has been transferred from the department of anatomy to that of zoology. New assistants appointed in zoology are H. V. Lacy, Edward H. Jones, Elizabeth A. Smith and Nathan Faster.

Dr. Robert Retzer, of the University of Minnesota, has been appointed assistant professor of anatomy in the University of Chicago.

A. B. Dunning, S.B. (Harvard, '07), has been appointed assistant professor of mathematics at Boston University.

At Northwestern University Leon Irwin Shaw, Ph.D. (Wisconsin), has been appointed instructor in chemistry; George Vest McCauley, Ph.D. (Wisconsin), instructor in physics, and Chester Henry Yeaton, A.M. (Harvard), instructor in mathematics. Robert Harvey Gault, Ph.D., has been advanced from an instructorship to an assistant professorship in psychology and has been appointed editor of the *American Journal of Criminology*.

## *DISCUSSION AND CORRESPONDENCE*

### THE COTTON WORM IN MASSACHUSETTS

During the last week in September of the present year, a number of moths of the cotton worm, *Alabama argillacea* Hübn., were captured at Amherst, Mass., some of them being taken at night, while others were found at rest during the daytime. Although this insect has been taken at Amherst before, there are no records of it in any such abundance, and it would seem that there must have been quite a pronounced northern migration of this species this season. The moths were very fresh and perfect.

There have been occasional captures of this moth in the New England states, and in the collection of Mrs. C. H. Fernald is a fresh pair taken in September (probably 1881) at Orono, Maine.

It may be well to call attention here to a discussion on the habits of this insect at a meeting of the entomological members of the American Association held in 1882, and reported in *The Canadian Entomologist*, Vol. XIV., p. 151, where some evidence is given, supporting the view that the appearance of this species in the north is not, at least in all cases, due to migration.

H. T. Fernald

### VECTORIAL TREATMENT OF SECONDARY MAXIMA IN GRATING SPECTRA

To the Editor of Science: A friend has been good enough to direct attention to a regrettable error in my review of Wood's "Physical Optics," which appeared in Science, September 29, 1911.

Instead of alluding to "the author's clever vectorial treatment of secondary maxima in grating spectra," I should have called attention to the fact that the essential features of this beautiful geometrical and graphical method were invented by Professor Arthur L. Kimball. The omission of this fact from Professor Wood's text is doubtless owing to want of space.

I still remember the delight with which I read Professor Kimball's paper when it appeared in the *Philosophical Magazine*, July, 1903, and can explain my forgetfulness and inadvertency only as a consequence of the very considerable amount of sand which has run through my hour glass.

Henry Crew

## *QUOTATIONS*

### THE UNIVERSITY PRESIDENT AND HIS PROFESSORS[1]

A successful college or university president can not afford, for the sake of his own success, to make his administration in any sense a personal one. It is his business to see to it that the students who commit their training to the institution he serves, are provided with the very best teachers and lecturers the funds at his command will allow him, with the consent of his board of trustees, to give to these young people. If there are instructors whose worth has been demonstrated by years of service, he will put forth every possible effort

[1] Extracts from an address to the senate of the University of Vermont and State Agricultural College by Guy Potter Benton, installed as president on October 6, 1911.

to retain them. The president who has the welfare of his institution at heart will spare no effort to secure the permanency of tenure of those on his teaching staff who are desirable. If here and there he finds a colleague whose work is not satisfactory and can not be made so, he will meet the situation fearlessly in the interests of the young people committed to his care, but he will also meet it with a thoughtful regard for the feelings of the colleague concerned. A resignation is always less painful than a dismissal. It tries the courage of a manly president more to ask, in the spirit of kindness, a resignation than it does in the presence of his board to demand, with heartlessness, a dismissal. The unpleasant responsibility will be courageously accepted by the high-minded man and in a fraternal spirit, the unsatisfactory teacher will be approached by his president months before his connection with the college must be severed with a courteous request for his resignation. An instructor of good sense will appreciate the consideration that prevents a humiliating dismissal, and that affords him ample time, while still under pay, to find another position; and his resignation will be given as requested without disturbance. He who lacks this fine sense of appreciation will still be dealt with in fearless kindness by his president and will not be retained at the expense of institutional efficiency. . . .

