NOTES

There is a mistake in the naming of the Committees to Select Hour Speakers on page 179 of the March Bulletin. These committees are: For the Annual and Summer Meetings, Professors J. R. Kline, Chairman, L. M. Graves and M. H. Ingraham; For Eastern Sectional Meetings, Professors T. R. Hollcroft, Chairman, C. R. Adams and Einar Hille. Those for the Western and Far Western Sectional Meetings are correct as announced.

The Mathematical Association of America plans a series of publications called The Herbert Ellsworth Slaught Memorial Papers. These papers will be primarily of expository character, probably between forty and eighty printed pages in length.

The Sixth International Congress for the Unity of Science will be held at the University of Chicago September 2–6, 1941.

A symposium including an address by Professor G. A. Bliss of the University of Chicago on *Functions of lines in ballistics* and an address by Professor Marston Morse of the Institute for Advanced Study on *Some new methods and problems in minimal surface theory* was held at the University of Cincinnati on November 9, 1940.

A symposium on mathematical economics was held at the University of Notre Dame February 28 and March 1, 1941. The following addresses were given: *Functionals in the theory of economics*, Professor H. T. Davis, Northwestern University; *The theory of technological unemployment*, Professor Oscar Lange, University of Chicago; *Problems of valuation and rate-making, in public enterprises*, Professor Harold Hotelling, Columbia University; *The dynamics of commodity prices*, Dr. C. F. Roos, Institute for Applied Economics, New York City; *Statistical cost-curves and price policy*, Professor Joel Dean, University of Chicago; *The determination of weight-functions for dynamic economics*, Dr. Franz Alt, Institute for Applied Economics; *Unexpected effects of certain taxes*, Professor Harold Hotelling; *On the solvability of the Walrasian system of equations*, Dr. Abraham Wald, Columbia University; *The geometrical and arithmetical determination of the index of prices*, Professor Karl Menger, University of Notre Dame.

Professor Lawrence Crawford of South African College, Cape Town, has been elected president of the Royal Society of South Africa.

At the Annual Meeting of the Mathematical Association of America Professor R. W. Brink of the University of Minnesota was elected president, Professor R. E. Langer of the University of Wisconsin first vice president, and Professor B. H. Brown of Dartmouth College second vice president.

Professor Einar Hille of Yale University has been elected a member of the Royal Physiographical Society of Lund, Sweden, as successor of Professor Vito Volterra.

Associate Professor A. A. Albert of the University of Chicago delivered the William Lowell Putnam lecture at Harvard University in March. He spoke also at Princeton University, the Institute for Advanced Study and Brown University.

The following eighty-nine doctorates, with mathematics or mathematical physics as a major subject, were conferred during 1940 in universities in the United States and Canada; the major subject is mathematics unless otherwise specified. The university, month in which the degree was conferred, minor subject (other than mathematics), and the title of the dissertation are given in each case if available.

P. H. Anderson, Illinois, June, minor in economics, *Distributions in stratified sampling.*

L. A. Aroian, Michigan, February, *A study of R. A. Fisher's t-distribution and the related F-distribution.*

Fred Assadourian, New York, June, minor in physics, *Intransitive Abelian almost-translation groups of almost-periodic functions.*

A. A. Aucoin, Louisiana State, May, *An algebraic treatment of diophantine analysis.*

R. A. Beaumont, Illinois, June, minor in astronomy, *Projections of non-Abelian groups upon Abelian groups containing elements of infinite order.*

E. G. Begle, Princeton, June, *Locally connected spaces and generalized manifolds.*

J. O. Blumberg, Pittsburgh, August, *Fundamental regions in S_6 for the simple quaternary $G^4_{60\phi}$, Type* II.

J. I. Bohnert, Pittsburgh, August, *Conical surface roulettes.*

A. A. F. Brown, Princeton, June, *Jordan fields on groups.*

G. W. Brown, Princeton, April, *The reduction of a certain class of composite statistical hypotheses.*

R. H. Bruck, Toronto, June, *The general linear group in a field of characteristic p.*

E. F. Canaday, Duke, June, *The sum of the divisors of a polynomial.*

R. F. Clippinger, Harvard, June, *Matrix products of matrix powers.*

R. H. Cole, Wisconsin, June, *The expansion problem associated with an ordinary linear differential equation and boundary conditions applying at a set of colinear points.*

R. H. Cook, Iowa State, December, major in applied mathematics, minors in physics and mathematical physics, *Evaluation of error in approximation by function methods.*

W. E. Cox, Ohio State, June, *On commutative normal matrices and unitary equivalence of matrices.*

A. B. Cunningham, West Virginia, June, minor in physics, *Non-involutorial space transformations associated with a $Q_{1,2}$ congruence.*

