examination of the flour by the writer showed that when it was mixed in a dough with water and the usual amounts of the ingredients of a dough batch, hydrogen sulfide was evolved in quantities sufficient to discolor lead acetate paper immediately, followed by complete blackening, in less than a minute. Doughs made with 50 grams of flour, sufficient water and 1 gram of compressed baker's yeast also evolved hydrogen sulfide.

A dough was made of the flour with water containing hydrochloric acid; this was warmed and the atmosphere above the suspension tested for hydrogen sulfide. The test was negative.

Hydrogen sulfide could be obtained from the flour by the addition of sulfur free zinc and hydrochloric acid. This reaction has not yet been observed with other flours which we have examined in this connection.

We have not yet determined the identity of the sulfur compound present in this flour which is reduced by the living yeast cells, but there is a possibility that the formation of hydrogen sulfide is due to the presence of sulfur or its derivatives absorbed by the flour from the fumigation of a storage warehouse with burning sulfur.

The problem is still under investigation and the writer would appreciate any information or suggestions from those who find this note a matter of interest.

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NINTH ANNUAL MEETING OF THE OPTICAL SOCIETY OF AMERICA

THE Optical Society of America met in Boston from October 23 to 25 for its ninth annual meeting. Three sessions were held at the Massachusetts Institute of Technology, two at Harvard College and one at the Boston Museum of Art.

Among the special features were addresses by Professor Ch. Fabry, of the University of Paris, on "The measurement of light"; Dr. E. R. Berry and Dr. Elihu Thomson, of the General Electric Company, on "The development of clear fused quartz"; Dr. Paul Heymens, of the Massachusetts Institute of Technology, on "Photoelasticity"; Dr. H. E. Ives, of the Western Electric Company, on "The transmission of photographs over telephone lines"; and Dr. Benjamin Ives Gilman, of the Boston Museum of Art, on "Modern solution of the problem of gallery lighting."

The following papers comprised the contributed program:

PHOTOCHEMISTRY, PHOTOGRAPHY AND GEOMETRICAL OPTICS

Report of the committee on photochemistry and photography: S. E. SHEPPARD.

On the relation between time and intensity in photographic exposure: L. A. JONES and EMERY HUSE.

A new non-intermittent sensitometer: ARTHUR C. HARDY.

Report of the committee on geometrical optics: A. E. WRIGHT.

A new instrument for the objective determination of the refraction of the eye: HERMANN KELLNER.

The chromatic aberration of fused bifocal spectacle lenses: W. B. RAYTON.

Image curvature as a function of diaphragm position: I. C. GARDNER and J. J. ARNAUD.

An instrument for the laboratory testing of binocular telescopes: G. W. MOFFITT and PAUL B. TAYLOR.

A direct system of design for the cemented two lens telescope objective: G. W. MOFFITT.

PHYSICAL OPTICS

Report of the committee on physical optics: L. R. INGERSOLL.

An analysis of the arc and spark spectra of chromium: C. C. KIESS.

Visible radiation from solid targets: PAUL D. FOOTE, W. F. MEGGERS and R. L. CHENAULT.

An improved type of illuminator for use in metallographic microscopy: LEWIS E. JEWELL.

The effect of variation of applied voltage, current and power on the candle-power and the spectral energy distribution of incandescent electric lamps: C. MATSUDA.

RADIATION AND PHOTOMETRY

Report of the committee on radiometry and photometry: E. C. CRITTENDEN.

A null method photoelectric photometer: L. BEHR.

Note on the least mechanical equivalent of light: HERBERT E. IVES.

A new method for spectrophotometry: L. A. JONES.

A direct reading spectrophotometer: CARL W. KEUFFEL.

The use of the D'Arsonval galvanometer in radiation measurements: EDISON PETTIT.

New measurements of planetary radiation: W. W. COBLENTZ and C. O. LAMPLAND.

COLOR AND COLOR TERMINOLOGY

An appendix to the English translation of the "Physiological Optics" of Helmholtz: DR. CHRISTINE LADD-FRANKLIN.

Report of the committee on color terminology: CHARLES BITTINGER.

The specification of color in terms of dominant wavelength, purity and brightness: IRWIN G. PRIEST, K. S. GIBSON and A. E. O. MUNSELL.

Spectral centroid relations for artificial daylight filters: K. S. GIBSON.

Applications of colors of similar appearances but different in spectral composition: CHARLES BITTINGER.

