Obituaries

Axel G. Jensen

Axel G. Jensen died 8 December 1972 at El Camino Hospital in Mountain View, Calif., at the age of 76. A native of Copenhagen, Denmark, he was graduated from the Royal Technical College of Denmark with the degree of Master of Science in Electrical Engineering. In 1921 he came to the United States for postgraduate work at Columbia University. He became a citizen of the United States in 1939.

In 1922 he joined Western Electric Company's Engineering Department (later incorporated as Bell Telephone Laboratories). During his career with Bell Systems he achieved international recognition for his work in the fields of radiotelephone, television and acoustics. In 1926 he went to London to work on the development of transatlantic short wave radiotelephone service. In 1938, he returned to the United States to work on coaxial cable development and television research. He retired from Bell Telephone in 1958 as Director of Visual and Acoustics Research.

His achievements were recognized by numerous awards and honors, among them the Order of Dannebrog, Denmark's highest civilian honor, presented to Mr. Jensen in 1958 by King Frederick IX. He was also presented with the G. A. Hagemann Gold Medal for Industrial Research of the Royal Technical College of Copenhagen.

Mr. Jensen was a Life Fellow of the Society. In 1952 he received the David Sarnoff Gold Medal Award for "his manifold contributions to the promulgating of monochrome and color television engineering standards ...." He served as Engineering Vice-President of the Society from 1954 through 1959.

In addition to his technical accomplishments, Mr. Jensen made important contributions to the field of standardization. Only the highlights of his activities in that field can be presented in this limited space. He was a member of the first National Television System Committee (NTSC) which, following its formation in July 1940, recommended a set of standards for monochrome television broadcasting that was approved by the Federal Communications Commission on 1 July 1941. Also, he was a member of the second NTSC which, beginning in January 1950, studied color television broadcasting systems and recommended a set of standards that was approved by the FCC on 17 December 1953. On several occasions, Mr. Jensen served as a member of the United States Delegations to meetings of the International Radio Consultative Committee (CCIR). He reached what he considered to be the zenith of his standardizing activities in the years that he served as Chairman of the Standards Committee of the Institute of Radio Engineers and as Engineering Vice-President of the SMPTE.

Max Fleischer

Max Fleischer died 11 September 1972 at his home in Los Angeles, at the age of 89. He had been a member of the Society since 1931. Widely known as a cartoonist and inventor, he created the *Out of the Inkwell* cartoon series in 1917.

He was born in Austria and was brought to this country as a small child. He studied at the Art Students League, Cooper Union and the Mechanics and Tradesmen's School. His first job was with *The Brooklyn Eagle* where he became an office boy in the Art Department. During his spare time he drew cartoons and learned the mechanics of photoengraving; shortly thereafter he became Art Editor of *Popular Science Monthly*. Later he worked for Bray Studios where he produced the first animated cartoon, *Ko-Ko the Clown*, followed by *Gulliver, Betty Boop, Popeye the Sailor* and two full-length motion pictures, *Gulliver's Travels* and *Mr. Bugs Goes to*

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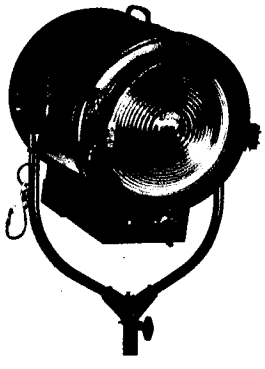

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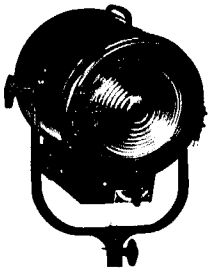

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Town. He invented a number of motion-picture production devices, among them the Rotoscope for simplifying the drawing of figures in motion.

Ed. Note: Upon learning of the death of Max Fleischer, we asked his son, Richard Fleischer, to help us in preparing an obituary. In reply he sent us the deeply touching and warmly human appreciation of his father's life which appears below.

The other evening I visited the Doheny Plaza Theatre in Los Angeles where an homage to Max Fleischer was being presented in the form of 10 *Betty Boop* cartoons. I was the only person over 19 in the audience. There on the screen were animated cartoons made 40 years ago. The youthful audience laughed, applauded and sighed with pleasure. As I was leaving I heard a teen-age girl behind me say to her boyfriend, "I'm so glad I didn't miss it." So am I — and I don't mean her, I mean me.

Growing up with genius is deceptive. You take it for granted. He's not a genius — he's your father. When I told a reporter recently that my father created the *Bouncing Ball* cartoons, he said, "Hey, that's like saying he invented the popsicle."

But seeing those few cartoons, at my age, and after the fact of his life, has been, well — like wow!

After spending all my years with *Ko-Ko the Clown, Betty Boop, Popeye the Sailor* and Max Fleischer I realized I didn't know them at all. They were my companions, my friends, my family; all my life I'd known them, but never fully appreciated them.

But there they were on the screen — *Betty, Ko-Ko, Bimbo* and Max—funny, witty, clever, moving and with the grace of ballerinas, possessing a joy of living, making their comment on life and society without violence, without malice, but with imagination, fantasy, fun. The brilliance of those forty-year-old cartoons made me want to weep for the mediocrity of today.