Norman Davids, New York, June, minor in physics, *Minimal surfaces spanning closed manifolds and having prescribed topological position.*

Bernard Dimsdale, Minnesota, July, minor in physics, *Lacunary orthogonal polynomials.*

W. D. Duthie, Princeton, June, *Segments in ordered sets.*

John Dyer-Bennet, Harvard, June, *A free algebra with three operations.*

C. J. Everett, Wisconsin, March, *Rings as groups with operators.*

Sheng-Chin Fan, Michigan, June, *Integration with respect to an upper measure function.*

H. T. Fleddermann, Louisiana State, May, *Density properties of sets.*

Sister Elizabeth Frisch, Catholic University, June, minors in physics and biology, *Determination of a set of independent relations characterizing a certain system consisting of a conic and quartic curve.*

Holly C. Fryer, Iowa State, July, major in mathematical statistics, minors in mathematics and genetics, *An analysis of group differences arising from a Poisson distribution of observations obtained from irradiation experiments.*

R. E. Gaskell, Michigan, June, *A problem in heat conduction and an expansion theorem.*

A. M. Gelbart, Massachusetts Institute of Technology, June, minor in physics, *Growth properties of functions of two complex variables.*

J. H. Giese, Princeton, June, *Conformally flat hypersurfaces of spaces of constant curvature.*

P. W. Gilbert, Duke, June, minors in physics and philosophy, *N-to-one mappings of linear graphs.*

B. E. Gillam, Missouri, June, *A new set of postulates for euclidean geometry.*

H. E. Goheen, Stanford, June, minor in physics, *On the primitive groups of classes* 4P *and* 5P.

Katharine E. Hazard, Chicago, August, *Index theorems for the problem of Bolza in the calculus of variations.*

M. H. Heins, Harvard, June, *Studies in the theory of functions analytic and single-valued in a multiply-connected region.*

A. D. Hestenes, Harvard, June, *On the transformation* $x'^{-c}ex' = x^{-c}e^{x+1}$ *and the related linear ϕ-difference equations of G. D. Birkhoff.*

J. F. Heyda, Illinois, June, minor in physics, *Uniqueness properties over sets of positive linear measure of functions of a complex variable.*

F. B. Hildebrand, Massachusetts Institute of Technology, June, minor in physics, *Solution by polynomial approximation of singular integral equations arising in static field theory.*

L. C. Hutchinson, Massachusetts Institute of Technology, June, minor in physics, *On the classification of the trivector.*

R. F. Jackson, Harvard, June, major in mathematical physics, *Reciprocity theorems in the theory of atomic spectra.*

F. P. Jenks, Notre Dame, June, *A new set of postulates for Bolyai-Lobachevsky geometry.*

J. L. Kelley, Virginia, June, *A study of hyperspaces.*

Fred Kiokemeister, Wisconsin, June, *The parastrophic criterion for the factorization of primes.*

H. L. Langhaar, Lehigh, June, *Steady flow in the transition length of a cylindrical conduit.*

J. H. Levin, Chicago, August, *Minima of double integrals with respect to unilateral variations, and applications to subharmonic functions.*

P. E. Lewis, Illinois, June, minor in physics, *Characters of Abelian groups.*

D. T. McClay, Harvard, June, *Analytic families of somas.*

A. W. McGaughey, Cincinnati, June, *Lacunary double Fourier series.*

Ingo Maddaus, Michigan, February, *Types of "weak" convergence of linear normed spaces.*

Dorothy Maharam, Bryn Mawr, June, *The notion of measure on abstract sets.*

A. V. Martin, Duke, June, minor in philosophy, *Monotone transformations of non-compact two-dimensional manifolds.*

A. B. Mewborn, California Institute of Technology, June, minor in physics, *Contributions to the general geometry of paths.*

C. E. Miller, Toronto, June, *On finite collineation groups of a given degree.*

W. L. Mitchell, Wisconsin, July, *Topological rings and infinite matrices.*

J. C. Montgomery, Yale, June, *Relations between the roots of a polynomial and the roots of its first derivative.*

A. M. Mood, Princeton, June, *The distribution theory of runs.*

C. W. Moran, Illinois, June, minor in physics, *Asymptotic theory of linear differential equations singular in several parameters.*

W. L. Morris, Duke, June, minor in physics, *Kinetic-harmonic systems.*

H. T. Muhly, Johns Hopkins, June, *Valuations and infinitely near algebraic loci.*

C. G. Mumford, Duke, June, *Topics in double Fourier series.*

J. P. Nash, Rice Institute, June, *A class of continuous functions and convergence criteria for their Fourier series.*

Albert Neuhaus, Chicago, March, *Products of normal semi-fields.*

H. E. Newell, Wisconsin, June, *On the asymptotic forms of the solutions of an ordinary linear matric differential equation in the complex domain.*

