

KANSAS FARMER

WITH WHICH IS COMBINED
FARMERS ADVOCATE

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Established 1863. \$1 a Year

President Waters Formally Installed

An Epoch-Making Event in the History of the Kansas Agricultural College.

Established by an Act of Congress in 1862, the Kansas State Agricultural College has had a varied history. It began its existence with the equipment and traditions of a pioneer denominational institution out of which it was created. In its earlier years few people had more than a hazy idea of what an agricultural college might be or of the object for which it was brought into existence. The fact that it was named a college carried with it the idea of an education, but education in those days meant little more than the training of memory. The boy of that day was possessed of eyes with which to see, hands with which to do, and a brain with which to think, but his memory only was sent to school, just as had been true of thousands of other boys on thousands of other days.

When the boy had studied through the course and his mind had fed upon the mental pabulae offered by the schools of the time, he found that he had received the same training that had been accorded to every other boy, regardless of individuality. When he went out into the world to do his work as a man among men, he found that he had been fitted for nothing but one of the so-called learned professions, and that every other college boy had been fitted for exactly the same thing. His natural bent of mind, his capacity and his individuality had been lost sight of and he found himself a mere stranded graduate unable to do the work of the world because he was a mis-fit—a square peg for a round hole.

Men were thinking about these conditions and those who were active in the making of Kansas had long, long thoughts. The big, breezy, brainy men who subdued the great American desert realized that any system of education which should be inconsistent with the earning of daily bread must be faulty and they set about to remedy it. They sought to create a system by which the whole boy could be sent to school, not a part of him. A system in which his memory should be trained by historical studies, his observation by the natural and physical sciences, and along with these his hands and eyes and feet to do skillfully the bidding of a well trained mind. This idea was elaborated in the curriculum of the early seventies and marked the second epoch in the history of the college.

While the idea of manual training and an education for the useful was dominant, the full comprehension of the potentialities of the Agricultural College and the more recently created experiment station, was but dim; and the greatest work of the college during this period consisted in the training of its own teachers and experimentors in this new and wonderfully fertile field. In doing this it did not neglect the student but it accomplished double work and has been a leader of its kind.

The third great epoch-making event in the history of this institution was celebrated last week in the inauguration of President Henry J. Waters. The college has grown in numbers until it is the largest of its kind in the world. It has grown in usefulness until it is second to none. It has grown in equipment until little is desired and, best of all, it has materially helped to develop the possibilities of such institutions until the world knows what to expect in results and how to value

them, and experts abound where none were before.

The college has grown into a mighty engine of usefulness in the future guidance of which a strong and skillful hand is needed. Its future usefulness as well as its efficiency is practically unlimited and to the new president belongs the honor of having been the first who has been specially trained for his work.

With the governor of the state and many other notables present by invitation, and with letters or telegrams of congratulation from nearly every other agricultural college and state university in the United States, the installation exercises opened on the morning of Nov. 11, in the presence of a great audience of 3,000 people.

The ceremonies of the forenoon were presided over by Gov. W. R. Stubbs, and consisted of addresses of welcome and congratulation from Chancellor Frank Strong of the State Uni-

versity, President Jos. H. Hill, of the State Normal School, Supt. E. T. Fairchild, of the State Department of Public Instruction, Secretary F. D. Coburn of the State Board of Agriculture, Congressman Chas. F. Scott, chairman of the house committee on agriculture, and Dean Walter Williams of the School of Journalism of the Missouri University, on whom the honorary degree of L. L. D. was conferred later by President Waters.

At the close of the exercises, luncheon was served by the Domestic Science and Art Department and presided over by Mrs. Mary P. Van Zile, dean of women.

Following luncheon came a dress parade of the 500 college cadets in uniform, after which the afternoon session was opened by Hon. W. E. Blackburn, president of the board of regents who presided.

The exercises of this session consisted of an address by Governor

Stubbs on "The Duty of the State to Higher Education." This was followed by the formal installation of President Henry Jackson Waters who delivered his inaugural address which we take pleasure in reproducing in KANSAS FARMER.

Of all men who have presided over the destinies of the Kansas Agricultural College, President Waters assumes the greatest burden. His personality and training are such that he inspires confidence on first acquaintance and this confidence grows as the years go by.

The institution is not only greater than ever before, but it is greater than all others, and a long personal acquaintance with President Waters convinces the writer that the board has done wisely and well in selecting him as a pilot for its future destiny.

This was a red-letter day in the history of the State Agricultural College and it wound up with a grand reception held in Domestic Science and Art Hall during which thousands of farmers and other citizens had opportunity to congratulate President Waters upon his exaltation to this high office; the state upon the acquisition of such a man; and themselves on the future usefulness of their sons and daughters which is now assured by a training in the State Agricultural College.—I. D. GRAHAM.

PRESIDENT WATERS' ADDRESS.

A quarter of a century ago the sort of education for which the Kansas State Agricultural College stands was in its experimental stage. Its right to a place among the well directed efforts of our people was seriously questioned.

That in this brief period these agricultural colleges should completely break down opposition, allay prejudice, and come into a commanding position, was beyond the hope of even their most ardent advocates.

*The impulses which were set in motion by the passage of the Morrill Act have already developed a new education. President Schurman, of Cornell University, recently characterized the founding of the land-grant colleges of America, through which universal industrial education was made possible, as the third and perhaps the greatest epoch in the educational history of the world.

The impress of these institutions upon the systems of education has been no less important than that upon the industries themselves. From the very beginning the instruction in the mechanical arts and engineering was successful, and the men engaged in these industries were quickly brought to a realization of this fact and accepted in full confidence the college made engineer.

While in the public discussions leading to the establishment of these colleges, agriculture received chief attention, yet when they were organized few students applied for instruction in this subject, and for many years little impress was made upon the farm practices of the country. It is, in truth, only within the last decade that a system of instruction and research has been developed and perfected that is shaping the policies and destinies of this, the oldest and most important occupation of man.

It was one of the fortunate circumstances connected with the creation of these colleges that the act of congress



So Thankful—It will take a mighty big turkey this year.

bringing them into existence was comprehensive enough with respect to their purposes and objects to admit of the teaching of a wide range of subjects. The comprehensive charter with which they were vested permitted of extensive experimentation in courses of study, a wide adaptation in subjects taught, arrangement of courses, methods of instruction, etc. Untrammeled by tradition, they were free to make experiments in the subject taught, as well as in the method of teaching it.

Broadly speaking, there has been assigned to this class of colleges, in the natural division of labor, the great industrial problems of our people, including the development and conservation of the material resources of the country, as well as the great economic and sociological questions affecting the industrial classes.

As interesting as the history of the development of these colleges is, and as rich in history as this particular member of the group is, on an occasion like this a glance into the future is perhaps more appropriate, for it is there that our problems lie.

COMPETITION IN EDUCATION.

The American ambassador to Great Britain recently facetiously referred to our educational system as America's chief industry. In other ways it is frequently suggested that in this matter the rate of growth has been out of proportion to our development in other directions and beyond our real needs.

Of the 18,000,000 children in the graded schools in the United States today, less than a million, or less than one in 20, will ever matriculate in a high school or an academy. Moreover of the 900,000 pupils in the secondary schools, only about 200,000 will be enrolled in our colleges and universities, or approximately one out of every four.

It requires, therefore, approximately 80 pupils in the grades to supply one college or university student. Less than one in five of these college and university matriculates graduate. Therefore, over 400 graded school pupils are required to furnish one college graduate.

Of more significance than all this is the fact that seven out of every eight of the boys and girls of the United States leave school between the fifth and sixth grades and go out into a world of splendid opportunities without the training and intellectual power to enable them to take advantage of these opportunities.

It would not seem, in the light of these facts, that there was much serious competition in education. In fact, it does not appear that we are doing very much to break down human ignorance and overcome human prejudice.

TAKE THE COLLEGE TO THE PEOPLE.

While it is of paramount importance that the college give thoroughly sound instruction to the young men and young women in residence, it is equally true that its activity must not end here. More and more must the college be carried to the people. At best but a small proportion of those who avail themselves of its advantages can leave home.

FARMERS' INSTITUTES, ETC.

This phase of the college work, as it affects the farmer, is already well organized and bringing splendid results. Through the farmers' institutes, farmers' conventions, instruction trains, demonstration farms, etc., the whole state is being reached. It is expected that the representatives of the college will this year come into personal touch with fully 75,000 farmers and farmers' wives, or more than one out of every three farmers in Kansas. It is possible that it will soon be found necessary to offer courses in agriculture and home economics of varying lengths in different parts of the state, to accommodate the increasing demand for instruction in these subjects on the part of those who cannot leave home.

OUTLYING EXPERIMENTS.

It is not sufficient to conduct experiments at Manhattan and Fort Hays and call the problem finally settled in accordance with the teachings of these results. Kansas is a large state, with a great variety of soils, and great variation in rainfall and in plant and animal adaption. As soon as funds for this purpose can be provided and the work so organized that it may proceed in each case along lines that are fairly certain to yield profitable results, there should be instituted systematic tests or experiments in

every county in the state. This will be found profitable not only because of the exact information secured, but by reason of the greater confidence which the farmers will have in the results, because they were secured under conditions which they recognize as identical with their own.

Then, these experimental fields may also serve an exceedingly valuable educational purpose, by being so planned that they demonstrate some point in agricultural practice of especial importance to the community in which it is conducted.

Farm practice is developing at so rapid a rate and so many methods are



H. J. WATERS.

being found to succeed well under one set of conditions and not under another, that for the individual farmer to try, at his own expense, all that good judgment indicated might be worth trying, would mean that his farm must become an experiment station instead of a business enterprise. It is, therefore, the business of the state and federal government to put these things to the test for him, and that under circumstances closely approximating his own.

CONSERVING WATER POWER.

A series of investigations and experiments looking toward the conservation and utilization of the water supply of the state, both for the purposes of irrigation and power, is a duty which the college owes the public. There are doubtless many localities in which sufficient power could in this way be developed to supply the needs of farm and village within a radius of 20 or more miles. In many other places hydraulic power could be developed sufficient to furnish light and power for from one to a dozen farms. The loss of crops from improperly distributed rainfall in this

in need of flood protection, and some portions need a system of land drainage similar to that which prevails in the eastern states.

Tests should be carried on to determine the draft and efficiency of farm implements with the expectation of establishing standard designs for the different conditions of soil.

Kansas produces gas, oil and coal in large quantities. Much of this has been wasted in the past and is being wasted under present conditions. A series of tests conducted on a commercial scale will do much towards establishing standard methods for the preparation and use of these materials.

The gasoline engine will, for some time to come, be the principal prime mover for small units in this state. The cost of gasoline is constantly increasing. Under present conditions denatured alcohol cannot be used economically. Investigations that will lead to methods of manufacture of denatured alcohol at a low price, and to methods of producing gas from Kansas coal successfully, will do much to extend the use of this type of engine and to cheapen the cost of power.

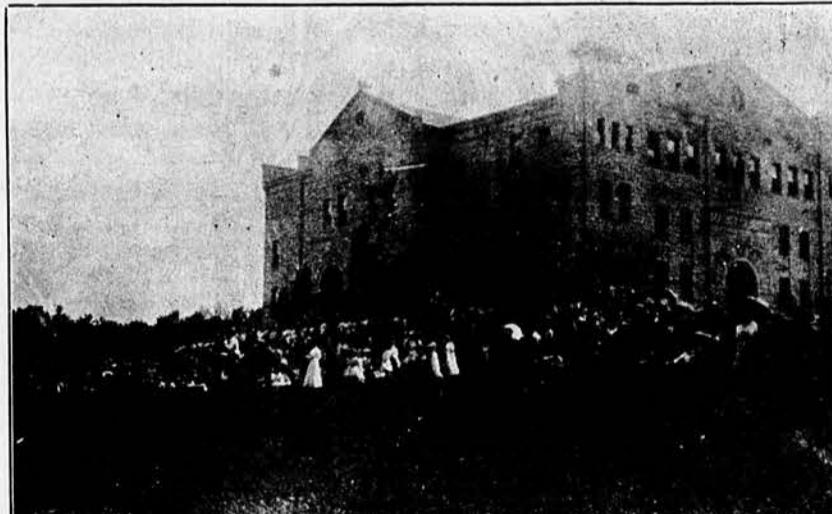
Of more importance than all of these, is the country highway. We have, through long use, worn out the natural roads, and have not yet found a successful substitute. Through the recently created department of public highways of the college, however, it is expected that we shall be able to educate the people concerning the importance of this matter. Moreover, through this means the college is now pointing out the most satisfactory ways of maintaining earth roads, imparting information in regard to the best systems of permanent culverts and bridges, and as rapidly as the people of a community will assume the cost, will supervise the construction of permanent roads.

