

best contacts with the civil community. Balfour says, "If the International Health Board of the Rockefeller Foundation had not the word 'health' in its title, its manifold activities would never have been received with complacency and gratitude by countries not owing allegiance to the Stars and Stripes." That word "health" is a talisman which can successfully unlock many a domestic as well as foreign door. There are occasions when civil authorities do not co-operate in a satisfactory manner with the military, particularly in times and places where there is a real or possible overlapping of authority. But it is hard to imagine a situation in which there is friction between the military and civil officers of health. Indeed, many a wise military commander has, by means of the friendly relations between the medical officers of such commands and their civilian colleagues, brought about a complete understanding and team work with civil authorities.

"The Services," says Dudley, "are the happy hunting ground, and one of the last strongholds of the amateur researcher. The word amateur here is used in its literal sense, not one who does something worse

than a professional, but one who does something for the love of doing it. We may only be amusing ourselves, but if something useful emerges from our pastime so much the better, but that is not the main object of amateurs. While we may not wholly agree with the professor who at the end of a lifetime spent on some academic research said, 'Thank God I have never done anything practical,' yet in these sordid times one can not but sympathize with his sentiment."

When the medical officer of to-day thinks of what his predecessors have been able to achieve, of what practical good has come of their experiments, amateurish though they may at times have been, for all have not the facilities of the Army Medical School, the Tropical Board, etc., within reach, of the outcome of patient observation, of the productive results of the application of scientific principles and sound logic he may, with a feeling of pride and hope, continue his task in the realization that his efforts are not only "for the good of the service," to use a military catch-phrase, but likewise for the good of the whole nation.

OBITUARY

RICHARD ALEXANDER FULLERTON PENROSE, JR.

December 17, 1863-July 31, 1931

THE well-traced roots of the Penrose family, one might more accurately say clan, thread their way back to Cornwall before William the Conqueror sought the shores of Britain. For hundreds of years the name of Penrose is intertwined with the activities of that land, and in many instances it stands out conspicuously, whether in the field of knighthood, in law, in diplomacy, in religion, in politics, in education, in commerce or in battle by land or sea. They were also a daring and venturesome people and not at all averse to seeking opportunity in distant lands.

At the seaport of Bristol, in Gloucestershire, England, there lived one Bartholomew Penrose, who with his brother Thomas conducted a ship-building business. Much direct trading with Philadelphia was carried on from this port and it was but natural that stimulating stories of the possibilities of the new land over seas and the great success which was being achieved under the guidance of William Penn should have reached the ears of young Bartholomew and made him eager to go adventuring. About the year 1700 he landed in Philadelphia, and having an excellent social standing and skill in ship-building and sea commerce, he was soon well married and launched on a prosperous career. Thus was the Penrose strain

transplanted in Pennsylvania, and whether in public or private life its achievements and rewards in the new world equalled those in the old. High mentality, combined with sound business sense, seems to have been the dominant characteristic of the Penroses wherever they were found and under whatever conditions they lived.

With such a background there came, in the seventh American generation, to Richard Alexander Fullerton Penrose and his wife, Sarah Hannah Boies, at the old homestead, 1331 Spruce Street, Philadelphia, on December 17, 1863, a fourth son, who was named after his father. This boy was richly endowed with the best of the Penrose ancestral traits, and he seemed to have missed out completely in respect to any undesirable qualities which may have existed in his forebears. His was preeminently a scientific mind, and, though engaging in many mining activities which had their roots deep in geology, he never lost his keen and active interest in this department of science. It always occupied the first place in his long and useful scientific life.

He graduated, with highest honors, from Harvard in 1884, and became a member of the Phi Beta Kappa Society. He remained at Harvard for postgraduate work till 1886, receiving the degrees of A.M. and Ph.D. It is noteworthy that his thesis for the latter degree, "The Nature and Origin of Deposits of Phos-

phate of Lime," was promptly published by the U. S. Geological Survey. A complete bibliography of his many writings will appear in the memorial to his memory in Vol. 43 of the *Bulletin* of the Geological Society of America, with which he was intimately connected from 1889 until his death and of which he was elected president in 1930.

