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THE UNIVERSITY AND THE MUNICIPALITY

SUMMARY OF PROCEEDINGS OF THE FIRST SESSION OF THE NATIONAL ASSOCIATION OF MUNICIPAL UNIVERSITIES

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, September 11, 1915.

SIR: The problems of industry, government, and life in the modern industrial and commercial city are numerous, large, and complex. For their solution are needed a larger amount of scientific knowledge and higher standards of intelligence among citizens. All the city's agencies for good and progress need to be united and vitalized for more effective functions. There is a growing conviction among thoughtful people that this can be done best by the municipal university, maintained as an essential part of the city's system of public education, or by a privately endowed university working in close sympathetic relations with all other agencies of education in the city. It will require much study of this subject to ascertain: (1) The need for the municipal university, (2) its functions, (3) the best means of organizing and supporting it, (4) its relation to all the phases of city life. The interest in this subject has resulted already in the organization of a National Association of Municipal Universities, which held its first meeting in Washington City November 9-10, 1914. The publication of the papers, addresses, and informal discussion of this meeting in the condensed form here presented will, I believe, promote further study of the subject. I therefore recommend that they be published as a bulletin of the Bureau of Education under the title "The University and the Municipality."

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

THE UNIVERSITY AND THE MUNICIPALITY.

INTRODUCTION.

For several years need has been felt for an association of the institutions of learning engaged in studying civic problems and training for public service.

At first it was thought that the universities and colleges controlled and financed by cities might unite with the National Association of State Universities. After mature consideration, however, the conclusion was reached that the interests of both State and city institutions would be best served by forming a new and separate association representing urban universities and colleges, particularly those cooperating in municipal affairs.

Accordingly the National Association of State Universities invited the representatives "of all municipal universities and other universities in cities interested in the service of their communities" to attend its meeting to be held in Washington, D. C., November 9 and 10, 1914. The invitation stated that a conference on the city university would be held immediately after the adjournment of the Association of State Universities.

The call for this meeting (which led to the formation of the Association of Urban Universities) set forth the tasks and purposes of these urban institutions as follows:

> The municipal colleges are aiming to do for their cities some of the things the State universities are doing so admirably for their States. Private institutions in cities, realizing the obligations resulting from freedom of taxation, are endeavoring to serve their local communities. The general public, on the one hand, is awakening to the value and necessity of expert knowledge; and the universities, on the other, are realizing as never before their duty to train men and women for municipal, State, and national positions. Since much of this is new and experimental, it is thought that a conference on the relations of civic universities to their local institutions and communities will prove helpful.

The call for the meeting also said:

> A statement from each institution with regard to some phase of its organization or methods would prove helpful. It is therefore requested that each college will send a delegate prepared to make a brief statement of the special features of its work.

These reports will be found in Part II of this bulletin (p. 42).

The following persons, representing the institutions as given, constituted the conference:

Fred E. Ayer, dean of the College of Engineering, Municipal University of Akron, Akron, Ohio.
Charles Baskerville, professor, College of the City of New York, N. Y.
Edward F. Buchner, Johns Hopkins University, Baltimore, Md.

W. P. Burris, dean of the University of Cincinnati, Cincinnati, Ohio.
Walter E. Clark, professor, College of the City of New York, N. Y.
Charles A. Cockayne, Toledo, Ohio.
Charles W. Dabney, president, University of Cincinnati, Cincinnati, Ohio.
George E. Fellows, president, James Milliken University, Decatur, Ill.
A. Y. Ford, president board of trustees, University of Louisville, Louisville, Ky.
William T. Foster, president, Reed College, Portland, Oreg.
W. F. Gephart, professor, Washington University, St. Louis, Mo.
Frank J. Goodnow, president, Johns Hopkins University, Baltimore, Md.
W. E. Hotchkiss, dean, Northwestern University, Evanston, Ill.
Jeremiah W. Jenks, dean, New York University, New York, N. Y.
P. R. Kolbe, president, Municipal University of Akron, Akron, Ohio.
S. B. Linhart, professor, University of Pittsburgh, Pittsburgh, Pa.
Everett W. Lord, dean, Boston University, Boston, Mass.
Charles P. Norton, chancellor, University of Buffalo, Buffalo, N. Y.
William Orr, assistant commissioner of education, Massachusetts board of education, Boston, Mass.
John L. Patterson, dean of College of Arts and Sciences, University of Louisville, Louisville, Ky.
C. B. Robertson, University of Pittsburgh, Pittsburgh, Pa.
Herman Schneider, dean, University of Cincinnati, Cincinnati, Ohio.
A. Monroe Stowe, president, Toledo University, Toledo, Ohio.
P. P. Claxton, U. S. Commissioner of Education, Washington, D. C.
S. P. Capen, U. S. Bureau of Education, Washington, D. C.

The conference having temporarily organized at 4.30 p. m., November 10, and having appointed a committee on organization and permanent officers, adjourned until 9 a. m., November 11, when the following officers were elected for the coming year:

President: President Dabney, of Cincinnati.

Vice President: Prof. Lord, of Boston University.

Secretary and treasurer: Prof. Walter E. Clark, of the College of the City of New York.

After formal organization the association resolved itself into an experience meeting, each institution reporting upon the methods of cooperation with city activities which it had already adopted. The morning session and luncheon hour were occupied by these detailed reports.

The afternoon was given to a more general and formal discussion of the proper field and aim of the municipal university. The papers given in Part I of this bulletin embody the gist of that general discussion.

The name chosen for the new organization is the *Association of Urban Universities*. Membership is institutional, not personal. The following 16 institutions are the charter members: Boston University, The College of the City of New York, Hunter's College of the City of New York, Johns Hopkins University, The Municipal University of Akron, New York University, Northwestern University, Reed College, Temple University, Toledo University, University of Buffalo, University of Cincinnati, University of Louisville, University of Pennsylvania, University of Pittsburgh, Washington University.

PART I. AIMS AND PURPOSES OF THE URBAN UNIVERSITY.

I. THE MUNICIPAL UNIVERSITY.[1]

By CHARLES WILLIAM DABNEY.
President, University of Cincinnati.

The progress of education in America has been a steady process from the common school up to the normal school and college. As fast as a new type of school has become necessary it has been established, and its opportunities have been extended more and more widely and freely to all the people. Thus progressively have the American people placed the opportunity for education within the reach of all.

But what of equality of opportunity for the higher or professional education? We agree that the chance to get this education should also be within the reach of all. We believe, moreover, that colleges and universities which offer these opportunities should be so placed and arranged as to arouse the ambition of all the youth, and give them the chance to get that liberal, technical, and professional training which will qualify them for the highest service to their generation. The question then is, have we actually placed the facilities for the liberal, technical, and professional education within the reach of all our American youth?

The "log college," as it was called in early days, or the "fresh water college," as we now call the private literary college, has done great work for the country. Located near the homes of the people, it provided the opportunity for a higher education for many boys and girls who otherwise would not have gotten it. In its courses of liberal studies it trained most of our great men.

We should recognize, however, that the respect for learning bred by these old colleges created a sort of class feeling in America. Democracy means an honest homogeneity, and such homogeneity can not be produced unless all the people have an equal opportunity for the higher and the professional education. The free public college and the State university were necessary, therefore, to save democracy in America from class stratification.

But all these noble universities can not meet the needs of all our youth. What shall we do for the youth of the cities having no colleges freely open to all? To take an illustration from Ohio: Cleve-

[1] Address before the National Association of State Universities, Washington, 1914.

land has a great private institution to educate her people, but Cincinnati, having no such private institution, has chosen to educate its youth in a publicly supported college. Out of 2,200 students at the University of Cincinnati, over 1,500 are residents of the city. In a recent year, only 255 college students were sent away from Cincinnati to institutions of the grade of its university. An investigation of the financial condition of the families of the students at the University of Cincinnati teaches that if this city had no university giving free instruction, not more than 500 of these would be able to go off to college, and 1,000, at least, would be left at home without the higher or professional education. It is evident, therefore, that blessed as we are in Ohio with a large number of excellent colleges, they could not train all the students of Cincinnati who seek the higher education.

This, then, is the *raison d'être* of the municipal university. To believe in the equality of opportunity for all in the development of their lives, is to believe in the municipal university—the one thing needed to complete our American system of higher education.

But the city needs its university just as much as its people need it. In the development of every nation there comes the period of the cities. The age of the city has arrived for us. Originally a confederation of States, America is fast becoming a republic of cities. The most important thing revealed by the last census was the fact that the rural population has now dwindled to 52 in 100. In the Middle States it has decreased to 40, and in some States to 35 per cent of the population. In Ohio, for example, while the total population has increased 15 per cent in each of the last three decades, and the urban population 30 per cent in each, the rural population actually decreased 4 per cent the first decade and 6½ per cent the second decade. Everywhere the urban population is increasing ahead of the rural, and in most of the old States the total rural population is steadily decreasing.

The municipal university, therefore, is needed as the intellectual and spiritual dynamo of the city. The city, as well as the Nation, is awakening to a recognition of the necessity for intelligent and righteous leadership. It has passed through its period of corruption and shame and entered upon its period of idealism, of vision, and scientific reconstruction. Hand in hand with the demand for the purification of the ballot and of city administration goes the demand for higher ethical and educational standards. The university must make these standards, and it must train the leaders.

The old university was a thing apart, a city set on a hill. When it occasionally marched out of its doors to visit the people, music and banners celebrated the event. Some 30 years ago it took on what was called "university extension." The very name "extension" implied that the university needed to be set free to serve. "Uni-

versity extension" was, however, the beginning of a new era in the life of universities, developing in them a consciousness of their duty to the public. The service of some of our great State universities is a splendid illustration of what can be done by such institutions to promote the agricultural, industrial, political, and social, as well as the educational interests of their States. In similar manner, the university mind is becoming the city mind, and the city itself is becoming a university for training its own servants. Now, the municipal university is needed to develop this city-mindedness and to organize this study of the city's problems.

Since the application of science to government and industrial life has become so extensive it is necessary to educate men in an increasing number of new professions. Fifty years ago there were only about 5 learned professions, now there are more than 50, and new ones are constantly developing. No longer do we believe that a man who has had an academic education is thereby qualified to direct a bank, manage a factory, or run a railroad. In business and industrial enterprises of all kinds the demand for experts is constantly increasing. Experts are indispensable for most industries and desirable in all. Mere experience in practical work is no longer sufficient. In one profession after another we have learned to train experts not only in the theory but in the practice as well. Fifty years ago there were but two or three schools of applied science or technology in this country, now we are building these schools everywhere, and they can hardly meet the demands of the governments and the corporations.

For the same reasons cities are beginning to see that because a man is clever and a good political worker he is not thereby qualified to manage the finances, to direct the education, or to handle the water supply of a great city. A demand is growing up for municipal as well as industrial experts. We are training men to-day for nearly all the services except that of the municipality.

Who, then, shall train public servants for the city? Shall the city rely upon State and private institutions to perform the task? It is more American to provide the means of instruction and training at public expense and at home, and so enable all qualified youth to use them freely. Experience shows that the city must look to its own men and women to do its work, for only thus can it get the workers it requires.

The city must have a spiritual head and this spiritual head should be a university. The private university may do much to help the city and its schools; a State university, especially one like that of New York State, can do more; but a home municipal university, a part of the city's life, can do most to stimulate the city's education and life. The ideal head is the municipal university, the capstone

of the city's educational system. The justification of the municipal university is the need of the city itself.

The advantages of a large city as a location for a university need not be elaborated upon. The facilities afforded by libraries, museums, art galleries, hospitals, and various social and political institutions of the city, and by industrial laboratories, commercial establishments, and manufactories of the community are well appreciated by the universities. The advantages of making the local institution a municipal university—that is, a university supported and controlled by the city—are perhaps not so apparent. Undoubtedly there are disadvantages as well as advantages in this arrangement. Let us consider both sides of the question.

In the first place, what are some of the advantages accruing to the municipal university over those of the university in the city? In general they are the same as those of the State university compared with the private institution. The first advantage is the great one of regular, permanent, financial support based upon the steadily increasing property values of the city itself. Incomes from private endowments are constantly shrinking, with the result that these funds must be constantly added to. Like the State university the municipal university can have a mill tax, the best method ever invented for supporting an institution. It has been suggested that such a tax will diminish the interest of private citizens in endowing the institution, in giving buildings and making other donations to it. Undoubtedly the tendency will be in this direction. State universities do not receive large private donations, though there are conspicuous exceptions to this rule, like the University of Virginia. As a matter of fact, in the experience of the few municipal colleges in existence, the interest of private donors depends entirely upon the manner in which the institutions are managed and the appeal made for them. Every municipal university ought to be supported both by private endowments and public tax. It should have an endowment fund association made up of leading citizens, whose business it is to solicit bequests, endowments, scholarship and other funds as well as donations of buildings and equipments. There is every reason why all the people should through the public tax contribute their share to the support of the municipal college, but this is no reason why those having surplus wealth should not also contribute largely to its upbuilding. If it had to choose between public support and private endowment, however, the municipal college would certainly prefer public support as the surest means of getting an increasing income with which to maintain an institution competent to do the educational work of a growing modern city.

There is, moreover, everything to be gained by the municipal relation in making the work of an institution both effective in the

direct education of the citizen and in the service of the city. The municipal university is a vital organ of the body politic, a member of the family of the city and not a visitor in that family. It has all the advantages of being a part of the city's educational, social, and political organization. It has an immense advantage besides, in that all the citizens feel that the university belongs to them. Free tuition or tuition at low rates is, of course, a great aid in popularizing and democratizing the higher education.

Perhaps the greatest advantage of the municipal relation is that this connection gives the university on its side the right to ask the cooperation of every other city department and institution, thus opening them to its professors and students, and that it gives the city and its institutions on their side the right to ask the help of the university in all appropriate matters. If the object of the municipal university is to train men in real life for service in life, then no means can be more effective for realizing this purpose than this relation of the municipal university to the city and community. The influence and prestige gained by serving and cooperating with the city renders it easy also to secure the cooperation of the private institutions and industrial corporations of the district. They are eager to join a system which represents all the people in their aspirations for intellectual and moral improvement and higher efficiency in every department of their life.

As this development is somewhat new in the cities, perhaps some explanation of the cooperation methods of the municipal university may be interesting. In the first place, all the city's institutions, its schools, its libraries, its hospitals, its health board, its asylums, its public works, as well as its financial and administrative departments, are by this method opened up for the study of the university professors and students under the cooperative plan. In the second place, and as a result of granting these privileges, the city and its institutions have the right to call upon the university for assistance in testing old methods, or for advice in planning new work.

The most important part of the city's life is, of course, the school. The first duty of the university is to stimulate and build up the educational system. If the municipal university has a college for teachers, or a similar department, it can easily arrange to use the public schools for training new teachers. No special practice school can equal the real public school for this purpose.

The college can help the schools in many ways besides training teachers. Its faculty is a board of experts to advise the board of education of the city whenever called on with regard to courses of study and methods of teaching. The professor of elementary education in the college may well be the head supervisor of that department, and examine and test the teachers for appointment and promotion.

The professor of secondary education should perform a similar service for the high schools. This professor should also be the director of school affiliations and secretary of admissions for the university, and thus have control of the whole system of schools upon which the institution rests. As the university is the capstone of the city's educational system, the college for teachers should be the head of the public school system. There are possibilities here beyond the imagination.

The relation of the municipal university to the public libraries should also be intimate. The university library may be made the scholar's reference library of the city, and to this end might be a department of the city library itself. Where there are branch libraries, they should be used as centers of extension work.

The extension work of a municipal university can, by reason of these relations, be made much more effective than that of the private university in the city, or the university at a distance, for this work is then directly under the eye of the faculty, who can provide facilities greatly superior to those of the private institutions. In fact, the external class work of the municipal university can be made to correspond in method and results to the internal work, and full credit given for it, thus extending the university over the whole city. On the other hand there is not the same need in a municipal university for a correspondence department, since all students can come, either to the university itself or to these extramural centers.

If the university has a college of medicine and a department of social science, it may establish cooperative relations with all the hospitals and philanthropic institutions of the city. The faculty of the medical college should constitute a large part, at least, of the staff of the hospitals, and do the laboratory and investigational work for them. It is universally agreed by authorities on medical education that the teaching hospital is always the best hospital. All good health, medical, and surgical practice is based on science, and can make no progress without the aid of the scientific laboratory. Such work should be under university direction. The health board of the city will furnish training ground for sanitarians and physicians. The social science department of the university may make itself, if not the organic, still the real scientific and spiritual head of all the private as well as the public charity societies, directing their investigations, studying their problems, and training its students in the settlements, asylums, and other places where relief work is carried on.

