

TEN YEARS OF THE STANDARD OIL TRUST.

WHEN I requested a friend who was denouncing trusts to state the grounds of his objections, he answered vigorously: "Trusts are combines, and that settles the whole question." The public is inclined to close the controversy about trusts in the same manner. It must certainly be admitted that the trust is a combine; and so is a partnership or any other business association. If all combinations are to be suppressed, all associations in business must cease. Some objectors, including law writers and judges, not a whit more logical than my friend, define trusts to be combinations for certain illegal purposes. Such a definition also settles the whole question. If trusts are combinations for illegal purposes, no more can be said in their favor than in favor of a partnership or any other association for illegal purposes.

The real question is, What is the objection to trusts, combinations, or associations formed not for illegal purposes, but for the purpose of carrying on business? So long as the business is small and the trust is formed by a few persons and called a partnership, there seems to be no serious objection on the part of the public. If the trust takes the form of a corporation not too large nor too successful, people not too much tainted with socialism seem willing to tolerate it. If it takes the form of a large corporation, does a large business, and makes much money, it is denounced by persons of communistic tendencies, and it is yet to be determined whether it will be allowed peaceably to exist. If it takes the form which gave rise to the name Trust as applied to business associations, namely, a trust of corporate stocks by means of which a body of men united in interest are enabled to carry on business through separate corporate agencies, it is not at all tolerated, is even denounced as a crime; and yet no objection on the ground of antagonism to public interests can be urged to such an association to which any other business association is not equally amenable.

Reasonable persons opposed to trusts, if they will analyze their reasons, will find them based upon the opinion that certain evils are incident to all associations; that these evils increase as the association

increases in wealth and power; and that by reason thereof association itself may be carried to such an extent as to become a public evil. The real question concerning trusts, therefore, is whether the evils incident to large associations for business purposes are such as to render these associations contrary to public policy. The present controversy in relation to trusts is but the continuation of a struggle that has been in progress for five centuries. It is the assertion, on one side, of the right of freedom of association for business purposes, and on the other side a denial of that right because association tends to monopoly, tends to increase prices, tends to suppress competition, and tends to crush out individual industry. The advocates of liberty of association admit that association confers power upon the associates, that it gives them an advantage over unassociated individuals, and that such power may be used for evil as well as for good. On the other hand, they allege that association is a necessary instrument of modern industry; that it co-operates with and is made necessary by the steam engine, the railroad, and the power loom; and that, while these instrumentalities of modern industry may produce some evils, such evils are more than counterbalanced by the advantages conferred upon mankind.

During the five centuries of conflict referred to, the theory has always been that associations tended to increase prices and to oppress the public; the facts, however, have always been contrary to the theory. Legislators and justices in olden days feared high prices more, if possible, than witchcraft, and the former fear has not entirely passed away with the latter visionary terror. The attempt by law to fix, regulate, and protect prices, directly or indirectly, has never ceased. Laws regulating the prices of bread and beer are so old that their date is not known. From the fourteenth to the nineteenth century the statute-books abound in regulations of prices of meat, clothing, poultry, and wine. Not only were prices fixed by law, but other laws were enacted to prevent laws fixing prices from being violated. Thus it was that it became criminal to buy commodities on their way to market, to buy in order to sell again in the same or a neighboring market, and to buy in large quantities. Thus also originated the whole brood of crimes known as offences or conspiracies against trade. Thus also originated the laws, both statute and common, against associations or combinations of business men.

Permit a brief reference in illustration of this fact to the laws against combinations of laborers. But one reason was ever given for these laws, namely, that high wages caused high prices for the neces-

saries of life. The earliest statute against combinations, in 1425, made it a felony for masons to confederate together to raise their wages above the amount fixed by law. From that date, for nearly five centuries, wages were fixed by law and workmen were forced by penalties to work at the fixed rates. Not only were workmen punished for taking greater wages than those fixed by law, but employers were punished for paying them. By some statutes justices and mayors were permitted to fix the rates of wages, they to be governed in so doing by the cheapness and dearness of the necessities of life.

