

search in laboratories similar to the one founded by Liebig.

Baeyer discovered a synthesis of indigo about 1880, and a manufacturing company worked for twenty years to convert the discovery to a commercial success. The company could not succeed till two other discoveries were added, one made by a professor in Holland and the other by a professor in Switzerland.

Professor Haber, formerly of Karlsruhe, developed the synthesis of ammonia from hydrogen and the nitrogen of the air. This discovery is destined to add greatly to the food resources of the world. Without it Germany would have been defeated in the great war in six months.

Michael Pupin is a graduate of Columbia, and he studied at the University of Cambridge and with Helmholtz in Berlin. He has done much to make long-distance telephony practically possible.

The first electrical manufacture of aluminum was invented by the Cowles brothers, students at the Case School of Applied Science in Cleveland. A second, more important, method was discovered by Hall as the result of a statement made by Professor Jewett in a lecture at Oberlin College.

Such illustrations could be multiplied by the thousand, and it would be easy to show that the wealth added by the work of professors in colleges and universities very far exceeds the cost of the maintenance of all these institutions.

The illustrations have been taken from chemistry and physics, but it would be a mistake to suppose that only scientific faculties are worthy of support. It is not necessary to argue the importance of training in other subjects than science. My own academic career was begun at Grinnell College, then a small western institution. There, Professor John Avery, who taught me Greek and German, was one of those who inspired me to a life of productive scholarship.

In conclusion, I wish to make the following practical suggestions.

(1) The executives of our colleges and universities should redouble their efforts to secure equitable salaries for their professors. They should see clearly that to secure able and efficient men in charge of the various departments and divisions of their work and so to relieve them from routine work that they may continue to be productive scholars as well as efficient teachers is the most important function of the institution.

(2) Positions as instructors should be given only to those young men, to be found anywhere in the country, who have the best training in the subject to be taught and who give most promise of becoming both efficient teachers and productive scholars. These requirements are more severe, in general, than the requirements for men who might succeed in industry, and the salaries should be rather higher than lower than the salaries paid for industrial work. In other words, executives should seek the best, not the cheapest.

(3) Such men after appointment should be given ample opportunities and time for productive scholarship and should also be encouraged to become efficient teachers.

(4) The number of instructors appointed should bear a close relation to the possibility of a rather rapid promotion for those who show exceptional ability.

(5) Lock-step promotion—a regular increase each year, almost irrespective of accomplishment—an easy device of executives to avoid trouble—should not be tolerated. Men of unusual ability should be promoted rapidly, as they are in the industries.

(6) New lines of work should be undertaken only when there are ample funds to support them. The California Institute of Technology set an admirable example when it refused to establish a department of biology before ample funds for its support were available without depleting the money needed for other departments.

ADEQUATE SALARIES FOR COLLEGE AND UNIVERSITY TEACHERS

By EDWARD A. FILENE

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I HAVE been asked to address this body upon the question of adequate salaries for university and college teachers. I have been asked to speak, however, upon only one phase of the question, that is, the social importance of such salaries. That immediately presents a difficulty, particularly to a business man. I confine my talking, usually, to business groups, and

to tell the average business audience that something is socially important is not to tell it very much.

Every business man in America to-day knows that high wages for everybody are socially desirable. Not many of them know, however, just how they, individually, can make wages higher. They suppose that higher wages must be paid out of profits and, with

competition what it is, they do not feel justified in cutting their profits any thinner. For that reason, although I profoundly believe in raising wages, I never suggest to business groups that they ought to raise them. I tell them, rather, to raise their wages so that their total profits may be greater, and that is more likely to make a business man sit up and listen.

Now this attitude, I am perfectly aware, is likely to be resented by the scholarly mind. It is what is called "commercialism," and commercialism is supposed to be a very ignoble thing. If the attitude is studied, however, it may be discovered that it is not wholly unscientific.

The thing that impresses me most about scientists is that they are not so interested in what should be done as they are in what can be done. They do not care at all how electricity should act; they are simply curious to find out how it does act. They do not care what H_2O ought to be; they are anxious only to know what actually results when such a combination of gases occurs.

You would not permit a chemist to tell you that any formula should be adopted because the formula is socially important; hence, while I shall try my best to point out the social importance of adequate salaries in college and university research, I can not promise to separate the topic from the much more scientific theme of how salaries are raised.

