

# BULLETIN

of the  
**American Ceramic Society**

A Monthly Publication Devoted to Proceedings  
of the Society, Discussions of Plant Problems, Discussions  
of Technical and Scientific Questions and  
Promotion of Coöperative Research

Edited by the Secretary of the Society Assisted by Officers of the Industrial Divisions

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Vol. 1

July, 1922

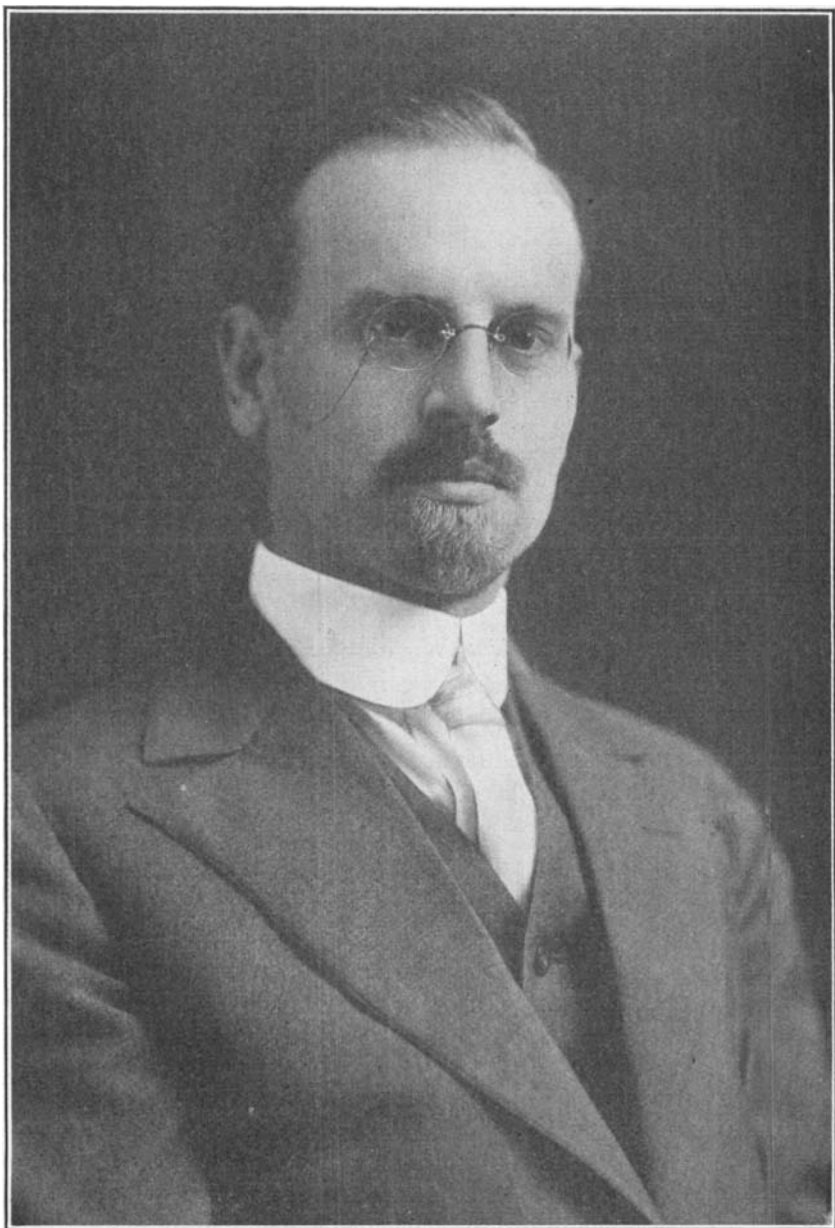
No. 3

## EDITORIALS

### DR. EDWARD W. WASHBURN

#### A Sketch and a Tribute

For six years Dr. E. W. Washburn has been the directing head of the department of Ceramic Engineering at the University of Illinois and during the past year he has been editor-in-chief of the *Journal of the American Ceramic Society*. During these six years he has contributed to ceramic science from the viewpoint of a physical chemist with a peculiar gift for searching and proving fundamentals. His laboratory at the University is equipped with devices that are unusual to ceramic laboratories but the discoveries there made have been told by Dr. Washburn in such an elementary fashion that most of us have not an adequate appreciation of the ingenious methods and painstaking thoroughness by which he has derived fundamental facts, concerning which ceramists have long been theorizing from empirical observations. One must study his contributions and know something of the methods used to appreciate the value of that which Dr. Washburn has contributed during these six years. Only thus can an estimate be made of the loss which ceramic science will feel because of his withdrawal from this special field. His new work takes him to Washington, D. C., where he will be editor-in-chief of "International Critical Tables of Physical, Chemical, and Engineering Constants," and chairman of the Division of Chemistry and Chemical Technology of the National Research Council.



E. W. WASHBURN

The present editor of this *Journal* confidently expresses for all members of the Society sincere gratitude to Dr. Washburn for his contributions to ceramic science and especially for the services he efficiently rendered as member of the Research Committee during the past four years and as editor of this *Journal* during 1921. It is hoped that the Society will be favored by a continuance of his interest and assistance in the things it aims to accomplish. He enters into a broader field of science with the best wishes of every member of this Society.

