pression did he make on me on that occasion that I can still vividly remember his running up the last hundred feet through untrodden, knee-deep powder snow to stand gasping and unsteady on the summit. I have never seen a happier climber than he was that day. His joy was awesome. He seemed to be entirely caught up in the experience of the ascent.

John was a gifted student who enjoyed the rewards of scholarship but he was usually dreaming of the hills and eagerly awaiting the vacations he would spend among them. His dreams took him on climbs in the Cascades, the Juneau Icefield, on the volcanoes of Mexico and Peru, in the Cordillera Blanca, the White Mountains in New Hampshire, the Coast Range in British Columbia, the Sierra Nevada and finally in the St. Elias Mountains. There he led an expedition which climbed Mount Logan and then while ascending Mount St. Elias, John and three of his companions were overwhelmed by a massive wet snow and ice avalanche.

It is no discredit to John's memory to say that in spite of the range of his mountaineering experience, he was not a highly skilled climber. He would never have claimed that he was. He had not learned or even attempted many of the finer, more difficult techniques of rock and ice climbing. He would have preferred a good hike to aid climbing or bouldering. Walls did not interest him. He was perfectly happy climbing on good snow with perhaps a little ice for variety and a modest rock scramble. Though John enjoyed the pleasures of exploration he did not disdain the use of an easy guide-book route if it enabled him to climb the peak he had chosen. John did not go to the mountains to set records, break new paths, or challenge the invincible. He did not seek to defy the elements or conquer the natural world but rather he sought the freedom of being one with them. He had an unusual ability to bear the discomforts imposed by a frequently hostile mountaineering environment. Wet, cold, scorching sunlight, wind, fatigue, hunger, thirst; all these mattered little to him. Mountaineering also provided John with a wilderness experience that could satisfy his restless energy and demand the utmost of his great strength and endurance.

John Hall loved the beauty of the hills and he knew the peace that is to be found in their vast, cold spaces and silences. Indeed, he seemed capable, as few men are, of comprehending and delighting in the full richness of the mountaineering experience. It was as if he had a special relationship with mountains. He was so alive among them.

GEORGE CUMMINGS

JAMES WADDELL ALEXANDER 3d
1888–1971

James Alexander was born at Sea Bright, N.J., September 19, 1888, and died in Princeton, N.J., on September 23, 1971. In early life he
described himself as socialist and atheist, and, to be in character, intermittently wore a full beard. The authorities, however, called him "a brilliant member of a distinguished Princeton family; a profound mathematician of great originality, and one of the creators of modern topology." His great-grandfather was in the Princeton class of 1820 and his grandfather graduated in 1860. His father, John White Alexander, was a noted artist, sometimes called the "pale Sargent," who, among other works, painted murals for the Library of Congress and was given an Hon. A.M. by Princeton in 1902.

Jim received his B.S. from Princeton in the class of 1910, _maxima cum laude_ and was elected to Phi Beta Kappa. He then entered the Princeton Graduate School and continued his studies there for two years, gaining an M.A. in 1911 and a Ph.D. in 1915. He also did work in the universities of Paris and Bologna. He became an instructor in mathematics at Princeton in 1913, continuing in that position until the beginning of the War. On January 15, 1917, he married Natalie Levitzkaya, a Russian whom he had met in Italy, by whom he had a daughter and a son, and, eventually, six grandchildren.

Commissioned lieutenant in the New Jersey National Guard, and later transferred to the 111th Machine Gun Battalion, in November, 1917, he was ordered to Washington and attached to the technical staff of the Ordnance Department. Sent abroad in 1918, he came out of the service with rank of captain.


He was a member of the American Mathematical Society, the Mathematical Society of America, the American Philosophical Society, a Fellow of the American Academy of Arts and Sciences, and Chairman of the National Research Council on Analysis Situs. In 1929 he was awarded by the American Mathematical Society the Bocher Prize for mathematical research, and delivered in 1931 an annual Rouse Ball lecture in Mathematics at Cambridge, England. He produced fourteen technical papers during 1915-20, while the Institute for Advanced Study lists an equal number by him during the period 1930-54, all of them formidable, even the titles being incomprehensible to anyone other than a specialist.

Suddenly, with little apprenticeship or guidance, the Alexanders emerged in the forefront of American mountaineers. Jim had the build for it, tall and slender, with a long reach. As a climber in the 1920s few

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1This subject deals with geometric analysis. Topology, formerly called Analysis Situs, is defined as "the study of the properties of geometric configurations invariant under transformations by continuous mappings."
of our countrymen were his equal. In 1921, when he was 32, he went to the Colorado Rockies for relief of allergy, ascending Longs Peak because, as he said, he was "afraid of heights." Like many others he fell under the spell of this mountain, in three summers making a total of 20 ascents\(^2\) without climbing any other Colorado summit. His usual equipment was tennis shoes and ice axe; nailed boots and rope are seldom mentioned.

In 1922 he made nine ascents, including east face, solo, by Alexander Chimney; east face, chimneys and Staircase (with Moomaw); east face, solo, via Notch couloir. In 1924 he made ten ascents, among them: northwest face with Smith (first time by Keyhole ridge); east face again; north face (with his wife); east face, solo (Lamb descent); southwest ridge (Mills route via couloir above Shelf trail).\(^3\) In all other seasons, from 1923 to 1930 he ranged through the Pennine Alps (Mont Blanc to the Simplon) and Bernese Oberland, his wife climbing with him from 1925 on.

In 1923, his first season in the Alps, Alexander made 22 ascents in the Zermatt-Saas Fee area, ten of which were traverses: Laquinhorn; Fleetschhorn; Südlenzspitze-Nadelhorn-Stecknadelhorn-Hohberghorn; Täschhorn-Alphübel; Rimpfischhorn; Obergabelhorn; Lyskamm, Monte Rosa (Zumsteinspitze-Grenzgipfel-Dufourspitze); Matterhorn (Zmutt and Italian arêtes). During much of the time his guide was Ignaz Zurbriggen of Saas Fee.

In 1925 there were 25 ascents between Chamonix and, along the High Level Route, Arolla, Zermatt and Saas Fee: Grands Charmoz (traverse); Grepon (first of his six ascents); Aiguille de Blaitière (north summit); Aiguille du Moine (guideless); Dent de Veisivi; Pigne d’Arolla (guideless traverse with his wife); Mont Collon (traverse). His 23 ascents of 1926, many of them guideless, included two lower Aiguilles du Diable; Petit and Grand Dru (traverse); Südenzspitze-Dom-Täschhorn (traverse); Matterhorn and other Zermatt peaks, with ski ascents of Strahlhorn, Rimpfischhorn and Allalinhorn.

In the 1927 season 23 peaks fell to him, both in the Zermatt area, where he repeated Matterhorn (this time with his wife), and the Bernese Oberland: Aletschhorn (new route direct from Mittel Aletsch glacier) and Bietschhorn (new route on east face). 1928 added 20 summits, embracing higher Oberland peaks, as well as a large number between Zermatt and Saas Fee, done guideless with his wife.

The Alexanders were centrists, and Chamonix, where for a number of summers they had a chalet, had become their favorite spot. More than once they had with them Jim’s classmate, Lawrence Lowe, then an instructor in French at Princeton. Larry was an agile but frustrated climber who invariably succumbed to mountain sickness and never

\(^2\)Dudley Smith to John L.J. Hart, July 26, 1924.

reached a summit. At Chamonix, however, he once gained notoriety by riding a bicycle across the Mer de Glace at the peak of the tourist rush hour. *Hoi-polloi* at Montanvert were amazed, and the old retired guides, who had been expiating on the dangers of crevasses, were on the verge of mutiny.

1929 was devoted to the Chamonix area, with more than 15 peaks which began with Mont Blanc (traverse), followed by such exacting expeditions as Aiguille des Deux Aigles with Aiguille du Plan (traverse); Mummery and Ravanel; Grands Charmoz (first ascent by the République ridge; also left-hand traverse, twice, guideless) and Grépon (twice; once with his wife). In 1930, again at Chamonix, he made the first ascent of the final wall of Aiguille du Peigné without aid from above; Grépon (Mer de Glace face); Aiguille de Blaitière (south and center summits); Aiguille du Fou (descending by Col du Fou and Blaitière glacier); Mont Blanc (with his wife), finishing the season with Aiguille du Géant (guideless) and a guideless traverse of Charmoz-Grépon (his fifth ascent of the latter). All of the foregoing is but a partial list.

Alexander did not record his ascents after 1930; there are no diaries or notes. We know, however, that he and his wife were again at Chamonix in 1931, 1932 and 1933, sometimes with companions and presumably maintaining their high standards of climbing. In 1934 they visited the Canadian Rockies, ascending Mounts Assiniboine and Victoria. In 1935 he is said to have been invited to join a Himalayan expedition, but did not accept. They were back in Chamonix in 1935 and 1936, in the former season nearly losing their lives on the Grépon when a porter fell and dragged the party into a crevasse. They encountered bad weather in 1936, did little or nothing and seem not to have returned to the Alps thereafter, ending as they began mountaineers of great style and skill. They ascended Mount Rainier in 1937 but then became more interested in winter skiing and pursued this sport at Stowe, Vermont, through 1941.

He and his wife joined the American Alpine Club in 1927, proposed by B.S. Comstock and B.F. Seaver. His record in the Alps comprises more than 200 climbs, most of them major ascents. It will be seen that, as he gained proficiency, he was attracted to increasingly difficult objectives, looking for new routes and showing preference for guideless climbing. If, as has been said, the measure of a mountaineer rests in his willingness to repeat climbs, one may cite the following: Longs Peak (20), Grépon (6), Charmoz (4), Südlenzspitze (4), Matterhorn (3), Täschhorn (2), Aiguille du Moine (2), Mont Blanc (2)

Alexander did not entirely recover from an attack of polio, which made walking difficult, and, after his wife’s death in 1967, his health slowly failed. The spark was rekindled momentarily, scarcely two years ago, when Alfred Bush and I drove him around the Princeton campus and Jim pointed out various routes he (and his wife) had put up on the dormitories when he introduced roof-climbing there more than half a
century before. We were all in a happy frame of mind. It was a day to remember.

J. MONROE THORINGTON

SAMUEL PRESCOTT FAY
1884–1971

“Pete” Fay as he was known to his friends had been a member of the Club for 59 years at the time of his death last August. His qualifications for election in 1912 were four seasons in the Canadian Rockies beginning in 1906. In 1914 he joined a Smithsonian expedition which left Jasper, Alberta in June for the purposes of exploration, mapping and the collection of birds and mammals in the northern Rockies. Reports were filed with the Biological Survey in Washington. In mid-October the party met a trapper who showed them an old newspaper with reports of the first weeks of World War I of which they had no inkling. For the next three or four days they traveled non-stop to reach Hudson Hope on the Peace River.

Pete graduated from Harvard in 1907. During World War I he joined the American Field Service to drive an ambulance in France and later served with the Air Force in France and Belgium. Afterwards he was associated with an investment counseling firm in Boston for many years. Aside from two years on the Council (1930-1932), he did not take an active part in Club affairs, though he attended frequent meetings. Frail health confined him to his home for the last ten or more years.

HENRY S. HALL, JR.

WILLIAM RICHARD HAINSWORTH
1896–1971

William Hainsworth was born in Seattle, Washington on February 22, 1896 and died at Laguna Hills, California on December 4, 1971, after a long illness. He graduated from the University of Washington in 1917, with a B.S. in Chemical Engineering, from the California Institute of Technology (then Throop College) in 1918, with an M.S. in Chemistry, and from the Massachusetts Institute of Technology (where he pioneered in electrical transmission of photographs) with a Ph.D. in Physical Chemistry. From 1935 to 1952 he was vice-president in charge of engineering for Serval, Inc., then a large refrigerator manufacturer. He retired from Fluor Corporation in 1961, after serving as vice-president of their research division. He was past-president of the American Society of Refrigerating Engineers and the Industrial Research Institute, a member of the American Chemical Society and recipient of the Monroe award from the American Gas Association. He is credited with seventeen patents, mainly on absorption refrigeration.