neering; E. C. Cheswell, instructor in engineering laboratories; P. L. Bean, B.S. (Maine), promoted to associate professor of civil engineering; A. L. Grover, B.S. (Maine), promoted to assistant professor of drawing.

Dr. Otto Grossner, of Vienna, has been elected professor of anatomy at the University of Prague.

DISCUSSION AND CORRESPONDENCE THE HARVARD CLASSICS AND HARVARD I. The Harvard Classics

Some one quotes to me a remark of William James's, "That no body of men can be counted on to tell the truth under fire." Perhaps "firing" is, after all, not a very effective method of searching for truth; and perhaps those who do the firing are more bent on making points than on getting to the root of the matter.

Two letters which I wrote during the summer to Harvard officials, on the "Harvard Classics" illustrate, aptly enough, the weakness of controversial methods as a means of securing assent to anything. In one of these public letters I asked Dr. Eliot, and in the other I asked Mr. Henry L. Higginson, trustee of Harvard, whether Harvard College had indeed granted the use of its name to the famous five-foot-shelf publication to which the public is now being invited to subscribe. No public answer was given to the letters; but the fact remains that the university did, by formal vote, lend its name to this book enterprise.

At this time I can realize, in re-reading these letters, that there was in them a good deal of desire to give pain, to see the worst, to nail the claws of the offenders to the ground, to state facts in such a way that the Harvard officials could not answer without making humiliating confessions and without, in effect, acknowledging that I was more virtuous than they.

At the bottom of the whole situation, however, and behind the conditions which produced the "Harvard Classics" there are certain facts about American culture to-day that ought to be considered dispassionately. It required a very peculiar juncture of influences between our educational world and our commercial world to produce "the Harvard Classics."

For the last thirty years Harvard has been struggling to keep the lead among American colleges; and Harvard has been content to take its definition of leadership—to adopt its ideal of leadership from the commercial world. We see in this the atmospheric pressure of industrial ways of thinking upon an educational institution. The men who stand for education and scholarship have the ideals of business men. They are, in truth, business men. The men who control Harvard to-day are very little else than business men, running a large department store which dispenses education to the million. Their endeavor is to make it the *largest* establishment of the kind in America.

Now, in devising new means of expansion, new cash registers, new stub systems and credit systems—systems for increasing their capital and the volume of their trade—these business men have unconsciously (and I think consciously also) adopted any method that would give results. A few years ago their attention was focused upon increasing their capital (new buildings and endowment): to-day it is focused upon increasing their trade (numbers of students). whole body of graduates is being organized into a kind of "service" to employ Harvard men, to advertise Harvard, to make converts, to raise money, to assist in a general Harvard forward movement.

Henry Higginson and Charles W. Eliot and Dr. Walcott and Dr. Arthur Cabot, and the various organized agencies under them, feel that Harvard should be kept in the front; and they are willing to appeal to self-interest in the youth of the country in order to get that youth to come to Harvard. It is given out that Harvard means help for life; Harvard is for mutual assistance; Harvard means cheap clubs and many friends on graduation. The wonderful ability of the American business man for organization is now at work consolidating the Harvard

graduates into a corps, which, to the casual observer, seems to have much the same sort of enthusiasm about itself as a base-ball club.

I would cite in passing the circulars issued from time to time by Harvard committees upon such occasions as Dr. Eliot's seventieth birthday or the raising of the three million fund-occasions such as arise in the history of any institution, and against which nothing can be said. It is to the language of these appeals, through which Harvard calls upon her "loyal sons" to rally, to shout and to subscribe that I would call attention; for the language is the language of display advertising. Unless there were in the hearts of the men something less bombastic and more reverent than in this literature, it would be hardly worth while to build up the university. Yet these documents are issued by sincere men who are doing the best they know to spread education and righteousness.

The latest form which the business sagacity behind Harvard University has taken to secure cheap advertising for the institution is to lend out the grounds and the name of the college to the most experienced professionals of the epoch, and to allow these professionals to do the rest. The first example of this was the performance of Joan of Arc given by Charles Frohman in the Stadium last spring, in which Maud Adams personated the Maid of Orleans. This show had in it nothing that was artistically justifiable, except the costumes and the training of the supers, both of which were indeed remarkable. The rest of the performance was meaningless and somewhat discreditable to the culture of Harvard. The whole affair, however, was not an example of culture, but of business enterprise. As a result of it, every newspaper in the land contained a column about Harvard College. Note that the professionals were called in; for this is what connects the Joan of Arc with the "Harvard Classics."

