

to the community. To a large extent it means the further development and extension of existing facilities, added to an organized cooperation between botanists themselves and between botanists and the practical and commercial man: this will include an efficient, systematic cataloguing of work done and in progress. We do not propose to hand over all our best botanists to the applied branches and to starve pure research, but our aim should be to find a useful career for an increasing number of well-trained botanists and to ensure that our country and empire shall make the best use of the results of our research. Incidentally there will be an increased demand for the teaching botanist, for he will be responsible for laying the foundations.

Complaint has been made in the past that there were not enough openings for the trained botanist; but if the responsibilities and opportunities of the science are realized we may say, rather, "Truly the harvest is plentiful, but the laborers are few." Botany is the *alma mater* of the applied sciences, agriculture, horticulture, forestry, and others; but the *alma mater* who is to receive the due affection and respect of her offspring must realize and live up to her responsibilities.

A. B. RENDLE

CHARLES SMITH PROSSER

THE "country boys" of New York state never had a fair chance for a higher education until Cornell University was established with its state and government subsidies. The early days of that institution gave adequate proof of this and as the years have passed the successful careers of these boys of New York and Cornell have been eloquent testimony to this aid. True for many branches of human knowledge and practise, this statement is eminently applicable to the earlier graduates in the science of geology. Dr. Prosser, whose sudden and unexplained death on September 11 has been widely noticed in

the press, was one of these country boys. Born in 1860 in Columbus, a little hamlet of Chenango County, N. Y., the son of a farmer of slight substance, and grandson of one of the early settlers of the region, the simple surroundings of his boyhood were of a kind to give unconscious direction to his maturing life. His home lay back on the hills which bound the Unadilla River on its way south to join the Susquehanna, and its outcropping rocks were filled with things which, to his attentive eye and naturally reflective mind, must have awakened many questionings. A farmer's boy in a stony country where fields have to be picked over regularly after the spring plowing, is pretty sure to either love or hate the rocks. A disposing mind led this farmer's boy to wish to know more about them. When the country school a few miles away at Brookfield could give him no more, he took the helping hand which Cornell held out and entered there in 1879. And it was to be his fortune in after life, when fully equipped, to return to his home valley and, under the auspices of his state geological survey, to apply his well-trained mind to the solution of its geological problems. So excellently did he habilitate himself in college that after his graduation as bachelor of science in 1883 he received the first award of the Cornell fellowship in natural history and then for three years was instructor in the department of geology. From there he went to Washington as an aid to the late Lester F. Ward, in the paleobotanical work of the U. S. Geological Survey. It was then I first came to know him while he was engaged in collecting fossil plants, and then, as always afterwards, I found him conscientious and earnest, though obviously not at that time particularly enthusiastic over the work that had been allotted to him. His experience as a teacher seemed to draw him toward that work again and he left Washington in 1894, though without dissolving his effective connection with the federal survey, to become professor of natural history in Washburn College, Topeka. There are active geologists to-day, who were his students there, but the major result of his stay in Kansas is, I

should say, the opening it afforded for his researches on the late paleozoic rocks of that state, problems that he followed not only while there, but to which he returned in later years. His work on the Carboniferous and Permian of Kansas and eastern Nebraska, some of it undertaken under the auspices of the Kansas University Geological Survey, was of unquestionably high value, much of it of fundamental importance. But it was his success as a teacher which gave him in 1894 a call to Union University at Schenectady, N. Y., and as it was a call which brought him back home and to the rocks of New York out of which he grew, he accepted it with alacrity. Union was then venturing on the experiment of establishing a separate department of geology, and her experiment was successful enough, as some admirable geologists and paleontologists and many other graduates of Union under Prosser's régime, stand to-day to testify. It was while at Schenectady that Professor Prosser entered upon his alliance with the New York Geological Survey and in this association accomplished a large amount of useful analytical work on its stratigraphical problems. His papers published during this period of his life were notable, and cover portions of eastern and central New York; the Mohawk Valley and the vicinity of Schenectady, the Helderberg Mountains, the Unadilla, the Oneonta, the Catskill and other regions—all characterized by his peculiarly exact and detailed procedure.

In his last year at Schenectady he was made chief of the Appalachian division of the Maryland geological survey and thereafter for several years his summers were spent in field work on the paleozoic rocks of Maryland, Pennsylvania and West Virginia.

