THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND HARVARD UNIVERSITY1

In this agreement, "the institute" means the Massachusetts Institute of Technology, and "the university" means Harvard University. It is understood that any action of the president and fellows of Harvard College shall require the consent of the board of overseers wherever such consent is necessary under the laws governing the university.

I. The university and the institute shall be unaffected in name, organization, title to and rights over property, or in any other way not specifically mentioned in this agreement.

II. The university and the institute shall cooperate in the conduct of courses leading to degrees in mechanical, electrical, civil and sanitary engineering, mining and metallurgy, and in the promotion of research in those branches of applied science. The courses and research shall be conducted in accordance with the provisions of this agreement and on the site in Cambridge recently acquired by the institute bordering on Massachusetts Avenue and the Charles River Embankment or on any other site that may be agreed upon should future conditions render an extension or change of site desirable.

III. Subject to the reservations hereinafter set forth the university shall devote to the purposes referred to in Section II. the net income of all funds that are credited on its books to the Lawrence Scientific School; also the use of all machinery, instruments, and equipment that are suited to these purposes and that the university does not in its opinion need more urgently for other purposes; also not less than three fifths of the net income of the Gordon McKay Endowment; also the income of all property that it may acquire hereafter for the promotion of education or research in the branches of applied science referred to in Section II.; also such further sums as it may from time to time feel able to contribute.

IV. Subject to the reservations hereinafter ¹ Agreement ratified by the corporations of both institutions on January 6. set forth, the institute shall devote to the purposes referred to in Section II. all funds, or the income of all funds, that it now holds or hereafter acquires for the promotion of education or research in the branches of applied science mentioned in that section, and in addition to this as much of the funds, or income of funds, that it holds for general purposes as is not in its opinion more urgently required for other purposes.

V. Students' fees for courses in the branches of applied science mentioned in Section II., shall be devoted to the purposes referred to in that section. These fees shall for the first ten years be deemed to be contributed by the two institutions in the proportion of the numbers of the students following these courses in the institute and in the university's graduate schools of applied science, respectively, during the year 1913-14. At the end of ten years a different arrangement shall be made, if, in the opinion of the two corporations, it appears to be more equitable. The fees of students pursuing courses in the subjects referred to in Section II. in the university's graduate schools of applied science at the time when this agreement is adopted shall be unaffected by any change brought about by this agreement. For all other students the amount of the fees for complete courses leading to those degrees of the institute and of the university that are granted through the operation of this agreement shall be \$250 per annum until changed by agreement between the two corporations. The amount of fees for partial courses and for research shall be determined as may be agreed upon from time to time.

VI. The funds available for education and research in the branches of applied science referred to in Section II. shall be expended through the bursary of the institute in the payment of salaries, the maintenance of scholarships, the care of grounds, and the erection and maintenance of buildings and equipment or otherwise as may be agreed upon from time to time, it being expressly provided that all proposed appropriations shall be approved by the corporation that supplies the funds, and that buildings shall be erected only from the share of the funds supplied by the institute.

VII. All members of the instructing staff in the departments of mechanical, electrical, civil and sanitary engineering, mining and metallurgy, who give instruction in courses leading to the degrees both of the university and of the institute, shall be appointed and removed by the corporation that pays their salaries after consultation with the other corporation.

VIII. All students registered at the institute in the various numbered professional courses covered by Section II. that lead to degrees of the university shall be deemed to be prospective candidates for such degrees unless they signify a contrary intention, and shall be entitled to the same rights and privileges as students in the professional schools of the university.

IX. The president or acting president of the institute shall be the executive head for all the work carried on under this agreement. As an evidence of his responsibility in directing it he shall make an annual report to both corporations. When any future president or acting president is to be selected, the president or acting president of the university shall be invited to sit with the committee that recommends the appointment of a president or acting president to the corporation of the institute.