We recite here from "Who's Who" a résumé of what he has achieved: Chemist: Univ. of Nebr., 1899-1901; Mass. Inst. Tech., B.S. 1905, Ph.D. 1908; Research assoc. in physical chemistry, Mass. Inst. Tech., 1906-08; Assoc. in chem., 1908-10, Assist. prof., 1910-13; Prof. physical chem., 1913-16; Prof. ceramic chem., and head of dept. of ceramic engineering, 1916-22; U. of Ill. Editor-in-chief Internat. Critical Tables of Phys., Chem. and Engrng. Constants, 1922—Vice-chmn. and acting chmn., 1918-19 Chmn. 1922-23, Div. of chem. and chem. tech., Natl. Research Council; Delegate to Internat. Union Pure and Appl. Chem., London, 1919, Lyons, 1922 and to Internat. Research Council, Brussels, 1919 and 1922; Amer. Commissioner Internat. Annual Tables of Phys. and Chem. Constants, 1921. Fel. A.A.A.S., Mem. Am. Chem. Soc., Am. Phys. Soc., Am. Ceramic Soc. (Ed. "Jour." 1921), Nat. Research Council, Soc. Glass Technology, Roy. Soc. Arts; Ill. Acad. Sci., Phi Lambda Upsilon, Sigma Xi, Mass. Soc. Mayflower Des., Colonial Families. *Author*: Introduction to the Principles of Physical Chemistry, McGraw-Hill Book Co., New York, 1915, 2nd. Ed. 1921, French translation by Noyes and Weiss, Payot et Cie, Paris, 1922; sixty contributions to scientific and technical press embodying results of original research. *Clubs*: Cosmos, Washington, D. C., Chemists, N. Y., University, Urbana, Ill. *Address*: National Research Council, Washington, D. C.

His researches and publications are:

A. Introduction to the Principles of Physical Chemistry.

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2. An Improved Apparatus for the Measurement of Transference Numbers in Solutions of the Halogen Acids and their Salts. *Technology Quarterly*, **21**, 164 (1908).

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**TWO NOTABLE EVENTS****MARK PROGRESS IN CERAMIC ENGINEERING****Edward Orton, Jr. Made Doctor of Science****New Jersey Ceramic Research Station Building Dedicated**

Rutgers College honored itself and gave recognition to Ceramic Engineering as an applied science when on June 13th it conferred the degree of Doctor of Science upon Edward Orton, Jr. and dedicated a handsome and well-equipped building to the teaching of, and for, research in Ceramics.

For over 150 years Rutgers College has maintained an enviable research record in the classics and in the pure sciences and no deviation was made from her traditional conservatism when she in this substantial manner recognized Ceramics as a science.

For twenty years Rutgers College has been offering courses of instruction in Ceramics and maintaining ceramic research laboratories. These twenty years have been years of substantial accomplishments in Ceramic technology and of increasing recognition and support of scientific and technical research by the Ceramic industries.

In 1894 the first collegiate course of instruction in Ceramic Engineering was opened to students at the Ohio State University under the directorship of Edward Orton, Jr. Four years later the American Ceramic Society was organized by him. In rapid succession similar courses of ceramic instruction and ceramic research stations were established in the states of New York, New Jersey,



Prof. George H. Brown.

