influence of the legume on nitrification is indicated by the following figures:

	Nitrates in Original Sample p.p.m. Dry Soil	Nitrates at End of Ten-Day Test p.p.m. Dry Soil	Nitrates at End of Three-Week Test p.p.m. Dry Soil
Soil from alfalfa plat	5.5	182	381
Soil from timothy plat	7.4	152	361
Soil from alfalfa and timothy plat	8.0	202	384
Soil from alfalfa plat	10.5	196	402

These plats had all been limed to their indicated requirements. The nitrification tests were made according to the following method: 100 grams of the moist soil were placed in a 250-c.c. bottle. To this was added 500 milligrams of ammonium sulfate and sufficient water to bring the soil to a moisture content of 25 per cent. calculated on the basis of dry soil. The bottle after insertion of a tight cotton plug in the mouth was placed in the incubator and kept at a temperature of 30° C. for the time indicated. Once each week water was added to replace that lost by evaporation. Nitrates were determined according to the method described in Bulletin 31, Bureau of Soils, U. S. Department of Agriculture.

That the availability of the soil nitrogen is increased by the growth of alfalfa is also indicated by analyses of timothy when grown alone and when growing as a mixture of timothy and alfalfa. The pure timothy, entirely isolated from other plants, contained a higher percentage of nitrogen when grown with alfalfa than when grown alone. This was true on both the limed and the unlimed soil. Alfalfa, and possibly other legumes, are thus of immediate benefit to the soil and to the crop growing with them.

The fact that Kellerman and Robinson were dealing with soils growing leguminous crops while Stevens and Withers tested soils without regard to the crop grown upon them may, in a measure, account for the more pronounced nitrification found by the former investigators. The writers must state, however, that they have not found any natural field soils in which nitrification does not take place.

Analyses of *Erigeron annuus* growing on limed and unlimed soil showed, in nine out of ten cases, a higher percentage of nitrogen in the plants growing on limed soil. The soil was deficient in lime. This is mentioned as another indication that nitrification, or at least the availability of soil nitrogen, is increased by the use of lime on soils in which they are deficient.

Our conclusion is that the presence of a certain degree of basicity in the soil, and possibly the growth of certain nodule-bearing legumes, are each favorable to nitrification in the soil. These and other conditions may account for very considerable differences in nitrification tests in different soils.

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The National Academy of Sciences

The autumn meeting of the academy was held at Princeton on November 16, 17 and 18. The general program was as follows:

TUESDAY, NOVEMBER 16

10:00 A.M.	Meeting of Council.
11:00	Scientific Session.
12:45 P.M.	Address of Welcome by President Wilson.
1:15	Luncheon.
2:15–3:15	Scientific Session.
3:15	Lecture on the Investigations of Joseph Henry, illustrated by Professor Henry's own apparatus, by Professor W. F. Magie.
4:30	Reception of the Academy and guests by Mr. and Mrs. A. D. Russell.
8:00	Dinner to the Academy by the President and Faculty of Princeton University.

WEDNESDAY, NOVEMBER 17

10:00 A.M.	Meeting of Council.
11:00	Business Session.
1:00 P.M.	Luncheon.
2:30	Scientific Session.
3:00–5:00	Conversazione: An exhibition illustrating recent scientific investigations, open to the public, in the Museum, Guyot Hall.
8:00	Concert of the Philadelphia Orchestra.

9:30 Reception of the Academy and guests by President and Mrs. Wilson.

THURSDAY, NOVEMBER 18

10:00 A.M. Scientific Session.

1:00 P.M. Luncheon.

The program of papers to be presented was as follows:

"On the Presence of Teeth in *Echinoneus* Van Phels," A. Agassiz, Cambridge, Mass.

"The Geology of South Africa," W. B. Scott, Princeton, N. J.

"Formative Substances in Eggs," E. G. Conklin, Princeton, N. J.

"A Study of Immunity to Self-fertilization in *Ciona*," T. H. Morgan, New York.

"Meteor Crater, Arizona," D. M. Barringer, Philadelphia (introduced by W. B. Scott).

"Derivatives of Tantalum," E. F. Smith, Philadelphia.

"Some New Methods in Electro-analysis," E. F. Smith, Philadelphia.

"The Emission of Electricity by Hot Bodies," O. W. Richardson, Princeton, N. J. (introduced by W. B. Scott).

"The Physiography of Southeastern Alaska," W. M. Davis, Cambridge, Mass.

"The Yale Expedition of 1909 to Palestine and Syria," E. Huntington, New Haven, Conn. (introduced by W. M. Davis).

"The Early Stages of *Acmæa*," E. S. Morse, Salem, Mass.

"The Transmission of Epidemic Poliomyelitis to Monkeys," S. Flexner, New York.

"The Present Status of the Ether," A. G. Webster, Worcester, Mass.

"Examples of Recent Photographs made at the Yerkes Observatory," E. B. Frost, Madison Bay, Wis.

"The Development of *Olenellus*," C. D. Walcott, Washington, D. C.

"Report of Investigations on the Correlation of Tertiary and Quaternary Horizons in Europe and North America," H. F. Osborn, New York.

"The Skull of *Tyrannosaurus*," H. F. Osborn, New York.

"The Fission of Double Stars," H. N. Russell, Princeton, N. J. (introduced by W. B. Scott).

"The First Movements of the Vertebrate Embryo in Relation to the Development of the Nervous System," S. Paton, Princeton, N. J. (introduced by E. G. Conklin).

"The Development of Electric Tissue in Teleost Fishes," U. Dahlgren, Princeton, N. J. (introduced by E. G. Conklin).

"The Relative Sizes of Cells and Nuclei," E. G. Conklin, Princeton, N. J.

"Memoir of Wolcott Gibbs," F. W. Clarke, Washington, D. C.

"Biographical Sketch of C. A. Young," E. B. Frost, Madison Bay, Wis.

"Memoir of W. K. Brooks," E. G. Conklin, Princeton, N. J.

SOCIETIES AND ACADEMIES

THE NEW YORK ACADEMY OF SCIENCES—SECTION OF ANTHROPOLOGY AND PSYCHOLOGY

A MEETING was held, in conjunction with the American Ethnological Society, on October 25, at the American Museum of Natural History, Dr. Fishberg occupying the chair.

Dr. Robert H. Lowie, in discussing "The Age-societies of the Plains Indians," distinguished between the genuine feasting age-societies of old, middle-aged and young men found among the Omaha and the ceremonial age-groups of the Arapaho, Gros Ventre, Blackfoot and Village tribes. The latter do not seem to correspond to fundamental age-divisions, so that some other factor of as yet problematic character must be assumed to have entered in their development. The lecturer insisted that these ceremonial organizations can not be classified on the basis of single characteristics, even though these involve the ostensible conditions of membership, but that it is necessary to isolate well-marked single features and to study their diffusion and the various combinations into which they enter.

Mr. Leo J. Frachtenberg presented some "Notes on Coos Ethnology," in which he stated that the Coos Indians of northwestern Oregon form an independent linguistic stock. Their language may be subdivided into two distinct dialects, called Ha'nîs and Mi'luk. The Mi'luk dialect is extinct, while Ha'nîs is still spoken by about thirty individuals living between Acme and Florence, in Lane County, Oregon. The long intercourse between the Coos Indians and the white settlers has effected a total assimilation of the Red Man. To such an extent is this so that the Coos show no traces whatever of the ancient Indian mode of life. There are, however, a few individuals who still remember phases of this life. The information obtained from these individuals tends to show that the ancient Coos customs and habits varied very little from those prevailing among the other tribes of the Pacific coast. The most important differences may be summed up as fol-