cases, both of which specimens were given to me for examination. They were obtained from fully adult fishes, which did not differ externally from the other normal ones with which they were associated. Before being opened both the examples were classed as males or "bucks." The first example was taken near Camden, New Jersey, in March of 1908, by Mr. J. B. Fine. The organs of this fish were of the average size in length, though each lobe was sharply divisible into two sections of nearly equal dimensions, these sections being well constricted where they joined in the middle. The anterior section was composed of milt and the posterior of roe. My other example was secured by Mr. Horace H. Burton at Lovett's fishery near Tullytown, Pa., in April of 1912. It was still more masculine, with the milt very large or as a single body, and the lobes nearly completely atrophied. The roe was guite small, twisted, posterior, and its lobes also more or less distorted by atrophy. Further, the roe exhibited curious milt-like globules or areas of variable size, some comparatively large, in several places.

Henry W. Fowler Academy of Natural Sciences of Philadelphia, May 2, 1912

## UNIVERSITY CONTROL

LETTERS FROM THE UNIVERSITY OF PENNSYLVANIA

As to heading (1) as I comprehend it the corporation would have no powers of controlling policies. In that case I approve of it. I should not approve of having policies controlled by so heterogeneous a body and one so ignorant of academic questions as are most alumni. I should approve of their having advisory powers as to policy, and direct powers in electing trustees, so that the latter may not elect themselves. (2) I am in doubt about the whole of this section. I think it would be better that the professors should nominate, say two men, to the trustees and let them elect, so that the faculties would still essentially make the choice, but the trustees have

a part in the decision. If trustees are to have any usefulness their opinion should be of some value. I think if there is a president at all his powers, dignity and salary should be greater than that of a professor, as high administrative powers are rare and consequently of unusual value, and his duties, if conscientiously carried out, are more trying than those of a professor. Few men would accept them if they gained no added power or income and the position would otherwise be a sort of headdean. I believe some such officer is necessary, in the present age, at any rate, but I do not think he should have power of appointments, but that these should come from the faculty, that is, from the unit-faculty to which the position to be filled belongs, as nominations, and be ratified by the trustees or other advisory board. I am inclined to think that the best way to hold the president in check would be to give him an unlimited term of office, but to give the faculty of the whole university power of veto by a two thirds or three fourths vote in any of his proposals that affected the general university, and perhaps to give the unit-faculties power of veto by a large majority vote-say four fifths, or power to demand that any policy affecting the unit be carried before the whole university faculty and voted upon; and then consider a veto the fall of the ministry. This would probably lead to closer relations between all individuals in the faculties and the presidential policies and conflicts would be settled early by discussion rather than by quarreling. It would involve also that the faculty be officially apprised at all times of what is being planned long before it was done. This is rather halfbaked, as I express it. I do think, however, that what we need is to encourage the development of enlightened and able administrators rather than to clip their wings. (3) I approve of this. (4) I highly approve having outside experts called in to decide the choice of professors and I believe this might be required in certain other matters. I do not believe it is possible to pay the same salaries for the same office. This to my mind has the fatal danger that prevails in the labor unions, with their limitations of productivity and would interfere with progress. If one man is a greater and more important man than another he is worth more to a university than a lesser man, even though both do the same amount of actual university work. I should approve of having a certain percentage of trustees graduates of other institutions and, except in the case of state universities, have, say, half of them reside elsewhere than in the town where the university is situated. I would also require that four fifths of the trustees should themselves be university graduates of some sort. This would still leave some places to be filled by uneducated rich men who know nothing of a university's needs-but not a majority.

I should say that the plan is an excellent one in theory, but whether we shall ever see it tried practically may be a question.  $\mathbf{Of}$ course universities, like everything else, are a product of evolution. Such institutions in this country appear to have reached the stage where they call for an autocrat, precisely as it appears necessary to have a boss in city and state government. In process of time we may expect the important universities of the country to outgrow this condition of things, but precisely what will take its place no one can say. It is not necessary or desirable that all should be organized on one plan, and perhaps the autocrat may remain a permanent feature of some institutions.

