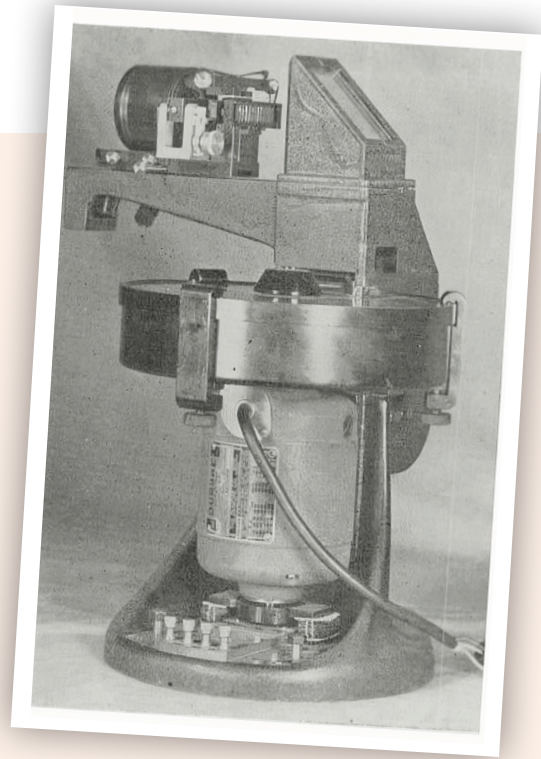




THE ORIGINAL **JENKINS PROJECTOR**, NOW IN THE UNITED STATES NATIONAL MUSEUM, CONSISTED OF AN OPTICAL SYSTEM WHICH FIRST SUCCESSFULLY PROJECTED MOTION PICTURES ON A SCREEN.



MICHAEL DOLAN

25 Years Ago in the Journal



The February 1999 *Journal* published in: “Progress Report—Television” by Robert P. Seidel.” Nineteen hundred and ninety-eight was a milestone year for the television broadcast and production community as it began the transition to DTV. The Consumer Electronics show kicked off the year with prototype receivers being displayed by almost every manufacturer. Temporary broadcast facilities were set up by ABC, CBS, and PBS to provide receiver manufacturers with actual HDTV broadcast signals. Many observers indicated that they were disappointed that the manufacturing community had not progressed further in DTV receiver development. However, the manufacturers assured their detractors they would have product available for the 1998 holiday season...No sooner was the Olympics over than everyone was focused on NAB 1998. One did not have to walk

In this column, we provide interesting historical briefs from the journal articles of days past. The purpose of this column is primarily entertainment, but we hope it will also stimulate your thinking and reflection on the Society’s history, how far we have come in the industry, and (sometimes) how some things never change. This column is sponsored by Television Broadcast Technology, Inc., since March 2001.

far in the exhibit area to realize that HDTV had transitioned from the wings to center stage...In early spring, many stations began tower modification and construction projects for DTV...During the summer, the ATTC completed their measurements on the "Evaluation of DTV taboo channel interference into NTSC under strong signal conditions...A... milestone occurred on October 29, 1998, when the Harris Corp. sponsored the John Glenn Space Shuttle Launch that was carried live coast-to-coast on the CBS high-definition network consisting of eight early adopter stations."

50 Years Ago in the Journal

The January 1974 *Journal* published in: "Colorimetric Standards in U.S. Color Television" by L. E. DeMarsh: "The objective of current standards efforts in the U.S. television industry is to improve both the uniformity and quality of color television as viewed on the home receiver. U.S. broadcast colorimetric standards are based on the original NTSC primaries. However, the phosphors used in current television display devices are significantly different from those specified by NTSC. These phosphor differences result in a colorimetric mismatch that may cause significant color distortions in the display. Receiver manufacturers in the U.S. have adjusted the color demodulation characteristics in their receivers to compensate for these phosphor changes. To resolve this problem in Europe, the European Broadcasting Union (EBU) has recently recommended that broadcast standards be changed to require matrixing for modern phosphors in all cameras...After making a study of how this basic problem affects U.S. television, it appears to be preferable to retain the NTSC standards and to insert a correction matrix in the display device that will compensate for the particular phosphors in use.

75 Years Ago in the Journal

The January 1949 *Journal* published in: "Motion Picture Photography at Ten Million Frames per Second" by Brian O'Brien and Gordon Milne: "To expose a conventional motion picture at a speed of several million frames per second would require a speed of film movement of the order of 200,000 feet per second for 16-mm film, a rate entirely beyond anything attainable at present...At top rate of speed this film is driven past the image at the rate of 400 feet per second. By proper attention to mechanical and optical detail it is possible to resolve approximately 100 lines per millimeter on this film. At a resolution of 80 lines per millimeter with the film traveling 400 feet per second, the individual exposures are of one-ten-millionth-second duration, and in effect ten million separate motion picture frames per second are photographed."

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100 Years Ago in the Journal

The May 1924 *Journal* published in: "The progress of Arc Projection Efficiency" by P. R. Bassett: "In the early eighties, when experimenters in all countries were struggling with the problem of making the newly found motion picture practical enough for public exhibition, it was our own founder, C. F. Jenkins, who discovered the key to the problem. The original Jenkins projector, now in the United States National Museum, consisted of an optical system which first successfully projected motion pictures on a screen. This system consisted of a slightly inclined carbon arc as the light source, two plano-convex condenser lenses to concentrate the light on an aperture plate, and an objective lens to project the image on the screen. For twenty-five years this simple and very practical arrangement held undisputed sway...The last six or seven years have seen just such an awakening of interest in methods of projection...The carbon arc must now share the field with two other light sources: the concentrated filament incandescent lamp, and the high intensity arc."

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