SMPTE Exhibit Award Goes to Bell & Howell

This was Bell & Howell's second win. The SMPTE Exhibit Award for best display at the 92nd Conference in Chicago in 1962 was won by this company.

James L. Wassell, Director of Marketing for the Professional Equipment Div. of Bell & Howell Co., points with pride to the plaque just received from Geo. W. Colburn, SMPTE Conference Vice-President, in recognition of his company's display having been judged the best at the 95th SMPTE Technical Conference and Equipment Exhibit in Los Angeles last spring.

Bell & Howell's display at the Ambassador was a visual readout demonstration of its new additive color printing systems for continuous printing as well as step printers. Accessory equipment, including a new program tape perforater and a program tape checker, added to the completeness of the presentation, against a bright and colorful background.

New Executive Secretary

Lewis A. Bernhard, Jr., has been named executive secretary of the Society, succeeding Col. Charles S. Stodter, who is retiring after serving the Society since 1956.

Mr. Bernhard comes to SMPTE from the Society of Plastics Engineers, where he had been administrative manager since 1955. During his nine years with the plastics

Audio Controls Division
Altec Lansing Corporation

SUPERIOR NEW INSTRUMENT SWITCHES AND ATTENUATORS

It's no longer a secret that our Audio Controls Division at Altec is well on the way to producing what we feel will be the best instrument switches and attenuators ever made specifically for the recording and broadcast industries. Without wishing to detract from my own three decades as a design engineer and manufacturer in this field, nor from the superb facilities available to me at Altec, I must admit that much of the credit goes to the fact that we are starting from scratch on all of our designs. Frankly, this is an engineer's dream—no preconceived ideas, no old designs that have to be adapted, no existing tooling that has to be used. Our only concern is the here and now, and how can we make it better.

LOW NOISE, LOW MAINTENANCE, LONG LIFE

Looks like our switches and attenuators will give you the best set of performance specifications ever available. Here are a few of the things we've done to achieve this superiority: Each brush blade is independently sprung to provide contact all the time. We predict a total absence of contact bounce. The brush springs are completely out of the circuit and will carry no current. Our brushes are made of fine silver ("coin" silver, normally used, contains copper and is subject to oxidation which reduces conductivity and raises noise level among other things). The fine silver does not oxidize—it sulfides. This has two advantages: conductivity is not affected and sulphide of silver has a lubricative quality which is actually beneficial.

MORE INNOVATIONS

As you know, most switches come in round cans. We're putting ours in square ones. You don't have any use for the space around the can anyway so we're using the corners for the wiring. The result is that our switches will give you more positions in less space. For example, most switches have 12 positions at the most. Ours have 31 positions on a 1½" switch and up to 45 positions on the 2¼" one.

To cap the whole thing off, we'll be able to gang up to 8 of our attenuators in tandem so you can operate the whole works with just one control.

NEW SOLID STATE 470A PREAMP NEARLY READY

We announced this device in our last "Studio Talk." It's the one you can use as a preamp or as a line, booster, or program amp with no internal changes needed. By the way, the 470A has a lower noise level than any vacuum tube unit on the market.

And by the time you read this, our 61A Program Equalizer and 62A Graphic Equalizer will be in full production. So give me a call or drop me a line. I'll be happy to send you the latest information on what's here now and what's coming soon.

Art Davis

Art Davis
Audio Controls Division • Altec Lansing Corporation • Anaheim, California

society, Mr. Bernhard saw the number of members triple. Mr. Bernhard, in addition to membership promotion, was responsible for publications promotion, technical conference management, and financial and business affairs of the plastics group.

Mr. Bernhard holds a degree in chemistry and business administration from Fordham University. Before entering Fordham, he served as a Navy petty officer first class during World War II. Mr. Bernhard was employed as laboratory chemist at St. Joseph's Hospital in Stamford, Conn., and in the quality-control department of Machlett Laboratories, Springdale, Conn., before joining the Society of Plastics Engineers.

Col. Stodter retired in 1954 after a 30-year Army career, the last four years of which he served as chief of the Army Pictorial Service. Following his retirement from the Army, he was engaged in communications research at the University of Pennsylvania.