At all times the people have been found ready to pay taxes for permanent public improvements, if they are confident that the money will be judiciously expended. It is through careful supervision by the experts of the college that the ordinary mistakes of the planning and construction of these highways and bridges will be avoided.

THE EXPERIMENT STATION.

The primary function of the experiment station is to extend the domain of human knowledge. It was the experiment station which won back to the college the confidence of the farmer which confidence had been forfeited for lack of ability to lead him.

It is the experiment station which has supplied the teacher with accurate and well organized knowledge to impart in the class room. It has been the experiment station which has provided the way for these institutions to become real leaders in the realm of agriculture and has exerted an influence upon agricultural practice that is epoch-making.



The Agricultural College Auditorium and a portion of the crowd watching the military parade.

state is enormous in the course of a decade. In many places water could be economically stored during the wet seasons to be used for irrigation when the rains fail. In other localities, the underground supply of water might be profitably utilized by a proper method of pumping.

The protection of life and property against floods is a matter of serious importance, and commends itself to our favorable consideration.

Water purification and sewage disposal are as yet unsolved problems for the greater proportion of the state.

Many parts of the state are sadly

in need of flood protection, and some portions need a system of land drainage similar to that which prevails in the eastern states.

It is an admirable work to turn out young men trained for leadership on the farm and capable of going among farmers as teachers of correct systems of agriculture, or to lead young men who come to the college to a better knowledge of the subject; but after all the greatest work these colleges have to do is to equip men with the proper knowledge and the necessary inspiration to advance the world's knowledge and to supply these thousands of teachers with something to teach.

It is, therefore, a fundamental mistake to assume that the duty of the

experiment station is solely or even principally to benefit the farmer directly. A larger responsibility rests upon it—that of making an exact science of agriculture, so that it may be successfully taught in the college, the high school, the graded school, the farmers' institutes and on demonstration farms.

The value of research is not limited to the industries. It is the very life of a teaching institution such as this. It gives point to the instruction. The teacher who is an investigator is a live teacher; no man can long keep alive as a teacher and not conduct researches.

RESEARCH TO ENCOURAGE MANUFACTURERS.

But research in these institutions has been restricted to too narrow a field. Little attention has been given to problems other than production problems. The effort has all been in the direction of making two blades of grass grow where one grew before; or of increasing man's efficiency with this or that machine. The time has come when its influence should be materially extended. The wastes of a rural community are not all to be found in the processes incident to production. An equal waste occurs in the marketing and utilization of the materials produced.

The investigations should therefore include agricultural manufactures and the utilization of wastes on the farm. Factories should be developed in the country, near the sources of production, for the preparation for final consumption of the materials grown on the farm. Such factories are necessary for the highest degree of economy in the production of food and to give the laboring man an opportunity to gain a livelihood outside of the congested city. Food stuffs are already too high to stand the strain of the additional cost of transporting the raw material long distances in order that it may be manufactured into edible form, then shipped back to the consumer in the very community in which it was grown, and where its manufacture might have been accomplished to better advantages.

In the countries where the raw materials of our food stuffs are chiefly grown, there they should be chiefly manufactured. Kansas wheat should be milled in Kansas. Just as the experiment station has made a profound impression upon the methods of farming, so may it improve the method of manufacturing the products of the farm. The millers of the state need just such scientific assistance as the station can provide, all with a view not so much to helping the miller directly as to improving the quantity and quality of the food stuffs garnered from the Kansas wheat fields.

THE ECONOMICS OF MARKETING.

Such vital questions as how to dispose of the products that they may yield the largest returns, or how to spend the income so as to bring the best results in the highest sense, has been practically neglected.

To correct this one-sided development and meet this larger demand, the department of history of the college should be so strengthened and enlarged as to cover, both by instructions and by research, the industries of our country. The department of economics should be prepared to fully cover the range of transportation, manufactures, marketing, etc., as they relate to the farming and industrial classes. The department of sociology should deal with the life of the people in the open country and in the districts supported by the industries, and be able to suggest plans for their immediate and permanent improvement.

The department of agriculture should make a large impression upon the homes and public buildings of the state, and upon the location and arrangement of the accessory buildings that they may conserve the strength of the housewife, afford the sanitary conditions essential to health and add to the comfort and pleasure of country life.

AMERICANS LIVE WASTEFULLY.

Americans, poor and rich, live wastefully. This cannot continue. A new basis must be established which shall, while avoiding perhaps the extreme care and economy of continental Europe, which destroys initiative and kills pride, stop the major wastes in our system of living.

But of more importance than mere economy of living is the influence of the environment and method of living

upon the race. Will out of it all in the long run come a strong and virile race of people, a race capable of meeting the complex problems of the future and advancing still further our civilization?

It is especially appropriate to emphasize this point in the institution which, among the land-grant colleges at least, has been a leader in this line, and which today boasts the largest and perhaps best equipped department of domestic science and art in America.

As much, however, as has been done in this direction and elsewhere, and proud as we have a right to be of the record of this college in this direction, real work has but scarcely begun and we scarcely realize what this great movement means and what will be its future development. Certain are we however that it means something more than the mere teaching of young women how to sew and how to cook. It has involved in it the whole question of home building and the rearing of a strong and virile race of people. The dream of the ancients is thus beginning to be realized—a strong mind in a sound body. But we have only just come to take this view of the matter and have scarcely begun work on this broad basis. Times are strangely out of joint when we justify the extensive scientific inquiries into the way to rear a strong and vigorous race of pigs or sheep or colts or cattle, and are content with the very meager knowledge which we possess of the nutrition of man. We have millions for research in the realm of domestic animals, and nothing for the application of science to the rearing of children. Exhaustive studies are made upon the life histories of animals of the lower orders, while vital facts in regard to the life history of our children remain a sealed book. We know how the amoebae develop, but are content to remain in ignorance of what factors contribute to the development of a strong body and a sound mind in mankind. For centuries we have let the injunction "Know thyself" go unheeded, and have forgotten that "The greatest study of mankind is man."

For every dollar that goes into the fitting of a show herd of cattle or hogs or into experiments in feeding domestic animals, there should be a like sum available for fundamental research in feeding men for the greatest efficiency.

The Kansas State Agricultural College ought to take advanced ground here, and build up the greatest institute of research in human nutrition in the world. The federal government should be interested and co-operate with the state and community in matters of this sort.

THE EXODUS FROM THE FARM.

It is common to lament the tendency of the best men and women to leave the farm and go to the city as a modern or present-day tendency, whereas it is as old as civilization itself. "Plutarch in his *Praecepta Politica* protested against the threatening invasion of large cities; Cicero thundered against the depopulation of the rural districts through similar attractions to those which draw young men and young women from the farm today. Even Justinian the great law-maker, was in favor of legislation designed to keep the people on the farm. The great Roman Emperor Agustus before the Christian era saw that his empire was being undermined and the strength of his people sapped by the exodus from the country to the city, and called to him the poets of the nation and commanded them to sing of the beauties and profits of country life, in order to attract his people back to the land. This trend cityward has been to a great degree due to the half education which has prevailed in the rural districts and which has given the farm boy glimpses of the more attractive city life without teaching him at the same time how he may attain such a life at home.

For the first time in history this situation is sought to be met by making a profession of farming, so that it may be attractive to the intellectually strong, at the same time that the returns are long enough to command the reasonable comforts and luxuries of life. These countervailing influences however will be found to be inadequate unless they strike at the very root of the difficulty—the farm home, the country road, the rural school, and the country church.

VOCATIONAL SUBJECTS IN THE PUBLIC SCHOOLS.

This means that vocational subjects

must be introduced into the courses of study in the grades and in the high schools, as well as in the colleges and in the universities. So rapidly and so fully has instruction in vocational branches been developed, that the best and cheapest place to learn farming or stock raising or dairying is now not on the farm, but in a college. The horse doctor has been displaced by the college-trained veterinarian. The place to learn to sew and to cook and manage and build a home is, not in the home, but in a college. The period of apprenticeship of the machinist has been supplanted by a course at college, and the employers of engineers no longer look elsewhere than to the college for this training.

But gratifying as all this is to us, we must realize that at best the problem of bringing industrial education within the reach of the masses, and this is the great problem, is very far from being solved. In the nature of the case, but a small proportion of the people can attend college. It has already been pointed out that less than a dozen out of every thousand pupils in the graded schools go to college. When we consider that these twelve are divided among the various courses offered by our colleges and universities, such as theology, law, medicine, teaching, journalism, agriculture, engineering, academic, etc., we realize how small a proportion of the boys and girls of the country really come under the influence of this sort of instruction when it is confined to the college. To reach the masses with this work, it will be necessary to introduce it into the high schools and grades the country over. In the city schools, home economics and manual training, with agriculture optional, and in the country schools, home economics and agriculture, with manual training optional.

To the objection that these subjects, especially home economics and agriculture, of a character suited to the grades of high schools, are not yet teachable, I urge that they are far more teachable than were these same subjects of college grade 20 years ago, and that if we will apply ourselves to the problem of reducing them to pedagogical form with the same zeal and determination that characterized the efforts of the college teacher, equally satisfactory results will be forthcoming.

To the objection that the teachers are not prepared, I answer that the demand for teachers so prepared is all that is necessary to fully meet this difficulty.

INDUSTRIAL SUBJECTS IN HIGH SCHOOLS FIRST.

Success will come first in the high school, and next in the grades, for the same reason that it came first in the college. The high school of today must be something more than a mere connecting link between the graded school and the college or university. It is more than the successor to the academy with the burden of support laid upon the public. It is in the strictest sense the people's college, and affords the highest education that the majority who go beyond the grades will ever get. It should do something more than merely fit for college the great masses who will never attend college; it should fit for the duties of life.

Already the city high schools have reached a fair degree of development in this direction, and the trend toward the industrial and vocational has been as rapid as could be expected or as is perhaps desirable. Their courses of study are already reasonably well adapted to the needs of the people who live in the city. It is a serious mistake, however, to pattern too closely after these city high schools in planning to meet the needs of those who live in the country. Careful consideration should be given to the pupil's environment and experience as well as to his profitable future occupation.

AGRICULTURE IN THE RURAL SCHOOLS.

This is the next great educational problem. In fact the rural school today, considered broadly, presents the most serious educational problem with which we have to deal. How to shape the instruction in this unorganized, isolated and poorly equipped school so that the pupils may not lose sight of the farm, its life, its problems, its beauties, and its profits, is the great question now before us. The hope of these schools and of our system of public education lies, not in the abandonment of these country schools, nor

in the attempt to substitute something else for them, but rather in making them serve their constituency in the best way and contribute most to the development of the boy or girl who is fortunate enough to have been born in the country.

The problem does not consist in the long run wholly or even mainly in finding the suitable teacher, although this is perhaps for the moment the limiting factor in progress. As Professor Bailey has well said: "If a room or a wing were added to every rural school house, to which children could take their collections and in which they could do work with their hands, it would start a revolution in the ideals of country school teaching, even with our present school teachers." In short, our rural school system needs to be so revised that from the very outset the courses, to quote the words of a distinguished English educator, "shall be woven around knowledge of the common phenomena of the world . . . For it should be the purpose of these elementary schools to assist boys and girls according to their different needs to fit themselves practically as well as intellectually for the work of life."

I do not wish to be understood, in quoting the foregoing approvingly, to advocate the making of the graded or the high schools narrow or provincial. Nor would I permit these schools to become in any sense professional—except possibly the last two years of the course in a first-class high school. This might appropriately be made as severely professional as the funds for providing the additional teachers and equipment would permit.

INDUSTRIAL SUBJECTS WILL VITALIZE.

The benefits to accrue from the successful introduction of agriculture, home economics and manual training into the schools will not be confined to the direct influence which this instruction may have upon the industries involved, but this will be found to be the best way to vitalize elementary schools, and especially those in rural communities. Just as these useful subjects gave new life to our college courses, so will they be found capable of vitalizing the elementary courses.