Against these infamous laws laborers combined, labor guilds and secret societies innumerable were organized. It became necessary, therefore, for the law to attack combinations which were intended to keep up rates of wages. Thus it was that combination itself became a crime in the eyes of the law and in the estimation of lawmakers, who were consumers, not producers, esteeming laborers as little better than slaves, and shopkeepers and men of business as scarcely worthy their attention. The effect, as they supposed, of every combination of workmen, manufacturers, or traders was, by increasing wages, to increase the price of the necessities of life. By Statute 24th Edward III., "alliances, *covines*, congregations, chapters, ordinances, and oaths made by masons and carpenters shall be void and annulled." The object of the infamous "statute of laborers" of 5th Elizabeth, which fixed hours of labor and empowered judges to fix rates of wages, was to break up combinations of laborers. The Act of 40th George III. made criminal any combination between workmen for the advancement of wages. Even after these acts were repealed, laborers were punished by the judges upon the ground that combination was an offence at common law. Lord Kenyon said that not only was a combination of workmen to obtain an increase of wages indictable, but it would be indictable in the master to agree to raise wages. Now, I think it will be admitted that workmen have the right to combine to obtain fair wages, and it is true, whether admitted or not, that good wages do not increase the price of products. These laws against laborers are a fair sample of enactments intended to prevent increase of prices, and they show the origin as well as the effects of the prevalent opinion that the purpose and tendency of all combinations was to increase prices.

Laws as severe as those against combinations of laborers were for like reasons directed against all manner of business associations. So strong was the feeling of the governing class against such associations

that judges frequently pronounced combination a crime in itself. Yet, as already said, business combinations were common. Partnerships existed, and all the potency and tendency that inhere in any combination, be it joint-stock association, partnership, or trust, to repress competition, to fix and influence prices, to restrain production, and to monopolize business, exist in the partnership. We may wonder that men denounced as wholly evil, and the law punished with severity, combinations, and yet this form of combination went unchallenged. Singular as it may be, the same fact exists to-day, and legislators and judges declaim against combinations, apparently in earnest, when they themselves belong to combinations and know well that the business of the country cannot be carried on without them. Call the combination a partnership, and it is all right; call it a corporation, and it is barely tolerated; call it a trust, and it is a crime: yet the difference is only in name. Even partnerships were not entirely allowed to escape unchallenged. As late as the 17th George III., statutes were enacted making it a penal offence for any number of persons above five to associate either by covenant or partnership for dealing in bricks, coals, and other commodities. The reason for such laws was always the same: that such covenants and partnerships tended to increase prices, to repress competition, and to monopolize business.

It is necessary only to refer to the frenzy into which association by means of joint-stock companies threw our English ancestors. The Act of 1719 recited that "opening books for public subscription and getting persons to subscribe was dangerous and mischievous," and enacted that "the combining of persons and capital and the issuing of transferable stock was a public nuisance." The offenders were subjected to a forfeiture of all lands and goods and to imprisonment for life. This law remained upon the statute-book until 1825. Few persons, however, were convicted under it, and none punished. In spite of the law, joint-stock associations multiplied in England. They were a necessity of business, and necessity knows no law. So far from destroying competition and raising prices, their effect was exactly the reverse. Competition increased, prices were lowered, and business and wealth were created. To-day they are acknowledged by all economists to be a leading instrumentality in England's business prosperity. If these laws had been strictly enforced, England would still be in the barbarism of the fourteenth century. Business, commerce, and trade are the necessary precursors of civilization; and under such laws, rigidly enforced, business, commerce, and trade were

impossible. But slightly enforced as they were, their effect may be learned from the preamble to the statutes by which finally all laws of that nature were repealed, namely, that by interfering with business they had increased prices and thus had produced the effect they were intended to prevent.

The conflict between law and freedom of association in England reached the beginning of the end with the repeal of the statute against laborers, in 1825. It approached its termination with the repeal, in 1844, of forty statutes which had been created to protect prices by preventing so-called offences against trade, including combinations, and it ended when joint-stock association laws were passed conferring upon each and every individual the absolute right to associate for business purposes, without restriction as to number of persons, amount of capital, or the nature of the business. This battle was fought in England for five centuries; and liberty of association did not triumph until it had been demonstrated by long and bitter experience that association was essential, that its tendency was not evil, and that laws against it created the evils which they sought to prevent.

Trusts or business associations are seldom spoken of without reference to the great battle against monopolies. Kings and legislators, while creating and punishing absurd and imaginary offences against trade, were busily engaged at the same time in creating and selling monopolies to their favorites. They sold to one the privileges denied to another; nay, more, in some cases the severe laws against associations and other offences against trade were enacted to protect monopolies. It is notorious that the infamous Bubble Act, making the formation of joint-stock associations a penal offence punishable with imprisonment for life, was enacted for the purpose of protecting the monopoly granted to the South Sea Company against competition by voluntary associations. The struggle against monopoly was a struggle for freedom of association, and against laws which impeded that freedom. It was a battle not only against exclusive privileges of trade, but also against exclusive privileges of combining for the purposes of trade. The battle against monopolies was not won until the act was passed enabling any five or more persons to form joint-stock associations and to issue transferable shares—the identical thing which for a century had been a crime punishable with imprisonment for life.

