but further inland the *Chamæcyparis-Sphagnum* peat was still forming, at an elevation perhaps three feet above high-tide level, and soundings showed that the deposit was uniform from top to bottom. Within a very few feet of the seaward edge of the marsh there are still two or three small stumps which project several inches above the *Spartina patens* turf which has grown up around them. These constitute a strong argument that subsidence is still going on. If there had been no subsidence for 3,000 years, as Professor Johnson thinks likely,[4] these little stumps would surely have rotted away by this time!

The Coast and Geodetic Survey has furnished data regarding the tides in Quamquisset Harbor. Spring high water is 2.4 feet above mean sea level. Mean high water is 2.0 feet above mean sea level. The highest tides observed were 3.0 feet above mean sea level. These tides at Quamquisset are so low that Professor Johnson's hypothesis of a fluctuating high-tide level can not possibly be invoked in explanation of the submarine peat beds.

After examining one locality where salt-marsh plants have invaded a fresh-water vegetation under conditions certainly far from typical, and where all of the fresh-water remains are found at extreme high tide, Professor Johnson has ventured to characterize all the evidence which has been offered for recent subsidence as inconclusive. As a matter of fact his hypothesis has no bearing whatever on most of the evidence which has been offered.

H. H. BARTLETT

BETHESDA, MD.

FACULTY OR PRESIDENT?

THE discussion of the merits of control by the faculty or by the president in any educational institution, which has been presented from time to time in SCIENCE, was continued by some references in Professor Cattell's article in the issue for November 11, and by a short paragraph in the abstract of President Schurman's annual report in the following number. There is still another angle from which the matter may be viewed.

The student body in a college, or university, is a comparatively constant quantity. The great majority of students spend the four years from about eighteen to twenty-two in the institution of their choice. The average age of the student body, taken as a whole, would, therefore, be slightly under twenty, owing to the somewhat greater numbers in the freshman and sophomore classes. Whatever fluctuations there might be from year to year, in consequence of an exceptionally large or surprisingly small entering class, or because an unusually large number from the upper classes turned to professional work before graduation, they would be within very narrow limits, so narrow, indeed, that the entire body of students might be regarded as an individual not quite twenty or just over twenty years of age. The same would be true of a university with the various professional schools and the liberal arts or undergraduate department, although the average would probably be three or four years higher. The student body itself, none the less, would be comparatively stable.

If we turn our attention to the faculty, we find another fairly constant quantity. Since the retiring age is somewhere about sixty-five or seventy—it might be a little over or a little under—and since the youngest instructors are just out of college, the average age of a faculty would be somewhere between forty and forty-five, as a rough estimate. If there should be an unusually large number of young instructors, or an extra large number of elderly professors, then the average age would be lowered or raised correspondingly, but in either case it would not be far from the age mentioned above, and from year to year the fluctuations would be within rather narrow limits, so that there would be a fairly stable body to exercise control of whatever sort. In those institutions in which the youngest instructors have practically no voice in the administration, the average age would be raised, but the faculty would retain its characteristic of a constant quantity.

When the problem is presented in this way,

[4] SCIENCE, N. S., XXXII., 1910, p. 709.

we have two constants sustaining a constant relation to each other. They are not so far apart, too, in the matter of age, but that each may understand the other. The relation is essentially that of parent and child. The student body may be regarded as of a healthily radical temper of mind, and the faculty as healthily conservative. Sociologists maintain that both radicals and conservatives need to be united in a community, with the center of gravity slightly on the radical side, if that community is to be healthily progressive. With the faculty and students viewed as above, the conditions are right for a sanely progressive institution, since we may, perhaps, assume that the larger size of the student body would give the desired overplus of radicalness. At any rate, there would be a steadiness of control and of purpose, and a sufficiency of sympathy to insure hearty cooperation and splendid scholarly results.

When, however, we consider the matter from the side of the one-man power, whether that man be president, or some other official with the bit in his teeth, the conditions do not seem to be so favorable for desirable results. If the president be young—we will say thirty years of age, as sometimes happens—the center of gravity is too much upon the radical side; when the same man gets to be sixty-five or seventy, provided he stays that long, or has an elderly successor, the balance shifts too much in the other direction. It is true, of course, that there are conservative young men and progressive old men, but, none the less, the fluctuations in the age of the controlling official constitute a variable more likely than not to be a disturbing factor in the otherwise constant and harmonious relation between faculty and students. In the case of the elderly man being in supreme control, the relation of parent to child will be superseded by that of grandparent to grandchild, with consequent ready indulgence or excessive rigor. The latter is, perhaps, the more likely, since the nervous strain develops irritability and the exercise of power breeds arbitrariness.

When the problem is viewed from this angle, the wise policy would seem to be to have faculty control in an educational institution, rather than that any one man should reign supreme.

Gregory D. Walcott
Hamline University,
St. Paul, Minn.

THE MATTER OF UNIVERSITY FELLOWSHIPS

To the Editor of Science: The address of Dr. Jordan as retiring president of the American Association for the Advancement of Science, printed in your issue for December 30, contains many things that will appeal to every one as both true and timely; there is the more reason to regret that some things are said against which, I think, protest should be made. I do not believe it is true, as he seems to think, that the system of university fellowships is a powerful influence working against our best university ideals. Dr. Jordan seems to me to have lost sight of some very important facts when he stigmatizes the fellowship system as one "whereby men are hired to work under men they do not care for and along lines which lead not to the truth they love, but to a degree and a career." I am sure he does injustice when he asserts that "The embryo professor asks for his training not the man of genius who will make him over after his kind, but the university which will pay his expenses while he goes on to qualify for an instructor's position."

All will admit that the fellowship system has not always been wisely administered; that evils have crept into the practise of some institutions; that these ought to be (I think can be) corrected. We have all had experience of the man whose letter expresses a desire to work at our particular university and inquires, "What inducements can you offer me to come?" Undeniably, universities are themselves responsible in some measure for making possible such an attitude; but it would seem that only a particularly unlucky experience could make one regard this as typical of the graduate student in general.

Dr. Jordan's ideal university is one where advanced students are "gathered around a man they love, and from whose methods and