TRAINING THE TEACHER.

As before intimated, the lack of suitably trained teachers for this work is temporarily the limiting factor in our progress. Where the teacher shall receive his training, and of more fundamental importance, of what it shall consist, are questions not yet answered. Thus far no very satisfactory place for securing this training has been provided. A number of the agricultural colleges of the country are offering courses in agriculture, etc., especially for teachers, and these in the main have been successful.

Congress recently recognized this lack in our educational system, and provided, in the Nelson Amendment to the Morrill Act, that a portion of the increased support thereby given the colleges of agriculture might be used for "providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

Whether experience will in the end show that the normal school, with agriculture, home economics and mechanic arts added, or the agricultural college, with sound courses in education added, will best meet this situation, or whether it may not indeed be found expedient to employ both methods, I will not at this time hazard a guess. We are all, I take it, more interested in having this work done and done well than in the question of how or where it shall be done. Certainly there are many people now teaching who desire to equip themselves to teach agriculture. These naturally would be best served by courses at the Agricultural College.

KANSAS' OPPORTUNITY.

Much as we may deplore the lack of suitably prepared teachers to introduce these vocational subjects into the schools of the rural districts, and much as we may feel the lack of adequate knowledge and experience along this line, the really fundamental difficulty in the way of a satisfactory system of rural schools, primary and secondary, is the lack of sufficient funds. Wealth in rural communities is not sufficiently concentrated to afford the revenue necessary for this purpose. In many portions of the country the returns from the farm are so meager as to scarcely permit the schools to be maintained on their present low plane. The farmers of

Kansas, however, are prosperous—perhaps more prosperous, on the average, than the farmers of any other section of the world. They therefore owe it to themselves, to their less fortunate neighbors, and to their profession, to give of their means in sufficient amount to develop the most efficient system of rural education the world has known.

FARMER OR PEASANT.

It is not primarily a matter of increased financial returns but has involved in it the future welfare of America's agriculture. Further advancement must be based upon the increased intelligence of the man who is to till the soil, together with his better understanding of the fundamental laws of nature with which he has to deal.

If the American farmer is to prove an exception to the history of the world and remain the independent, thinking, reading, progressive individual, that he has thus been instead of becoming a peasant, as he has before in all history, it is necessary that he be given the broadest possible training and be educated most thoroughly in the fundamental principles underlying his profession.

THE INDUSTRIAL AND THE CULTURAL MUST GO TOGETHER.

It is said that an ancient and honorable university once wrote over its portals: "No useful knowledge taught here." I would not go to the opposite extreme and write across the portal of even this institution—the child of a strictly utilitarian age, the legend: "No subject that is not useful taught here." I would make all the courses practical enough to fit men for efficient service in their several professions and pursuits of life, and at the same time liberal enough to prepare them for the highest service as citizens.

The best part of an educational institution is its spirit—is the point of view which it gives its students—the ideals which they carry away from its halls and through life, for of more worth than fine gold is a quickened conscience and a capacity to distinguish between what is right and what is wrong. "A high ideal is the noblest gift man can bestow upon man. Feed a man, and he will hunger again; clothe him, and he will become naked. Give him a noble ideal, and that ideal will abide with him through every waking hour, giving him a broader conception of his relations to his fellows. He ideal must be so far above us that it will keep us looking upward all our lives and so far in advance that we shall never overtake it." Those whom we send out must make a large contribution to the welfare of the world.

WORLD LEADERSHIP REQUIRED.

Large and important as is the service which this institution has rendered to the industries of the state, and great as are the problems of this sort for the future to solve, the service of greatest moment, the principal return which the Kansas State Agricultural College and similar institutions make for the larger outlay of public funds—the real justification for their existence—is their capacity for developing in men and women the qualities of leadership. The public mind does not grasp and successfully grapple with great fundamental principles, but is apt to concentrate itself upon some detail of one sort today, of another tomorrow. It is essential that we have leaders of public thought who see broadly and clearly, for, as Mirabeau says, "It is equally as important for these to be great thinkers who are to execute the laws as for those who made them." Homer realized the scarcity of such men, and, as given by Pope, said:

"To few and wondrous few has Jove assigned
A wise, extensive and all consid'ring mind;

They are guardians, these, the nations 'round confess,
And towns and countries think their safety blest."

Situated as we are, in the very center of the largest expanse of fertile land the world has, with a climate neither so warm as to weaken nor so cold as to dwarf, but the climate which has produced the most virile and progressive races of people—the races which have in all ancient history dominated the world, no one can foretell what the future holds. Certain it is that here will be the greatest concentration of population and wealth. Here

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KANSAS FARMER

EDITORIAL



The farm paper ought to be a teacher. Unless it is such it has missed its usefulness. What do you think?

* * *

It certainly pays to farm well. On every hand there is the evidence. It is not manifestly easier and more satisfactory to farm a one half as many acres and make as much money, or more, than you are now doing? Wouldn't better farming of fewer acres help solve the farm labor problem?

* * *

This editor believes that each farmer can do some one or two things better than other things. One man can successfully handle hogs and not cattle; another man cattle and not hogs. One man can not handle live stock at all but can beat the other fellow growing corn. Every man ought to learn to know his specialty and devote the greater part of his energies thereto.

* * *

Do you have on your farm any idle land? Do you have an acre here, one there, another somewhere else, which is producing nothing? The probabilities are you have. May be so because you consider them good for nothing. This is to assure you that there is something useful these idle acres will grow aside from a crop of weeds. Find out what they will grow and use them. The idle acre is a menace to successful farming.

* * *

The results of sticking, staying, ever lastingly sticking to it, is well exemplified in the early Kansas settler. To remain on the "plains" and farm twenty-five years ago required nerve but those who did have today something to show for their persistence. The homestead today is worth \$50 to \$100 per acre and every homestead has money in the bank. The fellow who couldn't stick it out and returned to "wife's folks down East" later came West but had lost his grip and of the early settlers he is today fixed the poorest. It pays to stick.

* * *

Wouldn't dairying seem different if one-half as many cows gave as much or more milk than the number you are now milking? The series of articles by Prof. Frazer, of Illinois, being run in KANSAS FARMER has told you the disastrous results of milking just any old scrub cow and have stated plainly how to get a better cow and how to make that cow yield a maximum quantity of butter-fat. If we milked half as many cows to get our present quantity of milk mother need not help with the milking, John could feed the hogs instead of milking and the chores and supper would be out of the way a half hour earlier.

* * *

Nearly every farmer knows the value of succulence in feeds. During the pasture season the grass furnishes this quality in abundance but during the dry feeding season unless alfalfa hay is fed in liberal quantities our feeds are lacking in succulence. That is one of the principal reasons why live stock and especially dairy cows, do not do well on dry feed. Succulence aids digestion and gives the animal an appetite. Succulence in feeds is a conditioner. It can most advantageously be supplied by ensilage, but roots in sufficient quantity can be grown on every farm. Stock beets and turnips sufficient can be grown on just a few acres and they are worth the trouble.

* * *

Nearly two hundred girls in the high schools of Kansas City have never seen a live hog. This interesting fact was disclosed as the result of a recent canvass of the schools, following the discovery that a girl who saw a hog for the first time this summer was astonished to find that it had hair. This condition of ignorance will cause people to smile but it calls attention to a serious evil of the time. Our cities are growing rapidly and the time must come when an emigration to the country will result. Our schools, city and country, must educate to the country not away from it. The condition above shows how our school system has neglected its plain duty.

* * *

Eighty-six counties in Kansas the

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CONTRIBUTIONS.—Correspondence invited on all farm topics, live stock, soil cultivation, grains, grasses, vegetables, household matters, recipes, new and practical farm ideas, farm news. Good photographs of farm scenes, buildings, live stock, etc., are especially invited. Always sign your name, not for publication, unless you desire it, but as evidence of good faith. Address all communications to

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Topeka, Kansas.

past year grew a smaller acreage of wheat than formerly and grew an increased corn acreage. This means the keeping of more hogs, cattle and horses on the farms of those counties. It marks the beginning of the era of live stock farming. This marks the beginning of better farming and a larger production per acre. The more stock kept and the more feed grown the less fertility sold from the soil. The more live stock the more manure returned to the fields. Our farms can keep more live stock, grow more grain on account of increased production per acre and the soil will be kept in condition for crop growing and be worth more money per acre.

* * *

Recent experiments by the Ohio station tend to show that when manure was thrown into the open barnyard and permitted to lie there for five months, before being hauled to the field it had a value of \$2.40 per ton. When drawn directly to the field as fast as it was made the value was \$3.25 per ton. When the manure was sprinkled with ground phosphate rock as fast as it was made in the stable, thus preventing some loss of ammonia, the value was \$5.18 per ton. The claim is made that at least one-third of the value of the manure is lost as it is usually put on the land with a fork, and that ten loads put on with a manure spreader go as far and do as much good as fifteen loads put on in the old-fashioned, careless way.

* * *

Hundreds of farmers can this year testify to the advantages resulting from the diskling of the fields before listing corn. Nearly ten years ago this editor farmed in Brown county and knows the common practice of getting into the corn ground with a disk just as the frost was out of the ground and diskling lengthwise and crosswise and from corner to corner until time for listing. These farmers claimed the work paid and no doubt it did. The diskling cut the stalks, loosened the surface and put it in shape to take up the moisture and at the same time conserve the moisture already in the ground. Last winter through the farmers' institute system the plan was recommended and farmers who gave this plan of cultivation a trial are pleased with the results.

* * *

This is a day of specialists. The lawyer either devotes his attention to criminal law, corporation law or some other one branch of the law. The doctor has his specialty, either the eye, throat, lungs or something commands his especial attention. Every man is best adopted to some one branch of his work and it is possible for the farmer to specialize with as much success and satisfaction as the doctor or lawyer. Speaking of the farmer becoming a specialist Kimball's Dairy Farmer says:

"There is a tendency among educated farmers to undertake to cover too much territory with their efforts.

A man becomes particularly interested and works along some line of farming until he has made a success in his chosen field. Then, possibly, he attends a winter course at the Agricultural College and, recognizing the possibilities along other lines, becomes thoroughly interested. He returns to his farm with the devout intention of being a specialist not only in dairying, his chosen work, but also in corn growing, swine breeding and raising colts. Possibly he invests in pure bred horses, hogs and seed corn. All of this is right in a measure but it is unfortunate for him to undertake to carry on farming so extensively. He should, of course, raise the best corn that he can possibly raise, yet he should be satisfied with making this a secondary matter. Do not try to be a specialist in both dairying and corn raising. He should also use pure bred sires and raise the best colts in the neighborhood, but under ordinary circumstances it would be hardly advisable for him to undertake to be a specialist in breeding horses. He may well raise pure bred hogs although it would be poor policy to advise him to expect \$5,000 prices for his stock. Life is too short for one man to compass all of these lines of farming. Each particular branch is a life work in itself. If one man tries to spread himself over all of the branches his success will be so meagre that it will not take care of the expense in any one line. You understand, of course, that being a specialist requires a considerable outlay of time, capital and energy. If all of this is put in one line with these other lines as secondary, the income will be more flattering than if a man undertakes to be an authority along all lines.

* * *

PASTURING ALFALFA AGAIN.

The pasturing of alfalfa is a subject regarding which inquiries are made at practically every farmer's institute. KANSAS FARMER has printed the editor's personal and successful experience in pasturing alfalfa but this paper has not recommended the experiment except great precaution be exercised. At the farmers' institute at Argonia, Kan., a few weeks ago several farmers related to the editor their experience, in brief that they had pastured the plant successfully and considered that for themselves they had solved the pasture problem. In each case they stated that the every day pasture was damaging to the plant but for five years a field gave good pasture results and that they could afford to reseed that often if necessary.

One farmer said he had seeded one of his alfalfa pasture fields to wheat with surprising results as to wheat yield. He had satisfied himself that alfalfa was valuable rotation crop and his experience had taught him how to preserve his soil fertility, how to get a good pasture and how to get the best hay. He was pleased with the results all around. He now needed fewer acres of alfalfa pasture than of na-

tive grass and this alone increased the value of his farm.

