

SCIENCE

FRIDAY, MARCH 29, 1912

THE CARNEGIE FOUNDATION FOR THE
ADVANCEMENT OF TEACHING¹

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IN March, 1911, Mr. Andrew Carnegie transferred to the trustees \$1,000,000 of five per cent. bonds of the United States Steel Corporation, the first instalment of the gift of \$5,000,000 offered in his letter of March 31, 1908.

This amount brings the funds at present in the hands of the trustees to a total of somewhat over twelve millions of dollars, of which eleven millions are invested in five per cent. bonds of the United States Steel Corporation and approximately one million, the result of accumulated surplus, is invested in other securities, purchased upon the approval of the finance committee and listed in the treasurer's report.

The total income at the disposal of the trustees for the fiscal year just ended amounted, as shown in the treasurer's report, to \$590,449.54.

The total expenditures of the trustees were distributed as follows:

Retiring allowances and pensions in accepted institutions—		
Teachers	\$341,899.16	
Widows	46,720.17	\$388,619.33
Retiring allowances and pensions to individuals—		
Teachers	\$122,215.10	
Widows	16,044.57	138,259.67
Salaries, publication, rent, etc.		53,564.21
Total expenditure		\$580,443.21

¹MEAS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

¹Extracts from the sixth annual report of the president, Dr. Henry S. Pritchett.

In the report of last year I sought to call the attention of the trustees and of teachers in colleges and universities to the specific things that a retiring allowance system could do, and also to the limitations of such a system. The experience of the past year prompts me to refer again to these limitations, and to the extreme difficulty of making exceptions to the rules framed for administering the income of the foundation.

The specific things that the system of retiring allowances maintained by the foundation offers to the college teacher are three in number: (1) a fair retiring allowance after sixty-five years of age; (2) a disability allowance after twenty-five years of service as a professor, in case of a failure in health so complete as to unfit him for his work as a teacher; (3) the payment to the widow of a professor who has had twenty-five years of service, of a pension equal to one half of the allowance he would have been entitled to at sixty-five. I am inclined to think that the protection of the wife and family thus provided is the most valuable and, in many cases, the most highly appreciated service that the system of retiring allowances can render. These benefits accrue to the teacher under specific rules, according to which he himself and the officers of his college may know, quite as well as the officers of the foundation, whether he has had a service which makes him or his widow eligible under these rules.

The executive committee of the foundation has spent much time over cases which, falling outside of these specific provisions, are urged upon their attention by college authorities, by friends of those desiring relief and by the applicants themselves.

These requests are justified in part by the action of the trustees in giving to the executive committee permission to extend the benefits of the retiring allowance to certain exceptional cases—notably to men who de-

sire to devote themselves to research, and to college executives who have rendered noteworthy service. As a matter of fact, the executive committee has never made use of this authority granted by the trustees, and I am convinced that the difficulties of making such exceptions are so great that the committee will find it necessary to abide wholly by the fixed rules.

The idea of giving, by the granting of a pension, opportunity to men of proved ability to devote their whole time to research was a very attractive one to the trustees and officers of the foundation at its inception. It was felt that a by-product of the retiring allowance system which would be of great value might here be obtained.

Unfortunately, experience has not justified this hope. This is due to a number of causes: partly to the fact that there are yet few men in the colleges and universities engaged in advanced research; partly to the tendencies of the colleges themselves and to the qualities inherent in human nature. Experience shows that under the encouragement offered by this action of the trustees, a considerable number of teachers who had done nothing in research hitherto suddenly discovered that they had a mission in that direction. Further, the college authorities were ready in many cases to recommend as qualified for research professors whom they had found ineffective as teachers. Finally, in the cases of men genuinely interested in research and prepared to undertake it effectively, there is some question whether such provision by the foundation would not weaken the sense of responsibility among the colleges toward research and those undertaking it.