I should very much like to see one or more of the universities of the country put into practise a plan of control along the lines that you have suggested. There is fortunately a rivalry so keen that the universities which best serve the community are going to be those that will most prosper, and service to the community depends fundamentally upon an organization which will attract and hold the best men to its faculties. I have seen thoroughly bad results under the head-professorship system and equally unfortunate conditions in departments largely autonomous, where a group of older men of similar sympathies are holding back progress with serious

results. The difficulty is to strike the means by which a department may be left autonomous as long as its actions are progressive, but may be brought up with a firm hand when it appears that a group of its professors are working for selfish ends or are exhibiting evidences of servile incompetency. I am inclined to think that the best checks are through criticism freely expressed by deans and other administrative officers and by committees, and freely asked by the president. The university in which is possible such criticism and consultation among its administrative officers is most fortunate.

Excepting in some minor details, and in the matter of the status of the president, I am entirely in agreement with you. Regarding the president, it seems to me that as conditions are changing much from time to time a longer tenure of office than that of the rectors of German universities would be desirable, and I think that for many reasons it is desirable that greater power should be concentrated in one technically qualified person than your scheme seems to allow. This need not run counter to your idea of a democratic institution, since the power is, after all, delegated from the faculty to the person selected by them for the position of president. An assurance of considerable tenure of office and a somewhat distinctly higher position, both in salary and in dignity of position, should, I think, be given the person known as president.

I believe the reform in university administration which you propose to be a very desirable step in advance. Perhaps I may be permitted to suggest an amplification in one or two points: (1) The meeting of the corporation for the election of trustees should not be under the chairmanship or influence of any of the trustees. Not uncommonly the meeting of a larger body when presided over by a member of the smaller directing body is merely a nominal affair, approving the proposition agreed upon beforehand by the members of the smaller body. The larger body usually does not take the initiative in any matter of

importance whenever members of the smaller directing body take an active part in the proceedings of the larger corporation. (2) The selection of professors and instructors is a most important matter. In the past the selection has been intrusted to administrative officers who usually relied upon the judgment of one or two men prominent in the special field in which a vacancy had to be filled. In very many cases one and the same man had thus the power to fill the most important positions. Such a procedure must naturally lead to conditions somewhat similar to those found in "politics." A personal element will be of influence in the selection of men for professorships. There is danger that the man who is mostfrequently consulted will, perhaps against his own inclination, be forced to assume the rôle of a political "boss," and that the building up of something like a political machine will result. Men of a certain school will be preferred for the filling of the most important positions. The committee having in charge the selection of a professor should, therefore, as a matter of routine, consult a large number of representatives of a certain field of science, preferably representatives residing in more than one country, in order to eliminate any personal bias, and to effect a selection on the basis of merit. Such a committee should submit the names proposed by the various experts to the senate for final election.

In the main I thoroughly agree with your views. We are certainly sorely in need of a revision of the prevalent methods of running universities. It seems that in most institutions the board of trustees do not look upon the faculty as the living part of the university, but as a lot of laborers who should be placed upon the same basis as "hired help" generally. There is certainly vastly too much politics in professorial life, and there is too much done to please certain interests, right or wrong. In fact there are so many evils and weaknesses that are so manifest in the administration of university affairs and so desirable to be corrected that one could write an elaborate thesis on the subject without seeking for material. This must be a matter of evolution and not of revolution. Your article is in the right direction.

I think your plan of university control on the whole a very good one; but you have not stated how a university senate should be constituted and elected. Further, it seems to me that any nomination for professorship passed by the board of advisers should not be subject to the veto of the trustees.

Your plan seems to safeguard very well the interests both of the organization and of the individual.

I am in thorough sympathy with the plan of university control as outlined by you. Two factors which make for faculty incompetence, in the medical schools at least, are self-interest and the dread of unpopularity among colleagues. This is particularly true of the clinical men whose business interests are not always in accord with a university's interests and for whom popularity is a business asset. These two factors frequently stand in the way of advances of benefit to a university.

I find your plan excellent, and approve of it. I beg to suggest that one indirect effect of the present system has not been mentioned in your indictment: namely, the policy of academic advancement of the man who draws the largest classes, rather than the man who does the best work. It has been my observation that presidential favor is frequently curried in this way, to the detriment of men whose ideals will not permit them to lower the standards of their work for popularity.

