DISCUSSION ON "TENTATIVE SCHEME OF ORGANIZATION AND ADMINISTRATION OF A STATE UNIVERSITY." CHICAGO, JUNE 30, 1911.

A. H. Ford: The Institute is to be congratulated upon having a paper of this kind presented to it for consideration. Among the papers dealing with educational subjects, presented in the past, have been those by practicing engineers indicating the kind of training which the young engineers whom they employ should have and those by educators saying that it was impossible to give such a training. Now there is presented to us a problem of organization on which it seems as though the engineers and educators might agree, as the problem of organization is essentially the same no matter whether the product is electrical energy, dynamos or trained men.

As the scheme of organization presented by Mr. Mershon does not differ materially from various schemes now in operation the speaker will point out some of the defects of the present systems.

First: The fixing of authority is indefinite, particularly as to distinctions between management and administration; with the result that frequently the board of trustees decides on matters of administration concerning which it has insufficient knowledge to act intelligently. The natural result is that the administrative officers are unable to maintain a definite policy and consequently find it difficult to obtain proper coöperation of those under them.

Second: The making of the secretary, or other financial officer, responsible to the board of trustees instead of to the president gives rise to a two headed organization which frequently results in the control of the educational policy of the institution by the secretary, through his control of the budget. This is because the board of trustees naturally looks to the secretary rather than the president for advice regarding financial matters and decisions regarding the amount to be paid for equipment and professors' salaries have a material affect on the educational policy of an institution.

Third: The activities of the students outside of the class room ordinarily receive little attention, with the result that many students when freed from restraint in this way acquire habits which make the ordinary routine of business irksome. This is no doubt the cause of the frequently repeated remark that a college graduate is of not much use in the business world until he has been away from college for two years.

There are two provisions in Mr. Mershon's paper which stand out prominently. The alumni advisory board and the method of fixing a budget to be presented to the board of trustees.

An alumni advisory board of the kind contemplated should prove very useful; but it should not have the duty of confirming appointments to the teaching staff for such appointments frequently require confirmation with great despatch and cannot wait

for the assembly, on call or at a regular meeting, of such a large body as the alumni advisory board.

The method of fixing a budget to be acted on by the board of trustees is admirable and should do much to overcome the bad effect of having the secretary report directly to the board of trustees.

The following plan of organization, shown in Fig. 1, is suggested as a means for overcoming the defects noted. The duties of the various officers are given only where they differ from those in the plan proposed by Mr. Mershon.

Board of Trustees. The board of trustees is the direct repre-

Solid lines indicate subordinate relations. Dotted lines indicate advisory relations.

sentative of the people and as such should dictate the general policy of the university and represent the university before the legislature. Being nearer the people than the members of the faculty the members of the board of trustees may see fields which could be profitably covered and which have escaped the observation of the faculty. It should not burden itself with details of administration but should confine its activities to such large matters as determining the general policy of the university, appointing the president, confirming the appointment of deans and other officers of equal grade, passing on the budget and approving plans for new buildings.

President. In addition to the powers and duties named the

president shall, on the advice of the university council and subject to the confirmation of the board of trustees, appoint the deans, secretary and treasurer.

University Council. The university council shall consist of the deans, the secretary and the treasurer. The secretary shall be secretary of the council. The secretary and the treasurer are added to the council in order to have their advice in matters which involve the expenditure of money or which require a knowledge of the past actions of the council or any of the faculties.

Secretary. The secretary shall have charge of all records of the university except those relating to finances and shall be secretary of the university council and of all faculties. He shall appoint all his subordinates subject to the confirmation of the president.

Treasurer. The treasurer shall have charge of all moneys and credits and shall keep a record of all financial transactions. He shall be the bursar of the university.

Deans of Colleges. In addition to those duties mentioned, the dean of each college shall appoint, subject to the confirmation of the president, all officers of instruction in the college.

Dean of Preceptors. The dean of preceptors shall be responsible to the university council and the president for the conduct of the students when outside of the class room. He shall have supervision of all student organizations and shall see that the accounts of such organizations are audited by the auditor of the university. The departments of military drill and athletics shall be under the dean of preceptors.

College of Each college shall be organized into departments each of which shall be in charge of a professor who shall also be director of research in that department. Under him shall be such associate professors, assistant professors and instructors as may be necessary for the proper conduct of the department.