Illinois, Iowa, Oregon, North Dakota, Washington and in Saskatoon, Canada, in federal bureaus, and in several European countries. Societies for the promotion of Ceramic arts and sciences have been established in England, France, Germany and Japan. The Dean of this world-wide organization for the promotion of ceramic arts and sciences is our own Edward Orton, Jr., who for twenty years was secretary of the American



Edward Orton, Jr., E.M., D.S.



Albert V. Bleininger.

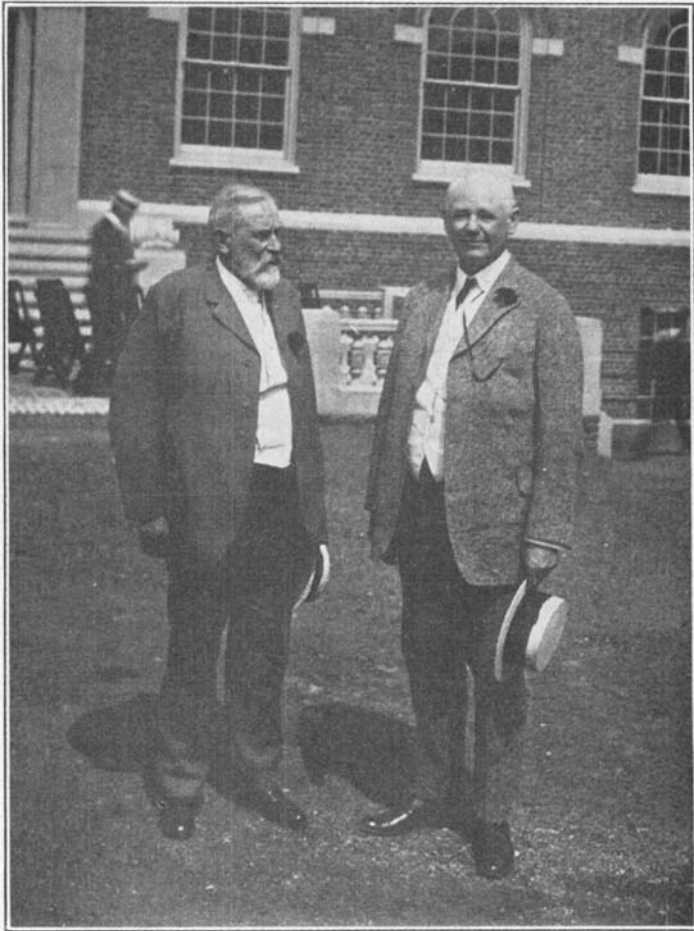
Ceramic Society. It was very fitting, therefore, that Rutgers College with its 150 years of traditions should, on the 20th anniversary of the establishing of its own ceramic department, give recognition and honor to him to whom belongs the credit for initiating this world-wide promotion of Ceramic technology and science.





Left to right: Abel Hansen, Charles H. Cook, Frank H. Riddle, Dr. W. H. S. Demarest, Prof. George H. Brown, Roy H. Minton.

Prof. George H. Brown is the Director of the New Jersey Ceramic Research Station. To him belongs the lion's share of credit for obtaining the handsome and well appointed building on Rutgers campus. He was loyally supported by the New Jersey Clay Workers under the



Charles A. Bloomfield.

Dr. Edward Orton, Jr.

leadership of Charles A. Bloomfield, Charles H. Cook, Abel Hansen, August Staudt, past presidents of the New Jersey Clay Workers Association, and by Roy H. Minton, the present president. \$100,000 was given by the State and the equivalent of \$30,000 was contributed by the clay workers.

The purposes of this Ceramic Research Station are:

1. To give instruction in Ceramic Engineering and in Ceramic Arts and Sciences.
2. To conduct Extension Courses in Ceramics in different centers throughout the State.
3. To Conduct Coöperative Industrial Researches.
4. To investigate the resources of the State ceramic materials.
5. To publish Ceramic literature.

We confidently bespeak for the Ceramic workers the world around a self-congratulation that the State of New Jersey has so well equipped herself for the training of ceramists and for the prosecution of ceramic investigations. These facilities, though they will be maintained by New Jersey, will be an addition to the facilities of the entire ceramic craft the world around.