PHYSIOLOGICAL OPTICS

Report of the committee on physiological optics: L. T. TROLAND.

On the development of a subjective method of skiascopy: CHARLES SHEARD.

On the chromatic aberration of the eye and the chromatic variations in the interval of Sturm as determined by a subjective method of skiascopy: CHARLES SHEARD.

The sensitivity-intensity law for equilibrium cone minuthesis: L. T. TROLAND and C. H. LANGFORD.

The stability of hue under chromatic minuthesis: L. T. TROLAND and C. H. LANGFORD.

Instantaneous photomicrography of the capillaries in the living human body: CHARLES SHEARD.

Note on the subjective observation of the blood corpuscles in the retinal capillaries: CHARLES SHEARD.

PICTORIAL ART AND VISION

The illusion of depth from single pictures: ADELBERT AMES, JR.

Pictorial art and the physiology of vision: ADELBERT AMES, JR.

Most of these papers will appear in full in the *Journal of the Optical Society of America and Review of Scientific Instruments.*

The next annual meeting will be held at Cornell University in October, 1925.

The officers of the society are: Dr. H. E. Ives, of the Western Electric Company, *president;* Dr. W. E. Forsythe, of the Nela Research Laboratory, *vice-president;* Professor F. K. Richtmyer, of Cornell University, *secretary;* and Mr. Adolph Lomb, of the Bausch and Lomb Optical Company, *treasurer.*

F. K. RICHTMYER

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AMERICAN MATHEMATICAL SOCIETY

THE two hundred and thirty-seventh regular meeting of the American Mathematical Society was held at Columbia University, on Saturday, October 25, 1924, extending through the usual two sessions. The attendance included fifty members of the society.

The secretary announced the election of the following sustaining members: Allyn and Bacon; the Babcock and Wilcox Company; Dartmouth College; the General Electric Company (patron); Ginn and Company; the Insull Interests, of Chicago (patron); Mr. E. W. Rice, Jr., of the General Electric Company; the Union Central Life Insurance Company, of Cincinnati; the University of Washington; the Western Electric Company (patron); the Westinghouse Company (patron). He also announced the election of 153 ordinary members, of whom 73 are nominees of sustaining members.

The following papers were read:

Note on a transformation of the hypergeometric series: B. H. CAMP.

A new type of double sextette closed under a binary (3, 3) *correspondence:* LOUISE D. CUMMINGS.

Reduction of Euler's equations to a canonical form: J. H. TAYLOR.

Necessary and sufficient conditions that every closed and connected subset of a continuous curve be a continuous curve. Second paper: H. M. GEHMAN.

The rotating disk: PHILIP FRANKLIN.

The electric currents in a network: PHILIP FRANKLIN.

On simple groups of low order: F. N. COLE.

On the roots of the Riemann zeta function: J. I. HUTCHINSON.

A note on regular singular points: EINAR HILLE.

Four methods for solving the problem of the rectangular beam: C. A. GARABEDIAN.

Some two-dimensional loci: J. L. WALSH.

A uniqueness theorem for the Legendre and the Hermite polynomials: K. P. WILLIAMS.

On the prime divisors of the cyclotomic functions: C. M. HUBER.

Functional invariants, with a continuity of order p, of one-parameter Fredholm and Volterra transformation groups: A. D. MICHAL.

On certain new topological invariants: J. W. ALEXANDER.

The interpretation of non-integral exponents with notes on the theory of subponents: W. O. PENNELL.

The representation of bounded functions by trigonometric integrals: NORBERT WIENER.

A general type of singular points: EINAR HILLE.

The geometry of frequency functions: DUNHAM JACKSON.

Elementary functions and their inverses: J. F. RITT.

On the impossibility of solving certain differential equations in finite terms: J. F. RITT.

On singularities in analytical physics: G. Y. RAINICH.

The analytic function on a minimal surface: G. Y. RAINICH.

On the gradient of a functional. Preliminary communication: DUNHAM JACKSON.

Extension of a theorem due to Lerch: T. H. GRONWALL.

On the Cesàro summability of Fourier's and Laplace's series: T. H. GRONWALL.

A note concerning closed non-dense linear sets which are enumerable: J. R. KLINE.

The annual meeting of the society will be held at Washington, D. C., from December 29 to 31, in affiliation with the American Association for the Advancement of Science. On this occasion President Veblen will deliver his retiring address, and Mr. Robert Henderson will deliver the second Josiah Willard Gibbs Lecture.

R. G. D. RICHARDSON,
Secretary