the south face has steps and ledge-traverses angling up and west to the summit boulder. On July 3 Hal Gribble and I approached from the south of the base of the east ridge and scrambled up to the small subsidiary ridge of darker rock which angles east to the obvious grassy ledge below the dihedral. We climbed the dihedral and rock above to the large ledge. From the west end of the ledge we ascended the small face and continued to a large ledge. We traversed the airy ledge system for 50 feet to the west and climbed to the next ledge to the west. We traversed the ledge west and climbed the difficult (F8) layback ramp which leads to another broken traverse west. We climbed cracks up and west to the ridge just west of the summit to traverse to the north around the corner onto easier ground west of the mushroom-shaped summit boulder. Up this we scrambled easily from the southwest. NCCS III, F7.

JOHN W. GOTTMAN, Wasatch Mountain Club

Graves Lake Dome, South Face and Spider Peak, North Face, Wind River Range. On July 29, after an invigorating 18-mile approach from the south, I completed a solo ascent of the Becky aid route on Graves Lake Dome (P 10818). Eliminating the aid on the route proved strenuous as three pitches involved F9 and another demanded three attempts before the crux was successfully passed (F10). The six-pitch route follows a wandering line up the center of the face. The solitude, good rock, and varied nature of techniques (jams, face, and chimneys) made my climb very enjoyable. NCCS III, F10. Three weeks later (August 19) Randy Cerf, Herbie Ogden, and I climbed the prominent dihedral on the north face of Spider Peak. This 1100-foot face dominates the head of Torrey

Creek drainage in the northern Wind Rivers. We began the dihedral, located to the right of the main buttress, and encountered mostly F8 with a fair share of loose rock, before exiting left from the crack system one pitch from the top. The August snow storm that covered the Rockies earlier, left us an ice-coated chimney to climb at this point. EBs made the crux more than interesting. NCCS IV, F9.

GEORGE SCHUNK

Mount Roberts, East Face, Wind River Range. The mile-wide east face of Mount Roberts connects the nearly level summit erosion surface and the fringe of two glacial basins that drain into unnamed lakes above timber line. A reconnaissance several years ago established only two feasible routes and a close inspection suggested the central one, a slight rib on the face. In August Doug Randall, Mark Meng and I made the arduous hike in over Bears Ears Pass, and on the second day we camped in a pine grove and inspected the projected 1500-foot route. The next day we came to grips with the first three full pitches. The rock was superb granitic gneiss. Just one crack system provided flaws which enabled us to move in good fashion. The hardest part was a strenuous layback crack; there was one 20-foot aid section. On our final day we took advantage of our ropes to get back over the hard spots and continued up a steep arête of magnificent rock. One pitch was particularly difficult before the climbing became more broken. High on the face we bore right to get water from rock seepage; we then continued on a second rib just north of the main line we had been following. The rock here was steep but well jointed. Once over the edge we unroped, then hiked over acres of fractured blocks to the summit.

FRED BECKEY

P 12,266, Mount Hooker Region, Wind River Range. In August my brother Jonathan and I climbed the 1000-foot face of P 12,266, which is just north of Baptiste Lake. We started on steep, loose rock just right of a prominent arête. Halfway up, the rock became excellent. NCCS III, F8. I also soloed a route on the north face of the peak at the southeast end of Baptiste Lake. NCCS II, F7.

BRIAN SMOOT, Unaffiliated

Mount Hooker, North Face, New Route, Wind River Range. The 2000-foot north face of Mount Hooker had only one recorded ascent until last summer, the Robbins-Raymond-McCracken ascent of 1964. Hooman Aprin and I made an audacious winter attempt in 1977 but after the weather turned nasty, climbed only one pitch. My second attempt was made with Rick Bradshaw in August, 1977. This time we eeked out four

hard-won pitches but four days of intermittent thunder showers had us scampering. August, 1978, saw us two at it again. After arrival, the next day we fixed the first two pitches. Even with previous knowledge of the route, the final F10 moves on the first pitch commanded respect. Rick made slow work of the second pitch, with its pendulum and hard mixed climbing. Luckily it stormed the next day and we could rest and acclimatize. Then it dawned clear and cold. We had hoped the next pitches would go fast since we had already placed bolts on them the year before, but the hooking was still A4. We climbed only three pitches that day to leave the lower blank area of the wall. We were at the start of the crack and chimney system, 500 feet up, where we thought we intersected the Robbins route. The next morning we climbed fast up an A1 crack. A short A4 pitch led to beneath the gaping chimney-roof. I started slowly aiding up the crack leading to the roof. I tension-traversed left to little flakes and tiny cracks on the wall. After placing a bolt, I finished the pitch. The next pitch was the crux, a deep, wide, off-width crack. Rick finally pulled himself onto a small ledge, where we bivouacked. The next day was spent climbing six mostly free pitches to a large ledge which cuts across the upper face, where we set up a comfortable bivouac. The last morning started with a dihedral 40 feet to our right. We worked our way up a series of overhanging corners and rounded bulges of fine orange granite. After four pitches we could see the top. Two more gritty pitches on increasingly bad rock and an A3 overhang saw us to the last big ledge and we third-classed to the top. NCCS VI, F11, A4.

JAMES DOCKERY

Big Horn Mountains, New Routes. On August 19 Janice Cook and I climbed the northwest ridge of Bomber Mountain's north peak, a classic serrated granite ridge, reminiscent of the Chamonix Aiguilles. NCCS IV, F6, A1. On the 20th John Perdue and I climbed the prominent nose of the buttress north of Diamond Lake. NCCS II F9. On August 21 a party from the University of Calgary and I climbed the north face of Bomber Mountain's south peak by a prominent right-hand gully or couloir of mixed climbing. NCCS III, F5.