The possibilities of cooperation with the city's own departments are of course unlimited. The university can serve the administrative department by holding civil service examinations. It should have a municipal reference library to supply information on municipal affairs

to the members and committees of council, to city officers and citizens. This library, if located in the city hall, will provide a place where officers and committees can meet and get expert assistance and reliable statistics. The relation thus established will produce the best results in legislation. It is evident that such a library will also become a valuable laboratory for professors and students.

The chemical and other laboratories of the university become at once the laboratories for testing and investigating all conceivable questions for the city. The bureau of city tests examines all the materials bought by the various departments of the city, with regard to strength, chemical composition, and commercial value. The budget and expenditures afford many problems for study. The engineering works, highways, sewers, waterworks, gasworks, transportation systems, etc., can be utilized by the engineering college for the training of its students; and the heads of these city departments will, in turn, use the laboratories and the experts in the college as they need them. The department of public works becomes, for example, a partner of the engineering college in training young men for the service of the city. The city is thus a great factor in the success of the cooperative course for educating engineers.

Such are some of the methods of the municipal university. Its theory of service to the public is the same as that of the modern State university, though its work differs as the field differs. Enough has been said to show that because of its close relation to the city government and the public and private institutions of the city, and because of its proximity to a variety of factories and commercial establishments, the municipal university can carry on more cooperative work than any other university. These conditions create the opportunity and the duty of the municipal institution.

The disadvantages and difficulties of the municipal university are the same as those of the State university. Being dependent upon the public for support, both classes of institutions must be responsive to the will of the public represented by the State or city government, and both are, therefore, subject to what is commonly called political control. Public taxation is the simplest, fairest, and wisest method of raising funds to support a public cause, and some public control must go with the tax. The boards of management are, therefore, appointed by governors or mayors, or elected by the people. The position of the municipal university to-day, in respect to political control, is just about that of the State university 20 or 30 years ago. The State university had to undergo a period of political disturbance, now happily passed, except for a few newer western institutions, and the municipal college may have to stand the same treatment. As the people of the States had to learn how to eliminate politicians from their

university affairs, so the people of the cities will learn to safeguard their institutions. Apparently the cities are learning this lesson rapidly.

The democracy everywhere sacrifices efficiency for freedom and opportunity; the people must learn how to educate themselves, to do everything for themselves. The democracy is a school, and it is now learning how to support and direct its own schools. How rapidly and successfully it is learning this lesson, our great and improving systems of schools and our magnificent, growing State universities testify. As the State universities have succeeded, so will the municipal universities. The municipal university is, in fact, merely an extension of the State university idea, and will follow in its successful course, gaining everywhere by its experience.

Such is a brief statement of the case for the municipal university. It is not intended to say that municipal universities should be established in all large cities. Where large private institutions already exist, they will undoubtedly learn to do much of this public service and cooperative work, though they may not be able to do it under as favorable conditions as the city's own university. Institutes, colleges, and other smaller institutions will do parts of it. But with the development of cities in new places, there will be more municipal colleges. Akron, Ohio, is a striking case. The municipal university is coming where it is needed and when it is needed. Precisely the same forces which produced the State university will produce the municipal college. It is the latest product of our democratic education.

We have found, thus, that the municipal university is needed to democratize thoroughly the higher education in the cities. If we believe that the democracy must educate itself, then we must have municipal universities, just as we have State universities, to put the highest education within the reach of the humblest citizen of the city. The training it gives is parallel with that of the State university, but will be different as the work of the city is different. No matter how efficiently organized the private institution may be, the municipal university is more intimately bound up with its community. No matter how large and complete a State university may be, it can not educate all the people of the cities. The municipal university, by the very conditions of its existence, is inseparably united to the life of the people of the city. It differs from the university in the city in that its relation to the city is one of participation in the life of which it is a vital part, rather than cooperation with a life of which it is independent. A part of the city society, the municipal university is a vital organ of the body politic; it is, in fact, the brain directing all the other organs, nourished by them and stimulating them in return.

But the municipal university has a reason for existence aside from its service to the municipality. The ultimate reason for the existence of both the city and the State university is the development of men. The final test of all institutions is the educational test. The important question to be asked about every human institution is, What is it doing for the making of better men? Every city, therefore, ought to be a great educational institution in which no laws or customs inconsistent with this, the city's chief business, could be possible, and in which no man could live and not know the uses of knowledge and the power of truth. This we believe to be the foremost reason for the existence of the municipal university—that the city as a whole may be a great institution, not only to conserve every human interest, but also to develop every human being within its boundaries.

II. THE PRESENT STATUS OF THE AMERICAN MUNICIPAL UNIVERSITY.

PARKE R. KOLBE,
President of the Municipal University of Akron.

Higher education, i. e., the further training of high-school graduates, is carried on by many cities in our country. Certain types of such educational activity must here be eliminated in order to define clearly our conception of the real municipal university. Among the kinds of city-conducted higher education which independently have no place in the present discussion the normal school is most common. That this, however, is a related branch of work is shown by the fact that in two cities at least, New York and Cincinnati, the normal school bears a close relation to the city university. Various branches of technical and manual training work have also been given city support without thereby even approximating municipal universities, a fact explainable from lack of strict requirement of high-school graduation as an entrance prerequisite. Such technical training schools are especially encouraged among the municipalities of Massachusetts; as, for example, in her municipal textile schools. A third class of exceptions is to be found in the junior colleges. Whether the outgrowth of high-school "postgraduate" courses or called into being, as in California, by remoteness from college centers, the junior colleges approximate more closely the municipal-university type. All of these varieties, however, are to be eliminated from the present discussion.

The name municipal university is here understood to mean an institution of higher learning supported in greater part by municipal taxation, requiring graduation from a first-grade high school for entrance, and maintaining a four-year course in arts and letters, around which a greater or less number of other schools or depart-

ments may be grouped. Its participation in technical, professional, and graduate work, or in civic cooperation, will naturally vary with city and institution. Under a strict application of the above definition, there are only six municipal universities or colleges in the United States. In the order of their establishment on the municipal basis they are: The College of Charleston, S. C., 1837; University of Louisville, Ky., 1837; College of the City of New York, 1847; University of Cincinnati, Ohio, 1871; University of Toledo, Ohio, 1884; Municipal University of Akron, Ohio, 1913.

Mention should also be made of the following normal colleges which are financed and controlled by municipalities and which, according to the Bureau of Education, are of college grade: Chicago Normal School; Harris Teachers' College, St. Louis; Hunter College, New York; Campbell College, Holton, Kans. The preponderance of normal school work in such institutions, however, renders them scarcely subject to classification as municipal universities. Finally, there should be mentioned the case of the Georgia School of Technology, which, although a State school, receives an annual appropriation of $10,000 from the city of Atlanta for general purposes.

Of the six municipal universities, only two, the College of the City of New York and the University of Louisville, were originally founded as municipal institutions. The remaining four were first established as private foundations and were later adopted by their native cities. The scope of work of the municipal universities varies from the broad field of the University of Cincinnati with its many technical and professional departments and its graduate school, to the single college of liberal arts as represented by the College of Charleston. Two institutions, Cincinnati and Akron, carry on courses in cooperative engineering, a system which originated at Cincinnati and which is reckoned among the great, modern educational developments.

The legal status of the city university in the United States is by no means a simple matter. Generally speaking, we may divide municipal universities into two great classes: First, those which exist by city charter and secondly, those which are authorized by State laws directly. The difference is not a basic one, since even city charters must be authorized by State laws. The State of Ohio alone, however, has incorporated into its legal code provisions by which any city in the State may establish a municipal university and support it by special taxation. The existence of these laws explains the presence in Ohio of three out of the total six municipal institutions. The remaining three owe their existence to special acts of legislature or to ordinances of city councils authorized by charters granted by the legislature, i. e., they represent special cases, while the Ohio institutions operate under a general State-wide law. The encouragement offered under the Ohio plan toward the founding of municipal uni-

versities is obvious. At present the possibilities of new institutions of this sort are doubtless greater in this State than in any other.

In the course of an attempt to ascertain conditions in all parts of the country, a letter was recently directed to the attorney general of each State containing the following questions:

1. Do the laws of your State make any provision for allowing municipalities to support institutions of higher education by city taxation?

2. In case the State code contains no such provision, would municipalities in your State have the power to carry on such work on their own initiative?

Answers were received from 39 States; Alabama, Colorado, Georgia, Maine, Montana, Nebraska, Rhode Island, Tennessee, and Vermont not responding. In many cases, the letter was referred to the State superintendent of education for reply.

Of the total number, 35 States replied that the laws of their State make no provisions for municipal higher education. Of the remaining four, Ohio has already been discussed. The attorney general of Mississippi declares that the municipal chapter of the code of his State confers upon cities "very broad and comprehensive powers in regard to the establishment and maintenance of the schools" and that by this power, cities may have "schools of higher branches." The New Jersey school law provides for the education of youth from 5 to 20 years with no specification of the character of schools to be maintained. Virginia's code states that "an efficient system of public free schools shall be established and maintained," a statement which Assistant Attorney General Garnett believes would be interpreted by the court as covering municipal institutions of higher education.

In answer to the second question, 31 States deny definitely to cities the independent power of establishing municipal universities. Of the remaining 8 from which an answer was received, Arizona infers that no such power is vested in the city. California replies that cities organized under the general incorporating law have no power, while those operating under freeholders' charters may impose taxes for municipal purposes without the enactment of a general law expressly conferring that power. In Minnesota, the State department of education asserts that cities have the right to carry on higher education, although a close search of the school laws fails to sustain this contention. The liberal grant of power in Mississippi and Virginia has been discussed above, as has the case of New Jersey. In Oklahoma, the matter is reported as undetermined. Ohio, with its general empowerment to all its cities forms a special case.

A summing up of the whole situation shows that, under present conditions, only Ohio, California (freehold cities), Minnesota, possibly Mississippi, Virginia, and New Jersey would allow the establishment of municipal universities without further legislative enactment on the

part of the State, while New York, South Carolina, Georgia, and Kentucky have granted special privileges to individual cities.

It must, however, be borne in mind that in no State is the founding of municipal universities forbidden, and favorable legislation could doubtless be secured from the State legislature by any city desirous of embarking upon such an enterprise. The enactment of State-wide authorizing laws, such as exist in Ohio, will doubtless do more than anything else toward spreading the movement. Such laws, however, will scarcely spring into existence automatically, nor until some definite emergency arises. In Ohio the activities of the University of Cincinnati called forth the existing laws, and the foundation of Toledo and Akron is doubtless due to the fact that such laws were already in existence. The spread of home rule among cities will also do much toward smoothing the path for future municipal university foundations, although home rule without the privilege of determining rates and purposes of taxation is a poor thing at best. In the final estimate, we dare not lose sight of the fact that laws always follow rather than precede any great movement. They represent the result, not the cause. The need for municipal universities is growing. Cities everywhere are beginning to appreciate the importance of local institutions of higher education. Such a movement will inevitably create its own conditions, make its own laws and assure its own success.

III. COOPERATIVE METHODS IN EDUCATION.

By P. P. Claxton,
United States Commissioner of Education.

The modern democratic commercial city is a new thing in the history of the world. There has been nothing like it, and we must deal with it without precedent, as we must in this country deal with all problems of government and of industrial and civic life. Democracy is a continuous experiment, and every day presents new problems for which we have no precedent. Our only hope is in being able to arrive at fundamental principles by careful inductive reasoning and to gain skill in applying them to new concrete cases.

The great city of a half million or a million people is a State within itself, larger than many of the States of the Union. One city represented in this conference has a larger population, many times more wealth and variety of interests than the whole of the United States had when Washington was President. The railroad systems of a continent converge there. The commerce of the world centers there in larger variety and quantity than it did in any ancient city. These cities have many new and difficult problems, as of sanitation, transportation, water and light, school and public libraries, and

above all of democratic government. Most of them have the task of rebuilding for permanency. Little has been done according to definite plan and for permanency. Temporary structures, to serve immediate purposes, were erected with the expectation that they would soon be replaced. The time has now come for permanent buildings, permanent streets, permanent parks, permanent water supply, all of which should be provided according to definite plans made in the light of present knowledge and of future requirements and possibilities.

Our city government also developed without plans from the country town meeting and the form of government of backwoods districts and counties. The machinery of government was not planned with modern conditions in view and could not be so planned, because these conditions were undreamed of. Cities have grown so rapidly that we have not been able to readjust this machinery of government, and so it has broken down. We talk much about inefficiency and corruption, but these are not greater than we might have expected. There is need of new governmental machinery, intelligently constructed; there is need for the kind of help the great municipal university should be able to give. The State university, located in the village or small town away from any large center of population, and having no direct connection with municipal affairs, will hardly become conscious of the opportunity and the need of this kind of service.

One of the charges made against the public schools of to-day is that their pupils fail to gain any kind of practical knowledge. This complaint is made especially by those who employ boys and girls, either from the elementary schools or the high schools. Bankers say they are not expert bankers, and indeed they are not, and should not be expected to be. Newspaper men say they can not write English. Merchants tell you they are not expert salesmen, or clerks, or bookkeepers, or accountants; plumbers, that they do not know the plumber's trade. Some of these criticisms seem to be just, but the shortcomings are not the fault of the public schools. They are due rather to changes in democratic, social, and industrial conditions. A generation or two ago we were a rural people. Boys worked with their fathers on the farm or in the shop. They and their fathers worked at simple but whole trades, requiring a complete sequence of related processes. Work was done with simple tools and implements. Boys could work intelligently and sympathetically with their fathers, gaining thereby some practical knowledge of various trades and industries. Now and then they obtained at least a glimpse of underlying principles. There was frequent call for the question, why? From work like this boys went to school with a desire to learn something of the principles involved in the work which

they had been doing, of principles they needed to know in order to do it better. The home was a manufacturing establishment, and the experience of girls at work with their mothers was the counterpart of the experience of boys at work with their fathers. These girls went to school with similar desires. The home has now ceased to be a manufacturing institution, and girls are deprived of these experiences. Boys, in the city at least, can not work with their fathers in the bank, in the office, or in the great factory with its complex machinery. They have little opportunity for the valuable practical experience and teaching their fathers had when they were boys. The schools as schools are far better than they have ever been before, and are doing the work for which they were established better than ever before. But the school is only one of many agencies of education. Other agencies have failed, and the schools have not been able to make good their failures. With manual training, cooking, and sewing in the schools, we are trying to restore some of the home experiences and teachings of an earlier day.

The same principle is involved in the education of the high school, the college, and the university. School life and home life must supplement each other here also. Luther understood this general principle. When he made his plea for universal education he said he did not expect all children to go to school all the time. His plea was that children should spend a few hours of each day in school and the remainder of the time at some useful work at home helping to support themselves and their families. Many educational reformers have had in mind some such cooperation as this, some intelligent cooperation by which the parallel threads of life in school and life out of school might be woven into one web. In the shops students apply the principles learned in school, and this application gives content to these principles, otherwise empty and meaningless. From the shops they return to their work in college hungry for knowledge, feeling their need for an understanding of principles that will enable them to work intelligently.

The municipal university serves a large population having varying industrial, social, civic, cultural, and spiritual interests, but living in a restricted territory, every part of which is easily and quickly accessible. Within the limits of this restricted territory are brought together all the interests and problems of modern life. The State of a million people may apportion its governmental activities among a hundred counties. A city of a million people is, even for the details of Government and the practical application of laws, a unit. Social contrasts are violent; rich and poor, millionaire and pauper, learned and ignorant, good and bad, all live on the same street or on the same square. The city is made up of all classes and is conscious of its heterogeneity. Schools, churches, libraries, theaters,

lecture halls, museums, art galleries, clubs, saloons are placed side by side along the street or face each other across the square.

College students of both sexes, interested in education, transportation, sanitation, manufacturing, social welfare, literature and art, and whatever else, find here abundant material close at hand. The city thus becomes a great laboratory and supplies all necessary laboratory material without cost. All studies become interesting as life itself. It becomes easy to follow the advice of the manager to the poet in the prelude to Goethe's Faust—

> Grasp the exhaustless life that all men live!
> Each shares therein, though few may comprehend.
> Where'er you touch, there's interest without end.

Books on any of these subjects are illustrated by the life and activities immediately about the students. They may participate in the things they are studying. They bring to their studies a rich content of experience of city life and find many opportunities for immediate application of principles learned. Their college studies throb with interest and the process of learning is quickened.

When Dean Schneider began this plan of putting boys to study in college and to doing practical work for pay on alternate weeks, he said he thought the full amount of college work usually done in four years might be done by the new plan in six years. It is now done in five, and the students have a mental fiber seldom found developed in students giving the full four years to theoretical studies given within the college walls without opportunity for their practical application.

The influence of the university on the public schools of Cincinnati has been very great. The university completes a system of democratic education, all parts of which are open and free alike to all. Such a complete system of free public schools definitely and thoroughly organized and supported by the city for the use of all its people becomes a source of inspiration.

In this connection let me say that all education of whatever kind should be free. I do not believe in furnishing food, clothing, or shelter free of charge to any one who is able by any kind of an honest labor to provide these things for himself. But education of whatever grade should be free to all; and the cost would not be great. At $100 per capita for tuition, $20,000,000—enough to build one first-class battleship and one first-class cruiser—would pay the tuition fees of all the students now in the colleges of the United States. Thomas Jefferson wanted tuition free to all through three years of the elementary school. Gradually this line was moved up until the tuition became free in all the grades of the elementary school and then of the high school. Why should not higher education be free also? Education is not for the good of the individual

alone; it is for the good of society, of the State—of the community served, whether that community be large or small. And this is true of higher education to a greater degree than it is of elementary or secondary education. In proportion as education is advanced, does it become altruistic. A man who learns only to read and write may serve himself chiefly thereby. The educated physician does something more than make his own living and save his own life. He serves society, and society can not afford to have anything less than the best possible service of this kind. The same principle applies to all professions and occupations requiring extensive learning and a high degree of technical training. Municipal universities and all others should be free to all who will attend them and do the work for which they provide opportunity.

In the city having a great university at the head of its system, this university becomes a goal for every child, whether it ever attains it or not. When the school system contains only elementary schools, the majority of children quit before finishing the elementary school. Add a high school, and soon most children will complete the work of the elementary school and a few will enter, and fewer still complete, the work of the high school. Add the college as an integral part of the system, and many more children will remain in the high school for graduation, while some will enter college. Add to the college the graduate work of the university, and the attendance in college will increase, and many more students will remain for their college degrees, while a good number will do university work. It gets into the mind of the people that the complete school system is theirs and that they are falling short of their opportunities if they do not make full use of it. Those who do not do so feel under obligation to find or make an excuse for their failure.

Within a period of two years Cincinnati doubled its appropriations for public education and raised the standard of required qualifications for teachers a little higher than the standards for teachers in any other city in the country. The university and its department of education did much toward bringing this about. On the other hand, the department of education in the university was made better by the fact of its close connection with the schools. Departments of education, important and valuable as they are, have as yet little definite knowledge of education to give their students. Professors of education are in the condition in which professors of agriculture were before the establishment of the agricultural experiment stations. Our doctrines of education are still mostly personal opinions. We lack definite knowledge, such as can be had only through carefully checked scientific experiments. Such experiments may be made most successfully by the departments of education of a municipal

university, acting in cooperation with the public schools of the city. No doubt we shall soon obtain in this way a considerable body of definite knowledge of at least some phases of education.

The municipal university may also make fuller use of short courses and extension courses than other colleges and universities can. It may learn sooner than others that practical education may also be education for culture in the best sense; that culture is not a thing separate and apart, a thing within itself; that it does not come from any particular course of study; that it does not come from studying the "humanities" in school or college; that it does not come necessarily from any kind of class work or from school at all, but that it is a by-product of intelligent living, with good will and strong purpose to use all one's energies for the benefit of one's fellow men, a kind of deepening and widening and refining and ripening of the human soul, which comes as the result of right living.

Many changes in the traditional college curricula may need to be made to adjust them to the use of the municipal university. Fundamental principles will hold. Their practical application will require wisdom and tact. This readjustment we have already begun to make. In planning cooperative courses the principles of the schools of the Young Men's Christian Associations should be kept in mind; teach a young man what he wants to know next. The principle is good and its intelligent application may result in a more systematic, better organized, and more vital body of knowledge than do some of our carefully wrought out courses—on which, however, there is lack of unanimous agreement.

Not only will the municipal university require different courses of study; it will require also for its faculties men and women of a type different from that to which most college instructors belong. The cloistered professor will find himself out of place here. It is no place for cloistered seclusion and dreams that do not take hold on life. There will, I believe, be no loss in fineness, but a gain in strength through much wrestling with difficult and complex problems of city life. This will produce qualities in college men and women different from those produced by much reading and thought with little practical application.

The best men and women, the great prophetic souls of the world, have long dreamed of the culture state, from which ignorance and vice shall be banished. Some of the little Greek city States almost attained it for the few who composed their leisure citizen class. One naturally thinks of Athens. But this beautiful flower of civilization and culture sprang out of the dungheap of the rotting festering masses held in slavery and serfdom. For one citizen there were 10 slaves. Men have dreamed of a city of God, that shall come down out of the

heavens and be among men. The culture state, the city of God, are now more nearly possible than ever before in the history of the world. Our knowledge of the forces and laws of nature, our skill in applying scientific principles to industrial life and in the invention of labor-saving machinery make possible for every man the service of more than 10 slaves without taking away the freedom of any. Better agricultural implements for the tillage of the soil, harnessed water power, imprisoned steam, the obedient electric current—these all serve us better, more faithfully, and more effectively than could an army of our fellow men enslaved, ignorant, and brutalized. It has at last become possible for all men to have some leisure, some freedom from slavery to their backs and bellies, to their physical wants. This is true to a larger degree of cities than of the country. We have already in many places a workday of 8 hours for only 5½ days in the week—44 hours out of 168; in other words, more than half the waking hours of a laboring man are left free. Here is the opportunity of the municipal university that is able to see it and organize and direct all the educational agencies of the city, direct them toward the task of assisting these people to use their leisure aright. To turn these leisure hours to uses of culture will not be difficult in the city, where people live close together and distances are short and transportation quick and easy. You already have in the cities all or most of the agencies needed—libraries, art galleries, churches, theaters, lecture halls, parks, and the like. You only need add the great municipal university, supported by all the people, at the service of all the people as an organizing and directing agency, to build the great democratic, industrial culture city, cleaner and sweeter and better and stronger than the world has yet known and than has ever been possible before.

Let me add a word of caution. When you have a municipal university in any city, do not draw your robes about you and say, "We are urban people; politeness (city ways) belongs to us; with the uncultured multitudes of the rural State we have no dealings." If you should do this then I should pray that you might die quickly, for sooner or later you would have to die, and it would only be kindness to save you from the pains of lingering death. Remember the Italian cities of the Middle Ages and their fate. Do not begin to say, "We are supporting our municipal university; why should we help support the State university?" The city is a part of the State and must share in the common burdens of the State, as it shares in its common good. No people can cut loose from the rest of the world and live. All exclusive aristocracies must die. The life blood of the world must flow through one's veins if one would live. One must feel the heart throb and pulse beat of humanity, be inspired by all

its worthy interests and walk in all its strength. One must give, if one would live.

The time of the municipal university has come. City after city, in rapid succession, will establish or develop some institution to serve it in this capacity. Probably within a quarter of a century most cities of 200,000 people and over, and some even smaller, will have such institutions at the head of their systems of education, organizing all other agencies, directing their energies, and inspiring the people to strive for higher and better things.

IV. THE PHILOSOPHY OF THE COOPERATIVE METHOD.

By HERMAN SCHNEIDER,
Dean of the University of Cincinnati.

Your question, in which you ask, "What recommendations would you offer for the extension of our college work?" can be reshaped as follows: What is the function of the college, and how can it best fulfill it?

The function of the college in the United States is so to guide the training of men that they may render the truths of history, of philosophy, of economics, and of science serviceable to all the people of the city, from the head of the city government down to the last mite of humanity. It should seek through the agency of trained men to bring these governing truths naturally and profitably into the daily and hourly doings of the people, according to their needs. Its system of training should be so devised that all the truth it possesses shall surely reach into the kitchens of the tenements and into the councils of the greatest banks, into the dreariest job that ever a child goes to and into the power plants that carry him there. Whatever the people of the city do, whether it be in manufacture, commerce, education, transportation, housing, government, baking bread, or building bridges, there the truth should be wrought into the working organism of the doing of it. This is the basic philosophy of the matter.

"Through the agency of trained men." It is largely a question of the skill of the men trained; for the college knows the basic laws, whether they apply to the operation of a city department, the writing of an editorial, the painting of steel bridges, the slaughtering of cattle, the auditing of a bank, the inspection of tenements, or the manufacture of a steam engine. The college knows these laws—as theories. It can not apply them; it is not its business to apply them. The application must come through those who do the work; and the breadth and thoroughness of each man's knowledge of the science underlying his task must be in direct proportion to his position of

responsibility in the scale of work. Or, to put it in another way, the men who devise and direct are in a position to apply the theories, and practically they are the only persons who are; they have the authority. These men should receive the higher training.

Who are these men? How are they found? What is their training? In nearly every case they are men who, at an early age, began work at the very bottom; they are found by the winnowing processes of daily work; and their training is the accession of detail after detail, process after process, burden after burden, until a knowledge of the whole complex interwoven mass of forms, methods, materials, dangers, subtle meanings, and counter checks enables them to devise and direct better than men selected and trained in any other way; and the one thing these men feel they need most is a knowledge of the science which they see underlies every detail, every method, every subtle cross current of their work; just as every college man feels the lack of what the other man has. Nor does it seem possible to apply the theory held in one head through the practical knowledge necessary to successful devising and directing held in another head. The theory can rarely be applied vicariously; it seems necessary to have a chemical combination rather than a physical mixture. This is not strange, since the theory is a basic concept, which, to be effective, must be translated into terms of men, materials, environment, mental capacities, competition, human weaknesses, established methods, and realizable possibilities. The great mass of truth, the discovery, collation, and teachings of which constitutes the work of the college, must be recast with practical knowledge as a flux into usable forms of everyday work and life.

In order, then, to render the truths of philosophy, of history, of economics, of science, surely and directly available in the day's work, it is necessary to teach them to men who are also well trained in practice. Obviously the training in theory and the training in practice should be organized into one well balanced, coordinated, centrally directed plan.

The college should be the directing center of the work. It is true that many men in college life believe that when the college expounds its doctrines, it has done its part. But if a college is what it should be, its faculty will be possessed of a passion to make its learning a vitalizing, ameliorating, constructive force in every form of human endeavor.

Here you have the juxtaposition of the two philosophies of education; one the chance casting of bread upon the waters, the other the organized supply in the form in which it is needed, directed to the place where it is needed. The latter is the philosophy of the cooperative system.

V. THE RESPONSIBILITY OF A MUNICIPAL UNIVERSITY IN RELATION TO THE CITY SCHOOLS.

By William Paxton Burris,
Dean of the College for Teachers, University of Cincinnati.

The relation which exists between the municipal university and the city schools is one of closest mutual dependence, and it may be said that there is no other way in which a large center of population can become so fully conscious of the interdependence of elementary, secondary, higher, technical, and professional education as through this bringing together of all parts of a complete educational system face to face in organic and vital relationship within a municipality.

What, then, is the responsibility of the municipal university, in view of such a relationship to the city schools as has been indicated, and how shall this responsibility be met? How can the municipal university best serve the city schools in turn for the service which makes its own existence possible and worth while?

It can do this by enlisting the services of educational experts for the following lines of work:

(1) The professional training of persons otherwise qualified for teaching in the public schools.

(2) The formation of merit lists from which appointments and promotions to all teaching and supervisory positions in the city schools shall be made, no matter where trained.

(3) The professional improvement of teachers after appointment to positions in the city school service.

(4) Directing in the study of city school problems, making educational surveys, etc.

(5) Assisting the city school superintendent in a manner similar to that of cabinet officers in the consideration of educational policies for the city.

(6) On occasion, to perform scout duties in finding suitable persons for the city school service.

(7) Active participation in the work of educational associations, such as schoolmasters' clubs, principals' associations, etc.

With so many important lines of service to be rendered, it need hardly be said that persons possessing an unusual combination of qualifications are necessary. They must have had university training, and their study and achievements in the field of education must have been such as to command the respect of university faculties on the one hand and that of the teaching corps in the city schools on the other. Through experience, as well as through reflective study, they must have a clear grasp of the significance of all phases of education. They must not be narrowly pedagogical, but have a comprehensive view of educational values, aims, and means and possess the

the power to teach teachers. They must have an enthusiasm for education in its lower stages and a sympathetic appreciation of its difficulties. They must know how to apply ideal as well as objective standards in testing teaching ability. They must have technical equipment for the scientific study of educational questions.

With a group of experts who have such qualifications, we may now consider the machinery for realizing the purposes specified above. The relation of mutual dependence must be definitely recognized and calls for the closest cooperation. This is secured, let us say, through the organization of a college for teachers as a joint enterprise of the board of education of the city schools and the board of directors of the municipal university.

By mutual agreement these respective boards entrust the oversight of this college to a joint committee consisting of the president of the municipal university, a member of the board of directors of the municipal university, the city superintendent of schools, and a member of the city board of education. This copartnership being formed, the available resources of the municipal university and of the city schools, for the training of teachers, are pooled.

On the one hand, the faculties and facilities of the municipal university are placed at the disposal of a college for teachers for the academic preparation, selection, training, and improvement of teachers in the city schools, this agency, with its superior advantages, displacing the usual city normal school. On the other hand, the board of education places the city schools at the disposal of a college for teachers as a working laboratory for practice teaching, observation of teaching, and the study of educational problems under the expert oversight of this college. In certain instances, also, specially qualified members of the regular city school corps of teachers and supervisors are available as members of this staff of instruction.

The faculty of the college for teachers should consist of the president of the municipal university, the superintendent of the city schools, professors, assistant professors, and instructors in education, and members of other faculties of the university giving courses which are expressly arranged for students expecting to become teachers and which have been approved by the professors of education. This faculty should have all of the functions usually belonging to college faculties, and one of the professors of education should serve as dean.

This, briefly, as a result of the experience in Cincinnati in the past nine years, is the form of organization and administration which is consistent with the character of the work undertaken, which recognizes the mutual responsibility of the municipal university and the city school system in this work and which insures a spirit of cordial cooperation between them.

The number and character of the professional programs, which the college for teachers in a municipal university should offer for the training of teachers as such, will depend upon the needs of the city school system as organized.

The college for teachers in Cincinnati provides five general classes of such programs as follows:

(1) One-year programs for students who have completed a course in a standard college and who have included in such course certain studies as a foundation of the study of education and teaching. The completion of one of these programs leads to a graduate diploma in education, to an Ohio State certificate without examination, and to a preferred list from which appointments to positions in the city schools are made. Programs of this character are offered to those who wish to teach in the elementary or high schools.

(2) Two-year programs for students who have completed a two-year course in a standard college and who have included in such course certain foundation studies. The completion of one of these programs leads to the degree of bachelor of science, to an Ohio State certificate without examination, and to a preferred list from which appointments to positions in the city schools are made. Programs of this character are offered to those who wish to teach in the regular positions of the elementary schools, as well as to those who wish to qualify for special positions, such as kindergarten directors, teachers of art, teachers of German, teachers of household arts, or teachers of defectives.

(3) Two-year programs of studies for students who have satisfied the regular entrance requirements and who wish to qualify for special positions without proceeding, for the time being, to fulfill all the requirements for a degree. The completion of one of these programs leads to an appropriate diploma in education, to an Ohio State certificate without examination, and to a second list which is drawn upon for appointments to positions in the city schools whenever the corresponding preferred list is exhausted. Programs of this character are offered to those who wish to qualify for positions as teachers of art, teachers of household arts, and assistant directors in kindergartens.

(4) Courses in education are also offered to properly qualified teachers of experience who wish to become instructors in education, supervisors, critic teachers, or administrators in educational positions requiring extended experience and advanced study. Such courses are accepted in partial fulfillment of the requirements for the higher degrees conferred by the graduate school.

(5) Special courses for teachers are also offered by the college for teachers as well as by the other colleges at the university, the completion of a certain number of which leads to advancement in salary.

An important part of all programs which lead to eligible lists from which appointments to positions in the city schools are made consists of the practical work in the city schools under the critical supervision of members of the staff of this college. Moreover, general supervisory oversight of this staff continues during the first year after a teacher's appointment, this first year being considered a trial year and virtually a part of the teacher's professional training.

Scarcely less in importance than the work of professional training which we have just outlined is the service which the college for teachers renders in connection with the merit system of appointment and promotion.

Without a merit system of appointment and promotion, no city school system can attain to the highest level of efficiency, nor can a college for teachers achieve the highest usefulness without such a system, if indeed it could exist at all. In proportion as the merit system succeeds, therefore, the college for teachers succeeds. The standards of the one become the standards of the others. For this reason, and because the professors of education are selected on account of their expert knowledge of education and teaching, they are placed in charge of the merit lists from which appointments and promotions to all teaching and supervisory positions in the city school system are made.

First or preferred lists and second lists for each class of regular positions and special lists are formed by them for this purpose. First or preferred lists for appointment and promotion are formed from candidates whose teaching has been approved and who are graduates of standard colleges, provided they have completed an approved program of professional training as a part thereof or in addition thereto, or in lieu of such professional training have had not less than two years of successful teaching. Second lists are formed from candidates who have completed a first-grade high-school course or its equivalent, and who have taken an approved two-year professional course or in lieu of the latter have had not less than two years of successful experience in teaching and one year of professiona training.

The listing and ranking of candidates for appointment to teaching positions in the elementary schools is in charge of the professor of elementary education with the cooperation of the supervisors concerned in cases affecting the special departments. The listing and ranking of candidates for appointments to teaching positions in the high schools and for promotion within the high-school service is in charge of the professor of secondary education.

By means of this system of appointment and promotion the qualifications of teachers have been steadily improved. The superintendent

and board of education are no longer harassed by applicants and their friends; political and sectarian influences have been eliminated as factors in securing appointments; professional spirit has been stimulated, and many other improvements have been brought about directly or indirectly as a result of making a high standard of merit the only sure road to preferment.

The opportunities for the improvement of teachers after appointment to positions in the city schools, offered by the municipal university, are by no means restricted to the college for teachers. In response to the requests of teachers themselves, the other colleges of the university offer a great variety of courses at hours which do not conflict with the classroom duties of teachers. Under the direction of the superintendent of schools, the dean of the college for teachers prepares an annual exhibit of opportunities for instruction for teachers in the various colleges of the university and elsewhere in the city, the same being printed and distributed by the superintendent as a bulletin of information for teachers. Many teachers pursue courses leading to the higher degrees. Others choose courses which qualify them for promotion to high-school positions. Others select lines of work which enable them to continue their chosen work more effectively.

Another important line of service which the municipal university renders to the city schools grows out of the necessity for a psychological clinic for the purpose of accurately determining the special school to which various typical pupils should be assigned. These pupils are brought to the psychological laboratory by their parents or teachers and are subjected to scientific mental and physical tests. As a result of the tests these pupils are placed at tasks within the range of their abilities, and suggestions are made as to the best method by which their defects are to be corrected. In this way the retarded pupil, from whatever cause, is separated from the regular class and given special treatment, to the mutual advantage of pupil and school. Where such work is undertaken by some one not connected with a city system of schools, he labors at a serious disadvantage. He does not feel at liberty to call upon the schools for the necessary data, and teachers are indifferent in regard to supplying it. Their suspicions are aroused because they are apt to think that they are under examination. Principals also are likely to take such a view and hesitate to permit investigations, the result of which may appear to their discredit. On the other hand, the expert investigator who is a part of the system is assured of generous welcome.

The possibilities here, as well as in the investigation of all other city school problems with a view to making school teaching and administration more scientific, are far greater than under any other

conditions. In a word, the municipal university is the only type of higher institution which can have adequate facilities for the scientific study of many of our most important school questions. With a sufficient staff of trained workers in this field, the value of the service which may be rendered to the city school system in this way is incalculable.

A college for teachers, therefore, is an indispensable bond of union between the municipal university and the city schools, and no "town and gown" conflict can seriously jeopardize the existence of a municipal university which duly recognizes its obligations to the city schools in the ways which we have pointed out.

A higher type of agency for the training of teachers for the city schools is made possible by the municipal university in cooperation with the city schools largely because this condition commands a higher type of worker in this field. It is impossible for any city to secure any large number of teachers having a preparation of the highest order without the establishment of a municipal university. On the other hand, where such a university is established, the arrangement which we have described for securing and maintaining a supply of teachers having superior preparation is brought about with an expenditure on the part of the board of education less in amount than would be necessary to maintain a first-class city normal school of the usual type.

Nearly all of the appointments to positions in the Cincinnati schools are now made from the preferred lists, and a majority of these are graduates from the local university, with professional training. There are now several hundred college graduates in the elementary schools. All occupying regular positions in the high schools are college graduates, a large number having master of arts degrees, and several being doctors of philosophy. At no distant date all teachers in the system will be college graduates, with professional training, or successful experience at the least.

The municipal university, therefore, best serves the city by serving the lower schools of the municipality. The lines of such service are many and important, but all of them bear fruit just in proportion as they bring about improvement in the teaching staff in these schools. In doing this the university is dependent upon the active cooperation and financial support of the city school authorities. With this gained, the highest type of professional training for teachers in city schools becomes possible. Broader scholarship as a foundation for such training can then supplant a lower order of scholarship and be a safeguard against a narrow pedantry. Instead of a model school for observation and practice, a whole system of real schools for this purpose then becomes available. Merit can then take the place of manipulation in securing appointment. Opportunities for growth

after appointment can then become manifold. Scientific research can then have a laboratory for separating truth from opinion, and individual differences in children can be duly respected. Vitalizing discussion can then prevent the dry rot of a deadening routine. These are the needs of the city schools, and these possibilities are a challenge of the city schools to the municipal university.

VI. CIVIC UNIVERSITIES IN GREAT BRITAIN.

By CHARLES A. COCKAYNE,
President of Toledo University (1910 to 1914).

At the beginning of the nineteenth century, Great Britain had only seven universities, and in all of them the scholastic traditions of a much earlier period prevailed. Within the last 83 years 11 new universities and 6 more or less independent university colleges have sprung into being as if by magic. Seven of the new universities were organized in one decade, the first of the twentieth century—Birmingham, Leeds, Liverpool, Sheffield, Bristol, the National University of Ireland, and the University of Belfast.

The creation of the new institutions was welcomed and encouraged by the less conservative educators of the old centers. In fact the success of the younger institutions is due in large measure to the fact that they were manned by men from Oxford and Cambridge who believed in extending the privileges of higher education. This attitude is typically expressed by Mark Pattison, a former rector of Lincoln College, Oxford. He said that the multiplication of exhibitions at Oxford—

> can never "extend" the university to a newer and lower class of English society. If this is to be done, the expensiveness must be attacked in its causes. Instead of subsidizing the poor student up to the level of our expenses, we ought to bring down the expenses to the level of the poor. It is idle to say we can not.

And again:

> Toward the meritorious working institutions for higher education which are rising up in our centers of population at Manchester, Liverpool, and Birmingham, fear, jealousy, or contempt are not the sentiments we can feel. Let us wish them all success in their efforts in the common cause, and give them sympathy, and, if in our power so to do, aid.

There was no misunderstanding as to the mission of the new institutions. They were to meet the practical need for trained citizens. But this keen realization of the need for education that should be practical was combined with the larger ideal of the professional educator, and this has saved the civic universities from pursuing courses too narrowly utilitarian. It is true that trade schools and mechanics' institutes were organized to meet an immediate need in the most direct way possible, but the universities were directed

by a loftier ideal. This university conception finds expression in the following words of Pattison:

Mental enlargement we know to be self-valuable, not useful; but if it can be introduced to notice under color of being useful in life, so be it, so only it is introduced. The difficulty is to get the thing recognized at all by those who have it not. Cleverness, talent, skill, fluency, memory, all these are understood and rated in the market. A cultivated mind, just because it is above all price, is apt to be overlooked altogether. It argues some discernment, and a considerable degree of education, in a society in which such gifts are even appreciated as useful. And let it once establish itself, even under false pretenses, such is its marvelous ascendency, that, like refined manners, it will conquer and propagate and extend itself by sympathy, by imitation, above all by education.

With no prescribed formula to follow, the new civic universities have unanimously adopted this ideal. While they have sought to meet the general demand for instruction in technical subjects and the needs of local industries in particular, they have, in every instance, combined with this work instruction in the usual courses in the arts and letters. The provisions of the charter of the University of Liverpool may be taken as typical. According to this charter, it is the purpose of the university to offer—

(a) Instruction and teaching in every faculty.

(b) Such instruction in all branches of education as may enable students to become proficient in and qualify for degrees, diplomas, and certificates in arts, science, medicine, law, engineering, and all other branches of knowledge.

(c) Such instruction, whether theoretical, technical, artistic, or otherwise, as may may be of service to persons engaged in, or about to engage in, education, or in the commerce, manufactures, industrial or artistic pursuits of the city of Liverpool, and the adjacent counties and districts.

(d) Facilities for the prosecution of original research in arts, science, medicine, law, engineering, and all other branches of knowledge.

(e) Such fellowships, scholarships, exhibitions, prizes, and rewards, and pecuniary and other aids as shall facilitate or encourage proficiency in the subjects taught in the university, and also original research in all such subjects.

(f) Such extra university instruction and teaching as may be sanctioned by ordinances.

All of the civic universities have faculties of arts and of pure science, of engineering or applied science, and of medicine. Four of them have faculties of law, and several have faculties of music, commerce, theology, education, agriculture, and pharmacy. Most of the universities are coeducational, and most of them have evening as well as day courses. All of the universities carry on extension work. At Liverpool and Sheffield the extension work includes not only lectures, but also tutorial classes organized for the benefit of working people who can not attend regular university courses, but who wish to do systematic work in advanced subjects. At Sheffield tutorial classes have been organized in industrial history, economics, and philosophy. The largest branch of extension lecturing at Leeds has been in agriculture, horticulture, farriery, dairy work, and poultry

keeping. Under the supervision of the extension lecturers, demonstration gardens are kept.

Each university studies the needs of the city and county in which it is located and endeavors to meet these by offering appropriate courses. Thus, the university college at Nottingham provides courses in the manufacture of lace and hosiery; the University of Sheffield has developed a strong department in the metallurgy of iron and steel; and the University of Leeds has made a specialty of courses in subjects that pertain to the leather and textile industries and to dyeing. The influence of the civic university is not limited to the municipality, but extends to the surrounding counties, very much as an industry or business of a city will dominate the lesser centers in surrounding territory. It has been found that from 60 to 100 per cent of the students attending the civic universities come from within a radius of 30 miles of the institution. In return for this local service, each university receives financial support both from the municipality in which it is located and from the counties reached by the university.

Certain of the municipalities provide a number of free scholarships in their universities for their own residents, and grant additional funds for maintenance not to exceed £30 in each instance. The municipalities are authorized by law to fix a tax of 1 penny for university purposes, and in many cases this rate is granted. The local support given by cities and counties to their own civic universities varies from 5.1 per cent to 29.6 per cent of the total income of the institution. The largest local grant for the year 1910–11 was given to the University of Leeds and amounted to £16,460. As a rule, the parliamentary grants have exceeded those given by the local authorities, and have varied from 23.1 per cent to 40.3 per cent of the total income. Both Federal and local authorities are represented on the governing boards known as the Courts of Governors. Representation on the courts has also been extended to manufacturers or workingmen's associations which contribute toward the maintenance of the university.

Most of the universities maintain dormitories or hostels where the students may secure board and room at reasonable cost. Moreover, these dormitories afford opportunity for the promotion of a community life among the students, and this is regarded as a very important factor in fostering the larger influence of the university.

The tendency to form local independent universities in the larger cities was not without its opponents. When the Victoria University was formed at Manchester on the basis of Owens College, it admitted the University College of Liverpool and the Yorkshire College of Leeds as constituent colleges. Manchester had always desired to have its own university, but the organization of the Victoria Uni-

versity with constituent colleges in three different cities introduced the federal idea. The application of Birmingham in 1901 for a charter to create an independent local university out of the Mason University College revived interest in the movement to have an independent university at Manchester. A movement was also started in Liverpool to establish a local university independent of the Victoria University. This effort to dissolve the Victoria University was opposed by the college at Leeds. The vice chancellor of Leeds, Sir Nathan Bodington, addressing a meeting of the governors, said that he and many others felt—

> that the multiplication of universities would be detrimental to the best interests of education and that universities in separate towns would not be likely to acquire the dignity and prestige which a university with a local sphere corresponding to it would have, and would not be able to speak in all those matters on which the action of the university in reference to the State was becoming so important, such as inspection and examination of schools, with anything like the weight of an undivided university.

Fear was expressed that—

> with a great northern university, a great midland university, and a London university they would have strength in the future, but if, outside Oxford and Cambridge, they were going to have seven or eight new universities, nearly all of them connected with single cities, that, he thought, would be a cause of weakness to university movements of the future.

The dissolution occurred, however, and out of the Victoria University three independent civic universities were formed and were known as the Universities of Manchester, Liverpool, and Leeds. The effect of this action was that it stimulated local interest to an unusual degree, and the new civic universities thus formed continued to expand under the increased local support that was given. When asked five years later to give his opinion of the federal idea for English universities, Sir Nathan Bodington declared emphatically in favor of the civic plan.

With the establishment of the National University of Ireland in 1910 the Federal idea was again put into practice. The National University was formed with three constituent colleges, the University College, Dublin, and the Queen's Colleges of Cork and Galway. But already a demand has been made that these colleges be developed into independent local universities.

The civic university is the characteristic university of Great Britain to-day. If the movement now in process continues, it will not be many years before the university colleges now at Nottingham, Reading, Southampton, and Dundee; the three constituent colleges of the Universities of Wales, Aberystwyth, Bangor, and Cardiff; and the institutions at Dublin, Cork, Galway, and Belfast will be converted into independent civic universities. If it be asserted that

the civic or municipal university is still an experiment, it may be admitted that, so far as the precise sphere to be occupied by such an institution is concerned, there is much that remains problematical, but there can be no question as to their permanent existence. No further experiment is needed to establish the value and the practicability of the municipal university, but much remains to be done to develop all its possibilities as a factor in civic life.

The royal commission appointed to make an investigation of the University of London states in its report that:

It is no accident that all the modern universities of England have been established in great centers of population. In these centers are practiced to a far greater extent than in rural areas those professions and callings for which the intellectual training given by a university has always been needed. In cities, moreover, many new occupations have developed which require a highly trained intelligence and which would find no scope apart from the manufacturing or commercial activities of the nation. * * * In the large cities of England the number of students qualified to undergo a university training and desirous of having it, if it can be provided at a moderate cost, has been relatively large, because the provision for secondary education, imperfect as it has been even there, is in many cases less deficient than in the country districts; and, finally, in the cities, where wealth is made and distributed and capital accumulated, it has been found easier to collect the large funds required for the foundation and maintenance of university institutions in the absence of adequate financial support by the State. Many young men and women whose parents could not have afforded the cost of educating them at Oxford or Cambridge, have attended the classes and laboratories of the modern universities and have found in them either the general training or the special professional equipment which they needed for their work in after life. It has therefore naturally come about that the modern universities are situated in centers of dense population and that they have included technical and professional subjects in their curriculum to a far greater extent than the older universities. These are the facts that must necessarily affect the conception of the proper functions of a city university.

VII. THE MOVEMENT FOR THE MODERN CITY UNIVERSITY IN GERMANY.

By CHARLES W. DABNEY,
President of the University of Cincinnati.

On the 18th of October, 1914, the city university of Frankfort-on-the-Main was inaugurated with high ceremony. The German Kaiser, who had promised to be present, sent a letter explaining that only the exigencies of the war prevented him from taking part in the exercises celebrating a notable event in the history of higher education in Germany.

The inauguration of the new university of Frankfort is the first definite result of a campaign that has been going on in Germany during the last 10 years for a new type of higher educational institution with a curriculum more in keeping with the needs of modern life than that afforded by the orthodox German university, with which

we are familiar. Frankfort-on-the-Main, Hamburg, Dresden, Cologne, and Dusseldorf have established, or are contemplating the establishment of, such universities on broad lines; and institutions of similar character are also proposed in smaller cities, such as Posen, Altdorf, Wittenberg, and Helmstedt.

The city university proposed differs from the regular German university in two respects. In the first place, it is designed as a local institution supported from local funds, while the great German universities and technical universities (Technische Hochschulen) are State institutions financed and controlled by the States. In the second place, the new municipal university is organized primarily to meet the demands for higher technical and professional training by combining the technical work of the Hochschule and the academic work of the regular German university.

The existing technical universities, or Hochschulen, have been founded, financed, and controlled as State institutions. They originated early in the nineteenth century as trade schools, trade academies, and professional institutions designed primarily to furnish knowledge of handicraft and of the professions as distinct from the academic training furnished by the German universities. With the development, through invention, of the practical sciences, this type of institution came gradually to adopt the scientific point of view by applying generalizations from experience in practical fields to advance the knowledge of the arts and crafts. This change, which came about early in the last half of the century, was accompanied by a change in name from trade school to "polytechnicum" or polytechnical school. An important feature in the method of instruction in the polytechnical schools was the emphasis placed on cooperation of the instructors with the students, a method employed later in the universities. After a time it was found that knowledge obtained by generalizing information gathered from the storehouses of scientific and industrial achievement was adding very little that was new or helpful. Progress began to demand something more, and the polytechnical schools set to work to meet this new demand by well-aimed experiments designed to develop scientific knowledge through research. With the inauguration of the research method in the polytechnical schools, the term "Polytechnicum" came to be supplanted by the term "Technische Hochschule" (technical university).

At the same time that the foundation for technical knowledge in the practical pursuits of life has thus been laid by the technical universities, the feeling has been growing that students in these fields should be given an opportunity, while pursuing their scientific studies, to obtain a broader intellectual foundation than can be had in the preparatory training for their particular professions. It is thought that a direct union of the technical universities with the universities

proper will render this possible. For practical reasons, however, such a union is not considered feasible at the present time. Hence comes the demand for a new type of university that will combine the advantage of the technical school and the university, and will place proper emphasis upon, or, at least, give full consideration to, those branches of study that are indispensable to the needs of the daily life of the present age. It is a demand somewhat similar to that which has led to the establishment of the graduate schools of applied science of Harvard.

The recent movement toward the establishment of a municipal university at Frankfort-on-the-Main can best be understood by keeping in mind the development of the many municipal institutions created in that city during the eighteenth and nineteenth centuries to advance education in various scientific fields. The oldest of these is the city library, founded in 1668, and financed exclusively by the municipality and by private gifts. Later on, a medical institute was organized by Senckenberg at a time when the study of medicine was at a low ebb in the German universities. In 1763, this medical institute, the library, the natural history collection, the botanical gardens, the chemical laboratory, and the anatomical theater were all joined under the name of the Senckenberg Institute. Contrary to expectations, the new institute was not supported by public interest and for a time it was combined with the provincial university. This association, however, was discontinued in 1812 because of the refusal of the Government to uphold it. In spite of firm support tendered by Goethe and others, the institute was for a time on the verge of bankruptcy and barely managed to continue its existence. But the cause of education in Frankfort did not suffer seriously, for various other societies and associations were founded to carry on the work which should have fallen to the Senckenberg Institute. Among these may be mentioned the Polytechnical Society, an association for the advancement of applied and theoretical sciences, founded in 1816; the Senckenberg Natural History Society, founded in 1817; the Physical Club, established in 1824; and a new city library, established in the same year.

With the creation of the confederation in 1866 Frankfort ceased to be a capital city, and the loss of the political life thus transferred to Berlin was seriously felt. Through the presence of the "Bundestag" much information affecting banking and commercial life had been obtainable which had made Frankfort a very desirable location for men engaged in these pursuits. But with the withdrawal of the political center to Berlin, many bankers and commercial men followed, and the resulting depression in Frankfort commercial centers put a stop, for the time being, to all talk of a municipal university. To replace the loss in self-government, however, a "Hochschule" was founded in 1866.

Notwithstanding these reverses, industrial and commercial development in Frankfort, which was favorably situated as a center of transportation, demanded a continuation of professional training in the natural and applied sciences, and, through the generosity of wealthy citizens, the various institutions that had been created earlier in the century were strengthened by gifts and endowments. In 1881 the free German "Hochstift," established in 1859, was reorganized and enlarged. A city hospital and special clinics were erected in 1896, and in 1901 the city council, in cooperation with various associations, authorized yearly contributions to support an academy of social and commercial science. Finally, in 1903, a gift of 2,000,000 marks made possible the foundation of the "Carl Christian Jugel 'ache Stiftung" (Carl Christian Jugel Institute) as a general academic educational institute for instruction in history, philosophy, and the German language and literature. This institute was established in close connection with the Academy of Social and Commercial Sciences, thus combining instruction in the humanities with that in the practical fields.

A few years later the Physical Society and Senckenberg Natural History Society set forth the urgent need for new buildings for these institutions. It was decided to sell the old property and augment the funds thus raised by additional appropriations for the purpose of purchasing a new site and erecting new buildings. Thus began the movement which ultimately broadened to include the desirability of consolidating the various institutions supported by the city and by private gifts into a municipal university. The result was that on March 29, 1912, the city council duly authorized the establishment of the new university, the doors of which opened for instruction in the latter part of 1914. Although many of the German universities and technical schools are located in large cities, their support, as I have said, is derived from the State, and the members of their faculties are all State officials. The procedure in this case is, therefore, entirely without precedent in modern Germany, and Frankfort has the distinction of being the first German city to coordinate its educational institutions into a municipal university.

The municipal university of Frankfort thus established is to be known as the Goetiana-Senckenbergiana, in honor of the two noted citizens who advocated its cause in the early days. It consists of a federation of nine previously existing institutions, viz, the Academy of Social and Commercial Sciences, the Physical Club, Senckenberg Society, Senckenberg Foundation and Library, Rothschild Library, George Speyer Haus (Hospital), City Library, and Medical Institute and Clinics. Under the provisions of the charter, the city obligates itself to erect certain new buildings for the university and to furnish annual funds for its support. It is estimated that, for the operation

of the university, about 1,200,000 marks will be required annually, exclusive of hospital receipts, which amount to about 700,000 marks per year. The larger part of this sum has been obtained by endowments and gifts. Although the financial support of the university thus comes from the city, appointments to the faculty are to be made by the central authorities of Prussia. No provision is made for a theological faculty, in which respect the new institution violates the traditions of the German universities.

On December 20, 1912, the Senate of Hamburg proposed the establishment of a municipal university along the lines of the Frankfort institution. Being the gateway to Germany, Hamburg has for some time realized the intimate connection between her own prosperity and German communication with the outside world, particularly with the German colonies. In 1908 a Colonial Institute was founded to develop technically trained experts in colonial administration. It is now proposed to make the Colonial Institute the nucleus of a municipal university in which there shall be three faculties, philosophical, natural science, and juridical. From the professors of these faculties there is to be formed another faculty of colonial science. Donations, with a total capitalization of 25,000,000 marks have been obtained for the new institution which is to be under the management and control of the municipality. Owing to an adverse note in the "Buergerschaft," the progress of the plan has, for a time, been halted.

Dresden, for a number of years, has had a technical university (Technische Hochschule) as well as a veterinary college. Recently, owing to an urgent need for an extension of the veterinary college, a plan was proposed to remove it to Leipzig, where its students would be able, at the same time, to attend lectures of the medical college faculty. Dresden, however, was reluctant to give up the institution, and to prevent the loss the Dresden News on June 9, 1912, proposed the establishment of a municipal university of which the veterinary school should be made an integral part. According to the plan outlined, seven distinct faculties are to be created, three of which, to be divided into five departments, would comprise the technical university. The remaining four faculties—philosophical, juridical, medical, and veterinary science—will constitute the university proper. Valuable land sites and funds aggregating $4,500,000 have been obtained for the new institution. It has also been proposed that the Academy of Mining of Freiberg and the Academy of Forestry of Tharaudt, which are now under the management and control of the State of Saxony, be later combined with the university.

In the autumn of 1911 Dusseldorf established, in connection with its commercial university, a university for municipal and social administration. For a number of years municipal administration has been recognized in Germany as a distinct branch of modern

political science. The primary function of the new institution at Dusseldorf is to instruct municipal officials in the technique of city administration. The institution was opened on October 30, 1911. Courses of study consist of two semesters of three months' lecture periods each, at the end of which the student undergoes an examination for graduation. The courses cover all phases of municipal law, city organization, charters, and city problems, such as labor questions, poor relief, public sanitation, etc. In some instances lectures are accompanied by actual practice. The lecturers are acknowledged authorities in their fields, many of them being burgermeisters of large cities. Graduates of the "gymnasium" or "realgymnasium" of the first class are admitted. The institution is under the complete control of the city.

Many other cities of Germany have, within the past 15 years, founded educational institutions for the training of students in social, economic, and scientific professions. Cologne has established, in connection with a commercial university, a university for social and municipal administration with functions similar to those of the Dusseldorf institution. The course of study comprises at least one winter and one summer term. For a number of years several cities, including Berlin, have had training schools for employees of certain departments of the city government, such as police and various other departments of lower rank. Berlin has a college for saleswomen in stores; Dusseldorf is contemplating an academy for the hotel sciences; and other cities in Germany are planning municipal schools of journalism.

The municipal university appears thus to be developing in Germany in a perfectly normal way, that is, out of the need of the cities to train higher technical experts for their own service.

PART II. BRIEF DESCRIPTION OF TYPICAL URBAN UNIVERSITIES.

I. MUNICIPAL UNIVERSITY OF AKRON.

By PARKE R. KOLBE, *President.*

The nucleus for the Municipal University of Akron, which began its official existence on January 1, 1914, was Buchtel College, an institution of higher learning founded under the joint auspices of an Akron citizen, John R. Buchtel, and of the Ohio Universalist Convention in the year 1870 (chartered May 31, 1870).

Statistics given in the catalogues of earlier years show that Buchtel at first drew her students largely from denominational sources, but the rapid multiplication of educational institutions in all parts of the

country gradually brought about at Buchtel, as well as elsewhere, a falling off in the number of foreign students and a corresponding increase in local attendance.

While the character of the student body was thus gradually changing from a denominational to a local predominance the financial condition of the institution was far from encouraging. Denominational support had almost entirely ceased during the last decade. At the same time the people of Akron had never come to look upon the college as entirely theirs; hence ample support from local sources was also denied. Meanwhile the constant and steady increase in the number of local students rendered the necessary financing of the college budget a more and more difficult problem for the trustees and the president to solve.

At a meeting of the Buchtel trustees, held on April 14, 1913, a proposition was laid before the board to turn over to the city of Akron the entire plant and endowment of the college, with the proviso that the purposes of all original bequests be carried out and the college be supported and administered by the city in accordance with the provisions of the State code. On August 25, 1913, the council of the city of Akron unanimously accepted by ordinance the offer of the trustees of Buchtel College and established the Municipal University. The final transfer was executed on December 15, 1913.

In organization the University of Akron very frankly copied the methods of the University of Cincinnati and accepted aid from the University of Cincinnati not only in methods but also in securing from it one or two competent men for carrying out certain of the work planned.

When the institution was turned over to the city it consisted simply of a liberal arts college. The liberal arts college has been kept intact and enlarged to a considerable extent. There are two new schools. One is the college of engineering, on the cooperative plan, as introduced by Dean Schneider, of Cincinnati; and Prof. Ayer, who had been at Cincinnati for eight years, became dean of this college.

A school for home economics has been started—the regular four years' course—with the regular 15 units entrance requirement in force. The beginning class contained 20 women.

The students come very largely from the city itself. Out of 100 high-school graduates in the city of Akron who entered college for the first time this fall 75 went to the city university.

The university is also trying to cooperate in various ways with the city departments. The city's chemical and physical testing and also the bacteriological testing for the board of health have been taken over.

The department of political science and sociology is doing some cooperation with the board of health and the charity organization

society. We have our students working under the supervision of these two bodies and with the departments in various activities in the city; for instance, in making housing surveys, etc.

No attempt is made to do graduate work of any kind. One of the fields now in prospect is that of training for public service. The details have not been worked out, but we hope to do it by a cooperative plan. The first three years will be very largely regular college work, followed by a year in cooperation with the departments—possibly half a day in college and half a day in regular work in the city departments. In the fifth year it is proposed to put students into graduate work in the bureau of municipal research, so that men can be turned out who will know something about city government.

It is also hoped to get into closer touch with the public-school system. Under the present laws of the State of Ohio the graduates of any college that does not have a department of education can not receive State teachers' certificates. The plan is to cooperate with the city normal school and establish a closer relation with it, so that the students can go back and forth from one institution to the other and in the prescribed time do the necessary work for the teacher's certificate.

II. NEW YORK UNIVERSITY, NEW YORK, N. Y.

By JEREMIAH W. JENKS.

Many members of the faculty of New York University have made special investigations for the city. The school of pedagogy is now conducting a special course for training teachers to deal with defective children.

Plans for a more systematic cooperation have been worked out between the city government and the university. One plan provides classes for municipal employees along the lines of their special work in the city departments, in order that they may become more efficient and in consequence receive promotion sooner. These courses were started this fall. They are conducted in the municipal building. With one exception they are held from 4 to 6 p. m. The employees' work closes at 5 p. m., so that one hour is on city time and one hour on that of the employees. The university gives for this work its best teachers. For example, there are two courses in accounting. The head of the accounting department conducts these courses, and his most experienced assistant the other. In business English the head of the English department is in charge. A course on the government of the City of New York is given by a city employee, himself a highly-trained man with large experience in the city government.

There are now 246 city employees taking these courses. The registration is 279, because some men have registered for more than one course. No one is permitted to enter these classes without the

approval of the head of his department, and he is in certain cases very properly averse to having men take more than one course. The comptroller objected to having any of the city time taken; a special course was arranged for his employees from 5 to 7 p. m. The class in business English numbers 57; secretarial duties, 58; bookkeeping, 49; of the two accounting classes one has 20 members, the other 18; government of the city of New York, 36; elementary statistics, 18. Men who are equipped for entering the university may get university credit if they pass the examination; those who could not enter are not permitted to get university credit. For example, bookkeeping is understood to be introductory to accounting. Candidates for the course in accounting were given a preliminary examination in bookkeeping. More than half were rejected. They were told that they must take bookkeeping before they would be admitted to the class in accounting. Some took up the course in bookkeeping; others dropped out.

The second line of cooperation consists of special investigations on matters of interest to the city by graduate students. This plan has just been started. The graduate seminary holds its meetings in the municipal building, where one of the best men in the office of the commissioner of accounts, whose work brings him in touch with all the city departments, is able to give the graduate students access to records.

This year some amendments to the charter are needed; therefore, these investigations are practically all studies of suggested charter amendments. One man is making a special study of the work of the chamberlain's office to get facts by which to judge a suggested amendment to the charter. Another has already worked out the question of an employees' conference with representatives of department heads. Special investigation has been made of the plans of private establishments and a suggestion to adopt a similar system in New York City has already met with the approval of some of the members of the city government.

The university also established last year what is called a "Government House." The idea was to provide some way by which graduate students could come into immediate touch with work of a nonpartisan political nature, that should have its direct influence upon the young men of the city. A number of graduate students room and board in the Government House. There is held in that building once a week a class with which the director of the house discusses in a practical way the details of city administration. Each one of the students in this class also holds a club meeting in the city once a week. There are some 25 clubs now organized in different parts of the city. The graduate student, as teacher of a club, instructs the young men. Practically all of these club members are

young voters; some of them are immigrants. There are two clubs made up of young Italians, for example, studying city government, in order that they may get the idea of the actual working of the city government and the way in which it ought to work. One of these clubs is organized in a church for the study of city government among the young people and others who wish to come into the "forum." Several of these clubs are held in the public school buildings that are treated as social centers. The university was invited to take charge of the entire social center work for this year, but not enough men of the right type are available for the work.

Several clubs are held in settlements, and some have been organized outside. One last year was made up largely of young gang leaders who had been devoting a good part of their nights to mischief. Those men were in the first place interested in an athletic club which we put into a gymnasium in a public school. Then it was suggested that they might organize a civic club for the study of city government.

The Government House does much besides conducting these classes. It has a municipal research laboratory and a municipal reference bureau, to which citizens come to make inquiries about their rights and obligations as citizens. The city government has furnished special charts that may be helpful; and city officials give lectures before the classes and give practical suggestions to teachers. The Government House also makes special investigations for people in the city who want to know about matters of public interest. For example, a special survey was made by Government House as to the need for a proposed park and its location. An adverse recommendation was made. Many similar matters are taken up which involve special research work in city problems.

The instruction in the special municipal courses costs the city nothing. The university carries the cost of administration. The classes for city employees are charged a fee, $20 for a two-hour session once a week throughout the university year, that pays the teachers. This fee is somewhat less than is charged in the School of Commerce. Since the city furnishes room, lights, janitor service, and so on, the courses ought to be given somewhat more cheaply. But the teaching is paid for by the students themselves.

III. UNIVERSITY OF PITTSBURGH, PITTSBURGH, PA.

By S. B. Linhart.

The University of Pittsburgh is not a municipal university, although it has received appropriations from the city for the improvement of the university grounds, and both in theory and practice is thoroughly committed to the principle of cooperation.

The student in the school of engineering spends one term of 11 weeks out of each year in practical work in some manufacturing establishment in the Pittsburgh district. Thus by the end of his four years' course he has had one year of practical experience in mills or factories. In the department of sanitary engineering, students work in the department of health of the city. Graduate work is offered in the evening course in the school of engineering to engineers wishing to continue their studies or take up some special problem of their profession.

The school of mines sends an instructor from the university to mining towns in western Pennsylvania to meet evening classes of men engaged in mining, preparing them especially to take the examinations for positions as mine foremen.

The school of economics, through its various departments, keeps in touch with the associated charities and other social and relief organizations in the city. Students are assigned to practical work in connection with a number of settlements and clubs.

The evening school of economics, planned in general on the same basis as the work in New York University and Wharton School of the University of Pennsylvania, brings together large numbers of young men, over 600 this year, for instruction in business law, insurance, real estate, Spanish, accounting, etc. The educational work of the Pittsburgh chapter of the American Institute of Banking has been conducted this year by the faculty of the evening school of economics.

In the school of education students have practice teaching in the schools under the supervision of the faculty of the school of education. Over 500 teachers are enrolled in this school, fitting themselves to meet the requirements of the new Pennsylvania school code.

A very interesting form of cooperation established at the University of Pittsburgh is the work of the Mellon Institute of Industrial Research. Fellowships are established by corporations or firms desiring to have some problem investigated. The research is carried on under the general direction of the director and the holder of the fellowship who has been selected to carry on the investigation of this particular problem. Problems of general industrial welfare and importance are also the subject of research. One of these, which has attracted general interest, was the investigation of the smoke problem. The results have been published and are in constant demand.

The schools of medicine and dentistry are rendering efficient service to the community in assisting to care for the health and general public as well as for other individuals. A part of the bacteriological work for the hospitals of Pittsburgh is done by the school of medi-

cine. The dental clinic renders free service to many thousands each year.

The Allegheny Observatory is also doing very important and helpful kind of cooperative work. By means of a special fund it is possible to keep the observatory open now practically every evening in the week for a large part of the year, and those who visit the observatory are not only permitted to look through the telescope, but they are also given instructive lectures in the auditorium of the new building of the observatory. Many avail themselves of this privilege. This work is one of the most useful and helpful forms of cooperation employed by the university.

IV. BOSTON UNIVERSITY, BOSTON, MASS.

By Everett W. Lord, Dean.

Boston University has no official connection with the city or State. It is a privately supported institution, and only within recent years has it begun to do any work outside of that included in the traditional college courses. But especially with the coming of President Murlin, three or four years ago, there began to be a realization of the special opportunities afforded the university to some extent by the city environment. Before that time a little had been done along the line of extension work, especially for public-school teachers, college courses being given on Saturdays and late afternoons. That work was so successful and was so well supported by the teachers and the city school department that from it was developed the university-extension work which is now carried on in Boston by a commission representing the various educational institutions in the city and its suburbs—Harvard, Tufts, Massachusetts Institute of Technology, Wellesley, Simmons, and Boston University. Nearly all of those university-extension courses are given at Boston University because of its central location.

It was impressed upon some of the trustees not long ago that it was little short of a business crime to allow the valuable buildings of the university to remain unused a large part of the time, and as an outgrowth of that idea more extension work of different kinds was undertaken. Lecture courses were arranged and the various departments attempted to reach their different constituencies. The theological school, for example, began to reach out and take a new interest in the local Sunday schools and churches. The faculty organized courses for training Sunday-school teachers, and that school has now what is thought to be the only department in the United States especially devoted to that work. They have a regular course in the school and have something like two or three hundred

outside students taking special work. The medical school is giving courses of public evening lectures in preventive medicine. These lectures have been very popular and have resulted in great good. The college of liberal arts has continued and extended the teachers' courses.

Largely influenced by the work at New York and Northwestern's experiment in Chicago, a college of business administration was organized in 1913, with evening courses, and it appears to be developing satisfactorily. The number of students has increased this year very largely over last year. Some difficulty was experienced in finding proper teachers for these courses, but there has been developed in this short time a number of men who are good business men and good teachers.

The attitude of the college of liberal arts faculty toward this new department was interesting. At first some of them looked upon the thing as being altogether unacademic, and considered the suggestion that credit for some of the courses be given toward an A. B. as little short of sacrilege. But before the end of the first year, when they saw the serious nature of the work done and the type of students in attendance, they changed their minds and voted to allow academic credit for about half of the evening courses. They allow students in the college of liberal arts to take those subjects as part of their A. B. course, and it looks now as if a scheme of cooperation could be worked out between those two departments by which we shall be able soon to offer nearly all of the regular college courses in the evening as electives for our business-administration students (a large part of their work being required, but some elective), while special students may take these college courses if they wish and get regular college credit for them. There seems to be no reason why any course which is good for day students should not be made available for those who can come only in the evening. As there is in greater Boston a population of a million and a half to serve, there seems to be a sufficient field for this type of extension work.

Little direct work in connection with the city government has been done as yet. Not all city officials look with favor upon the idea of having college professors come in and tell them how to conduct their business. One of the professors in the university has prepared a financial history of Boston, from the earliest date to the present, which will shortly be published, and which will cast some light on matters of general as well as local city administration.

In general the university's work has been that of making available the opportunities offered to day students for those who are unable to attend during the day; and while there will undoubtedly be other developments, this is likely to remain of special concern.

V. UNIVERSITY OF BUFFALO, BUFFALO, N. Y.

By CHARLES P. NORTON, Chancellor.

The University of Buffalo has four schools—medicine, law, dentistry, and pharmacy. They are schools without endowment. They depend upon their teaching fees to pay for a few men to attend to the routine of the school. They came into being through the efforts of these professions to put within the reach of the young men and women of the neighborhood instruction upon the subjects to which they relate.

Buffalo has a special problem. There is in Buffalo a colony of Italians of 50,000; a colony of Polish people of 60,000; and colonies of Germans, Irish, and Hungarians. They have all come to Buffalo since the city became a railroad center 30 years ago; with this huge mass of foreigners, the city has begun its work in the schools. There are 75,000 children in the schools, and 25,000 or 30,000 children in the parochial schools, and about 200,000 people in the neighborhood of Buffalo, the counties and towns and villages of which Buffalo is the metropolitan city.

For 10 years Buffalo has been struggling for a municipal college, a college that shall be of use to the city, to bring together and to teach city life, city government, and above all Americanism to these people whose children have come to our public schools, and whom the university is trying to weld together and mold into American citizens. The University of Buffalo is attempting to provide the benefits of higher education to these people.

VI. JOHN HOPKINS UNIVERSITY, BALTIMORE, MD.

By EDWARD F. BUCHNER.

From its beginning the Johns Hopkins University has had the cooperative spirit; its career has been marked by interest in community problems. The first item on the list of connections with the community is the action of the trustees in placing the plant at the service of public and private organizations as a center for meetings.

More significant is the community service which has been rendered throughout the years by public lectures, singly and in courses. These have been maintained at university expense, and opened freely to the public. It is impossible to indicate the support of this service in terms of university moneys or of special departmental funds which are expended for this purpose.

In 1909 a distinct effort to serve the community by instruction appeared in the organization of the college courses for teachers. In response to the needs of the local situation, the university, in cooperation with Goucher College, provided regular collegiate instruction to nonmatriculated students, who by reason of professional or voca-

tional activity would be unable to attend morning classes. The designation of these courses, which are given in the afternoons from 4 to 6 o'clock and on Saturday forenoons, indicates that the social pressure came primarily from the school systems of the city and State. The academic difficulty of admitting women to candidacy for the degree of bachelor of arts in the university led to the cooperation with Goucher College. The university assumes the entire financial responsibility. These are not "extension" courses, as this term is ordinarily used. They are in most instances a repetition of the regular courses in collegiate subjects given in the morning to matriculated students. Although originally arranged for those engaged in teaching, the registration of nearly 175 persons includes individuals who are engaged in many other occupations.

These courses are also collegiate in that the successful completion of them receives recorded credit toward the degree of bachelor of arts. The equivalent of the first three years of a college course may be accomplished by this means. These credits are accepted in the case of women by Goucher College and in the case of men by the collegiate department of the university when matriculation requirements are satisfied. Another striking feature of these courses is to be found in the number of hours of class attendance. The standard three or four hour course for the undergraduate is organized as a two or three hour course, respectively. It was believed at the beginning, and it has since been found to be true, that those engaged in vocational and professional activites, while having less time at their command for study, would be more mature, methodical, and intensive in the pursuit of the work, and thus the usual requirements of the college courses would by the end of the year be achieved. There was considerable doubt as to the academic practicability of the plan proposed. The five years' experience has removed this doubt entirely. There is now no question as to the academic value of the work that is accomplished.

These courses are this year giving evidence of new possibilities in the extension of instruction to meet the needs of the community in hygiene and economics.

Another form of academic adjustment in order to extend the community values of instruction has been made in connection with the graduate school. When the college courses for teachers were organized, providing opportunities for those who did not possess collegiate training, it was recognized that the university was under equal obligation to provide facilities for those college graduates in the community who were also engaged in teaching. This problem was readily solved through the very simple method of adjusting the schedule of graduate courses. There are now some 17 subjects in which one or more graduate courses are available in the afternoons or on Saturdays. This work is done without a cent of cost to the university, and it is

gratifying to see an increasing number of men and women who are coming as part-time students in advanced work. Some of these are accepted as candidates for advanced degrees.

The last effort the university has made to offer organized instruction to meet some of the varied needs of the community (as well as distant communities) appears in the six weeks' session of the summer courses, which began in 1911. This, too, was undertaken in response to the social pressure from the outside. The city and the State superintendents of schools had been asking for a period of years that the university offer opportunities for summer study. The summer courses cover the usual range of subjects. While the city and State teachers continue to be the majority of the students in the summer, it is noteworthy that an increasing number of representatives from at least a dozen other occupations are in attendance.

As to other forms of social service at the university, it is impossible to describe them at length. The medical school, for example, is doing much in this direction. The Phipps Psychiatric Clinic is cooperating with public schools, as well as with some other forms of social work. The late Dr. Huey was one of our workers in the field of feeble-minded and backward children. In addition to his service in the dispensary of this clinic, he gave a course of public lectures to teachers and others on the problem of feeble-minded and backward children, which attracted large audiences. His death last December necessarily changed the plans for continuing this work which Dr. Meyer, the director, has at heart. The clinic has recently completed an important piece of work in a local social and health survey, and is in cooperation with the open-air classes of a public school in the same district. There is also connection between the clinic and a special class of ungraded children in the public schools.

From the financial point of view, it is rather a serious problem with the university, since it is a private institution, how far it is free to utilize its general funds for anything beyond its definite work of instruction and research. Every deficit which has occurred in the earlier special lecture courses, or occurs now in the college courses for teachers or in the summer courses, has been met by appropriations by the trustees, and to this extent the university's financial resources are available for the extension of its educational activities in discharging its great obligations to the community.

VII. TOLEDO UNIVERSITY.

By A. Monroe Stowe, President.

The first of the lines of work of Toledo University to be mentioned is the public service bureau. This was organized with two objects in view: First, to discover the opportunities which the university may

utilize in rendering most effective service to the city; second, the advantages or opportunities that the city may offer to the university in performing this service most effectively. Through this public service bureau information is secured which will enable the university to utilize funds to the best advantage, for the university can not do everything on the modest income which it now receives.

A second line of work is the organization of a college of arts and sciences. Such a college of a municipal university has a distinct message and mission with respect to the young people of the city. The term of four years is a long stretch for some of the young people of the city to look forward to in the way of pursuing a course of instruction; hence the college is divided into two—a junior and a senior. The junior college work is almost entirely a required course, and the question that each subject has to answer to be placed on the required list is: To what extent will it directly contribute to increasing the social and civic efficiency of the students? The required courses of study which have been agreed upon by the faculty are as follows:

PROGRAM OF REQUIRED COURSES FOR TOLEDO UNIVERSITY JUNIOR COLLEGE STUDENTS.

FRESHMAN YEAR.

Education A. College Students, or the Principles of Human Behavior; credit 3 hours.
Education B. College Life; credit, 2 hours.
English Language A and B. Total credit, 5 hours.
English Literature A and B. Modern American and English Literature; total credit, 5 hours.
Sociology A and B. Problems of Modern Social Life; total credit, 5 hours.
History A and B. Modern History; total credit, 5 hours.
Economics A. Credit, 2 hours.
Political Science B. Modern Problems of State and City Governments; credit, 3 hours.
Physical Training A and B. Total credit, 2 hours.

SOPHOMORE YEAR.

Either—
Physics A. Physics of Every Day Life; credit, 3 hours.
As the name indicates, the aim of this course is to help you discover the laws and principles of physics, a knowledge of which will enable you to understand many important phases of your complex physical environment.
Or—
Chemistry A. Chemistry of Every Day Life; credit, 3 hours.
The aim of this course is similar to that of Physics A, except that in this case it is a vital and practical knowledge of the science of chemistry that the course develops.
Physiology and Hygiene B. Preventive Measures; credit, 3 hours.
We are to-day preventing, rather than curing diseases. We study how the body works, and what we must do to make it work with ease and not dis-ease. Most of our physical troubles can be prevented if we know in time. This course teaches what to do and why we do it.
Foreign Languages A. Foreign Life Studies; credit, 3 hours.

Each foreign-language department offers a course devoted to a study of the most important phases of the life of the people whose language the department teaches. Students will be at liberty to choose which of these courses they desire to take.

The course, however, is not required of students who continue the study of a foreign language.

Philosophy A. Modern Logic; credit, 3 hours.

We all admire the logical thinker, who is in demand in all lines of work. Most of us tend not only to make serious mistakes in our thinking, but also to be misled by fallacies of others who intentionlly and unintentionally mislead us. It is the aim of this course to help you discover and incorporate in your own thinking the principles underlying efficient thinking as well as to acquaint you with the mistakes and errors most commonly made in our thinking.

The course is not required of students who have completed or are completing a year's work in college mathematics.

Physical Training A and B. Course A and B continued. Total credit, 2 hours.

Electives. From 5 to 8 hours each semester.

Electives are chosen from courses offered either in the senior college of arts and sciences or in the college of industrial science. (See catalogue of the university.)

Some of the junior colleges connected with our high schools may find some suggestions from the required course of study just presented which will enable them to give a more vital course than some of them seem to be putting in when they incorporate in their curriculum the first two years of the old-line college.

In the senior college—and this is the third line of work to be mentioned—the requirements are a junior-college arts diploma and a major of 18 hours and two minors of 12 hours. The characteristic of the major is, briefly, this: That the individual, in addition to doing the 18 hours of work, shall perform some task or service for the municipality, so that everyone who secures the bachelor of arts degree from Toledo University will have performed, in the departments in which he majors, some service for the municipality or some task in which he has utilized his knowledge in the service of some section of the city.

VIII. MILLIKEN UNIVERSITY, DECATUR, ILL.

By GEORGE E. FELLOWS, President.

Milliken University is in a city, not a big one, but it has big ways. It has between forty and fifty thousand people, but it has so many railroads and so many large industries, railroad shops, etc., that the opportunities for cooperation with the city institutions are much greater than would appear from the size of the city itself.

The university had, until lately, made no special effort to cooperate with the city in any of its functions or facilities. The idea is a new one, and what is here said about the work of the university is chiefly for the future.

A few things have been done in Decatur, Ill., to show the good will of the university and to get the interest of the community. Coop-

erative engineering work began this year. Freshmen in the engineering department are on the cooperative plan—two weeks in the shops and two weeks in the college classes.

The cooperation between the city public school system and the university's department of education has begun to be well defined, so that students who are candidates for degrees have opportunity for certain practice work in the schools, and the schools avail themselves of advanced students to give some technical instruction.

The university had some night classes. There are Saturday classes, and lines are laid for distinctive cooperation with all of the city departments where it is possible. An attempt is made not to go so far as to antagonize any one, but if possible to show that the university is ready to be useful and expects to be asked for its services.

Even though the institution is not on a tax foundation and is not supported by the city, it was partially founded by the city. The city raised one-third of the original endowment to establish the institution 10 or 12 years ago, and up to the present time it has not taken so much of an interest as it might have been warranted in taking on account of its original subscription. The temper of the citizens is becoming such, however, that they mean hereafter to see that they do take an interest in its affairs.

IX. WASHINGTON UNIVERSITY, ST. LOUIS, MO.

By W. F GEPHART, Professor of Economics.

The work of Washington University of a distinctly public character may be grouped under the following heads:

(*a*) That connected with the medical school. Its extensive hospitals, with their free clinics, render a very wide and high-grade service to the public. Recently a plan of cooperation with the city hospitals has been arranged by which among other things the medical school nominates one-third of the staff for the city hospitals. In many other ways the instructional force of the medical school serve the people of St. Louis.

(*b*) The School of Social Economy. This is a professional school for the training of social workers. Not only are the regular students given training, but the many persons engaged in practical work of philanthropy, social settlements, etc., are aided in many ways. The graduate students of this school investigate social problems of interest to the city which fall within this field.

(*c*) The Henry Shaw School of Botany. This school was by its founder made a place where the people might enjoy the beauties of a botanical garden. While the school is a graduate school in its regular instruction, it gives an indirect and great service to the public,

(*d*) Extension courses. For many years special Saturday courses and a limited number of other courses, given at convenient times, have been offered by the university. These courses are attended by teachers in the public schools and others who either can not attend the regular courses or who desire to become more intelligently informed on certain subjects. This work is being developed as rapidly as conditions seem to warrant.

(*e*) Public lectures. In addition to two regular courses of lectures which are given for the public a great many lectures are given to various organizations by members of the faculty. Probably not a week passes without several members of the faculty giving public lectures.

(*f*) Work of a special investigative character, such, for example, as is conducted by the graduate students in the department of economics or by the school of social economy. Such studies as the following have been made: An investigation of the markets of St. Louis; a study of the finances of St. Louis; a study of the Negro in St. Louis.

(*g*) Services of many members of the faculty on various committees of the many civic organizations. These faculty members usually direct the work of the committee.

X. UNIVERSITY OF CINCINNATI.

By Charles W. Dabney, *President.*

The work of the University of Cincinnati may be divided into teaching and public service. The instructional service of the institution is planned to meet the needs of a special student body and of the teachers in the schools and all persons seeking help in study and investigation. The economic position of the students is significant. A study of the financial condition of their families shows that 61 per cent of the students can not afford to go away to college. The university is thus educating each year at least 1,000 students who could not otherwise get an education. Eighty-five per cent of the men earn a part of their support each year and 30 per cent of the women. One of the excellent results of the cooperative system, in which a student devotes half of his time to actual practice in the shops, is that the wages received pay almost all the student's living expenses. But even the man who works during the day is not thereby debarred from an education, since both the college of liberal arts and the college of commerce offer evening courses leading to regular university degrees, and late afternoon sessions are given for his benefit. Six hundred students are enrolled in these evening and external courses. The total registration in the university to-day is 2,208, an increase of 302 per cent over that of 1904.

UNIVERSITY OF CINCINNATI ORGANIZATION AND STATIONS OF CO-OPERATIVE WORK

A TOTAL OF 95 STATIONS

DEPARTMENTS OF THE UNIVERSITY — Students 1914

	Department	Students
●	THE McMICKEN COLLEGE OF LIBERAL ARTS including Evening and External Classes	1204
	THE GRADUATE SCHOOL	174
★	THE COLLEGE FOR TEACHERS — Elementary and High School Teachers' Courses; Normal Art Teachers' Course; Kindergarten Teachers' Course	289
✚	THE COLLEGE OF MEDICINE — And The Clinical and Pathological School of the City Hospital	61
		40
▲	THE COLLEGE OF ENGINEERING — Co-operative Courses; Regular Courses	409
	THE COLLEGE OF COMMERCE	104
	THE DEPARTMENT OF HOUSEHOLD ECONOMICS	67
	THE ASTRONOMICAL OBSERVATORY	
	THE LIBRARY	
	THE GYMNASIUM	
	Total Number of Students Duplicates Excluded	2072

THE LIBERAL ARTS COLLEGE

DEPARTMENT OF POLITICAL SCIENCE

DEPARTMENT OF SOCIAL SCIENCE

DEPARTMENT OF BIOLOGY

THE COLLEGE OF MEDICINE

THE ENGINEERING COLLEGE

THE OBSERVATORY

THE COLLEGE OF COMMERCE — Co-operates with the Commercial Interests of the City.

THE DEPARTMENT OF HOUSEHOLD ECONOMICS — Co-operates with The Public Schools

THE COLLEGE FOR TEACHERS

CINCINNATI OHIO AND VICINITY

Important as is its educational service, the service of the university in cooperation is even more striking. Each of the eight colleges of the university is engaged in this kind of work to some degree. The college of liberal arts serves the city through several of its departments. The department of biology conducts the bird reserve, has charge of school gardening, and cooperates with the zoological garden. The department of psychology trains school psychologists, prepares teachers for special schools, and does systematic research work. Its practical work is devoted to the diagnosis of the nature of the mental deficiency of backward school children, and it also cooperates with teachers in the special schools for defectives in the arrangement of courses, methods, etc.

The department of social science cooperates in social service with many public and private institutions. It assists the juvenile court in providing volunteer officers; the department of charities and correction, the house of refuge, and the associated charities, in investigations; the antituberculosis league and the juvenile protective association, in surveys; the Union Bethel and the Settlements, in investigations and club work; and the Council of Social Agencies, in surveys and rehabilitation.

One of the most important services rendered the city government is the maintenance, by the political science department, of a municipal reference bureau in the city hall. Every department of the city must know what similar departments are doing in other cities, what policies have been followed successfully elsewhere, and what the results have been. Council needs similar information for its work. The municipal reference bureau collects this information for council and all the departments, and thus what is secured for one is available for all. It focuses light from all possible sources on all possible subjects, and is, in short, a clearing house of municipal information.

The college for teachers uses the public-school system for the training of students, and cooperates with the superintendent of schools in the inspection, appointment, and promotion of teachers, in the arrangement of plans and methods, and in investigations and reports.

Students of household arts, preparing for positions as managers of lunch and tea rooms, find practice work in conducting the university lunch room, and those studying institutional housekeeping and dietetics do cooperative work in the Cincinnati General Hospital.

The engineering college conducts a city testing bureau, which examines, analyzes, tests, and evaluates all materials and supplies for use by the city departments. This college also cooperates in teaching and training students, and in research with 68 institutions and industrial companies, including the city engineering, water works, street, sewer, and bridge departments.

The observatory furnishes accurate time to schools, banks, railroads, the traction company, jewelers, etc. It provides magnetic

declination and geographical coordinates to engineers and surveyors, and also cooperates with the city sewer survey and furnishes the azimuth line.

The college of commerce, during the past year, cooperated with the chamber of commerce in making an industrial survey, and with the banks of Cincinnati in collecting statistics and reports.

The graduate school is not less potent in true work. It promotes scholarly research throughout the city, strengthening the teaching and other professions. It has trained many teachers for the high schools and the private schools of the city and vicinity.

The medical college is connected with the Cincinnati General Hospital and five other hospitals, where the faculty have charge of the surgical and medical work. It conducts a free dispensary, at which 21,000 cases were treated last year. The children's clinic of the college maintains a number of milk-supply stations and sends nurses to the homes to train the mothers in the care of their infants. The orthopedic dispensary treats the crippled and deformed, and assistance is given poor patients in securing braces and other instruments by which they may be returned to activity and thus enabled to earn a living.

A unique feature is the endowment fund association. It is a private corporation, not for profit, made up of 69 of the leading citizens of Cincinnati, and its sole object is to collect funds and property for the university. The method pursued is, through the medium of the press and private agencies, to bring the needs of the university to the attention of persons having surplus wealth. The association has already received a number of bequests.

The association came into being because there was a strong feeling in Cincinnati years ago that the city, which owns the university, was not, perhaps, the best corporation to hold trust funds for it, and this attitude was strongest among the people who had the most to give. So, to meet this feeling, and to interest a larger number of citizens in the university, the alumni and friends of the institution formed the endowment fund association, and we believe it will grow in power and influence and do more and better work as the years go on.

XI. REED COLLEGE, PORTLAND, OREG.

By William T. Foster, President.

Reed College is neither a municipal institution nor a university. It is established on a private endowment with no obligation to State, city, religious denomination, or individuals. The officers of the college believe, however, that the institution should serve the entire city; and the aim has been from the outset to see to it that no indi-

vidual in the city of Portland, Oreg., should fail to gain some benefit from Reed College.

The fact that the city has contributed no money for the support of the college, and has not been asked to contribute any, has not prevented the college from cooperating effectively with the city administration. Members of the faculty have aided in the work of the art museum, the public library, the vice commission, health bureaus, and the home for delinquent girls. One of the faculty is head of the Oregon Civic League, an independent organization of voters for promoting good government. One of the faculty was the first chairman of the committee of 100 which carried on a campaign that resulted in carrying the State of Oregon for prohibition by some 30,00 majority. Another faculty member is president of the Oregon Social Hygiene Society, an organization which has received $20,000 aid from the State. Five members of the faculty, working under this organization, have given lectures on social hygiene to public schools and to the employees of department stores, factories, railroad companies, and lumber camps.

Members of the faculty are on the boards of the Congress of Mothers, the Parent Teachers' Association, the Drama League, the Oregon Peace Society, the Archeological Society, the Academy of Sciences, the College Equal Suffrage League, the Dental Education Society, the Advertising Law and Ethics Committee. The head of the department of biology is an adviser of the Fish and Game Commission, one of their experiment stations having been constructed at the expense of the State on the college campus.

The college has endeavored to aid the city in solving some of its problems through the activities of both the faculty and the students. It is one of the settled principles of the college that faculty and students shall work together for the welfare of the city. In this cooperative work students receive certain kinds of training and practical experience in public service, similar, in the field of social service, to the cooperative plan in engineering at the University of Cincinnati. The young psychologists, for example, are doing field work in psychology. These students are preparing themselves in a measure for work as experimental psychologists in connection with agencies for the care of the feeble-minded and the morally delinquent.

When the city commissioners were faced with the problems of motion-picture and vaudeville shows, the mayor of the city called upon the college to furnish information. A committee of 60 investigators was organized, covered every theater in the city, and made a report to the mayor. The mayor, commissioner, and all the people of the city are led to understand that they are free to call upon the college for aid of any kind at any time, and they are constantly doing so.

Last winter the problems of the unemployed were studied. The member of the faculty in charge of social economics took a group of his major students and an assistant in his department and made a scientific study of the problem. The students and faculty went among the unemployed, slept with them, ate with them, talked with them, lived with them, and got life histories of 431 of these men. They got the kind of accurate information that is necessary as a basis for intelligent action; and the college published the report.

Significant of attitude of the college toward the city is the extension course on "The voter and the city of Portland." This course aims to present to every voter in the city of Portland the kind of information he ought to have in order to exercise intelligently his prerogatives as a citizen, and to present it in a concrete, nonpartisan, accurate, up-to-date, and interesting way. For that purpose the cooperation of every department of the city was secured and the faculty and students—all this work is done by faculty and students together—went into every department of the city and endeavored to learn all they could. They then presented to the voters many timely items of information, never before available to any except a very few on the inside. The work was to bring out the facts, whether they were favorable or unfavorable to any individual, or to any political party, or to any form of government. Word was sent all over the city that anybody who could get together 50 people anywhere could hear this course of six lectures.

The students of the college presented this course in several places. Work in public speaking in this field was continued by having students explain to voters the measures on the initiative ballot. Students of the college have spoken on street corners, in public parks, social halls, public libraries, schoolhouses, churches—wherever the people would listen to them.

The college could not cooperate more effectively with the public libraries of the city if it owned the libraries. Every room in the main library, every room in every branch library, is made available by our progressive library board and staff for extension work.

Another branch of the work has been the annual conference, in which endeavor has been made to get together at Reed College the representatives of every organization in the city of Portland which in any way seeks to promote the welfare of the city. This annual conference has thus been a kind of clearing house for agencies for social, moral, economic, and political progress. Every organization in the city of Portland, private or public, which was working for some definite improvement, took part in the conference held last spring at Reed College. Over 150 organizations were officially represented through exhibits and on the programs of that conference, and some 5,000 persons attended.

The college has been in operation only three years. Much of the work, therefore, is tentative, and most of the plans are as yet visions of things hoped for. Three years is not a long time in which to find and use every opportunity for service to the city; especially since there were in Portland, four years ago, no buildings, no campus, no faculty, no students, no college—only an endowment and an opportunity. Yet, in these few years, the conviction has grown that a college in a city like Portland, Oreg., is limited in the possibilities of service only by the limits of its own intelligence and faith.

XII. UNIVERSITY OF LOUISVILLE, LOUISVILLE, KY.

By JOHN L. PATTERSON,
Dean of College of Liberal Arts.

The University of Louisville, Louisville, Ky., was founded in 1837 by a decree of the city council, and was chartered in 1846 by an act of the legislature. Owing to local conditions, only the schools of medicine and of law were put immediately into operation.

About eight years ago, or about the time when the Carnegie Foundation investigated the status of the medical schools in this country, the trustees realized that for the completeness of the university an "academic department" must be added. And so the original purpose of the founders was at length fulfilled by the establishment of the present college of arts and sciences.

The attempt has been made to develop the college as a modern municipal university, which will cooperate in due time with the various departments and public institutions of Louisville, and offer an equality of educational opportunity to the sons and daughters of its citizens. The university has been influenced in this work by the example of the municipal universities in this country and in England, and especially by the brilliant one of the University of Cincinnati.

The college of arts and sciences cooperates with the Board of Education of Louisville, and offers a B. S. degree in education for a prescribed course of study pursued in the college, together with complementary technical work done in the public normal school. The college further cooperates with the board of education by giving annually a series of free lectures on educational psychology to a large class of public-school teachers.

In the second place, the college cooperates with the Baptist and the Presbyterian Theological Seminaries which are located in Louisville, by offering to their students free tuition in the undergraduate courses. The amount of credit given for the work done in the theological seminaries is adjusted in such a way that a combined aca-

demical and theological degree when granted fulfills the proper and customary conditions of such degrees.

In the third place, the college cooperates with the Louisville chapter of the American Institute of Architects by offering courses in architectural design and the history of architecture to young men who are employed in the offices of the local architects, and so gives them the opportunity of becoming more than draftsmen.

In the fourth place, the college cooperates with the hospitals in Louisville by offering to the nurses from time to time night courses in physiology, hygiene, and bacteriology.

The college cooperates also with the associated charities of Louisville, and offers instruction in theoretical and practical sociology to those engaged in the work of charity and social service in the city.

This year, with the cooperation of a local department store, part-time employment has been secured for a few young men who are also pursuing their regular studies in the university and who could not continue their college course without financial assistance. The hope is that these plans of cooperation will develop successfully in the future.

The institution has grown from a college of about 75 students to a college of 338 students at the present time—an increase of more than 300 per cent in less than 7 years. The trustees, as soon as the accommodations are adequate and the funds sufficient, will offer free tuition to all graduates of the public high schools. The free tuition at present is limited to about 35 scholarships.

XIII. NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

By W. E. Hotchkiss, Dean.

The members of the faculties of Northwestern University have always participated largely, in their individual capacities, in the affairs of the community. This participation has taken the form of committee activity in civic organizations, in services rendered in connection with special investigations and reports, and occasionally in the holding of public office.

There have been a number of ways in which the university as a corporate body has participated in affairs of community interest, but this has been in cooperation with individuals or with private organizations rather than with any arm of the government. As a specific instance of this, six years ago a number of men, including the executive officers of the Chicago Association of Commerce, cooperated with the president and other representatives of Northwestern University in establishing the Northwestern University School of Commerce in Chicago. This was perhaps the first instance of a school of commerce

being founded in any community with the active participation of the business men working through representative business organizations. Their cooperation with the university in working out subject matter of new courses, as well as methods of instruction to meet business needs, has been of even greater significance.

The fact that a large number of men could profit immediately if courses were offered in the evening led to placing the chief emphasis on evening work at the start.

That the Northwestern School has filled a need is evidenced both by the number and the kind of men who have been in attendance. From an initial enrollment of 250 in the first year the registration has increased to 750 for the present year.

Instruction in the evening classes of the school of commerce is addressed to mature men. A surprisingly large number of students are already holding positions of trust and responsibility. These men are attending the school not for some indefinite benefit in the future, but in order to make themselves more efficient in the positions they now occupy.

Instruction is based on three fundamental aims: First, to give students a comprehensive many-sided survey of business facts and experience; second, to develop a power of accurate analysis which will prepare the student to think complicated business problems through to the end; third, to maintain an atmosphere in which large business problems will be regarded instinctively in a large and public-spirited way.

The securing of suitable teachers was the first condition of success. Two sources have been drawn from. On one hand, men who are primarily teachers have been secured to make a study of business through cooperation with business men. On the other hand, successful business men have been prevailed upon to give special courses in subjects with which they are thoroughly familiar. Though both of these types of men are necessary to the development of an efficient instruction staff, experience shows that it is essential above all else to have good teachers.

One of the problems has been the selection of students. We do not intend to do any work below university grade. On the other hand, the public purpose for which the evening classes are offered would scarcely be fulfilled if formal college entrance requirements were imposed. The situation is handled in four different ways:

1. By age requirement. No one under 18 will be admitted, and all under 21 must have completed a full four-year high-school course.

2. By tuition rates. Experience and investigation show that a fairly high tuition rate has a selective influence which roughly tends to eliminate the less mature man.

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3. By appealing to the man who is able to do university work and who is attracted by the prospect of studying fundamental principles rather than of securing quick rule-of-thumb instruction.

4. By a careful interviewing of every applicant for admission. This interviewing by a member of the faculty has resulted in raising the standard of admission every year and in reducing the number who are admitted only to be disappointed later in finding themselves unable to carry the work.

The result is the automatic elimination of those who can not carry the work, for unlike college students whose expenses are paid by parents the man who is working for a living and who comes to school after the day's labors are done will not continue in school unless he feels there is some return.

XIV. COLLEGE OF THE CITY OF NEW YORK, NEW YORK, N. Y.

By Charles Baskerville, Professor of Chemistry.

The College of the City of New York has a charter which limits its activities. The board of trustees, however, with the approval of the mayor and corporation counsel, has prepared an amendment to the charter, which will be presented to the next legislature.

The college, up to about 10 years ago, began its work in the morning at 8 or 9 o'clock, and it was virtually over at 1 p. m. Now some departments—for example, the departments of chemistry and physics—go from 9 o'clock in the morning to 6.45 in the afternoon, and then two nights in the week from 7.30 to 11.30.

Ten years ago the purpose was mainly to train a large number of teachers for the public-school system; later the college began to spread out in the line of extension courses, primarily for teachers. After settling in the new buildings, with improved facilities the college was able to prepare young men to act as summer playground and evening center directors.

As soon as the Great Hall of the college, seating nearly 3,000, was completed and the grand organ installed, the professor of music inaugurated a series of public organ recitals, giving them twice a week. The number of recitals is now approaching 400, and some 500,000 music lovers of the city have attended.

Evening sessions of the college were then inaugurated. The night college, now enrolling over 800 students, was established after careful investigation of the work done in evening institutions in this country, and it was opened on one condition, viz, that the standard of entrance requirements for the evening session should be exactly the same as the standard entrance requirements for the college proper.

Formerly all the students were required to pursue definite courses laid down, with some election leading toward a degree, the bachelor

of arts or bachelor of science. Some little time ago the board of trustees authorized the admission of what are known as *special* students. Some of the departments, especially those of chemistry, physics, economics, and natural history, welcomed those students, because it gave an opportunity to take some of the graduates, or graduates from other places, who had not had opportunity to take special courses, to fit themselves better for municipal or for other work of a practical type.

Last year the board authorized a class of students who are designated as *municipal* students. A municipal student may be admitted to the institution on several conditions: First, he must bring proper papers showing that he is an employee of the city; and, second, he must comply with the requirements of the department in which he desires to work. He need not comply with all of the college entrance requirements, provided he shows maturity and exhibits fitness for the particular line he may wish to pursue.

What has been said in reference to special and municipal students applies to the evening as well as the day sessions. There were 250 municipal students in the evening sessions last year.

Another phase of cooperation with the city is that which may result from the activities of the teaching staff in service for the city or community. Last year one of the professors was assigned to the State factory investigating commission, to direct the study of the minimum-wage problem. He was given a leave of absence, his salary being paid by the State. Previous to this the professor of economics had utilized some of the advanced students in an investigation of pin setters in bowling alleys. A new law restricting the employment of the younger boys in such capacity resulted.

The professor of chemistry undertook an investigation for the State factory investigating commission, and made a very elaborate report on the wood-alcohol situation. He formulated the laws that were subsequently adopted and made a part of the city ordinances by the board of health, and these laws constitute the basis of the laws which are to be urged for uniform adoption throughout this country.

The professors of biology and chemistry carried out for the school inquiry committee of the board of estimate and apportionment an investigation of the ventilation of the schools of the city, with the result that a large expenditure that had been urged was avoided.

The professor of chemistry has served on the mayor's commission on tares and tolerances in working out the new laws in reference to net weight, etc., for different kinds of foods.

Two members of the college staff (the professor of hygiene and an instructor in chemistry) are at present on the advisory council of the board of health.

It must be frankly acknowledged, however, that most of this cooperation has come about primarily through the initiative of the different departments of the college. For example, in the department of chemistry there are three courses given in cooperation with the other departments of the city government. One is designated municipal chemistry, and is given in cooperation with the standard-testing laboratory of the board of estimates and apportionment. The city supplies the college with the samples used in determining the standard and quality of the materials it purchases, and the students do the laboratory work in the city's testing laboratory after they have had instruction in the college.

A similar arrangement exists with the board of health in regard to food investigations and food control. There is a very satisfactory arrangement with the board of health in the matter of food inspection, whereby the laboratory work is all done, or the practice is all obtained, under the direct supervision of an inspector of the board of health.

Senior students in the department of political science give brief courses in the settlements on the economic problems they have covered in college. They are also volunteers in the Big Brother work in the city. Some students also aid in the training work of the city Young Men's Christian Association and Young Men's Hebrew Association.

The employment bureau, maintained by voluntary subscriptions, keeps in touch with business opportunities for needy students at college and after graduation. These are some of the lines of activity that have been developed. An important question is the type of training we should provide for men going primarily into the municipal service. It stands to reason that training for municipal service should be somewhat different from the training given a man who is going into actual commercial manufacturing. It can not be expected that all of the 1,500 students in the regular day college will go into the municipal service. The market would be glutted. Shall the courses be shaped for the few who are preparing for the service of the city, or for the large number who are going to schools of technology or to universities to perfect themselves in certain professional fields?

BULLETIN OF THE BUREAU OF EDUCATION.

[NOTE.—With the exceptions indicated, the documents named below will be sent free of charge upon application to the Commissioner of Education, Washington, D. C. Those marked with an asterisk (*) are no longer available for free distribution, but may be had of the Superintendent of Documents, Government Printing Office, Washington, D. C., upon payment of the price stated. Remittances should be made in coin, currency, or money order. Stamps are not accepted. Numbers omitted are out of print.]

1906.

*No. 3. State school systems: Legislation and judicial decisions relating to public education, Oct. 1, 1904, to Oct. 1, 1906. Edward C. Elliott. 15 cts.

1908.

*No. 5. Education in Formosa. Julean H. Arnold. 10 cts.
*No. 6. The apprenticeship system in its relation to industrial education. Carroll D. Wright. 15 cts.
No. 8. Statistics of State universities and other institutions of higher education partially supported by the State, 1907-8.

1909.

*No. 1. Facilities for study and research in the offices of the United States Government in Washington. Arthur T. Hadley. 10 cts.
No. 2. Admission of Chinese students to American colleges. John Fryer.
*No. 3. Daily meals of school children. Caroline L. Hunt. 10 cts.
No. 5. Statistics of public, society, and school libraries in 1908.
*No. 6. Instruction in the fine and manual arts in the United States. A statistical monograph. Henry T. Bailey. 15 cts.
No. 7. Index to the Reports of the Commissioner of Education, 1867-1907.
*No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
*No. 9. Bibliography of education for 1908-9. 10 cts.
No. 10. Education for efficiency in railroad service. J. Shirley Eaton.
*No. 11. Statistics of State universities and other institutions of higher education partially supported by the State, 1908-9. 5 cts.

1910.

*No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Show. 5 cts.
No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1908, to Oct. 1, 1909. Edward C. Elliott.
*No. 5. American schoolhouses. Fletcher B. Dresslar. 75 cts.

1911.

*No. 1. Bibliography of science teaching. 5 cts.
*No. 2. Opportunities for graduate study in agriculture in the United States. A. C. Monahan. 5 cts.
*No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
*No. 4. Report of the commission appointed to study the system of education in the public schools of Baltimore. 10 cts.
*No. 5. Age and grade census of schools and colleges. George D. Strayer. 10 cts.
*No. 6. Graduate work in mathematics in universities and in other institutions of like grade in the United States. 5 cts.
No. 7. Undergraduate work in mathematics in colleges and universities.
No. 9. Mathematics in the technological schools of collegiate grade in the United States.
*No. 13. Mathematics in the elementary schools of the United States. 15 cts.
*No. 14. Provision for exceptional children in the public schools. J. H. Van Sickle, Lightner Witmer, and Leonard P. Ayres. 10 cts.
*No. 15. Educational system of China as recently reconstructed. Harry E. King. 10 cts.
No. 19. Statistics of State universities and other institutions of higher education partially supported by the State, 1910-11.

1912.

*No. 1. A course of study for the preparation of rural-school teachers. F. Mutchler and W. J. Craig. 5 cts.
*No. 3. Report of committee on uniform records and reports. 5 cts.
*No. 4. Mathematics in technical secondary schools in the United States. 5 cts.
*No. 5. A study of expenses of city school systems. Harlan Updegraff. 10 cts.
*No. 6. Agricultural education in secondary schools. 10 cts.

*No. 7. Educational status of nursing. M. Adelaide Nutting. 10 cts.
*No. 8. Peace day. Fannie Fern Andrews. 5 cts. [Later publication, 1913, No. 12.]
*No. 9. Country schools for city boys. William S. Myers. 10 cts.
No. 11. Current educational topics, No. 1.
*No. 13. Influences tending to improve the work of the teacher of mathematics. 5 cts.
*No. 14. Report of the American commissioners of the international commission on the teaching of mathematics. 10 cts.
*No. 17. The Montessori system of education. Anna T. Smith. 5 cts.
*No. 18. Teaching language through agriculture and domestic science. M. A. Leiper. 5 cts.
*No. 19. Professional distribution of college and university graduates. Bailey B. Burritt. 10 cts.
No. 22. Public and private high schools.
*No. 23. Special collections in libraries in the United States. W. D. Johnston and I. G. Mudge. 10 cts.
No. 26. Bibliography of child study for the years 1910-11.
No. 27. History of public-school education in Arkansas. Stephen B. Weeks.
*No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
No. 29. Bibliography of the teaching of mathematics, 1900-1912. D. E. Smith and Chas. Goldziher.
No. 30. Latin-American universities and special schools. Edgar E. Brandon.

1913.

No. 1. Monthly record of current educational publications, January, 1913.
*No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
*No. 3. The teaching of modern languages in the United States. Charles H. Handschin. 15 cts.
*No. 4. Present standards of higher education in the United States. George E. MacLean. 20 cts.
No. 5. Monthly record of current educational publications, February, 1913.
*No. 6. Agricultural instruction in high schools. C. H. Robison and F. B. Jenks. 10 cts.
*No. 7. College entrance requirements. Clarence D. Kingsley. 15 cts.
*No. 8. The status of rural education in the United States. A. C. Monahan. 15 cts.
No. 11. Monthly record of current educational publications, April, 1913.
*No. 12. The promotion of peace. Fannie Fern Andrews. 10 cts.
*No. 13. Standards and tests for measuring the efficiency of schools or systems of schools. 5 cents.
No. 15. Monthly record of current educational publications, May, 1913.
*No. 16. Bibliography of medical inspection and health supervision. 15 cts.
*No. 18. The fifteenth international congress on hygiene and demography. Fletcher B. Dresslar. 10 cts.
No. 19. German industrial education and its lessons for the United States. Holmes Beckwith.
*No. 20. Illiteracy in the United States. 10 cts.
No. 21. Monthly record of current educational publications, June, 1913.
*No. 22. Bibliography of industrial, vocational, and trade education. 10 cts.
*No. 23. The Georgia club at the State Normal School, Athens, Ga., for the study of rural sociology. E. C. Branson. 10 cts.
*No. 24. A comparison of public education in Germany and in the United States. Georg Kerschensteiner. 5 cts.
*No. 25. Industrial education in Columbus, Ga. Roland B. Daniel. 5 cts.
*No. 26. Good roads arbor day. Susan B. Sipe. 10 cts.
*No. 28. Expressions on education by American statesmen and publicists. 5 cts.
*No. 29. Accredited secondary schools in the United States. Kendric C. Babcock. 10 cts.
*No. 30. Education in the South. 10 cts.
*No. 31. Special features in city school systems. 10 cts.
No. 32. Educational survey of Montgomery County, Md.
*No. 34. Pension systems in Great Britain. Raymond W. Sies. 10 cts.
*No. 35. A list of books suited to a high-school library. 15 cts.
*No. 36. Report on the work of the Bureau of Education for the natives of Alaska, 1911-12. 10 cts.
No. 37. Monthly record of current educational publications, October, 1913.
*No. 38. Economy of time in education. 10 cts.
No. 39. Elementary industrial school of Cleveland, Ohio. W. N. Hailmann.
*No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
*No. 41. The reorganization of secondary education. 10 cts.
No. 42. An experimental rural school at Winthrop College. H. S. Browne.
*No. 43. Agriculture and rural-life day; material for its observance. Eugene C. Brooks. 10 cts.
*No. 44. Organized health work in schools. E. B. Hoag. 10 cts.
No. 45. Monthly record of current educational publications, November, 1913.
*No. 46. Educational directory, 1913. 15 cts.
*No. 47. Teaching material in Government publications. F. K. Noyes. 10 cts.
*No. 48. School hygiene. W. Carson Ryan, jr. 15 cts.
No. 49. The Farragut School, a Tennessee country-life high school. A. C. Monahan and Adams Phillips.
*No. 50. The Fitchburg plan of cooperative industrial education. M. R. McCann. 10 cts.
*No. 51. Education of the immigrant. 10 cts.
*No. 52. Sanitary schoolhouses. Legal requirements in Indiana and Ohio. 5 cts.

No. 53. Monthly record of current educational publications, December, 1913.
No. 54. Consular reports on industrial education in Germany.
No. 55. Legislation and judicial decisions relating to education, Oct. 1, 1909, to Oct. 1, 1912. James C Boykin and William R. Hood.
No. 58. Educational system of rural Denmark. Harold W. Foght.
No. 59. Bibliography of education for 1910-11.
No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912-13.

1914.

*No. 1. Monthly record of current educational publications, January, 1914. 5 cts.
No. 2. Compulsory school attendance.
*No. 3. Monthly record of current educational publications, February, 1914. 5 cts.
No. 4. The school and the start in life. Meyer Bloomfield.
No. 5. The folk high schools of Denmark. L. L. Friend.
No. 6. Kindergartens in the United States.
No. 7. Monthly record of current educational publications, March, 1914.
*No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson. 15 cts.
No. 9. Monthly record of current educational publications, April, 1914.
No. 10. Physical growth and school progress. B. T. Baldwin.
*No. 11. Monthly record of current educational publications, May, 1914. 5 cts.
*No. 12. Rural schoolhouses and grounds. F. B. Dresslar. 50 cts.
No. 13. Present status of drawing and art in the elementary and secondary schools of the United States. Royal B. Farnum.
No. 14. Vocational guidance.
No. 15. Monthly record of current educational publications. Index.
No. 16. The tangible rewards of teaching. James C. Boykin and Roberta King.
No. 17. Sanitary survey of the schools of Orange County, Va. Roy K. Flannagan.
No. 18. The public school system of Gary, Ind. William P. Burris.
No. 19. University extension in the United States. Louis E. Reber.
No. 20. The rural school and hookworm disease. J. A. Ferrell.
No. 21. Monthly record of current educational publications, September, 1914.
No. 22. The Danish folk high schools. H. W. Foght.
No. 23. Some trade schools in Europe. Frank L. Glynn.
No. 24. Danish elementary rural schools. H. W. Foght.
No. 25. Important features in rural school improvement. W. T. Hodges.
No. 26. Monthly report of current educational publications, October, 1914.
*No. 27. Agricultural teaching. 15 cts.
No. 28. The Montessori method and the kindergarten. Elisabeth Harrison.
No. 29. The kindergarten in benevolent institutions.
*No. 30. Consolidation of rural schools and transportation of pupils at public expense. A. C. Monahan. 25 cts.
*No. 31. Report on the work of the Bureau of Education for the natives of Alaska. 25 cts.
No. 32. Bibliography of the relation of secondary schools to higher education. R. L. Walkley.
No. 33. Music in the public schools. Will Earhart.
No. 34. Library instruction in universities, colleges, and normal schools. Henry R. Evans.
No. 35. The training of teachers in England, Scotland, and Germany. Charles H. Judd.
*No. 36. Education for the home—Part I. General statement. B. R. Andrews. 10 cts.
*No. 37. Education for the home—Part II. State legislation, schools, agencies. B. R. Andrews. 30 cts.
No. 38. Education for the home—Part III. Colleges and universities. Benjamin R. Andrews.
No. 39. Education for the home—Part IV. Bibliography, list of schools. Benjamin R. Andrews.
No. 40. Care of the health of boys in Girard College, Philadelphia, Pa.
No. 41. Monthly record of current educational publications, November, 1914.
No. 42. Monthly record of current educational publications, December, 1914.
No. 43. Educational directory, 1914-15.
No. 44. County-unit organization for the administration of rural schools. A. C. Monahan.
No. 45. Curricula in mathematics. J. C. Brown.
No. 46. School savings banks. Mrs. Sara L. Oberholtzer.
No. 47. City training schools for teachers. Frank A. Manny.
No. 48. The educational museum of the St. Louis public schools. C. G. Rathman.
No. 49. Efficiency and preparation of rural-school teachers. H. W. Foght.
No. 50. Statistics of State universities and State colleges.

1915.

No. 1. Cooking in the vocational school. Iris P. O'Leary.
No. 2. Monthly record of current educational publications, January, 1915.
No. 3. Monthly record of current educational publications, February, 1915.
No. 4. The health of school children. W. H. Heck.
No. 5. Organization of State departments of education. A. C. Monahan.

No. 6. A study of colleges and high schools.
No. 7. Accredited secondary schools in the United States. Samuel P. Capen.
No. 8. Present status of the honor system in colleges and universities. Bird T. Baldwin.
No. 9. Monthly record of current educational publications, March, 1915.
No. 10. Monthly record of current educational publications, April, 1915.
No. 11. A statistical study of the public school systems of the southern Appalachian Mountains. [illegible]man Frost.
No. 12. History of public school education in Alabama. Stephen B. Weeks.
No. 13. The schoolhouse as the polling place. E. J. Ward.
No. 14. Monthly record of current educational publications, May, 1915.
No. 15. Monthly record of current educational publications. Index, February, 1914—January, 1915.
No. 16. Monthly record of current educational publications, June, 1915.
No. 17. Civic education in elementary schools, as illustrated in Indianapolis. A. W. Dunn.
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