You are doubtless familiar with the way in which educators got their living in the olden days. They attached themselves to lords and rulers and to wealthy patrons in a manner which, if you were to imitate it to-day, would lead to your being called a lot of grafters. They got their living in that way, however, because there was no other. They could not sell their philosophies to the poor, because in the first place the poor were altogether too overworked and tired to develop an appreciation for what the educator had to offer, and in the second place, the poor had no surplus with which to buy anything beyond their immediate physical necessities.

The great masses of people, it must be remembered, were always in poverty, although the masses created all the wealth. The accepted formula for becoming rich, in those days, was to take this wealth from the masses, generally through taxation; and he who was strong enough to wield the taxing power had the best chance of becoming wealthy.

It was a perfectly honorable proceeding. No one, not even the masses, questioned it. That it seems to us at this date to have been a very cruel order of society, and socially undesirable, is rather beside the point. It was the existing social order, and one had to live according to the laws governing that order or quit living. It was impossible, generally speaking,

for people to support themselves and contribute much to the world's culture too. To secure a living through labor, one had to spend his whole time at it, and there was no time left for one to study and become a scholar. It was the mark of the scholar, then, that he was above soiling his hands with utilitarian toil, and the tradition has existed even to our times that the scholar is likely to be somewhat impractical.

But was the scholar ever impractical? Would it have been practical for him to spend his life in useful labor and thus make it impossible for him to attain any scholarship? The professors of old must have pondered that problem many times. They saw the injustices of the social order and many, like Plato, attempted to sketch an ideal human society. Saint Paul and the early apostles of Christianity, it is said, did try to support themselves by tent making and other handicrafts while they were carrying on their teachings, but unfortunately we have no record of how their economic scheme worked out. We know it was abandoned later, and the religious teachers of Christendom were supported by the church which, in turn, was generally supported by taxation.

In China, where the ancient patriarchal order endured right up to the present time, it was everywhere accepted that the scholar should do no work: and usually he grew finger-nails six inches long as a demonstration to whom it might concern that he would not and could not use his hands. Others, of course, had to work all the harder in order to free these scholarly gentlemen to develop their scholarship and their finger-nails. But those who worked did not resent it. The world, they seemed to have perceived, could not get along without education, and many a family whose members for generations were doomed to live out their lives in poverty and toil still imposed a voluntary tax upon themselves in order that some one member of their family every hundred years or so might become a scholar and thus bring honor to the family.

I do not wish to philosophize upon the theory or the traditions of education. I wish simply to point out that there was a good sound scientific reason for the tradition that the educator should be above the ordinary scramble for wealth. Never, however, was he or could he be aloof from the economic system. Unless there were leisure, there could be no education and culture; and those who specialized in education and culture were generally practical enough to abstain from practical affairs. The educators, whether they fully understood what they were doing or not, did adjust themselves to the existing economic order, and only when the economic order changed did the educational order change.

In the purely patriarchal order of society, before

the days of cities and of wide-spread trade, about the only education which a child could get was that which he received within the family. It was about all he needed, for education consists, very largely at least, of an understanding and appreciation of one's relations to the things outside of himself; and in the family order, his family relationships and his relationship to his family's gods constituted about all the relationships which he could comprehend. People got almost their entire living from the land on which they squatted, and they did almost all their living then within that small community of squatters. If a child learned the full meaning, then, of father and mother and brothers and sisters, and if he learned how to do the things which it was necessary to do if the family was to be a going concern, he was properly accounted wise.

When trade began to develop, however, and families, instead of getting their whole living by applying their own labor to their own land, found it more advantageous to exchange a surplus in some line for some other family's surplus in another line, new human relationships were set up and a new education dawned. For, with the development of trade, there had to be trade routes and trade centers, and in these trade centers, people of very different traditions brushed up against each other and learned each other's traditions and each other's languages and each other's arts and handicrafts. They became sophisticated, and out of this sophistication the literature and the arts of the cities were evolved. There was no discernible evolution of the human brain, but there was a perceptible evolution of human understanding, calling for teachers of a decidedly new type. These teachers held aloof from trade, but they adapted themselves admirably to the economic and social structure which trade had built.

It was necessary that these far-flung trade routes have some traffic regulation. It was necessary that they be policed, if there was to be any semblance of order, and so the imperial state came into existence. This state required statesmanship—trained statesmanship—and presented a new field for educators, so education, again, had to follow the economic trend.