WILLIAM MARCH, University of Calgary Outdoor Program

Bighorn Peak, Northeast Cirque, Bighorn Mountains. In August, 1977, David Roberts and I spent a week climbing in the east-facing cirque that lies between the summits of Bighorn and Darton Peak. Just north of a prominent gully that marks the westernmost point of the cirque is a steep, south-facing wall. We did a five-pitch route up the right-center of this wall, topping out in a pretty dihedral. The rock was better than it looked from the ground. NCCS II-III F8. At the cirque's southernmost point is a steep fin, 1200 feet high, separated from the main cirque wall

by a dirty gully on its left (east). A large, black, exfoliating hole lies near the bottom of this fin's north wall. Starting just left of the black hole, we put up a pleasant twelve-pitch route. The climbing was on good rock and continuously in the F6 to F9 range. The crux was a small roof on a vertical wall, 40 feet from the top. NCCS IV, F9.

JONATHAN KRAKAUER

Colorado and Wyoming

Yugoslavian-American Exchange Program. Yugoslavian climbers. Borut Bergant and Iztok Tomanzin, visited the United States for 38 days. This was an exchange program between the American Alpine Club and the Yugoslavian Alpine Organization. (Komisija za Alpinizam). They were accompanied by Henry Barber. In Eldorado Springs Canyon they climbed Naked Edge (F11), Rosy Crucifixion (F10), Superslab (F10), Northwest Corner of Bastille (F10), T2 (F9), Werk Supp (F9). In the Black Canyon of the Gunnison they made what was probably the fifth ascent of Layton Kor's Russian Arête. Near Aspen they did a long route on the northwest face of Capital Peak (F9) and short routes near Independence Pass like Cryogenics (F10). In Glenwood Springs Canyon Barber and Tomazin made a F11 first ascent and Bergant did a F10 first ascent with Ajax Greene. They climbed in Boulder Canyon and did the east ridge of the Maiden (F10). They climbed in the Needles area of South Dakota. They climbed McCarthy's North Face and Hollywood and Vine on the Devils Tower. In the Bighorns with Barber and Greene, they made several new routes. In the Tetons they did the Jensen Direct Route on Symmetry Spire, the Black Ice Couloir on the Grand Teton under bad conditions. They made the second ascent of Lots Slot in Death Canyon (F10). In the Wind River Range they climbed the Beckey route on Ambush Peak with a new direct finish. Though the weather was bad, the pair made a rapid one-day ascent of the Grand Traverse on the Diamond of Longs Peak. In some cases on the more difficult climbs, some points of aid were used.

FRANCI SAVENC, Komisija za Alpinizam, Yugoslavia

Colorado

South Rawah Peak, Medicine Bow Mountains. While conducting a mountaineering survey for the U.S. Forest Service in the Rawah Wilderness, Stanley Irwin Grossman, Gretchen Laura Kluge and I on August 10 climbed the east face of South Rawah Peak (12,644 feet) via a 55° snow gully which terminated halfway up the face on the southeast ridge. Kluge and I went to the summit while Grossman waited at the top of the gully. We descended the southeast ridge. Heavy snow from last winter

still filled the talused gully and made the route possible. Generally the rock of the region is very rotten.

BARRY ALLAN NELSON, Geneva Spur Limited

"Soarks," Flatirons. Pat Ament and I climbed a new route on the ridge just south of the Third Flatiron. It is an overhanging pinnacle surrounded at the base by poison ivy. The climb was done on July 4 and originally called "Sparks." A report in *Mountain* misprinted the name and the name stuck. NCCS I, F10.

THOMAS HIGGINS

CANADA

Yukon Territory

Kluane National Park, St. Elias Mountains. Climbing activity has again increased in the Park. There were 20 expeditions with 87 climbers spending 2099 man-days in the Kluane area. There was a new route climbed on Mount Logan and possibly a new route on Mount St. Elias. (See above.) There were ten expeditions to Mount Logan of which seven were successful. The King Trench route was climbed by Steven Hughes, Nelson Walker, Harry J. Colvin and William John Hawkins; by Canadians Normand Lapierre, Denis Gravel, Gérard Vincent, Regis Richard, Jacques Olek and Gilbert Rioux; and by Japanese Ken Kanazawa, Joji Nakamura, Takumi Iki, Hiroichi Asakami and Fumihiro Uno. The east ridge was climbed by John A. Rehmer, Harry O. Johnson III, Jim Royce and Steven Gregory Strain; and by Jon W. Jones, Chic Scott, Trevor Jones and Don Chandler. Matthew Maytag and Dale Sturtz were killed while their party was attempting the Warbler Ridge of Mount Logan. They were believed to be the first fatalities on the mountain. Mark Davis, Brian McCullough, Philip Jones Edwards and Daniel K. Saunders unsuccessfully attempted a new route, the northwest ridge of Mount St. Elias. Jim Logan, Barry Sparks, Terry Stump and Ralph Randall Trover were unsuccessful in their attempt on Hummingbird Ridge. John Lauchlin, Robert Mitchell, Jim Elzinga and Phil Hein did not succeed on the south-southwest ridge. Czechs Milan Hofmann, Miroslav Jania, Milan Palát, Hynek Spurný and Marie Vlček failed to climb Steele and Lucania. Roger Griffiths, Robb Preston McLaren, Jeff Creed and Chris Harris did not manage to climb the east ridge of Mount Vancouver. David Mention, Seymour House, Jack Tackle and James B. Davis, Jr. failed on the north ridge of Mount Kennedy.

LLOYD FREESE, Kluane National Park, Yukon Territory