I believe I have thought more about my father since his death than while he lived. I've thought of his accomplishments and I have been overwhelmed.

An ordinary man would have been content with being an artist, writer, humorist and creator of original cartoon characters. He was not. He was an inventor, engineer, chemist and mechanical genius. And he was a man of determination.

Look at the development of the Rotoscope. He took a year to perfect it. Working with a Moy projector, actually a wood box, he redesigned the gears, invented a remote control and made the contraption into a stop-motion camera. He photographed 2400 frames, each one drawn by himself, using a lens cap to expose each frame.

In order to see his finished product he rigged up another camera with an electric light bulb behind the eyepiece and projected his cartoon for the first time on a piece of cardboard four inches square.

Ko-Ko the Clown and the Rotoscope were born. The year was 1915. *Ko-Ko* is still prancing around the TV screens and on an abstract subject for public consumption.

When sound was added to films, he worked with Lee de Forest to produce the first sound cartoon ever recorded. It played the Rialto Theatre in New York City in 1924.

Working with British engineers in 1935, he was the first to telecast a cartoon. Televised from a studio a block away the cartoon was projected on a ten-foot screen in Madison Square Garden in New York as part of the World's Radio Fair. Scheduled for only one performance, the program was repeated some thirty times.

I've been going through his papers lately. There's a box full of patents. Over 20 pertain to the motion-picture industry. But that far-ranging mind didn't stop there. Among at least 30 more patents you can find a 3-D method for TV; a pellet form of detergent; a portable air conditioner; an electricity-conducting ink; and a wingless aircraft, the principle of which is very much the same as the newly developed space-shuttle.

Well, he's gone! But the product of that mind remains, and so does the laughter.

As the young lady behind me said, I'm so glad I didn't miss it."

no optical effects department anywhere in the world is without a Rotoscope.

He was also a man of "firsts." At Fort Sill, Okla., during World War I, he made the first army training film, *How to Read an Army Map.*

In 1921, he produced Einstein's Theory of Relativity, the first seven-reel picture

Ralph Delano Whitmore

Ralph Delano Whitmore died 13 October 1972 at the Presbyterian Hospital in New York City. He was 84 years old.

He was born in Sunderland, Mass., in 1888, and was a descendant of John Alden and a distant cousin of Franklin D. Roosevelt. He was graduated with honors from Worcester Polytechnic Institute in 1909 and in 1911 he received the Master's Degree in Engineering. He then went to Tsing Hua College in Peking, China, where he taught manual training, mechanical drawing and surveying. When the college was closed by the revolution he served as a field engineer for the American Red Cross Famine Relief along the Huai River.

He returned to the United States where he engaged in a number of professional activities. During World War I he was head of machine design at American Standard Metal Co. He was Vice-President of Hi-Speed Equipment Co. and, in 1929, he joined DeLuxe Laboratories where he was in charge of the machine shops, all film processing and machine design. While with DeLuxe he converted Bell & Howell printers to print sound as well as picture. He also originated the design for spray processing machines and he designed and constructed "squirrel cage" light boards for sound control.

He was with the Research and Development Dept. of Twentieth Century-Fox for many years. His activities included the development and invention of a wide range of motion-picture equipments and he acted as a consultant for a number of major organizations, including the Army Signal Corps and the National Film Board in Canada. Other activities included work on specialized printer controls, silver recovery systems and the Eidophor projector.

During World War II he accepted the post of Chief of the Design Section of Harvard University Sound Laboratories where he worked on Sonar and other anti-submarine devices. Among other inventions he developed an echo repeater to simulate deep running submarines and a beeper to aid in retrieving torpedoes that ran away in trial runs.

While at Twentieth Century-Fox he was a member of a group which designed and produced an automatic printer used to convert CinemaScope to standard format for television. This development was recognized by an Academy Award for Technical Achievement (1962).

Mr. Whitmore joined the Society in 1929. In 1966 he was made a Fellow.

Deane B. Judd

Deane B. Judd died 15 October 1972 at his home in Chevy Chase, Md. One of the world's foremost scientists in the field of colorimetry and color vision, Dr. Judd had been with the National Bureau of Standards since 1927. Although he retired in 1969 he had remained with the Bureau as a guest worker.

He was born 15 November 1900 in South Hadley Falls, Mass. He attended Ohio State University where he received the B.A. degree in 1922 and the M.A. degree in 1923. He then went to Cornell where he received the Ph.D. degree in Physics in 1926. He served as instructor in physics at Ohio State during the 1923-24 school year and as Munsell Research Associate in colorimetry at the National Bureau of Standards during 1926-27.

Dr. Judd's field of work covered research in vision, color-blindness, measurement of color, development of color standards, studies of uniform color spacing and other aspects of color. In 1937 he received the Society's Journal Award for a paper on "Color-Blindness and Anomalies of Vision" in the June 1936 issue of the *Journal*. He received many honors during his long and distinguished career, among them the Ives Medal of the Optical Society of America and the Godlove Award of the Inter-Society Color Council. He was also awarded the Exceptional Service Award of the U.S. Department of Commerce and the Gold Medal of the Illuminating Engineering Society.