following topics: (1) Brief history of the Isthmian Canal problem, with special reference to the Nicaragua, Panama and San Blas routes; (2) comparative advantages of the canals at Nicaragua and Panama; (3) general description of plans for Panama Canal, as made by the government commission and now adopted by provisions of treaty with the Republic of Panama, and a comparison of this with the sea-level canal of de Lesseps and other plans by the French companies; (4) a discussion of the engineering difficulties involved at Culebra cut and the Bohio dam; (5) The Bohio Lake and the Gigaganti Spillway for the control of the summit level and the floods of the Chagris River; (6) a comparison of the advantages of a lock canal at Panama with those of a sea-level canal at Mandingo, involving a tunnel through the continental divide. The lecture was illustrated with forty lantern slides, prepared from drawings and photographs.

F. S. SHIVER,
Secretary.

CLEMSON COLLEGE, S. C.,
March, 1904.

DISCUSSION AND CORRESPONDENCE.

THE UNIVERSITY OF CINCINNATI AND ITS PRESIDENCY.

THE history of the University of Cincinnati for the last five years, has, without doubt, a most important bearing upon the principles of university government. This is due to the features of its early organization and to the peculiar relations which it sustains to the community. The original endowment of a 'free college for white children' by Charles McMicken in 1858, the incorporation of the University of Cincinnati by act of legislature in 1874, with McMicken College as an integral part of it; the issue of city bonds for construction and the levying of a tax for the partial support of the institution, were the acts that gave a free university to Cincinnati.

A municipal university, distinctly anomalous among American universities, had to be provided with a mechanism of government. This was arranged for by the statute which created a board of directors of nineteen members including the mayor of the city, *ex officio*. Originally twelve of these members were appointed by the superior court and six were selected by the board of education, but in 1892 the law was so amended that the superior court appointed the entire board, thus taking it out of politics. The board had and still has control of the funds and of the faculty of the academic department alone, which for a number of years was the only department of the institution actively organized and in working condition.

In the beginning the board of directors invested the dean of the faculty with executive functions, but in 1877 it elected Rev. Thomas Vickers rector. This arrangement lasted until 1884, when, after a long and sensational 'investigation' the executive office again became vacant. An interregnum ensued until 1885, when General Jacob D. Cox, then, and for some years before and after, dean of the Cincinnati Law School, became president. His incumbency lasted until 1888. These two experiences and the dearth of funds prompted the board of directors to revert to the old policy of having the dean of the academic faculty exercise the executive functions in that department, and to provide, furthermore, that members of the faculty in the order of seniority should serve as dean, each one to serve for a year.

In 1887 the board of directors, prompted by a desire to expand the institution to the proportions of a real university, affiliated certain local professional schools, namely, the Cincinnati Law School, the Medical College of Ohio, the Miami Medical College and the Ohio Dental College. Each of the affiliated institutions was only nominally a department of the university, since each maintained its autonomy, its own governing body and acted under its own charter.

In 1892 the relations with the two medical schools were terminated, but the Medical College of Ohio in 1896 by surrendering its charter to the university became the medical department; still, however, with many rights reserved, viz., the right to nominate all the members of its faculty, the control of its funds and of its internal management.

The new arrangement with the law school was a ten years' contract (also begun in 1896) which recognized the right of the trustees of the Cincinnati College to control all funds of the law school and reserved to the faculty the right to nominate all members of the teaching staff and the complete control of its affairs. Thus the law school remained the department of law of the university only in name, a distinction for which the university agreed to pay and yet pays annually out of public tax money the sum of a thousand dollars as 'rental' for premises owned and occupied by the law school itself. The original articles of affiliation with the dental school were not disturbed and the latter institution, a purely private and proprietary enterprise, secures valuable advertising through university publications.

This brief statement sufficiently indicates the influences that were operative, especially during the decade from 1890 to 1900.

The board of directors, made up of business and professional men, acted as safe conservators of the funds of the institution, new buildings were erected in Burnet Woods, the old buildings were given over to the medical school and the material interests of the institution were carefully supervised. At this point the efficiency of the administrative board ended. With no practical university man as a member it failed, for a long time at least, to grasp the real necessities of the academic department.

Each professor conducted his work according to his own ideas of what should be the quality and quantity of devotion to the interests of the institution, with the inevitable *reductio ad absurdum*. Each successor, with the allurements of the vacant presidency before him, sought to make a record that would secure his promotion thereto, while certain of his colleagues, awaiting their turns, were far from giving him a helping hand. 'Members of the board of directors,' so that body stated in a formal declaration, 'received with annoying frequency denunciatory statements from the professors about every member of the faculty.'