Education, Industry News

Pay-TV will be in operation late in 1965 in Miami, Atlanta, Houston and Dallas, according to plans announced by Paramount Pictures Corp. and its subsidiary International Telemeter Corp. Franchises have been granted which "contemplate construction of cable circuits to reach a minimum of 75,000 homes in each locality," the announcement stated. The Telemeter system (in common with the Subscription TeleVision system) uses a cable system and thus avoids the necessity for FCC supervision. It has been in operation on an experimental basis near Toronto for more than three years (Patrick J. Court, "Telemeter pay television system," *Journal*, 161–166, Mar. 1962). An over-the-air system of subscription television is presently in operation in Hartford, Conn. The system, developed by Zenith Radio Corp., is owned by General Tire & Rubber Co.

Franchises for the Telemeter system have been granted in Houston and Dallas to Home Theatres, Inc. The Miami franchise has been granted to Florida Home Theatres Corp. and the Atlanta franchise has been granted to Home Theatres of Georgia, Inc.

A joint meeting of the Rochester and Toronto Sections of the Society will be held September 18–19 at the King Edward-Sheraton Hotel in Toronto. Known as the "Little Convention," the joint meeting is an annual event. One of the highlights of the meeting will be a symposium on Reversal Processing, announced as the "first of its kind." The symposium will be followed by presentation of papers dealing with television and film. The symposium is expected to be of special interest to the personnel of small television stations. Further information is available from Maurice French, Canadian Broadcasting Corp., 354 Jarvis St., Toronto, Ont., Canada.

The 12th National Industrial Photographic Conference of the Professional Photographers of America, Inc., 152 W. Wisconsin Ave., Milwaukee, Wis. 53203, was held August 2-7 at the Conrad Hilton Hotel, Chicago. Special government and military programs were held in conjunction with the Conference. Papers presented included "Mission of Navy Photography and Its Application in Support of the Fleet," by Capt. J. J. Crowder, USN; and "Rendering a Community Service With Your Camera," by R. Vetter.

A fiber optics instrument under joint development by Walter J. Gamble, M.D., of the Children's Hospital Medical Center in Boston and Robert E. Innis of American Optical Co., Southbridge, Mass., has been used to photograph the interior of the heart of a living dog without the need for major surgery. High-speed motion pictures have been obtained of the valves and other areas of the heart and the opening and closing of the aortic valve leaflets. When using a tungsten light source, the color of the lining of the heart can be seen.

The prototype instrument is a rigid tube 14/100 in. in diameter and 21 in. long. It is introduced through a small incision in the neck of the dog and advanced along the blood vessels until it reaches the inside of the heart. A transparent balloon on the tip of the instrument is inflated and pressed gently against the wall of the heart, displacing the blood. The selected area inside the heart can be seen through this balloon.

The instrument contains a lens system in its tip which focuses an image of the part to be observed on the end of an image transfer fiber optic bundle which contains 76,000 optical glass fibers precisely arranged in parallel. One end of the fiber optics bundle is outside the dog and the image, transferred by the glass fibers, can be viewed through a microscope. Illumination is supplied by an external light source such as a tungsten bulb or a high-intensity mercury arc lamp. The light is carried through the instrument by a second smaller separate fiber optic bundle. The fibers of this bundle are arranged in a circle as they bypass the image-forming lens. The light leaves the ends of these fibers at the tip of the instrument and illuminates the parts of the heart under observation through the balloon. The balloons are specially made with fine glass thread, about 2/1000 in. in diameter imbedded in the side walls so that when inflated the balloon will assume the proper shape and stability.

The next step is development of a flexible instrument that can be used to photograph the interior of a living human heart.

Studies of the spectral energy distribution of daylight and skylight have been conducted at the Eastman Kodak Research Laboratories by H. R. Condit and Frank Grum. A paper discussing the study appears in July 1964 issue of the *Journal* of the Optical Society of America (pp. 937-944). The work provides basic information as to how the various conditions of skylight and daylight, such as haze, overcast, or sunny skies, affect the light spectrum. It is hoped that the findings of this research will provide a basis for stand-