

LIST OF MASTER'S THESES, 1957

- ALLMOND, CHARLES. *Agronomy*
The Growth, Development, and Chemical Control of Wild
Garlic (*Allium Vineale* L.).
- BAYNARD, ROBERT E., JR. *Horticulture*
The Persistence and Penetration of CMU (3-(P-Chlorophenyl)-
1, 1-Dimethylurea) in Asparagus Soils.
- BECK, JAQUELINE. *Education*
A Scale for Measuring Attitude toward School.
- BLACKMER, MIRIAM C. *Human Relations*
Some Factors Affecting Scholastic Achievement in Junior High
School.
- BLANC, ALBERT JAMES. *Electrical Engineering*
Spectral Signal-to-Noise Characteristics of Photomultiplier
Cathode Surfaces.
- BRADLEY, GEORGE UPTON BENNETT. *Mechanical Engineering*
The Development of a Design for an Ultra High-Speed Air-
Driven Turbine.
- BRATTAN, THOMAS, JR. *Business Administration*
Retained Earnings and Stock Prices.
- BRUNETTE, BERNARD. *Education*
Judging Local Science Fairs.
- BRYCE, CHARLES A. *Chemical Engineering*
The Effect of Tube Bundle By-Passing on Pressure Drop and
Heat Transfer in the Laminar and Turbulent Regions.
- BURKE, HAROLD HOUSTON. *Mechanical Engineering*
The Design of a Seismic Instrument for Measuring Displace-
ment and Acceleration.
- BUTLER, JOSEPH T. *Early American Culture*
Wheatland, 1848-1868, the Home of James Buchanan.

- CARLSON, DOUGLAS W. *Chemistry*
The Polarography of D-Erythrose.
- CARMODY, DONALD J. *Chemistry*
Solubility Product Constants of the Silver Salts of Some Saturated Fatty Acids.
- CATTS, ELMER P., JR. *Entomology*
Mosquito Prevalence on Impounded and Ditched Salt Marshes, Assawoman Wildlife Area, Delaware, 1956.
- CLEMENT, WILLIAM H. *Chemistry*
Catalytic Vapor Phase Dehydration of Alcohols and Related Studies.
- COXE, JULIA ANN. *Education*
Teacher Participation in Programs of In-Service Education.
- CROTHERS, WESLEY GIFFORD. *Agriculture*
Lima Bean Silage for Dairy Heifers.
- DAVIS, WILLIAM E. *Mathematics*
Partially Replicated Latin Squares.
- DICKINSON, CHARLES H. *Electrical Engineering*
The Testing of Dry-Type Transformer Insulation.
- DIETRICH, BRUCE F. *Chemistry*
Thermodynamics of Swelling of Cellulose in Zinc Chloride Solution.
- DITTO, RICHARD S. *Electrical Engineering*
Analysis of Clutch Velocity Servos.
- EVANS, PHILLIP WILLIAM. *Chemical Engineering*
The Vapor Phase Hydration of Ethylene Oxide.
- FASICK, ROSS WADE. *Chemistry*
Studies Related to the 1,3-Rearrangement.
- FELTON, DONALD K. *Chemistry*
Peracid Oxidation of Alpha Diisobutylene.
- FITTIN, THOMAS FRANCIS. *Chemistry*
An Attempted Synthesis of Diallylmercaptoacetic Acid.

