DR. WILLIAM MANSFIELD CLARK, PH.D., of the Hygienic Laboratory of the U. S. Public Health Service, Washington, has accepted the position of professor of physiological chemistry at the Johns Hopkins University School of Medicine.

QUENTIN D. SINGEWALD, Ph.D. (Johns Hopkins, '26), has been appointed to an assistant professorship of petrography in the Colorado School of Mines, at Golden.

DR. PETER DEBYE, professor of physics in the Technical School of Zurich, has accepted a call to the University of Leipzig, where he will succeed Professor Otto Wiener.

DISCUSSION AND CORRESPONDENCE

AN ECHO FROM MORRISON CHAPEL, TRANSYLVANIA UNIVERSITY

THE description of the echoes from the Lincoln Memorial by C. A. Browne in SCIENCE, July 29, 1927, calls to mind an interesting echo produced by Morrison Chapel of Transylvania University. The sound comes from the bell of the Court House clock, several blocks away. The echo was first noticed one evening several weeks ago when the writer was sitting in a

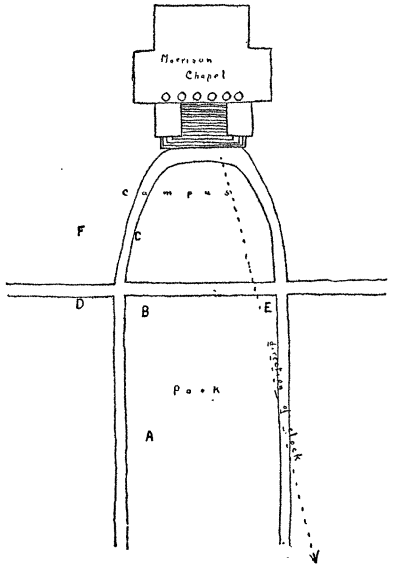

FIG. 1

park adjacent to Transylvania campus. It so happened that the position taken was such that the echo gave the impression of the clock striking twice as rapidly as usual, and, of course, a double number of strokes. The echo seemed slightly higher pitched than the clock bell. This first position is indicated as point A. Subsequent observations from various points in the park and campus are as follows: From points B, C and D the echo follows the bell so closely as to sound like a double stroke rather than a double number of strokes, and at E and F the echo was not heard.

WILLIAM A. ANDERSON, JR.
KENTUCKY AGRICULTURAL
EXPERIMENT STATION, LEXINGTON

ICARUS AND MELTING WAX

IN Professor Eddington's fascinating book "The Internal Constitution of the Stars," we are given the privilege of watching the "hurly-burly of atoms, electrons and ether-waves" in stellar interiors. Our astronomer pictures the commotion prevailing in these tremendous gas-houses, as atoms go whizzing by, now and then shedding an electron and anon grabbing some stray one, the whole result of the bustle being the emission of ether-waves. No humble earthworm can say aught to the contrary; but he may balk in following the astronomer in flights through the earth's atmosphere.

"In ancient days," he says, "two aviators procured to themselves wings. Daedalus flew safely through the middle air and was duly honored on landing. Icarus soared upward to the sun till the wax melted which bound his wings and his flight ended in fiasco. . . . The classical authorities tell us that he was only doing a stunt, but I prefer to think of him as the man who brought to light a serious constructional defect in the flying machines of his day."

These pioneer airmen were father and son. And the question naturally arises "Was not father in equally great danger?" His wax attachments were exposed to the full radiation from the earth. Icarus, poor boy, flying higher and higher had to go through the troposphere. And as he rose from earth it got colder and colder. Even in a genial clime on a midsummer day, by the time he was five miles high, he would have been frozen stiff. With a temperature of $-40°$ C. the very mercury in his thermometer would have solidified. If he lived to reach the stratosphere he still had to fly a hundred miles in cold storage!

And why decry old Daedalus? If it was necessary to find the melting-point of wax, the experiment could have been carried on just as well down below.

My good friend Dr. W. W. Campbell used to say "This would be a happy world for astronomers if only there were no atmosphere!"