I heartily agree with your sentiments as to a strictly democratic organization, where no one man, or group of men, can set themselves up as a dictator. The corporation, to my way of thinking, should consist of several groups of men chosen from different sources of supply. It should consist of, say, fifteen members, selected as follows: the university professors should name three, the alumni organization five, the state legislature three, the educational board of the state two and the board thus constituted elect two other members from the community at large. These should, with the academic council in joint session, elect a president and a vice-president for five years. The faculty should name the academic council to which the questions of policy should be referred, presided over by the president. The professors, assistant professors and instructors should be assembled into groups, which groups would annually elect a chairman, and preferably in rotation. His sole duty would be to preside at group committee meetings, transmit their communications to the academic council and sign bills and other documents where such signature is necessary. In other words, the chairman of the group would be executive officer of the group for one year. The salaries should be uniform for professors and assistant professors, and of a sum sufficient for their needs and proportioned according to the length of active and honorable service, beginning with a minimum and ending with a maximum. The recommendations for advancement should start in the group committees, pass through the academic council and end with the corporation.

It must be apparent to most sincere and experienced observers of academic life in America that the present deficiencies in our universities are not so much a consequence of faults of organization as of certain fundamental defects in the dominant American conceptions of what the purposes and characteristics of university activities ought to be. The form of organization prevalent in the universities is an expression of the predominant characteristics of the men who are chosen to fill the influential positions. Men whose instincts are for practical life, rather than for study and the advancement of intellectual ideals and achievement, are chosen far too frequently. This is the chief source of weakness, since such men determine what shall be taught, how it shall be taught, the degree of freedom of research and of discussion, the aims which the institution sets before itself, in short the whole course of university policy. Such men admire the business type of man and try to imitate him; the result is that they have imposed on institutions of learning an organization better fitted for definite practical undertakings than for the diversified and largely disinterested activities of an assemblage of scholars. The system, in other words, favors the selection of men who lend themselves most readily to cooperative and directly practical undertakings-rather than of men who, like most true scholars, combine strong individuality with idealism. The evil is selfperpetuating, since almost all men will work effectively or ineffectively, according to the incentives offered; if devotion to study and research is self-penalizing, the number of men who vigorously and whole-heartedly so devote themselves is inevitably diminished. Hence, many university men deliberately prefer to perfect their capabilities in quite other directions than scholarship-even when they are not forced to do so-studying the arts of management, control, compromise, the technique of executive activity, and the like. Is it to be wondered at that the intellectual life of many institutions flags, that our scientific productivity is so far behind that of Europe, and that students of marked originality so frequently fail to receive the stimulus and opportunities they need for their proper development? Under conditions more favorable to the selection of superior men-like those hitherto prevailing in Germany, France or England-the tale would be a very different one. It is not that we lack the ability, but that it fails to realize itself because of a radically wrong basis of selection. I am well aware that there are many distinguished men in the American universities, but far fewer than there ought to be. The present organization of the universities, I repeat, is rather the expression of this deficiency than the cause of it. The fundamental cause lies in the prevailing temper and ideals of university men in this country. There are certain tendencies of American life -to a certain degree of all modern lifewhich a university should deliberately guard against and oppose. These are, many of them, to be counted among the more doubtful products of the democratic movement: the prevalence of mediocre or popular standards-i. e., those which the common man can reasonably hope to attain—an uncritical faith in majorities, a pessimistic estimate of the possibilities of individual achievement, over-emphasis of the importance of cooperative activity ("teamplay"). A preference for mediocrity and a disposition to neglect, disparage, or hinder men of pronounced genius arise from all this. The organization of the university should therefore encourage a liberal and enlightened individualism; the tendency to make men conform to fixed standards, whether set by academic authority or by what happen to be the fashionable prejudices of the time, should be frowned down, or, still better, laughed down. Under these conditions men of distinguished ability will be far more likely than at present to make their way into universities and to produce their best work. The existing organization of the universities overemphasizes the managerial side for the reasons I have already briefly indicated. Hence I should favor a change in the direction of a general simplification and decentralization. With reference to the reforms you propose, my opinions are very much as follows. I refer to the numbered paragraphs of your article. (1) The professors should undoubtedly form part of the corporation; alumni and other members of the community only in so far as they show real knowledge of university conditions. Such a body could be depended upon to select suitable trustees. (2) The president should be elected by the professors from among their number for a fixed term (e. g.) four years. There should be no obstacle or limit to reelection: a good man would thus hold his place. (3) and (4) I favor all possible autonomy to schools, divisions, departments and in-Salaries of professors should be dividuals. adequate and uniform. I am inclined to urge the adoption of a system like the Italian: i. e., election of the professor by men of reputation in his own department of learning, in his own and other universities. (5) I approve of all these suggestions.