K. L. Nielsen, Illinois, June, minor in astronomy, *General boundary value problems for linear differential equations.*

J. M. H. Olmsted, Princeton, June, *Lebesgue theory on a Boolean algebra.*

R. S. Pate, Illinois, June, minor in astronomy, *Systems with operations which are not single-valued.*

H. V. Price, Iowa, August, minors in applied mathematics and education, *Analyses of a group of pre-tests for students of first year college mathematics.*

M. O. Reade, Rice Institute, June, *Generalizations to space of the Cauchy and Morera theorems.*

C. J. Rees, Pennsylvania, February, *Elliptic orthogonal polynomials.*

F. D. Rigby, Iowa, August, minors in applied mathematics and physics, *Topologies in distributive lattices.*

C. V. Robinson, Missouri, June, *Contributions to distance geometry:* (1) *Congruence order of euclidean and spherical subsets.* (2) *Helly theorems on the sphere.*

N. N. Royall, Brown, June, *On Laplace transforms of multiply monotonic functions.*

J. M. Sachs, Chicago, December, *Theory of surfaces in conjugate parameters.*

W. J. Schart, Ohio State, August, *Conditions for solutions of certain differential equations which have specified properties.*

Edith R. Schneckenburger, Michigan, February, *On 1-bounding monotonic transformations which are equivalent to homeomorphisms.*

K. C. Schraut, Cincinnati, June, *Convergence factor theorems for double and multiple series having unbounded partial sums.*

I. E. Segal, Yale, June, *Ring properties of certain classes of functions.*

C. E. Shannon, Massachusetts Institute of Technology, June, minor in electrical engineering, *Algebra for theoretical genetics.*

R. W. Shephard, California (Berkeley), August, I. *Incidence of taxation studied in a simplified economic system.* II. *A note on the length of production.*

Seymour Sherman, Cornell, June, minor in philosophy, *A comparison of linear measures in the plane.*

S. S. Smith, Chicago, August, *Motion of a spheroid and a sphere under mutual gravitation.*

Abraham Spitzbart, Harvard, June, *Approximation in the sense of least pth powers by polynomials with auxiliary conditions of interpolation.*

D. W. Starr, Illinois, June, minor in political science, *The Schrödinger wave equation from the point of view of singular integral equations.*

B. M. Stewart, Wisconsin, July, *Left-associated matrices with elements in an algebraic domain.*

G. B. Thomas, Cornell, June, *Regular ternary quadratic forms.*

V. J. Varino, Wisconsin, July, *An extension of the theory of matrices with elements in a principal ideal ring.*

L. F. Walton, California (Berkeley), August, *On ideal numbers.*

J. S. de Wet, Princeton, June, *On the connection between the spin and statistics of elementary particles.*

A. L. Whiteman, Pennsylvania, February, *Additive prime number theory in real quadratic fields.*

Orla V. Wood, California (Berkeley), May, *On the linear homogeneous differential equation of the second order with four regular singular points.*

Max Wyman, California Institute of Technology, June, minor in physics, *General differential geometry with two types of linear connection.*

The following doctorates were conferred in 1939, but were not included in the list in the preceding volume of this Bulletin (vol. 46, pp. 391–397).

J. F. Daly, Princeton, October, *On the unbiased character of likelihood-ratio tests for independence in normal systems.*

G. N. Garrison, Princeton, October, *Quasi-groups.*

Andrew Sobczyk, Princeton, October, *Projections in Minkowski and Banach spaces.*

M. E. Wescott, Northwestern, August, minor in economics, *A set of Newton polynomials analogous to Laguerre's polynomials.*

G. W. Whaples, Wisconsin, *On the structure of modulus with a commutative algebra as operator domain.*

Assistant Professor J. E. Eaton of Hofstra College has been promoted to an associate professorship.

Dr. K. C. Schraut of the University of Dayton has been promoted to an assistant professorship.

Assistant Professor Saunders MacLane of Harvard University is on leave this term at the University of Chicago.

The following appointments to instructorships are announced: Cornell University: Mr. W. H. Durfee; Fenn College (Cleveland): Mr. C. W. Topp; Harvard University: Dr. I. E. Segal; University of Michigan: Dr. Sam Perlis.

Mr. H. W. Macrosty, president of the Royal Statistical Society, died January 19, 1941, at the age of seventy-six years.

Professor Francesco Palatini of the Technical Institute of Turin died June 2, 1940, at the age of seventy-four years.

Professor Emeritus E. S. Loomis of Baldwin-Wallace College died December 11, 1940.

Professor Emeritus D. C. Miller of Case School of Applied Science died February 22, 1941, at the age of seventy-four years. He was a member of the Society from 1923 to 1936.

The death of Mr. J. O. Watts of Queen's University in Kingston, Ontario, has been announced.