If one feature of presidential duty may be emphasized at the expense of another, it will doubtless be agreed that the chief responsibility of a college president is for his educational staff. Before boards of trustees came to a proper comprehension of their limitations, they took official notice of the fitness or unfitness of every member of the faculty, and not only determined the retention or dismissal of incumbent professors and instructors, but solemnly debated the qualifications of all proposed candidates before voting to fill a chair. Their opinion of the worthiness of a professor to continue was formed by the report concerning him coming from immature students or some other incapable informant. As to the election of new faculty members, the board was governed in most instances by flatteringly worded and usually worthless testimonials. To-day it would be difficult to find a trustee presumptuous enough to entertain the thought of passing judgment on the qualifications of teachers. The president is charged with this responsibility and the head of an institution must stand or fall on his ability properly to meet this responsibility. The retention of present members of his faculties and the election of new members in the modern university depends entirely upon the dictum of the president. Those who object to granting such arbitrary power to one man will, on reflection, admit that to hold an executive responsible for all the work of an institution, including the teaching done, would be unfair unless there were guaranteed therewith the privilege of choosing the colleagues for whose work he must answer. In some instances, the president is required by ordinance to nominate new faculty members, the Board confirming or rejecting his nominations, and that is the system which will obtain in this institution from this time forward until it is changed by order of the board of trustees. . . .

The wide-awake president may know of the competency or incompetency of his colleagues by ways more accurate than personal inspection can guarantee. The college community is much more compact than a large public school system. The professors do their work in class-room, lecture-room, laboratory, library and study in buildings on the same grounds and near to each other. The president, when at home, is constantly in their midst and with his hand ever on the college pulse, knows more, or should know more, of what his associates are thinking and accomplishing than the public school superintendent knows of his teachers after all his inspection. The daily intercourse of the president with his coworkers in faculty and committee meetings, in private conferences, and in social relationships, will give to the keen leader of men a knowledge which will enable him to make a fair judgment of individual educational fitness in the day of final reckoning.

The administrative office is a veritable cess-

pool where unpleasant experiences are deposited. All complaints are left there, and if the president, as a spiritual chemist, is skilful in filtering, the residuum will reveal to him the actual substance of all that is justly chargeable against his complained-of colleagues. . . .

No one will question the right of faculty members to advise the president. If he is as wise as such an official should be, he will seek the counsel of his associates and, knowing that "in the multitude of counsellors there is wisdom," he will be ready to modify his plans and policies after hearing from his colleagues. The right to advise, however, does not include within it the prerogative of censorious criticism on the part of the colleagues of the president. Next to a despotic egotist in the presidency, the most obstructive hindrance to the growth of a healthful spirit in a given institution is a coterie of professors, painfully sychophantic in the presence of their "lord and master," and bitterly denunciatory of him when left to themselves. It is difficult to conceive of a more painful caricature on true manhood than that made up of a little professorial group gathered together in a darkened corridor or behind a building gesticulating wildly against the administration, unless it be the same small crowd in the study of one of the number, or in some club-room, planning surreptitiously for the overthrow of their chief.

The president of one of the larger state universities of the central west was apparently highly esteemed by all those who served with him, but when he resigned, one of the prominent professors, too cowardly to be other than obsequious while he thought the tenure of the president permanent, remarked, "Well, there is certainly a great ground-swell of relief among the faculty, now that we are to be relieved from the incubus of this administration." Such reprehensible hypocrisy by those who teach can not but exert a blighting influence upon the life of the institution. . . .

In order that the work of administration might be as efficient as possible, at the recent annual meeting of the board of trustees, I requested the authority to appoint a committee on efficiency, consisting of certain members of the board of trustees and of the teaching body. This privilege was granted. The committee appointed has begun its investigations. It is proposed to ascertain, as soon as possible, just how much work each member of the educational staff is doing in the matter of instruction, how much outside work of a public character he is doing for the benefit of the institution, what he is producing in connection with the literature of his chosen line of specialization and—in short—to determine his value to the institution as compared with that of his colleagues. These investigations may result in the conclusion that some men are doing too much work and that others are not doing a sufficient amount. They may lead, as a consequence, at the end of the year to the merging of some positions and to the abolition of certain others. On the other hand, these investigations may lead to a division of work and to the establishment of new positions. A due regard must always be given to the rights of the individual, but the interests of the institution must be made paramount to those of any individual on the educational staff. I feel quite sure that all of you who take the broad and statesmanlike view of educational obligations will agree with the statement just made. No changes could be made now with any degree of intelligence that would command the respect of the college world. The status quo will therefore be maintained for the present. Since, however, a working basis is necessary, some little organization is imperative from the outset and a few important facts must be recognized. . . .