The experience of the foundation in considering special cases among "those whose twenty-five years of service include noteworthy presidential or other administrative work in a college or university" has

brought out still more strongly the difficulty of making exceptions. Every college president considers his case an exception, and all of his friends consider the record of his services as noteworthy. A board of trustees dismissing a college president to make way for a new man will in most cases certify in the highest terms to the extraordinary character of the departing president. It is very true that most such men have given to their work a high order of devotion and of disinterested service; no college presidents are more deserving than some of those that are forced out by their boards of trustees. On the other hand, it is practically impossible to compare the records of such men and single out a few for recognition without doing great injustice to others. The hardships of college presidents—aside from those that arise from their own failings—come from the defects and the crudeness of our comparatively young educational system. Part of these are due to an over-production of colleges and consequently of college presidents. Compensation for such inequalities can not be brought about by the action of a pension agency. The cure must come from a gradual improvement in our educational organization, and a more enlightened attitude on the part of the public and of college trustees toward those who are responsible for educational administration. It is as difficult to select the especially deserving president or dean as to select the special teacher whose work has been of noteworthy character. The effect of such legislation by the trustees has been to arouse hopes on the part of many presidents that they might in case of such an emergency as dismissal from office be considered in a special class entitled to the receipt of a retiring allowance. The experience of the past five years shows that

the administration of such a rule is impracticable.²

Other requests and recommendations that come to the executive committee cover almost all possible variations from the rules. The most common are those in which the teacher has served for a shorter period than twenty-five years and suddenly breaks down in health or dies leaving a helpless family. These are indeed the most pathetic cases that one can meet. Here again, however, a little reflection will show how impossible it is to go outside of the established rules without embarking upon an entirely new pension system. Again, it is impossible for a pension system to take care of individuals who neglect to use reasonable prudence in the affairs of life. The teacher's salary is often pitifully small. To provide even modest insurance against the death of the breadwinner seems often too great a burden to add to the already heavy load. Oftentimes, too, the men who are thus cut down early are those who have thrown themselves into the service of education with a splendid enthusiasm, and sometimes with a reckless disregard of their own health and of the claims of their families.

² At the meeting of the trustees, November 15, 1911, the action which empowered the executive committee to make exceptions in the cases of "those whose twenty-five years of service include noteworthy presidential or other administrative work in a college or university" was rescinded. No person has ever been retired under this authority. The only exceptions to the rules now recognized by the trustees are in the cases of men of proved ability in research, who would in the judgment of the trustees be able to render unusual service to science if free from teaching duties. Such cases will be extremely rare. Experience shows that research in general flourishes in the contact of investigator and student. No retirement has as yet been made under this provision. Such action would mean in any case the highest recognition the trustees could render of their appreciation of ability already demonstrated and of their expectation of still higher achievement to follow.

ilies. There should be somewhere some provision for such cases. But it is clear that the just remedy for such exceptional misfortune does not lie in a disregard, on the part of those administering the present pension system, of the rules established for the welfare of all. Some, at least, of these cases should be met by the colleges.

The presence of the altruistic spirit among college teachers is strong, but perhaps no stronger than among other classes of educated men. As in every calling, a large number of those in the profession of the teacher are drawn to it by bread and butter reasons. The offering of a pension can not fail in some cases to minister to the selfish side of human nature. There will always be some who, when they find themselves in possession of a given advantage, whether that take the form of a benefit in the hand or one to be acquired in the future, will trade upon the possession or the prospect of that benefit. Under the present rules there will be a certain number of teachers who will count the years and the days until the coming of the minimum age which enables them to resign the duties that they now perform in a perfunctory and machine-like way. There are still other men facing responsibilities and difficulties in administrative places or in teaching who would gladly use the method of the pension to escape from the perplexities and responsibilities of their positions. Presidents are prepared to prove to the foundation, even when they are turned out of office by the trustees for alleged incompetence, that they are entitled to a pension on the ground of extraordinarily meritorious service. Too many teachers, too, think that they are entitled to consideration of a special sort by reason of their particular and unusual service. All this arises out of the qualities of human nature, and out of

the qualities of some of the men who to-day make up the faculties of our colleges. On the whole, the number of those whose selfishness is directly touched by such an opportunity is small, as small perhaps as one ought to expect, and in the long run much of this spirit will disappear as the teachers themselves become accustomed to a system of pensions. In time teachers will realize that it is for their own interest and in the direction of their own happiness to continue to work as long as they are really fit and able to serve. The late William T. Harris always insisted that a college professor was at his best between the ages of sixty-five and seventy, and he strongly urged the trustees of the Carnegie Foundation at the inception of the trust not to make the minimum retiring age lower than seventy. Mr. Harris's argument was a partial one, but it had some truth in it. There are many teachers who are at their ripest and at their best between sixty-five and seventy-five, and such men ought, of course, to remain in their profession. In the long run it will be found that they will do so, although for a few years the idea of the pension will induce some men to surrender work at an earlier age than they ought. It is impossible to offer to men an advantage such as that which flows from a pension system of any sort without arousing in some minds the question, How can I get the most out of it? The number of such individuals among college teachers, however, is small, and will, unquestionably, become smaller as the standards of college life rise.

