In the department of geology of Northwestern University the following appointments have been made, to take effect on September 1, 1914: Joseph E. Pogue, of the U. S. Geological Survey, to be associate professor of geology and mineralogy; William H. Haas, of the University of Chicago, to be instructor in geology and geography; Henry R. Aldrich, of the Massachusetts Institute of Technology, to be instructor in mining and metallurgy; John R. Ball, of Northwestern University, to be assistant in geology.

Mr. F. E. E. Lamplough, of Trinity College, has been appointed demonstrator of chemistry in the University of Cambridge.

Mr. D. T. Gwynne-Vaughan, professor of botany in the Queen's University, Belfast, has been appointed to the professorship of botany at University College, Reading, vacant by the resignation of Dr. Frederick Keeble, F.R.S., who has been appointed director of the Experiment Station and Gardens of the Royal Horticultural Society at Wisley.

Dr. Niels Bohr, of the University of Copenhagen, has been appointed reader in mathematical physics in the University of Manchester.

Dr. August Gutzmer, professor of mathematics at Halle, has been elected rector of the university for the coming year.

Dr. Eugene Korschelt, professor of zoology and comparative anatomy at Marburg, has been called to Leipzig, but has decided to remain at Marburg.

DISCUSSION AND CORRESPONDENCE

LIGHTNING FLASHES

To the Editor of Science: If often becomes necessary for me as editor to refer special questions that arise to those who are better versed in the knowledge of some special branch of physics.

I should be glad if any one of your readers who has considered the question of the oscillatory character of lightning would give me a short report, from either a theoretical or an observational point of view, as to what is known on this subject, or his own experience therein. An elaborate paper on this subject was published in the *Meteorologische Zeitschrift* for September, 1913, by Professor Dr. Josef Mayer, of Freising, Bavaria, defending the conclusion that although the lightning flash is frequently oscillatory, yet it is also often of a complicated nature in which every variety of the discharge can occur, namely, both a preliminary, a principal, a partial and an after discharge; partial discharges of a simple nature as shown by Feddersen, or of a double nature as shown by Walter; moreover, the discharge of thunder-clouds may also, under certain conditions, be continuous, but under others, oscillatory or again pulsatory.

This subject is one that interests every scientist who is subject to danger from lightning. I hope to receive responses from electricians and physicists whose experiments and experience tend to elucidate the subject.

Cleveland Abbe
U. S. Weather Bureau

A NEW FORM OF COLLECTING PIPETTE

The pipette described below has proved very useful to the writer. It is made from a calcium chloride tube about 200 mm. long and the ordinary 50 c.c. rubber bulb commonly used with the larger rubber-bulb pipettes. Both are stock articles and may be readily procured from laboratory supply houses. The calcium chloride tube used in the pipette figured consists of a glass bulb about 35 mm. in diameter blown in a glass tube of 16 mm. diameter and about 120 mm. long. This tube required to be heated over a flame and drawn out to the desired diameter for the pipette mouth. From the opposite end of the glass bulb there extends a tube about 6 mm. in diameter suitable for attachment of the rubber bulb.

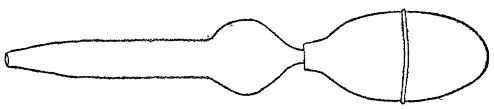

Fig. 1.

This form of pipette may be used in handling in water any small or delicate object up to six or eight mm. in diameter. (Not