

## SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

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IN A RECENT NUMBER of *Science* we called attention to the danger to which travellers on ocean steamers are subjected when their stateroom companions happen to be consumptives. That this danger is not an imaginary one seems to be demonstrated by an incident which recently occurred in France. A French physician, Dr. Gautier by name, has been investigating the question whether tuberculosis may be communicated by means of its bacilli. That this is possible for lower animals has been thoroughly proved. Dr. Gautier has himself fallen a victim to the disease, having become infected from the pulverized tuberculous sputum with which he was experimenting, thus showing that the disease is equally communicable to man.

WE ARE NOT APT to look to South America for evidence of the greatest progress in science or art, and yet it is said that the sewerage system which is now being constructed in Buenos Ayres is the most perfect in the world. Measures have been taken which will result in putting every house in the city in perfect sanitary condition within three years. Sanitarians will watch the result of this stupendous undertaking with great interest, and will be able to deduce from it many valuable practical lessons.

TO-DAY'S NEED AT JOHNS HOPKINS UNIVERSITY.<sup>1</sup>

YOU have doubtless observed, that though this is our annual celebration, when memory and hope are the keynotes of a festival, yet there is an undertone of anxiety, an unwonted seriousness in our demeanor and in our words. You know as well as I the cause; but you do not know as well as I the resolution which determines us to turn a temporary loss into a permanent gain. The best financiers can do no better. It is true that we have lost for a time our income from the Baltimore and Ohio Railroad, the securities to which the sagacious founder of the university intrusted his endowment, with so much confidence that he recommended his trustees not to dispose of the stock, but to keep it as an investment. He was doubtless influenced by the fact that this security was free from the taxation which would fasten itself upon another investment.

We believe that this suspension of dividends upon the part of the Baltimore and Ohio Railroad is but temporary, and that the stock is now, and always will be, property of great value. But we have possessions of even greater worth. The Johns Hopkins University owns nearly three hundred acres of land within the present limits of the city, which will soon be laid out in streets and avenues. Fifteen or sixteen miles of street frontage can then be sold or rented. "The past at least is secure;" but to this familiar utterance we can safely add, "the future is as secure as the past." Our cause for anxiety is the present. How shall we make the transit between the prosperity of the past ten years and the prosperity that is to follow? How shall we meet the emergency of the next five years?

There are but three ways,—contraction, borrowing, begging. Contraction brings disaster, borrowing brings a day of reckoning, begging is not pleasant.

It is not agreeable to the managers of a great institution to ask the public to come to their support. It is natural that they hesitate before taking any such step. It is particularly difficult for those who have devoted their lives to the advancement of knowledge and the education of youth, who have renounced aspirations for wealth, who seek for no other preferment than the modest distinctions of an academic life, who are willing that their families should grow up without expectations beyond the inheritance of an honorable name, and who only ask, that, with proper books and apparatus, they may be allowed to continue in the service to which they have consecrated their lives—I say it is especially hard for such persons to ask the public to come to their relief. So it seems to fall upon me, who am not a professor on the one hand, nor a trustee on the other, to say the few frank words which others hesitate to utter.

The situation is this. A prudent management of our affairs during the last few years has enabled the trustees to pay all their current expenses, to build three great laboratories, to collect a large library and a great amount of apparatus, and to buy a great deal of real estate for the buildings that are wanted, and at the same time to lay by a considerable amount of accumulated income. This store they are now spending. It is not, like the widow's cruse, inexhaustible; but if the sum of \$100,000 can be added to it, and if our receipts from tuition remain undiminished, the university will go forward during the next three years without contraction, without borrowing, and without begging. I am happy to say, that although the trustees have not felt willing to make an appeal to the public, and although no authorized statements on this subject have been published, a number of the citizens of Baltimore have, of their own accord, expressed the desire to raise this amount, and have pledged themselves for generous sums. It would be difficult for me to express the encouragement I have received, as one and another of these helpful friends have intimated their readiness to contribute liberally toward the desired amount. More than half of the proposed fund has already been definitely pledged. One subscription has come from New York, another from Liverpool; but almost all, as we might expect, have come from those who are most intimately acquainted with the working of the university,—our own neighbors and friends, who know the difficulties under

<sup>1</sup> Remarks of Daniel C. Gilman, president of the Johns Hopkins University, on the thirteenth commemoration day, Feb. 22, 1889.

which we labor, the methods which we follow, and the hopes by which we are inspired.

A most gratifying sign is the eagerness which young men, whose accumulations as yet are but small, have shown in their desire to come to our assistance. Many such persons are among our own former pupils; others are but lookers-on in Baltimore. I am sure that if it were worth while, the amount still lacking could readily be made up by the contributions of those whose love to their young alma mater is as loyal as that of the sons of Harvard, Yale, and Princeton. Here, for example, is the letter of a Baltimore boy, enclosing a modest check for forty dollars, which, although it is marked "private," I venture to read in part:—

"I can never cease to retain the warmest feelings for my alma mater, for I am not only doubly an alumnus of the university, but am also, by birth, a Baltimorean, and of an old Maryland family, and as such am proud that the greatest American university is to be found in my city and State. I beg, therefore, that you will accept the enclosed check. . . . If you think it desirable, I should be happy to have you call on me for a yearly payment of one hundred dollars as long as the university fails to receive an income adequate to meet its expenses. No one is more keenly sensible than I of the extreme paltriness of this sum. I regret that it is all that I can do; but I can say that if others, equally interested, would contribute in proportion to their income, as I have done with mine, the university would never have to fear pecuniary embarrassment."

