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THE COMMON SCHOOLS IN THEIR RELATION TO THE FARMER.

An address delivered by Prof. C. R. Pomeroy, the President of the Emporia State Normal School in Capital Grange Hall, February 25, 1876, under the auspices of Capital Grange of Topeka, Kansas.

LADIES AND GENTLEMEN: The theme you have assigned me for discussion in this course of lectures needs no eulogy or words of commendation on my part in order to command the attention of every member of your Grange, and of every farmer of the State and land. Indeed the general subject of our Common Schools, is one so dear to the American people, that they have come to regard it with almost the same tender affection and national pride, as the fond parent feels for his child. To disparage or assail our Common Schools, is to strike a blow at one of our most valuable and sacred institutions. The first intimation of real danger to its existence, would cause such an unanimous and indignant uprising of the people in its defense, as has been paralleled only by the great uprising against the rebellion which threatened our national existence. It matters not what business, or vocation we pursue, what position in social or political life we occupy, what race or clime has given us birth, or what beliefs, scientific, or moral and religious we accept, if only we are true, loyal American citizens, we love, and glory in our system of Common Schools, of free public education for every child of our great Commonwealth.

The special phase of the subject suggested by the language of the theme assigned me viz: "The Common Schools in their Relation to the Farmer" does not, in my judgment, limit or narrow the field of discussion, inasmuch as every farmer is an American citizen, and as such shares in common with all other citizens, a deep interest in the question of elementary public education, in all its varied relations to the home, and the church—to the general interests of mankind. Whatever special features or adaptations the farmer may desire to engrave upon the system, in order to more fully meet the peculiar requirements of his avocation and responsibilities, rather widen than restrict the inquiry, and may be most properly considered when we shall have first sketched the nature and work of public education in the common schools, in their general relations and necessities. If these shall be found inadequate or misdirected so that they must fail to secure the best education of the children of the farmer, it will then be easy to point out the needed reforms, and to urge their adoption.

With this view of the true scope of the subject, I shall first ask your attention to the fundamental inquiry: "What is the end of education in the common schools?" and secondly: "What are the best means of securing these ends?" In the light of the answers to these general inquiries we shall be prepared to determine what modifications if any, the Common School System needs in order to supply the wants of the farmer.

Every intelligent inquiry which seeks to determine the value and adaptations of any organized system of activity, is first directed to its underlying aim or end. What does it seek to accomplish? For what purpose has it

been organized? Or pressing the inquiry still deeper, what results should such a system aim to secure? The testing of any educational system, as to its structure and adaptations, for the purpose of determining its real worth, differs in no respect from the process, which a master mechanic would adopt in deciding upon the correctness and value of any plan for some important edifice. His first inquiry would be, for what purpose is this building to be erected? What objects or objects are sought to be secured? This determined, and he could readily decide upon the merit of the plan, or point out its defects. So in our survey of that unique and imposing edifice which we call our system of Common Schools.

In determining its value and its adaptations, we ask, Why has such a system been constructed? What ends are sought? What results should we demand from this educational agency? A correct answer here is of vital importance. It should be neither too narrow nor too broad. It should represent the full rounded and symmetrical truth. A superficial response, a clanish partisan reply—or an answer given mainly in the interests of any individual or class of individuals, would necessarily prove defective or partial, and consequently vitiate the results sought.

The true stand-point, elevated far above the restricted range of the mere partisan or sectarian, will include in its survey, all the truly valuable ends found in any and every special system of education, and in its broad and comprehensive scope will vindicate its essential truthfulness and practical value.

At this point it is both interesting and cheering to note the essential identity of opinion as to the end of education, entertained and expressed by philosophical educators in every age. Says Locke: "The great work of the teacher is to fashion the carriage and form the mind, to settle in his pupil good habits, and the principles of virtue and wisdom, and to work him into a love and imitation of what is excellent and praiseworthy, and in the prosecution of it to give him vigor, activity and industry."

Says Pestalozzi: "Why have I insisted so strongly on attention to early physical and intellectual education? Because I consider these as merely leading to a higher aim, to qualify the human being for the free and full use of all the faculties implanted by the Creator, and to direct all these faculties toward the perfection of the whole being of man."