Nor can one shut one's eyes to the fact that the colleges themselves may, by reason of the pensions of the foundation, neglect their own duty in taking care of their old teachers. This also, in my judgment, is a temporary and passing phase of the situation. The officers of the foundation have

done all in their power to make it clear to the colleges that the funds at their command, and likely in the future to be at their command, could care for only a limited number of colleges. Nevertheless, in spite of this effort, it has been tacitly assumed by many colleges, and generally by those of the lowest standards in scholarship, that any obligation on their part to care for their old teachers vanished with the inauguration of the foundation.

Notwithstanding the disadvantages, however, that must occur in the administration of any such system of these pensions, it seems clear that the advantages that have resulted from the conferring of pensions have greatly outweighed the disadvantages, and that, furthermore, the advantages on the whole seem likely to become stronger with time, while the disadvantages tend to diminish. The value of a pension system depends not only on those who administer it, but no less on the spirit and *morale* of those who are to participate in its benefits. The dangers of a non-contributory system lie mainly in those universal dangers that come from human weakness and human selfishness.

It is, to my thinking, a fair question whether college pensions ought not, like other pensions, to carry a contributory feature. No one can be more sensible than I of the tremendous demands made upon the meager salaries of the American college teachers, and yet notwithstanding this, it is impossible to remove the college teacher from those social and moral influences that affect all men. The experience of the world seems to make clear the fact that on the whole a contributory form of pension is likely to be most just and least harmful.

The sacrifice of the individual to which I have referred is directly connected with the question, "What obligations rest upon a college to care for those who have grown

old or have broken down in its service?" This question is rendered more urgent by the establishment of the Carnegie Foundation. In every report of the foundation attention has been called to the fact that the income that it is likely to have can provide at most for only a small minority of the college teachers of the country. All that the trustees can hope to do is to establish the principle of a generous and fair retiring allowance system as a part of the régime of higher education in the United States. The question, What is the duty of the college in this matter? still remains, even to a considerable extent, in the accepted institutions. In these institutions the main burden of pensions is carried by the foundation, but the obligation of these institutions to care for those who have served them well, and who are not eligible to retirement under the foundation, still remains.

The question as to the duty of the college is, of course, only part of a larger question that all organizations in the social, educational and industrial circles of our country are now facing. The relation of a pension provision to efficiency and the obligation of a corporation to its servants is being discussed to-day from every point of view. The college must face this question just as other corporations are facing it. One does not need to be an extreme individualist to realize that the individual is too often sacrificed to the service of the corporation. Perhaps in no form of organization is this more often true than in the colleges. We need constantly to be reminded that colleges, as other human organizations, were made for men; men were not made for colleges. The obligation rests upon every organization in the social order to deal fairly with the question, how far it is accepting the sacrifice of the individual in order to promote the organization, or the

cause that the organization is supposed to serve.

This question presents itself in a very acute form in our colleges. A large proportion of the colleges overwork their teachers in the effort to take more students or to teach more subjects. College loyalty is constantly invoked to justify the placing of an additional burden on the shoulders of an already overworked teacher, and college loyalty looks less frequently to thoroughness and quality than size. Under these circumstances, is there not a clear duty resting upon the college authorities to use part of the income in their hands in the support of those who grow old or break down under this régime?

There is a widespread tradition that corporations have no souls. But of all soulless corporations, the colleges probably have the smallest compassion so far as the question of dealing with their old servants is concerned. Few business corporations would be as heartless toward an old officer as a very large proportion of American colleges are. In the most of these, a worn-out president, an aged professor or a teacher struck down by illness is simply turned out to shift as best he may. In fact, the college trustee has been surrounded by such influences that he invokes his responsibility as a trustee to justify the plea that under no circumstances can he use any of the income of the college, whether from endowment or tuition, to care for those who break down in the college service. It is exactly here that the question of the duty of the college arises. Has any corporation the right to use the service of individual men of high devotion and intelligence up to the end of their working ability, without assuming some responsibility for their future? Is it to the interest of society, of human progress, of education itself, that any corporation should divest itself of such

responsibility? This is a question that all organizations of society must face, and the college, to say the least, can no more escape it than can the industrial organizations. The colleges have undeniably failed in the ethical leadership that might have been expected in these matters. It is impossible, however, to believe that they will not rise to the moral standard now set by the business world.