LETTERS FROM THE JOHNS HOPKINS UNIVERSITY

With regard to the first proposition, the suggestion of forming a corporation consisting of the professors, officers and alumni, does not meet my approval. The only feature that makes membership in such a corporation desirable is the privilege of voting for trustees. In the first place I do not feel that this privilege alone would suffice to secure a paying membership, such as is contemplated in the proposition. In the second place, I should not like to see trustees chosen by this method. It would seem to me to carry with it all the difficulties inherent in political elections-namely, parties, electioneering machinery-a continual agitation to arouse the interest of the better element to meet the designs of those who were acting from self-interest or ignorance. The most important work of trustees, in my opinion, is to safeguard the financial interests of the university, and for this purpose they should form a small body. the individuals of which should be selected by the board itself, or in the case of state universities by some responsible authority, e. g., the governor of the state. It should be a permanent board made up of citizens of standing, men of integrity and ability, whose interest in public affairs will induce them to accept such a trust in spite of the fact that it brings work and responsibility without any personal profit. I do not feel that a board of this character can be obtained by a general election among alumni. It would be difficult or impossible for the alumni to acquire the information requisite for intelligent voting. In regard to the second proposition, I am heartily in favor of the suggestion that the president shall be appointed by the trustees upon nomination by the faculty-he should be the choice of the faculty-I believe that such a method of selection would strengthen greatly the bonds between president and faculty, especially if there was added the further provision that all appointments and appropriations be made upon recommendation of the faculty or of some board representing the faculty and chosen from its membership by election. Ι do not, however, agree to the latter part of proposition (2). I believe that the presidency should be a dignified and desirable office in order to attract the best men.  $\mathbf{It}$ should be permanent, it ought to carry a salary larger than that of the professor, and the incumbent should be charged especially with the important duty of developing the policy of the university. Some one is needed in this position who is broad-minded enough to sympathize with good movements and to see that they are pushed—to recognize when there is weakness to be overcome or strength to be encouraged. No temporary officer can be expected to keep his mind constantly upon such work. If the office is temporary and carries no special dignity or importance, men will avoid it and, if forced to take it in rotation, will regard it as a necessary evil that they are thankful to escape from. Propositions (3) and (4) meet my general approval. When the size of any department is considerable, it would seem desirable to have its own faculty and dean, to make its own nominations to the staff and its own recommendations for appropriations and other departmental expenditures. As you say, such an organization practically exists for the professional schools, although in many cases the autonomy is not carried far enough, that is to say, it does not extend to appropriations and appointments. I count it unfortunate that there is a tendency to make the deanship in such departmental faculties a practically permanent In the case of professional schools office. that are not really incorporated into the university, such a provision may be necessary, but when the department is organically united to the university the deanship, in my opinion, should be an office filled in rotation, yearly, by the professors of the department. A department is small enough for the professors themselves, as a body, to develop their policy and supervise their own needs, present and future, and the dean should be simply an administrative officer for carrying their actions into effect. The office might properly be regarded as a burdensome duty and not an honor, and the labor might be shared equally so as not to spoil the efficiency of any pro-

fessor in the proper work of his own subject. In this general respect I should like to see a marked difference made between the position of the president and the dean. The latter now generally fulfil the duties of minor presidents and there is no need, in my opinion, in one and the same university in having a group of men taken away from their proper work. It may very well lead to sharp antagonisms between individuals. In regard to proposition (5) I assume that some such representative body is necessary in large institutions where many departments exist. I would suggest that its most important function should be the recommendation of a proper division of the annual income among the several departments, in addition to acting as a final court in matters affecting the interests of all de-It should be a representative partments. body subject to change.