KANSAS FARMER recommends the pasturing of alfalfa but with care to prevent disastrous results from bloating. This paper is satisfied that each farmer can and must work out his own salvation.

* * *

ALFALFA IMPROVEMENT.

The alfalfa plant—now so good that it should be grown on every farm—is susceptible to great improvement at the hands of the plant breeder. KANSAS FARMER has told of the work being done by the Kansas Experiment Station in development of improved strains. There is as much difference in individual alfalfa plants as there is among individuals, of our horses and cattle. Among alfalfa plants there are those of greater feeding value than others, those which withstand varying climatic conditions better than others, those which make a greater growth than others under varying conditions of climate. There are other differences but these serve to illustrate the possibility for improvement by isolating the best plants and developing from these a strain or breed or variety like the original plant.

Work along this general line is being done by the United States Department of Agriculture. Prof. Hansen, chief plant and explorer for this department, has just returned from a nine months' trip in lands rarely visited by an American. He has obtained three varieties of Siberian alfalfa, each of which grew and yielded well north of the Arctic Circle, and in addition to these has the seed of three hundred other varieties growing under conditions much more adverse than any condition which can be found in the United States. From these varieties he is sure that alfalfa may be had adapted to every soil and climate of our country.

Prof. Hansen's investigations only demonstrate the wide adaptability of alfalfa to climatic conditions and its acceptability to improvement. In spite of the great value of alfalfa at this time it is only reasonable to suppose that in the future its value may be increased a hundred fold. What a boon to agriculture will be the results of such work! Does the farmer throughout this country realize what the scientist is doing for him?

With the results of such work in the development in nearly all our plants, corn, wheat, grasses, alfalfa, how dare the citizens of this country frown upon the work of the investigator or deny to him the expenditure of such money as is necessary to push this work rapidly and to the farthest end? Agriculture in this country is in infancy of its possibilities. The increasing population and the cry of all nations for food stuffs demands that the American farmer's acres must produce as never before. It is the duty, the demand upon the farmer to feed the world. That is his duty to mankind. The scientist will continue to work out the problems for the farmer—the guardian of the soil—but the farmer must heed his teachings. The farmer of today can not afford to turn a deaf ear to the pleading of the agricultural expert.

The rejuvenation of worn out pastures is in all sections of Kansas demanding inquiry by the farmer. KANSAS FARMER has printed much on this subject and its files contain the best information of the present day. It cannot reprint everything dealing with the subject. Readers will do well to preserve the files of farm papers. They contain information which can not be gathered from any other source. But in brief, to reclaim worn out prairie grass pasture, give the pasture a rest. Remove the stock, mow the weeds and keep them down to give the grass a chance to grow. Cut the sod with a disk each year and the results will be surprising.

* * *

It requires 50,000 cans of milk a day to supply New York City. This means the average yield of about 400,000 cows. The demand of the cities for milk is causing the creameries near the great cities to close. The milk is whole milk being shipped. This means that in the great west must be produced the butter for the country.

CREAMERY INQUIRY

Answered by Dairy Commissioner Wilson—Comments by the Editor.

KANSAS FARMER has received an anonymous inquiry from a party giving his postoffice address as Harveyville, Kan., referring to the matter of building a creamery at this point. The inquiry was referred to State Dairy Commissioner Wilson and below is his letter in answer:

Editor Kansas Farmer—

In replying to an inquiry written you from Harveyville, signed, "Inquirer," which desired to know if the Kansas State Agricultural College and the departments directly interested in dairying would aid in seeing that the farmers who were now contemplating building a co-operative creamery would receive what they paid for and if the promoters would be allowed to repeat their old plans of deceiving the farmers and dairymen and charging them extortionate prices for the material furnished and the work performed; desire to say that clippings of the Harveyville papers have come into my possession through a dairyman of Harveyville, in which article the writer has drawn a very vivid picture as to the amount of profits that could be made out of the cream now shipped from that point.

The writer gives the figures as being 3,094 cans of cream and estimates that this would produce 125,000 pounds of butter, selling at an average price of twenty-six cents, which would amount to \$32,500, and that the patrons had only received close to \$24,000, which would leave a profit out of the cream shipped of \$8,000. I am at a loss to know how the writer could estimate this amount of butter or upon what basis his figures were calculated.

A true analysis of this question would present an entirely different view of the matter. The average pounds of butter-fat contained in a ten gallon can of cream, such as is shipped to the creameries from Kansas, amounts to 21 pounds per can; if 3,094 cans of cream were shipped this would represent 64,974 pounds of butter-fat. The average over-run for the state of Kansas is about 18 per cent; while it is possible to secure 20 per cent it might be safe to figure the over-run at 20 per cent. This would represent 76,969 pounds of butter, which is 49,031 pounds less butter than is figured by the person responsible for the article in the local paper of Harveyville.

An estimate of profit, which, of course, can only be roughly given, might be estimated in the following manner: First, considering that the butter-fat could be bought by the local creamery at 1 cent under Elgin, delivered in the creamery, it would make them a saving of \$649.74. Twenty per cent over-run would amount to 12,905 pounds of butter; this amount estimated at 26 cents a pound, which is a high average price, would amount to \$3,378.70; this, plus the saving of \$649.74, would mean that the creamery's gross earnings would be \$4,028.44. Out of this amount the interest on investment would have to be figured; the salary of a good buttermaker and the other running expenses, which would approximately amount to \$2,500. Provided every can of cream now being shipped could be calculated on for the local creamery, the net earnings would be in the neighborhood of \$1,500 instead of \$8,000 as estimated by the promoter.

I regret to see such erroneous figures placed before the dairymen to deceive them, which has been responsible for the death of many of our co-operative plants. If the true facts are placed before the farmers they will be satisfied with the earnings and the plant will undoubtedly succeed. Those connected with the Kansas State Agricultural College in the interest of dairying will be glad to investigate the plans, specifications and estimates as submitted to those contemplating building a creamery to see that they are fair.

This department does not favor, but rather severely criticizes the methods of promoters in Kansas in the past.—D. W. Wilson, State Dairy Commissioner Kansas.

The editor has made some inquiry with reference to the proposed establishing of a creamery under the "promoter's plan" at Harveyville. In the above letter State Dairy Commissioner Wilson uses the term "co-

operative creamery" in connection with this proposition. It is not proposed that this creamery be a Farmers' co-operative creamery. This will be a stock company owned and operated by those who subscribe stock and will be run as a business proposition in the interest of those who are subscribers of stock.

This writer has for years had opportunity for observation of the operations of "creamery promoters" in Kansas and can not but deplore the fact that farmers who ordinarily drive close bargains, whose unsurpassable shrewdness and business ability has made possible the accumulation of lands and bank accounts, are ever willing to listen to the silvery tongue of the "creamery promoter," and allow himself to be inveigled into an investment solely on the representations of the "promoter" and without investigation of the merits of the proposition. We have seen the fate of the so-called farmers creameries organized solely for the self aggrandizement of the "promoters." Such creameries inevitably failing and leaving the stockholders with the empty sack are a menace, a decided detriment, to the dairy industry of the state.

Yet, notwithstanding the past and even present experience of Kansas in the "promoters" creamery proposition, level headed farmers who would scoff the idea of their purchasing a field of corn on the representation of a stranger that it would go 70 bushels to the acre, readily embrace an equally ridiculous proposition.

A Kansas subscriber wrote Wallace's Farmer asking the opinion of that paper of the "promoters" proposition. We quote as follows from the reply given: "To our Kansas subscribers and others, we say: Don't listen for a single moment to a 'creamery promoter' who comes to you from a distance. We can not now recall a single instance in Iowa, Minnesota, Illinois, Kansas, Nebraska or Wisconsin in which a 'promoted' creamery every paid its stockholders. We do not know of a single instance in which dairying has not been set back from five to ten years by these promoted creameries."

The above is the opinion of Henry Wallace whose authority on a matter of this kind can not be questioned.

Wallace's Farmer says further: "That the 'promoter' tells the farmer about what can be done with a cow producing three hundred pounds of butter-fat; that the output of the creamery can be disposed of at from one-half cent to one cent above the New York price for butter and that all that is necessary to do is to let them put up a creamery and put in charge an experienced buttermaker. This is a beautiful story to inexperienced ears and catches men who have not been caught by tales of silver and gold mines, etc."

The clipping from a Harveyville paper to which State Dairy Commissioner Wilson refers and from which he has taken certain figures, bears the ear marks of a "promoter" of the first water. Such promoter, his purpose not being properly served by the facts, has been compelled to use erroneous figures in order to present the necessary glitter and attraction of which his proposition would otherwise be devoid.

The volume of butter which, under the best of conditions and management would be made from 3,094 cans of cream, is about two-thirds the amount stated by the "promoter." This is based on the assumption that every can of cream which has been sold and shipped out of Harveyville would be delivered to the local creamery, which is not at all within the range of probability. The proposed creamery can hardly hope, with three outside creameries buying in Harveyville now, to get all the cream produced in the territory, so we figure that at least a third of the cream produced in the vicinity, would not go to the local creamery. Therefore, using Dairy Commissioner Wilson's figures, we can safely estimate that the local creamery's receipts for the five summer months would total approximately 43,316 pounds of butter-fat.

The overrun referred to by State Dairy Commissioner Wilson, which is the difference between the butter manufactured and the amount of but-

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ter-fat actually used in the manufacture of that butter, whether or not it reaches the per cent indicated by the Dairy Commissioner depends entirely upon the knowledge and skill of the management under which the creamery is conducted.

The editor has now information from local creameries established within the last two years or 18 months under the same plan and condition as proposed at Harveyville, which records show an overrun of eight or ten per cent, and the people of Harveyville can't safely expect the management of their creamery will be different from the management of any other creamery which has been organized and operated under exactly similar conditions. If there is any one business on earth which requires careful and close management to make any money, let alone live, it is the creamery business.

This writer has a very distinct, but unsavory, recollection of the loss to him personally of a couple of thousand dollars in just such a creamery as the Harveyville "promoter" proposes to establish.

However, assuming the possibility of a 20 per cent overrun on 43,316 pounds of butter-fat, we have an output of 51,979 pounds of butter, a difference of 73,021 pounds as between the output which could be reasonably expected and the figures presented by the "promoter."

The \$2,500 approximately, figured by the State Dairy Commissioner is quite too low for the running expense for five months, but accepting same we have an actual gross profit of \$2,685.64, providing all butter was strictly first grade and sold in Elgin at the creamery, and an expense, using Professor Wilson's estimate, of \$2,500, leaving a net profit of \$185.64 for five months, the heaviest producing months of the year.

In the above figures we have given a sane and conservative view of exact conditions. In granting the local creamery two-thirds of all the cream produced in the vicinity of Harveyville against several buyers at present, we are governed in our estimate by observation of conditions at other points where local creameries have existed. The calculation is also based on the assumption that the local creamery would sell every pound of butter they made at Elgin f. o. b. Harveyville. Assuming that the local creamery would make every pound of its butter first grade, such a price could be realized only by the best of good fortune. This price can only be realized with butter of very uniformly good quality on the markets on which it would be placed. This butter must be transported to the markets by the creamery, and commissions must be paid, and the creamery must suffer a shrinkage in weight, and must assume the loss of a bad bill now and then. If by chance we will say the creamery realized net one cent under Elgin—and that is not taking a long chance either—then on the basis of the above calculation the gross earnings of \$2,685.54 would be reduced by \$519.79, which would result in a net loss for the five best months of the year of \$334.25.

The Kansas farmer everywhere owes it to himself to look carefully into the work of the "promoter." Opportunities are afforded for investigation. The "promoter" tactfully avoids

reference to the many expenses attendant upon the operation of a creamery, such as salary of a manager, salary of a good buttermaker, of helpers, cost of fuel, oil, butter packages, salt, drayage, freight, general depreciation, interest on investment, sinking fund to maintain equipment, sinking fund to provide for accident to machinery and human life, which latter emergencies must be provided for in the operation of every business.

If the farmers of Harveyville wish to invest their money in a creamery and take their chance of success in competition with similar institutions, let them organize on a sane, conservative business basis rather than open their purses to the "promoter" whose path in this and other states has ever been one of destruction of the dairy industry and disappointment to the farmer. Let the Harveyville farmers first determine by proper and careful investigation whether or not the production is capable of maintaining a local creamery, then seek information relative to the operation of a creamery by investigating the expenses of the local creameries. Let them look into the operations of local creameries now in existence and see how the butter of these creameries has been sold. Let them look up some of the many Kansas creameries, the product of the "promoter," that have failed, and find out how they were run and why they failed.