X. As soon as this agreement goes into effect, the faculty of the institute shall be enlarged by the addition thereto of the professors, associate professors and assistant professors of mechanical, electrical, civil and sanitary engineering, mining and metallurgy, in the university's schools of applied science. These persons shall acquire the titles and privileges of the same rank in the institute while retaining their titles and privileges in Harvard University, and the terms and conditions of their employment and their salaries shall be unaffected by the change. The professors, associate professors and assistant professors of the institute in the departments of mechanical, electrical, civil and sanitary engineering, mining and metallurgy, shall acquire the titles and privileges of the same rank in Harvard University while retaining their titles and privileges in the institute, and the terms and conditions of their employment and their salaries shall be unaffected by the change. All professors, associate professors and assistant professors appointed under the operation of Section VII. shall have the titles and privileges of professors of the university and of the institute, including the right to benefit from the pension system of both institutions.

Additions to the faculty of the institute shall be made by the appointment of professors, associate professors or assistant professors, under the operation of Section VII., or by the corporation of the institute for other purposes. The faculty constituted as indicated above shall, subject to such directions as may be given by the corporation of the institute, prescribe the courses and conditions of entrance thereto leading to all degrees granted by the institute. The same faculty shall, subject to such directions as may be given by the corporation of the university, prescribe the courses and conditions of entrance thereto leading to all degrees granted by the university under the operation of this agreement.

XI. Degrees shall be conferred by the institute and by the university acting separately on the recommendation of the faculty referred to in Section X.

XII. It is expressly provided that, as regards the funds and property of the university and of the institute respectively referred to in Sections III. and IV., this agreement shall be subject to any special terms and requirements upon which such funds and property may be held; and any property or funds that may be held at any time by either corporation under such terms and restrictions as would prevent their use precisely as is indicated in this agreement, shall, nevertheless, be used by the two corporations respectively for the support. benefit or encouragement of a cooperative effort in the field of education and research in engineering and mining in such manner as may be permissible or in accordance with the trusts upon which they may be held.

XIII. Whereas, doubts might arise as to

the legal effect of an omission from this agreement of any provision for its termination, it is hereby provided that the agreement may be terminated either by the university or by the institute, but that no termination shall be made except upon notice from one party to the other of at least five years unless a shorter time be mutually agreed upon.

XIV. This agreement shall take effect when finally adopted and approved by the corporation and board of overseers of the university and the corporation of the institute; and the cooperation referred to in Section II. shall begin when the institute is ready to open courses in engineering and mining on the site in Cambridge mentioned in that section.

STATEMENT BY PRESIDENT LOWELL

FRIENDS of Harvard University and the Massachusetts Institute of Technology-and they have many friends in common-have long deplored the rivalry of two schools of engineering competing on opposite sides of a river. The disadvantages have been made even more evident by the decision of the institute to cross the Charles; but the difficulty of making an arrangement satisfactory to both parties has hitherto been very great, and in fact the obstacles to a combination between rival institutions supported by and serving the same community have been one of the grave defects of higher education in America. This difficulty seems at last to have been overcome here by a plan for cooperation in the conduct of one school of engineering and mining. The plan is favorable to both institutions. Both gain thereby. Which gains the most can probably not be determined, and certainly has not been computed, for the leading motive with the authors of the agreement has lain in another plane. Both institutions exist for the promotion of instruction and research. Each is a means to an end larger than itself, the welfare of the community as a whole; and that both acting in concert can further this end better than either working alone can not be doubted. By the combination of resources and momentum a school ought to be maintained unequalled on this continent and perhaps in the old world. A. LAWRENCE LOWELL

STATEMENT BY PRESIDENT MACLAURIN

THE advantages of cooperation between the institute and Harvard have long been the subject of discussion. With reference to the present plan of cooperation, I beg to make the following statements:

1. The Honorable Richard Olney, in a carefully considered legal opinion, says "Cooperation between educational institutions for a legitimate purpose common to both is certainly not illegal and in this case wholly desirable. The 'agreement' seems to me to spell cooperation and nothing more, involves no merger of corporations or their property interests, and can be carried into effect without violation of charters or of the trusts upon which funds are held."

2. Its adoption by the corporation is unanimously recommended by the executive committee.

3. It is approved by each of the last five presidents of the Alumni Association, and by the president-elect. The president of the Alumni Association, Mr. Frederic H. Fay, writes: "I heartily commend this effort on your part, and I believe that when it is found that an agreement, such as you have proposed, can be carried out to the satisfaction of the authorities of both institutions, you will find that you have the great body of Tech Alumni behind you, and that you will have added to the prestige, and usefulness and strength of the institute."