ALEXANDER MCADIE
BLUE HILL OBSERVATORY

HORTUS GRAMINEUS WOBURNENSIS

THE undersigned would like to be advised of the location of an 1816 edition of George Sinclair's Hortus Gramineus Woburnensis. The copy in the Library of the United States Department of Agriculture gives on page 108 a description of *Trifolium medium*, a red perennial clover, and the author states that to avoid any chance of mistake he presents a specimen of

the red perennial clover, and on page 109 a dried specimen of *Trifolium pratense* is presented. The undersigned has been unable to locate any other copy of the 1816 edition and wishes to do so in order to ascertain whether this error is found in all copies or is peculiar to this one copy and will appreciate any information as to libraries where other copies may be consulted.

A. J. PIETERS

BUREAU OF PLANT INDUSTRY

QUOTATIONS

THE WORLD POULTRY CONGRESS

ALTHOUGH from a spectacular standpoint the recent Poultry Congress at Ottawa was an unqualified success, in consequence of which the poultry industry in Canada will derive considerable benefit, it is difficult at present to form an estimate of the educational value of the proceedings and to assess the importance of the information derived from the numerous papers and discussions. There would appear to be some justification for critical comment upon the fact that papers were not printed in advance, so that, as five sections were in session at the same time in different halls, delegates experienced great difficulty in gaining more than a vague impression of the whole, while the general public must await the publication of the official proceedings before it will be possible to summarize the educational effect of the congress.

The general impression, which is confirmed by the evidence of delegates, is that insufficient time was available to do justice to the many papers presented by authorities in the numerous branches of the industry. Not only did the "five-ring circus," as an American delegate described it, create confusion among those who were desirous of getting full educational value, but the absence of printed papers and the short time allowed for each paper necessarily limited the scope and the value of such discussion as was permitted. In view of the fact that the next congress is to be held in England in 1930 it will be necessary to formulate a policy that will do justice to the educational side, though it may be impossible to emulate the generous manner in which the Canadian government gave the poultry industry the best publicity it has ever enjoyed. The fortunate circumstance which enabled the Prince of Wales and Mr. Baldwin to visit the congress set the seal upon the efforts of the Canadian authorities to make the event a thorough success in the spectacular sense.

It is the more regrettable, therefore, that doubt exists as to whether the original purpose of world's poultry congresses was sufficiently considered. The International Association of Poultry Investigators and Instructors inaugurated these triennial congresses with a view to enabling research workers and educationists to express their views and discuss experiences; and one suspects that interest in the Canadian congress spread so widely that the authorities found themselves with a plethora of good things which could only be embraced in the program by the quintuple-session plan. Even that would have been effective had the papers been printed in readiness for the proceedings, and it seems essential that that precaution should be taken at future congresses unless a drastic measure of compression is adopted by limiting the number of papers.

A further point which must be borne in mind for future congresses arises from apparent differences between investigators and practical poultrymen. It is conceivable that some of the former approach the task of research from the laboratory standpoint, whereas some practical men are so exacting as to demand that all investigation shall begin and end in the poultry yard. Doubtless there is a measure of reason on both sides, and a considerable amount of latitude must be allowed. It can not be denied, however, that research is a means to practical progress, and in connection with poultry-keeping its success must be measured by what it achieves in smoothing the path of the practical worker. That in turn depends upon close association and mutual confidence between the two classes, so that every effort should be made to interest scientific investigators in the every-day problems of the practical poultrymen at the same time as the latter are induced to take research workers into their confidence.—*The London Times.*

SCIENTIFIC BOOKS

Elements of Physical Biology. By ALFRED J. LOTKA. Baltimore, Williams and Wilkins Co., 1925. xxx + pp. 460.

ONCE in a while some one writes a really new book such as "The Fitness of the Environment," "Winnie the Pooh," "Die Ausdehnungslehre" or "Oedipus Tyrannus." Sometimes such works are immediately approved like the first two; sometimes, as was the case with the third, not even the brightest minds of the time seem to appreciate the significance of the book and a generation or two elapses before the author comes into his own. With respect to the last, it was crowned at once with approval but perhaps not understood until the advent of psychoanalysis millenniums later, although to one who knows his Greek drama not quite so poorly as his psychoanalysis it sometimes seems as though the complex that afflicted Oedipus was the opposite of the Oedipus complex! Lotka's "Physical Biology" is a new, not merely a