I will not pretend that the combination in which Collier's, Dr. Eliot and Harvard find themselves embarked was a cold-blooded scheme to exploit the credit of the university and put cash into Dr. Eliot's and Mr.

Collier's pockets. It was nothing of the sort. The situation was one into which all of the parties slid by operation of natural force; but the corporation and Dr. Eliot would never have got into it, had not the corporation and Dr. Eliot been long and deeply submerged in commercial measures.

It was an excellent idea of Dr. Eliot's to issue a list of books which he thought good, and have them printed in cheap form. Professor Norton in his last years spent much loving thought over his "Heart of Oak Series of Readers," and went down to his grave honored for this enterprise. But Professor Norton did not find it necessary to borrow the name of the university, nor to submit to the control of a publishing house. The present board of trustees, however, saw in Collier's offer to finance Eliot's project a chance to spread the influence of the college. I will not include President Lowell in these remarks, because I do not know exactly what position he has occupied; and in any case he should be let alone till he is more securely in power. It would be asking too much of him that he should veto a personal pet scheme of his predecessor's in the very moment of his own entry into office. The spreading of the influence of Harvard, then, is what the trustees had in mind—the making of a little money and the doing of a great deal of good is what Dr. Eliot had in mind: the making of a great deal of money and the doing of a little good is what Collier's had in mind. But here is the point: Once launched, Collier's is in control. The name of Harvard is an asset worth thousands of dollars. The size of the scheme may be measured by the money that Collier's is pouring into it. Eliot and Harvard have become mere trade-marks. We shall very likely live to see their names on collar-boxes a picture of Eliot, a box of soap and a set of the "Harvard Classics."

It is hard to blame Dr. Eliot. He has chosen a list of books, and a little bad taste in the advertising will carry his name and his books where good taste will not carry them. The notes and glossaries of these books will, it is stated, be done by a most competent

hand; and, except that the work is being so hurried as to make scholarship a secondary consideration, these notes and glossaries should be excellent. We must remember, too, that Dr. Eliot is not only a sincere lover of popular education, but is sincerely ignorant of what constitutes higher education.

But what shall we say of the trustees, who apparently are in complete ignorance that they are holding the ægis of the university over the book trade? Does this seem to you to be a small matter, or a matter for laughter? For what purpose does a university exist except to be a guide to the people in true scholarship, to be a light and not a false beacon to the half-educated, to be a touchstone and a safe counselor to those who honor learning and who desire to be led toward her?

There never was a country in the whole history of the world, where the people stood so much in need of honest dealing from their intellectual leaders as they do in the United States to-day. These hordes of well-meaning people, uneducated and yet hungry for education, are apt to believe what any clever person tells them. They become the prey of educational mountebanks, of tawdry impostors, of innocent quacks. "Prophesy unto us smooth things" is their cry. Show us that culture is easy, tie it up in ribbons, let it be a "crimson effect" and bear a souvenir water-mark. Show us that a man may become an educated man by reading for fifteen minutes a day in some certain books, and give us all of them—on a shelf, every one on the instalment plan.

Culture of this kind our people must have and will have, and it is right that they should have it. They require to be spoon-fed, and we need not have any fear that they will not get their food. But it makes a great difference, to the whole of America, who holds the spoon. Harvard College can not hold it without abandoning her true mission.

II. Harvard

Liberty of spirit and of speech is the great gift that education brings with it. A university is a censer of sacred fire at which young

men may light their torches, and go out invigorated into the world. They remain throughout life, no matter how uninspired their lives may be, in some sort of touch with the influences of their university. They never lose their enthusiasm, at least, for the nameof the place which once evoked it. Amid all the emptiness of college shouting there is the ring of a little golden bell of truth, a sentiment of reverence for intellect, a feeling of unity with the history of mankind. It is this thing, which all universities have in common, that makes them valuable; and not the divergencies upon which they pride themselves. They brag, they compete, they strut; and yet the thing they would bring into honor can only be diminished by competition. and extinguished by bombast.