The public perhaps scarcely realizes how indifferent the colleges have been in the past to this question. The correspondence of the foundation during the last five years throws an interesting light on this whole matter, and brings out in the sharpest relief the fact that the very idea that the college has a moral obligation to its worn-out professors has not yet presented itself to most college officers and trustees as one of the things with which they are to reckon.

Communications like the following are typical. The president of a board of trustees writes that Professor A., having served the college faithfully for twenty years and having broken down absolutely in health, is compelled to stop work altogether. He is without means and has a family. It is plain that he is not eligible, under the rules, to a pension from the Carnegie Foundation, but, writes the president of the board, will not the foundation waive its rules in this case in view of the high service and pathetic situation of the teacher and care for this excellent man? For, he adds, "Of course the college can do nothing." And yet this college had an income that is generous when compared with those of most colleges. It had spent a large sum on an athletic field the previous year, and it was spending at that time more money on advertising than would be necessary to pay such a pension several times over, and this in spite of the fact that it had more students than it could care for decently. The

college trustee needs to get a clearer perspective as to his obligations and those of his college.

An institution of large income and high standing applied to the Carnegie Foundation for the retirement of a dean, a man seventy years old, who had rendered to his institution a long and distinguished service, and who stood high in the affections of the old students. The retiring allowance was voted, in view of the long service and scholarly character of this man, and it only became known months later that the trustees had arranged, in case the pension were not granted, to dismiss this faithful servant on the ground of advanced age.

The reason for this lack on the part of college trustees of that sense of responsibility for the old servant which is so striking a feature of modern civilization does not lie in any extraordinary callousness on the part of college trustees. It arises simply out of the conditions of our American colleges as related to our educational problems. The college trustee has been so trained that he looks upon any such expenditure as wholly outside of those purposes for which the college can spend its money. Not infrequently a trustee puts his hand into his own pocket to relieve (at least temporarily) the situation of a broken-down teacher, when his conscience would not allow him to spend a cent of the college money for such a purpose. Exactly the same thing happens in churches. An old and worn-out pastor is turned out to spend the remnant of his days in abject poverty—helped out now and then by casual gifts or meagre pensions, while the officers of the congregation would feel hurt at any suggestion that they had acted ungenerously. Yet it seldom occurs to them that the affectionate support of an old and faithful servant through his declining years would probably be the most christian act that the

congregation could perform. This whole matter has not yet been brought within the perspective of college trustees. The time has come when this must be done. It is probably true that only a few colleges are in a position to maintain a satisfactory and generous pension system for all their teachers, but no college that is prepared to educate youth with fair efficiency is exempt from the obligation to make modest provision for those who have served it long and faithfully and who have come to the limit of their working capacity. This is simply one of the ordinary obligations of human society which all corporations in a civilized christian community must acknowledge. It is worth more to the education of young men to provide a decent support for an old teacher than to build athletic fields or even to add a new dormitory. On the other hand, a broken but deserving teacher, turned out to shift for his remaining years as best he may, is a spectacle which does more harm to the cause of education than can be atoned for by large classes of undergraduates, or a graduate school conducted at the expense of the legitimate work of the college. In a word, the obligation to care for the old servant is one of the fundamental obligations of human society, and the college can not evade it without incurring the sort of penalty which follows the evasion of all obligations. According to its ability, every college, however modest, must meet this obligation. The board of trustees that turns out an aged and faithful teacher with the phrase, "Of course the college can do nothing," simply does not appreciate that such an act is a blow at the integrity of the educational cause that they are supposed to serve, and that it is better for the college itself to make its economies elsewhere than in the evasion of the old-fashioned christian obligation to care for those who have borne the burden and heat

of the long day. The appreciation of this fact on the part of the great number of college trustees has hardly begun. It will be a matter of slow education, but it will come, and in just such proportion as standards of honesty, of sincerity and of human brotherhood improve in the colleges themselves.

And it is fairly safe to say, from past experience, that progress in these moral standards will follow close upon progress in scholarly standards. Educational righteousness will not be divorced from other forms of right living. The college which holds up sincere and fair scholarly standards will in the long run be the college that will bring to its service trustees who can face intelligently all their obligations, whether they be to the college as a whole or to the individual student or teacher.

In the present status of higher education in America there are many conditions that make it easy for college trustees to disregard the obligation to the individual in the face of numerous demands in other directions. In almost every state of the union there are more colleges in name than the country needs or can afford. They have been started without much regard to the ultimate educational demands. Many of them have existed by doing the work of high schools, and now that the high school system of most states is being rapidly developed, many of these institutions, founded in an educational enthusiasm and having neither the means nor the facilities for doing college work, have a hard struggle for existence. Denominational, state and local rivalries have done much to swell this list of weak and often superfluous colleges. In many cases their existence makes impossible that of good high schools which would far better serve the educational interests of the community.