But it will not be necessary to ask such aid. The mature and prosperous citizens, who know the conditions of municipal advancement, who know the value of a good name, who know that not money alone has lasting value, but that which money brings in education and refinement, the mature and prosperous citizens of Baltimore, who have received two great gifts from men of New England birth, and two great gifts from an Anne Arundel boy, cannot afford to let an institution that has made the fair name of this city familiar to the scholars of every race and every clime, relinquish in a day of temporary embarrassment the prestige which has been acquired by thirteen years of labor.

#### GROWTH OF THE AMERICAN ECONOMIC ASSOCIATION.

THE American Economic Association has issued a report, by E. W. Bemis, Ph.D., of its branch associations. Eighteen months ago, Mr. Bemis, as secretary of the first economic branch of this association, reported its success, and urged the organization of similar associations elsewhere. That suggestion has been adopted, and now there are six branches, with over one hundred and fifty members, in the following places: Springfield, Mass.; Orange, N. J.; Washington, D.C.; Buffalo, N.Y.; Galesburg, Ill.; Canton, O.

In view of the great possibilities of growth and influence of these economic centres throughout the country, it becomes important to decide upon a plan of organization. These branches are of three types,—that of Springfield, of Galesburg, and that of Buffalo as at present organized.

The Connecticut Valley Economic Association, organized at Springfield in January, 1886, and now numbering about fifty members, has prospered from the first. This association, like others, is allowed to retain one-half of the three dollars dues for local expenses; and this small sum, thanks to the generous help of the able speakers who have come to Springfield, has thus far covered all expenses. A good room, lighted and heated, is given without charge in the High School building. Similar cheap but suitable places for meeting have been secured in public buildings and private offices by the other branches. Meetings have been held once a month save in summer, and many original contributions to economic theory and investigation have been given which have since seen the light in our economic quarterlies and monographs. A large proportion of these has been given by professors of New England and New York colleges, and by others not connected with the local branch, though six or eight members have also made valuable addresses.

Successful as this experiment has been in many ways, three weak points have been developed: first, a difficulty in securing able lecturers whose regular work would admit of a visit to Spring-

field,—a difficulty less felt in this branch than would be true almost anywhere else, owing to the peculiarly favorable location of Springfield within thirty miles of Amherst and Smith Colleges, and one hundred and thirty miles of Harvard, Yale, Brown, and Columbia, yet a real source of anxiety often to the officers, and one likely to grow from the exhaustion of the field of economic teachers and writers of note within reasonable distance, for it is too much to ask the same person from outside the branch to give his strength often in this missionary work; the second weakness in the Springfield plan lies in the almost inevitable lack of continuity in economic study as long as a different subject is taken up at each meeting; the third difficulty has been the failure of a monthly address, followed by a general discussion, to draw out the resources and greatly stimulate systematic reading in the science of economics on the part of the main body of the members.

That these are sure to prove serious obstacles to success has been proved in Buffalo, where a branch similarly organized a year ago, but cut off by distance from well-known economists, languished, till restored to vigorous life last month in the manner soon to be described.

The branch at Galesburg, Ill., has avoided the difficulties thus far described, but has fallen into one or two others. There the number in the association is limited to twenty-five, elected by the existing members; and no one is allowed to join who does not assume the responsibility of preparing in turn, about once a year, a paper for one of the fortnightly meetings. Further, in order to secure continuity of study, half a dozen or more meetings in succession take up various phases of a single subject, as money, monopolies, the labor question, taxation, etc. By this form of organization much mental development and great interest have been secured; but the limitation of membership and the conditions of admission have kept away a number who would like to join.

The attempt to combine the Springfield and the Galesburg plans has just been made with prospect of success in Buffalo, N.Y., and Canton, O. At Buffalo a reading-circle within the local branch has been formed of all the local members ready to submit to the conditions of admission, which are, attendance, if possible, at every fortnightly meeting, and assumption of the work involved in preparation for the meetings, at which two lines of study are taken up. The first forty-five minutes of each meeting is to be devoted to systematic study of some portion of the general subject assigned for five to eight successive nights: thus, Professor Ely's "Taxation in American States and Cities" is now being studied. Each of the twenty members of the reading-circle reads in advance as much as possible of the chapters assigned for the meeting, and joins in discussion, after two or more members, appointed for the purpose a month previous, and selected in turn from all the members, have given a digest and criticism of the chapters under consideration. The second forty-five minutes is taken up with a review of recent economic articles in twenty-six different American and European magazines, consular reports, and other official publications. One or two of these magazines are chosen for review throughout the year by each member. No constitution for this inner circle has been adopted, but every one who joins does so with a clear understanding of the obligations thereby assumed. The chair is filled each evening by nomination, and the secretary of the general association is secretary of the inner circle. The selection of topics and speakers is in the hands of a topic committee.

This form of organization is too recent to give much ground for forecast; but if the character, ability, and enthusiasm of the members as witnessed by Mr. Bemis the past month be any criterion, excellent results are probable. The Springfield idea of securing for the general membership addresses from outside is adhered to, but no attempt will be made to secure more than four or five such a year.

At Canton, O., about twenty persons, both men and women, as in all the branches, have just formed a branch similar to that as now re-organized at Buffalo, save that in Canton the inner reading-circle, or the active members so called, elect all the officers of the branch from their own number, and admit the associate members to the meetings and discussions, as is not done in Buffalo save on direct invitation of some active member. In Canton the method of work and the conditions of active membership are like those in