Preceptors. A preceptor is a person of the rank of professor or assistant professor who has charge of the students at such time as they may be outside of the class room. He shall act as their confidential adviser and shall give them such advice as to methods of study and conduct as may be desirable. There shall be at least one preceptor for each 50 students lodged in the university dormitory. He shall be head of the house and as such shall see to the proper enforcement of the dormitory rules. The different use of the term preceptor from that of Mr. Mershon is to be noted. It is not intended to limit the activities of the preceptors to such as are concerned with those students who live in the dormitories; but each student in the university, is to have a preceptor who shall be in *loco parentis* for that student, the number of students assigned to a preceptor being small enough so that he may become personally acquainted with each.

Medical Adviser. The medical adviser to students shall have the rank of professor and shall be under the dean of preceptors.

His duties shall be the giving of medical advice to students but shall not include treatment when ill. He shall also advise the dean of preceptors in regard to matters affecting the health of the student body.

Registrar. The registrar shall keep a record of the academic work of all students and perform such other duties as may be assigned him by the secretary.

Librarian. The librarian shall perform such duties as usually appertain to that office and in addition shall be superintendent of university publications other than announcements and those of like nature.

Superintendent of Property. The superintendent of property shall have charge of all property of the university except moneys and credits and the erection of all buildings. He shall report directly to the secretary.

Purchasing Agent. All purchases made for the university shall be made through the office of the purchasing agent. He shall report directly to the secretary.

University Faculty. The university faculty shall consist of the members of the university council and all persons on the university staff having the rank of professor or associate professor. Assistant professors shall have seats in the university faculty but shall not have the right to vote.

The university faculty shall be the legislative body of the university in all matters relating to the student body, entrance requirements, graduation requirements and such other requirements as affect more than one college.

College Faculties. Each college faculty shall consist of all the members of the college staff above the rank of instructor. The instructors shall have seats in the faculty but shall not have the right to vote. The college faculty shall be the legislative body of the college in all matters of a pedagogic nature and shall be the final authority in fixing the courses of study.

Auditor. The auditor shall be the direct representative of the board of trustees and as such shall audit the accounts of the treasurer and act in an advisory capacity to that officer. He shall also audit the accounts of all student organizations.

C. F. Harding: For a number of years we have had before the Institute and other conventions considerable discussion of the technical university and its product—by technical men in manufacturing institutions and in the engineering field in general. It seems to me that this is a very healthy condition of affairs. It would be too bad, if the manufacture of an article should be entirely neglected by the consumer of that article, and it is equally serious if the output of the technical university is entirely neglected during the university period by those in charge of the corporations to whom the university graduate is going. I am particularly pleased, therefore, to congratulate the Institute, upon the papers which it has had in past years and upon the very general discussion, which has been entered into by those

in charge of university departments and by the engineering profession generally.

The paper which we have this year I regard as confined largely to the organization and administration of the university, and not to those points which, it seems to me, are most vital in the development of the technical graduate, namely, the curriculum and the administration of that curriculum in class room and laboratory. I wish, therefore, the discussion could be broadened out and not limited to the rather narrow question of university organization and administration. If this plan were put in vogue and standardized in the various universities we would not be benefitting, in my opinion, the output of these universities. We would be expediting the business of the university, and possibly indirectly, through the alumni advisory board, improving the output to some extent, but it seems to me that the discussion and the resulting changes in the curriculum, and in the administration of that curriculum in class room and laboratory, would yield very much greater results. Limited as we are, however, to the organization and administration of the university, there are one or two things I wish to say along the lines of this paper.

The university organization could be, in my opinion, quite similar to the organization of an industrial corporation. I see no reason why it should be materially different from such an organization. I do not see, however, how such an organization can be standardized for a number of universities, particularly state universities, where local and legislative conditions are bound to limit such standardization. Nevertheless, if we cannot have a standardized organization, as this paper infers we may have, I think we can gain from this paper a great number of valuable suggestions which can be picked out and applied to the organizations of the various universities.

The most radical departure from the present organization of most universities as has been stated, is probably the formation of the alumni advisory board, and it seems to me that this is directly along the line of coöperation between the university and engineers and manufacturers in the field, which, as I stated at the beginning of my remarks, is of so much value. If the alumni ten years out of the university, who have been through that university, know its problems, who have been through ten years of practical and professional experience, can be brought into vital touch with the organization of the university, it seems to me that this coöperation which I have spoken of so favorably, would be greatly enhanced, to the ultimate benefit of the graduate of that university not only, but to the prestige of that university as well.

