

need in the material equipment of the department of literature, science and the arts is a new building for the natural sciences."

### DISCUSSION AND CORRESPONDENCE

#### UNIVERSITY FELLOWSHIPS

AFTER reading the address of Dr. Jordan recently published in SCIENCE, I desire to enter a protest against some of his statements. I have been for many years in touch with graduate students, and have been moved with a keen desire to induce them to enter the teaching profession. I thus know of the difficulties they face and why many of them fail to fulfill the hopes I had in them. I agree with Dr. Jordan that we are not producing the scholars we should, but in the diagnosis of evils we differ. In his address he comes back again and again to the fellowship system and talks touchingly of the starving doctor of philosophy. In my opinion, the starving doctor is a figment of the imagination. It is the rapidity of promotion, not the lack of it, that ruins promising investigators.

The University of Pennsylvania has had a system of fellowship long enough to make its effects apparent. Twenty-four Harrison fellowships have been granted annually for fifteen years. Few of the fellows were, however, graduates of Pennsylvania. The effect of this will be apparent when it is recognized that from the fellows instructors are chosen and from them in turn the professors come. Practically all the instructors and younger professors are graduates of other colleges. Our young men are a cosmopolitan body representing nearly every college and university in the country. The result has been a transformation of the university in a deeper and more vital way than any other of our important changes. Besides these fellows who have become teachers there has been another group coming from the smaller colleges where they were instructors and who have returned to them after a couple years' study here. These two groups account for nearly all our former fellows.

The following table gives the present occupation of all who have been fellows:

Professors and instructors in universities and colleges .....	107
Normal and secondary teachers .....	31
Literary work .....	5
Business and business experts .....	8
Government experts .....	6
Chemical experts .....	4
Social work .....	7
Ministers .....	5
Students .....	10
Deceased .....	8
Unknown .....	2
Total .....	193

This does not look like starvation. If we had double the number of fellowships we could double the service we render to our own and to sister institutions without overstocking the market. The fact is a good instructor pays his way everywhere. It is the professor that needs endowment.

Where then is the trouble if it is not in this quarter? Here again I shall turn to my own experience, which, however, I believe is that of many others. I find among the fellows a man of promise. He is made assistant at \$800 a year, then instructor at \$1,000, which is steadily increased until at thirty he is earning \$1,500. Now comes the test under which so many break down. He has published a thesis, written several articles, and has become a proficient teacher. This makes him a man of the kind that college presidents want and friends praise. It is one of the peculiarities of college presidents that they want "men of promise," they never seek for "men of deeds." This young man should settle down on his \$1,500 a year and do work that would advance his science. But the attractions of salary and the flattery of friends are too much for him. He drops his original work for more pay and finds that hastily constructed books help him along more rapidly than original work. This is the last of him so far as science is concerned. Let me give a couple examples. A young instructor was pushed along until he had the \$1,500 a year. He then received an offer of \$2,500 from another college. I talked to him in this way: "You are familiar with the courses you give and your hours are reasonable. Now is the

time to use your leisure to do original work. The next five years will settle what your scientific standing will be. See that you make good. I can not get for you an increase of salary, but I can get for you every facility for good work." I thought I had my man, but he came to me a couple days later saying he had decided to go, as his wife thought she could not live on \$1,500 a year. As a second case I take that of a young man in another institution in whose work I became interested. When a book of his appeared, I wrote him that I was sorry he printed it. It did not fulfil the expectations I had of him, and I believed no man could afford to be the author of a useless book. He replied that he was glad others were not of my opinion and sent with the letter several laudatory clippings from papers and eulogistic letters from professors with reputation. This, of course, was a great victory and in a way I admit he was right; for the book brought him a call to a leading university. But a book of promise is yet to come. This, not starvation, is the road to ruin. Young men are not spoiled as fellows, but as assistant professors. A call means new responsibilities, the breaking up of old habits and a loss of self-discipline. The new president calls him a second Agassiz; the university press bureau spreads laudatory notices of him in the local press and the alumni take a hand in extension of the fame of the new genius.

Dr. Jordan tells us that he has been working for others the greater part of his life and that he is disappointed in the results. But for whom has he been working—for fellows or for assistant professors? There are no fellowships at Stanford University. If he would go over his cases, he would, in my opinion, find that he, like other college presidents, has been dragging into the lime light young men that it would have been better to have let alone. Each university should build up its faculty quietly from its fellows instead of running press bureaus to laud immature men. Scholars are not born, they are made by their environment.

No one is worth keeping who will not halt

long enough on \$1,500 a year to do good work. The assistant professorship is an unearned entrance to the halls of learning. If faculties would agree that no one should have the title of professor until it was fully earned, the increase of true learning would be possible. Scholarship is made by hard work, and comes only with gray hairs. If a man is wanted from another university take its best. Young men should be left alone until they are fully developed before transplanting them.

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TO THE EDITOR OF SCIENCE: In response to a recent friendly note from Dr. Edmund B. Wilson let me say: No money could be better spent than that used for the fellowship which enabled Wilson to walk and work with Brooks and Martin and Remsen. But too much such money is used to hire mediocrity to make diagrams for pedantry.

Our scholars must in some degree be descended from scholars. Relatively few of our teachers have the personality which befits the leader in an intellectual school. The scholar should be free to seek such leadership, and our present fellowship machinery tends, on the whole, to confuse rather than to help.

DAVID STARR JORDAN

#### THE ARIZONA PASSENGER PIGEONS

THE passenger pigeon is now generally believed to be extinct in a wild state, and of those formerly living in confinement only a single survivor, in the Zoological Garden at Cincinnati, remains. Under these circumstances reminiscences of its past history naturally find place in ornithological and other journals, based on the recollections of observers still living or gleaned from the published narratives of early travelers and explorers of the birds' former range, some fifty pages of such matter having appeared in the last two numbers of *The Auk* alone. Among recent contributions to passenger pigeon lore is Dr. McGee's "Notes on the Passenger Pigeon," published in a recent number of SCIENCE.<sup>1</sup>

<sup>1</sup> Vol. XXXII., pp. 958-964, December 30, 1910.