DR. BENJAMIN PALMER CALDWELL, formerly of Tulane University, New Orleans, and for the past three years professor of chemistry in Oglethorpe University, Atlanta, has accepted the professorship of analytical chemistry in the Polytechnic Institute of Brooklyn, and will begin his work there in the autumn.

AT the University of Saskatchewan, Assistant Professor L. L. Dines has been promoted to a full professorship of mathematics.

DR. ALEXANDER MCPHEDRAN has resigned the professorship of medicine in the University of Toronto medical department, and Dr. Duncan A. L. Graham has been appointed his successor. The *Journal* of the American Medical Association states that recently Sir William Osler invited professors of medicine in the United Kingdom to a dinner in Dr. Graham's honor, at which it was stated that Dr. Graham was the first whole-time professor of medicine appointed in the British empire. The appointment was made possible by the munificence of Sir John Eaton, Toronto. As a result all physicians in the service of the medical department at the university will resign, so that Dr. Graham will have a free hand in selecting his own staff.

DR. F. A. LINDEMANN has been appointed to succeed Professor Clinton in the chair of experimental philosophy at the University of Oxford.

DR. S. W. J. SMITH, F.R.S., assistant professor at the Imperial College, South Kensington, and for many years secretary of the Physical Society of London, has been elected to the Poynting chair of physics in the University of Birmingham.

DISCUSSION AND CORRESPONDENCE

THE CUMBERLAND FALLS METEORITE

ON April 9, last, a brilliant meteor was seen at mid-day to fall in a northwesterly direction across northeastern Tennessee. Though the sun was shining in this section, observers describe the light from the meteor as exceeding the sun in brightness. Passing over southeastern Kentucky, where the sky was obscured by clouds, the meteor made its presence known by violent detonations, accompanied by the spalling off of fragments. The first of these fell near Sawyer P. O., not far from the Falls-of-the-Cumberland.

The concussions produced by the bolide were terrific, causing buildings to rock, and producting the impression on some that the region was being visited by an earthquake. The first news of the phenomenon printed in the local papers so recorded it. Realizing that the detonations heard and shocks felt were due to the concussions produced by a falling meteorite the writer through the medium of these local papers, and by correspondence with postmasters and telegraph operators throughout the district affected has succeeded in determining the path of the meteor and has secured a number of the fragments. The main mass appears to be yet undiscovered. Falling in the most rugged and sparsely settled portion of southeastern Kentucky the prospects of this main mass being found are not promising.

The general azimuth of the meteor in its fall seems to have been about north 30 degrees west. Over Kentucky it paralleled roughly the line of the Cincinnati Southern Railroad. An interesting incident in this connection is the record of the progress of the meteor kept by the telegraph and telephone operators in the railroad stations and signal towers. They actually put it on a schedule something like an "extra," and heralded to operators ahead the arrival opposite them to the east of this mysterious visitor. The operator on another branch of the Southern Road at Coal Creek Tennessee saw the meteor disappear to the northwest at 12:21 P.M. The tower man at Tatesville, Ky., heard violent detonations to the east, and felt his tower rock at 12:27. Telephoning ahead to the Danville, Ky., operator, while yet talking to him he heard him reply at 12:30 "I hear it coming now." The distance from Tatesville to Danville in an air line is 48 miles. It took the meteor sounds, therefore, 3 minutes to travel this 48 miles. How much of this is due to the rate of sound traveling in air and how much to the north-

west component rate of the falling meteorite can not at present be stated. It seems now to be pretty well established that the meteor never crossed to the west side of the Cincinnati Southern Railroad.

For the forthcoming Bulletin of the Kentucky Geological Survey the writer has delineated upon a map of a portion of southeastern Kentucky the area in which all the fragments of the meteorite will probably be found. At present writing seven pieces ranging in weight from 13 oz. to 5¼ lbs. have been found that by their covering of glaze indicate that the split off from the main mass at a considerable distance from the ground. Fifty-two pieces weighing from less than an ounce up to four pounds have been found that are parts of a mass weighing originally about 31 pounds. This mass was broken into these numerous fragments as the result of falling on top of the conglomerate cliff which forms the walls of the gorge of the Cumberland River below the Falls.

The larger fragments, which split off from the main mass at a considerable height, besides the covering of glaze, have the characteristic pittings of meteorites. They are light gray in color, and exhibit a brecciated structure. A chemical examination of the material of which they are composed, made by Dr. Alfred Peter, of the Kentucky Agricultural Experiment Station, shows it to be mainly the mineral enstatite (silicate of magnesium). Through this is disseminated microscopic particles of nickel-iron and iron combined with sulphur in an amount not exceeding two tenths of one per cent. Small amounts of sodium and calcium are also present. The meteorite would therefore be classed as a chondritic aerolite. It has the same specific gravity as enstatite, 3.18.

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May 14, 1919

On the Auroral Display of May 2, 1919

The notes on this display, in Science, May 23, 1919, lead me to offer the following summary of my observations on it between 8:38 and 10:30 P.M. (75th meridian time), May 2.

There were streamers of increasing prominence from the time I first observed the display at 8:38, until the culmination at 8:50 to 8:55, when the sky from the north-northwest to north by west was covered from about 10 degrees to a height of 45 or 50 degrees with a deep crimson light. The auroral arch, which was unusually narrow and sharply defined below, and at times subdivided in two or three parts, continued with varying brightness and altitude (base about 8 to 15 degrees) till 10:30, at least. There was some moderate streamer display from time to time. The effect of the auroral display was heightened by the sweep of searchlight beams from the south, and by the presence of the relatively new moon in conjunction with Venus.

A very similar display was observed here February 27, 1919, from 8:50 till after 11 P.M., with crimson coloration in the north to an altitude of about 40° at 10:45 to 10:50.

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Chevy Chase,
Washington, D. C.

Meeting of Plant Pathologists on Long Island to Discuss Potato Diseases

The summer potato inspection tour and conference arranged by the Advisory Board, American Plant Pathologists, will be held on Long Island from June 24 to 27, 1919 for the special purpose of studying potato mosaic and leaf roll. The members of the party will meet at the Griffen House, Riverhead, Long Island, Tuesday evening, for dinner, after which there will be a meeting at the Court House.

The next day will be spent in a tour of inspection of test plots of potatoes on the north side from Riverhead to Orient Point. There will be an informal conference at Riverhead during the evening. On June 26, a trip will be made to the south side, the day being spent in the inspection of an experimental test plot at Wainscott, and in conferences at Southampton. The party will then take an evening train to Garden City, Nassau County. The following day, June 27, will be spent in the