It was necessary, even, that the religions be revised. The old family gods, which had been perfectly adequate in a patriarchal society, would hardly do for an empire claiming dominion over the whole known world. Many attribute the rise of Christianity in the Roman empire to this need of the times for a god who wouldn't have to be carted around, but who could be depended upon to rule everywhere and take charge of every last detail of this highly complex world as the old Lares and Penates took charge of the ancient family affairs.

I am not a historian and do not know how far to accept the theory. It is obvious, however, that the rise of Christianity did not mean that all Europe had become suddenly converted to the idea of universal love. It is also obvious that the new religion was a state religion, and it remained everywhere a state religion until new economic forces began to assert themselves. It is worth noticing, moreover, that, wherever the state was the supreme economic power and the church and the state were looked upon as one, the church took charge of education, and out of the monasteries grew the universities.

With the coming of the first Industrial Revolution and the rise of what we know as "capitalism," education took a still different course. This course was made necessary by the new economic set-up, although few, if any, perceived the exact connection. This is not strange, for the capitalists did not think of capitalism as a new social order. They thought of it as a new way for individuals to get rich, providing the state and the nobility and the other traditional institutions would keep out of their way. The right of the individual loomed up as the controlling principle, and it was preposterous, people began to say, that one's status in life should be fixed by his birth or breeding. There was no conscious rebellion against the institution of the family. People expected to go on just as they had always gone on, excepting that one man would have equal rights before the law with any other; and wherever the new factory system became highly developed, there was a tendency toward democracy. The state was given charge of education, with the understanding that the state should be guided at all times by the consensus of the free and independent citizens.

Here was something of a predicament. It was bad enough, in the old days, when kings and ministers and ecclesiastic specialists assumed from time to time to tell the teachers just what they should teach. But now the theory was set up that the ignorant masses should stipulate just what and just how they should be taught. The theory, however, untenable as it may be, has died hard. The late Mr. Bryan gave voice to it when he argued that the taxpayers had a right to decide as to what is or is not correct biology.

Whether the taxpayers should or should not control education is, fortunately, a question which need not be discussed. For the point is, they can't. They may prohibit education. They may take measures to organize the school system so that the truth about things may be kept from the knowledge of the students. But they can not say what shall be taught. Much as they may try to do it, it can't be done, for the moment the schools set out to tell students what

to think they cease to be an educational force in these modern times.

That statement needs examination, for the schools of the past surely did attempt to tell their students what to think—at least, many of them did, and they were still educational institutions. How does it happen that what was true once is no longer true?

You know the answer. What happened was modern science. After modern science got under way in human affairs, telling people what to think ceased to have the educational value which it had had before. For the world, up to this modern scientific era, had been governed by authority, that is, by the opinion of its rulers and its ruling classes. Class rule, in fact, was the only rule possible. If there was to be any culture, if there was to be any expansion of knowledge, if there was to be any human progress from generation to generation, it was necessary that the human mind and the human spirit be relieved, somehow, from the deadening influence of toil. It was necessary that there should be leisure, but it was impossible that there should be leisure for many, and if there were leisure for a few it could be attained only at the expense of putting upon the overburdened masses still heavier burdens yet.

Such an organization of society could not exist along with any theory of equality. There had to be special privileges, and the masses of people had to be taught to believe in the divine right of the privileged classes to exploit them, and only when the process was carried on to a humanly unendurable point was there ever much rebellion.

Capitalism ushered in modern democracy, not because the capitalists were philosophers who had reached the conclusion that special privileges were wrong, but because the special privileges of the landed aristocracy interfered with their individual schemes for getting rich. The capitalists did not consider themselves a class. Each capitalist was likely to look upon every other capitalist as his competitor, whom he would like very much to put out of business entirely. But he wanted to be free to do it, and only through exalting individual rights could he see that any free-for-all fight would be possible. The capitalist did not believe for a minute that his interests were the same as the interests of the masses. He did not believe that the interests of capital and labor were identical; he supposed, in fact, that it was to his interest to buy his labor in the cheapest possible market and that his best chance of success lay in the economic failure of his employees.

Moreover, the capitalists did not know that anything fundamental had happened to alter the age-old system of government by opinion. They did not understand what the dawn of modern science meant,

and that man hereafter must live less and less according to the way in which he was told to live, and more and more according to the facts which it was possible for him to find.

