Amateur Color Movies Now Possible

Photography

Natural color movies that everyone can make and project had their scientific debut last Monday morning at the home of George Eastman, photographic pioneer and head of the Eastman Kodak Company at Rochester, N. Y.

Through the utilization of thousands of miniature lenses, invisible to the naked eye, but impressed into the photographic film itself, these new colored motion pictures will come into the American parlor before they are shown in magnificent movie palaces.

By slipping a special color filter into the ordinary amateur movie camera and using the special film, the amateur can take the new color motion pictures. In development the film is changed to a positive but due to the principle of the process the film is just black and white, with no color or dyes appearing in the film itself.

The process is a result of several years' development by the Eastman Kodak Research Laboratories under the direction of Dr. C. E. K. Mees.

It is a short span of years since the day in 1888 when Eastman introduced the first roll film Kodak with the slogan: "You press the button and we'll do the rest." But today the achievement of the recreation of a real scene with a camera that anyone can operate is nearly complete. Movies brought motion, the development announced brings color. Only the addition of sound to the home movie outfit is left for the future.

A remarkable group of inventors, scientists, and public men witnessed the first announced demonstration of the amateur natural color movies.

Thomas A. Edison, whose motion pictures have now been made colorful, was a witness. Frederick E. Ives, inventor of the half-tone process, the fundamental principle of which is used in the new color movies, was also present, as was his son, Dr. H. E. Ives of the Bell Telephone Laboratories, who steered the development of telephoned photographs and television demonstrated within the last two years. Dr. Leo H. Baekeland, inventor of Velox photographic paper, as well as the synthetic resin bakelite, was also a guest. Other scientists present were:

Dr. E. F. W. Alexanderson, Dr. W. D. Coolidge, Dr. Michael I. Pupin, Hiram Percy Maxim, Dr. G. K. Burgess, Sir James Irvine and Dr. Henry Fairfield Osborn.

Science News-Letter, August 4, 1928

Blood Mystery Solved

Physiology

Using a specially devised instrument, Drs. W. F. Hamilton, J. W. Moore, J. M. Kinsman and R. G. Spurling, of the University of Louisville School of Medicine, have solved a three-hundred-year-old puzzle of medicine and physiology, when they determined by experiments just completed that the heart pumps blood at the rate of 5.2 liters, or about 5½ quarts, per minute.

The amount of the heart's output has been an unsolved problem since Harvey discovered and announced in 1628 how the blood circulates from the heart through veins and arteries. That was just 300 years ago.

The method used by the investigators here is an improvement on one developed over 100 years ago. A harmless dye is injected into a vein and samples of blood are taken from an artery every second, using a special apparatus designed for the purpose. From the concentration of the dye in these samples the workers were able to determine the heart's output and also the length of time it takes for the blood to flow from the vein into and through the heart and back out the artery. This figure was found to be 23 seconds.

This harmless method will be used to help solve some of the problems of heart disease and will be of assistance in treating this condition, it is hoped.

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In This Issue—

SCIENCE NEWS-LETTER, The Weekly Summary of Current Science. Published by Science Service, Inc., the Institution for the Popularization of Science organized under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science, in which *Medical Progress* is merged.

Edited by Watson Davis.

Publication Office, 1918 Harford Ave., Baltimore, Md. Editorial and Executive Office, 21st and B Sts., N. W., Washington, D. C. Address all communications to Washington, D. C. Cable address: Scienserve, Washington.

Entered as second class matter October 1, 1926, at the postoffice at Baltimore, Md., under the act of March 3, 1879. Established in mimeographed form March 13, 1922. Title registered as trade-mark, U. S. Patent Office.

Subscription rate—$5.00 a year postpaid. 15 cents a copy. Ten or more copies to same address, 5 cents a copy. Special reduced subscription rates are available to members of the American Association for the Advancement of Science.

Advertising rates furnished on application.

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