

"time parallax" problem has been completely solved, and that the alternate frame principle with the latest modifications shows promise, in my opinion, of being the most all-around satisfactory stereoscopic motion picture method to date.

In regard to my use of the phrase "a flicker frequency of 72 frames/sec, or 36 frames/sec per eye," I would like to clear up Mr. Dudley's apparent confusion in respect to the action of the Morgana movement. This movement, I made quite clear in my paper, actually transports frames of film in and out of the film gate at the rate of 72 frames/sec. This rate of frame transport is, therefore, exactly coincident with the shutter-blade rate, and therefore is also identical to the total "occultation" rate. Thus the right frames, for example, are transported in and out of the film at the rate of 36 frames/sec, which also equals the "occultation" rate for that eye, per second. Since, then, the actual framing rate is also equal to the flicker rate, I believe it reasonable to express the flicker frequency in terms of "frames per second." As I pointed out in my paper, since every third transport consists in moving a "frame backwards" out of the gate, the net result is a "progression of the film through the projector at standard sound speed."

Again I cannot agree with Mr. Dudley's contention that "the minimum rate of occultation necessary to prevent the occurrence of objectionable flicker is about 24 per second." If this were true it would not be necessary to use a two-bladed shutter in standard theater-type projectors, which in turn doubles the occultation rate with respect to the "24/sec" frame rate.

When the film *3 D Motion Pictures* was screened at the SMPTE 1951 Spring Convention, some may recall that there still remained some flicker. This was due to the comparatively slow flicker frequency of 36 frames/sec per eye. This frequency was somewhat objectionable, and to bring it up to present standards, improvements had to be made. A new projector, which will incorporate important changes will be ready to demonstrate in the near future.

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Obituary

Charles Ross died in June at the age of 63. He was President and sole owner of Charles Ross, Inc., a business which he started 30 years ago.

He began working for motion picture studios in New York City when a boy, one of his early employers having been the Biograph Studios. He was an electrician and he gradually built up stocks of everything from cables to equipment which eventually included every type of lighting or grip equipment for motion picture production.

He was educated in the New York public schools and some time after he had begun his business he and Pete Mole discovered in mutual reminiscing that they had

grown up in the same New York City neighborhood and gone to the same schools without then being acquainted. Charles Ross, Inc., has now for long been sole eastern agents for Mole-Richardson equipment. The firm's headquarters at 333 W. 52 St., New York 19, N.Y., is in the same neighborhood where Mr. Ross had offices and warehouse during his decades in business.

Besides being an Active Member of this Society, Charles Ross was a member of Motion Picture Pioneers, Theatre Equipment and Supply Manufacturers' Association, Stage Employeecs' Local #1 of the IATSE and Motion Picture Studio Mechanics Local #52 of the IATSE.