They made no war against tradition, the only traditions to which they objected being those which stood in the way of their getting rich. In fact, those are about the only traditions which the world has ever rejected—those traditions which stand in the way of our economic interests. It is easier, generally, to accept a tradition than to think it through, and if people think that they can afford to accept it they will. Women, for instance, for thousands of years, obediently and complacently married the men whom their parents selected for them, because they couldn't afford to do otherwise; but women are very different creatures, now that they can afford to be.

I am not trying to give you an erudite account of the history of civilization. I am speaking, remember, purely as a business man. As a business man, I discovered that the so-called rules of business would not work. I discovered, to my cost at times, that the traditions of business were all out of plumb with its realities. I discovered particularly, as thousands of other American business men have been compelled to discover, that even my own opinions were not valid. We discovered, in the end, that business can not be run successfully on any one's opinion, but that, if we were to meet and beat competition, we would have to conduct our business upon actual scientific research.

This did not make me a scientist, but it compelled me to look into the matter of what science had been doing to human affairs. I had supposed, in my ignorance, that its main contribution had been the mere increase of knowledge—information which alert business men might make use of now and then. But I discovered that it was changing our whole approach to human life. It was not only breaking down certain traditions, but was arraying itself against all traditional thinking. It was making it increasingly impossible for class rule to go on and for human affairs to be determined by the opinion of some ruling class. Nor could the opinion of the majority be substituted, for when science made a discovery the discovery was not affected in the least by the election returns.

The old authorities, it seemed clear, were gone. The family, which had gained its authority through its economic dominance, was now losing its influence. Ecclesiasticism was also passing along with the whole theory of the divine right of minorities or majorities to tell us what to think. The truth, it was evident, no longer came from authority, but authority came only from the truth.

You are as familiar as I am with the change which has come over all human society since business began

to shed its traditional opinions and adopted the methods of scientific research. No comparable change has ever happened in all human history in so short a time. But how this change affects the status of the teachers in our colleges and universities is the object of our special inquiry here. The traditions of education and the traditions of business may be as far apart as the poles, but the truths of education and the truths of business can not be contradictory. In the age of authority, of necessity I believe, educators had to effect some working alliance with the authorities. Doubtless they believed what they taught, and doubtless, also, the things that they taught were for the ultimate human good, however hard they might bear upon the masses in their generation. Educators in the ancient days could not proclaim liberty and equality and fraternity, for there was nothing in the economic set-up which made liberty and equality and fraternity possible. About the most they could do, then, in the way of alleviating the anguish of human life, was to teach the privileged classes to be just and merciful, and to give of their bounty to the poor. They may have felt themselves above economic considerations, but when education was necessarily confined to a small leisure class they could not be.

To be educated in the old days meant to be "well read," for the knowledge of the world was pretty well outlined in a number of books which it was possible for an exceptional mind to read and digest in a lifetime, if he had sufficient leisure to devote himself to the task. Hence it was quite natural, with the rise of democracy, that there be an attempt to make education universal so that everybody in the end might become well read. But those who were hoping along these lines failed to take note of what science had been doing. Science had been digging up new knowledge, and it had been digging up so much new knowledge that it had become impossible for any individual brain to absorb even the gist of it.

Little by little, then, the educators had to abandon the theory of a general education. Grudgingly, and with an agonizing tug at their traditions, they accepted specialization. One reason why they accepted it was that a knowledge of the ancient classics had struck a bear market, while there was an ever-growing demand for a knowledge of the new chemistry.

Weak opportunists in the educational field surrendered at once, and were quite willing, in return for fat endowments, to reorganize their colleges according to the new bourgeois demand. They admitted wealthy business men of no academic standing whatever to their directorates. These business men were supposed to be practical, but their course was such as to dismay the faithful old guard of college professors who were

trying to live up to the best academic traditions and believed that education should be superior to money-making.

I hold no brief for either side. I am simply trying to state the situation. Unless the situation is understood, unless we can trace the forces which are reshaping human society and all its institutions, there is little likelihood of our solving the problem of college and university salaries. Those salaries are going up. I can say that confidently, and I can tell you why; but they will not go up rapidly enough, or in an orderly and systematic and satisfactory manner, unless the teachers themselves fully grasp the situation and deal constructively with it.

