kinds of seeds. Now, Mr. Balls[1] and myself[2] have independently proved that fuzziness of the seed is dominant when crossing occurs between a naked and fuzzy seeded variety. If, therefore, the mixed character of the seed is due to its having been borne by hybrid plants, we should expect segregation of the characters and, on sowing, the naked character (recessive) having once appeared should come true to seed. As stated above, this did not, in the case noted, occur and the mixed character of the offspring is therefore apparently not due to the hybrid character of the parent.

So far as experiment has yet gone the nakedness or fuzziness of the seed appears to be subject to fluctuations that are unusually large even in this genus of large fluctuations. I have grown many varieties of cotton that differ only in this characteristic and come perfectly true to seed in respect of it and have further found that the fuzziness of a variety is decreased by growth under certain conditions.[3]

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## *QUOTATIONS*

### AS TO UNIVERSITY ADMINISTRATION

*The Popular Science Monthly* has some sharp things to say editorially in its July issue in regard to the administration of American universities, with special reference to recent events at Syracuse, Cincinnati and in Oklahoma. There is not a little justice in the contention that whereas "elsewhere throughout the world the university is a republic of scholars administered by them," in this country it is "a business corporation." The complaint is not new, and it is being made more and more frequently of late. The editor goes on to say:

"The ultimate control is lodged in a board of absentee trustees, whose chief duty is the election of a president. The qualifications most regarded in the president are the ability to get money for the institution and a good presence at public functions; but he is expected to "run" the university. The professors and instructors are employed "at the pleasure of the trustees," and so long as the president maintains his position, this means at his pleasure. Advances in salary or position, appropriations for apparatus, etc., are subject to the same pleasure. In larger institutions the department-store system naturally grows up. Deans and heads of departments are responsible to the president, and their subordinates are responsible to them."

It is fair to say that the American ideal of efficiency is responsible for a system which has its virtues, and is unfortunate mainly because it comes into conflict with another and even higher American ideal, the ideal of democracy. In a great business organized under keen competitive conditions there is as little room for democracy as in the army. All other considerations must yield to that special efficiency which belongs to strong autocratic control.

But if there is any place where this system does not belong, it is the university. Here there is no mad scramble for wealth, no competitor to crush, no secret tactics to follow. Culture should be made not "to hum," but to blossom sweetly. More important than great gifts or new buildings or business-like management is the maintenance of academic freedom and of the dignity and self-respect of the faculty. The professor is, or ought to be, more than a mere employe, hired for a certain "job." And the president is, or ought to be, both more and less than a mere superintendent, to hire and discharge and make a good showing with his yearly reports. No single thing has done more harm to higher education in America during the past quarter-century than the steady aggrandizement of the presidential office and the modeling of university administration upon the methods and ideals of the factory and the department store.

That it does not in all cases work badly is due simply to the fact that the men are better

[1] "Year-book of the Khedivial Agricultural Society," Cairo, 1906.

[2] "Mendelian Heredity in Cotton," *Journal of Agricultural Science*, Vol. II., Part III.

[3] "The Cotton Plant," *Nature*, Vol. 77, No. 1994.

than the system. As *The Popular Science Monthly* says: "In a great university, such as Harvard, courtesy and consideration do not fail. In the smaller colleges, there is the spirit of the family. So long as the best men are found at our colleges and universities, it may not matter greatly under what system of academic government they live. But there is real danger that the existing system may prove repulsive to men of the highest intelligence and character, and that mediocrity and time-serving may be developed, where we need the most vigorous ability and independence." It was the older American idea that the president of a college was simply primus inter pares. To-day there is as wide a gulf between him and his faculty as between a superintendent of city schools and the grade teachers, and however the change may better business management, it does not attract strong men to the profession of teaching, nor does it foster a vigorous intellectual life in the universities. And occasionally a gross and tyrannical abuse of authority reminds the world how far America is behind Germany in the freedom of its university life.—*Springfield Republican.*

## SCIENTIFIC BOOKS

*The Labyrinth of Animals.* By ALBERT A. GRAY. Vol. II. London, J. A. Churchill. 1908.

The first volume of Dr. Gray's extensive stereo-photographic studies of the vertebrate labyrinth ha been reviewed in SCIENCE.

The second volume is fully up to the standard of the first volume, and is a storehouse of interesting and valuable information. The author, in a prefatory note to Vol. II., states that he is indebted to the Carnegie Trust for their liberal generosity in assisting him in the publication of this volume. We think the volume well worthy the support.

As in the first volume there is a series of stereoscopic photographs, giving magnified views of the labyrinths of the various animals studied. Brief descriptions and summaries accompany these photographs.

The volume begins with the continuation of the study of the rodent labyrinth. The labyrinth of the capybara is interesting, in that it presents the most extreme example of the sharp-pointed type of cochlea yet described.

The labyrinth of the insectivora is next considered. "This organ shows evidence of more ancient characteristics than that of any other order of mammals with the exceptions of the monotremata, sirenia, cetacea and a few of the polyprotodont marsupials."

In the labyrinth of the cetacea and sirenia, the cochlea is of a "very primitive type." The appearance of the labyrinth lends little support to the view that the sirenia and cetacea are closely related to the ungulates or to the edentata. The ankylosis of the cervical vertebræ, which is so marked a feature in the anatomy of the cetacea, and the consequent limited movement of the head upon the trunk, are associated with marked modifications in the vestibules and canals. The semicircular canal portion of the labyrinth is very small as compared with the cochlear portion.

The marsupialian labyrinth is next considered. "While there is no doubt that the marsupials left the main stem of mammalian descent at a much earlier period than most of the orders, yet, so far as the labyrinth is concerned, they have developed along parallel lines to such an extent that the organ must be considered almost as far advanced as in some of these orders."

The only example of the monotreme labyrinth studied by Dr. Gray is that of the duck-billed platypus. "In appearance it may be said to stand midway between the labyrinth of the reptiles and that of the eutherian mammals."

The study of the labyrinth of mammals is concluded by a brief study of the venous system of the labyrinth.

The labyrinth of birds is next taken up. The comparative anatomy of the avian labyrinth has been less studied than that of other divisions of the vertebrates. Thus Gray's contributions to the subject are of special value. The labyrinth of birds bears resemblances to that of the alligator on the one hand and that of the monotremes on the other.