In this connection it may be stated that a news item relates that a local creamery built on the "promoter's" proposition at Fall River, Kan., for \$4,400 within the past eighteen months or two years, and conducted at a loss from the day it began business, was sold for \$915 at public auction a few days ago, leaving the farmer stockholders to lose the entire value of their stock and in addition an assessment necessary to wipe out the obligation of the company.

Within the past few years other promoted creameries and farmers stock company creameries have made just such signal failures. A striking instance is that of the promotion of a local creamery at Meriden, Kan., which has resulted in a positive damage to the dairy industry through the disappointment attendant upon the failure of the enterprise.

A man who operates a creamery in a small way told the editor that after the building of the Osage City creamery plant at a cost reported approximating \$7,500, this man would have been glad to have duplicated the plant at a cost of \$5,000. And then he would have, he figured, \$1,000 to pay him for his time and trouble. Some one of the experiment stations has made figures and published same throughout the country which in effect are that creamery equipment sufficient to equip a creamery with a daily capacity of 1,800 pounds of butter or the product of 2,000 cows, is \$1,200. This amount provides nothing for the cost of a building or for the installation of the machinery, which two items will require an additional investment, ranging from \$1,000 to \$1,400, making an amount, therefore, for such creamery from \$200 to \$2,400, for such creamery from \$2,200 to \$2,400, whereas the professional "promoter" is asking from \$4,800 to \$5,500 for the same equipment and installation.

resident Waters Formally Installed.

(Continued from Page 3.)

all things for which we are striving must reach their highest development. No longer will it be necessary for us to look to the east or to Europe for inspiration and guidance in education, in engineering, in agriculture, in how to live rationally. In very truth, the men of the east and of Europe will come here to learn. This means that the men of tomorrow, the young men who are now in school, must assume larger responsibilities than have devolved upon us—the responsibilities of world-leadership in the entire range of human affairs. It is imperative therefore that our systems of government, education, agriculture, manufacturers, etc., shall be such as to withstand the severest test of science and human experience, in order that they may furnish a rational example and guide for those less blest.

COLLEGES MAKE LEADERS.

In the absence of a great epoch or crisis in human affairs, such as the opening up of a new continent, the invasion of a country by a foreign foe, or an internal strife such as our recent Civil war, the college and university must be depended upon to develop the world's leaders in all lines of activity. The state and nation, to make certain that every youth with latent qualities of leadership may have within his reach, be he poor or rich, the uplifting and stimulating influence of the highest education the world affords, did establish and endow this and kindred institutions. It is upon this basis only that our civilization can be secure. No class of people, however large, cultured, or defined, is large enough, or intelligent enough, or refined enough, to supply all the leaders the state and nation requires. It is only when all are drawn from all classes that we shall have enough, and be certain that we have the best. It is as Carlyle has said of the tragedy of ignorance: "It is not because of his toils that I lament for the poor; we must all toil, or steal (howsoever we name our stealing), which is worse; no faithful workman finds his task a pastime. The poor is hungry and at thirst; but for him also there is food and drink; he is heavy laden and weary; but for him also the Heavens send Sleep, and of the deepest; in his smoky cribs a clear dewy Heaven of Rest envelopes him, and fitful glimmerings of cloud-skirted dreams. But what I do mourn over is that the lamp of his soul should go out; that no ray of heavenly, or even of earthly knowledge should visit him; but only in haggard darkness, like two spectres, fear and indignation bear him company. Alas, while the body stands on broad and brawny, must the soul lie blinded, dwarfed, stupified, almost annihilated? Alas, was this, too, a breath of God, bestowed in heaven,

but on earth never to be unfolded? That there should one man die ignorant who had capacity for knowledge; this I call a tragedy were it to happen more than 20 times in the minute, as by some computations it does. The miserable fractions of science which our united mankind, in a wide universe of Nescience, has acquired, why is not this, with all diligence, imparted to all?"

Mr. President: Assured as I am of the loyal support and co-operation of the board of regents, faculty, students, alumni and citizens of this great state of Kansas, at the same time realizing the full weight of its responsibilities, and conscious of my own limitations and weakness, and pleading both for charity and patience, I accept the high office of president of the Kansas State Agricultural College. May He who marks the sparrow's fall take us all into His keeping and guide our thoughts aright.

GREETINGS TO PRESIDENT WATERS ON BEHALF OF THE KANSAS FARMERS. F. D. COBURN, SECRETARY STATE BOARD OF AGRICULTURE.

President Waters: On behalf of the farmers of Kansas, and for myself personally, it is my great pleasure to salute you as the president of our Agricultural College, and at the same time to congratulate all our people, including this capable board of regents, upon the acquisition of one so competent for the work you are to undertake. Those for whom I am presumed to speak believe this the morning of a new departure and an era of progress here not before approached.

The state's proudest boast has ever been the high order of her citizenship, and her next claim to pre-eminence is based on her husbandry. No commonwealth ever made more rapid advancement in a like period, and we are prone, with a pride that is proper, to speak of ours as a great state; yet it is but a babe in arms compared with the giant posterity's to know. With such an environment there is small excuse for not having here the foremost agricultural college in the world; not merely in the minor matter of large attendance, but in real efficiency and worth. The promotion of a better husbandry in such a field, implanting manful and womanly character in the rising generation, and improving that farm and home life wherein our country's hope and safety must ever have their firm foundations, should be a congenial and sufficient task for the most ambitious.

Kansas is well equipped with many efficient schools for teaching all other essential branches, but here only is one set apart and especially designated as "agricultural"; the one where the word agriculture, like good Ben Adhem's name, should lead all the rest. Here, is the organization of a training force its foremost man and dominating mind should not only know agriculture, with its closely related industries, but in a broad fertility, the science of animal breeding and feeding, veterinary science, dairying, horticulture and forestry, botany, entomology, bacteriology, physics, farm architecture, chemistry, domestic science and hygiene, all strongly developed, belong here, in their appropriate relations, each with proper value, but their prominence need not bar or obscure other useful branches, including especially plain English—its reading, spelling and composition; matters of every-day use in which all too many graduates are distressingly, not to say disgracefully deficient.

Students seeking education along lines not closely related to farm practice are amply provided for elsewhere; if they would study medicine, theology, law, pedagogy, advanced mathematics or literature, music or the mandolin, their places is not here, while those of an agricultural and home-making bent belong and can be trained here as is nowhere else intended or pretended.

The institution needs and its supporters believe it is to have in its new president a leader who knows, and who sympathizes with their aspirations; who speaks the language of agriculture, and speaking comprehends. Not an agriculture that means simply the study of pumpkins and pigs, of plowing and planting, but the underlying and governing principles; an education away from the slovenly, haphazard, wasteful methods of today; a training that leads to more than mere subsistence through rape of the soil.

Your rating and record here will

HIDES TANNED FOR COATS AND ROBES

Send us your horse and cattle hides, as thousands of other farmers and stockmen are doing, and let us tan and make them into coats and robes for you. Don't sell your hides for a few dollars; we can make them worth \$10 to \$15 to you.

The great savings we make our customers, which makes every customer a pleased one, has built us up the largest custom tanning business in the country. No name is so well and favorably known to farmers and stockmen as the name COWNIE, which for fifty years has stood for fair and square dealings.

We will be pleased to send you an attractive booklet giving prices for doing our work, and showing the saving we can make you; also, telling you how to care for hides, how to ship, and much other valuable information. Sent Free. Write today.

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**GROW CATALPA FOR PROFIT**

\$100.00 and more profit per acre. Send for illustrated booklet telling how to grow this wonderful tree. Makes fence posts 4 to 5 years. Telephone poles 8 to 10 years. Booklet also describes Black Locust, Maple, Oak, Elm, Larch trees. A postal will bring complete information.

D. HILL, Evergreen Specialist,
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Our 3 books for inventors mailed on receipt of 6 cts. stamp.
E. S. & A. B. LACEY, Washington, D. C., Dept. 40, Est. 1869

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SECOND Annual Public Sale Registered

PERCHERON MARES

From the Herd of M. L. Ayres

Shenandoah, Ia., Tuesday, Nov. 30

40 HEAD = MATCHED TEAMS, TON MARES, BIG DRAFTERS = 40

My offering will include forty head of the best mares that have ever left my farm. These will range in age from sucklers to matured mares, but they are mostly young stock that I have bred on the farm. I have spent a lifetime in the breeding business and I have always retained the best for breeding purposes. Most of these mares are broke to work and no barren mares will be sold in this sale. Those old enough have been regular breeders and are bred to Jadin (4409), one of the best Percheron stallions in the state. No better mares will be sold than I am offering in this sale.

TERMS—One year's time at 6 per cent interest.

Col. Geo. P. Bellows, auctioneer. Please mention The Kansas Farmer when writing for catalog. Catalog now ready and will be sent on application.

M. L. AYRES, - SHENANDOAH, IA.

SALE OF
Percheron Horses
Polled Durham Cattle
Poland China Hogs

Winfield, Kan., Nov. 24, 1909

Two yearling stallions, 5 mares of best breeding. Strong in Brilliant and Theudis blood. The cattle are 1 yearling, two 2-year-old and two 3-year-old Polled Durham heifers, 1 Shorthorn cow out of Starbright dam of Brightstar second at Seattle and Portland Exposition this year, one herd bull and some yearling bulls. Two hundred Poland Chinas, 60 brood sows and gilts, bred and open. 15 boars ready for use. 125 head of pigs of both sexes and stock hogs. Come to this sale to buy hogs, cattle or horses. On account of numbers to be sold many will sell cheap. Hogs are high and going higher. Buy breeding stock now as they will sell much higher when the market advances farther. The mares selling are business propositions. They do the regular farm work and raise high-class colts. **SALE AT WINFIELD, KAN., NOVEMBER 24th, 1909, 10 a. m.** Don't wait for catalog but come to sale, conveyance from Arlington Hotel, Winfield.

SNYDER BROS.

Winfield,

Kansas

JOHN D. SNYDER, Auctioneer.

November 20, 1909.

Readers Market Place

CLASSIFIED ADVERTISING 3 CENTS A WORD

The rate for advertising in this department is low, only three cents per word each insertion. There is no more popular advertising than classified advertising. Every one reads classified ads, and just because they are classified. You can reach 50,000 farmers in Kansas and adjoining States, the best farmers on earth, through this page. All ads set in uniform style, no display. Initials and address count as words. Terms invariably cash in advance.

HELP WANTED.

WANTED—ECONOMICAL AND PARTICULAR PEOPLE TO TAKE ADVANTAGE OF OUR PRICES AND SERVICE. Western Printing Co., Ptg. Dept. of Kansas Farmer, Topeka, Kan.

WANTED—A SOLICITOR WITH HORSE AND BUGGY TO DRIVE THROUGH THE COUNTRY AND SOLICIT SUBSCRIPTIONS. Address Circulation Manager, Kansas Farmer, Topeka, Kan.

WANTED—LOCAL MEN TO TAKE ORDERS FOR HIGH GRADE WESTERN GROWN NURSERY STOCK. Experience unnecessary. Outfit free. Cash weekly. National Nurseries, Lawrence, Kan.

WANTED—SALESMEN FOR 1910 TO RETAIL MERCHANTS. Staple line, attractive advertising. Permanent, worth \$2,500 or better references. Powers, Box 418, Iowa City, Iowa.

WANTED—LADY OR GENTLEMAN AS LOCAL REPRESENTATIVE IN EVERY KANSAS COUNTY. Splendid chance to make good wages without great effort and no expense. Write for particulars. Address, Circulation Department, Kansas Farmer, Topeka, Kan.

CATTLE.

POLLED JERSEYS—FOR BREEDERS' names write Charles S. Hatfield, Box 8, R. 4, Springfield, Ohio.

SEE US BEFORE PLACING YOUR STOCK CATALOG PRINTING. Western Printing Co., Ptg. Dept. of Kansas Farmer, Topeka, Kan.

FOR SALE—HOLSTEIN FRIESIAN BULLS AND HEIFERS. Write your wants, or come and make your choice. J. P. Mast, Scranton, Kan.

