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 column is sponsored by Television Broadcast Technology, Inc., since March 2001: http://ieeexplore.ieee.org/document/7257346.*

## 25 Years Ago in the Journal

The July 1997 *Journal* published in "Widescreen Television at the Sydney 2000 Olympics" by Eric Hitchen: "Since 1984, parallel coverage to some events has taken place using high-definition television (HDTV). This coverage was not implemented by the host broadcaster but was done with its cooperation. In 1984, the 1125/60 standard was used, carried out as a demonstration as to how an Olympics covered by HDTV would look. The images were locally recorded as well as demonstrated live. The coverage by HDTV has increased at both the Summer and Winter Olympics. By 1992, both 1125/60 and 1250/50 equipment were being used, and television pictures were being interchanged between the two systems using standards converters. At the 1996 Atlanta Games, the HDTV coverage was provided by Japanese broadcaster NHK using 1125/60 equipment and by European broadcaster ZDF using 1250/50 equipment… The ZDF output was transmitted in Europe by several broadcasters, with the 1250/50 HDTV signal standards converted to 625/50 with an aspect ratio of 16:9. By the year 2000, a number of technical innovations will take place that could influence which standard of television signals the international broadcasters might desire at an Olympics." For the full article, see https://ieeexplore.ieee.org/document/7243785

## 50 Years Ago in the Journal

The July 1972 *Journal* published in "Super 8: A Universal Input to Video-Cassette and Television Systems Part I: Application Concepts" by Eric A. Yavitz: "No subject in recent memory has had as much discussion, or aroused as much interest, as the much-ballyhooed arrival of the video cassette. If nothing else, the fanfare and publicity have served as a stimulus for many people to consider their visual communications requirements and to examine what applications they might have for the video cassette when it arrives. The result has been a beneficial one, in that many potential applications have been uncovered, and some long-dormant ones have been dusted off and reexamined… The video cassette is certainly a desirable option in this communications cycle, and the video cassette using super-8 film is a natural option that can be used in any of these display opportunities. There are other considerations I would submit to you in considering the merits of super 8 for video cassette applications. A $30 movie camera can make high-quality, full-color recordings for this system. Incidentally, nearly a million super-8 cameras, and over three-quarters of a million super-8 projectors are estimated to be sold in the United States annually." For the full article, see https://ieeexplore.ieee.org/document/7233893

## 75 Years Ago in the Journal

The July 1947 *Journal* published in "Photographing Things to Come" by M. W. Warren: "Approximately eleven years ago, Colonel Goddard of Air Materiel Command addressed the Society of Motion Picture Engineers… Today, while we talk about aircraft traveling at the rate of 1,500 mph at altitudes of 100,000 ft, there are future projects and operations of which we can only guess… Throughout the war, we experimented with longer and longer focal lengths, which has meant consistently larger and heavier cameras. We are now testing a 100-in., f/10, 600-lb camera, and on our agenda is a 240-in. camera… Our next problem is to capture clear pictures at rocket and jet speeds. Cameras with increased focal lengths comprise one method we are using. We are also experimenting with the possibility of a variable-opening shutter with maximum lens opening so that we may obtain the highest possible shutter speed for varying light conditions. We already have under procurement a high-cycling strike camera with a shutter speed of 1/2000 of a second." For the full article, see https://ieeexplore.ieee.org/document/7251572

## 100 Years Ago in the Journal

The October 1922 *Journal* published in "Film Waxing Machine" by J. G. Jones: "It is well known that gelatine is used as a base in making the sensitized emulsion which is coated on motion picture film. This emulsion contains a small percentage of moisture and will, when subjected

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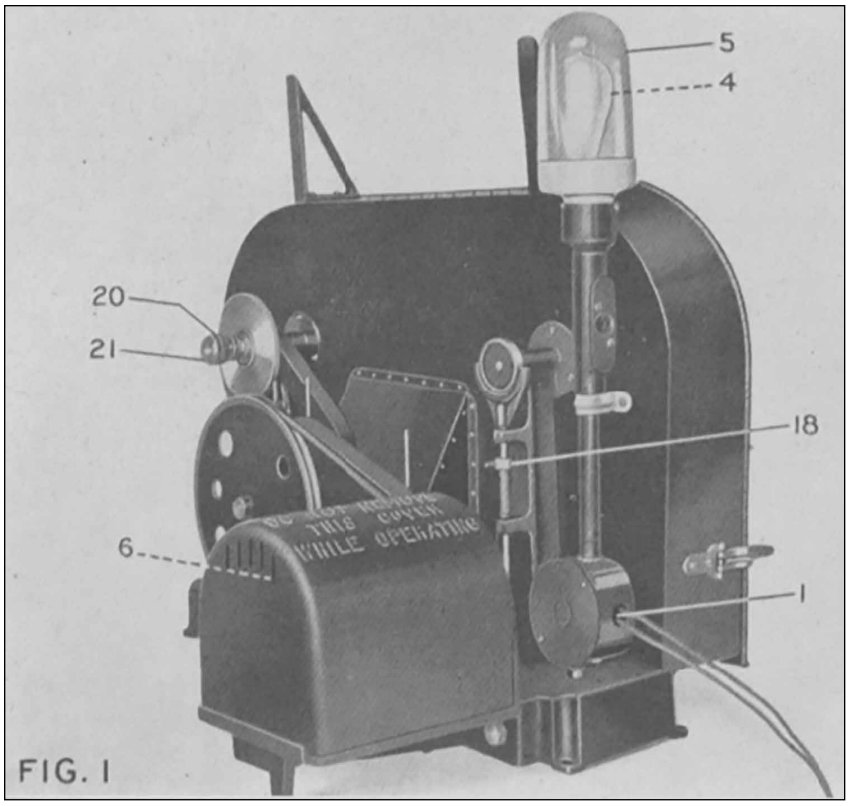


Film Waxing Machine (**Fig. 1**, *Trans. SMPE*, Oct. 1922, p. 36).

to friction and heat, become quite tacky, so that when the film is passed through the projection machine, firmly held in focus at the aperture, it is subjected to both heat and friction. The temperature of the surface of the guide the film is held against and passes over is about 160°F, with a pressure of approximately six pounds to the square inch… In an attempt to overcome this difficulty, many projectionists in Motion Picture Theatres lubricate the guides with machine oil… The latest and seemingly most satisfactory method of preparing the film for projection is the application of a very small line of wax along the edge of the film, approximately in the center of the perforated margin… Quite recently, a machine has been put on the market for waxing film in this manner… This machine has been passed by the Board of Fire Underwriters." For the full article, see https://ieeexplore.ieee.org/document/7230061