have the effect of undermining his own theory. For instance, the ground above the Second Step is easy, particularly if one climbs diagonally across the final pyramid as the Chinese did in 1975, and presumably the Catalans in 1985. The precise route that the Chinese took in 1960 remains unclear.

That Mallory, with the aid of oxygen, could have reached the summit in a few hours is probable. In 1984, Phil Ershler (using oxygen) and John Roskelley (climbing without) took about eight hours to climb from our high camp at 26,500 feet to 28,000 feet at the base of the final pyramid. They had climbed at Roskelley's pace sans oxygen although they were delayed in climbing the steep Yellow Band that bisects the Great Couloir at 27,200 feet. Yet, when Roskelley turned back a scant thousand feet from the summit, Ershler was able to climb the last section (quite similar to what Mallory would have encountered) in an amazing one and one-half hours.

Holzel questions whether Mallory could have made it down the final pyramid safely and speculates about a possible glissade. He also suggests that Mallory would not have been able to make it down the Second Step because of frozen hands or lack of strength, forgetting that a few paragraphs earlier in his account, Mallory had a rope which he used to lower Irvine down the Step. The questions and speculation are unnecessary.

However kind subsequent events have been to the Mallory-success theory, all but one team that climbed the Second Step have endured a bivouac on the way down. Only the Chinese in 1975, who placed their highest camp above the Second Step, avoided this. Although still a matter of conjecture, it seems likely that Mallory died of exposure on the way down.

As related elsewhere in this issue of the *Journal*, the 1986 expedition that the authors mounted to search for the remains of Mallory and Irvine did not uncover any additional evidence, such as cameras with undeveloped film, to shed light on the greatest mystery in the history of mountaineering. Mallory and Irvine's final hours more than likely will remain just that.

JAMES WICKWIRE

Island in the Sky: Pioneering Accounts of Mount Rainier, 1833-1894. Paul Schullery, editor. The Mountaineers, Seattle, 1987. 200 pages, black and white illustrations, 1 early map. \$10.95 (paper).

Schullery, a former National Park Service seasonal naturalist/historian and the editor and/or author of several other books and numerous articles in outdoor-history journals, has here compiled accounts of fourteen selected explorations and ascents of Mount Rainier—plus a fabricated legend of an Indian's ascent—prior to establishment of the National Park in 1899. The literary style of the 1800s enhances the enjoyment of this thoughtful choice of accounts of those pioneering efforts, when the elements of discovery still prevailed in the first climbing done in the Pacific Northwest and in the new sport of mountaineering.

The volume begins with Dr. Fraser Tolmie's 1833 botanical excursion into the northwestern foothills of the present National Park, where, accompanied by

several Indians, he became the first white man to enter the Park area and, probably, the first to document the existence of glaciers in the United States. Following this is the famous "Hamitchou's Legend," by young travel-writer Theodore Winthrop (author of *The Canoe and the Saddle*, 1862), who interweaves fiction with possible fact in his tale of an Indian's quest for material riches (in clam shells) at the top of the mountain, but who learns the pitfalls of greed.

Next comes the story of the two unknown whites who, while surveying the boundary of the newly established Yakima Indian Reservation in about 1852, hired Saluskin, a young Yakima, to lead them through the foothills and the eastern base of the mountain. From, probably, a camp near the lower margins of the Winthrop Glacier, they left the Indian and made a one-day round-trip ascent. Although the whites never documented their achievement, there's little reason to doubt the Indian's verbal account, given years later, in 1915, to historian Lucullus McWhorter.