I thoroughly agree with (1) and the first part of (2); I think the president should be elected by the faculty and feel responsible to it for appointments, so far as they are in his hands, and general politics, but to the trustees for the financial part. I am inclined to favor a "rector" elected from the full professors for a period of, say, four years; his administrative work should not take him away from his department entirely. I believe that he should have a larger salary and be able to travel and entertain in the name of the university. A four years' tenure would put a man on his mettle, for I think he should be subject to reelection. I see evident weaknesses in this which I shall not discuss. (3) and (4) appeal to me and also (5) except for the last sentence. I do not believe that there is any group of men who abuse their freedom as much as do some university professors and I believe that this abuse tends to lower the average and dignity of all. You see, I am a complete Philistine on this subject. I believe that each head of a department should send the president a written report of his work at least every three months, these reports to be kept on file. I even favor the establishment of rules relating to hours. Of course I believe in absolute freedom in research, but I think it only fair that we give evidence of being worthy of our position and salary and see no reason for assuming that students and teachers are so different from the rest of mankind as not to need some control.

Along general lines I agree with you, as for instance, that the several faculties (law, medical, etc.) should possess autonomy, should nominate their own professors; that there should be as much flexibility and as little of the department-store system in a university organization as is consistent with the progress of research and with the advancement of learning. On these and many other points I should be at one with you, but when it comes to the details of a scheme such as you have analyzed I should wish time for study of the question—time to study the methods of university control in Germany, England and other countries—before expressing an opinion.

I think we are beginning to see indications for "university control" by the members of the faculty. Our medical faculty here is largely in control, not by right, but by assent. Such responsibility makes us more interested in educational problems, in economy of funds, and breeds loyalty, which, after all, is of the greatest of importance.

I can say that the plan of university organization that you outline strikes me as in its main lines highly desirable, and in its aims altogether excellent. With its leading purpose, that of securing and developing the independence and the individuality of the professor, I am in the heartiest possible sympathy.

On the whole your plan seems to me excellent. It is in accord with the historical development of university organization, and while very different from the plan now followed in America, it seems to me that a gradual adoption of it would be beneficial.

I approve of your scheme of university control. I read your proposal with much interest and approval. I have no suggestions to offer at the present time.

Such an organization would go a long way towards solving our present difficulties of administration, meaning by "our" those of many institutions throughout the country. My limited experience with university presidents has led me to believe that some of them at least are incompetent. When it comes to new appointments, their lack of knowledge of suitable men to fill vacant positions is often surprising. I am fully convinced that the appointive or nominative power is best in the hands of such a committee as you suggest.

The democratic features of your plan must certainly appeal to all who are intimate with the present unsatisfactory state. I think any attempt at a modification of existing methods of university government should include some means of setting a standard for and effecting a scrutiny of the work of a department head. Existing abuse of the responsibilities of this position should not be lost sight of in your scheme.

I am very much in sympathy with your proposed plan of control of universities. In my estimation the president should have a somewhat higher salary than professors, but the differences that now exist in colleges as well as universities are unreasonable. The excessive (relatively excessive) salary commanded by certain presidents is, owing to their reputation as financial agents. If a man is able to raise money for an institution he can command almost any salary. Just what bearing your plan would have on the financial management of institutions of learning could hardly be predicted. However, it would tend to bring to the head of such institutions men of scholarship rather than men of marked business abilities and such men would undoubtedly, with the cooperation of the professors, as outlined in your plan, be able to direct the real functions of educational institutions infinitely better than an autocratic business executive.

Paragraphs (2) and (4) seem to me to be very well stated; certainly I subscribe to them most heartily. I confess that paragraph (1) is not so clear to me. I see possibilities there of great confusion. The corporation might easily become so large that certain tendencies and attitudes might be forced upon the professors which are not representative of the best interests of the university. If the voting power of the corporation could be so arranged that the professorial vote would represent half of the total and the outside members the other half, I think the plan might work very well. In regard to paragraph (3) it seems worth saying that the plan you call for is rather artificial unless you would hold to a more strict departmental grouping than I think your wording called for. Such large groupings would be hard to make and would eventually lead to friction. I think I am more in favor of autonomy for the professors than for the group, yet such a condition of affairs might lead to anarchy. The grouping psychology, philosophy, chemistry, physics, etc., are natural growths. In certain departments there are only one or two professors; such departments should be grouped by themselves and not forced to become a part of a larger whole.