FOR SALE—FULL BLOOD RED POLLED BULL, ELEVEN MONTHS OLD. During Jersey bulls, 70 head to select from; priced right. I. W. Poulton, Modern, Kansas.

JERSEY CATTLE, CHOICE BULL CALVES OF THE VERY BEST BREEDING \$25.00 EACH. A few cows and heifers. H. C. Young, Wineand Farm Dairy, Lincoln, Nebraska.

FOR SALE—FEW FINE HOLSTEIN BULL CALVES FROM 6 TO 9 MONTHS OLD; ALSO WILL SELL A FEW EXCELLENT COWS AND HEIFERS. All registered and from best families. One 3-year-old heifer gives up to 55 pounds milk per day. Irr. Romig, Station B, Topeka, Kan.

FOR SALE—THREE REGISTERED JERSEY BULLS, READY FOR SERVICE. Out of daughters of Stoke Pogis Marisoid (dam and sire's dam 25 lb. cows), and sired by Financial Count (sire and dam Island prize winners, dam, 1st prize over Island 2 years in class, has butter record 569 lbs. at 3 years). Financial Count is half brother to Financial Countess, last year champion butter cow of Jersey breed. Price, 2 at \$55 and 1 at \$60. No females. Sayda Polo Jersey Farm, Parsons, Kan. W. C. Moore, Box 357, Parsons, Kan.

HORSES AND MULES.

SHETLAND PONIES FOR SALE—BOTH SPOTTED AND PLAIN COLORS. Write for price list. C. R. Clemons, Waldo, Kansas.

SHETLAND PONIES—WRITE OR COME AND SEE US; WE ARE SURE TO PLEASE YOU. Low prices for 30 days only. Clark Bros., Auburn, Neb.

FOR SALE OR TRADE—ONE JACK, was two years old August 5; weighs 750 pounds, is 14½ hands high and has very heavy bones. Earl Wilson, Palmer, Kan.

FOR SALE—ONE REGISTERED PERCHERON STALLION, 6 years old, sound, weight 2,000, strong, of brilliant blood, good and very sure breeder. If interested write O. Price, Burr Oak, Kan.

FOR SALE—ONE REGISTERED BLACK PERCHERON STALLION, 5 years old, weight 2,000 pounds. Fine individual and sure breeder. Can show two season's colts. One 6-year-old black registered jack, sound and right, will weigh 1,100 pounds. Two road stallions, two Shetland Ponies, studs, black, recently broke to ride. Up-to-date Poland Chimes, both sexes, for sale. Can meet parties at Raymond, Kan. J. P. and M. H. Malone, Chase, Kan.

LAWYERS.

A. A. GRAHAM ATTORNEY AT LAW, Topeka, Kan.

THE STRAY LIST

Morton County—W. D. Thompson, Clerk. Taken up June 5, 1909, by John Maguire, 1 mile east of Rolla, Kan., one sorrel horse, about 8 years old, branded on left shoulder. White stripe in face, old wire cut on left front foot; valued at \$25.

Graham County, W. W. Goodow, Clerk. MARE—Taken up, October 2, 1909, by J. A. Crabtree, Hill City, one iron gray mare, weight about 800 lbs., slit in right ear, valued at \$60.

Wyandotte County, Clerk. COWS—Taken up, October 7, 1909, by A. D. Phelps, 1718 Freeman Ave., Kansas City, Kan., one dun or brindle cow, rather large, large branching horns, white head, white underneath, all four feet white; valued at \$10. Also taken up by the above, one young black cow, small curved horns, white spot underneath and on left hip; valued at \$30.

DOGS.

FOR SALE—BROWN AND BLACK SPANIELS, both sexes, good ones, cheap; closing out. Thorndale Kennels, Wayne, Kan.

FOR SALE—COLLIES OF ALL AGES. Natural born cattle drivers. Pedigreed stock. Write for circular. Harry Wells, Belleville, Kan.

SCOTCH COLLIES—PUPS AND YOUNG DOGS from the best blood in Scotland and America now for sale. All of my brood bitches and stud dogs are registered; well trained and natural workers. Emporia Kennels, Emporia, Kan. W. H. Richard.

COLLIES OF ALL AGES FOR SALE. They are stock drivers, pets and home protectors, 260 head sold last year. Write for illustrated circular and prices. Would like to buy a few ferrets. Address Harvey's Dog Farm, Clay Center, Neb.

REAL ESTATE.

WE CAN TRADE YOUR PROPERTY. For 500 exchanges free. Graham Brothers, Eldorado, Kan.

NOTICE THE OTHER BARGAINS IN REAL ESTATE OFFERED UNDER BARGAINS IN FARMS AND RANCHES IN THIS PAPER.

FREE INFORMATION ABOUT OKLAHOMA. Homer B. Wilson. Here since 1893. Enid, Okla.

KANSAS FARM BARGAINS—IMPROVED FARMS, Anderson county, \$30 to \$50 per acre. Write for list. J. E. Calvert, Garnett, Kan.

CHOICE KANSAS FARMS AND RANCHES. Bargains in Pottawatomie and Wabaunsee counties. Write Umschield & Ulrich, Wamego, Kan.

160, 5 MILES TOWN, R. F. D. AND TELEPHONE, near school, price \$6,800. Write for list or come. Frank Miller & Co., Minneapolis, Kan.

NORTHEASTERN KANSAS FARMS FOR SALE near St. Joseph, Atchison, Leavenworth and Topeka. Come and see. E. T. Lehman, Nortonville, Kan.

BUSINESS CARDS 500 FOR \$1.50. Prompt service. Send for samples and estimates. Western Printing Co., Ptg. Dept. of Kansas Farmer, Topeka, Kan.

CHOICE DAIRY FARM—240 ACRES, 1 mile from Concordia, Kan. Alfalfa, corn, wheat, pasture, water. Write Theodore Lang, Concordia, Kan.

TWO 80-ACRE FARMS AT \$1,200 EACH. 240 acre farm well improved, 160 in cultivation, 100 of this bottom land, does not overflow. For any information write Box 41, Marquette, Okla.

A LARGE LIST OF DESIRABLE FARMS for sale on very liberal terms and prices. For further information call on or address Thomas Darcey, Real Estate Agent, Offerle, Kan.

FOR SALE—MODERN 8-ROOM HOME in Topeka; 2 corner lots; 5 blocks from State House grounds. If you are figuring on moving to a college town, here is your chance. Address Tilman Richard, 1500 Harrison St., Topeka, Kansas.

CENTRAL MISSOURI FARMS—FOR FARMS that will prove profitable as homes and investments, write for new list; farms described and priced; very productive grain, stock and grass farms. Hamilton Realty Co., Fulton, Mo.

SELL YOUR PROPERTY FOR CASH in less than 90 days; properties and business of all kinds sold quickly in all parts of the world; send description today, we can save you time and money. The Real Estate Salesman, K. Funke Bldg., Lincoln, Neb.

NO. 80, 30 ACRES OF CREEK BOTTOM, balance upland, 60 acres in cultivation, 3 acres meadow, balance in pasture, a new 3 room house, and small barn, good water, only six miles from the county seat and a bargain at \$600 dollars. J. S. BOYLE, Bennington, Kan.

TO SETTLE ESTATE—160 ACRES IN CRAWFORD CO. four miles S. E. of Pittsburg, fine business town, extra good market for anything raised on farm. Situated in the coal belt, 4 miles from the State Manual Training School. Rich black land. \$8,000 cash. Farm can be mortgaged to raise part of this amount. This is a snap, the farm will be worth double the price in a few years. For further particulars address L. Belknap, Pittsburg, Kan.

JEFFERSON COUNTY BARGAINS—160 A. Improvements cost \$2,000; rents for \$600 cash; price, \$10,400; 280 A., improvements, \$3,500. 50 acres alfalfa, all choice corn and alfalfa land, price \$92.50 per acre. Send for further descriptions and free price list. NIDER & HENRICKS, Fairbury, Neb.

LANDS NEAR WINFIELD, KAN.—The great Arkansas and Walnut River valley country. Famous for successfully raising alfalfa, corn, wheat and oats. We have a number of choice ranches east of Winfield. One of 3,140 acres, one of 1,000 acres at \$16.00. Write for list. Bussart & Collier, Winfield, Kan.

FOR SALE—FINE FARM, CONTAINING 244 acres of land, 100 acres under cultivation, balance in wood, improved with right new dwelling and barns, on main county road, within 12 miles of steamboat wharf, 2½ miles of railroad, 1 mile from cannery factory, school and church. Price \$5,000, half cash, and a great bargain. For further information write Matthews & Company, Real Estate Dealers Cambridge, Maryland.

FOR SALE—3 QUARTER SECTION OF LAND on the north slope of wheat ridge, 6 miles south of Dodge City, Ford Co., Kan. Price is right, 135 a. in wheat, good stand, good terms. Buy of me and save commission. W. S. Marion, owner, Dodge City, Kan.

KING ALFALFA MAKES FORTUNES for owners of Eastern Colorado sub-irrigated low-priced farm lands, near Denver. Send for our alfalfa literature. Conrad, Farm Land Association, 279 Dearborn St., Chicago, Ill. Live agents wanted in town or country.

A GENUINE SNAP—320 ACRES BOTTOM, sub-irrigated land, 5 miles from Norwich, a town of 1,200 people; 200 acres cultivated, 70 acres splendid meadow, balance pasture, 4-room house, fair barn, plenty timber, small orchard. This is one of the best corn and wheat farms in the county. 150 acres excellent corn this year. If interested write at once. Price \$10,500. Easy terms. Button Land Company, Kingman, Kansas.

MISCELLANEOUS.

30,000 POUNDS BEST LEAF TOBACCO for sale. Send stamps for samples to Anton Wavrin, R. R. 5, Box 34, Franklin, Ky.

PURE HONEY, TWO CANS 120 POUNDS, \$8.50; single can, \$4.50. F. O. B. care W. P. Morley, Los Animas, Colo.

BEST GALL CURE IN AMERICA—CUTS, sore necks, shoulder lumps, enlargements, perfectly cured. Receipt 50c. Remit. Dr. Power, 3950 Wyandotte St., Kansas City, Mo.

LISTEN! NEW TYPEWRITERS \$6.66— Guaranteed to write equal to any \$100 machine on the market. Order at once. M. T. Truman, Marshall, Minn.

RAILWAY MAIL CLERKS, WANTED— Commencement salary \$800. Rapid advancement to \$1,200 or \$1,400. Short hours. Steady work. Annual vacation with full salary. Examination everywhere soon. Common education sufficient. Preparation free. Write immediately for schedule. Franklin Institute, Dept. M., 115, Rochester, N. Y.

FOR SALE—HAVING RECENTLY PURCHASED THE ASSETS OF THE LATE FIRST NATIONAL BANK OF THIS CITY WE FIND OURSELF IN POSSESSION OF A FIRST CLASS CHINA STOCK KNOWN AS "THE FORT SCOTT CHINA HALL" AND THE ONLY EXCLUSIVE CHINA STORE IN THIS CITY, WITH A POPULATION OF 16,000. THIS STOCK WILL INVOICE ABOUT \$6,000 AND WILL MAKE A FINE BUSINESS PROPOSITION FOR SOME ONE LOOKING FOR SUCH AN OPENING. WE ALSO GOT AN UNDIVIDED ONE-HALF INTEREST IN THE FORT SCOTT POTTERY, WHICH IS A WELL EQUIPPED PLANT WITH ABOUT \$4,000 WORTH OF REAL ESTATE. PRICE OF ONE-HALF INTEREST IN ENTIRE PLANT, \$3000. THIS IS A FINE OPPORTUNITY FOR ANY ONE INTERESTED IN THIS SORT OF A PLANT. W. C. GUNN CO., FORT SCOTT, KAN.

PATENTS.

PATENTS PROCURED AND SOLD; BIG MONEY IN PATENTS; BOOK FREE. H. Sanders, 115 Dearborn St., Chicago, Ill.

POULTRY.

50 WHITE ROCK COCKERELS AND A FEW GOOD PULLETS FOR SALE. J. C. Bostwick, Hoyt, Kan.

SINGLE COMB WHITE LEGHORN hens, pullets, cockerels. R. W. Yeoman, Lawrence, Kan.