4. It is approved by all the heads of the institute's departments that are directly affected and by all the other senior members of the faculty who have been consulted with reference to it.

5. It leaves the institute so entirely independent that it can appoint any officer or instructor that it pleases, it can appropriate its funds as it pleases, and it can make any regulations that it pleases with reference to the courses leading to its degree.

I believe that the adoption of this agreement is a forward step of very great import to the future of education in this country. Incidentally, it would be of great advantage to each of the cooperating institutions, but it would be especially significant in the emphasis that it would give to the fact, so often overlooked, that educational institutions do not exist for themselves and that their sole duty is to make the best provision that can possibly be made for those who are rising to manhood and for their successors. Under the scheme of cooperation here proposed, it would be possible to maintain a much stronger school of applied science than either institution alone could furnish, and it would be possible to keep that school practically unrivalled in Americaand indeed. in the world.

SCIENTIFIC NOTES AND NEWS

DR. BENJAMIN OSGOOD PEIRCE, since 1888 Hollis professor of mathematics and natural philosophy in Harvard University, died from disease of the heart at his home in Cambridge on January 14.

DR. HERMAN M. BIGGS has been appointed by Governor Glynn to be commissioner of health for the state of New York.

DR. ERNEST RUTHERFORD, Langworthy professor of physics in the University of Manchester, has been made a knight.

In the Academy of Sciences of St. Petersburg, Sir William Ramsay has been advanced from a corresponding to an honorary member.

AT the annual meeting of the Federation of American Societies for Experimental Biology, an organization which includes the Physiological Society, the Society of Biological Chemistry and the Society for Pharmacological and Experimental Therapeutics, held in Philadelphia, the following officers were elected: *President*, Dr. Graham Lusk, New York City; *Vicepresident*, Dr. Carl Alsberg, Washington, D. C.; Secretary, Dr. P. A. Shaffer, St. Louis; *Treasurer*, Dr. D. D. Van Slyke, New York City, and councilors, Professor J. J. Abel, Baltimore, and Professor A. B. Macallum, New York, and Dr. T. B. Osborne, New Haven, Conn. PROFESSOR W. B. CANNON, of Harvard University, was elected president of the American Physiological Society at the meeting in Philadelphia.

AT the thirtieth session of the American Association of Anatomists held in Philadelphia at the University of Pennsylvania the following officers were elected: *President*, Professor G. Carl Huber, University of Michigan; *Vice-president*, Professor Frederic T. Lewis, Harvard Medical School; *Secretary-treasurer*, Professor Charles R. Stockard, Cornell Medical College.

AT the meeting of the American Phytopathological Society recently held at Atlanta the following officers were elected: *President*, Dr. Haven Metcalf, Washington, D. C.; *Vicepresident*, Dr. Frank D. Kern, State College, Pa.; *Counsellor*, Professor H. R. Fulton, West Raleigh, N. C.

A DINNER in honor of Dr. Livingston Farrand, professor of anthropology in Columbia University, who has accepted the presidency of the University of Colorado, was held by his colleagues at the Faculty Club, Columbia University, on January 18.

THE following new appointments of members of the gardening staff at Kew are quoted in *Nature* from the *Kew Bulletin*: Mr. G. S. Crouch, to be assistant director of horticulture in the Egyptian department of agriculture; Mr. T. H. Parsons, to be curator of the Royal Botanic Gardens, Peradeniya, Ceylon, in succession to Mr. H. F. Macmillan, who has been appointed superintendent of horticulture in the department of agriculture, Ceylon; Mr. C. E. F. Allen, to be curator of the Botanic Garden, Port Darwin, Northern Territory, South Australia, in succession to Mr. N. Holtze, deceased.

MRS. AGNES CHASE, assistant in systematic agrostology, U. S. Department of Agriculture, has returned from Porto Rico where she has been collecting and studying grasses for about two months. Of the 123 species of grasses known from the island she obtained all but three, and about 40 additional species. Arthrostylidium sarmentosum Pilger, a climbing