"Education," says another distinguished writer, "implies the idea of development and hence includes whatever tends to develop the physical, the intellectual or the moral powers of man." Hecker in his "Scientific basis of education" declares, that "education is not alone concerned with imparting information. In order that the information be received, there must be a certain growth of development, and this right development is required both for the successful communication of knowledge, and for the ultimate welfare of the subject." Wickersham, affirms thus the end of education is "to perfect man, physically, intellectually, morally and religiously." Perhaps we could combine these nearly identical views in the general statement, that education has for its end the right training and culture of all the powers of the child, physical, intellectual, moral and religious, and the importation of such knowledge as will best fit him for every station in life. Two radical and prevalent errors are here rejected.

First, that current defective view, which regards the work of the educator, and the results of education, only in their relations to the intellect. Which assumes the possibility and desirability of a divorce of the trifold nature of the child, while in the most impressionable and formative period of its whole earthly existence. Especially is this divorce urged as eminently desirable and even necessary to the common schools, between the intellectual, and moral and religious faculties of the child. The State, it is claimed, should give only secular education. The home, and the church are the appropriate places, and the parent and the religious teacher, the rightful educators of the moral and religious nature. The common schools, as a State institution, must ignore morals and religion as an end of education.

It is not my purpose here to discuss this much agitated subject, of the "Bible in the common schools." This grave question, including as it does social, civil, moral and religious problems, which affect all departments

of society and which, in its logical consequences involves the very foundation principles of both education, and civil government, is to lay before the public for thorough discussion, and it should not, and cannot be settled, by any hasty and superficial judgment, or by the interposition of any form of mere authority. The people of these United States propose to try this case. The advocates have an open, fair field. God speed the right! At present I have to do only with those related principles which are involved in the primary and fundamental questions now under consideration, viz: What is the end of education? Ignoring entirely all partisan issues, speaking only as an educator, viewing the material which is to be wrought upon—the child—with his trifold nature—body, mind and soul,—indissolubly united in one complete organization, with powers and faculties, inter-dependent and blended in all forms of growth and activity. I do not hesitate to affirm that any theory which assumes the possibility of a practical divorce of the elements constituting child nature, in its education, whenever and wherever, is the shallowest empiricism, and most dangerous intellectual quackery.

There is not, and cannot be, a single step in any department of so called secular education in the common schools, but involves directly or indirectly, physical, mental, and moral results.

It is not a matter of choice. It is not by including or excluding this book or that, this form and method, or another, that this result can be evaded. The necessity of this trifold end in education, is found in the fact, that the teacher, and the pupil, are human beings, possessing bodies, minds and moral natures, they cannot operate the one upon the other in the work of education, without involving at all times, this trifold influence and culture, more particularly, as seen in the practical work of the school. I affirm, that every lesson learned and taught correctly, whether in the elements of Science, Mathematics, or Language, involves not only intellectual ends, but must also include physical and moral results. Silent, yet unceasing and most powerful influences, composing both of these ends, emanate from all the external surroundings and internal arrangements of the school. The beauty or deformity, the convenience or inconvenience, the healthfulness or unhealthfulness, the size or smallness, the form and color of the room, the desks, the apparatus, indeed everything within and without the school house, is an educator, cultivating and developing bodily functions and mental and moral faculties, or perverting and checking their normal growth and activity. Physical conditions of health, in the air breathed, the attitude observed in sitting, standing, or walking, the exercise taken or neglected, the character of the recreations permitted and encouraged, as well as the social atmosphere originated and fostered, each and all, are potent factors in attaining physical and moral, as well as intellectual results.

But more positively, the direct daily intellectual work of the school must include moral culture. Every lesson which the pupil learns and recites, under the impulse of pure and noble motives, strengthens and elevates moral character while the existence and operation of low and ignoble motives and aims, weakens and destroys it. Truthfulness, Honesty, Generosity, Self-denial, Fidelity, Honor, Kindness, Obedience and Faith, with kindred virtues—such elements of moral character as dignify and enoble the soul, as in their harmonious union with physical and mental powers—go to constitute the true man and true woman, the valued and valuable citizen. All of these moral qualities are daily in the essential, educational work of the school, necessarily stimulated and developed, or repressed and prevented, according to the wisdom and virtue of the teacher in the employment of healthful and correct motives, methods and aims. But still further, Every common school is an organized society, and includes, as an essential feature of its life and work, a distinctive system of government. The rules and regulations of the school find their authority in the end of education. The teacher must combine, as the constituted ruler of this society, the functions of legislator and executive.

The school, therefore, by the necessity of its work, permits and demands the existence and operation of all these subtle influences, and the potent word force, which spring up and become operative in a regulated society. The relations of the pupils to one another and to the teacher, give the conditions for the

existence of mutual rights and obligations in their perception and recognition—in the choice and acts consequent—every day and hour, each child in the exercise of his intelligence and freedom, must form moral character; and it is doubtful whether any other one agency is equally effective in securing similar radical and permanent transformations. Let us not then ignore or evade this most important fact, that education—our common school education—our so called secular education—does and must contemplate in its ends moral as well as intellectual results; that the nature of the child, the nature of the instructor, the conditions external and internal of the school house and the school, the duty work of learning, reciting and teaching, and all the social and governmental conditions and agencies of the school, singly and combined, tend to produce, and do produce, physical, intellectual and moral results. And these cannot be separated from that highest form of morality which we designate as religious culture, utilizing more or less consciously in some phases of piety or the converse, unless the very conception of a God is banished from the school and made impossible for the child to apprehend—a supposition that is both a psychological and a moral impossibility. It is indeed one of the calamities of the day, that in this land above all other lands—this Christian Commonwealth—this Republican Government—in the light not only of all the history of other ages and lands, but pre-eminently in the light of our own most remarkable history—a history which on its every page proclaims the immutable relations of intelligence and morality, of virtue and piety, and their indissoluble connexion with all that is good and great, or valuable and permanent in our institutions and our free government. I say that in this focal light of the ages, it is a most remarkable phenomenon that to-day, the American citizen and educator, is compelled to plead for the continued connexion of moral with intellectual culture in our public education! If the voice of history proclaims any one political truth with more emphasis than another, it is this: That healthful, national life is inseparable from national virtue, especially that Republican Governments cannot survive the loss of public morality. For the State, therefore, to establish and support a system of public education, and in it to ignore or underrate the value of an underlying basis of morality, would be to vitiate the sources of instruction, and to create an irresponsible and lawless force, which would in the end subvert the very foundations of a free government.

Knowledge and culture, without the guiding power of moral principle, are most dangerous elements in any and every form of social and political life. The State cannot afford to enter upon the perilous experiment of attempting the divorce of the intellectual and moral in the work of public education.

The remaining one rejected by the scope of our definition, of the end of education, is that popular view so generally entertained by the unthinking parent, and by him bequeathed to his children, which identifies the acquaintance of a certain class of fact, with education. According to this view, the value of a common school education is determined by the amount of knowledge it imparts of the branches taught. The error in the conception of the end of education is seen in its defective and limited shape. In a failure to recognize the inert, essential and important part of education, viz: the culture, discipline and development of various faculties and powers of the child. The correct view does not deny the great value of acquiring, in the period of childhood, as many facts in these branches of study, which stand related to practical life, as may be possible. On the contrary, I seek the wisest classifications of facts and principles and the correct order of their presentations, seeking to secure their right understandings, and to have them so impressed upon the many and assimilated by the mind, as to become the permanent possession of the child and always available for the uses of practical life.

At the same time it recognizes and makes prominent the truth that the real power of the child in the future will be gauged, not by the strength, vigor and availability of his own mental powers, by which these facts may be wielded and utilized. Without such disciplined and developed powers, knowledge of any kind is but useless lumber, having no

capability of affording pleasure or usefulness. If, indeed, the educator is called upon to decide which shall have the preference in a true system of education, he cannot hesitate to make just and fundamental the end of culture and discipline. Without this, all acquisitions of knowledge are comparatively useless. With this the individual is competent to secure for himself all needed knowledge of facts, and then to utilize them in the work of life. I emphasize this truth, at the present time, not because it is novel, or in danger of rejection in theory by the enlightened educators, but because in this utilitarian age the pressure from without, which demands that all education shall be made to subserve some practical end in life, needs to be resisted at just this point. We say then to the utilitarian—for your own ends, accepting your view of the chief value of education—still it is a radical mistake to neglect or to make secondary the training and development of the various mental powers of the child. These practical results you so greatly value can be won and held only upon condition of the possession of thoroughly disciplined and cultivated powers.

But what is true in the lower range of human education—is permanently true in all the wider and higher spheres of thought and influence. If our education in the common school looks toward laying foundations upon which the child may derive a broad and comprehensive scholarship—if it seeks to fit him for spheres of social influence, or to render him competent to struggle for those higher prizes of life which are found in intellectual contests—if it would render him capable of becoming a positive force in any of the civil, political or professional walks of life—if it would make it possible for him to benefit his race or country by discovery in art or science—if, in a word, it would fit him to act the part of a self-director in any department of life—it must secure for him that education that consists primarily in well disciplined and symmetrically developed powers. In his efforts to attain this result, the teacher must not proceed with the child as one would in the taming of a brute. It is not through authority or any mechanical appliance that this highest culture and discipline can be secured. The educator must remember that each child is a self-thinking, choosing and acting individual—that its intelligent and voluntary powers must be addressed and aroused to self-exertion, and that only when the child thus thinks and chooses for itself, can the valuable results of their education be attained.

In the application of these general principles to the common school, the only modifications demanded are such as the conditions of age and the limitations of time suggest. This practical phrase for our subject may be discussed more appropriately in answer to our second query, viz: What are the best means for securing the end of education? Bearing in mind the trifold nature of the child and the principles established; of their essential union in every phrase of growth and education. I reply, first, the external surroundings and internal arrangements of the school house should be healthful, pleasant and adapted to the work of education.

This statement covers the entire subject of location, suitable buildings and grounds, proper seating, warming and ventilating the school house, and all needful apparatus. One would suppose that to secure from any community, proposing to carry on the work of common education, all the means and facilities here indicated as essential to success, it would only be required to convince them of their importance and necessity. But in a multitude of cases the facts in the work of education do not confirm this conclusion. While in many localities throughout our country, and I may add, with just local pride, especially in the West, these primary conditions of right education are generally wisely fulfilled, it is still a humiliating truth that in most cases the children of the people are relatively, more poorly housed and cared for than the live stock in the barn and on the farm. School houses are often located in unhealthy and inaccessible positions. The buildings are small, poorly lighted and warmed, and with no proper facilities for ventilation.

Blackboards and illustrative apparatus are wholly wanting, and the internal arrangements are inconvenient and oftentimes so constructed as to induce deformity and disease. Under these defective and vicious conditions, not only is physical education in accordance

with correct hygienic laws, an impossible task; but necessarily all phase of culture become partially perverted and inoperative. What ever may be the inducing causes of this neglect and perversion, whether through ignorance, carelessness or a false economy, the imperative demands of a true education call loudly for reform. There must be the beginning of wise and healthful progress. We cannot rear the beautiful and imposing superstructure of a symmetrical and harmonious system of education when the foundations of the building are either wanting or so defective as to imperil and vitiate all subsequent editions.

But still further, and our answer here—as the one just given is almost axiomatic—for securing the ends of a right education there must be competent teachers. If the farmer should understand the nature of soil and seed and their mutual relations and laws of growth for successful husbandry, much more should the educator, who is to till the soil of the immortal soul and fertilize it with truths and develop its capacity for fruit bearing, understand the laws of body and of mind, their relations and the right method of securing their harmonious development.

If skilled labor is anywhere requisite for highest success and educating results, permanently it is a necessity in the complex, difficult and most responsible work of the teacher.

In this connection, time will permit only of an outline of the qualifications of the competent teachers.

Manifestly, he should understand thoroughly and comprehensively the material which he is to mold—child nature. This includes physical, mental and moral functions and powers and the laws which determine their growth and culture. So, also, should he possess a thorough and extensive knowledge of the subject matter to be taught, and have a ready and familiar acquaintance with the best methods of teaching. To attempt his great work without proportion to the extent here indicated, is to become open to the charge of empiricism and charlatanism. Still further, success in teaching demands on the part of the teacher, a love for his profession, an enthusiasm in his work, and the inspiration which comes only from a genuine love for the child. Whoever engages in this work, from lower motives and less exalted aspirations, will almost necessarily become discouraged, will fall under the influence of ignoble motives, and fail to achieve anything more than a mechanical success. Adaptation here, is an essential requisite. Tact, power of communicating thought, quickness of perception, sound judgment, self-control, and as a summary of all qualities, robust, good sense are personal qualifications that may not be dispensed with, without peril of failure in his vocation. To all these we must add, those higher moral qualifications which will enable him to influence and govern, and thus educate in the highest sense, the national and spiritual genius that await his life-giving touch. To send into the school room an unprincipled man or woman, with low and false theories of right and wrong, with vicious and debasing habits, vulgar and possibly profane, is to expose deliberately the fountains of life to corruption and death. Better, by far, close our school house and abolish our system of public schools than to make it the medium of a vicious, immoral education, which degrading and debasing the individual, will also be certain to prove the prolific source of vice and crime. The State may not hope to nourish such a deadly viper in her bosom, and escape unharmed. Safety, as well as the highest good, demands the careful and faithful supervision of the moral as well as the intellectual qualifications of the teachers of our common schools.

From this hasty and imperfect sketch of what is necessary to constitute a competent teacher; it is manifest that the State cannot expect to secure such qualified educators without both furnishing the means and opportunity for their culture and special training, and also making such preparation an essential condition of their employment. So long as the needed facilities are not afforded for the professional education of teachers, and so long as district boards are willing to employ poorly instructed, untrained and inexperienced men and women for this most difficult work, simply because their services can be obtained cheaply, so long will the most important department of public instruction—our common schools—be the open field for empiricism, or children the sad subjects for educational experiments which must in the main result in perverted and defective, if not positively vicious education. If there is any profession which demands a special school for preparation it is that of the teacher. The State might dispense with its professional schools of law and of medicine, and perhaps suffer no serious detriment, for the incentives of pecuniary reward and of honor would impel the enterprising and ambitious to make that personal preparation, which in these, as in all professions, underlies highest success. But with the meagre and uncertain wages of the common school, with its harassing and exhausting labors, with its intrinsic difficulties, and with its uncertain promises of anything better for the future. Unless higher motive forces can be introduced, and a professional character be given to its entire work, which shall include for the earnest, faithful, prepared teacher, the probability of advancement and remuneration, the grade of excellence in the rank and file of educators will continue to be low. The common school will continue to be regarded as only a convenient stepping stone to some

other more congenial and profitable employment, and the State as a whole and every community in the State will suffer in all their varied and highest interests from the educational quackery, which its own false economy and short-sighted policy develop and foster. To discuss the best plan for Normal Schools in the State of Kansas, does not now come legitimately within the scope of my theme. I have heretofore outlined, before the State Teachers' Association what I believe to be the true solution of the Normal Problem for Kansas. I may here, however briefly affirm my profound conviction that the time has come when this commonwealth should have a settled policy upon this most vital question.

The interests of education and the closing of a wise economy alike demand for it further reflection and a wider observation but confirm the opinion I have previously expressed and maintained; that Kansas wants neither the cumbersome and expensive system of Pennsylvania nor that of New York. Systems that even in their widest range of influence can only partially meet the pressing necessities of a great State.

We need but one central endowed Normal School—with related Training Schools, in each well settled county, supported by the county in which they are established, and for which they furnish trained teachers. In this the course of instruction is to be purely professional, and limited to the immediate wants of the Common School. The teacher in charge of the County Training School, to be a graduate of the State Normal School, thus giving unity and harmony to the work of education in the State.

At present, with no well defined policy, the State drifts inevitably into the raging sea of opposing local interests, the course of Normal Education becomes identified with the selfish aims of ambitious politicians and unscrupulous speculators, and consequently falls under an odium which should never attack the work of education. The State of Kansas owes it to herself, in behalf of her common schools, to define and establish the character and sphere of Normal Instruction.

Our final answer to the inquiry, regarding the best means for securing the ends of education has reference to the subject matter taught, and the methods of instruction employed.

These should accord with the established conclusions of the wisest observation and experience in the work of education and the ascertained laws of mind, as applicable to the reception and importation of knowledge.

Practically, two extremes should be avoided. On the one hand the rash radicalism which seeks change, for the sake of novelty, and refuses to see anything good and valuable in old systems and methods, and on the other hand, that prejudicial conservatism, which condemns the new, because it involves a departure from ancient customs. The fact is, that the present century has witnessed no greater true progress in any department of thought and action, than in the theory and practice of teaching, and in the apprehension and application of correct educational principles. Largely this is due to the related progress made in psychological and physiological investigations, giving a truer conception of the nature of the body and mind, and the laws which determine their normal development. At the same time the attention given to the natural sciences, has not only led to the discovery and appreciation of their practical value in the affairs of every day life, but at the same time has brought in to clear light, their special adaptation to the work of primary instruction in the culture of the perceptive faculties, and the healthful quickening and invigorating of all the powers of the mind.

While, therefore, there yet remain many educational problems unsolved, while there are still many debatable questions upon which leading educators hold diverse views, yet there are other most important truths—truths which radically change old systems and methods of education—concerning which there is a general agreement of judgment and action on the part of all intelligent educators. The Pestalozzian principles of evolution—of development—that is expressed by Hallman, "Whatever powers man has must be developed harmoniously, that all individual development manifests itself as self-activity—that this has two phases, one from without inward, receptive, acquisitive, learning; the other from within outward, expressive, productive; and that hence "all instruction must be intentional, reaching the mind through the senses. These combined with Froebel's law of the "connection of contrasts," and that every new institution is to be used in new forms of expression, and to be combined in practical, useful productions—that the best conditions of education, are those where the "learner is placed in the most favorable circumstances for self active, organic growth in every direction of his being, when knowledge and skill, saying and doing, theory and practice, go hand in hand at every step. These fundamental principles of right education are generally accepted, and now only need intelligent application in all departments of elementary instruction, including the Kinder-Garten and every grade of the primary and common schools. Doubtless the application of these principles will largely revolutionize the old stereotyped methods of instruction, and if they do not displace much of the subject matter commonly regarded as the essentials of common school education, they will at least introduce a large variety of new subjects of study, restricting the old matter to a narrower sphere of time and importance. The Rip-Van Winkles of the