The battle of trusts in England has been fought and won. The benefit and right of association for business purposes without limitation has been recognized and legalized. The law has lately been

announced in a celebrated case to be that although the effect of combination is to check competition, the means it uses is competition; that parties combined to do lawful business are not unlawfully combined; that it is perfectly legitimate to combine capital for all purposes of trade for which capital may, apart from combination, be legitimately used in trade; that the statutes repealing the many acts relating to combinations and to prevent increase of prices were a confession of failure in the past and the indication of a new policy for the future; that the policy of law as at present declared by the legislature is against all fetters on combination and competition unaccompanied by violence or fraud or other like injurious acts; that persons thus combined may carry competition to any lengths that individuals may do; that to limit combinations would be impossible, and would be another method only of trying to set boundaries to the tides.

The same battle has been fought and won also in all the commercial countries of the European continent. Joint-stock associations may be formed by any who may desire, for any business purpose. It may be said the same laws exist in this country. It is true they do exist, or rather have existed until lately, in many of the States; but ours is a federal government, and a corporation of one State has no rights which another State is bound to respect. The aim of the trust, in the proper sense of that word, was to use the corporations of different States as agencies in a joint business. If corporations could have been formed under the Federal law, a trust never would have been heard of. Until corporations can be formed with rights in all States, hostility to trusts is a menace to legitimate business, and prevents that large liberty of association which the magnitude of our commerce demands.

It seems unaccountable that in this country and this age there should yet be lingering doubts of the benefits of association in business. It is useless to discuss the question, because business is impossible without association. Our continent is large, the railway and telegraph have brought together the most remote points, our production is enormous, the world is our market, and combinations of capital, persons, and skill must be sufficiently great to meet the demands of our trade. The last twenty-five years have been notable for the number and magnitude of business associations. Instead of competition being destroyed, it was never so strong and effective. Prices have been decreased to a wonderful extent. Individual prosperity was never greater, the wages of labor never higher, and the condition of laborers never so good.

While contending that association decreases prices, I must necessarily acknowledge that it makes competition by individuals difficult. If it did not, it would not benefit the public. The only way to check competition is to lower prices, and the only way to encourage competition is to raise prices. If it is the policy of this country to prevent advantages over industry as carried on by separate individuals, the railroad, the telegraph, the corporation, and all our great commercial partnerships must be destroyed, and business must be relegated to its pristine condition before these great instrumentalities were invented. But so long as association is free competition cannot be destroyed. Competitors must, however, adopt the methods and pursue the paths of progress adopted and followed by the most energetic, instead of standing still and crying for the Government to come to their rescue.

The main purpose of this article is to show how one trust decreased prices. The discovery of petroleum by boring through rock strata was made in 1859. As it was soon obtained in large quantities, the question of its utilization and of finding a market for its products became at once important. A great many manufactories were erected for refining the crude article; but for many years the product was poor and dangerous, and the enterprises were not financially successful. A few persons who afterward became well known in the trade as Standard Oil men entered into partnership and erected a refinery at Cleveland. It was not until January, 1870, that their business became sufficiently important to justify the formation of a corporation for the purpose of carrying it on. They then organized the Standard Oil Company, with a capital of \$1,000,000. This company continues to manufacture petroleum products at Cleveland, its capital now being \$3,500,000. But the business in which these persons were interested could not be confined to the city of Cleveland. That city was west of the base of supplies, and still further west of the principal market for domestic trade and the points of shipment for the export trade. Cleveland had some advantages in facilities for railway and water shipment to counteract its natural disadvantages. But to hold and increase their trade, these men early saw that more than a local business must be done. The supply of petroleum came from Pennsylvania, and in that State it was essential that corporate agencies should be established. They allied themselves with other persons engaged there in the same industry, and either organized corporations or purchased the stocks of corporations already organized, in order to carry on business in that State through corporate agencies.

