

since had no financial interest in the business. The inventor has been quite successful. Many millions of the labels are used by the government. At present he is at the head of a business capitalized at \$500,000. Having elicited these facts, Secretary Wilson was inclined to discontinue the investigation of this case, but at the direction of the President further inquiries are to be made. It appears that Dr. Moore (who recently resigned) could have made himself rich by a commercial use of his discovery of a bacterial culture for the inoculation of soil. He took out patents, but gave the free use of the discovery to the people of the United States. Some say that he could have become a millionaire by the sale of it here and abroad. His resignation was due to public criticism of his conditional negotiations, terminated some time ago, with a company engaged in the manufacture of the bacterial culture which he invented. The Weather Bureau has been attacked by persons who asserted that \$60,000 was spent in erecting in the mountains of Virginia buildings which served as a kind of summer resort for the officers. Investigation, so far as it has proceeded, indicates that there was no just warrant for such a charge. Independent slaughterers and beef packers have complained that they suffered in competition with the trust because they could obtain no government inspection of their products. Dr. Salmon's answer to this is that the export trade, which is controlled by the trust, must be subjected to inspection; that the appropriations are not sufficient to provide for the inspection of meats for domestic consumption, and that the house committee on agriculture has warned the department not to extend its inspection to the concerns engaged exclusively in the domestic trade.—*The Independent*.

THE PROPOSED ALLIANCE BETWEEN THE
MASSACHUSETTS INSTITUTE OF TECH-
NOLOGY AND HARVARD UNIVERSITY.¹

THE corporation naturally reserved to itself the right to pass upon the financial aspects of the proposed arrangement. For giving a de-

cision on this point the members are fitted by training and occupation, as a recital of the positions held by them would show. Since, however, they are almost all unfamiliar with educational problems, and since they regarded the alliance with Harvard as fundamentally an educational measure, as the testimony just quoted plainly shows, they very properly referred this 'proposed agreement' to their own body of educational experts, the faculty, and to those other parties in interest, the alumni, who, while not expert in matters of education, are, nevertheless, familiar with the institute system of education, and by their professional experience have given it the only conclusive test.

Upon receiving this invitation of the corporation, the faculty, who, at the request of the president, had studiously refrained from taking any earlier action upon the question, seriously discussed and considered the problem, upon its educational side, in a protracted series of meetings, and presented their collective opinion (there being but seven dissenting voices, including that of the president, in a membership of sixty-five) in a temperate and reasoned report. The executive committee of the alumni association, also made every exertion to have both sides of the question presented fully and fairly to the alumni, which body deliberately expressed itself as opposed to the proposed agreement. In view of the corporation's subsequent vote and the failure of that body to attempt to conciliate the opposing views by suggesting any modification of the proposed agreement or even by stating its reasons for disagreeing with those views, the alumni may properly inquire why they should have been encouraged to believe their opinion to be really wanted. The faculty may well ask why they should have been put to so much trouble if their judgment, as experienced teachers, upon a question declared to be fundamentally educational, was, after all, to receive so little respect. The faculty had every moral right, they had every right in equity, not only to be heard, but to be heeded. Moreover, if, as the president declares, 'the fame of the institute rests upon the work and reputation of the alumni,' those alumni should cer-

¹ Concluding part of an editorial in *The Technology Review*.

tainly share with the corporation the right of deciding the future of the school. The president, who in words asserted, and the majority of the corporation present at the meeting, who by their votes declared that it was justifiable to disregard the opinion of nine tenths of the faculty and of three fourths of the graduates, could scarcely have realized how extraordinary and grave an exercise of corporate power, far-reaching in its effect upon education, their action involved. In giving no heed to the opinions of the two coordinate bodies who have done most to create the reputation of the institute, the corporation took the stand that its legal authority justified it in regarding its own judgment as superior to that of men more familiar with the conditions of successful technological education. What is of even greater consequence, this action of theirs imperils all higher education; for, by thus ignoring the solicited opinions of their faculty, they reduce that body to the level of mere hirelings, and, by contravening the wishes of the alumni, they affront that graduate loyalty which is the vital principle of every efficient college.

The charter of the institute created a corporation of fifty men, including, *ex officio*, the governor, the chief justice of the supreme court, and the secretary of the board of education. With the exception of these three, the body is self-perpetuating, and is responsible only to the commonwealth. This self-elective body has included many of the most distinguished men of Massachusetts, and of these not a few have given much time and thought to the building up of the institute and to the management of its funds and property. Many of them, too, have contributed liberally to its funds, and have induced gifts and bequests from others. Nevertheless, no one would for a moment assert that the corporation has been the chief factor in making the high reputation or in guiding the successful policy of the institute of technology. That policy has been shaped almost wholly by the faculty, whose educational prerogatives have in the past been cordially supported by the president and corporation of the institute; that reputation has been given by the teaching of the faculty and by the professional and personal achievements of the five

or six thousand past students. In short, the institute, like every other college of English origin, has not been in the main the educational creation, and is not the educational property of its legal trustees. On the contrary, it has been built up by, and should be in the keeping of, three bodies, or 'estates': the corporation, who guard its financial and legal interests; the faculty, who determine its educational policy; and the alumni, who, by the success of their professional careers and by their direct efforts, secure for it the support of the community. What the faculty have done no one familiar with education and applied science needs to be told. What the past students have done professionally is shown by the honorable record in the 'Register of Graduates'; what they are ready to do financially is made evident by the William Barton Rogers Fund, the Walker Memorial Fund, and the Technology Fund.