The formation of such an alumni advisory board as has been suggested in this paper, while beneficial, as has been stated, would, if carried out in detail as suggested here, greatly cripple, to my mind, the business of the university. I believe that such

an advisory board, if organized at all, should be a fairly representative one, should include engineers from all branches of the profession, and from all parts of the country, and, therefore, with a board of twenty of such men, it would be extremely difficult to get them together at a single meeting sufficiently often to enable them to carry out the duties which have been imposed upon them by an organization such as we have in this paper. To reduce these difficulties, without introducing any serious disadvantages, it would be possible to reduce the number of such an alumni advisory board by a large majority, from twenty to four or five, and to limit its jurisdiction to the purely advisory duties as suggested here, with the exception that they should advise, not with regard to the appointment of all the members of the instructional board of the university, but the heads of departments, heads of schools, and deans. Now if the alumni have an active part in suggesting the heads of departments and deans, and if the election or appointment of the subordinate instructors is left to the heads of departments and deans, the up-to-dateness of the faculty, if I may use that word, will be maintained. I assume it is largely that quality which the author of the paper wishes to maintain in the faculty—the prevention of the faculty from getting into a rut, as is often the case, and becoming out of touch with practice, and therefore becoming a detriment to the output of the university. If this alumni advisory board can be limited in this way, it seems to me it would be a great improvement, not only over the present condition, but over that set forth in the organization mentioned in this paper.

I regret that there are comparatively few of the engineers in the field here today, as I had hoped we would have an active discussion from these men. I believe they are the men with whom we should coöperate in turning out the best and most efficient product from our technical universities.

B. B. Brackett: I believe thoroughly that the administration and management of our universities can be improved, and I believe that they can be improved by the advice of those who are outside. I have no patience with those who maintain that the university is a world by itself, and is subject to its own laws and its own rules, methods of management and government.

We are to be congratulated in having this subject brought up. But I do not like the author's suggestion of an alumni advisory board that might be a controlling factor. As I understand it, his alumni board must approve all appointments, and in that way it would possess real veto powers. To my mind there are serious dangers in such a plan. It is possible that it might lead to results quite the opposite of those suggested by the last speaker. You cannot have an alumni board, unless that alumni board is elected by the alumni. Are the representatives of the alumni likely to be any more expert in educational or technical lines than the average member of the alumni association? Is the

average alumnus of our colleges and universities an educational expert? Is the average one well enough informed to take part in the management of a university, to the extent of saying who should be on the faculty or who should not?

In comparatively recent years, two of our well known universities have had radical upheavals in management and internal organization. In both cases investigation will show that the alumni were with the old order of things and not with the progressive element. There is a possibility of an institution being away behind the times, in the ability of its faculty, its general organization, and the character of its work. And it is possible for the mass of the alumni to think that this institution is one of the best in the world. In fact, it is quite natural for them to think so, and to stand as strongly as they can for the old order of affairs.

An alumni board with such influence in the appointment of faculty members might foster excessive inbreeding in the personnel of the faculty. In fact there are many possibilities of obstruction to real progress in an alumni board with powers so unusual as those proposed by Mr. Mershon.

The dangers would be especially great in the case of those institutions that have not yet reached true collegiate standing.

A. S. Langsdorf: This paper brings to mind that the study of organization and administration in university work was taken up some time ago by the Carnegie Foundation for the Advancement of Teaching. The investigation, which was made by a mechanical engineer, had for its particular purpose the study of methods in teaching physics. Attention was confined to one subject because of the obvious impossibility of considering the entire field in the time allowed for the work. The results have been published by the Foundation and are available to all who are interested. The report met a rather cool reception and even ridicule, especially from college men, because of certain unique suggestions which imposed factory methods upon the methods of training students.

Mr. Mershon's paper seems to be actuated by the same general motive which prompted the Carnegie Foundation in its undertaking, namely, the conservation of energy in administering purely routine affairs of university work. It would seem that many of the plans outlined by the author should be self-evident to executive officers of reasonable efficiency, always supposing that political conditions (in the case of a state institution) are what they should be. But the question that is likely to present itself to those in the educational field, after reading the paper, is: Where is the Faculty? Its functions, which should be of the greatest importance in a democratic institution like a university, are apparently submerged and made subordinate to those of unduly exalted executives.

I believe with one of the previous speakers that the powers of the alumni council as proposed in the paper are too great.