I am heartily in favor of such a plan. I have been connected with German universities and have talked with a number of professors in Germany, France and England, as well as here in America. I feel very keenly that our present system will have to be modified somewhat according to your proposed plan, and it should be done as soon as possible. We are very fortunate here in Johns Hopkins University, of course, for we have, as you know, a university council which advises the president. Even here, however, there is a tendency toward an autocratic "one man power" in the departments, in that the socalled "director" of the department has considerably more authority than is sometimes Although there is sometimes talk wise. against our "one man system," you see that, as a whole, the wisdom of our leading men

here in the university has kept things going on a sane basis. Considering the matter entirely independently of our own immediate surroundings, however, I should like to see a more democratic control established in our American universities.

I agree with you that for the successful development of the American university in the future, a change in the form of administration which at present dominates our higher institutions of learning is imperative. Certain recent developments have shown the danger of concentrating too much power in the hands of any one man. If a professor in one of our leading universities is to be dismissed not only without a trial before a jury of professors, but even without a hearing by the president of the university in question; the dignity and honor appertaining to an American professorship would be so slight that much of the very best intellect of this country would be turned away from the universities into safer channels. The result from this cause alone would be greatly to weaken our higher institutions of learning, and to foster the already overwhelming commercialism of this country. I think the policy outlined in (1) is good, except that I would not have a chancellor. The organization should be kept as simple as possible, to avoid any unnecessary sources of autocracy finding a foothold. All financial matters should be left to the trustees, and they should be expected to secure the necessary endowment. The financial affairs of the institution should be the chief, if not the sole, function of the trustees. I agree with (2), except I would not preserve the name president, since this has now come to have a well-defined significance. I would call the officer in question, perhaps, "rector," as in the German universities. He should be elected for one year, with the possibility of reelection-but in no case should be eligible for more than three years. His salary should be exactly that of a professor and his powers the same as those of any professor. His office, however, should, I think, be looked upon as even more dignified

than that of a professorship. The point made in section (4), that the same salary should be paid for the same office, the same amount of work and the same tenure of office, is, I think, fundamentally important. This is, I believe, the case at Harvard, and largely the case at Yale. The opposite policy of obtaining, and especially of retaining, a professor for the smallest sum to which he, by any method, can be induced to submit, is short-sighted, and not conducive to the highest results. This method fosters discontent, and often indifference and inefficiency. It deals with the professor by the same method that a corporation deals with its hirelings, and thus detracts from the dignity and desirableness of the position. I would add that publicity in all such matters is absolutely essential to the good-will and harmonious working of an institution of learning. It might be urged as an argument in favor of the former, and against the latter system, that one professor is inherently worth more than another; and by the methods at present in vogue in making promotions this is true. But let no one be promoted to the rank of a full professorship in any one of our leading institutions of learning who does not measure up at least to a certain high minimum standard, and then let the salary received by a professor be determined by the years of service in his rank. If I may add a word of a general character in reference to university administration in this country, it would be: model our system as closely as possible, with the conditions existing in this country, after the German universities. Their present system of administration is the outgrowth of years, and in many cases of centuries, of experience. And what is the result? The finest system of higher education, beyond comparison, that the world has ever seen. Indeed, most of the productive men of science in this country, even to-day, have learned their lesson in the German universities, and transplanted research from Teutonic soil to this country. Such results as have been obtained in the German universities could scarcely have been reached under a system of administration that was seriously defective.

It might be objected that the conditions in this country are fundamentally different with respect to higher education than those in Germany, and such an objection unfortunately contains a large element of truth. Nevertheless, we should profit by those greatest institutions of learning; adopting their system of administration as nearly as the existing conditions here will permit; and not learning the lesson of university administration all over again from the very beginning by experience. This is, I think, the real solution to the greatest problem in higher education in America today.