A Standard Oil Company was organized in Pittsburg for the same purposes as the one organized in Cleveland, and the stocks of these two companies were eventually owned by the same persons. These individuals thereafter continued actively, individually as well as through the agency of several corporations, to extend and increase their petroleum business. They established agencies in different States for the sale of their products, and when the business of such agencies became of sufficient importance to warrant it, they organized corporations under the laws of the proper States in order that the industry might be carried on under corporate agencies. They located manufactories at the seaboard for the export trade, which rapidly became enormous. They began the manufacture of crude materials, barrels, cans, paints, glue, acids, etc., necessary in their business, and in some cases organized corporations for the purpose of such manufacture. They became particularly interested in the matter of transportation, and the stockholders of the various companies, as individuals, constructed pipe lines for carrying petroleum to the seaboard at the expense of millions of dollars, and held their interest as partners until corporations were established. It was the aim of these men to open markets for American petroleum. In order to introduce it into home and foreign markets, their energies and capital were directed to the making of safe and efficient illuminating oils and to the cheapening of the manufacture not only of the products of petroleum, but also of all the materials used in its manufacture and transportation.

On the 2d day of January, 1882, the number of persons thus associated in carrying on the oil business in its different branches through the agency of corporations organized by themselves for that purpose was forty. They owned the entire capital of fifteen corporations and part of the stocks of a number of others, the latter being principally small companies engaged only in trading in oil. Of the stocks thus held, nine persons owned a majority, and in consequence could cast the controlling vote in each corporation. These persons entered into an agreement by which all their stocks were placed in the hands of the nine persons owning the majority as trustees. The trustees issued certificates showing the extent of each person's interest in the stock so surrendered, and agreed to endeavor to have the business of the several corporations conducted for the best interests of all concerned.

It will readily be seen that this trust did not unite competing corporations, for the corporations were largely organized as contributory agencies for the same business. The stocks were owned by persons

who had long been united in building up and carrying on this business, and the voting power was then held, and continued to be held until the dissolution of the trust on March 21, 1892, by the persons named as trustees by right of absolute ownership of a majority of the stocks. One effect of this trust is apparent in the fact that during the ten years of its existence the number of persons holding its certificates increased from forty to two thousand. Every clerk, agent, and employee in the various corporations who could save a few hundred dollars purchased trust certificates, and thus became interested in the business and profits. If it is desirable to multiply the number who enjoy the profits of production, how better can it be done than through ownership of stocks in industrial associations? The problem of profit-sharing can and will be solved in this way. Hundreds and thousands of employees and persons of small capital are by this means participating in the profits of the great industries of our land.

Until 1872 but little progress had been made in the oil business; the methods of transportation and manufacture were expensive, and the product poor even at the high prices obtained. The business of refining was not financially successful. It was about that time that the men in control of the Standard Oil Company began to enlarge their business, to enter into association with refiners at other places, and to use the greater capital, experience, and instrumentalities thus obtained in improving and cheapening the methods of manufacture, the quality and cost of the products, the system of transportation, and in opening markets in foreign countries. The effect upon the business was soon apparent. In 1872 refined oil at wholesale averaged 23.5 cents per gallon. The output was about 248,000,000 gallons, and the value of the exports at that price \$34,000,000. The improvement in production and price from that date has been gradual and marked. In 1890 the output was 13,027,000,000 gallons, the average price 7.3 cents per gallon, and the value of exports at that low figure \$51,500,000. The reduction in price between 1872 and 1891 was 16.2 cents per gallon, which shows \$215,000,000 per year saved to the public by reduction of price. Crude petroleum averaged \$4.00 per barrel of 42 gallons in 1872 and \$0.87 per barrel in 1890; so that \$99,000,000 of this annual saving is attributable solely to the reduction in the crude product consequent upon its enormous production. The remaining \$116,000,000 per annum of saving is the result solely of cheapening the price of the manufactured products.

This reduction has been accomplished in various ways. At first

oil was barrelled and transported from the wells to the refineries or railroads in wagons and then by rail to the seaboard. The system of transporting by pipe lines was introduced prior to 1872, but it was expensive and inefficient. The Standard interest systematized and enlarged the local system and continued the lines to the principal cities of the seaboard. Thousands of tanks were erected to hold the surplus production, and as much as 1,500,000,000 gallons of surplus oil have been stored in these tanks at one time. Pipe lines have been built to New York, Philadelphia, Baltimore, Buffalo, Pittsburg, Cleveland, and Chicago, and a network of feeding lines reaches from the wells to connect with the main lines. If these lines were laid continuously, they would encircle the globe. When the producer of oil puts down a well, he notifies the pipe-line company, and immediately a pipe line is laid to connect with his well. The oil is taken from the tank at the well, whenever requested, into the large storage tanks of the company, and is held for the owner as long as he desires it. A certificate is given for it, which can be turned into cash at any time; and when sold, it is delivered to the purchaser at any station on the delivery lines. A new oil-field was discovered last summer near Pittsburg, and in three months the production was 70,000 barrels per day. Yet pipe lines and storage tanks were built so rapidly that this enormous product was handled with scarcely any waste.