On leaving college he took up active field geology, as shown by the following quotation from a statement prepared in his office before his death:

In 1888 he was Geologist in Charge of the Survey of Eastern Texas for the Texas Geological Survey; in 1889 he was appointed by the Geological Survey of Arkansas as Geologist to make investigations in the geology of the manganese and iron ore regions of that State; in 1892 he was appointed Associate Professor of Geology at the University of Chicago; and in 1895 he was made full Professor of that subject at the same university. He was lecturer on Economic Geology at Stanford University, California, in 1893; and in 1894 he was appointed Special Geologist of the United States Geological Survey to examine and report on the gold districts of Cripple Creek, Colorado. Still later he was engaged in geological work in different parts of the United States and in various other countries and in the pursuit of his investigations he visited almost all the countries in Europe, Asia, Africa, South America and elsewhere. One of his most elaborate trips was across Siberia before the Trans-Siberian Railroad was completed.

Dr. Penrose was connected through memberships and otherwise with at least two score of scientific organizations devoted to research or publication, his especial favorites being the American Philosophical Society and the Geological Society of America.

He combined with his fine scientific attainments a keen sense of sound business methods and a complete knowledge of the pecuniary rewards to be obtained from walking wisely in the market place. He even went so far in the business world as to accept half a dozen directorships, but they were in enterprises intimately related to his many interests in the field of mining. Soon after leaving college he had interested himself in copper deposits from a commercial as well as a scientific standpoint. He knew every copper district in the world, and when a new field was discovered he usually visited it personally or otherwise made himself thoroughly familiar with its character and possibilities. He was well acquainted with security values and the influences affecting them, as evidenced by the fact that he left an estate of approximately ten million dollars. After payment of all taxes, obligations and bequests there were available about eight and a half million dollars for distribution equally between the American Philosophical Society and the Geological Society of America. A rare combination indeed of scientist and financier.

Why he chose to lead a single life, only he knew. He was a man of great personal charm, gentleness of nature, courtly address and irreproachable life. Apparently geology was his first and only love. There seemed never to have been any wooing time for him. He was a member of a number of well-known clubs, but in no sense was he a club man. The old homestead in Spruce Street provided him a fireside, though in later life he occupied a suite of rooms in the Bellevue-Stratford in Philadelphia, where he was protected from intrusion and could come and go at his pleasure and on a moment's notice.

Dr. Penrose lived a full, rich life. He was not only a devoted, high-minded scientist but a genial enlightened gentleman with whom it was a pleasure to associate and a benefit to have known. Even in his last hours his thoughts were of the two societies to which he was so deeply attached and he so ordered his estate that they could both carry on in fuller measure and further advance the welfare of the world through research.

JOSEPH STANLEY-BROWN

At a meeting of the council of the Geological Society of America, held at Columbia University, New York, on October 17, the following resolutions were unanimously adopted:

Be it Resolved,

That in formally recording, in the minutes of this meeting, the death of Richard Alexander Fullerton Penrose, Jr., The Geological Society of America, through its Council, desires to express its deepest regret that he should not have been spared for many more years of useful work, and also its high appreciation of his fine personal character and his exceptional attainments in the field of geology. By his individual efforts and through his ever ready and generous cooperation with others, he did everything in his power during a long and successful life to promote activity in the field of research so dear to him.

Be it further Resolved,

That the society recognizes, with profound gratitude, that in carrying out a high ideal he has made it possible, through his magnificent generosity, to further advance in a large way, even after death, the science to which he devoted his life. In his last hours his thought was for the Society and he has not only handed to it a flaming torch but the means for keeping its sacred fire forever burning. Such a trust carries, in thought and deed, an obligation of loyalty such as Dr. Penrose always gave to the Society and to his colleagues.

And be it further Resolved,

That an engrossed copy of these resolutions be forwarded to Mr. Spencer Penrose, the sole surviving member of the immediate family.