When business men began to control our institutions of higher education it might be supposed that they would alter them in accordance with the business needs of the day. But that is only a supposition based possibly on the supposition that, because a man had succeeded in business, he must know a great deal about business needs. There is little ground for this assumption, for until very recently, business was not governed by scientific fact-finding but by the opinion of the chief executive, and while this opinion was always affected by his business experience, it was almost uniformly grounded in tradition. If a man succeeded in business, then, it was not because he knew scientifically what he was doing, but because his opinion happened to be a little nearer the mark than the opinions of his competitors. But even if his opinions were good in the particular field to which his life had been devoted, this did not insure his having good opinions in other fields. If he had customarily asserted his good opinions strongly in his business, however, it was almost a foregone conclusion that he would assert his opinions quite as strongly elsewhere, whether he had any grounds for his opinions or not. This is a mere habit of human nature. It is part of the pompousness that comes from success.

But that type of business leader is going. He is going because business has discovered a safer and more efficient leadership—the leadership of scientific research. The great executive of to-day, when confronted with a business problem, does not give the answer to it. He *finds* the answer instead. He knows, of course, that he is unequipped personally to find these answers. They must be found by research specialists in scores of special lines; and every year, therefore, the demand is increasing for men and women trained in scientific thinking.

The great system of mass production which now dominates the market was developed by such thinking, and depends upon scientific research for its daily pro-

grams. And because it is dominating the market, all business must adopt its methods. In the very near future, then, there will be such a demand for fact-finders that our colleges and universities will be hard put to it to furnish an adequate supply, and those who are most capable of teaching and training our youth to become fact-finders will be tempted by large salaries away from the colleges and universities into business and industrial life.

I hope, when that time comes, that our teachers will prove to be sufficiently selfish. If they are unselfish, if they are willing to sacrifice themselves and their families to the traditions of education and go on teaching in college while their wives do the family washing, we may be in for considerable trouble; but if they are sufficiently selfish, as I have reason to believe they will be, it will be up to the colleges to find a way to keep them from accepting the offers which they get. And the only way that they can find will be through raising their salaries—not to a mere living wage but to several times beyond their present level.

And how will the colleges be able to do this? The answer is that they will do it by continuing the seemingly deplorable course upon which they started some time ago, making closer and closer connections with the business world.

But this time they will not be trading their academic ideals for fat endowments and elevating ignorant and opinionated business leaders to their directorates because they are rich. For the leaders of the new industrial order, while they may be ignorant, can not be opinionated. They must be men who are willing and eager to learn, who hold the positions they hold because they are eager and willing to learn, and who have at least learned one fundamental truth—that the best way to decide whether any course is right or wrong is to find out.

Schooled or unschooled, then, they will not wish to shape the colleges to their preconceived opinions. They will put them, if they can, upon a fact-finding basis; and when it is discovered that the colleges are losing their best men because they are not being adequately paid, the answer to that will be adequate salaries.

It may seem to some that I am suggesting an unconditional surrender of educational ideals to the economic necessities of the moment. I am not. But the problem, I wish to emphasize, is not one of whether education shall remain aloof from economic change or be guided by it, for education can not remain aloof from economic change: it is impossible that education shall develop in one direction while human relations are developing in another. The

problem for the teachers, as I see it, is whether they shall accept the facts of economic change, in the same way that they accept the facts of chemistry and physics, and organize their understanding and their activities in accordance with those facts, or whether they shall be driven blindly into positions which seem to be at variance with their academic ideals.

For I am not talking about what ought to happen. I am talking about what is happening now and what, because of forces which are so actively at work among us, must happen more and more.

Thousands of teachers to-day, especially in our larger cities, are eking out their salaries with part-time commercial employment. Many of them resent the necessity for this. They would rather, they think, be liberated to teach pure truth, than have to go into the world of business and discover from day to day what the pure truth about that world is. I can sympathize somewhat with their resentment; nevertheless, it is one of the best signs of our times that the teachers of our youth all over the country are getting this practical first-hand knowledge and keeping the educational and the business orders within communicating distance. If they are not kept within communicating distance, we know, one or the other must soon fade out of the picture, and it will not be the economic order that will go. Every such tie-up, then, is of direct practical value to the colleges and universities. If there are seeming clashes between the truths of education and the truths of business, it will do no good for educators and business men to try to argue it out. Educators know this, and business men, I am glad to say, are beginning to know it. They are beginning to know that, when problems arise, the only dependable course is to discover the facts.