school room will rub their eyes in amazement, in witnessing the rapid and delightful progress the children of the new education shall make in learning their mother tongue, and with it many of the grand, yet simple and most useful truths, found in the elements of the sciences. Together with the object lesson, wisely taught, the pencil and the crayon on paper, slate or blackboard, shall early create a fondness for reproducing the forms of the external world, and stimulate the imagination.

All this lies within the legitimate sphere of the common school, and with competent teachers and the external accessories of suitable school houses, grounds and apparatus, might become a realized fact for every school district in Kansas. The advantages to be derived from the new education, would be the common property of the people of the entire State; for the common school is the school of the people. The mechanic and the day laborer, the farmer and the professional man, share alike, or may share alike, in the advantages of the common school, and every citizen should bear his just share in its support.

If the theme assigned me—"The Common School in its Relation to the Farmer"—is designed to imply that the farmer has some special claim upon the common school, or that the common school should be modified or conducted with special reference to the farmer, I deny both positions. I deny it in the interest of the farmer as well as that of all other classes of citizens. In this Republican Government, the common school is the exclusive heritage of no class of men. It is the common heritage of each and all. All may share its benefits; all should foster its growth and rejoice in its success.

But if the theme was designed to awaken the attention of the farmer to the true nature and scope of our public system of education—to excite his interest in it, and strengthen and increase his affection for it—if it was thought that the farmer, by the very nature of his occupation and its exacting claims, needed good common schools as much, if not more, than any other class of men, and that it lay in his power very largely to shape the action of the State upon this great subject, then I am in most hearty sympathy with these views, and in directing your attention, gentlemen of Capital Grange, to the true end of education, and the best means and methods of attaining it, I have sought to secure the results thus suggested. In conclusion, let me add, that this institution, like any other institution, cannot flourish and produce the highest results without careful, wise and generous supervision and support. Let not your children, in the tender and formative period of youth, have less attention in their education, than you give to the rearing and training of your choice stock on your farm. Believe me, if money, time and care are well spent in securing best seed, best tillage, and best labor in the work of the farm—if then you can only rationally expect valuable results—pre-eminently is this true in the work of education. You cannot afford to neglect the common school—you cannot afford poor school houses, deficient apparatus, or poor teachers.

The remedy for poor scholars is in your own hands. See to it, personally, that the common school of your district is inferior to none in the State. Build the foundation of elementary education broad and deep. Accept of no superficial, defective work at this point, for neglect here will vitiate all future results. A good common school education is the basis of all higher education. Give this to your child and you may have no fear for his future. With right culture and correct principles and discipline in youth, he will be fitted for any position in life or for any of its emergencies. Whether on the farm or at the forum, in the barn or on the bench, holding the plow or guiding the helm of the ship of State, anywhere and everywhere, he will be a true man—a worthy citizen, an honor to his home, his State, his country.

An "Old Farmer" says in the *Country Gentleman*: "When I married, I told my wife she was never to board a hired laborer. Thirty-five years have elapsed, and I have stuck to my agreement. I get first-rate men by selecting those who have families, and give them comfortable houses to live in. They can board themselves much cheaper than I can do it. It would seem absurd for my wife to make a slave of herself to feed laborers and do the work of providing for them three meals a day, sick or well, and do the innumerable tasks of drudgery connected with it, in order that my hired man's wife should escape all this labor and have a good time of it. Yet there are thousands of farmers, well off in the world, who are wearing off and killing their wives with this very thing. I say, shame on them! Put up one or two cheap and neat cottages to begin with, and try the experiment. Do not compel the woman to the slavery of providing meals a thousand times a year for half a dozen or more hired men, wash all the dishes a thousand times a year, in addition to the common work of mending clothes, making butter and a hundred other things. Let the men board themselves, and you will make money by it in the end for I speak from experience."

Any person sending \$2.00 will receive the *FARMER* and *YOUNG FOLKS* for one year, postage paid.

Written Expressly for the Kansas Farmer.

FAMILIAR FARM TOPICS.

BY JAMES HANWAY.

NO X.

TAME GRASSES.

There has been a considerable controversy among farmers, concerning the cultivation of tame grasses. While some have succeeded many have failed. Since the locusts in the spring totally destroyed the timothy, clover orchard and bluegrass, in localities which they visited, the question has become still more problematical.

There is no class of farmers who deserve our sympathy more than those who have made repeated efforts to cultivate these grasses.

It has been stated so frequently in our news papers that tame grasses have proved a success that we will find some by calling in question this statement, for it will be alleged it will prevent immigration to our State.

The truth is always better to be stated, even if we have to admit some facts which we would desire were otherwise.

We have seen some good fields of timothy, blue grass and clover, but in most cases several efforts have been made before a good stand was obtained. Our seasons are generally unfavorable. Sometimes by sowing timothy in the fall a favorable rain will start the young plants, but the next August's sun will kill it out. In a large extent of country in the border counties, where farmers had more especially turned their attention to this matter, the locusts came and destroyed every vestige of vegetation. This was very discouraging, especially to those who had a good stand of blue-grass, for it takes three or four years to form a good stand. Those who have had ten or twelve acres of blue-grass pasture, valued the crop higher than so much land in corn, for the stock, during the winter when the snow is on the ground, would prefer it to any other feed, and it was a common remark, that the cattle which had a blue-grass pasture came out of winter quarters better than those which were fed on hay or fodder.

Last fall several concluded to make another effort to sow timothy. I notice that most of these new fields are very "spotted," caused doubtless by the dry weather. It has been claimed that orchard grass would stand the winter better than most other tame grasses, but in this section of country, the orchard grass was seriously damaged by the dry, cold winter of 1875.

What we need in Kansas is a grass that is capable of resisting drought. Alfalfa, which is extensively grown on the Pacific coast, appears to supply this want. Last year several small lots were sown in this section; it came up and looked promising, but the locusts destroyed every vestige of it.

FOREST CULTURE.

A friend from Ohio, on a visit to Kansas, and who had been a reader of the *KANSAS FARMER* and other papers published in the State, remarked that he was surprised there was so little accomplished in the way of planting forest trees. From the frequent articles which he had read during the last eight or ten years on the subject, he naturally supposed that it would have attracted the attention of those who had prairie farms, and living as so many do, several miles from timber. He said he could not account for the lack of enterprise.

Everyone who will give a thought to the subject, will manifest the same surprise; that farmers, especially those who have to purchase every load of timber they consume for fuel, and other purposes, have not paid more attention to this matter of forest culture. One cause, doubtless, of this omission is, that pay-day is in the future, and we must admit that we have a restless, roving population, who are ever ready to sell to the first comer who will give him his price; this class would consider it lost time, to plant trees for those who are to come after them.

WATER SUPPLY FOR WINTER.

There can be no doubt cattle frequently suffer more for water during the winter months than they do during the summer months. Our winters are generally dry in Kansas, which is an advantage for stock raising provided they are supplied with drinking water. Our small streams contain but a scanty supply, and when freezing sets in the holes become frozen to the bottom. When a cold brisk wind is blowing, cattle cannot be induced to leave their quarters to search for water, especially if they have to travel any distance over the prairie. A good cistern of rain water would be of great advantage on such occasions. We know of one farmer in this county who has a large cistern under his barn, and when the water course is frozen up his cattle are supplied with good cistern water; he says this has paid him as well as any outlay he has made, and it saves a great deal of time.

FARM GARDENS.

"In summer's plenty think of winter's want," is an excellent maxim. Its reverse, "In winter's leisure think of summer's want," is a reciprocal maxim, also of great value. Both are especially applicable to farmers' gardens. I propose to offer a plan for a farmer's garden, and a method of cultivating it, which will largely increase the yield of garden produce per rod, and, at the same time, very much diminish the necessary labor of cultivation.

One-fourth of an acre is the size required, let the garden spot be fenced off ten rods long by four wide. If trees, shrubbery, perennial vines, &c., are wanted, let them be grown in a plot alongside, enclosed by the same fence, if so desired. The garden proper may be plowed readily, by two horses, deep and thorough—not disusspading. Two hours of leisurely work will accomplish this. Of course, eve-

other ploughing should reverse the direction of the furrow slices—one gathering them toward a ridge in the center, and the other leaving a cleaning up furrow there. It is well to accomplish this ploughing as early in the spring as the ground is in excellent condition for that purpose. Do not neglect it. Now, drive down, at each end of the garden plot, stout stakes four feet apart, with four feet space on each side of the lot. Thirteen such stakes will be required at each extremity. Thirteen more stakes, not so permanent, but to pull up and replace, as occasion requires, may be planted half way intermediate. A stout garden cord will reach from end to end of the garden plot, stayed and held up by the central stakes. By this method exactly straight rows are easily secured. Commence planting in early garden on one side of the plot, and from time to time, as occasion requires, use a one-horse cultivator over the unplanted portions of the garden, selecting times when the soil is dry and friable for this purpose. Let this cultivation be deep and thorough, and always preceding a continuation of garden planting, which may thus continue from the middle of April to the middle of May, earlier or later as the case may be, always on freshly prepared and weed-eradicated soil. I frequently find my first planted rows so distinct before the plants are up that with the aid of a few pieces of shingle to mark the rows I can also cultivate them, thus cultivating the whole garden plot in advance, which is taking time by the foretop, and making the soil so friable and clean that when hoeing time comes it is pure fun to knock the clean mellow soil about among the growing plants.

In my garden I have no beds—everything is grown in rows. In growing lettuce and vegetables of kindred habits, I make the main row a base of three rows, six inches apart. This gives me at that point three feet space for my horse and cultivator, and by exercising a little care, that suffices.

Now, the great excellence of this plan is the opportunity it affords for deep and thorough cultivation with horse cultivator. The benefit is twofold: Such cultivation brings a luxuriant and healthy growth, and the mellow, clean and friable soil is soon hoed over. An active and industrious man can hoe cultivate and thoroughly hoe a three-quarter acre garden in half a day.

Even old experienced farmers, many of them, may, by experimenting with a garden on this plan, learn more fully than they have ever known before, the very great advantage of a thorough cultivation of the soil.

Place two gardens side by side. One spaded or shallow ploughed, and worked with a hand cultivator, the other deeply (habitually so) ploughed, and deeply horse cultivated; the luxuriant vegetable growth of the last will be double that of the first, all other things being alike. This I have demonstrated.—*Peter Hathaway, Sr., in Ohio Farmer.*

Written for the Kansas Farmer.

ORCHARDS.

CHAPTER VI.

It is an impossibility to give a good idea of the pruning of fruit trees without the necessary illustrations or engravings; such teaching can only be done in an Agricultural College with a nursery attached to it, and where the teacher can give his explanations while showing the points on the trees; there he can demonstrate the formation of the different composition of the branches; for the difference in wood branches and fruit branches must be clearly understood; the different eyes, cuts and twigs have to be known, or it is impossible to make a good and scientific pruning.

It is a very sorrowful sight to see how some men take hold of a tree and cut and prune right and left, without the least idea of what they are doing. Most of the time they cut off all the lower fruit branches and only leave some on the top; they say it is to give more air in the tree, and they destroy the fruit and the tree for some time at least; by such a trimming the limbs get covered by those thorny branches called gourmands, and unless a man who understands the science of pruning comes to the rescue, the tree is spoiled forever.

To remedy as much as possible that bad habit, I will try to give a short explanation of what is to be done; hoping that we shall have in a short time to come, able arboriculturists, to learn to the young generation, how all that work has to be done, and that our State shall follow the example of the Belgium government; which has public Horticultural Schools and gives also every year great premiums to farmers for the best fruit growing.

It is as necessary for a fruit grower to know the secrets of the nature and formation of a fruit tree as to know how to read and write.

We must first know that a tree is composed of limbs, branches, twigs, buds, eyes, etc.

The limbs constitute the frame work and must be taken care of by the forming of the crown; the limbs must be as symmetrically as possible; every year they increase in length and thickness by the growing of the tree. All along the limbs we must raise our fruit branches and wood branches; the wood branches are grown to form the limbs; the fruit branches to raise fruit; we have also the replacing or substituting branches, those are for the peach tree and vine, because the fruit branches must be renewed every year. Now if we don't know how to distinguish these different branches from the others how can we prune a tree? It is a great deal better not to put a knife on a tree, than to trim it without knowledge.

All the parts of a tree must grow in equilibrium, according to their more or less thrifty growing; for that reason we must know how to help some branches and how to restrain some others.

The strongest part of a tree must be in its limbs and the weaker part must be in the branches. This equilibrium is destroyed by trimming all the fruit branches from the lower limbs and keeping them on the top, thereby bringing all the weight on the top of the