Alumni in general are not well acquainted with college affairs, especially after an absence of ten years or more, and there has been a tendency on their part, particularly in the case of state institutions, to meddle in certain features which were better removed from their influence. I refer to their rather pernicious activity in athletics, in which they have frequently exercised a decidedly corrupting influence. But granting that an alumni council of the best type could be secured, its presence would seem to violate a fundamental precept in efficient management by a further division of responsibility instead of a concentration. Instances could be mentioned—such as student “strikes”—in which the interposition of an alumni body between students and faculty would have been a real calamity.

George D. Shepardson: I have tried to orientate this paper with reference to the work of the American Institute of Electrical Engineers, and I confess difficulty in orientating my own ideas with reference to this paper. In attempting to find the relation of the electrical department to the proposed organization, I confess embarrassment. On the other hand, it seems to me that the paper might have begun further back. Considering the problems which a state educational institution has to face, we find that almost without exception the public resources of the state are scattered. In almost every state instead of there being one State University, which should be at the head of the educational system of the State, there are several institutions. Even though the state university is nominally at the head of the state public educational institution, in every state certain parts of the system are outside. Minnesota, for example, has been pointed to as a state in which the entire educational system has been built up symmetrically by having the high schools point up towards the State University, and at first sight it looks like an ideal situation. There are, however, a number of normal schools whose purpose primarily is to train teachers, and which have no thoroughly specified connection with the university, but which every now and then agitate the question of extending their work and granting degrees. There are certain other branches of education which are under state auspices, and yet which do not quite fit in with the ordinary scheme, such as institutions for the blind, or for the deaf, or for the feeble-minded, institutions which too frequently are classed along with the penal institutions. In almost every state we find several governing boards which have to do with educational institutions and when it comes to the legislative sessions, whence come the appropriations, there are a number of different boards generally in sharp competition with one another, or else in some unholy alliance which is not of the best order.

One of the fundamental features which should be included in any general scheme of reorganization, is some provision for harmonizing all public educational institutions in the State. In the State of Ohio, for example, I believe there are four,

certainly three, different institutions for higher education that enjoy the receipt of money from the State Treasury, and in almost any other state that situation exists to some extent. It seems to me the greatest need of our state universities is that the entire educational system of the state should be unified. This is much more important than that the university organization itself be overhauled. Another difficulty with the proposed organization is that in most of the states the universities are chartered, which is particularly true of the older institutions. It is a matter of very great difficulty to change that form of organization. As an illustration, in Minnesota there has been no acknowledged arrangement by which the alumni should have representation upon the Board of Regents, corresponding to the Trustees, although such representation seems to be very desirable. Only after several years of agitation was there success in getting one or two alumni members upon the Board of Regents, and that is done, not by right, but by courtesy. The matter was brought up at the psychological moment, before a properly disposed Governor, and he agreed to appoint two alumni upon the Board of Regents when a vacancy occurred. Since that time the succeeding Governors have been prevailed upon to appoint alumni as successors of alumni whose terms expire, and so we have an alumni representation upon the Board which has proven to be very satisfactory.

As to the official relations between the alumni and the university, it is difficult to make rigid statements which will apply everywhere. It seems to me the attitude that has been generally expressed here this afternoon is the correct one; that, generally speaking, the alumni organization should only have advisory power, and not have veto or appointive power. If the alumni are assured of representation upon the general governing Board of Trustees or Regents, then we may be sure that the alumni will be well represented in matters which they desire to bring to the notice of the Board of Trustees or the Board of Regents, and that these matters will be given proper attention.

M. C. Beebe: I am sure that all of the members of university faculties appreciate suggestions made by engineers in the field in fact, we make every effort to get them to coöperate to as great an extent as is possible.

I cannot see any reason why a university, cannot be organized on the same sound principles which obtain in our best corporations. I think there is a chance for decided improvement, especially on the business side. The difficulties in the past have perhaps been due to the very rapid growth of the state universities, so that the development of the organization has tended to lag behind that of the growth of the institution itself but is not the same true of many business organizations?

I think we have got to go slow in applying the same standards of efficiency to the educational side that are applied to the purely manufacturing plant. The matter of economy should be judged

in a somewhat different way. True economy in education does not mean a low cost per student for there is no such competition to be met. Employers are not looking to our universities for cheaply educated men.

The only economy worth while and it is very well worth while is to turn out the best possible product with the money available for the purpose. This means among other things a careful selection and retention of good instructors and equipment.

