(Wesleyan University), and W. A. Tarr (University of Missouri).

FEDERAL food administrators from thirty-eight states and from the District of Columbia and Hawaii and representatives from all the other states met in Washington on January 9 for a two-days' conference. Seventy-six delegates were at the meeting. They were addressed at the opening by Herbert Hoover, United States Food Administrator; by the Hon. David F. Houston, Secretary of Agriculture, and by several of Mr. Hoover's assistants. The administrators come to Washington every few months for conferences with members of the Food Administration, in order that a closer touch between the states may be established and to give each of them a clear understanding of the problems and conditions that must be met. The administrators were entertained at luncheon in the Food Administration Building and attended an informal dinner at the New Willard Hotel. Both the luncheon and dinner were in strict accordance with food-conservation rules. The following administrators were in attendance: Professor Alfred Atkinson, Montana; Edwin G. Baetjer, Maryland; Dr. Harry E. Barnard, Indiana; Braxton Beacham, Florida; Dr. Stratton D. Brooks, Oklahoma; J. F. Child, Hawaii; Alfred M. Coats, Rhode Island; Fred C. Croxton, Ohio; J. F. Deems, Iowa; Theodore C. Diers, Wyoming; William Elliott, South Carolina; Ralph C. Ely, New Mexico; P. M. Harding, Mississippi; James Hartness, Vermont; Charles Hebbard, Washington; Howard Heinz, Pennsylvania; Charles N. Herreid, South Dakota; Richard M. Hobbie, Alabama; Walter P. Innis, Kansas; Dr. Leon S. Merrill, Maine; Ralph P. Merritt, California; Charles E. Treman, New York state; Edmund Mitchell, Delaware; H. A. Morgan, Tennessee; Frederick B. Mumford, Missouri; Earl W. Oblebay, West Virginia; Henry A. Page, North Carolina; John M. Parker, Louisiana; E. A. Peden, Texas; George A. Prescott, Michigan; Fred M. Sackett, Kentucky; Robert Scoville, Connecticut; Dr. Andrew M. Soule, Georgia; Huntley N. Spaulding, New Hampshire; Gurden W. Wattles, Nebraska; Harry A. Wheeler, Illinois; Col. E. B. White, Virginia; Arthur Williams, New York City, and Clarence R. Wilson, District of Columbia.

THE *American Medical Journal* reports that the large collection of birds and mammals obtained as a result of the American Musuem's Asiatic Zoological Expedition to China, conducted by Mr. Roy C. Andrews, has been placed on display just as it was received instead of first putting it through the processes of preparation. This collection comprises hundreds of skins of beautiful tropical birds, including newly discovered pheasants and peacocks. Small bright-hued jungle fowls are interesting as the ancestors of the present barnyard fowl which is playing such an important part in the food problem at the present time. For thousands of years this original type has existed in the heart of China. Unusual rodent forms are represented in the black flying squirrels, four feet long, together with huge rats, including the rare bamboo rat, scores of mice of strange appearance and odd variations of the mole. The chipmunks include several varieties hitherto undescribed by zoologists. Skins of serows and gorals, strange animals intermediate between the goat and the sheep, are also included in the exhibit.

UNIVERSITY AND EDUCATIONAL NEWS

AT New York University Hazen G. Tyler has been appointed professor of mechanical engineering; Dr. Edward K. Dunham, emeritus professor of pathology, has been appointed Herter lecturer, and Dr. John Charles McCoy has been appointed clinical professor of surgery. Dean Samuel A. Brown has been promoted from assistant professor of medicine to professor of therapeutics; Dr. Willis C. Noble, from lecturer on bacteriology to assistant professor of hygiene, and Dr. James F. Nagle, from instructor in medicine to clinical professor of medicine.

DR. L. C. GLENN, who was on leave of absence from Vanderbilt University last year in

the employ of the Sinclair Oil and Refining Corporation as geologist, has returned to the university this year, but retains his connection with the Sinclair companies.

Mr. L. A. Rumsey, former instructor in organic chemistry at Iowa State College, has been appointed head of the department of chemistry at Denison University, Granville, Ohio.

Dr. R. K. Strong, of the University of Chicago, has been appointed as professor of industrial chemistry at the Oregon Agricultural College.

DISCUSSION AND CORRESPONDENCE

RHYTHMIC PRECIPITATION

The abstract of Dr. H. N. Holmes's paper, read before the Kansas City meeting of the American Chemical Society, April 12, 1917, which appears in Science, November 2, 1917, calls for some discussion. He proposes a "new" theory to account for rhythmic precipitation bands. I have recently given a short account of some of the earlier work in the subject in a paper in the *American Journal of Science* for January, 1917, from which it is clear that the theory is comparatively old, having been suggested twenty years ago by Ostwald senior, and established six years later by Morse and Pierce.[1] Later workers have agreed with these pioneers, and recently I have shown that the rates of diffusion of the reagents have to be taken into account in explaining rhythmic precipitation, and that under certain conditions bands which become successively closer, or equally spaced bands, may be produced. Morse and Pierce also showed, fourteen years ago, that a gel is not essential to the formation of precipitates in separated bands, having obtained them in aqueous solutions. It is of interest and importance that Dr. Holmes has obtained them in loosely packed flowers of sulphur.

It might be asked what Dr. Holmes means by "crystalline banding of mercuric iodide." Is it possible that "banding of crystalline mercuric iodide" is meant? Again, it is difficult to understand what is meant by "a thickness of a few cubic centimeters," thickness usually being measured in one dimension, not in three dimensions.

I would take exception to the statement: "The color arrangement of agate is an excellent example of the phenomenon." It may possibly be an example of the phenomenon. I have not studied agates in sufficient detail to discuss the subject at this time, but such cursory examinations of agates as I have made have been sufficient to indicate that the offhand acceptation of agates as examples of rhythmic banding by precipitation within a medium of gelatinous silica is inadvisable. There are very few agates which are not susceptible of other explanation. Liesegang, in his "Geologische Diffusionen," after discussing agates as products of rhythmic precipitation within gelatinous silica, is careful to point out that he does not propose to apply this explanation universally.

It is unnecessary to state that the description of Dr. Holmes's experiments with silicic acid gels will be awaited with interest. From the partial account given in his abstract the experiments would appear to be along similar lines to those of Hatschek, and Hatschek and Simon.

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[1] Morse, H. W., and Pierce, G. W., *Zeitschr. phys. chem.*, Vol. XLV., 1903, p. 589, or *Physical Review*, Vol. XVII., No. 3, September, 1903, p. 129.

GRAVITATIONAL REPULSION AND THE COMET

The results presented by the writer in a paper recently published by the Academy of Science of St. Louis[1] may be of assistance in explaining the behavior of the comæ and tails of comets. Twenty years ago Newcomb gave the following description in Johnson's Universal Cyclopædia.

> When a bright comet is carefully examined with a powerful telescope, a bow will sometimes be seen, partially bent around the nucleus on the side towards the sun. If watched from night to night, this bow will be found to expand from the nucleus, become diffused and finally lose itself in the nebulosity of the coma. . . . These bows seem to be

[1] *Trans.*, Vol. XXVIII., No. 5, November 8, 1917.