Your proposals concerning the organization of universities are absolutely in line with my own hopes. Unless the working staff of the university gets a chance to help in the shaping of broader ideals of university life their interest will always be low. The superstition of one-man power is one of the worst impediments to a wider training of a spirit of collaboration, the lack of which makes public life as well as university life an opportunistic medley. It is deplorable that to-day the man who can enlist the cooperation of some financial magnates is a most forcible element in setting the pace in university policies. With regard to detail, I suppose the closer we keep to the English and Scotch pattern the more likely are we to reach the result, on account of the anti-German feeling existing in many quarters. This would mean the adoption of having a chancellor of the university, whereas, personally, I should prefer to have a rotation of the rectorship among the faculties, similar to what exists in the Swiss universities.

I am in hearty sympathy with the underlying principles of your proposals. Taking them up separately: (1) The idea of a large corporation and of elective trustees is undoubtedly right. I think a chancellor essential. (2) The duties of the president are not given in your statement. It seems to me that the chairman of the senate might assume the responsibilities. (3) The idea of subdivision of the faculty into schools is right. I assume that in most universities the "college" would form a separate school. In which case, the collegiate faculty should, of course, divide and meet at times with the members of the various other schools. (4) I believe in the financial and educational autonomy of the schools. But in regard to nominations of professors, I see no advantage in the "board of advisers"; I think the senate should have the final authority. I doubt the need of giving veto power to the board of trustees. Each school should have the duty of initiating plans for new professorships. There may be certain "standard" or minimum salaries; but I do not believe uniformity is possible or indeed advisable. (5) I would emphasize the duties of the senate, and would, I think, allow the board of trustees to appoint from the faculty a certain number of members. Certainly the membership should be small, less than twenty. The chairman, elected for one year, subject to the approval of the board of trustees, might well perform the so-called duties of the president. You do not make any definite proposal concerning means of contract with the alumni and the public. There should be, I think, an office charged with this duty. At its head should be a most capable man, not a member of the faculty, who might be also the secretary of the senate.

## SCIENTIFIC BOOKS

In Northern Mists: Arctic Exploration in Early Times. By FRIDTJOF NANSEN. Translated by ARTHUR G. CHATER. In two volumes. Frederick A. Stokes Company. \$8.

These beautifully printed and lavishly illustrated volumes are most interesting, but the reader who turns to them solely for "arctic explorations in early times" will be surprised, for less than one fifth of the matter pertains to polar voyages. Dr. Nansen properly had misgivings when he said, "Many think that too much has been included here." Among such matter falls amber, tin, ship-building from 1,200 years B.C., and other similar and slightly related matter.

Marred though it is by discursive and heterogeneous treatment, the work is of historic value and literary interest. Most comprehensive in its scope of investigation, and in its wealth of assembled material, it will unquestionably prove of value to geographical students as a source whence can be drawn information of, and textual extracts from many rare and little-known works and manuscripts. Its extent and thoroughness may be surmised from the three hundred consulted volumes, and in a dozen languages, whose citations could not be verified under months of labor, let alone the judicial consideration of their pertinency and value.

For the general reader the volumes have value and interest along two lines especially, Greenland and cartography. It is gratifying to find brought together such extended details relative to the early exploration of Greenland by Europeans, and to the interrelated history of the Scandinavian colonization.

In cartography there are more than seventy maps reproduced, in whole or in part, those from the geographical works of the middle ages being the most interesting and valuable.

It is strange that the attractive and wellknown woodcuts of Olaus Magnus were not reproduced from the original edition (Rome, 1555). One would have gained a much better idea of the landscapes of Greenland and of Iceland if there had been reproductions of the excellent available photographs made by the Danish officers, instead of the present drawings, which—artistic though they may be utterly fail to convey clear and accurate conceptions of the polar world.

Neither in novel views nor in their relations to arctic explorations do the accounts of the voyages of Cabot and of the Portuguese merit publication herein. The rehabilitation of Pytheas, of 300 B.C., is ingenious, though much over-elaborated and qualified—necessarily.

The giving of about one sixth of the work to the much-disputed subject of Wineland the Good appears to little purpose. Dr. Nansen's views will not prove acceptable to all the authorities on this mooted subject, which is not finally decided.