The lines to New York deliver to the refineries at Long Island City and Bayonne 1,250,000 gallons per day. This is manufactured into a great variety of products, the principal one being illuminating oil. Some of the illuminating oil is barrelled for local trade, some is shipped to other points in tank cars made for the purpose, some is placed in tin cans boxed in pine for the oriental markets; but the greater part is pumped directly from the refineries into steamers carrying oil in bulk, and thus shipped to European ports, there to be pumped into huge tanks for further distribution by tank cars and tank wagons. The capital invested in this system of pipe lines, tank cars, and tank steamers is more than \$50,000,000. By this system oil can be placed at the seaboard and on tank steamers at less than the cost of a few miles of wagon transportation under the old system.

The importance of this method of transportation cannot be overestimated at the present time. In Russia wells pour forth petroleum in almost unlimited quantities, and its price at the well is less than five cents per barrel. Their system of refining and marketing is copied from ours. The capital employed is large, and Russia is striving for

the markets of Europe and the East. They already dispose of 1,200,000,000 gallons of the crude product per annum. Were it not for our pipe-line system, our tank-steamer system, our cheap methods of refining and of manufacturing all necessary materials, we could not hold the export trade for a single year. This system could not have been built up without a combination of persons and capital.

The actual cost of refining has been reduced since 1872 about sixty-six per cent. This has been accomplished partly by the discovery and use of better processes and better machinery, partly by the elimination of the waste once incident to the business, and partly by the refiners' manufacturing for their own purposes and cheapening the cost of the materials used in manufacturing oils. Residuum was formerly used for fuel; now it is made into paraffine wax and lubricating oils. Naphtha was once little better than a waste product; now, as a component of gas, it lights the great cities of the land. Sulphuric acid is largely used in refining, and formerly cost \$1.25 per hundred pounds; the Standard manufactures its own at a cost of eight cents per hundred pounds. In 1872 barrels cost the trade \$2.35 each; the Standard manufactures them now at a cost of \$1.25 each. As 3,500,000 barrels are used per annum, this item of saving amounts to \$4,000,000 per year. Tin cans are now manufactured by the Standard at fifteen cents less per can than they cost in 1874. Thirty-six million cans are used per year, and this saving amounts to \$5,400,000 annually. Thus I might speak of paint, glue, tanks, stills, pumps, and pipes.

Almost everything used in the oil business is manufactured by some of the corporations which were created for the particular purpose. While the price of oil has thus been lowered, competition has not been destroyed, but is vigorous and effective. Thousands of workmen and persons of small capital are sharing the profits of the business, the wages paid are above the average, and American petroleum is holding its place in foreign markets. Association was necessary to accomplish these results. It is necessary to accomplish any great business end. Wise legislation and wise judicial exposition will strive to lessen and eradicate any real evils resulting from association without destroying an instrumentality capable of such beneficial results. Even men not accustomed to clear thinking should be able to detect a difference between combinations designed to repress business and combinations for the purpose of carrying on business.

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THE TRUE PURPOSE OF THE HIGHER EDUCATION.

THE higher education: How are we to understand its significance? By what means shall we determine its extent? To whom ought it to be given? What should be our outlook respecting it in the near future—the new century which is just about to open upon us? As I venture to offer a few thoughts on this subject which has so much interest for all educated men, I desire to move along the line of these questions, and to answer them as I best may from the standpoint of my own thinking. If what I have to say shall commend itself to the thoughtful readers of the FORUM, I shall be glad to have said it, because of their kindly reception of the words.

I. The higher education, as I view it—and thus I would answer the first of the four questions—should have as its end and purpose the culture and development of the thinking mind. Its aim should be serious thought. These expressions, indeed—the thinking mind, and serious thought—set forth what lies at the basis of all education and what is essential to the true idea of education of every degree. The proper design of all education is and must be to build up and build out the mind. All other things which may be thought of are secondary to this.

Let us look at the subject through the use of an illustrative example, which we may take at a point very near to the beginning of the work. The youth who is moving towards the higher educated life opens one of the gateways to it by undertaking the study of a foreign or ancient language. As he takes his first book into his hand, he tries to determine for himself, we will suppose, the meaning of certain words which form some sentence and the relations of these words to one another. This is the step which carries him just within the opening gate. What is its significance? Surely it is not that, in his feeble way, he is making a beginning for himself in the matter of the accurate observation of the framework of sentences, or of the acquisition of the knowledge of rules as a mere thing of memory. Rules must be learned, indeed, and the framework must be noticed and un-