Mr. Ford objected to the two-headed scheme, as he called it. It may be interesting to know that at the University of Wisconsin the two-headed arrangement is being tried out. We have the president of the university, and besides we have a newly appointed business manager, whose duty it is to look after all the purely business matters. He has under him the purchasing department, the Secretary of the Board of Regents, and Bursar and has control of the buildings and grounds.

The argument for this arrangement is that the institution is so large that it is impossible for one man to do justice to both interests, the pedagogical and business, and the work may better be divided. The situation is analogous to the case of a large corporation, where the various vice-presidents are given charge of separate divisions of the organization. Although this departure is somewhat new, it seems to be working very successfully.

W. L. Upson: There are many points in this paper which invite criticism. Some of these are already embodied in university organization and might be discussed from the standpoint of experience. In this respect may be mentioned what the author calls, "Schools and Departments of Instruction." This is proposed as a means of dividing the various college faculties into smaller and more workable bodies, and might be justifiable in an institution of 10,000 students. At present, however, these divisions are apt to be so totally devoid of power as to render them unnecessary and useless complications in the general scheme. In the college faculties, at present, important action is usually taken with departmental agreement and as departments are limited in number, the faculties are not as unwieldy as their actual membership might suggest. The author recognizes the value of alumni coöperation, and this can hardly be overestimated. Alumni representation on Trustee Boards has generally been productive of much good. His method of attacking the problem is novel, but will probably find few supporters. It appears like putting a horse-whip in the hands of an incompetent, but self-confident boy, who proceeds to make general havoc in stirring things up. It is doubtful if most state universities could command the services of 20 alumni who were capable of exercising such functions as are prescribed. Again, incompetency is not a general characteristic of university faculties. On the contrary, failure to obtain better results is rather due to insufficient means—too few and too poorly paid

instructors—and to lack of coöperation between faculty and trustees. These two bodies should be brought more closely together, not separated by another all-powerful body of doubtful competency. The interest of alumni should be secured by direct representation on the board of trustees.

A third criticism relates to the student advisory board. As proposed, this board is too small to be properly representative of the student body. It should, however, be recognized as a very important part of the university organization and be given as full and unlimited power over student activities as individual conditions would warrant.

Ralph D. Mershon (by letter): I regret exceedingly the circumstances which rendered it impossible for me to present this paper in person and take part in the oral discussion of it.

It is a matter of regret that no one outside the educational field took part in the discussion. The opinions of men who have had experience in large industrial organizations are most desirable in matters of this kind.

Mr. Ford's contribution is more definite and constructive than any of the rest of the discussion, and gives evidence of careful thought. There are some matters however on which I do not entirely agree with him.

He says that in my scheme "The fixing of authority is indefinite, particularly as to contentions between management and administration, with the result that frequently the Board of Trustees decides on matters of administration concerning which it has insufficient knowledge to act intelligently. The natural result is that the administrative officers are unable to maintain a definite policy, and consequently find it difficult to obtain the proper coöperation of those under them."

The fixing of authority should not be indefinite. My endeavor in drawing up the scheme was to definitely fix the authority; to give the President all the power requisite to make him fully responsible for the success of his administration, and yet not leave him so free from possible restraint as to invite the condition of czarism that has developed, and led to trouble, in some instances. For this reason, on further thought, I agree with Mr. Ford that the Secretary should not report directly to the Board of Trustees. For this reason, also, I prefer to make the Secretary, Registrar and Superintendent of Property report to the President directly, instead indirectly as Mr. Ford does. But there is no good reason that I can see why the Treasurer should report to the President. I would say, also, that if a "Board of Trustees decides on matters of administration concerning which it has insufficient knowledge to act intelligently," then, in my opinion, it is not a good Board of Trustees. A Board that properly does its work will call for such information as is necessary to enable it to act intelligently, and will see to it, in case of conflicting opinions, that information is had from authoritative sources on both sides of the question.

Mr. Ford, and others of those taking part in the discussion, think that there would be difficulty in having the Alumni Board advise the Board of Trustees and confirm appointments to the teaching staff. At Harvard, the Alumni Advisory Board, designated as the "Board of Overseers", has, for many years done this very thing, and Dr. Eliot, in the Harris lectures on University Administration, sets forth this as one of the valuable and desirable functions of the Board. If such a scheme has worked successfully at Harvard, I see no reason why it should not in other universities.