'As a matter of fact,' declared the governing body, 'if all the suggestions of removal urged by members of the faculty against members of the faculty had been acted upon, not a single member of the present teaching body would have been left in position.' With incessant conflict in the faculty and with the students not amenable to discipline, things had manifestly reached a crisis. The directors began to think—and one of the first thoughts that came to them was that in all the years that had passed they had been altogether too perfunctory in the choice of professors. Selections had rarely been properly safeguarded, and too many of them had been made through either the 'push' or the 'pull' of the applicant. A régime, absolutely untenable, had become established, the termination of which by radical changes in the personnel of the faculty became the imperative duty of the directory.

This step having been informally but none the less definitely resolved upon, the selection of a new faculty became imminent. The disastrous experience of the directors with the incumbent faculty caused them to recoil from the responsibility. There was a unanimous determination to call a president, a man of executive ability, familiar with the educational world, who, in the selection of new professors, might save the institution from other pits such as those into which it had fallen. Committees were sent to Princeton, Harvard, Yale, Columbia, University of Pennsylvania, Ann Arbor, Chicago and elsewhere. A committee, of which Hon. Wm. H. Taft, then dean of the law school, now secretary of war, was chairman, after investigating a number of candidates reported favorably on Dr. Howard Ayers, then professor of biology in the University of Missouri. Dr. Ayers, after visiting the institution and having been informed of the internal conditions, after having been told that the directors had resolved upon extensive changes in the faculty and after having been impressed that his special and important task would be to select a new faculty and that only the successful reorganization of the faculty and the affairs of the academic department would warrant his continuance, was duly elected. Recognizing an unusual opportunity to render a great service to the cause of sound education, he accepted the office un-

der these conditions and took up the work in July, 1899, in the executive position. He was fully assured that the successful accomplishment of this task would secure his administration and other grateful recognition at the hands of the board and from the community.

The work of President Ayers progressed without special incident until late in the ensuing winter. About this time, after having become familiar with the general situation, President Ayers, in consultation with members of the governing body, insisted that members of the faculty who (some of them before his coming) had been selected for dismissal ought, in fairness, to be notified quietly of the fact in time to secure employment elsewhere. However, before this thoughtful policy could be made effective, members of the faculty themselves on January 12, 1900, precipitated the issue by arbitrarily demanding of the president the names of all who were to be deposed. Certain professors in no wise involved, by inconsiderate action on this and immediately ensuing occasions, rendered their longer retention impossible.

It thus happened that the final number of changes made was slightly increased beyond what was at first intended. The statement was repeatedly made by the daily press that the entire faculty had been dismissed. The fact is that out of a university teaching corps of about 150 members only 8 were asked to resign.

The fact that this action had to be effected through the executive led to the erroneous supposition that the changes were made under the initiative of President Ayers. It was immediately inferred that he was a centralist in university government, an assumption that prompted representatives of the medical faculty, jealous of their prerogative to nominate their own fellows and of their complete control of the medical department, to array themselves in opposition to him.

The matter was taken up by a few citizens who, instigated by deposed professors, called a small meeting and adopted resolutions of sympathy. This was followed by representations to the board of directors that the deposed professors be given a trial. This demand the board of directors, after reviewing the whole case, including the representations that members of the faculty had made about each other, replied: "If the statements made by professors against professors were true the verdict should be upon that basis; if the statements were untrue the moral perturbation thereby implied makes their authors unfit to be identified with an institution of learning; in either event the faculty falls as a self-condemned body."

This incident marked the close of all formal demonstrations. The professors, with two exceptions, completed their year's labor, their work being taken up the following autumn by men who had been selected by President Ayres and who were confirmed by unanimous vote of the board of directors. The internal administration for the first time in many years became tranquil, the enrollment increased and the student body became enthusiastic supporters of the new régime.

A morning paper, however, for personal reasons, had become inimical and kept up a fusilade of abuse, texts for its various articles being furnished by practically the only opposition that President Ayers encountered in his governing board, that of a single member, a representative of the medical faculty, whose coincident service as a professor and a trustee must be recognized as a violation of all correct principles of university government.

This newspaper antagonism was kept up for nearly two years and culminated only when President Ayers by formal vote of the board of trustees had been vindicated of charges, petty in character, that had been preferred against him by his opponent on the board.

The battle so long and bitterly waged against President Ayers had apparently been abandoned. The community at large recognizing that an efficient and harmonious faculty had been installed, that the attendance had increased, that the standard of scholarship had been advanced, that the student body was earnestly and loyally cooperating with the teaching corps, which latter body was enthusiastically engaged in promoting the welfare of the institution, and knowing that benefactors were manifesting renewed interest in the insti-

tution, accepted the condition as a praiseworthy achievement.

The following excerpts from the other city papers indicate that no countenance was given by the press to the attacks of the one morning sheet.

A weekly paper had the following to say, under date of January 13, 1900, about the reorganization of the university:

Every thorough Cincinnatian ought to feel satisfied that our big university has at last got a head in Dr. Howard Ayers. If an institution ever needed a complete house cleaning the University of Cincinnati did.

For years it has been a burlesque purely through being without a disciplinarian at the head. Dr. Ayers has taken the proper steps to place it upon its feet rightly, and the trustees have shown common sense in supporting him. * * * A continuation of the old methods in vogue at the university can result in but one way—the death of the institution.

January 20, 1900, a local medical journal made the following editorial statement with reference to the relation of the medical and law departments to the university:

They are and are not a part of the university, and from their first conjunction have occupied anomalous positions, which in the very nature of things can not be harmonious or lasting in their nature. They are a paradox. In neither the medical nor law faculties does the president or board of directors have any voice in their management. They stand at this time as disembodied spirits, and, being disjoined, there can be little or no harmonized unification of interests, which in the general cause of education in Cincinnati is exceedingly unfortunate.

April 14, 1900, a daily evening paper made the following comments on the appointment of Dr. Ayers to the presidency of the University of Cincinnati:

The public knows little of the troubles that beset the modern college president's path and the peculiar conditions under which most of them have to work. These conditions were suddenly made clear in Cincinnati by the appointment, after years of executive chaos, of a president to the university.

In the current *Atlantic Monthly* appears an article on the perplexities of a college president which might have been written with the late University of Cincinnati discussion as a text, so thoroughly does it meet the points that were raised:

The new president, continues the writer, finds that he is simply left to make the best of the present situation; to do what he may and can with such men as are already in place; to make his peace with malcontents, to be patient under opposition, to do the work of three men because the other two at least are not ready to cooperate with him, to explain misunderstandings, quietly to contradict misstatements when he is so fortunate as to have the opportunity to do this, to supplement the inefficiency of others, and to furnish enthusiasm enough not only to carry himself over all obstacles and through all difficulties, but to warm blood in the veins of others whose temperature never rose above 32 degrees Fahrenheit. To compel him to undertake this work in this way is not only cruel to him personally, but it is as unnecessary as it is unwise.

The writer in the *Atlantic* points to the fact that the educational executive is invariably handicapped by the precedent which, though it grows weaker, is still all-powerful, the feeling that the college professor is to be set upon a pinnacle above criticism and beyond the reach of complaint. "It takes an act of the trustees to put a man in such a position but it takes the act of God to put him out."

Buildings that, for the most part, had been added during President Ayers's three years of service were publicly dedicated at commencement time in 1903 by ceremonies the most successful in the history of the institution, Hon. James Wilson, secretary of agriculture, and Hon. Francis B. Loomis, first assistant secretary of state, being among the orators.

In the meantime, however, another and altogether different set of influences were at work. In the early part of 1902 the Supreme Court of Ohio, in the case of State *vs.* Jones, rendered a decision which practically destroyed all the then existing legislation relating to the government of municipalities in the state by declaring it to be special legislation and, therefore, unconstitutional. The situation was so critical that Governor Nash called an extra session of the legislature, which, on the twenty-second day of October, 1902, passed the law known as the 'Municipal Code of Ohio.'

This law gave to all municipal corporations the right to appropriate property for university purposes, excluded the tax for university purposes from the maximum levy for general purposes, provided for *pro rata* taxation for university property, for public improvements on university grounds; made the city auditor the supreme accountant of the university funds and finally provided that the control of such universities shall be vested in and exercised by a board consisting of nine electors of said municipal corporation who shall be appointed by the mayor. The board thus constituted was empowered to exercise full control over the university.

The provisions of this law, relating to the appointments of trustees, when brought forward in the legislature, were met by appropriate protest, but the principle of uniformity which it was intended to establish in the government of municipalities, a principle by which authority and responsibility alike were centered in the mayor, prevailed—and the University of Cincinnati went into politics.

Of the board appointed, eight members are republicans, and one is reputed to be a democrat.

Scarcely had the eloquence of Secretary Wilson and Secretary Loomis and the applause over the achievements of President Ayers died into an echo, when a concerted move was made to displace the executive under whose intrepid leadership so much progress had been made.

It was then discovered that some of the alumnal members of the board, former pupils of the deposed professors, whom, in one or two instances, they had formerly served in a professional capacity, had entered into a compact with a minister and a doctor—a representative of and a professor in the medical faculty, also members of the new board, to remove President Ayers. About this time one member announced in the public press that he knew how every member of the board stood upon the question of dismissing President Ayers before they were appointed.

It was openly stated that this compact was a written one and that it was entered into not later than a few days after the appointments were made. An inspired article in one of the city papers declared that President Ayers was about to resign, as a majority of the board was unfavorable to his administration.

Word was sent in a personal way to President Ayers intimating that a change in the administration was desired. President Ayers, however, chose to stand upon the record of his achievements and to place the onus of his displacement, if he had to be displaced, upon the board where it belonged.

When the matter became public there were general and surprised inquiries as to the cause. The answers made vague references to 'arbitrariness' and 'lack of tact,' but more generally consisted in the statement that 'Ayers is not the man for the place.' Dr. Charles A. L. Reed, former president of the American Medical Association, and a member of the former board, answered these objections as follows: "There is, it is true, some talk about a 'lack of tact'—but the tact of President Ayers seems to have given the university the best four years since its foundation by Charles McMicken; there are mutterings about 'arbitrariness'—but the arbitrariness of President Ayers seems to be of the sort that has brought order out of chaos and established government instead of anarchy; and there are whisperings about 'tone'—but the tone of President Ayers seems to be of the stuff that, imparted to professors and students alike, has resulted in hard work in the classroom and fair play on the athletic field and that has infused high ideals into the lives of all who have been brought under his influence."

Mr. E. C. Goshorn, a leading manufacturer and business man, wrote: 'To-day the university occupies a position of which we may all well be proud, and it certainly would be a mistake to ask for the resignation of the man to whom this result is due in part if not wholly.'

Hon. John W. Warrington, a leader of the Cincinnati bar, wrote: "I had supposed that the last commencement day of the university furnished satisfactory evidence to all, not only that good work was being done at the univer-

sity, but that there was harmony among all concerned. I regard the present outbreak as highly injurious to the future of the institution.'

Judge Wm. Worthington, one of the most highly esteemed of citizens and a patron of the institution, wrote concerning President Ayres that: "It is undoubtedly true that the university has prospered highly under his management, and that the teaching force has been strengthened, the morale of the faculty improved and the zeal and interest of the students stimulated since he took charge. What has been done is the more remarkable in view of the animosity aroused by the acts he was called upon to perform when he first took charge, and the constant criticisms, engendered in part by those animosities, to which he has been since subjected. His entire and sincere devotion to the interests of the university can not be denied and have borne good fruit which all may see."

Hon. Wm. H. Taft, then Governor-General of the Philippines, wrote from Manila, saying: "Why, after Dr. Ayers has accomplished that which he was employed to accomplish, and has brought about such an excellent condition of affairs, it should now be thought proper to dismiss him, I can not for the life of me see. * * * It would seem to be a time when those who have the interests of the university at heart should sink their personal likes and dislikes and recognize that the man under whom the university has made such distinct progress should continue at the head of it."

The matter was, therefore, postponed from the summer meetings until November, when, notwithstanding the foregoing and numerous other protests from alumni, students and citizens, all of which went unanswered, a resolution was passed declaring the presidency vacant after June 30, 1904, President Ayers being retained until that time. A few days later President C. W. Dabney of the University of Tennessee was elected to the vacancy.

The following are some of the salient points in the situation:

1. The lack of security of tenure of the executive officer of the University of Cincinnati, owing to the inability of the board of directors to make contract, good for more than one year, or in any other way to secure him against sudden and unwarranted dismissal. It is true a five-year contract signed by the officers of the board of directors has been made with President Dabney, but this document has no value beyond the expression of a moral obligation in written form. When President Ayers came to the University of Cincinnati in 1889 he also asked the board for a written contract, and upon being informed of their inability to make a contract for the payment of money not in the city treasury and upon the strongest assurances given him by the board of directors and by other prominent citizens, he concluded that he would be safe in accepting the offer of the presidency without exacting a binding legal document, which, it was discovered, the board was not in position to execute.

2. The instability of the governing board, which is subject to the fluctuations of municipal politics.

3. That the administrative officer who came to the university under very adverse conditions, and performed a task seldom asked of an executive officer, and who, overcoming very unusual difficulties, carried out a successful and satisfactory reorganization of the university, was dismissed without recognition and with a refusal to consider the existing obligations towards him.

4. The effect upon the educational work of the university since the political powers have assumed the direction of its affairs, thereby carrying it into the maelstrom of municipal politics, is such as to render uncertain and unsatisfactory all attempts to carry out any desirable educational program.

5. The unceasing efforts of religious denominations to control the teaching of the university and to establish in it religious conditions which are not permissible in an institution supported by taxation, but which may now be made effective through political agencies.

The careful student of the establishment, government and development of universities will surely find instruction in the foregoing

facts. There are any number of interesting questions involved in the situation. The right of municipalities to support institutions, especially professional and technical schools, in whole or in part by taxation; the practicability of combining endowments with public revenues in the maintenance of universities; the policy of appointing a governing board by political agencies as contrasted with a self-perpetuating board; the question of large administrative boards as contrasted with small ones; the principle of alumnal representation in governing bodies; the right of constituent faculties to representation in the directory, and the results thereof; the right of faculties to nominate their own associates, and the results thereof; the tenure of professional appointments and the obligations, moral and legal, of universities to their executives; are a few themes suggested by recent events in the University of Cincinnati. X.

NATURAL AND UNNATURAL HISTORY.

TO THE EDITOR OF SCIENCE: Every student of comparative psychology who has at heart the cause of sound education must welcome such criticisms of the writings of Mr. William J. Long as have appeared in recent numbers of SCIENCE.* Not because Mr. Long deserves, on his merits, either criticism as a naturalist or condemnation as a teacher, but solely because of the far-reaching influence for evil which must inevitably attend the wide circulation of his books, and their possible offspring, through the schools. The present writer has not asked for space in your journal in which to review the numerous publications of this facile fabricator of fiction, nor yet to discuss the indisputable facts of animal behavior and intelligence which have suffered such distortion at the hands of Mr. Long—to name only the chief of a whole tribe of popular writers who, by the prostitution of their talents, have brought upon themselves the just censure not only of naturalists, but of all right-minded educators.

Since the sad case of the Rev. William J. Long has already been brought forward in your journal, it would seem only fitting that it should be still further presented in all its preposterousness. Let it be understood from the outset that no personal feeling of any sort whatever prompts or accompanies this letter, which is intended solely to place on record a few reflections suggested by the recent controversy in the popular press and the aforesaid communications to SCIENCE, with a view to enlisting still further, perhaps, the interest of scientific men on behalf of a real educational need, and, indirectly, of warning educators against the adoption of a point of view and a method which threaten to make of 'nature-study' not merely a farce, but an abomination to science and a menace to educational progress. Although the writer can have no personal quarrel with Mr. Long, with whose very name he was unfamiliar until Mr. Burroughs—perhaps unwisely?—brought it into unmerited prominence, the duty does not on this account devolve upon him of examining here the statements of *all* our popular interpreters of nature. Mr. Long, to whom public attention is temporarily directed by reason of certain rather ludicrous circumstances, is taken merely as a type of his species. (Doubtless there are naturalists who would limit this particular species to the type specimen!) Mr. Thompson-Seton has also disseminated vicious notions of animal mentality, but, apart from his inexcusable prefatory insistence upon the essential truthfulness of his narratives, and certain matters of taste which scarcely fall within the scope either of this letter or of your journal, his case may be dismissed as relatively unimportant. Besides, it is whispered that he has *reformed.* If Mr. Long is but one among many offenders, he is *facile princeps,* and Mr. Thompson-Seton should not be named in the same breath. Moreover, one may doubt Mr. Long's capacity for reform. As a romancer he does not stand alone, but as a 'hopeless romancer' he occupies a unique position. This is because of his inordinate gullibility. If it turn out that

* 'Woodcock Surgery,' by William Morton Wheeler, SCIENCE, N. S., Vol. XIX., No. 478, pp. 347–350, February 26, 1904; 'The Case of William J. Long,' by Frank M. Chapman, SCIENCE, N. S., Vol. XIX., No. 479, pp. 387–389, March 4, 1904.