For example, in Nebraska, which had a

population in 1910 of 1,192,214, there are thirteen colleges and universities, all in the fertile and populous southeastern quarter. One of these thirteen institutions is the well-supported and accessibly located state university, another is a university conducted by the Jesuit Fathers, and a third is a privately endowed institution. Each of the remaining ten colleges was founded by a protestant denomination, is controlled by it, and appeals to the denominational constituency for support. One of these colleges gives in its catalogue no means of estimating the number of its college students. The other nine have a total college enrollment of 841, or an average of 93 college students each. The total enrollment of all of the departments of these institutions, apart from summer schools, is 3,051, or an average of 340 each. It thus appears that these colleges, founded in days of pioneer enthusiasm or of boom prospects, and maintained by efforts of denominations and the sacrifices of individuals, are chiefly engaged in preparatory, music and business school work, rather than in college education. To reduce these ten struggling colleges to two or three would relieve many conscientious people from severe financial pressure, and would greatly improve the level of higher education in Nebraska.

Similarly, in Pennsylvania, there were, at last reports, fifty-one institutions calling themselves universities or colleges. A baker's dozen of these are wholly secondary schools, in no way entitled to the name of college. Three universities in Pennsylvania can perhaps make that title good. There is one state college. There are also six worthy non-sectarian colleges. The remaining twenty-eight institutions are denominational schools and colleges—six of the Roman Catholic church, five of the Lutheran and five of the Presbyterian denominations. Three other denominations

have two colleges each and six others have one each. At least half of these denominational institutions are small, struggling and of low educational standards. One of the Presbyterian "colleges," for instance, is made up of 164 preparatory and 44 college students. One of the Lutheran "universities" is composed of 35 preparatory, 48 collegiate, 12 professional and 17 *graduate* students, 15 of the latter being non-resident. Assuming that the denominations can make real contributions to higher education, such multiplication as this is surely unjustifiable. Its effect is to reduce all education to a lower level and to depress all betterment of the teacher's place.

When an institution calling itself a college hires its professors by the month, and pays such salaries as only youths just out of college can accept, it is not to be expected that a high sense of obligation will characterize its trustees. In the gradual process of the country's growth such institutions will either disappear or find their true place, many of them as secondary schools. But, meanwhile, it is not in these institutions that one must expect a just sense of appreciation of a professor's service. It is in the stronger colleges, whether small or large, that one must expect the beginning of the movement for a just recognition of the obligation that the college owes to an old and faithful servant.

Quite naturally, the creation of the Carnegie Foundation conveyed to many college boards the impression that the establishment of such an agency lifted at once from the shoulders of college authorities all obligation to care for their worn-out or disabled teachers. The very opposite is the fact. The creation of the Carnegie Foundation makes clear and emphasizes the obligation of educational organizations to deal justly, thoughtfully and generously with those who have given a life's service

to education. The very purpose of the fund is to arouse in college authorities an appreciation of this obligation. The trustees of the foundation can provide retiring allowances for only a small fraction of the college teachers of America. The duty of the individual college in this matter still remains, and is but the greater now that the principle has been made clear.

GENERAL EXAMINATIONS IN A MEDICAL
SCHOOL: PLAN OF EXAMINATION
RECENTLY ADOPTED AT
HARVARD¹

THE curriculum of the medical school has been a frequent topic of discussion in recent years. This association has devoted much attention to it and it continues in one form or another to occupy much of our time. A minimum curriculum requirement for a standard medical school is the basis for admission of a medical college to the Association of American Medical Colleges, and we determine the ability of the school to give efficient instruction within the limitations of this curriculum before we accept them for membership. It is clearly understood that we have fixed a minimal standard, but make no attempt to mould each school after a single fixed model. It is recognized that variations in personnel, in physical equipment and in local conditions make impossible the same type of teaching in every school. Were this possible, it would not be desirable, for no surer means of stopping progress could be conceived. It is the duty of each of us to try new methods and to share with others the experience so gained. From this alone can improvement come.

It has seemed to us at Harvard that medical schools have tended toward too great a rigidity of curriculum with too many separate examinations. This has resulted in leaving too little to the initiative of the student and in producing students too crammed with facts, too little able to think and to apply intelli-

¹ Read at the meeting of the Association of American Medical Colleges held in Chicago, February 28, 1912.