- GARRETT, WENDELL D. *Early American Culture*
The Newport Rhode Island Interior 1780-1800.
- GEOGHAN, WILLIAM F., JR. *Business Administration*
Unionization of American Engineers.
- GILBERT, ARLAN K. *History*
Gunpowder Production in the Middle Atlantic States, A Hazardous Industry, 1783-1833.
- GLUNTZ, MARTIN L. *Chemistry*
Rate of Reaction of Benzyl Alcohol With Aryl Isocyanates in Solution and in a Film.
- GRIFFITH, JOHN W. *Human Relations*
Employment Application Factors as Predictors of Future Accident Experience.
- HACKAMACK, ROBERT W. *Chemical Engineering*
Hydraulic Characteristics of A Two-Foot-Diameter Bubble Cap Tray.
- HACKENBERGER, WILLIAM R. *Economics*
An Historical Evaluation of Current Efforts to Attain a Favorable Balance of Payments for the Republic of Mexico.
- HARDY, LESTER B., JR. *Animal and Poultry Industry*
A Study of Blood Protein-Bound Iodine and Circulating Thyroid Hormone in the Domestic Fowl.
- HARE, ROBERT RIGBY. *English*
The Base Indian.
- HEARNS, CHARLES B. *Physics*
The Microwave Spectrum of Formic Acid.
- HOBSON, JENNIE S. *Education*
How the People of Salem County, New Jersey, Live at the Present Time.
- HUBER, WILLIAM GEORGE. *Psychology*
The Effect of Thorazine on the Classroom Behavior of Emotionally Disturbed Children.
- HUDSON, MARIE T. *Chemistry*
Biochemical Effects of D-Glucosone.

- JACKSON, FRANCIS WILLIAM. *Mechanical Engineering*
Measurement of Hot Gas Temperature with a Sonic Orifice.
- JACO, CHARLES M., JR. *Chemical Engineering*
The Effect of Surface Roughness on the Transfer of Heat in
Forced Convection Boiling.
- JEWELL, WILLIAM H. *Business Administration*
Some Aspects of Research and Development Cost Control in
the Chemical Industry.
- JOHNSON, DONALD SAXTON. *Political Science*
Voting Trends in Wilmington, Delaware, 1926-1954.
- KAISER, WILSON KIBLER. *Agricultural Economics*
Factors Affecting the Bruising of Broilers.
- KALISKI, EDWARD JAY. *Mechanical Engineering*
The Load Capacity of Porous Bronze Bearings.
- KEEN, ROBERT THOMAS. *Chemistry*
Kinetic Studies on the Oxidation of Tertiary Alcohols and
Their Derivatives.
- KENNEDY, GORDON. *Economics*
The Nature and Development of Postwar Concepts of Eco-
nomic Competition.
- LARSEN, WILLIAM E. *Mechanical Engineering*
The Design and Application of a Toothed Reel For a Lima
Bean Harvesting Machine.
- LEE, ROBINE C. L. *Chemistry*
Preparation of Monochloromethyl p-Nitrobenzyl Ether.
- LINDELL, ALICE JAQUETTE. *History*
Quakers in Delaware 1672-1872.
- LLOYD, PAUL JAMES. *Plant Pathology*
Influence of Irrigation of Vegetable Crops on Disease Develop-
ment and Control.
- LORD, EVELYN MARLIN. *Political Science*
An Urban Renewal Program in Wilmington, Delaware.

- LYNCH, DARREL L. *Chemistry*
Reactions of Organic Substrates in the Presence of Clay Minerals.
- MADIGOSKY, WALTER MYRON. *Physics*
Evaluation of Molecular Quadrupole Moments from Microwave Line Width Measurements.
- MAYER, ROBERT WESLEY. *Education*
A Comparison of the Differential Aptitude Tests with School Achievements in Certain College Preparatory Subjects.
- McCLURE, JEAN BRUCE. *Early American Culture*
The American-China Trade in Chinese Export Porcelain, 1785-1835.
- McNALLY, WILLIAM ARTHUR. *Chemical Engineering*
The Effect of Flocculating Agents on the Filtration Characteristics of Hydrous Aluminum Oxide.
- MEDEIROS, ROBERT WHIPPEN. *Chemistry*
The Kinetics of the Absorption of Oxygen by Acrylonitrile and Its α -Alkyl Homologs.
- MICHEL, H. HARVEY. *Chemical Engineering*
Vapor-Liquid Equilibria of the System Boron Trichloride-Chlorine.
- MILLER, LEROY JESSE. *Chemistry*
The Chlorinolysis of 4-Benzylthio-7-Chloroquinoline.
- MESSINA, SALVATORE MICHAEL. *Education*
Spiritual Perspectives and Counseling Theory.
- MORRASH, JAMES. *Mechanical Engineering*
A Method to Determine the Performance of an Extraction Gas Turbine Cycle.
- MULLANEY, JAMES E. *Mechanical Engineering*
Base Pressures on Blunted Cones in Subsonic Streams.
- NOLAN, AGNES PETERS. *Education*
A Creative Project in the Dramatization of Education Materials for Grades 4 through 8.