In 1899 Professor Edward Orton, Sr., the distinguished state geologist of Ohio, former president of the State University, educated in Albany and in his later years allied with the official work of New York, perceiving the advance of the years, fastened on Prosser as the man to succeed him in the professorship of geology in the State University of Ohio at Columbus, and thither Dr. Prosser went as

associate professor of historical geology. In 1901 he was made head of the department. There he remained till his death—seventeen years. Professor Orton died not long after Prosser's arrival in Columbus and I think the initiate was in some ways embarrassed by the sudden loss of the man who otherwise would have been his wise guide at the beginning of his new undertaking. For some time after settling in Columbus Dr. Prosser maintained his official and intimate relations with New York, but gradually the problems nearer to him invited his attention and a natural loyalty to the state of his adoption and his official connection with its survey, together with the requirements of his college work, absorbed his energies. In this period, however, he was able to give much time and to do much valuable work on the paleozoic rocks of Maryland under the auspices of the official survey of that state, now published as a part of the admirable series of reports of that organization. Of his many contributions to the geology of Ohio which have been published during his career at Columbus, most of them themes of stratigraphic determination and correlation, all bear the impress of his cautious mode and detailed analysis which make them practically final for the fields they cover.

It will be the work of another, I trust, to set forth adequately the merit of Dr. Prosser's many contributions to the science of geology, and to record the strong uplifting influence he had upon his pupils. There stand to his credit men of great worth in this science in American universities who were moulded by his hand, but for each one of these trained and proficient men there are scores who have felt the inspiration of his lectures, have been uplifted by his unstudied but unfailing courtesy and thoughtfulness and have been inspired by their association with him in the field. His courses at the Ohio State University had greatly grown in popularity and efficiency as his students were made to perceive the high cultural value of his science, wholly apart from any of its commercial phases.

But while I am not able fully to speak on this phase of his work except as I have learned

it from others, I desire to add a few words about the man as I have found him through the acquaintance of many years.

There never was a more loyal, a more devoted, a more sensitive spirit. His attitude of mind was puritanic in its simplicity and in its practises, and, left to himself, he could never suspect another of indirectness or duplicity—a quality of which he contained not a grain. When confronted by the broader bearings of his science and the natural sequences of its greater propositions, he held himself somewhat carefully aloof; it seemed as though the youthful bendings of the twig inclined him away from paths he would not follow. Yet this simplicity of heart, which would not let him go far a-field, also made him extraordinarily conscientious in his scientific work. It would not be fair to him to say that he had a genius for details, but it would be eminently right to assert that he sought intimately and faithfully for the exact construction of every observation he made so far as that had to do with the theme in hand. This mental method led him to precision of manner, gave him a certain formality which was seldom dismissed under the most informal circumstances. Dr. Prosser's physical address was very pleasing, but his natural reticence, his precision of thought and his fear of an inexact or loose statement made him a hesitant speaker, though a speaker who was always punctiliously guarding a jewel of highest worth—the truth. Added to this trait, which we may well count a virtue, was his absolute fealty to, first, his science, then to his friends. For those whom he knew to be his friends no sacrifice was too great, no defense too vigorous; from them no defection was thinkable. The word of personal criticism seldom passed his lips. If he had suffered an injustice, or an inadequate commentary, it was dismissed with a ripple of a deprecating smile, as though in pity of himself. His determinations of fact he was prepared to defend and to claim his title in them, and his high-strung temperament made him revolt when he saw the credit for his determinations complacently or in ignorance absorbed by another. To this he

would not become inured, as almost every investigator in science must; it was to him a rape of his golden fleece.

Out of the quarry stones of his home land he had laboriously built the house of his desires; few know with what struggles against untoward circumstance, with what patient tugging at an unspoken load with which a churlish fate had saddled him. He did build the house of his spirit's desire and has left behind many who have seen far enough within its doors to honor his accomplishment, lament his sorrows and his unhappy end, and to cherish his memory.

Professor Prosser was buried in the Rural Cemetery at Albany where the members of the New York Geological Survey and representatives of Union University faculty and corporation gathered to pay their last respects to the poor suffocated body which had enshrined so pure a spirit.

JOHN M. CLARKE

THE NATIONAL RESEARCH COUNCIL

THE first meeting of the National Research Council was held in New York City on September 20, 1916. Dr. M. I. Pupin, as temporary chairman, called the meeting to order at 3.10 P.M., and directed a roll-call of the members of the council. There were present the following members: Messrs. Carty, Dunn, Goss, Hale, Herschel, Holmes, Keen, Manning, Marvin, Millikan, Noyes, Pickering, Pupin, Rand, Skinner, Squier, Stratton, Swasey and Vaughan.

The temporary chairman then called for nominations for permanent chairman. Dr. George E. Hale was nominated and unanimously elected. Dr. Hale then took the chair and presided for the remainder of the meeting. Dr. Charles D. Walcott was elected first vice-chairman, and Mr. Gano Dunn second vice-chairman.

Dr. Hale, as chairman of the organizing committee of the council, first announced an agreement between the National Academy of Sciences and the Engineering Foundation by which the foundation has placed its funds at the disposal of the council for a period of one