Much of the sand of the vicinity of Fifteen Miles Falls is so rich in mica and slate that it was considered unsuitable for the concrete of the dams. Large masses of trap and diabase were located at the northern end of the lower dam in Barnet and are being utilized in large quantities in the concrete construction. During the afternoon the geologists spent an interesting period deciphering the relations of the igneous rocks at this quarry. Four types are present, a coarse diabase, two traps of intermediate and fine grain and an aplitic granite. The pyroxenes of these rocks have been largely altered to hornblende. The coarse diabase has been further metamorphosed by the alteration of its plagioclase feldspars to albite and zoisite and the fine traps have developed a schistosity accompanied by the production of much chlorite. There was a vigorous discussion concerning the relative ages of the coarse diabase and the traps, but it was generally agreed that the alteration of these rocks had been largely influenced by the later intrusion of the aplitic granite.

Saturday evening R. J. Lougee discussed his recent study of the Connecticut valley lake stretching from Middletown, Conn., to Beecher Falls, near the Canadian boundary. The deltaic terraces bordering this lake have been tilted since their deposition at the close of the Pleistocene from an altitude of 160 feet near Middletown, Conn., to an altitude of 657 feet at Hanover, N. H. The dam holding back this first lake broke, perhaps at the White Rocks Narrows near Middletown, lowering the lake approximately one hundred feet. A second lake surface can be traced northward from Hanover at an elevation of 565 feet to Beecher Falls at an altitude of 1,080 feet. Comparing the isobases of the Atlantic beaches along the New England coast with the lake terraces it would appear that the lake level was approximately 180 feet above the surface of the ocean at the time of its formation.

Sunday morning a number of the party visited the site of the future power plant which is being erected below the lower dam. Throughout the excursion the New England Power Association extended every courtesy to the geologists. Mr. A. C. Eaton, chief hydraulic engineer for the association, was specially helpful. All who took part in the excursion were much impressed by the magnitude of the undertaking and by the interesting geologic facts revealed in the large excavations.

W. G. FOYE,
Secretary

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A USEFUL MODIFICATION OF AMANN'S MEDIUM

IN the belief that any promising method develops into more certain usefulness when generally known, I wish to add an additional point to Mr. Linder's timely note on Amann's lacto-phenol-cotton blue medium. During the past two years, since he brought it to our attention, this medium has been used with success in this laboratory by the students and myself for making temporary and permanent mounts of a great variety of materials. Its combined killing, clearing and staining action, rapid restoration of normal turgor and fixation *in situ* of easily disattached spores, are marked advantages over glycerine or glycerine jelly media. Cotton blue, however—although bringing out more structures than eosine—does not usually differentiate nuclei. To meet this difficulty I tried various nuclear stains that would mix with Amann's formula. The addition of a very little Nigrosin (water soluble), either aqueous, or in saturated picric acid as described by Curtis and Colley in the *American Journal of Botany,* for February, 1915 (with subsequent filtration or settling if necessary), was found to differentiate nuclei as well as other cell structures in a considerable number of representative fungi and algae.

Moreover, with sections of host plants invaded by mycelium of such fungi as the downy mildews, a prolonged stay in the medium yields a differentiation of the host and parasite like that resulting from the more complicated treatment with lacto-phenol-cotton blue and safranin described by Lepik in *Phytopathology* for October, 1928.

The medium lends itself well to making permanent mounts either by the double cover-glass method of Diehl (SCIENCE, p. 276, 1929), or by the older but quite reliable method described by Bullard in the *Transactions* of the American Microscopical Society in April, 1921, provided one exercises the same scrupulous care to insure perfect sealing (preferably with King's cement) that is necessary when mounting in glycerine. When making permanent mounts in very damp weather, as during a tropical rainy season, it is advisable, before sealing, to concentrate the medium on the slides in a desiccator.

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A CIRCUIT BREAKER FOR WATER-COOLED X-RAY TUBES

A RECENT issue of the *Journal of the Optical Society*[1] contains the description of a device for pro-

[1] L. W. McKeehan and L. M. Kirkpatrick: *Journal Opt. Soc.,* April, 1929.