"EVERY FEATHER BUFF" LEGHORNS and Rocks, best grown, \$2 each. Mrs. Cora Ben, Moline, Kan.

FOR SALE—A CHOICE LOT OF BARRED P. ROCK COCKERELS AT \$1.50 EACH. D. H. Hill, Route 1, Lyon, Kan.

FOR SALE—SINGLE COMB BUFF ORPINGTON COCKERELS, HENS AND PULLETS; ALSO BUFF ORPINGTON DUCKS. C. B. Owen, Lawrence, Kan.

BLACK LANGSHAN COCKERELS—STANDARD BREED. Large bone. Green barring. One for \$2. Two for \$3. Mrs. D. A. Swank, Blue Mound, Kan.

FOR SALE—PARTRIDGE WYANDOTTE COCKERELS, CREAM OF IOWA, ALWAYS FIRST. Price \$3.00. Money back if you want it. W. A. Alford, Smith Center, Kansas.

LETTER HEADS AND ENVELOPES— Descriptive of your business. Best prices. Send for samples. Western Printing Co., Ptg. Dept. of Kansas Farmer, Topeka, Kan.

FOR SALE—S. C. W. LEGHORN COCKERELS. Pure white, farm range. Price \$1 to \$1.50 if ordered this month. Satisfaction guaranteed. These birds are equal to the birds from the east that sell from \$5 to \$10. Mr. J. W. Cook, Route 3, Hutchinson, Kan.

FOR SALE—18 DIFFERENT VARIETIES of thoroughbred poultry, cocks and cockerels, 8 kinds of ducks, geese, turkeys, guineas, bantams, dogs, white rabbits, all kinds of fancy pigeons. Write for free circular. D. L. Bruen, Platte Center, Neb.

CHESTNUTS—ROUP CURE GUARANTEED formula for roup. This remedy is certain both as preventative or cure. Price \$1.00. Also formula for Chestnut's poultry food. As good as the best. Price for the two formula \$1.50. H. W. Chestnut, Centralia, Kansas. breeder of White Faced Black Spanish chickens.

WHITE WYANDOTTES. If you want the large pure white kind, with bay eyes and yellow legs. Write me. I have 200 for sale.

E. E. BOWERS, Bradshaw, Neb.

SWINE.

O. L. C. BOARS OF ALL AGES AT FARMERS' PRICES. Prize winning stock. Arthur Morse, R. F. D. No. 5, Leavenworth, Kan.

POLAND CHINA BOARS, PURE BREED, individuals, 175 lbs., big boned, growthy, no culs. A. P. Wright, Valley Center, Kan.

Turkeys and Leghorns. This week we start the advertisement of H. B. Walter, at Effingham, Kan. Mrs. Walter has for immediate sale some extra fine Bronze Turkeys, toms and hens from a tom weighing 40 pounds. Also 25 very choice Rose Comb Brown Leghorn cockerels. They are priced reasonably for a short time. Write to him.

rest upon what you do for this institution and not what you may do in exploiting the defects of others. In the right conduct of this school your hands and head and heart will be entirely full, and wisdom will dictate that obtrusion into the affairs of other Kansas schools—their policies, curricula or appropriations—or acting on the theory that this is a competitor or rival of some other, requiring your interference, can work only injury to all.

Acquaintance with such school in general, and with this one from its beginning, justifies the claim that no man ever came to the service of a more responsive, appreciative people; a people more generously inclined toward employees who give value received, and no other people more accurately gauge, weigh, measure and value him who serves. It is for these and from these that I bring you greetings.

Saving a Decayed Tree.

A subscriber asks how he can preserve a valuable tree, one side of the trunk of which is badly decayed. An expert says the proper treatment is to clean the trunk, removing all decay. Then wash or spray the cavity with an antiseptic, such as a two per cent solution of formalin, or a very dilute solution of mercury bichloride, which is corrosive sublime; then paint it with ordinary paint of any kind and finally fill

DAIRY



Place 100 pound dairyman over a 500 pound herd and he would soon bring it down to his level. That's the reason why highly developed large producing cows are not successful in the hands of the average farm dairyman. The farm dairyman must learn by dairying and developing his own cows.

This paper has often emphasized the utility of trying to build up a good herd of pure bred or grades unless the owner is willing to give his herd the care and feed that are essential to their highest development. A scrub farmer attempting to keep up the standard of a pure bred herd with scrub feed and scrub management is an anomaly that cannot be taken too seriously. Under ordinary farm conditions the quality of our farm stock will continue to deteriorate as it has been doing steadily since the first importation. Only as a farmer adopts practical modern methods of feeding and breeding is there any improvement in live stock. The better the breeding the sooner will the animal succumb to ill treatment and unfavorable environments.

It is not the number of cows needed, but the quality of cows; 10 good cows are better than 20 average cows for profit.

Get cows that will pay for all the feed they will eat. A good dairy cow will yield a profit on all the feed she can consume.

An eastern Exchange says that two-fifths of the milk the cow gives in pounds should be given her in grain. That estimate will produce good results if the cow has good alfalfa hay, clover, ensilage or roots. The poorer the quantity of roughage the greater the quantity of concentrated feeds required is a rule.

An institute speaker said: "There is a saying: 'Stuff the steer and starve the cow.' In some cases I would change it to read, stuff the cow and starve the steer, in others, starve the steer and starve the cow. But if you want to be a Christian you will 'stuff the steer and stuff the cow,' if they are worth it; if not, consign them to the sausage mill."

I think many have made the mistake of breeding heifers too young, and this has had a tendency not only to dwarf them in size and constitutional vigor but in their power to digest and assimilate large quantities of feed to be converted into milk. Grow them well; and if a heifer, after having been bred, lays on considerable flesh don't get frightened. If she has been bred right,

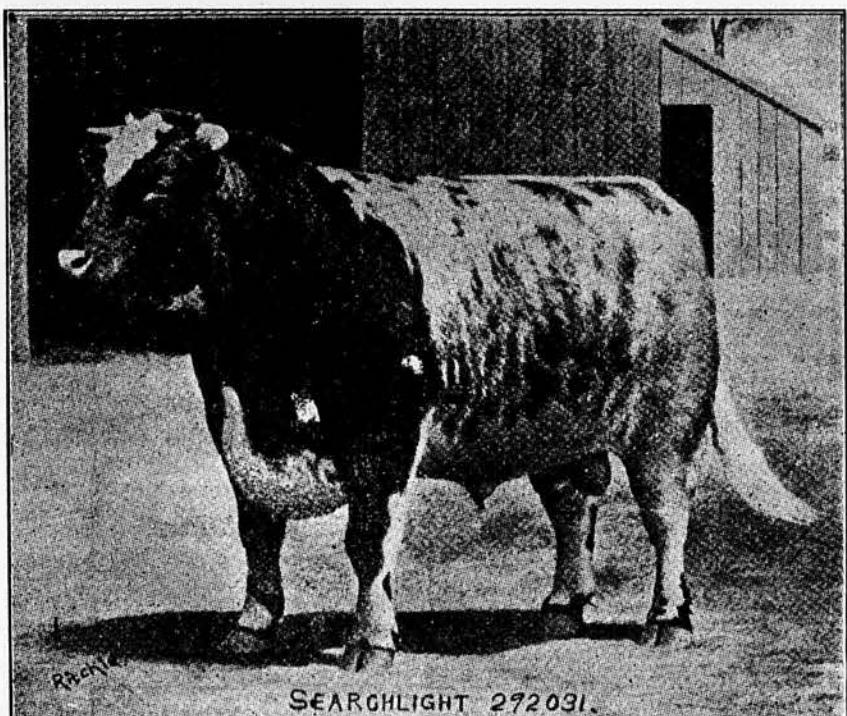
"blood will tell," and when she comes to freshen she will need all of this surplus flesh to tide her over this period till she gets into good working condition.—F. H. Scribner.

The farmer does not know what it costs to produce 100 pounds of milk. Don't you suppose that a man making shoes or manufacturing stoves, knows exactly what the finished article costs, and more than that, he knows what every individual piece costs. In what other business can you think of on the face of the earth, where such slip-shod methods are employed as in the production of milk? How long could any factory or any business run on such a plan? The same applies to all farm products. Why not begin figuring out and learn what can be produced most economically?

Is a Bull Worth \$8,000.

Colantha Johanna Lad is a getter of a crop of calves each year, and his blood is handed down to the coming generations through his daughters and sons, which of course makes it impossible to estimate exactly his value. It is an open question whether the ordinary breeder can afford to pay \$8,000 or \$10,000 for an animal to head his herd. Through the proper mating with such animals and carefully raising their get, there is no question but the man with means and breeding ability can make it pay. Of course it will not pay in the first year or two with the increased production of fat, but the great value lies in the increased production of animals that will result from the services of exceptionally good sires. Commenting in the foregoing words on the sale of a bull at a remarkably high price, Hoard's Dairyman adds: Colantha Johanna Lad is out of an exceptionally good cow and from a family of cows capable of producing over 400 pounds of fat in a year. His mother, Colantha, 4th's Johanna, gave in one year as a 4-year-old 19,300 pounds of milk containing 693 pounds of fat. In an official test of 7 months and 9 days, she produced 18,400 pounds of milk containing 673 pounds of fat.

A cow with such wonderful records and backed by female ancestors on both sides that are exceptionally capable dairy animals makes a bull from her worth many times that of the ordinary pure bred animal. Eight thousand dollars is a big price to pay for a sire, but 19,309 pounds of milk containing 694 pounds of fat is a big record, and if nothing happens to her during the next three months she will far exceed this and set a new standard in the production of fat.



Searchlight—The champion Shorthorn Bull at Enid, Okla., and first at American Royal, 1909. C. S. Nevius will sell 10 cows bred to this great bull in his sale Nov. 26th. Send for a catalog.

Write for An Actual Sample of Page Fence—FREE!

Let us send you an actual sample of Page Woven Wire Fence and our valuable Quarter Centennial Catalog Free. See the real Page Wire! Examine the method of weaving the wonderful Page Knot—the Knot that can't come off! Study the many styles of Page Fence and the Panorama of Pictures showing extreme tests which this splendid fence withstands. Read how, in our great mills and factories, we put elasticity, tensile strength and durability into High-Carbon, Basic Open Hearth Steel Wire. Learn what this means in economy.

PAGE WOVEN WIRE FENCE The Fence of Giant Strength

The steel from which Page Fence is made is 50 per cent stronger than common Bessemer Wire, and the galvanizing is 50 per cent heavier. Page Fence saves posts, nails, staples and labor, because its stiff, strong, coiled spring, horizontal wires support themselves over a long span. The actual saving is 50 or more posts every 100 rods.

Page Fence adapts itself to hilly or uneven ground. Holds stock securely, protects crops and saves time, worry and repairs.

Specified by U. S. Government as standard of quality. Approved by a million farmers.

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Please send Free Sample of
Page Woven Wire Fence and
Catalog, I own.....acres
and am interested in
 Stock Hay Fruit
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(Put check mark in proper squares.)

Name _____
Town _____
State _____ R.F.D. _____

CLEARANCE SALE OF Used Organs

Taken in exchange by us on new pianos and offered for sale at the very lowest prices you could possibly expect for an organ.

Every instrument thoroughly cleaned, tuned, with new pedal carpets and straps, polished, put in the best possible condition for used organs, a few just like new.

Order from this list; we have no catalogs or illustrations except for the Schulz organs, no duplicates, in ordering make second and third choice; sold on the following terms: Twenty per cent discount from these prices for cash in full with order, money refunded any time within thirty days if not satisfactory. Ten per cent discount \$5 cash with order, balance within thirty days. \$3 cash with order, balance \$2 monthly on organs up to \$25. \$8 monthly on organs up to \$50. \$4 monthly on organs up to \$100. \$50 monthly on organs over \$100.

Send at once. Do not delay. Thirty-three organs sold during our August sale. This stock won't last long.

LIST OF USED ORGANS.