- NYCE, JACK L. *Chemistry*
Stereoelectronic Factors in the Addition of Sulphenyl Chlorides to Norbornene.
- OLNEY, HARVEY OMAR. *Biological Sciences*
The Paper Chromatography of Growth Substances from Seeds and Seedlings of the Cherry, *Prunus Cerasus* L.
- POSTEN, PAUL V. *Chemistry*
Studies of Heparin-Lipovitellin Complex Formation in Buffered Solutions.
- RALPH, EDWARD HERMAN. *Horticulture*
The Effects of Different Moisture Levels on the Growth and Development of Tomatoes.
- READ, ROBERT EMMS. *Chemistry*
Cyclic and Polymeric Urethans Derived from 1, 3-Aminopropanol.
- RIES, JANE ATNO. *Education*
A Description of the Advanced Biology Course for Gifted Students in a Philadelphia High School.
- RIFKIN, ROBERT JOEL. *Animal and Poultry Industry*
Development of Alloxan Diabetes in the Immature Bovine, with Respect to the Protective Role of Endogenous Glutathione and its Subsequent Destruction.
- RUTHERFORD, EDWIN KEATLEY. *History*
An Analysis of Certain Factors Contributing to the Reformation in Scotland.
- SAYED, MUSTAFA QUASIM. *Plant Pathology*
Temperature as it Affects Growth of Apple Fruit-Rotting Organisms and their Response to Fungicides.
- STOUT, WILLIAM JOHN. *Chemistry*
2-Dialkylmethyle-3-Dimethylaminooxazolidine-4, 5-Diones.
- TOWNSEND, RAYMOND L. *History*
The Correction School Movement for Juvenile Offenders in Delaware.

- VETERE, ANTHONY MOTTOLA. *Mechanical Engineering*
Designing a Spray Cooler for Gas Turbine Application.
- VIEHOEVER, KENT. *Psychology*
A Comparative Investigation of Three Response Measures:
Frequency, Decision Time, and "Expectancy" (Subjective
Probability).
- WANG, STELLA YA-YEN. *Chemistry*
The Condensation of Oxomalonic Ester with m-Xylene.
- WATJEN, JOHN WHEATON. *Chemical Engineering*
The Vapor Phase Sorption of Ethylene on IR 120 Ion Exchange
Resin.
- WEAVER, HERBERT GRANT. *Chemistry*
The Effect of Cobalt Chloride, Synthalin A, and Orinase on
Rat Liver Slices Incubated with Glucagon.
- WERNER, HAROLD V. *Statistics*
A Statistical Survey on the Length of the Gray Squeteague or
Gray Sea Trout, *Cynoscion Regalis*.
- WHITLOCK, MALCOLM. *Chemical Engineering*
Flow Behavior of Concentrated Suspensions.
- WIEDERRECHT, EDWIN LEWIS. *Human Relations*
Evaluation of an Industrial Clean-up Campaign: A Study in
Human Relations.
- WINTERS, BENJAMIN. *Physics*
The Experimental Determination of Molecular Collision Di-
ameters and Associated Quadrupole Moments.
- WITTMER, FRANKLIN DONALD. *Chemical Engineering*
Heat Transfer Coefficients in a Baffled Shell and Tube Heat
Exchanger under Varying Conditions of Leakage.
- ZWICKEL, HERBERT. *Agriculture*
Inorganic Materials as Sources of Unidentified Growth Factors
in Broiler Diets.