The fomenting of a "Harvard sentiment" is an injury to Harvard intellect. This esprit de corps has been developed to such a pitch of tyranny in some of our colleges that the brains of the boys are often a little addled for life by it. I believe that Harvard has a more liberal tone than the other American colleges. This is due to her antiquity and to her proximity to Boston—for Boston feeds and nourishes Harvard, and educated people have more influence in Boston than elsewhere in America.

It is with a kind of joy that I attack Harvard College, knowing that Harvard supplies the light and the liberalism—hardly elsewhere to be found in America—by which I am permitted to proceed. I should grieve to have this freedom extinguished, as it would be if the alumni were forbidden to take a critical interest in the institution. Loyalty to truth is a fine thing; but loyalty to anything else is an attack upon truth.

It is supposed that Harvard's leadership has been due to her numerical superiority, and that this numerical superiority must therefore be maintained at all costs. It is probably true that Harvard is morally and intellectually in advance of the other American colleges; and it seems likely that she will lose her leadership through her attempts to retain it. She can not compete in size with the state univer-

sities; but she can, by attempting to do so, lose her distinctive position and become illiberal and stupid. Let Harvard abandon the ambition to be the biggest college—or the second or sixth biggest college—and be content to remain the biggest influence in the college life of America. On the day after she had turned her face in this direction, there would be an improvement in spirit in every university in the country. The senseless rivalry to secure students would be, in some degree, relaxed and a new standard of ambition would be introduced. The large sums of money which Harvard is now raising and wasting to her own undoing, could be turned to other uses; and the energy of those men who toil so ceaselessly at Harvard's propaganda could be discharged where it belongs—into the business world.

I do not see any signs of such a change of front on Harvard's part, and I utter this only as a hope, and in an Emersonian spirit. But I will give one piece of practical advice upon the subject, so practical, in fact, that it sounds almost like the advice of a business man.

If you wish to have a university, you must have scholars and scientific men on the governing boards. With the exception of President Lowell there is not a scholar among "The President and Fellows of Harvard College." They are all business men, lawyers or doctors. Now doctors are, for hospital purposes, scientists and scholars; and I will wager that the Massachusetts hospitals will bear comparison with any hospitals in the world from every point of view. But if you should exclude the doctors from the boards of hospital management, as you have excluded learned men from the management of Harvard University; and if you should hand over the Massachusetts hospitals to the management of business men, as Harvard University has been handed over to the management of business men, your hospitals would soon sink below the standards of Europe. Now, learning is not safe if left exclusively in the hands of business men, just as philanthropy would not be safe if left exclusively in their hands. Learning can be protected and transmitted only through the enthusiasm of those men to whom learning is a religion; that is to say, through scholars and the high priests of science.

JOHN JAY CHAPMAN

HISTORICAL GRAPHICS

To the Editor of Science: Referring to the short article on "Historical Graphics," by Dr. Barus (page 272), I might say that two years ago during the summer vacation I worked out a similar historical chart for botany, and used almost exactly the same methods that Dr. Barus has. I went back to several centuries before the Christian era and brought my chart down to 1900 as he did. The chart was made on a long strip of common opaque "curtaining" and I drew lines as he did for the dates. On account of covering so many centuries I allowed but ten inches for each century and did not put in, as he has done, the half centuries. My chart extended something like twenty feet and I followed exactly the plan suggested by Dr. Barus of indicating the life of each man by a horizontal line. In my chart, however, I drew these life symbols as rectangles about two inches high and stretching right and left the proper length. Inside of this rectangle the name of the botanist was printed in capital letters. This has the advantage of avoiding any possibility of mistaking the line belonging to any particular After I had worked out my plan on a smaller sheet of paper it was enlarged into the chart of which I speak, and has been hanging for two years across the end of my lecture room. I keep it permanently in place, as in this way students become gradually acquainted with the general distribution of names. I am sure that Dr. Barus's plan is an admirable one, and it certainly has served a very good purpose in my lecture room. CHARLES E. BESSEY

STATISTICS OF TELEGONY

To the Editor of Science: The letter of Mr. O. F. Cook in your issue of August 20 is so characteristic of the attitude of certain biologists to biometry that perhaps you will spare me space for a brief commentary on it. Mr. Cook writes: