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THE PLACE OF AGRICULTURAL EDUCATION.

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THE PLACE OF AGRICULTURAL EDUCATION

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THE PLACE OF AGRICULTURAL EDUCATION

Three Fundamental Social Facts

The processes of education may be described from the standpoint of the individual or the standpoint of society. If we look at education from the former standpoint the terms that suggest themselves are discipline, culture, self-development, self-activity, character and psychology. If we look at education from the social point of view, we think of the fitness of the individual for social, civic, political and industrial relations.

The emphasis in education has heretofore been placed on the individual as such rather than as related to society. There are good reasons why education should re-form itself by taking into account the social and industrial conditions of today. Society is becoming a network of vital human inter-relations. Cooperation, the increasing division of labor, the socializing of activities, attested by the expansion of the functions of governing bodies, and internationalism all point the way to more attention to training the youth with reference to his social environment.

As a chart to guide ~~XXXXXXXXXXXXXXXXXX~~ us in appraising educational practices, **from the social standpoint** and, in particular, in reaching conclusions regarding agricultural education, it will be well to take our position on three fundamental social processes: Consumption, Production, and Distribution.

As we look about us in society we see a multitude of special activities. Men are hurrying to and fro. A train rushes by. The streets are filled with vehicles. Here is a delivery wagon. There is a baker's cart. A messenger boy disappears with a telegram. The shop keeper stands at his door with his countenance divided between invitation and anxiety. The mother hurries homeward with packages, which are spied out by the children at the window. Bells and whistles speak of manufacturing establishments on the by streets. In court the lawyer is arguing the disposition of property. On Sunday the preacher tells the people how to use their wealth— how to live — how to consume.

In the distant mine, on the remote farm, on the navigable rivers, in the forests and on the sea diverse activities are going forward, but all are reducible to a few classes. We produce wealth; we divide it up among the people of the earth; we consume it.—No matter how far from these processes a particular act may seem, a thread runs back to production, distribution or consumption. The musician with half shut eyes plays a Slavonic lullaby while a thousand people are jealous lest a pin drop and distract attention. This is consumption. The violin is being used; the chairs and lights and heating system are being used; the audience are consuming the labor and art of the performer. The distribution of wealth occurred at the door.

The great mass of people are producers. They are organized into armies of industrial workers. They transform raw materials into consumable forms. The productive process is not confined to the men who do the physical and obvious toil of production, but is carried on as well by those who organize and direct, invent and simplify. Brain work is above all forms of labor capable of largest production. The productive process is so comprehensive and controlling throughout civilized societies that it gives character to the total of life. What buildings are erected; what shall be the hours of human goings and comings; what garments shall be worn; what shape, even, the body shall assume— are relative to the kinds and necessity of production. Under the stimulus of increasing wants man is above all else a wealth producing creature.

Wealth once produced, is ~~is~~ applied to uses determined in kind by the culture level of the consumer. The circumstances under which wealth is ~~consumed~~ destroyed in the satisfying of wants define the standard of living and ~~index~~ are an index to ~~the~~ national and individual development. Consumption occurs everywhere we turn: The clothes worn; the food eaten; facilities however used for furthering the search of the individual for the experiences ^{to} which his heredity and training incite him.

The days of the week are divided between production and consumption. Sunday is a day of consumption. Church, recreation,

social converse and suspended production are features of this day. Society is divided on lines of consumption and production. The capitalist, ^{perhaps} ~~retired~~, consumes but no longer produces. Parasitic aristocracies and nobles, idle wives of rich men, useless functionaries of all sorts, confined criminals, and loafers ranging from the club man to the hobo, represent consumption without production. The phenomena of consumption are as omnipresent as those of production, but more conspicuous in places of amusement, homes, residential districts, hotels, centers of art and fashion, during vacations and holidays, old age and infancy.

The phenomena of wealth distribution are ~~by~~ far less open to the sight. Wealth is apportioned among the members of society according to legal or governmental rules, or customs having the force of law. The farmer is handed a check by the cattle buyer. This obvious act is the outward show of a process by which the total value of the animal sold is sent forth on its devious course thru the paths of commerce, each person concerned becoming the possessor of some of the wealth ~~represented~~ represented by ^{the} concrete object of sale. What percent the buyer makes on the purchase from the farmer, what part the banker makes on the deposit which the check represents, what part the packer makes, what part the railroad company makes - can ~~only~~ be known only thru following ~~the~~

to the minutest detail the flow of value along the lines of dividends, interest, profits, wages, rents etc. The ~~XXXXXXXX~~ agencies ~~XXXXX~~ connected especially with the apportioning of wealth to the different members of society are preeminently state and federal law, the wage system, social influences and ~~XXXXXXXXXX~~ custom, custom. If ~~XXXXXXXXXXXXXXXXXX~~ law, and religion approve the division of wealth between the worker and the man who owns the tools on the basis of two dollars to the owner and one dollar to the worker the distribution of wealth is of course ~~XXXXXXXXXXXXXXXXXX~~ fixed upon some such basis. All that is necessary to effect such a division of the product is established usage, with all that that implies. Accordingly the phenomena of distribution are hardly phenomena - they are implications, abstractions of law and custom, ~~XXXXXXXXXXXX~~ hereditary ideas, with now and then a protest against inequalities which despite law and custom cry out for correction. Whereas wealth is produced in tangible ways, its division is by ^{intangible} rules the basis of which is in the practice of other days, ~~or~~ the strenuous insistence ^{or spidery machinations} of persons in strategic positions in industry, or by open and above board dealings which have the approval of fair and honest men.

For many centuries systematized education has been shaping. It is inconceivable that education should not reflect in purpose and instruction the dominant facts in all human endeavor,—those related to wealth. It should be profitable to take a look at ~~the~~ educational developments in the light of the economic trinity of production, distribution and consumption.

It is probable that many educational changes have occurred with but the slightest consciousness on the part of educational administrators of any relation to economic forces. But it is doubtful if any educational step has ever been taken which has not been an expression of economic ^einterests. The producer has had his say in education, more or less, and similarly the consumer and the distributee. Any subject of study in schools has its relation to one or more of the three fundamental economic verities. The purpose of any moment of instruction falls within ~~the~~ economic category.

~~Public education as heretofore carried on must have had relations with these three fundamental social processes. Possibly--these relations-----have not been distinctly in the minds of administrators of education, yet they have underlain all educational activity. Any subject of study is referable--to one or another or to all of--the three--processes.--~~

Education for Consumption

In looking back and around us in educational matters one is impressed with the fact that education has really been very much concerned with consumption, and particularly with consumption of a certain kind. There has been a good deal of training ostensibly intended to teach the youth how to live or how to make use of things - how to fit in with polite society, whose function in consumption is pronounced. By some such training has been called "leisure class education", and with some reason. For example, training in the appreciation of music implies that the youth has the money to pay at the door, either having already produced wealth or having secured it under the system of distribution in vogue in society.

Many of the most common subjects of study in the public schools verge strongly toward this type of instruction. Not that any subject can be placed ~~exclusively~~ in one class assigned unreservedly to this type, but the tendency is often clear.

In nearly all the public schools of the country English literature is taught. In the course of events the teacher comes to Samuel Johnson, "Dr. Johnson", a man who lived in the latter part of the 18th century. Mr. Johnson wrote a dictionary, no longer in use, was the author of various articles of temporary interest, and was particularly known for a species of wit. His physical peculiarities, some of them pathological, and his intolerance of progressive ideas and his profuse conversation, with other traits, made him conspicuous in his day. The class in literature may spend several days studying Johnson. Considering the conditions under which we now live and particularly the conditions under which the members of the class live, some of whom let us say will not remain in school long and some of whom are in school at much sacrifice on the part of their parents and should be prepared for earning money, the question rises, why Samuel Johnson? The reply is that "everybody is supposed to know about Dr. Johnson". The school would be disgraced if one of its students when in cultured society betrayed complete ignorance of this well known man. No claim is made for the vital value of such knowledge. It has been usual for cultured persons to know of him. Is it not evident that the school is preparing for participation in the life of a very limited number of persons and for cultured behavior on very rare occasions? Once let the idea get out that "they" are not teaching Johnson any more, and the Johnson learning drops out of all the schools, leaving no

perceptible vacancy.

The study of foreign languages illustrates the tendency in the schools to teach matter that would grace leisure rather than minister to daily need. Suppose an American high school girl studies French. Leaving entirely out of the question the argument of "discipline", which slides about easily and attaches itself as readily to one subject as to another, the study of French can rest only on some possible employment of that language. Leaving out of the question also the influence ~~of~~ of custom, what really is the motive in the study of French by the average American girl, who in all ~~XXXXX~~ probability will be a telephone girl, clerk, factory hand, house wife or teacher? The answer is simple. There is one chance in a ten thousand that she will ~~travel~~ travel in France. There is a chance in a thousand that she may be placed sometime in a situation where the knowledge of French would prevent embarrassment, as before a menu, when reading a novel, or in a social group when someone uses a French word and all present are instantaneously divided into sheep and goats on the shibboleth. It is true that in the ordinary run of life, among people of all grades of society who make no pretensions or who have arrived at the degree of culture that overlooks trifles, the girl will never suffer from lack of French. The prestige of the historical relation of French to chivalry, diplomacy, the fine arts, ^{and} romanticism, and the fact that it has been cemented to the life of the

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social high lights for several generations are underlying the concealed motives for the presence of French in the American high school in competition with obviously more useful studies judged by frequency of application. French is connected with social consumption in aristocratic circles.

The case is much the same with German and Latin. The latter belongs to the aristocracy of scholars. It is said that Germans who know Latin regard themselves as a superior caste. A few persons require these languages as tools. When, however, either is taught generally to all corners on the general culture theory, there looms up vaguely in the distance the scenes of aristocratic leisure in urban surroundings and sumptuous accessories ~~XXXXXXXXXXXXXXXXXXXX~~ in which the person with a foreign admixture in his vocabulary secures a seat by right while the Philistines shrivel up with the shame felt by a woman ^{a vain} marooned from eastern fashions. The practice of interlarding speeches with Latin quotations as in the days of Charles Sumner, and the smug use of a foreign phrase on a social occasion give the righteous peculiar pleasure, explainable only on the ground of caste.

Such are the motives prevailing too extensively in popular education to this day. The world for which the student is ^{thus} fitted is not the real world, but a world constituted of an indefinitely marked off class of persons who are more closely related to the consumption of wealth than to its production.

In the field of art teaching the same cult and exclusive purpose is found tangled up with the democratic impulses of the elementary schools. While the delicate tracery of winter boughs, the dim colors of prairies, the beauties of neighborhood landscapes and the cultivation of taste in wall paper are alike neglected, the public school pupil may be undergoing a process by which he is supposed to know how to feel should he happen to be in Rome and look up toward the ceiling of the Sistine chapel.

The faults in such instruction are two: (1) too much emphasis is placed on education for consumption of the kind described; (2) such emphasis crowds out of the schools suitable attention to education for the other social processes, especially production.

What is the content of "culture"? Is it not those facts that are most rarely employed in practical relations? There is no knowledge that does not bear some conceivable relation to people. In frequency of use facts group themselves into a gigantic pyramid. At the base are those facts that are of vital relation and ^{are} constantly used, ~~or should be constantly used.~~ Such are knowledge of the effects of heat, the use of tools, and acquaintance with plants and animals. At the top of the pyramid are those facts that are used with the greatest rareness, as the existence of an Italian duke in the middle ages or the page and line of an obscure literary quotation.

One naturally asks why is it that in the common schools, representative of producers for the most part, ~~XXXXXXXXXXXX~~ education should have taken such a decided character from aristocratic consumption. The imitation of the higher social levels ~~XXXXXX~~ by the lower offers the explanation. The southern negro boy invariably prefers Latin when a choice is offered. For him Latin ~~XXXXXX~~ means rising in the social scale. The poorest parents often are ~~THE~~ most anxious that their children shall have "as good an education as other children", which means in many cases not that they shall have that education which would actually be best for the children but rather one that is not lacking in social hall marks on which the upper classes are wont to lay ~~XXXXXXXX~~ stress. Even the most rationalistic educational critic and advocate of utilitarian ~~XXXXXX~~ culture may be found covertly planning to give his son a course in Latin, quite against his ^e theories, because the pressure of social prestige associated with Latin is too strong to be resisted.

Thus it has come about that our public schools are filled up with subject matter that represent social aspiration and competition rather than real serviceability. Why does the shop girl on five dollars a week imitate Paris fashions designed for millionaires' wives? The reason is the same that has led to the filling up of schools with matter that is ~~XXXXXX~~ redolent of aristocratic associations and frequently destitute of a common sense basis.

Education for Production

Modern civilization rests on the production of wealth. Production, of ^{all} fundamental processes, ^{is} most fundamental. In one light ~~advancing~~ progress is the acquiring of new wants which production may supply. For the production of goods intelligence and science are necessary as well as physical or manual skill.

Presumably public education has proceeded with some reference to production. It is likely, however, that far more attention could well be given to the needs of the individual and society on the productive side.

As a matter of fact, the training for production has been very largely given outside the school. Under the apprentice system the boy was able to acquire manual skill and enough science interwoven with the trade to qualify him for his place in industry. The home has always been a composite laboratory and work shop where both the son and daughter were instructed, largely by unconscious imitation, in the elemental processes of production, as agriculture, animal husbandry, nursing, gardening, sewing, carpentry, simple mechanics and sundry other arts, all, however, in a more or less rudimentary stage of development.

In the conventional school the usual studies, such as reading, writing and arithmetic have had their productive aspect. Presumably the carpenter who knows how to read will produce a more valuable table than the illiterate carpenter.

Certainly the contractor or architect would be greatly crippled as a factor in production if they could not read. The negro slaves were so undeveloped mentally that they could not be profitably used in connection with the machine industry of the North. The early stages of literary study are no doubt very closely related to the increase of wealth. And, very likely, there is an imaginary line ~~marking off~~ somewhere between the alphabet and Paradise Lost at which education for production ceases and education for consumption begins.

Arithmetic by common consent adds to productive ability. The farmer, who has to figure his load of potatoes by laying out matches to count by is losing time which could be employed in getting ready to raise more potatoes. The operations of arithmetic facilitate ~~the~~ adjustments among producers and are as directly contributory to the increase of wealth as a knowledge of soils as related to crops. But there is a division ~~in~~ in utility between the multiplication table and the truth in higher mathematics the discovery of which moved the old professor to exclaim, "There, thank God, nobody can use that!".

Nor would it do to pass by the effect of a developed taste in stimulating production. If there were not persons whose ~~knowledge of~~ exacting taste, cultivated to some extent by the general culture studies of the schools, demanded unusually well finished tables, the carpenter would not be likely to produce his best work.

The universal presence of specialization in labor has greatly reduced the opportunities for securing an all round education for industry in any one shop or factory, or even on the farm or in the home. The apprentice years ago might learn how to make shoes - the whole shoe- in the shop. Now he would be lucky to catch sight of the complete operation in regard to a single peg. Just living at home was a rather complete education for the boy or girl when all sorts of productive operations were carried thru within the family group. Today the tendency is toward the elimination of many ^{experiences} ~~professions~~ from the home. The city house is on a lot with a 35 or 50 foot front. The Noah's ark of domestic animals and pets that formerly were at hand ~~has~~ been superseded ~~by~~ a degenerate cat or a canary bird in a cage. There is no room for a garden, and all the endless mutations of plant life are narrowed down to the lawn mower. The meat cart brings the roast to the back door, and the boy of the family should be pardoned if he never identified it with a living animal. The steady encroachment of factory prepared eatables, now happily becoming "pure food", limits the education of the girl in varied and informing domestic arts.

~~Realizing that the possibility of~~

The possibility of a fairly all round industrial education from home surroundings and the work of the family group

exists today more for the boy on the farm than anywhere else. Yet it is being realized that his opportunities, never really sufficient, are fast becoming too narrow for his own welfare and for the welfare of society. It is on the farm that the old belief in a catch-as-catch-can education has lingered longest. Huxley not many years ago said that the desirability of education was everywhere recognized in England except among the rural population. The various trades and professions have steadily marched, one after another, to the support of technical and professional schools. The clergy, the lawyers, the physicians, and the engineers were among the first to abandon ~~the~~ unsystematic instruction for their respective callings. The farmer and the housewife are among the last.

The old order of home and apprentice possibilities for education for production has been fast passing away. Are the schools ready to take over the burden? Society is like a man making a journey by stages. He dismounts from one horse and naturally ^{looks} about for another to carry him forward without delay. The second horse is not quite ready. There are evidences that the schools have not got under their burden soon enough.

Within two years it has been discovered in Massachusetts that fully 25,000 boys and girls between the ages of 14 and 16 were either out of school and idle or employed at petty unremunerative tasks that led nowhere. Perhaps the boy would get a job as an elevator boy. ~~At the end of several~~ At the end of several

years he would be fitted for nothing else and his predicament would be serious from all points of view. All thru the country there are large numbers of persons young and old who do not have adequate training for production. They represent unskilled labor. Will somebody please explain why there should be in an age preeminently demanding skilled labor any unskilled labor? Our hobo, criminal and shiftless classes are largely recruited from the ranks of unskilled labor. The delayed age of marriage is a testimonial to the inability of the young man to find a place in productive industry for ^{which} he is ~~fitted~~ fitted by education.

We cannot rightly blame the unskilled laborer for his industrial unfitness. The system is too strong for one man to beat. Denied education in the factory, where the foreman points him to the door upon discovery of spoiled materials and incompetency, and met at the door of the high school with a Latin grammar or an algebra the youth who has simply ~~offended~~ by being born under modern conditions is in a position to make him envy the "heathen in his blindness" or the savage who roamed the prairie before the steam engine was invented.

It is hardly possible to overestimate the importance of training for production. No one is fit to be turned loose in society who is not prepared on the productional side. Training preeminently for consumption is ~~tax~~ training for parasitism. Training for production tends to the abolition ~~and~~ of caste, the elevation of labor, the erection of more wholesome ideals in society, the preservation of the wealth basis of civilization and the unity of human experience thruout all ranks of society.

The law of the ages has been, First work and then eat. Had it not been for the warping ~~influences~~ influences acting upon education from the circles of aristocratic consumption no doubt the schools would have illustrated in ~~the~~ emphasis upon productional studies the time-honored priority of the process of production. Instead of large training for consumption and small regard to production the natural order would be the reverse. It remains for our day, however, to reorganize public education with due regard to the indisputable fact that ^zevery one not a producer is an undesirable parasite, and that the soundest educational system must rest upon the solid foundation of knowledge, skill and insight relative to the production of wealth.

The test of whether a student has been prepared as a producer ~~ixx~~ consists of seeing if he is available for a position in industry without undue loss of time between graduation~~d/~~ and employment. The college graduate of years ago who ^{felt} ~~fxkx~~ more helpless in the world at the time of graduation than at any other time in his life, not knowing how to earn a living, was evidently poorly fitted for production. The college graduates described by Horace Greeley as wandering hungry about the ~~xxxxxxx~~ streets of New York City by the hundred were presumably better prepared to enjoy consumption than participate in production. There has always been a vast quantity of undone work in the world. If a pupil ~~fxkx~~ ~~ixkx~~ from the schools cannot connect with the job his education, to ~~sxxx~~ say the least, is unbalanced. These are the questions for the schools to answer ~~af~~ for the graduate: Can he plow, sow or reap? Can he mine, guide a locomotive, steer a ship? Can he take raw material and make it into useful articles, or better still possibly, can he superintend, ^{teach} suggest and inspire? Can the young woman take ~~xxnx~~ flour from a sack and by combination and heat produce food of more value than the original ingredients? Can she take cloth and ~~xxxxxx~~ conduct it over into a garment more ¹ valuable than the untouched cloth?

These are homely questions but they search the heart. Much that ~~xxx~~ is spurious, affected, dishonest and

and ruinous in our civilization shows its true colors when the test of service is applied. The divorce of production and consumption, which shows in a social vortex with obese consumption at the ~~center~~ center and starved production at the periphery, should not be consciously ~~perpetuated~~ ~~per-~~petuated by an ill-balanced educational system.

No plan for productional education would be adequate that did not involve the training for production on the part of all who attend public schools. The setting up of trade (productional) schools for the poorer classes, and the retention of general culture (consumptional) schools for the well to do tends to social disunion. The private school, presumably, will go on its way as heretofore in the history of American education, ~~but the public schools should not be directed by~~ directed by private individuals and often designed for special purposes, but the public schools should not cleave into ^{types} ~~parts~~ on the basis of production and parasitism. ~~All~~ All schools ~~should~~ should train producers and all public school pupils, rich or poor, urban or rural, should be thus trained.

Education for Distribution

By the distribution of wealth are meant those various ways by which commodities, after their production, are assigned to the members of society for consumption. Included in the term are wages, dividends, interest, profits, unearned increment, gifts and theft. Assume that society is moving smoothly along the lines of production. The mines, the forests and the farms are responding to labor both skilled and energetic and the total wealth of the world as measured by articles that people want to use is steadily increasing. Assume also that society thru one culture agency or another has developed a civilized appetite and knows, in the main, how to apply wealth to the best purposes. There would evidently be a serious hiatus if wealth produced did not ~~XXXX XXXX~~ reach the wants to be satisfied. All the social, political and traditional institutions that affect the allotment of wealth to individuals come under the subject of distribution.

Here we come into the domain of government, which tacitly licenses or expressly permits or orders all that goes on in society. The function of government is preeminently in the field of wealth distribution, tho not without influence in production and consumption. Government is organized around property. Without the strong arm of the law ~~the~~ a man could not control the disposition of his property after his death. There was a time in England when decedents, thru law, might control the course of the property possessed during life

for several generations after ~~their death~~ the decedents' death. The law of primogeniture virtually picks the beneficiary till kingdom come.

Law and custom, reflected in law, stand guard about the distribution of wealth and steer the commodity or the value represented by it thru the mazes of institutions and assign it to its ultimate owner. The producer of wealth may not be the consumer of it. The consumer of wealth may not be the producer. The relation of the producer to the wealth he has produced either singly or collectively may be barely discernible thru the meshes of the distributive institutions.

No argument is needed to prove that the production of wealth logically ^{implies} ~~implies~~ its use, and that an estrangement of the producer from his share in the product would be fraught with ultimately unfortunate results. It is not enough to know how to produce, and to produce. Distribution eminently fair should ensue and finally the product be applied to ^{the} ~~the~~ uses of those who produce.

It would be strange if education as heretofore carried on should not have had a conscious or unconscious relation to distribution. Certainly as the connecting step between wealth creation and wealth utilization this process is of the utmost social significance. There are those who say that the all-important question of modern civilization is ~~in the~~ ~~field of~~ distribution. Has education dealt sufficiently with this process? What has education done to train for socially

acceptable distribution?

In the higher institutions, attended by a relatively small number of future producers, courses in political economy have been given for years. The relation of the state-supported as well as the private-supported higher institutions of learning ~~has been~~ to special interests heretofore has been such that while considerable academic freedom has been allowed in the discussion of economic subjects any active leadership in civic or political affairs by professors has been out of the question and disturbing utterances have been effectually muffled. Cases are on record where the trustees of colleges have secured by design instructors in political science whose views were believed to be satisfactorily unprogressive.

The man of great wealth, unless exceptionally philanthropic, in case he shares the fruits of special privilege, will as a trustee on a board of education see to it that his toes are not stepped on in the name of science. The manual producers are rarely members of governing bodies of the higher institutions of learning.

In the secondary and elementary schools there has been slight attention to education for distribution. North Dakota was ^{one of} the first states in the union to make a place for political economy in the high schools, and there the effect has been largely nullified by ~~the~~ the indifference of teachers, ~~largely~~ who, many of them women, feel better qualified

to present other branches of learning. Courses in civics and history, which might be redirected along practical lines, by thoroly prepared instructors, suffer much from the same reasons, and offer little that is vital under present social conditions.

One might think that the law schools would be adding materially to the citizen's working knowledge of the distributive function in society. Very likely the opportunity exists, but the immediate purpose of law school instruction is to enable the graduate to win cases in present courts under the existing rules of the game. It has been the experience of persons in law classes that, during a complete course extending over several years, while endless discussion of legal rules, some of which ~~were~~ had admittedly slipped so far away from rationality that they could be retained only by force of memory, ~~were~~ engaged in, not a word was spoken of the law as it ought to be. The question is, What IS the law? In contrasting the lawyer as a reformer of law with the lawyer sunk in the advocate, Wendell Phillips once paid this galling tribute to the memory of Rufus Choate: "This is the man who made it safe to murder, and of whose health thieves inquired before they began to steal"!

Unfortunately law school instruction does not greatly emphasize the paramount importance of a development of the law of distribution, or property, nor does it ^{seek} directly ~~it~~ to untangle the complications that permit the grossest abnormalities in the distribution of wealth.

The subjects of study which ⁱⁿ a public school system might represent the interest that all have in socially acceptable distribution include, political science, history, common and statute law, constitutions, sociology, parliamentary law, municipalities, comparative politics, social psychology, poverty, criminology, and analyses of public questions from the standpoint of the citizen.

Conventional education has had its ~~say~~ major results in the field of aristocratic consumption. Present interest speaks for education for production. The training of the citizen for distribution is entitled to a place in the public school system corresponding to the importance of distribution as a social process.

So little has been done by the public schools during the years of their ascension in the United States that, paradoxically, it is with difficulty that ~~XXXXXXXXXXXX~~ ~~XX~~ their defects as related to civic ~~or~~ training or training for distribution can be pointed out. There has not been enough done to give the critic an opportunity. In the United States there are at present about a half ~~XXXXXXXXXX~~ million young women school teachers - non-voters- occupying the position of civic trainers of many million ~~XXXXXXXXXX~~ youths, who for the most part will never have other teachers. One hesitates to estimate how many of these teachers are not living in the present, so far as civic affairs are concerned. Isolated cases of civic ^{ignorance} on the part of the girl teacher may point a moral, but after all the reader will need to draw on his own resources for adequate appreciation of the ~~XXXXXX~~ vacuity in civic instruction existing in the present highly feminized ~~XXXXXX~~ public school system of the United States. One school in Ohio was reported (1908) as having over 200 public school teachers not one of whom ~~was~~ male. Bearing in mind a somewhat widespread aversion to the ballot on the part of woman at present, the ignorance due to the youth of the young ^{woman} ~~XXXXXX~~ teacher and the complexity of modern political subjects, with recognition of an occasional fact, as that before the recent presidential election a ~~XXXXXXXXXX~~ female high school teacher in an important city was unacquainted with the names of the presidential

candidates, one comes to a better understanding of the statement of an experienced man that not 25% of the men in the United States know enough about politics to vote wisely.

The elementary and secondary schools of the country have had little to offer of a specifically civic character and what has been offered has been weakened far below the point of efficiency by the almost total lack of civic-mindedness on the part of the vast majority of teachers.

While theoretically the average voter is the real ruler of the country, in fact he participates but very slightly in his own government. He feels that the government is ~~that~~ ~~in~~ ~~one~~ in which he participates ~~with~~ freely, little realizing that popular government was studiously avoided ~~by~~ by the framers of the federal constitution and that the grudging concessions to democratic government expressed in experiments in direct legislation and similar movements imply a distrust of civic capacity that is far from complimentary. The ~~average~~ ^{voter} is ^{often} better trained as a producer, even as a consumer, than as a ~~political~~ ~~citizen~~ directing the distributive processes of society.

If distribution is the all-important question in society, if the state is to become to far greater extent an economic organization, if public questions are to ~~enter~~ enter far more largely into ~~private~~ hitherto private relations, the ^systematic civic training of the youth can not wisely be left to chance and omitted in the schools.

thru the distributive system is not at all in ~~exact~~ proportion to his contribution to national wealth. A few months ago cherries were being sold by cherry raisers in California at 4 cents a pound, while the same cherries were being sold in Chicago for 50 cents a pound. The large difference between the price to the farmer and the price to the consumer suggests ~~that~~ that the intermediate processes of transportation and trade took some values that should have been reserved to the cherry grower.

It is a maxim that the finisher makes the ^{large} profit. Raw materials supplied by the farm bring prices that enable the producer to live in a simple manner and continue to produce. But the manufacturing processes that transform the raw material acquire profits which show in the large accumulations of wealth ^{among} the manufacturing class.

On the breakfast table is a box of shredded wheat biscuit. The box is marked "Thirteen ounces". It cost twelve and a half cents at the grocer's. The farmer sold the wheat for ~~leab~~ ^{about} a cent a pound. From the twelve and half cents paid for the article the city took ^{nearly} twelve cents and the country the ~~the~~ difference. Eleven cents ^{plus} is spread out along a devious route of manufacturing, transportation and trade. Some of it went to the men who do the extensive publishing work on a breakfast food. The insurance companies got some of it. Some of it went honking thru Europe. But the farmer who sowed, grew, harvested, thrashed and delivered the wheat received a comparatively small part.

We pay the city tailor \$45 for a suit of clothes. The wool in the suit cost only a dollar or two in the country. The large difference between the cost of the wool in the country and price paid the tailor represents the gleanings of the city off the country. The finisher ^{and middleman} gets the large profits. Run over a list of what the farm produces and trace the reappearance of the commodity in its manufactured form, noting the value added by the city occupations. This explains why the rural population has flowed like a hillside brook into the urban centers.

In those parts of the country where the farmer is exceptionally prosperous rates and charges of all kinds are correspondingly increased. As a result the farmer who relies on the net profits of his farming operations for his increase of wealth often finds himself engaged in large transactions with small gains.

Following the flow of wealth to the cities the young and best blood of the country has turned city-ward. The youth of the country has forsaken the relatively ebbing fortunes of the farm as rats flee a sinking ship. The human tide runs toward the centers of wealth.

As great as are the problems of country life in the fields of production and consumption, they are transcendent in the field of distribution. With the perfection of business organization and the more perfect rigging of the economic system for exploiting the unorganized the farmer is in a fair way to drop lower and lower in social influence if the tendency of existing forces is not counteracted. A pyramid of urban projects, made possible by the exploitability of the farmer, begins in excessive freight charges and ends in the waste in rural communities of seconds that can not be marketed in the city. The farmer may suspect what he is paying too much for insurance, an undue share of taxes, too much for legal and medical service, too much in indirect taxation of all sorts, but he ^{is} at a loss to correct evils and tho surrounded by evidences of his disadvantages in the modern game of wealth, hardly knows where to begin his self-defense. He gives his screenings to the wheat buyers. He sells his macaroni wheat for from 10 to 20 cents a bushel less than the price of other hard wheat, tho macaroni wheat flour cannot be bought on the market, having lost its identity in the standard brands. He ships his wheat and flax to market in leaky cars or pays extra charges for sound cars. He takes the gradings of the buyer when he sells his grain, learning later that more high grade grain leaves the terminal elevators than the farmers received payment for. He consistently votes high protection for the coal, steel and lumber interests, and pays the bill himself ^{a spirit of} in ⁱⁿ patriotism.

more expainable on the ground of traditional politics than economic insight.

In the el^lection of political representatives the farmer rarely chooses men from his own class. There ~~XXXXXXXXXXXXXXXXXXXX~~ is rarely a real farmer in congress, tho on a basis of vocational representation the farmer should be represented by at least a third of the total number. The farmer finds the banker and the lawyer "good fellows". He elects the banker and the lawyer to make his laws. While the banker and the lawyer are good fellows, when they legislate they are first bankers and lawyers. The man whom the farmer elected as a good fellow turns out to be, in legislation, a banker or lawyer. While we affect to believe that there is no class legislation in this country, as a matter of fact there is nothing else. While no class is ~~prizeably~~ ^{avowedly} exalted and another ~~is~~ ~~XXXXXXXXXX~~ injured, there never was a piece of legislation yet that did not favor one or more classes at the expense of others. A square deal consists in raising one class that is injured to a plane of greater equality with classes that have had the upper hand.

If the postal savings bank proposition is decided by bankers and lawyers very likely the farmers will continue to borrow necessary money from private banks at the usual rates of interest. If a legi^slature of farmers passed on the subject they would unquestionably iram~~a~~ a law that would permit the borrower to borrow direct from the government postal bank at reduced rates of interest. In the latter case

as in the former there would be a savor of "class" legisla-
tion. Possibly by class legislation is meant a form of leg-
islation that gives advantages to classes that have hereto-
fore been deprived of them.

Above all things the farmer needs to know the ins and outs
of the distributive system. Of what avail is it to him if he
produces five bushels more of wheat to the acre if he does
not get the wheat? If middlemen and market operators juggle
the farmer out of his values it looks as if the question
of distribution was fully as important as that of production.
The general public always urges on the farmer to produce.
After Carlyle, "Produce, produce, in God's name!". On the other
hand the farmer is entitled to face the rest of society and
exclaim, "Distribute, distribute, for heaven's sake!"

A knowledge of present social and political conditions
and a fairly high degree of expert legislative and civic
insight are as necessary to the farmer as to know how to
plow. Admit that the complex and spidery system of inter-
relations existing where government touches industry are
hard to understand. Grant that the political analyst must
have the ability to see things with the mind's eye that
cannot be seen objectively, and that expert political know-
ledge is possible only to those who have time for study,
nevertheless the farmer is charged with knowing. There should
be leaders able to lay out the main facts for his guidance,
and frame issues so that others than specialists in social

science might be well guided to proper choices at the polls and everywhere else where public opinion is formed or expressed. The country class needs its real representatives, and there is also needed widely diffused ^{and} pointed civic instruction from the country life ~~point of view~~ standpoint. The nature of the newspaper press is such that systematic civic instruction is not imparted to the farming class. The political spellbinder is better taken as a dramatic entertainment than a wise and judicial counselor. Moreover, he travels fast and but few who need lessons in the verities and inwardness of political and economic affairs can come within the sound of his voice.

While good roads and good schools are ^{excellent} ~~good~~ doctrine, both are usually as good as the farmer has money to pay for. The fundamental trouble with country life conditions is that in the distribution of the product the city has taken the lion's share.

Of course there are other elements in the country life problem. Scientific production is of pressing importance. While a farmer who employs marvels of mechanical ingenuity in his productive operations may be as poor relatively as the farmer of a hundred years ago who worked with imperfect tools, yet the necessity of employing the best appliances from the scientific point of view is not thereby diminished. Agriculture is fast becoming a highly developed art based on

a large body of science. Obviously there is advantage in doing farm work in the most enlightened way and with least expense of time and labor. It is necessary to know how to secure the largest returns from the soil and to guard against its exhaustion. Here we enter the whole field of questions of ~~practical~~ farm production: rotation of crops, drainage, conservation of soil fertility, irrigation, animal husbandry, animal and crop breeding, eradication of weeds, seed testing, dairy methods, forestry, feeding, farm mechanics, etc. The farmer has suffered from a one-sided distributive system, but he has been a serious offender against the laws of economical production. Some of the blame for present country life conditions attaches to unscientific methods of husbandry.

Agricultural education must steadily bear upon the problem of farm production and assist the farmer to employ ~~the~~ time and labor to the best advantage in exploiting natural resources. Not only the farmer's welfare but the good of the country as a whole requires the application of science to farm and animal husbandry. The adult farmer must be aided in putting his occupation on a basis of science. The farmer's sons and employes require a degree of expertness and knowledge heretofore uncommon in rural life. The unskilled labor of the farm must become skilled labor. Waste is to be eliminated wherever found. Studied economies in production, such as prevail in well managed manufacturing establishments,

may well be duplicated in farming operations. Agricultural education to large extent must be training for production.

The needs of the country population include very definite improvements in the standard of living. Agricultural education for consumption is necessary. Nothing like a parity of condition between urban and country life can be established unless a considerable transformation takes place in rural living conditions. Country life little needs education for leisure class experiences, but rather cultivation of taste and interests as related to immediate circumstances. Increased rural wealth will result in opportunities for setting up a higher standard of living, but agricultural education has its mission in helping to realize a higher standard. Many a farmer has produced and held to enough wealth to permit a good scale of living, but has not kept alive enough broad interests to enliven his declining years or furnish wholesome diversion during his active period. Books, music, well served meals, modern heating and plumbing, livable houses with possible privacy, and an atmosphere of refinement and real culture should not be out of place in the country.

The condition of woman in the country home is far from ideal. Starved in the higher experiences of life during the getting and saving period, the wife and mother is often a pitiable wreck when her city sister is in the full bloom of excellent preservation. How to live takes on a serious aspect

in the typical farm home. New methods of house work, trained help, the scientific rather than the traditional approach to difficulties of home administration, and a grounding in guiding principles would materially improve the sanitary, and general welfare conditions of the farm home.

Beginnings of Agricultural Education

Agricultural education, particularly as represented in the work already accomplished by the ~~so~~ colleges of agriculture and mechanic arts endowed by acts of congress, has had its greatest influence in the field of agricultural production, tho of course not ~~xxxxxxxxxxxx~~ without effect in other fields. The problems under consideration in the experiment stations, laboratories, barns and gardens of the agricultural colleges are largely those of production.

A kind of grain is bred year after year until a type is established which produces several bushels more to the acre than kinds commonly raised. A study is made of ways of feeding beef cattle, with the end in view of producing more beef at less cost. Experiments are conducted to learn how to destroy weeds in growing crops without harming the crops, the aim being to increase production. Easy and sure methods of testing the viability of seeds and decreasing the farmer's loss from dead seed are sought. The biography of injurious insects is studied and the orchards and grain fields of the producer are spared loss. Knowledge of farm machines, both for purposes of purchase and repair, is organized for the farmer's guidance. His paints and his purchased foods are investigated that waste may not occur in their employment. The meat demonstrator cuts up animals before the farmer's eyes and points out the cuts that sell best and shows the type of animal that stands the test of greatest economy in pro-

duction. A multitude of experiments are going forward in the experiment stations in behalf of economies on the farm and a larger return for time and labor expended in husbandry.

Not many years ago, when farm experimental work had its rise, both the field and the methods of procedure were very much in the dark. Funds had been provided for research, but nobody knew how to make use of them. The corps of expert investigators now found at the agricultural college experiment stations had not yet been called into existence. Effective research in the agricultural lines is of recent date. The crudeness of early attempts to carry out the spirit of the laws founding the agricultural colleges and experiment stations is illustrated by the amusing case of certain feeding experiments at one of the experiment stations in the early days. The director decided to experiment in pig feeding. Two sets of pigs were segregated and fed different rations for a certain length of time. Having no scales at the station the director secured his weight data by "hefting" the pigs by the hind leg before and after the course of feeding!

The dissemination of information thru bulletins, circulars, extension publications and press agencies is a process supplementary to the investigations. A vast amount of correspondence is carried on by the college specialists with people seeking special information. It is said that the largest correspondence school in the world is that con-

stituted by the correspondence of agricultural college ~~papers~~ /
 tion experts with inquirers for farm information. Let
 one who has seen conventional and traditional, classical
 and "cultural" education in operation stand by when a
 mail bag of requests comes in for a bulletin just adver-
 tised telling how one may raise poultry, in a region where
 poultry raising has not been developed, and the conviction
 will possess him that much that conventional education
 is doing is tragically beside the mark. A scawled request
 from a man who does not usually write letters; a letter that
 between the lines tells of a self-supporting woman fighting
 her fight alone; misspelled and ill-worded calls for know-
 ledge for immediate use -- all these are like so many
 hands reaching upward from the congested ranks of labor
 and privation for the help that science should give.

Heretofore the research and activities and the organ-
 izing of material into the new science of agriculture have
 taken first place at the agricultural colleges. These insti-
 tutions have had to ~~wait~~ ^{await} the organization of peculiar
 knowledge before becoming prominent as schools. The student
 is coming to be a larger factor in the agricultural colleges,
 which are unquestionably destined to become among the most
 populous centers of learning in the land. As a disseminator
 of science among the people the student will ultimately no
 doubt take precedence over the publishing activity of the
 colleges. He will be a community leader and an exemplar

of science applied to the common pursuits. Even if the agricultural college graduate does not during his college course pursue a strictly agricultural course he nevertheless becomes saturated with the ideals of science as related to daily use and the ~~evangelic~~ industrial-democratic spirit, and serves the cause of science whatever his occupation.

It may be well to correct a misapprehension in regard to the function of the agricultural college as defined by law. The original Morrill act of 1862, which established this type of school in the United States, says:

"The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such a manner as the Legislature of the state may prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

It is accordingly found that the agricultural colleges are also manufacturing colleges (mechanic arts) and liberal institutions as well by legal definition. But one agricultural college in the country is exclusively agricultural—that of Massachusetts at Amherst. In the others a variety of courses exist side by side with the course in technical agriculture. The dominant influence is however that of agriculture and no matter what course the student may pursue

in anyone of these institutions, except ^{possibly} where such exist as parts of state universities as in 15 states, it is safe to say that the student is colored by a unique and distinct educational purpose, and indelibly stamped with the spirit of agricultural education.

While present educational activity at the agricultural college is, thru experimentation, thru extension agencies, and thru the student, directed at increased agricultural production, the influence upon the standard of farm and country life is marked.

The domestic science courses in the agricultural colleges are having their effect upon the question of how to live. Beginning with the bases of living, as foods, dietaries, textiles, home arrangements, labor saving household devices, sanitation, applied bacteriology, home nursing and an acquaintance with the most modern types of kitchen tools as the hay box and the bread mixer, the young woman ultimately reaches out in her studies to scientific knowledge of the collective consumptive conditions of country life, and her presence in a community is an influence for better living.

The youth from the country who attends the agricultural college, either for one of the various so-called short courses extending over a few ^{weeks} ~~months~~ in the winter or for a full four year course of collegiate grade ending with the degree of bachelor of science, is incidentally and directly as well

trained in taste and refinement and becomes addicted to a higher standard of living. The boy who spends a winter in the steam-heated, oak trimmed, well-lighted, handsome buildings on the agricultural college campus and farm, and becomes accustomed to modern plumbing and the accessories of scientific living, will look upon the chilly, ill-arranged farm house with less admiration. Accustomed to regimented hours ^{at the college,} he will be sceptical in regard to the necessity of rising at half past four and working by lantern light at night on the farm. Newspapers and books and communication with the outside world are demanded by the farm when once urban life has been experienced in the urban college community.

The agricultural colleges are allowing liberally for education in the amenities of life. Music, physical training, literature, and social life are cultivated. It is true that literature as taught in a girls' school can not be successfully ~~be~~ presented to hundreds of farm boys with slight acquaintance with esthetic associations, but the appeal to the imagination is not in vain. In fact the esthetic branches of instruction are more than likely to be improved by the influences reflected from ^{the} practical-mindedness so prevalent in agricultural-technical institutions. A good deal of moonshine disappears when hard twisted boys look you in the face and call for real help to live. The feminized public schools have wandered perhaps a little too far out into

forms of esthetic culture supposed to be valuable, but not bearing so closely after all upon how to live and feel.

A Neglected Phase of Agricultural Education
XX

Probably the least developed field in agricultural education is that which relates to the division of the product. In glancing thru agricultural college catalogs one finds the emphasis strong on applied science subjects relating to increased farm productivity, ^{and}XX considerable instruction given tending toXXXXXXXXXXXX expressly to elevate the standard of living, while on the side of economic and social science the offerings are meager. While the agricultural ^{colleges} have already developed rare ability on the side of production and their professors are in many cases becoming national and international authorities, the paucity of results in the economic field is striking.

It is to be hoped that the farmer's paramount interest in the division of the product may be reflected in more and better instruction and leadership in agricultural economics.

While promising results are being secured along the line of organizations among farm producers, the results are so slight compared to the extent of the possibility that the need ^{of} further progress in this field creates one of the most urgent duties of the agricultural college. Why should there not be experts in agricultural economics, ready to visit a ~~near~~ neighborhood of farmers and assist in perfecting plans for further organization? Such person, skilled in

parliamentary practice, acquainted with the ins and outs of producers' organizations, commercial and industrial conditions, and with no brief except for agricultural clients, might perform a service of supreme value.

One of the commonest ~~xxx~~ observations of instructors of agricultural students is that they are quite wanting in grasp of modern economic conditions, and are easily fuddled in analyzing their own economic relations. The great majority of the young men and women in attendance at agricultural colleges were born in the country, and many of them know nothing of factory, labor and general business conditions. The existence of the American Federation of Labor and employers' organizations is barely realized if ever heard of. Such students have practically no basis for attacking understandingly the problems of the centralization of wealth, their environment having been non-urban. While the farmer is virtually knit up with the urban world in economic intimacy, yet his intellectual outlook may be that of the man who lived before the era of present business organization. The plan of campaign of the Kentucky night riders reveals a simplicity of rural thought that is almost unbelievable to residents of cities. The Kentucky situation suggests that the labor union members in cities, with their growing inclination to strike at the polls and ^{therefore} constitutionally,

rather than to strike violently and blindly, are at a much higher level of political intelligence than at least some of our rural populations.

For the welfare of the whole country and particularly for the welfare of the country population, agricultural education should enormously extend its civic and sociological instruction, not with a view to ~~special~~ enthusiasm on any special political issue, but rather to lay out the data of organized society and enable the student to ~~draw~~ ~~draw~~ draw rational conclusions, neither sunk in impotent ignorance ~~or~~ nor injuriously inoculated with quack remedies ~~xxx~~ which could be entertained only thru limited information and insight.

Many a farmer who is a model producer is so far short of civic sufficiency that he cannot make a motion in proper form or trust himself in legislative matters. The text book in economics should have a place beside the work on soils in the farmer's library, and the agriculturist should aspire to be in at the making of state and national laws.

The future should hold much for the professors of the science of distribution in the agricultural colleges. Their opportunities are large and vital. Precedents are to be overturned. The conventional university ^{instructor} of economics of the passing regime thought nothing of the contrast between the leather-lined, steam-heated, academic luxury of the ~~ix~~ lecture room, with life-al~~o~~of dissertations, and the groveling misery of the old woman whose habitation he passed on his way to his classes, who needed applied political science above all else. In the atmosphere of applied science, as in agricultural education circles, the teacher of distribution need not lack for openings. The educational process ~~stops too~~ short, without carrying the ~~ix~~ student over from the product in marketable form to the product diffused as values thruout society. The ~~ix~~ student ought to go direct from the class in horticulture or animal husbandry to the class in economics and politics. To educate to produce but to leave blind to the division of the product is to ~~xxxxxxx~~ tend to create serfs.

The time-honored horror of teaching politics in the public schools has served its turn. With corruption bursting forth in ugly streams from the great cities, whose grafting officials are only of late forming trails to the penitentiary: with ~~larger~~ slum populations in various cities ^{larger} than the

total populations of some states; with the food and transportation of the country in the hands of a few central economic ~~kingdoms~~ potentates; with representatives of exploiting monopolies clinging successfully to their ~~tax~~ seats in congress; with laws of the plainest popular character denied for decades; with natural resources stripped and wasted by porcine ~~acquisitiveness~~ ^{acquisitiveness}; with labor receiving ever ~~less~~ a less relative share of what it produces; with home under-consumption driving nations at each others' throats for foreign trade; with 70% of the national funds spent for war in an age when the sentiment for peace is universal-except with special interests; with the country life commission visiting the chief producer to alleviate his wretchedness - one grows skeptical as to the real worth of the policy of keeping the coming generations in the dark regarding the inwardness of civic ~~and~~ ^{and} political ~~affairs~~ ^{and} ~~badge~~ ^{and} ~~Wide~~ ^{and} deep instruction in politics-minus offensive partisanship- is ~~one~~ of the most urgent duty for the colleges that look toward the farm.

The programs of farmers' conventions and the instruction given in the farmers' institutes are greatly deficient in discussions of questions of distribution. The farmer as a producer is less a man than the farmer as a producer and a citizen holding his own in civic relations.

Effects of the Agricultural College on
Educational Aims

The effects of the agricultural colleges upon the aims and procedure of other institutions of higher learning have no doubt been large, tho it is difficult to say conclusively that this or that specific result is due to their influence. In some of the western states where the agricultural college is powerful the advantage the agricultural colleges have in securing funds from state legislatures when pitted against the more conservative state universities reacts upon the universities and stimulates them to do more practical lines of work and justify their existence in tangible ways.

The agricultural colleges have done enormous good in persuading unlettered people that higher education is valuable. In the smugness and peace of highly cultured surroundings the observer of affairs often imputes to society the exalted sentiments he himself experiences, and little realizes what is passing thru the thoughts of the man of fewer educational advantages. It is a great triumph to persuade even a majority of the national population that higher education is, or may be, profitable. Unlike the older curriculums of the staid colleges of the east, which often left the graduate, at the time of graduation feeling more helpless than at any other time in his life, the practical courses of

3. The education of adults.
4. The perfecting of extension agencies.
5. Adaptation to the needs of students with slight previous education.

The university extension made its appearance under favorable auspices and represented aims that were admirable, the movement ~~XXXXXXXXXXXXXX~~ failed. The higher education sought to be conveyed to the general public was not what the general public was most keenly in need of. It is hard enough to keep students of university grade from jumping thru the windows when the professor lectures in his class room on Browning. The vital needs of the unschooled lie along industrial lines, and begin with materials.

Industrial education extension is perfecting its instrumentalities for reaching the worker with such information and instruction as actually meet his needs. If a man is a corn raiser and is losing fifty percent of his economic power thru ignorance of seed testing and selection, he should be reached with a specific remedy. The student in the class room today might some time in the future carry the information to him, or to his son, if the original corn raiser had passed out of life before the information came, but the surest way is to send the man a bulletin, or visit him on a seed train, or send out a lecturer or demonstrator to his

neighborhood and set him right. The conventional "public" school waits for the coming generation to verify its worth. Presumably much of the weakness of conventional instruction arises from the fact that no check is had upon it until the pupil becomes an adult and attempts to carry out his instructions. But by that time so many intervening influences have appeared that the instructor of years ago would have to be declared subject to reasonable doubt and acquitted, if the product of his teaching failed miserably in life or in getting a living. If you teach adults too; if the instructor's words are to bump against hard realities perhaps within twenty four hours, the reaction on the nature of campus activities is unmistakably bracing. The consciousness of a practical minded public is one of the most evident facts in agricultural college professional life, and is also one of the most virile influences making for educational progress.

Conventional schools make no provision for the boy or girl who do not have "entrance requirements" of a scholastic sort. The college course may be reputed to contain much valuable information, good for anybody. But unless the applicant can prepare an analysis of Burke's speech on Conciliation the authorities will not be conciliated. The agricultural college has found a place for the boy who knows merely enough to come and ask for knowledge. The "short course" has solved the difficulty and struck a blow for the weak, incidentally making knowledge a more democratic possession.

Short courses may extend simply thru a few days or a few weeks and be unrelated or to further instruction or so arranged that the student may continue his studies eventually on thru an entire college course. The aim, however, is to provide information in dairying, farm mechanics, crops, animal judging, repairing farm machines, cement construction, seed testing and various other lines of the utmost immediate value to students who must return to the farm after an educational intermission of a few months at most. Many times the farm boy is commissioned by his parents to come to ^{the} agricultural college for specific information needed in running the farm, as how to operate gas engines.

To qualify ~~xxx~~ for attendance on such courses no previous preparation is required. The desire to learn is the only entrance requirement. The fact that there is a great demand for such instruction shows how little the regular local high schools and graded schools have had to offer of industrial instruction. The thousands of farm boys that gather at any of the leading agricultural colleges for the short courses during the winter, ~~are~~ many of whom have practically no school experience, are a witness to the failure of the high and elementary schools to get in touch with the needs of the average youth.

No one contends that the winter short course is better than a mere makeshift to supply temporarily the defects of the public school system. But until the public schools below college

grade become more utilitarian the short course is likely to thrive. Of course no attempt can be made in such courses to give an all round education, even of the narrowest industrial character. The theory is that it is well to get a mouthful if a full meal is impossible, no matter how desirable an educational full meal is.

The hydra-headed democratic tendency of modern life is expressing itself thru the agricultural colleges. The universities, historically, have been for the few, the future leaders. They have been for that relatively small part of the human race that are given to abstract thought. The "thing-thinkers" the men who live in action and material realities, have been left out. It is one of the commonest experiences in education to find that great numbers of young people have decided ability to do, but have little capacity for the formal instruction of language and philosophy. The fate of these has been to be eliminated from the schools. They fail to pass certain critical examinations, or scenting trouble from afar, disappear from the schools in the early stages of curriculums. The characteristic work of the agricultural college is fitted to the needs of "thing-thinkers". Nobody need be a failure - if the educational measuring stick is long enough and has on it all systems of evaluation. For the first time, the educability of everybody is assumed.

The universities develop caste and exclusiveness, from the restricted purpose of their courses. Applied science institutions, where their leaders are in accord with their spirit,

inculcate the doctrine of equality of opportunity in endless ways. The world cannot boast more enlightened and democratic sentiment than that expressed by an agricultural college instructor in defining the purpose of his institution - "Go out to the common man; find out his problems, and get under them and boost".

A vessel caked with barnacles makes slow time compared with a clean one. Society suffers from custom-barnacles that similarly impede progress toward obviously good ends. To break the spell of unreasoning deference to custom a certain dislocation must occur between the mind of the student and the body of traditions descending upon us thru the history and literature of the past. No student who spends years on the culture material accumulated in ~~the~~ remote times and under ~~the most x x x x x x x x~~ ^{superstitious.} and exotic conditions can be modern- or science-minded except as he may develop a revolt against his instruction. The chief sinners in enslaving the minds of students and creating purblindness for the living truth, in the schools, have been Latin and Greek, with large incidental apotheosis of non-scientific ideals. The very bulk of learning of the conventional classical sort has precluded the student ~~from~~ fit attention to the present.

The neglect of traditional subject matter has been ^{one} of the most valuable services of the agricultural college. The "arts course", the rendezvous of anti-modern tendencies, is not a feature here. ~~This x of x an x in x it x is x~~ ~~g x x i n g x d e f e r e n c e x x~~
~~o f x f i n k x e o k k e g e x r a n k y d i x i n g x d e f e r e n c e x x b u i x x i t h e n i x x x i n g l e~~
~~e o n x x e x i n x e z i x x o x x g r a e k x i x~~ The utter insignificance of traditional subject matter in the agricultural colleges has gone far to renovate the educational system and put ^{it} on a modern basis. The learning of the past should be approached in the spirit of science rather than in the spirit of idolatry.

Agricultural Education in Lower Schools

We are in the midst of a movement for the introduction of industrial and agricultural courses in the public schools. The ~~exact~~^{exact} ends to be served by such instruction are conceived differently by various classes of people. The manufacturer may be interested simply to obtain skilled factory labor without going to the labor unions for it. The country merchant and banker whose occupations rest on a large rural population may desire that the "boy stay on the farm". Occasionally the desire is expressed that education shall not go far enough to give the youth industrial and economic freedom, but shall rather fit him for a niche in machine industry or farm production. A manufacturer said to the president of a manual training school of the better sort that he was looking for boys who had enough training to do certain mechanical work in his factory but not so over-educated that they would want to do a higher class of work or would be able to fill positions requiring general industrial intelligence.. The answer was that the production of such individuals was not the aim of that particular school. In discussions of education for the farm similar views are sometimes expressed. In such case the real wish is that the boy may acquire just enough training to add to his productive ability in certain kinds of work, and no more. The farmer who wants his boy to be educated so he can not do anything else

than return to the farm, and the manufacturer who wants his employe trained to be a mechanical fixture in his scheme of factory production are alike taking a view that does not appeal to the friend of man. Stated differently, their error is in calling for education for production merely, subordinating the individual as a consumer and participant in social and civic life to a restricted position in production. It can hardly be the aim of industrial education in the lower schools to cater to the wishes of such one-sided persons.

Agricultural and industrial education in the lower schools should at no point be disconnected from education for consumption and distribution. The training of taste and appreciation for the wider relations of life should not be absent from the trade school. The studies that ~~that~~ unlock the knowledge of modern sociological developments is likewise indispensable.

According to these varying views different types of schools are being established. The Massachusetts trade school as proposed is quite exclusively for production. The agricultural high school as at Crookston, Minnesota, and the Dunn County agricultural school at Menominee, Wisconsin, are of this type, adapted to conditions of farm production. While many valuable lessons for the better administration of education are likely to be learned thru ~~the~~ experience with such

schools, the problem of an acceptable type of school for pupils from the ages of 12 to 18, or thereabouts, the country thru, will no doubt have to be solved from a different quarter.

It is probable that the present American high school, plus a productional element, and with its instruction for consumption and distribution vastly vitalized and re-ordered, will prevail over the intensively agricultural high school and exclusively productional trade school. True, the sheer production of wealth, with its ~~xxxxxxxxxxxx~~ ^{perfection} of machinery and ingenious time and effort saving economies, its captains of other people's industry, and its immense trade totals, takes precedence over all else in popular imagination and bears heavily upon the organization of schools. It remains to be seen if in the interests of production alone the current readjustment of educational agencies is to be carried out.

The absence of adequate education for production from the public schools is, however, not less deplorable than the possession of the educational field solely by the interests of production. The crying need of the time is the introduction of ~~XX~~ ^{larger} a productional element into ~~ALL~~ existing schools, consisting of those ~~xxxxxxxxxxxx~~ gleanings from and excerpts from the whole body of science which most apply to productive processes, in other words, applied science, and actual physical ~~xxxxxxxxxxxx~~ and mental contact with the productive operations

characteristic of the best aspirations of modern civilization. on the materialistic side.

It is desirable that the schools compass the three aims of consumption, production and distribution, inasmuch as the individual is not likely to get a good acquaintance with them otherwise. A boy may be trained in a trade school to be a wood worker. As a matter of fact ~~do~~ his ordinary experiences sufficiently supplement his training for production with other necessary information. It is the exceptional person, and he only when afforded considerable leisure, who secures of his own initiative an organized body of knowledge apart from instruction at the hands of competent and specialized instructors. Picked up knowledge is destined, with the advance in civilization, to be less satisfactory and more inadequate. One learns more in a month under expert instruction than otherwise he might learn in a lifetime. To the schools we must look for the imparting of comprehensive information for modern applications. It will not do to give the youth ^{only} a productional education ~~only~~ ~~as~~ as in various projected secondary schools; he should be equipped on all the social sides. The formula should be: industrial science and arts + knowledge aimed directly at bettering taste, judgment, outlook and increasing the capacity for the higher experiences + civic and sociological culture.

Agriculture and manufacturing are the two basic production occupations. They should have a place in all schools corresponding to their importance in general society. Manual training, (elementary manufacturing) has been rapidly making its way into the schools. Agriculture has as yet received little attention in the general school system.

It is not necessary that every pupil who pursues earth and animal knowledge as organized for agricultural purposes should expect to become a farmer. Nor is it implied when a boy studies elementary manufacturing that he is to be a factory hand. These activities are so fundamental in one's life, so large a part of one's total environment, that elementary knowledge of the productive processes by which wealth is amassed is not out of place in the education of all. A more intensive form of agricultural and manufacturing knowledge would of course be desirable when the student expects to enter a given employment.

In the presentation of industrial instruction in a society that jealously guards the right of the individual to equal opportunities and grants to the poorest boy in the land the hope of filling any position to which energy and ability might lift him, where caste demarcation is objectionable, the unwisdom of rigidly rigging up public schools so that the pupil must perforce become a farmer or any other kind of worker seems clear.

Unhappily for educational theorists, a boy is not bound to become a fisherman because he is born in a fishing community, or a factory hand because born in the section of a city where manual employment is general, or a farmer because born in the country. Out of twenty boys at a country school, ^{perhaps} one will be an architect, another a mining engineer, another an insurance man, another a publicist, another an educator, and so on. It would be highly presumptuous to organize schools on the assumption that the only educational experience for the child in the country should be ~~xxxxxxxx~~ for the dominant occupation of his neighborhood. The doctrine that exalts environment as a controlling influence in the life direction of the child can easily be overdone. Bars and bolts could not make an artisan of the idealistic youth bent on ~~xxxxxx~~ forensic success.

Moreover, the public school curriculum that goes too far in training for production appropriate to a given community will fail to hold students. It will be unattractive to a large number of pupils. Students want something else besides productional studies. Nearly every boy has an itch for political science, a fact that has caused a loss in attendance in such agricultural colleges as have not realized the comprehensiveness of the intellectual appetite, and provided for sufficient instruction in economic and sociological lines.

A leap from the conventional public school with its excessive emphasis on traditional formalities of learning chiefly existent only for possible use in levels of society known, under the old use of the word, as aristocratic, over to a conception of education quite subordinated to the productive aspect of society seems not to be the only alternative. There is a third alternative. The spirit of general culture modified by industrialism is the alternative.

But in the clash of proposed and existing curriculums the importance of certain factors in education, quite apart from questions of courses of study, may unfortunately be overlooked. Studies remain mere names in the curriculum unless vitalized and interpreted by the teacher. The teacher for the new education has not ^{freely} yet arrived. Even sumptuous buildings and laboratories will not suffice, and very likely communities will need years more of experimentation ~~XXXXXX~~ before frankly acknowledging the superlative importance of the personal element in instruction.

Here is a typical case. A rich farming community with a million* of dollars of taxable property within sight of the town church steeple resolves to introduce industrial education into the high school. An agricultural college graduate, a girl of twenty, who in all ~~an~~ probability will be married within two years, is employed at sixty dollars a month. Her work

is in domestic science. But lo, why not have the girl teach agriculture, animal husbandry, oversee the manual training and act as a bureau of information on all conceivable farm topics incidentally? Here is an opportunity. It is an injustice to the girl and a sure precursor of disappointment in industrial education. Men and women of years and wide observation know how age prepares one for the direction of youth. What the community needs is a seasoned man of thought and action, broadly cultured and specifically trained. He should be paid * at least \$5000 a year and enabled to live on a parity ~~xxxxxxx~~ with influential members of the community. He should be ~~as~~ a director of educational effort and as a prescriber of science for ~~xxxxxxxxixx~~ the industries of the community what the early New England preacher was in religion.

Industrial education, in its broadest social significance, will ^{be} like the play of Hamlet with Hamlet left out, until unprecedented recognition is made of the personal factor.

Under the tuition of the new teacher the content of many studies now appearing in schools will be transformed. What a study really comprises depends largely upon the instructor. Physiology taught by an educational ~~formalist~~ formalist is a catalog of bones; taught by a trained nurse it might become hygiene and self-preservation. Thousands of high school girls have come thru the courses in physics ^{and} passed all examinations, but with no assurance that they would not blow themselves up in ignorance of the construction of gasoline stoves or ruin expensive plumbing systems by failure to connect their instruction with temperature and pipes. The expert instructor makes his own textbook by interpretation, comment, application, the drawing out of judgment in his pupils, and utilitarian re-direction of attention. A subject remains merely a subject on paper unless there is a personality behind it.

The agricultural-industrial revolution in educational matters may be performed without ~~the~~ great revolution in the names used in courses and curriculums. A large part will be accomplished when the teachers work with new aims and better knowledge.

Whatever form the applied science element may take in the lower schools the central fact of American lower school

organization, that the pupil is not to be unprepared for going to the school next above, should be respected. In the past the lower schools have offended in subordinating preparation for life to preparation for college. It would be fully as unfortunate if the lower schools ^{unduly} subordinated ~~unduly~~ preparation for ~~life~~ attending higher schools to preparation for immediate employment. The time is coming when society can not do better than to leave its youth in school until the age of legal maturity at least. It should always be possible for the pupil in the ~~consolidated~~ consolidated country agricultural school, or the pupil of the trade school, ~~or~~ or the agricultural high school, to make his way unhampered to the next educational level above. ~~It is said that~~ Not one pupil out of ~~one~~ ten thousand in the German common elementary schools ever finds his way to the university, due to ~~the~~ non-sequence of curriculums. Even if conventional entrance requirements in American colleges and universities have to be demolished, it should never be the case that any boy or girl in the country should find a straw in the way to the higher institutions. The maximum preparation for the student who leaves school at any age and at the same time college and university preparation are the two aims to be harmonized in the lower schools at any cost.

By-Products of Agricultural Education

It has not been the purpose of the foregoing pages to discuss the relation of agricultural education to educational ideals as derived from psychology. The sociological bearing of education has occupied the foreground. One finds no difficulty, however, in harmonizing the social and industrial requirements of education as described with the requirements of individual culture.

The fundamental facts of the individual which call for recognition in educational practice include demands for expression and development along the lines of physical wellbeing, thought development, cultivation of sentiments and emotions, training in willing or initiative and accomplishment, and in general outlet for the natural energies of mind and body along acceptable channels.

Assuming that agricultural and industrial education, defined to include balanced portions relative to production, consumption and distribution, is a socially desirable form of ~~instruction~~ procedure, it is worthwhile to ask if individualistic ~~requirements~~ requirements are satisfied as well.

There is no reason why physical training should ^{not} be carried on in connection with production. It is usually irksome to take physical exercise as a duty to oneself. The ~~gymnasium~~ gymnasium never has half the attractions

or the benefits flowing from physical effort connected with productive activity for which there are real and sufficient motives. Unbiased by social motives, augmented by rooters and artificial stimulation, the football player would often be as willing to substitute productive labor and turn ~~the~~ ~~energy~~ from waste to use the energy burned up on the gridiron. Under wise educational direction there could be as much enthusiasm in physical expression in shop or field work, on the part of boys, as is displayed in grilling long distance runs - in an age of railroads and carriages. Many a man has found out the superiority of physical expression in his own garden over tennis or baseball. It would tend greatly to the amelioration of hysterical athletics if far more opportunity were given in the schools for physical development based on exercises having a social or productive aspect. ~~Physical training exercises~~ It is doubtful if there is a muscle or cell reached by unproductive games that would not be affected by ~~some form of~~ ~~suitable~~ activities adapted from the work of the world. Our games and physical exercises have become as removed from the ideals of democracy as the French taught the American miss. Both are leisure class ~~products~~ resultants.

There is no faculty of mind that would escape development under the ideal of socialized education. ~~The~~ ~~normal~~ ~~and~~ ~~the~~ "disciplinary" studies of the old education never reached

a lobe of thought not involved in studies directly useful. Inference, reasoning, judgment, imagination, observation, perseverance, -are not these found along with utility? It is simply charitable not to institute comparisons between the intellectual traits and habits of the utility-trained with those ~~of~~ ^{exhibited by} such as have dwelt long with philosophy, of which it is said: "Philosophy is not truth; when it becomes such it is science". Linguistic and literary culture may tend merely to increase ~~the~~ ^{an} inverse ratio between words and ideas.

Ethical culture has no purpose or meaning apart from social relations. Moral development is impossible except as related to the needs and duties of today. True, the monk assumed a moral and religious attitude of an individualistic kind, giving more heed to saving his own soul than to his obligations to society, but his example is no longer commended. In fact the most individualistic ~~marxist~~ ~~xxxxxxx~~ moralist must join hands with socialized education in the common pursuit of moral excellence.

The deepest immorality of the age is that of denying others equal opportunities. With the youth of the world, wherever public schools exist, sharing in common work experiences, ~~and~~ realizing the democracy characteristic of the open and inquiring mind, ^{and} divorced from the snobbery of predominantly consumptional education, it would come to pass

that inter-class evils - exploitation, parasitism, killings, prostitution and fraud-would be increasingly diminished.

It was once said, "A man knows as much as he works". Likewise a man feels. Attitude and outlook, sentiment and emotion, are reflected from education that directly relates ~~the~~ to social ~~conditions~~ and industrial needs. That newer type of culture which is appearing in socialized schools needs but acquaintance to be awarded first place in the scale of genuine refinement, honesty, naiveté, spontaneity, companionability and optimism. The atmosphere of the young woman who makes a loaf of good bread thru a conscious application of science is fully as ^{prepossessing} ~~as~~ as that of the young woman trained to purely individualistic excellencies. The bored collegiate clubman in the "arts" department would be a different creature, sociologically, if ~~he~~ ~~is~~ intellectually sterilized ~~by~~ by exposure to science joined to industry.

With the growth of applied science education, particularly as related to production, there are sure to be large changes in public opinion touching the respectability of physical labor. The stigma attaching to hand labor, traceable to the days of the slave and the serf, will tend to disappear. Dress will less accentuate the difference between occupations, fashions becoming less designed to give

suggestions of the superiority of the wearer to ~~the~~ ^{the need of} ~~the~~ ~~need~~ ~~of~~ physical effort. Textiles too ~~delicate~~ ^{delicate} to be worn except in composure and perfect leisure, stiff accessories preventing the play of the muscles, high heeled shoes not suitable to walking and finger nails ill adapted to manipulation suggest points at which the break down of caste demarcation and work prejudice might be expected to occur.

The Aristocracy of ability and worth there must always be. For the good of society as a whole it is desirable that other aristocracies be ~~superseded~~ ^{superseded} by this. When education puts its sanction generally and unmistakably upon the values of socially acceptable consumption, scientific production and equitable distribution, the doom of false aristocracies and plutocracies is sounded.

Of all the pleasant consequences of the turning of education toward the elemental ~~and the open~~ and the open fields none promises more than the new attitude toward nature. There will be a multiplying of interests. Life will mean more. We shall see ten thousand things with new eyes. The old world of formalism, abstractions,

superstitions, aloofness and self-devouring introspection and mysticism will pass away. The principle of cause and effect, which a good many do not ^{yet} really sanction, will become the staff of life. Rationality, repose, curiosity, outdoor habits, beautified surroundings, more sensible clothing, better health and more besides looking toward natural and wholesome living are connected with the movement for the study of one's common surroundings and the search for the threads of science in ^{the} nearby things that have been kicked about since time began and in the familiar things about which our ignorance is ^{so} ^acolossally calm.

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