



Henry J. Degenkolb

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1913-1989

By William J. Hall

Henry J. Degenkolb, a leading structural engineer in San Francisco, California, passed away on December 9, 1989, in San Francisco following a long battle with heart disease, cancer, and related ailments. His contributions to the community and to public safety will long be remembered as precedent setting for the entire engineering profession.

To most of us, earthquakes are frightening events, but to Henry Degenkolb, they were his laboratory. Perhaps more than anyone else, Henry established and demonstrated the art of "learning from observation" through visiting the sites of damaging earthquakes to determine why certain buildings performed well, while others were seriously damaged or collapsed. As one of the pioneers of "earthquake chasing," Henry Degenkolb was one of the few people willing to give of his own time and resources to visit the sites of damaging earthquakes all over the world. His observations were landmarks in the evaluations of seismic effects on engineered buildings and facilities in Kern County in 1952, Eureka in 1954, San Francisco in 1957, Anchorage in 1964, Caracas in 1967, Santa Rosa in 1969, San Fernando in 1971, Managua in 1972, Oroville in 1975, Guatemala in 1976, and Mexico City in 1985.

In explaining the importance of chasing earthquakes, Henry once said, "The principal reason for rushing to the

site is to evaluate the earthquake and its effects on engineered buildings. It is really the only means we have of assessing and improving upon the quality of our work. You can apply theory to the limit, but the true test is to see how the construction performs under the stress for which it was designed."

Putting his research and analysis into practice, Henry Degenkolb was responsible for the structural design of some of the most distinctive structures in California. One of the first major jobs he handled was the structural design of the eleven apartment buildings that comprise the Parkmerced Towers in San Francisco, constructed in 1948. Since then, his structural design work has included downtown San Francisco's International Building, the Fireman's Fund Home Office Building, University of California at San Francisco's Long Hospital, and the Stanford Court Hotel. Henry Degenkolb was responsible for structural design of Bank of America branches and Pacific Telephone buildings throughout northern California. Additionally, he designed dozens of parking structures including the initial development of the parking structure at San Francisco International Airport, as well as ski chalet structures in the Sierra Nevada.

Well known for his technical innovations, Henry Degenkolb also designed the twenty-one-story Bank of California Building in downtown San Francisco, noted for its slurry wall construction and the "upside down" design of its three basements and foundations. Also Henry participated actively in the initial structural conceptual studies that subsequently led to the development, by longtime friend and colleague Professor Emeritus Egor Popov of the University of California, Berkeley, of the eccentric braced frame, a high-performance earthquake resisting system.

In addition to his technical innovations and designs, Henry Degenkolb will be remembered for his commitment to the engineering profession and his outstanding service to technical societies and professional organizations. As one of the early members of the Earthquake Engineering Research Institute

(EERI), he helped organize the First World Conference on Earthquake Engineering and participated in all succeeding world conferences on the subject.

Henry J. Degenkolb was born in Peoria, Illinois, on July 13, 1913, to Gustav J. and Alice (Emmert) Degenkolb. He attended the University of California at Berkeley, graduating with a B.S. in 1936. He married Anna Nygren in 1939, and they had five children, Virginia, Joan, Marion, Patti, and Paul.

His technical career began in 1936 when he became a design engineer for the San Francisco Bay Exposition Company, where he helped design buildings for the Golden Gate International Exposition of 1939 to 1940. At that time John Gould was the chief structural engineer for the company and later founded his own firm. Following various assignments, which included a copper refinery addition at Tacoma, Washington, in 1940, and work as assistant technical director for testing and analysis for a large-scale timber research program from 1940 to 1943, Henry Degenkolb joined Mr. Gould's firm in 1946 as its chief engineer. After ten years he became a partner in the firm, thus forming Gould and Degenkolb. Upon Mr. Gould's death in 1961, Mr. Degenkolb continued as president of the firm now known as H. J. Degenkolb Associates, Engineers, located on Sansome Street in San Francisco. The firm is recognized for handling difficult and unusual foundation and structural engineering problems in the San Francisco Bay Area and the state of California.

Henry Degenkolb was elected to membership in the National Academy of Engineering in 1977.

His professional affiliations included the following: fellow of the American Concrete Institute; honorary member of the American Society of Civil Engineers, chairman of its Structural Division Executive Committee in 1964, president of the San Francisco Section in 1964, and recipient of its Moisseiff Award in 1953 and its Ernest E. Howard Award in 1968; life fellow membership of the Franklin Institute and

recipient of its Frank P. Brown Award in 1978; fellow of the Consulting Engineers Association of California, president in 1971, and director from 1968 to 1972; honorary member of the Earthquake Engineering Research Institute, and president from 1974 to 1978; member of the International Association of Earthquake Engineering, and U.S. representative from 1976 to 1978; member of the Seismological Society of America; member of The Society of American Military Engineers; member of the Structural Engineers Association of California, and president in 1958; honorary member of the Structural Engineers Association of Northern California, and president in 1957.

In other capacities he has been a lecturer, College of Engineering and Engineering Extension, University of California, Berkeley, from 1946 to 1961; member of the California Seismic Safety Commission in 1976; member of the San Francisco Bay Area Conservation and Development Commission including past-chairman, Engineering Criteria Review Board from 1970 to 1977; member of the California Building Standards Commission; member of the California Legislator's Committee on Seismic Safety; consultant to the California Public Utilities Commission; member of the Advisory Group on Engineering Considerations and Earthquake Science; consultant to the National Science Foundation; member of the Board of Examiners of the city and county of San Francisco; member, Building Seismic Safety Council; chairman of the Building Code Section of the San Francisco Chamber of Commerce from 1954 to 1960; and consultant to the U.S. Office of Science and Technology from 1970 to 1971 and from 1977 to 1978. He also served on the Advisory Panel for Earthquake Studies of the U.S. Geological Survey from 1978 to 1981. In the July 1, 1976, issue of *Engineering News Record*, Henry Degenkolb was credited with "... having more to do with the development of San Francisco's [building] code than any other individual in the past twenty years."

Henry Degenkolb was the author or coauthor of more than twenty-six formal publications. From 1972 to 1978 he

carried major responsibility as part of a national group that developed the document *Tentative Provision for the Development of Seismic Regulations for Buildings*, under auspices of the Applied Technology Council (ATC) Report ATC 3-06. The provisions in this document, as subsequently reviewed and slightly revised, form the basis of the new seismic building provisions now being adopted throughout the United States.

He was licensed as a civil and structural engineer in California and as a civil engineer in Nevada, Oregon, and Wyoming.

The author of this memorial shall always be indebted to Henry Degenkolb for the "seismic engineering education" received during the long effort devoted to completion of the ATC study, and shall always remember with fondness the many walks in San Francisco with Henry Degenkolb while Henry recited the history and interesting structural features of the major buildings. Unselfish in all matters, Henry Degenkolb will long be remembered by his family, colleagues, and many friends.