What is most necessary now is that this unconscious and disorderly movement to blend education and industry become conscious and orderly. The schools must perceive the necessity of fusing with our new economic order, and our industrial civilization must perceive the necessity of building up, within itself, a genuine educational and cultural life.

Teachers, then, of all people, must of necessity learn the facts of our changing economic order; and when those facts are learned, I feel very certain much of the resentment against "commercialism" will disappear.

For this machine civilization is not at all what its very leaders have traditionally supposed it was. It is not the creation of supermen or of business geniuses. It is a simple matter of science and power coming into very ordinary human brains and hands. Science discovered the power. Ignorance has used

it, to be sure, to our individual and social undoing, but the great historical event of our times is that it has been discovered that this power can not be successfully used in anything less than the scientific way and that the scientific way to use it has proved to be the way of maximum service and maximum total profits.

When man began to use it, he supposed that he could use it at the expense of others. Now, not because he has had a change of heart, he is beginning to learn that this can not be done. Time was when men could get rich in business through exploiting their fellow men on every hand. Some may seem to be doing that to-day, but the game is almost played out, for the markets of the world are fast becoming dominated by those industrial and commercial institutions which are scientifically discovering how to give more service for the money than has ever been given before.

Time was, not so long ago, when high prices were supposed to mean large profits. There was a reason for such a belief, for it was universally perceived, before power came into the world, that the masses of people could not possibly buy the beautiful and luxurious things with which business most concerned itself.

But mass production has changed all that. Mass production means production for the masses. Unless the masses can buy, mass production, with all its economies, can not go on. Therefore, mass production, which already dominates our markets, insists—for scientific rather than sentimental reasons—that the masses be equipped with buying power, and by the use of science in methods and in management has discovered how production may be so increased per man that these higher wages may be paid.

The ancient theory of business was to add a profit to the cost of production, however great the cost of production was, and search for the few customers with sufficient buying power to pay such a price. The new principle is to set a price which the masses can pay, and then to enlist all the available science in the world to discover how the thing may be produced and sold at a profit within that price.

This second Industrial Revolution is the greatest revolution in human history. All previous revolutions meant the ascendancy of some new class over the previous ruling class. This revolution means the ascendancy of science and the liberation of the masses, not merely from the tyranny of some ruling class, but from the devastating influences of poverty and toil. I grant that the masses are still ignorant, and that universal literacy has not meant, and could not mean,

universal education. Even if it were possible for all to read the classics and to recite them glibly in the original Latin and Greek, still there would not be universal education. For education consists, largely at least, of an understanding and appreciation of our relation to the things outside ourselves, and the ancient classical curriculum can not give us that. Only as we learn the truth, including the truth about life as it is and as it is becoming, will the truth make us free to live a larger life.

The machine civilization not only needs this truth but is rapidly becoming conscious of the need. Business needs fact-finders, and is employing them more and more. Also it needs fact-finders with adequate equipment and adequate buying power. And it needs fact-finders not only in the realm of chemistry and physics but in every science which points a way to a larger human life.

Business in the near future must come to realize that it needs psychologists quite as definitely as it needs engineers, and sociologists quite as much as economists. Not only must business be freed from traditional thinking, if it is to meet the scientific competition of to-day, but the masses whom it serves must be freed from traditional thinking if they are to function adequately in this new world order.

This new economic system can not afford war, and it can not afford the narrowness and provincialism which engender it. It can not afford ugliness, or that deadening contentment which the ruling classes once insisted that the masses should cultivate. As leisure increases and buying power increases, there must be a corresponding increase in ambition for and appreciation of the good things of life. Taste and culture then must be developed. The emotions must be educated and there must be a greater and greater development of the spiritual values as this supposedly materialistic machine civilization goes on to its logical destiny.

I have said often, to business audiences, that the pursuit of beauty is the greatest thing in human life. It always was the greatest thing, but now we have hit upon times when the masses of humanity everywhere can and must engage in that pursuit. The pursuit, however, must be along fact-finding lines. The new order can not be discovered in the old traditions. It must be discovered in the new relationships, and the time of the discovery will depend very largely upon the willingness of our educators to break from the old tradition of aloofness and enter into joyous, whole-hearted, enthusiastic and constructive cooperation with this new, fact-finding, economic system.

If this be commercialism, make the most of it.