The first well documented accounts of climbs on the mountain include those of Lt. A.V. Kautz in 1857, who got to within about four hundred feet of the summit, via the present Kautz Glacier, and the first formally recognized ascent to the peak's summit, via the Gibraltar Route, in 1870 by P.B. Van Trump and Hazard Stevens (son of Washington's first territorial governor). These two stories were well told and widely read, and they provided the first detailed documents of the entire journeys, from lowland forts and towns to the upper snows of the mountain. The accounts laid the groundwork—and showed the route—for a number of subsequent, late-1800 ascents of the mountain. Virtually all summit climbs in the next twenty years followed the Gibraltar Route, via an approach from the west along the Nisqually River valley and to timberline at Paradise Valley on the south. Among these are ascents described by George Bayley, a well travelled California mountaineer and frequent climbing companion of John Muir. With Van Trump, Bayley ascended the Gibraltar Route in 1883 and the Tahoma Glacier in 1892.

Some accounts describe rather casual trips made in a vacation spirit: ascents by neophyte mountaineers, who explored new approaches on the north and east sides of the mountain while on deer- and goat-hunting excursions. These led to climbs up the Winthrop Glacier on the northeast in 1884, documented by J. Warner Fobes, and an 1886 ascent partway up the Ingraham Glacier on the east, by a party of one white with a group of Indians, described by Allison Brown.

Completing the coverage are detailed descriptions of ascents, by John Muir (1888), by Fay Fuller (first woman to reach the top of Mount Rainier) in 1890, and by George Dickson (1892), Van Trump (1892) and Olin Wheeler (1894). All the accounts provide an atmosphere of exciting discovery of new lands and of both the beauties of the scenery and the labors and hazards of the climbs. Described are the many-day approaches through lowland forests and heavy undergrowth, battling mosquitoes, flies and yellow jackets, and eventually attaining timberline and open parklands that lead to the alpine world above.

These provide a sharp contrast to the stories of the modern mountaineer, who first touches the terrain at timberline parking areas and completes the adventure in two days.

These early chroniclers were disadvantaged by the lack of detailed maps and of formally accepted names of various geographic features. Several of the accounts fail to clearly define the routes taken above timberline. Nonetheless, these stories have provided the basis for some evidence of climatic changes that affect the mountain's snowfields. Even Van Trump was confused by changes in the mountain between his ascent in 1870 and several subsequent climbs. To this reviewer, there might have been some benefit in including the more scientifically oriented account of the 1870 ascent of the Gibraltar Route (second ascent) by S.F. Emmons and A.D. Wilson, world-renowned geologists then working on the Geological Survey of the Fortieth Parallel.

DEE MOLENAAR

Seven Summits. Dick Bass and Frank Wells, with Rick Ridgeway. Warner Books, New York, 1986. 336 pages, color photographs. \$19.95.

The late, and much lamented, Tom Patey, had, as readers of his luminous book, *One Man's Mountains*, know, a fine ear for song. One of my favorites, to be sung to the tune of "Onward, Christian Soldiers," is entitled "Onward, Christian Bonington." Here is the first verse:

Onward, Christian Bonington of the A.C.G.

Write another page of Alpine history.

He has climbed the Eigerwand, he has climbed the Dru—

For a mere ten thousand francs, he will climb with you:

Onward, Christian Bonington of the A.C.G.

If you name the mountain, he will name the fee.

This verse came to mind as I read the twelfth and thirteenth chapters of this book, Seven Summits. I am sure that I don't have to remind the readers of our journal that the seven summits in question are the highest mountains on each of the seven continents and that these were climbed for the first time as a group by at least one of two of the authors of the so-named book. (This last sentence sounds like something out of a police report; but so be it.) The twelfth and thirteenth chapters have to do with the climb of Mount Vinson, the highest mountain in Antarctica on which the authors toiled in the company of none other than the above-mentioned Christian Bonington. What I liked about this chapter was that it was the only one in which one gets some sense of what this entire caper must have cost—although the costs that are discussed must represent pardon the allusion—just the tip of the iceberg. Chapter Twelve opens with a conversation between one of the principals—Frank Wells—and a climber called Pat Morrow who, it turns out, is also trying to climb the seven summits. I have no idea whether it is a verbatim transcript of an actual conversation, but here is what is reported. It begins with Morrow: