

**ADVANCE SHEETS.
CHAPTERS XXII-
XXIII, PP. 1051-1080**

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ADVANCE SHEETS.

UNITED STATES BUREAU OF EDUCATION.
CHAPTERS FROM THE REPORT OF THE COMMISSIONER OF EDUCATION
FOR 1900-1901.

CHAPTERS XXII AND XXIII.

Chapter XXII.—RELATIONS OF THE NATIONAL GOVERNMENT
TO HIGHER EDUCATION AND RESEARCH.

Chapter XXIII.—THE CARNEGIE INSTITUTION OF
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CHAPTER XXII.

RELATIONS OF THE NATIONAL GOVERNMENT TO HIGHER EDUCATION AND RESEARCH.¹

By CHARLES D. WALCOTT,

Director of the United States Geological Survey.

When one considers the relations of the General Government to higher education and research, probably the first question to arise is, What, within the limitations imposed by the Constitution, can the Government do? Other pertinent inquiries are: What has been done? What is the present policy of the Government? How are its educational resources being utilized? What can be done that is not already being well done by our universities, colleges, and technical institutions?

Many of our wisest and best statesmen and jurists believe that the General Government has no power, under the Constitution, to appropriate money for educational purposes, that important function having been left to the States. A glance backward over the history of colonial and national discussion and legislation is interesting and instructive.

HISTORY OF COLONIAL AND NATIONAL DISCUSSION.

In colonial times Oxford, Cambridge, and Edinburgh were to American youth the centers of learning and higher education. These famous universities furnished all that was needed by the well-to-do student, and local colleges were given little attention and scant support. The founders of our college system were obliged to meet adverse conditions which developed the same qualities that led their compatriots to the conquest of the continent.

Early in the seventeenth century (1619) the Virginia Company granted 10,000 acres of land "for the foundation of a seminary of learning for the English in Virginia." At the suggestion of the King, the bishops of England, in the same year, raised £1,500 to aid in the education of the Indians in connection with the proposed grant of land for the seminary. A portion of the land was occupied and the seminary was started under the direction of George Thorpe, a man of high standing in England. But the institution was short-lived. It, with its inmates and founder, perished in the Indian massacre of 1622.

In 1634 an island in the Susquehanna River was granted for the founding and maintenance of a university, but the undertaking lapsed with the death of its projector and of James I, and the fall of the Virginia Company.

For a time the movement of higher education was delayed, but in 1636 Harvard was founded; then William and Mary, in 1660; Yale, in 1701; the College of New Jersey, in 1746; the University of Pennsylvania, in 1751; Columbia, in 1754; Brown, in 1764; Dartmouth, in 1769; the University of Maryland, in 1784; the University of North Carolina, in 1789-1795; the University of Vermont, in 1791; and Bowdoin, in 1794.

The university spirit was well developed when the Constitutional Convention

¹ Substance of address before the University of Chicago, delivered June 17, 1901. Reprinted from *Science*, N. S. Vol. XIII, No. 339, pp. 1001-1015, June 28, 1901.

met in 1787. Madison, who was a member of the convention, acting in harmony with the known wishes of Washington, proposed to give the National Legislature power—

To establish a university.

To encourage, by premiums and provisions, the advancement of useful knowledge and the discussion of science.

Charles Pinckney also earnestly advocated a plan for the establishment of a national university, and Mr. Wilson supported the motion; but the matter was dropped, on the ground that Congress already had sufficient power to enact laws for the support of national education.

John Adams, who agreed with Washington in believing that "scientific institutions are the best lasting protection of a popular government," was always a strong advocate of the promotion of intelligence among the people. He secured the insertion in the constitution of Massachusetts of a provision recognizing the obligation of a State to pursue a higher and broader policy than the mere protection of the temporal interests and political rights of the individual. This provision read as follows:

It shall be the duty of legislatures and magistrates in all future periods of this Commonwealth, to cherish the interests of literature and the sciences * * * to encourage private societies and public institutions, rewards and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and the natural history of the country.¹

Washington sought to impress on Congress and the people his earnest conviction that the Government should establish and support a great national university. To this end he made a bequest in his will, and if Congress had treated it as the Legislature of Virginia treated his bequest for the endowment of Washington College, there would be to-day a fund sufficient to give adequate support to a great institution for investigation and original research in the capital city. In his will Washington expressed the fears he entertained as to the effect of foreign education on the youth of America, and the desirability of having an American university. His language was as follows:

That as it has always been a source of serious regret with me to see the youth of these United States sent to foreign countries for the purpose of education, often before their minds are formed, or they have imbibed any adequate ideas of the happiness of their own, contracting too frequently not only habits of dissipation and extravagance, but principles unfriendly to republican government, and to the true and genuine liberties of mankind, which thereafter are rarely overcome. For these reasons it has been my ardent wish to see a plan devised on a liberal scale which would have a tendency to spread systematic ideas through all parts of this rising empire, thereby to do away with local attachments and State prejudices, as far as the nature of things would, or indeed, ought to admit, from our national councils. Looking anxiously forward to the accomplishment of so desirable an object as this is (in my estimation), my mind has not been able to contemplate any plan more likely to effect the measure than the establishment of a university in a central part of the United States, to which the youth of fortune and talents from all parts thereof might be sent for the completion of their education in all the branches of polite literature, in arts, and sciences, in acquiring knowledge in the principles of politics and good government, and (as a matter of infinite importance, in my judgment), by associating with each other, and forming friendships in juvenile years, be enabled to free themselves in a proper degree from those local prejudices and habitual jealousies which have just been mentioned, and which when carried to excess are never-failing sources of disquietude to the public mind, and pregnant of mischievous consequences to this country.

Madison, though defeated in his effort to secure the approval of the Constitutional Convention in respect to the establishment of a national university, did not fail, when President, to call the attention of Congress to the subject. In his second annual message he said:

I can not presume it to be unreasonable to invite your attention to the advan-

¹ Massachusetts Public Statutes, 1882, p. 34.

tages of superadding to the means of education provided by the several States a seminary of learning instituted by the National Legislature, within the limits of their exclusive jurisdiction, the expense of which might be defrayed or reimbursed out of the vacant grounds which have accrued to the Nation within those limits. (*Annals of Congress*, 1810, 1811, 1813.)¹

Various other attempts have been made from time to time to establish a national university. Blackmar says:

In 1796 a proposition was before Congress in the form of a memorial praying for the foundation of a university. (*Ex. Doc.*, Fourth Cong., second sess.)

Again, in 1811, a committee was appointed by Congress to report on the question of the establishment of a seminary of learning by the National Legislature. The committee reported unfavorably, deeming it unconstitutional for the Government to found, endow, and control the proposed seminary. (*Ex. Doc.*, Eleventh Cong., third sess.)

In 1816 another committee was appointed to consider the same subject, and again the scheme failed. (*Ex. Doc.*, Fourteenth Cong., second sess.)²

When the disposition of the Smithsonian fund was under consideration (1838-1846), the subject of founding a national university was fully and freely discussed, and the plan was rejected by Congress.

Again, in 1873, the matter was revived by the Hon. J. W. Hoyt, who from that time onward never ceased to labor diligently for a national university. Largely owing to his zeal and activity, a committee of 100 was formed, various bills were introduced in Congress, and a Senate committee was created to establish a national university. But Congress always looked on the scheme with suspicion, and not one of the various bills offered was ever acted upon by the Senate or House of Representatives.

The trend of opinion has been and is that the Government should not found a national university in the sense suggested by Washington and his followers. The Congress has, however, generously aided technical and higher education by grants of land to States and Territories for educational purposes.

The policy was inaugurated under the general authority of the famous ordinance of July 13, 1787. Conformably thereto a contract was entered into between the Ohio Company and the board of treasury of the United States on the 27th of July, 1787, whereby lot 16 in every township was given for the maintenance of public schools, and not more than two complete townships were given perpetually for the purpose of a university, the land to be applied to the purpose by the legislature of the State.³

The most important act, after that of 1787, was that of 1862, granting land for the endowment of colleges for teaching agriculture and the mechanical arts. It is to be noted that by this act the responsibility was thrown entirely upon the States, and that, so far as the administration of the fund was concerned, it was State, not national, education.

The total grants of lands aggregate about 13,000,000 acres, or 20,000 square miles. Of this 2,500,000 acres, or 4,000 square miles, were for the establishment of higher institutions of learning. This land, divided among 30 States and Territories, gives an average of a little more than 80,000 acres, or about 130 square miles. For technical schools, called "colleges for the benefit of agriculture and the mechanical arts," Congress has granted to 45 States 10,500,000 acres, or about 16,000 square miles. This is an average of 230,000 acres, or about 360 square miles. Congress now grants annually to each of the 45 States \$35,000,⁴ a

¹The History of Federal and State Aid to Higher Education in the United States, by Frank W. Blackmar, Ph. D.; Bureau of Education, Contributions to American Educational History, edited by Herbert B. Adams, No. 9, 1890, p. 32.

²*Op. cit.*, pp. 39, 40.

³Baueroft, *History of the Constitution*, N. Y., 1852, Vol. II, pp. 435, 436. Also George B. Germann, *National Legislation Concerning Education*, New York, 1890, pp. 19, 20.

⁴Act approved August 30, 1890. *Statutes at Large*, vol. 26, p. 417.

total of more than \$1,000,000, all of which is expended under the direction of State boards.

The Government maintains, and has maintained since 1803, an academy for training its army officers; also, since 1845, an academy for training its naval officers. The Government does not maintain, and never has maintained, any institution for training its civil officers.

The policy of the Government, as gathered from its acts, has been to relegate the direct control of education to the States, aiding them in this work by grants of land and, in the case of technical education, by grants of money also.

PRESENT POLICY OF THE GOVERNMENT.

Turning, now, to the question, What is the present policy of the Government? we have just seen that aid is given by grants of land and, in the case of the experiment stations, by grants of money. As to the use of its literary and scientific collections by students, its policy was defined by a public resolution of Congress, approved April 13, 1892, which reads as follows:

Whereas large collections illustrative of the various arts and sciences and facilitating literary and scientific research have been accumulated by the action of Congress through a series of years at the National Capital; and

Whereas it was the original purpose of the Government thereby to promote research and the diffusion of knowledge, and it is now the settled policy and present practice of those charged with the care of these collections specially to encourage students who devote their time to the investigation and study of any branch of knowledge by allowing to them all proper use thereof; and

Whereas it is represented that the enumeration of these facilities and the formal statement of this policy will encourage the establishment and endowment of institutions of learning at the seat of Government, and promote the work of education by attracting students to avail themselves of the advantages aforesaid under the direction of competent instructors: Therefore,

Resolved, by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other Governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or the District of Columbia, to wit:

- One. Of the Library of Congress.
- Two. Of the National Museum.
- Three. Of the Patent Office.
- Four. Of the Bureau of Education.
- Five. Of the Bureau of Ethnology.
- Six. Of the Army Medical Museum.
- Seven. Of the Department of Agriculture.
- Eight. Of the Fish Commission.
- Nine. Of the Botanic Gardens.
- Ten. Of the Coast and Geodetic Survey.
- Eleven. Of the Geological Survey.
- Twelve. Of the Naval Observatory.

The privileges of this act, it will be noted, are limited to scientific investigators and students of institutions incorporated under the laws of Congress or the District of Columbia. This limitation was removed by an act approved March 3, 1901, which reads as follows:

JOINT RESOLUTION to facilitate the utilization of the Government Departments for the purposes of research, in extension of the policy enunciated by Congress in the joint resolution approved April 13, 1892.

WHEREAS * * *

Resolved, That facilities for study and research in the Government Departments, the Library of Congress, the National Museum, the Zoological Park, the Bureau of Ethnology, the Fish Commission, the Botanic Gardens, and similar

institutions hereafter established shall be afforded to scientific investigators and to duly qualified individual students and graduates of institutions of learning in the several States and Territories, as well as in the District of Columbia, under such rules and restrictions as the heads of the Departments and Bureaus mentioned may prescribe.

DISCUSSION AND ACTION IN RECENT YEARS.

Mr. Daniel C. Gilman, in 1897, summarized the situation in relation to the establishment of a national university as follows:¹

First. There is a strong desire, not only among the residents of the Federal city, but among the lovers and promoters of learning throughout the country, that the libraries, collections, instruments, and apparatus belonging to the Government should be opened to students, not as a favor, nor by exception, nor as a passing entertainment, but for study and experiment, according to suitable regulations, and especially under the guidance of such able teachers as may be already engaged in the service of the Government or may be enlisted hereafter for the particular offices of education. So far as this there would be a unanimous, or nearly unanimous, assent.

Second. The universities existing in Washington and near to it, including those of New England, would regard with disfavor, and probably with distrust, an effort to establish, by Congressional action, the University of the United States. In some places there would be positive opposition.

Third. Outside of academic circles, as well as inside, there is a great distrust of the principle that Congress should provide for and direct university education. The fears may be foolish. It is easy to laugh at them. Apprehensions may be pronounced groundless. Nevertheless it will be difficult to get rid of them. There will be an ever-present expectation of political interference, first in the governing body, then in the faculty, and finally in the subjects and methods of instruction. It is true that partisan entanglement may be avoided, but it will be difficult indeed to escape the thralldom.

In the same article it is suggested that the Smithsonian Institution take charge, so that—

The literary and scientific institutions of Washington may be associated and correlated so far, and so far only, as relates to the instruction and assistance, under proper restrictions, of qualified students. * * * Such a learned society may be developed more readily around the Smithsonian Institution, with less friction, less expense, less peril, and with the prospect of more permanent and widespread advantages to the country, than by a dozen denominational seminaries or one colossal University of the United States.

In February, 1899, Dr. William H. Dall, of the Geological Survey, outlined very clearly the conditions and possibilities for post-graduate work in Washington and urged that if any organization was attempted it should be free from Government control.²

Little, if any, advantage was taken of the Congressional resolution of 1892, which restricted opportunities for study and research to the educational organizations of the District of Columbia; but with the recent rapid growth of the Department of Agriculture a considerable number of students have been given opportunity for study and practical training. Secretary Wilson has taken the lead in actually bringing qualified students into the laboratories of a Government department and setting them to work. He has inaugurated a new class, called "student assistants," and has demonstrated its practical value. In his report for 1898 he says:³

George Washington, by his will, left property to be devoted to university education in the District of Columbia. There is no university in the land where the young farmer may pursue post-graduate studies in all the sciences relating to production. The scientific divisions of the Department of Agriculture can to some extent provide post-graduate facilities. Our chiefs of division are very proficient in their lines; our apparatus the best obtainable; our libraries the most complete of any in the nation. We can direct the studies of a few bright young people in

¹ Century Magazine, November, 1897.

² American Naturalist, Vol. 33, pp. 97-107.

³ Yearbook of the Department of Agriculture, 1898, pp. 18, 19.