



Perley Gilman Nutting



Frederick Eugene Wright



Floyd Karker Richtmyer



James Powell Cocke Southall

OSA's First Four Presidents

John N. Howard

A look back at the Optical Society's founding fathers.

Perley Gilman Nutting 1873-1949

The idea to form an optical society originated with Rochester-based optical scientist Perley G. Nutting, who was elected the first president of OSA in 1916.

The Wisconsin-born Nutting spent his undergraduate years at Stanford University. He went on to obtain a master's degree from the University of California. He then spent some time in Germany before attending Cornell University for his doctorate. There, he studied under the well-known physics professor Edward L. Nichols.

In 1903, Nutting joined the National Bureau of Standards, where he remained until 1912. He worked in the Optics Division under Samuel W. Stratton, the director of NBS. Between 1903 and 1912, the Bureau produced several circulars on optical instruments and the optical properties of materials. Nutting published a few items in the journal *Science*.

Some contend that Nutting constructed the very first neon sign. Accord-

ing to the story, it was four glass tubes of neon, forming the letters NEON; they were displayed at the "Palace of Electricity" at the Louisiana Purchase Exhibition in 1904—15 years before neon signs were available commercially. (Others dispute this claim and hold that the first neon sign was made by Georges Claude and displayed at the 1910 Paris Exhibition.)

In 1912, while still at NBS, Nutting published a little book called *Outlines of Applied Optics*. Around 1910, Nutting had made an effort to organize an optical society, but nothing materialized. That same year, Nutting and his assistant Loyd A. Jones (who went on to become OSA's president in 1930) both left NBS and joined the new Research Laboratory of the Eastman Kodak Company in Rochester, N.Y. In 1915, Nutting revived his plan to form an optical society, and this time it took hold.

Nine Rochester scientists met on November 18, 1915; four from E.K. Co., four from Bausch & Lomb, and one from the university. They met again

a week later, and again on December 7, when they formed the Rochester Association for the Advancement of Applied Optics, adopted a constitution, and elected a slate of officers. Nutting was elected president; Herman Kellner, vice president; Adolph Lomb, treasurer; and F.E. Ross, corresponding secretary. On January 4, 1916, they held the first of several monthly meetings. Attendance averaged about 40.

A note was published in *Science* announcing the new Rochester society, and as early as March 1916, Nutting received letters from optics types elsewhere (NBS, Yale, Cornell) asking how they could join. Nutting was more than willing to adapt the constitution and bylaws to form a national society, and a meeting was held in a classroom at Columbia University on December 28, 1916, in which 30 attendees (the charter members) voted to form the Optical Society of America. Nutting was elected president. The Rochester Association then became OSA's first local section.

In 1917, Nutting left Kodak to become director of research for Westinghouse in Pittsburgh. He remained active in optics for the next decade, and published 17 articles in JOSA. He was still on the Council in 1924, but his interest gradually shifted to physical chemistry and geophysics. From 1924 until his retirement in 1943, he was a geophysicist with the Geological Survey. His JOSA articles described dispersion formulas for optical glass, photometry, incandescent lamps and a portable seismometer.

Frederick Eugene Wright 1877-1953

Frederick Wright took his doctorate at Heidelberg. After that, he specialized in mineralogy, crystallography and petrology at the Geophysical Laboratory of the Carnegie Institute in Washington. He developed various optical instruments, chiefly for petrology, and also wrote on the manufacture of optical glass.

In 1904, he made geologic studies of southeastern Alaska. Several years later, he published a study of lava flow from Mt. Bohemia, Mich. He wrote an article entitled "Early man in South America" on peculiar stone industries of the Argentine coast. He had 16 articles published in JOSA on polarization photometry, ray tracing through prisms, dispersion in optical glass and a petrographic microscope.

Floyd Karker Richtmyer 1881-1939

F.K. Richtmyer studied with Nutting at Cornell; both were students of Edward L. Nichols. Richtmyer got his Ph.D. in 1910, and, except for two early years at Drexel, he remained at Cornell for the duration of his career, as professor of physics and then dean of the graduate school. When the new *Journal of the Optical Society of America* began in 1917, Richtmyer wrote the very first article, Vol. 1, p. 1., which was titled "Opportunities for Research." In 1918 and 1919, he served as OSA's vice president.

In 1928, he published a very popular *Introduction to Modern Physics* (with E.H.

Kennard and T. Lauritsen in later revisions.) In 1933, he succeeded Paul Foote as editor of JOSA, and he served until his death. He published 11 items in JOSA, mostly in the period between 1922 and 1929.

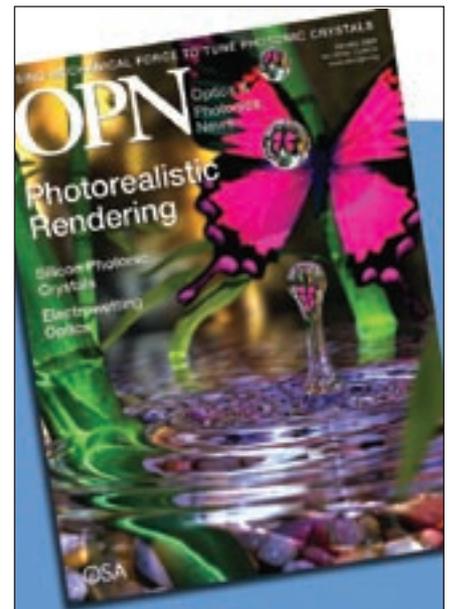
James Powell Cocke Southall 1871-1962

James P.C. Southall was born in Norfolk, Va., on April 4, 1871. He attended Richmond College from 1886 to 1888 and obtained an A.B. in 1891 and an M.A. in 1893 at the University of Virginia. He was an instructor in physics at the University of Virginia between 1891 and 1893, and he taught physics and mathematics at the Miller Manual Training School, in Albemarle, Va. He had a fellowship at Johns Hopkins from 1898 to 1899 and taught at Hobart College, Geneva, N.Y., from 1899 to 1901.

From 1901 to 1914, he taught at Alabama Polytechnic Institute, and in 1914 he joined the faculty at Columbia University, where he served until his retirement in 1940. His two specialties were geometrical optics and physiological optics. He wrote *Principles of Geometrical Optics* in 1910 and *Mirrors, Prisms and Lenses* (1918, rev. eds. 1923, 1934). But he is probably best known as editor of the American edition of Helmholtz's *Physiological Optics* (1924-25). He also wrote *Introduction to Physiological Optics* (1941). He wrote many papers, a number of which appeared in JOSA, on optical illusions and geometrical optics.

During the First World War, he was a consultant to the War Department on range finders, periscopes, gunsights and similar optical equipment. Fifteen of his articles were published in JOSA on such topics as ray tracing, conjugate surfaces and the early pioneers in physiological optics. In retirement, he returned to Charlottesville and the University of Virginia, and donated most of his books and papers to the library there. ▲

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