The vulgar swagger assumed by some university and college professors in this latter day would be pitiable if it were not positively mischievous. Time was when the man who taught in college believed that his life should be one of consecration to the highest ideals of character. He believed that all questionable conduct should be avoided. For the sake of his influence upon his students he consistently refrained from indulging himself in those

diversions which to men occupying less responsible positions might be occasionally allowable if not always permissible.

No more hateful spectacle confronts advancing civilization than a beer-sipping, wine-bibbing college or university professor. He is hateful because he is incongruous. More than that, he is hateful because of the havoc he works as an iconoclast in the beautiful temple of youthful ideals. It is a safe prediction in the near coming day when the American saloon is only a historic tradition, that the college professor who drinks in public or in private will not be tolerated beyond the meeting of the board of trustees next succeeding his discovery, and I should say to you in perfect candor at this time, in order that there may be no misunderstanding from the beginning, that I will not serve on a teaching body with any man who uses intoxicating liquors in any form whatsoever. My responsibility to young manhood and womanhood for character ideals is too great to permit me to attempt to bear the burden of responsibility which I could not escape for a colleague who leads an immoral life.

## SCIENTIFIC BOOKS

*The Mutation Theory.* Volume II. The Origin of Varieties by Mutation. By HUGO DE VRIES. English translation by Professor J. B. FARMER and A. D. DARBISHIRE. Pp. viii + 683. Six colored plates and 149 text-figures. Chicago, The Open Court Publishing Co. 1910.

In May, 1910,[1] the writer had the honor of reviewing Volume I. of the English translation of "Die Mutationstheorie." The inspiration which this volume brought to a large circle of readers made the appearance of volume two doubly welcome. The careful study of the first volume introduced many workers for the first time to the author's own statement of the essentials of the mutation theory, and these essentials, together with a brief summary of de Vries's many important and positive contributions to theoretical and practical biology, through this and his numerous other related writings, were given in the above mentioned review.

[1] *Science*, XXXI., 740–743, 1910.

Of volume two of the translation, Part I. includes Band I., Abschnitt 4, of the original, treating of The Origin of Horticultural Varieties, with chapters on The Significance of Horticultural Varieties in the Theory of Selection, Latent and Semi-latent Characters, The Different Modes of Origin of New Species, The Sudden Appearance of and the Constancy of New Varieties, Atavism, Experimental Observation of the Origin of Varieties, Non-isolable Races, and Nutrition and Selection of Semi-latent Characters.

Part II., The Origin of Eversporting Varieties, includes, from the original, Band II., Abschnitt 2, IV., The Origin of Eversporting Varieties, with four chapters on: I., Tricotylous Races (the title of the German original is "Kreuzung tricotyler Rassen"), omitting § 24 (Kreuzung der Mittletassen mit den Halbrassen) and § 25 (Kreuzung tricolyler Rassen von verschiedenen Arten); II., Syncotylous Races (Kreuzung syncotyler Rassen), omitting § 31 (Kreuzungsversuche); III., The Inconstancy of Fasciated Races (= Band II., Absch. 5, IV.), and IV., Heritable Spiral Torsions (= Band II., Absch. 5, IV.).

Part III. includes Band II., Aschnitt 6, treating of The Relations of the Mutation Theory to other Branches of Inquiry, embracing four chapters: I., The Conception of Species According to the Theory of Mutation; II., The Range of Validity of the Doctrine of Mutation; III., The Material Vehicles of the Heredity Characters; and IV., Geological Periods of Mutation.

Those portions of the original work treating of hybridization (including § 31 mentioned above, and Band II., Abschnitt 1, and Abschnitt 2, I.–III.) have been omitted from the first two volumes of the English translation. Thus the second volume is not merely a translation of volume two of the original. It covers largely the same ground as de Vries's English lectures, published under the title of "Species and Varieties, their Origin by Mutation," but has the advantage of illustrations, which were lacking from "Species and Varieties."