In any rational system of government there should be the closest and most cordial cooperation between these three bodies—a cooperation that might, perhaps, best be attained through a joint advisory council of the corporation and faculty, with the president as its chairman, and through direct representation of the alumni upon the corporation and its executive committee. In the absence of any provision for such formal cooperation, the legal trustees were under a strong moral obligation to recognize this triple control and responsibility, and to take no final action of importance until a reasonable degree of harmony and agreement as to the step contemplated had been secured. Yet, when there arose the gravest of questions—one affecting the autonomy and possibly the continued life of the institute—they ignored that coordinate responsibility and acted in opposition to the expressed wishes of those most vitally concerned. This is an exercise of legal power, as opposed to moral responsibility, momentous in its consequences.

Attempt has been made to excuse the ignoring of the faculty's opinion, on the ground that that body is too near the problem to judge it without prejudice; but is the corporation itself likely to be thought more free from

bias when it is considered that at least fourteen out of the twenty-three members who voted for the 'proposed agreement' are alumni of, or are otherwise closely affiliated with, Harvard University, and that three out of the four conferees who drew up the agreement are officially connected with that university? Is it maintained that devotion to the institute blinds the faculty (nearly half made up of men who are not technology graduates), while zeal for Harvard does not blind members of the corporation to the true interests of the institute and of education?

The alumni vote was disregarded, it has been stated, because it was not more complete. That it was not larger is due, in great part, to the fact that, pressed on the one hand by the need of waiting for the opinion of the faculty, and, on the other, by the request of the corporation that the vote be in not later than June 1, the executive committee could give the alumni only ten days in which to receive and digest the great mass of argument sent to them, and to get their ballots into the hands of the committee. Most of the members of the corporation, however, have long been associated with many large voting bodies and must be fully aware, not only of the difficulty of securing a full vote from a widely scattered body of three thousand busy men, but also of the general experience that the ratio of voting, after the first few hundred ballots come in, remains almost constant, and that, therefore, had every alumnus registered his opinion, the final proportion (three opposed to one in favor of the plan) would have been almost exactly the same.²

Taking into consideration, therefore, the three coordinate bodies which, in equity if not in law, govern the Institute of Technology, the

² Significant in this connection are the votes of the last two classes, who are most intimate with the institute as it is, and who have been directly under the influence of the alliance discussion. At the time of its graduation, a year ago, the class of 1904 was overwhelmingly in favor of an alliance. Their recent official votes against the 'proposed agreement,' however, was 116 to 22. No vote was requested from the class of 1905, but the poll which they took themselves stands in the ratio of 95 to 5 against the proposed alliance.

registered vote upon the 'proposed agreement' stands, numerically, 1,422 against the plan to 488 in its favor; and the vote by percentages is as follows:

	Against the Agreement.	For the Agreement.
Corporation	40 per cent.	60 per cent.
Faculty	89 per cent.	11 per cent.
Graduates	75 per cent.	25 per cent.

If the plan is presented to Harvard, therefore, it goes with the indorsement of only one fourth of the men in those three bodies which have made the institute what it is and upon which the school must depend for future strength and usefulness. Is it likely, then, that there can be a genuine and hearty 'combination of effort' with Harvard University, especially in view of the well-known opposition to the alliance of practically all the Lawrence Scientific School faculty and alumni, of many, if not most of the academic faculty of Harvard, and of the close friends, including the chairman of the trustees, of Mr. McKay? A partnership between Harvard and the institute to which substantially all the parties in interest consented might be practicable; but one like this, which is repugnant to most of those whose good will and enthusiastic efforts are essential, must inevitably result, if attempt is made to force it through, not only in the wrecking of the institute, but also in the controlling of education by purely business standards. To use the methods of industrial trusts in conducting colleges and universities is to threaten the present efficiency and ultimately the life of all higher education.

MATHEMATICS IN JAPAN.

At the celebration of the last birthday of the emperor of Germany Professor Harzer delivered a long address on the 'Exact Sciences in Old Japan.'¹ Although Professor Harzer is an astronomer, he devoted nearly his entire address to the history of mathematics, saying that 'the little that is known of Japanese astronomy does not awaken any hope of any achievements worth mentioning

¹ *Jahresbericht der Deutschen Mathematiker-Vereinigung*, Vol. 14, 1905, pp. 312-339.