



By Michael Dolan

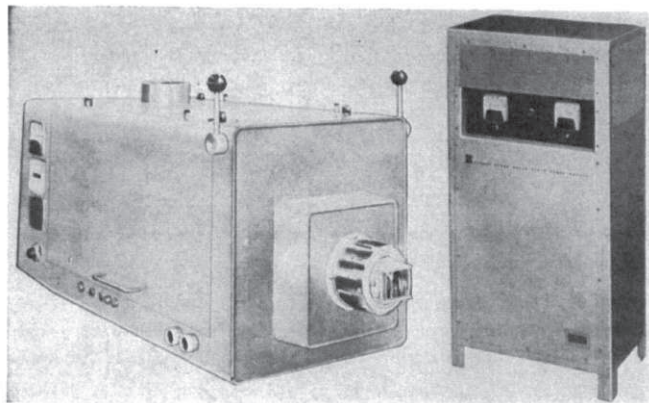
*In this column, we provide interesting historical briefs from the Journal articles of days past. The purpose of this column is primarily entertainment, but we hope it will also stimulate your thinking and reflection on the Society's history, how far we have come in the industry, and (sometimes) how some things never change. This is not meant to be an authoritative reference, and no attempt is made to correct any past errors or omissions of the Journal. We simply hope you enjoy the material. This column is sponsored by Television Broadcast Technology, Inc.*

## 25 YEARS AGO IN THE JOURNAL

The July 1990 *Journal* published in: "SMPTE Participates in HDTV Live Satellite Transmission." "During the 131st SMPTE Technical Conference and Equipment Exhibit held in Los Angeles last October, history was made via the first transmission of a live all-digital HDTV signal sent by satellite from Japan to the U.S. SMPTE conference attendees were able to view a live presentation given by Tsuguyoshi Itoh, executive director of the R&D department for NTV Corp., EIZO Center. Airing from the parking lot of the KDD (International Telecommunications Co. of Japan) building in Tokyo, Itoh spoke about the value of HDTV in movie making and demonstrated the technology's potential through film clips of colorful productions performed by the Chinese Peking Opera Company as well as some theatrical releases. The entire broadcast ran about 15 minutes... The system was comprised of a digital codec system, employing a sophisticated compression algorithm to reduce the almost 1.2 Gbit/sec data rate of the 1125/60 video studio origination signal down to approximately 120 Mbits/sec." For the full article, see: <http://journal.smpte.org/content/99/7/573.full.pdf>.

## 50 YEARS AGO IN THE JOURNAL

The July 1965 *Journal* published in: "Xenon Illuminator Systems for 35mm and 70mm Projection" by A. T. Puder and D.



2,500-w Xenon illuminator system (Fig. 1, *JSMPT*, July 1965, p. 594).

Mortensen: "An illuminator system designated XTL (Xenon Twin Light) for projection of 35mm and 70mm motion pictures using a regulated solid-state power supply and an illuminator with a split optical system. Maximum light output and a uniform flat light field are achieved with the optical arrangement. The XTL system supplies up to 25% more usable light compared with equivalent wattage system. Film projection in the motion-picture industry has been accomplished since its inception with tungsten lamp and carbon arc illumination sources. Recently, considerable interest has been aroused in the relatively new and efficient xenon short arc light source for projection." For the full article, see: <http://journal.smpte.org/content/74/7/594.full.pdf>.

## 75 YEARS AGO IN THE JOURNAL

The July 1940 *Journal* published in: "Gases from Carbon Arcs and Their Effects" by A. C. Downes: "This paper is a review of work done in the laboratories of National Carbon Company, Inc., the College of Medicine of the University of Nebraska, the School of Public Health of Harvard University, and the Department of Health of the City of Detroit on the products of combustion from carbon arcs used in the motion picture industry. Analyses of the gases coming from various lamps show that, even in the stacks, the only gas occurring in toxic concentration is nitrogen dioxide. The biological effects of undiluted stack gas from simplified high-intensity arcs upon experimental animals were only those due to the nitrogen dioxide. The arc-ash fume when administered by intratracheal and subcutaneous routes in rabbits was found to be relatively inert. Determination of nitrogen dioxide concentrations in poorly ventilated projection rooms failed to show any concentration more than about one-fifth that generally considered as allowable for exposure of several hours' duration, and therefore there is little or no hazard in these projection rooms. Studies of ventilation under controlled conditions show that even with very low rates of both lamp house and room ventilation there is no danger of gases or fumes reaching concentrations which are toxic and that if sufficient ventilation is provided to produce comfortable working conditions there cannot be any appreciable concentrations of nitrogen dioxide or arc-ash fumes in the booth." For the full article, see: <http://journal.smpte.org/content/35/7/32.full.pdf+html>.