

Fig. 11. Panel with the electric heater in a forced dryer for black-and-white positive motion-picture film.

use of infrared radiation for drying the processed motion-picture films.

One of the first investigators who reported on the forced method of drying<sup>6</sup> in 1953 expressed the opinion that the use of infrared radiation for drying motion-picture films is impossible due to an un-

evenness of heating caused by differences in the heat absorption by the film sections having different photographic image densities. For a long time this opinion was considered to be irrefutable and beyond doubt.

In recent years, when the technique of drying with infrared radiation has been developed considerably and understanding of the heat-and-mass exchange processes which take place during the removal of moisture from the material has increased greatly, a number of researchers returned to the possibility of using infrared radiation in the motion-picture film drying process.

In 1969 a review paper was published<sup>7</sup> describing fundamental investigations in the area of film drying by infrared radiation and containing results concerning the high effectiveness of heat exchange by radiation and its expedient use for drying films.

It is to be noted that the research directions chosen by NIKFI (Cinema and Photo Research Institute) in the field of the film absorption spectra are correct. The research directions were reported by us first in 1966.<sup>2</sup>

#### Conclusions

(1) The results of experimental researches made it possible to obtain infrared transmission spectra for positive

black-and-white and color motion-picture films with different densities of photographic image in the wavelength band from 0.75 to 15  $\mu\text{m}$ .

(2) A wavelength band has been revealed in which the photographic image density affects insignificantly the absorption of infrared radiation by the film.

(3) There has been chosen a radiation source which has its radiation energy maximum in the range of the wavelength strongly absorbed by the film irrespective of the photographic image density.

#### References

1. F. A. Rosental', N. A. Vinogradova and Yu. A. Boltunov, "An accelerated drying method for process cine films" (in Russian), *Tekh. Kino i Televideniya*, 7: 5-12, Dec. 1963.
2. ———, "Modernization of drying equipment for color positive film developing machines," *Jour. SMPTE*, 75: 494-499, May 1966. (Translated from *Tekh. Kino i Televideniya*, 10: 27-36, Feb. 1966.)
3. H. L. Smith, "Low-temperature radiant heat drying," *Fibers and Plastics*, Pt. I, May 1961; Pt. II, June 1961.
4. Odd Hultgren, "Raising quality and production through high-speed drying," *TAPPI* 45: June 1962.
5. P. Borchert and B. Yubitzy, "Technique of infrared heating," *Gosenergoizdat*, 1963.
6. F. Dana Miller, "Rapid drying of normally processed black-and-white motion-picture film," *Jour. SMPTE*, 60: 85-104, Feb. 1953.
7. Ivan G. Ryman and William K. Overturf, "A review of the drying of silver halide photographic film," *Jour. SMPTE*, 78: 3-21, Jan. 1969.

## Errata

### Report on Home Receiver Image Area Test

By R. J. Zavada

APRIL 1974 JOURNAL, p. 315

Fig. F-6, the labels for "Values on Line A, C, B" at the upper left were incorrectly located through no fault of the author. The correct illustration is shown at the right.

For the footnote to Appendix F Table 2, read:

\* Note: This estimate is based on a straight-line graphic analysis. The use of probability graph paper was also incorporated; however, small differences of less than 1% were noted.

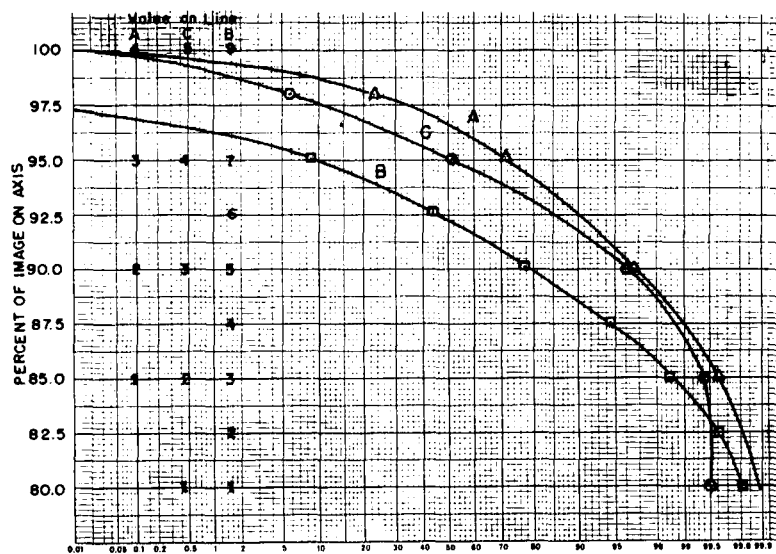


Fig. F-6. Probability paper graphic analysis of radiating lines A, B and C.

### A Portable Compact Color Television Facility

By Irving S. Rosner  
and Elmer E. Smalling III

AUGUST 1974 JOURNAL,  
pp. 649-651

On page 650, in the third paragraph in column one, a typographical error occurred in the metric conversion in the third sentence. It should have read:

It is a 16-ft (4.9-m) step van . . .