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### THE VALUE OF DISCUSSIONS

**Growth: the Interchange of Ideas.**—Since the founding of the American Ceramic Society the custom of the Annual Meetings has been to carry on the activities of the Society through the medium of *Discussions*. The need for this interchange of ideas was, in fact, the fundamental reason for the organization of the Society. If everyone had felt complete master of his work, with no difficulties to encounter and no problems to solve, each would have continued to go his separate way content. There would have been no desire for lengthy trips which meant time lost and money and energy expended. And in the end this narrow, ingrowing spirit would have meant a retrogression and serious crippling of business. *Isolation does not encourage progress.*

The reason, then, for these meetings was the need felt by the scientific man and the practical business man to get together and contribute to the experience of others as well as to accept their share. Each one recognized his limitations and sensed the value of the ideas of the others. This interchange of ideas has always stood for growth and in the Society it meant development from a few score of men to many hundreds.

**Thoroughness of the Early Years.**—But with the increase in membership in the Society new difficulties arose. In the early days, when the number was small, the men knew each other intimately and their problems took on the aspect of personal difficulties. Each one was considered at length and thoroughly discussed. In the older volumes of the *Transactions*, all of the members were active participants in these discussions. They were intimate and companionable, and yet, informal as they were, the results were far-reaching and conclusive. A problem was not left until the solution was made as complete as these men could work it out.

If a definite end could not be obtained, the discussions were continued throughout the year by correspondence and the questions were reconsidered at the next Annual Meeting. Thoroughness characterizes these discussions as they appear now in the *Transactions*.

**Discussions Supplement Annual Meeting.**—Necessarily, with the remarkable increase in the Society membership, the attendance at the meetings has become a matter of hundreds rather than the few score as at first. The affairs of the Society demand more time; there are more problems, but no more time. One of the most frequent expressions during the progress of a heated discussion is "This must be continued at another time." There are many other papers to be heard; many other questions of just as vital importance to be taken up and probably left unfinished. And then the meeting is over. A few copies of the Reports are circulated among the officers. Otherwise, the questions discussed are dead issues, the solutions of problems lost.

This, then, is the first purpose of opening the pages of the *Bulletin* to the members for Discussions. There is the opportunity of preserving the record of the results of the meetings as well as carrying the subject much further and working out new phases and solutions. Objections may be brought up and confusing questions explained. In other words, the meeting is over, but the forum is once more open and Discussions are going full tilt.

**Open Forum for the Society.**—A second, but by no means less, consideration is the matter of the thousand or more members who have not been present at the meeting. They have as many problems of vital importance to work out and as many ideas of worth to offer to others but without a medium of expression their aid is impossible. With the presentation of the Discussions they are not only given the benefit of the transactions which they have missed, but they are invited to contribute to these same Discussions; to add their weight of experience. Not only to themselves but to the entire Society, these members take on a new significance for they are contributing to the welfare of the Society as well as deriving benefits from its organization. For the first time, the bulk of the Society is made to feel an active interest which hitherto has been denied. They recreated themselves into an active, working force which is ready to offer to the Society aid to the uttermost limit.

**Keeps Subjects Active.**—In addition to papers presented at the meetings and the discussions which follow them, there are many papers published which are received in the Editor's office not in connection with a meeting. These papers are vital and alive. Their problems and issues are current and as essential as any given consideration at the meetings. The members are losing a great deal not to use these for Discussions. The idea that a paper which was published last year is a dead issue is

fundamentally wrong. The *Journals* themselves are of more than current interest. Their scope includes subjects of interest to every member. They are current and alive until a new idea is presented to displace them.

**Vitality of Discussions.**—And so the *Bulletin* herewith presents the opportunity for this exchange of ideas. It is the organ of expression for the fifteen hundred members of the Society. A few score of men write the original papers which interest and demand the criticism of the entire Society. And it is in the *Bulletin* that these new voices must be heard. The *Bulletin* belongs to these fifteen hundred members in the seven Divisions, and it will become the thing they decree it to be. This is every member's opportunity to express ideas and ask questions.

The *Bulletin* will then be vital.