My scheme contemplates an Alumni Advisory Board with the powers now had by the Harvard Board of Overseers. I recognize the fact that in instituting such an Alumni Advisory Board, in connection with a State University, it would be difficult, and perhaps inadvisable, to procure for them, officially, any such considerable measure of power as this. I believe, however, that an Alumni Advisory Board elected by the Alumni Association of a State University, under the restrictions as to membership provided by my scheme, that goes to work in a conscientious and careful way, will have all the power it needs in any direction in connection with the university, whether it has official recognition or not. I believe that in most state universities such a Board would be welcomed by the Executives and Trustees. That it is unlikely the Board of Trustees and the Alumni Advisory Board would ever come into conflict. But that if they ever should, and it should be deemed advisable by the Advisory Board to compel a course it recommended, it could do this by making a public statement of the matter at issue. I do not believe it would ever be either necessary or advisable to take such drastic action, but the power to take it would lie with the Advisory Board. The fact that the Board had this power would probably obviate the necessity for its ever being exercised; and the fact that such action would be drastic, would be a strong reason why the Board should be extremely cautious about ever resorting to it.

All the other suggestions made by Mr. Ford, insofar as they do not conflict with the exceptions above noted, seem to me eminently desirable and practical. I intend, so soon the leisure for it offers, to prepare a revised scheme embodying them.

Mr. Brackett asks: "Are the representatives of the Alumni likely to be any more expert in educational or technical lines than the average member of the Alumni Association?" I believe the value of an Alumni Board will come through the fact that the members of it are not experts in education. Experts in any line are likely to become onesided and unable to take a common sense view of the relation of their work to the outside world. The very object of the Alumni Board is to have the benefit of the views of people not subject to educational myopia.

Some of those in educational work do not realize that an Alumni Board, made up of mature men who have had ten or

more years of worldly experience, is not going to interfere in matters unless it has good reason to do so. And that, generally, the individual members of it are in a much better position to acquire reliable information relative to any candidate for the instructional force than is anyone connected with the institution. The mere fact that an inquirer is connected with the institution makes it difficult for him to get information that is reliable.

Mr. Brackett also says that an Alumni Board with such influence may foster excessive inbreeding in the personnel of the faculty. Dr. Eliot's testimony is a sufficient answer to this. But I may say, from my own experience in connection with one State University, that the Alumni, generally, even those on the faculty, hold the view that there is too much inbreeding in most of the State Universities, and that it should be stopped.

Mr. Langsdorf says: "Where is the faculty? Its functions, which should be of the greatest importance in a democratic institution like a university, are apparently submerged and made subordinate to those of unduly exalted executives." I agree with Mr. Langsdorf that the functions of the faculty are of the greatest importance. The very object of the existence of a university is that the faculty may exercise its functions in teaching, but I do not believe that administration is a proper function of a faculty. I do not mean to say that the faculty and its opinions should be ignored in the administration. Quite the contrary. But I do mean to say that the average faculty member has not had that training which fits him to have a part in the administration of an institution and that if he had, the functions of instructing and administering do not properly go together.

Mr. Upson objects to the division of a college into schools and departments of instruction, saying that it might be justifiable in institutions of ten thousand students, but implying that it is not justifiable at the present time. It was an institution of ten thousand students, or more, that I had in mind in drawing up this scheme. The time will come, and is not very far away, when we shall have institutions of such size; and they will have to be handled. It seems to me we might begin now, nominally at least, to handle university work in this way, so that we shall be ready for the larger problem when it comes; to outline a skeleton organization which shall be conformed to now, as nearly as may be without needless duplication, and which can be put more and more nearly into effect as increasing numbers make it necessary. As our State universities become larger and larger the problem of handling them will become increasingly difficult unless there is now laid the foundation for such organization as will enable the proper handling of large numbers.

It has been found in manufacturing work, where one organization makes a great quantity and diversity of product, that the best results are gotten, not by having one great equipment to turn out the various products, but by having an institution

consisting of a combination of smaller institutions, each with its own equipment, and each turning out its own line of product. It is by such course, only, that the individual product can receive anything like the individual attention it must receive for best results. And under such an arrangement the product can be turned out of better quality and with less waste of time and money, even though it involves a duplication of equipment. It seems to me this applies to educational institutions, and that eventually we must have in all universities separate and distinct colleges involving more or less duplication of instructive force and equipment, in order that we may turn out the best product; in order that the product shall receive the same individual attention it does in smaller institutions. By such a course we shall retain all the advantages of the large institution while doing away with the disadvantage that the large institution is now considered to have as compared with the smaller one; and at the same time establish lines of growth along which the institution may continually and naturally expand to meet the requirements of continually increasing numbers of students and the demands for additional courses of instruction.