Make.	Height.	Stops.	Mirror.	Octaves.	Case.	Price.
Schulz Chapel	4' 8"	15	Chapel	5	Oak	\$75
Schulz	4' 8"	11	Chapel	5	Oak	65
Schulz	5' 5"	11	Yes	5	Oak	85
Putman	6' 6"	11	Yes	6	Oak	15
Estey	6' 4"	11	Yes	6	Oak	40
Kimbal	6' 4"	11	Yes	5	Oak	40
Schulz	6' 2"	11	Yes	5	Oak	35
Schulz	6' 5"	11	Yes	6	Oak	65
Mason & Hamlin	6' 5"	11	No	5	Walnut	15
Crown	6' 7"	11	Yes	5	Walnut	30
Kimbal	6' 2"	11	Yes	5	Walnut	30
Crown	6' 6"	9	No	5	Walnut	30
Story & Clark	6' 4"	11	No	5	Walnut	20
Estey	6' 2"	9	No	5	Walnut	15
Burdett	3' 11"	7	No	5	Walnut	15
Beatty	6' 4"	22	No	5	Walnut	25
Loring & Black	3' 8"	12	No	5-2	Manual Walnut	50
Story & Clark	5' 4"	11	No	5	Walnut	20
Estey	6' 3"	11	Yes	5	Walnut	25
Wilcox & White	5' 11"	9	No	5	Walnut	20
Palace	5' 7"	9	No	5	Walnut	20
Chicago Cottage	6' 5"	9	No	5	Walnut	15
Schulz	4' 9"		No	7-1-3	Oak	125
New England	6' 6"	13	No	6	Walnut	20
Burdett	3' 8"	6	No	5	Walnut	15
Bell & Co.	3' 5"	6	No	5	Walnut	12
Crown	5' 6"	10	No	5	Walnut	15
Mason & Hamlin	3' 8"	7	No	5	Walnut	16

We do not prepay freight at these prices. Average weight about 400 pounds. Freight is only a trifle. Send at once to

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What Is a Profitable Cow?
A Massachusetts bulletin says that for market milk a cow to be considered profitable should produce 6,000 pounds of 3.5 to 4 per cent milk yearly, without being forced. For butter a cow ought to produce at least 300 pounds of butter yearly; if she does not do it, she is not helping her owner very much.

Farmer's Dairy Cow.

Pure bred cows are not necessary to success in dairying. It is not possible for every farmer to have pure breeds. He may be a number of years breeding up his herd to a satisfactory standard. Good milking cows of every breed and of no particular breed, possess certain qualities in common which guide the farmer in the selection of dairy stock. They have generally neat, well balanced heads, light fore and heavy hind quarters, mild, gentle eyes, sloping shoulders, rather than upright, large udders, good-sized teats, with well developed milk veins, and mellow skin and soft, glossy coat.

Good and Poor Cows in Illinois.

One hundred Illinois herds comprising 1,400 produced during the year 203, 182 pounds of butter-fat, for which the creamery paid \$55,706. The average for each cow was 145 pounds of butter-fat, bringing \$39.79.

The average net cash profit in the best 25 herds, 340 cows, was \$22.68 per cow, while the average cash return in the poorest 25 herds, 360 cows, were \$26.66 per cow, making a loss of \$6.45 per cow. Here is a difference of \$29.13 per cow, and yet these best 25 herds are not a whit better than any earnest dairymen who studies his business ought to secure.

Ignorance Costs More Than Education.

The facts with reference to butter-fat production, cost of feed and profit of 1,400 Illinois cows, comprising 100 herds were investigated by Hoard's Dairymen and the fact regarding ensilage was shown.

Compared with the average of all, the seven herds that were fed ensilage consumed \$3.76 less feed per cow, but made \$17.99 more net profit, returning 67 cents more for each \$1 invested in feed, and reduced the food cost of butter-fat 8.4 cents per pound below the average. (That is an ensilage sermon worth listening to.)

The owners of 61 herds read dairy papers. The average profit from every one of their 861 cows was \$12.91. These cows returned \$1.40 for every \$1 invested in feed. But the owners of 39 herds who did not read dairy papers sustained an average loss of \$2.16 per cow for their work. Their dollar's worth of feed. Twenty-four cows returned only 94 cents for every herds of this group did not pay for the food consumed.

Here is a difference of \$15.17 per cow in favor of the farmer who reads. Ignorance costs more than education.

Beef vs. Dairy Type.

Seventy-three Illinois farmers' herds consisting of 1,015 cows were tested by the experiment station for me, were of the dual-purpose type, supposed to be good for both milk and beef. They averaged only 133 pounds of butter-fat and returned a cash profit of only \$3.0 per cow. The cost of feed was \$33.27 a head, and 30 herds containing 495 cows did not pay for their feed. Almost half the dual-purpose herds kept their owners busy a whole year without returning one cent of profit, and the average return of all the dual-purpose herds is not enough to make it worth while to keep them. To make a profit of \$1,000 a year a man would have to keep nearly 300 of these cows, and the hired hand who gets \$25 per month and board would be on as good footing as the

dairyman who had 125 dual purpose cows as good as the average of all these.

But the 27 herds of dairy type, consisting of 385 cows, made an average return of 178 pounds of butter-fat worth \$48.96 per cow; cost of feed, \$31.73; profit, \$17.23 per cow. Each herd made a substantial profit. (This is no great profit, but it is five times as much as that of the dual purpose cows).

The 385 dairy bred cows produced \$3,609.55 more net profit than 1,015 dual-purpose cows, returned 46 cents more for each dollar invested in feed, and reduced the food cost of butter-fat 8½ cents per pound.

Cow Testing Associations.

Cow testing associations are voluntary organizations among neighbors who desire through cooperative effort to detect unprofitable cows in their herds. The scheme was first developed some twelve years ago in Denmark and has so spread through that little country that some years ago there were nearly a thousand associations, some tens of thousands of human members, and some hundreds of thousands of bovine members. They are now the vogue all over the dairy-ing sections of Europe and have been in vogue on this continent for some years.

In short, concerning cow testing associations it may be said:

That they are local organizations of dairymen who seek to detect unprofitable cows.

That they are inexpensive.

That they do not involve much work, effort, or thought.

That the details for their conduct are few and simple.

That thousands of such organizations are extant and doing much good.

That results are accurate enough to serve the purpose.

That there is nothing patented or proprietary about the scheme, no promoters, nothing to sell, no one to sell.

That granges, creameries, cream receiving stations, any local dairy center may well form the nucleus of such an undertaking.

That in each state there is some agency, state dairy commissioner, dairymen's association, or experiment station where counsel and assistance may be sought.

While attending the meetings of organized agriculture at Milwaukee recently, in connection with the National Dairy Show, this editor could not help noticing that one refrain marked the finishing touches of most of the addresses of the speakers who handled the questions on the program, whether it was grain grower or stockman and that was the maintenance of soil fertility. It seems strange that in less than a single generation of time, we are brought to the humble confession that we have robbed posterity of a part of its rightful heritage.

What's the reason good cows are so scarce? Through the careless indifference of the great multitude of farmers the cow is no better today than years ago. They still favor the scrub bull and make milking a thing to be dreaded, a late-at-night side line. The breeder of dairy cows has put the price so high on account of the scarcity and the large demand that it scares many out of the notion of improving their herd by buying good pure bred cows of them. The farmers have simply failed to grasp the situation until of late and now there is a general clamoring for better cows and no cows to be had. It behoves the farmer to raise good stock if he does not care to keep them.

Rye and New Corn.

Happy is the man who has a little winter rye thrashed out to feed the hogs before the new corn is sufficiently matured. Only a little need be fed for with good pasture a little dry grain goes a good ways. It will be well to continue the rye even after the new corn begins to be fed for too much new corn alone often does more harm than good and this season above all others, owing to the scarcity of old grain, we are going to be tempted to feed corn too green. If fed stalks and all about as soon as the largest ears begin to dent a little more good will be done at less cost than if all ear corn were fed, besides at this stage nearly all of the stalks will be eaten up with the ears.

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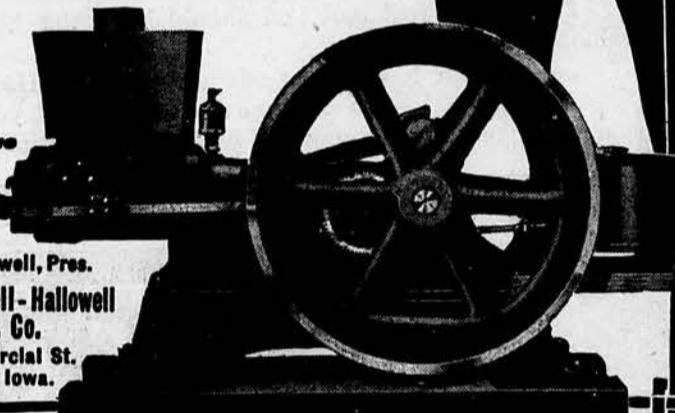
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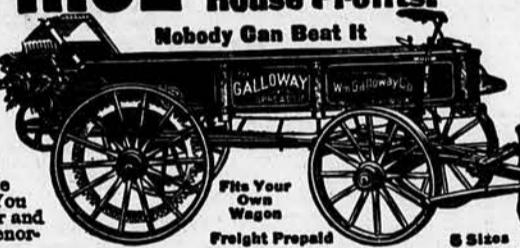
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Every ton of manure you can scrape up is worth in the neighborhood of \$4.00. It would cost you that much if you attempted to buy it. It would cost you still more to buy commercial fertilizers to take its place.

That makes your duty to yourself plain. You ought to own an I. H. C. manure spreader and avoid all manure waste. You may have your choice of three most excellent machines:

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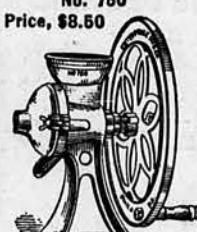
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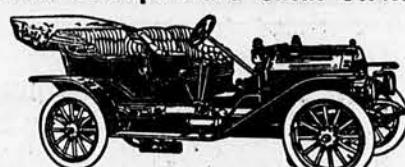
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THE FARM



A Texas stockman says: "In all my experience I have not found in a single instance where a scrub animal made as much gain or or much profit for food consumed as do improved ones."

"It is indeed a pity that the people of Texas, Oklahoma and Kansas do not understand and appreciate the merits of Bermuda grass. I noticed recently an article from Kansas, speaking of this wonderful grass. In this article the writer, who is one of large experience, styled it as the king of grasses; says it comes as early, stays longer, and furnishes more pasture per acre than any other, not even excepting alfalfa."—Farm and Ranch, Texas.

Doubled Hay Yield by Manure.

W. G. Whitmore, president and manager of the Valley Stock Yards, Valley, Nebraska, addressed a body of Nebraska farmers on the subject of the value of farm manures in maintaining soil fertility. In the course of his remarks he mentioned that over a million head of live stock annually passed through their yards and were fed in transit.

Mr. Whitmore runs three large manure spreaders and in five years has doubled the yield of hay on his meadow lands. He stated that he had repeatedly urged upon the surrounding farmers that they were welcome to draw manure from his yards, telling them that they would find that it was worth far more than the labor cost in improving the yield of their crops and maintaining soil fertility. only two men availed themselves of this offer.

There was a time when hauling manure was laborious. The manure spreader has so lightened the work that there is no longer real good excuse for not getting it onto the land.

Profitable Farming Calls for Best Effort.

Many a farmer fails to get adequate returns from his farm, says a recent government bulletin, because he stays at home too closely puts in too many hours a day following a plow, and does not often enough visit good farmers in his neighborhood or other sections of the country where good farming is done. Furthermore, a man physically exhausted from a long, hard day's work is in no condition to follow and get much out of the literature of his business as reported in farm papers, agricultural bulletins, reports and books, and without the advantage of all the information available from every possible source he cannot farm to the best advantage. Success in farming calls for the very best effort in a man along all lines. The farmer who is dissatisfied with his income from the farm needs to think seriously as to whether or not his methods are what they should be or whether his failure is the fault of the kind of business in which he is engaged.

Farmers' Week.

The State Farmers' Institute and allied associations will hold meetings from Monday, Dec. 27, 1909, to Saturday noon, Jan. 1, '10, at Manhattan, Kan.

The following organizations will hold meetings:

Boys' Corn Growers Association, Girls' Home Economics Club, Kansas Corn Breeders' Association, County Institute Presidents' Conference, Kansas Dairy Farmers' Conference, State Draft Horse Breeders' Association, Kansas Sheep Breeders' Association, State Creamery Men's Conference, County Surveyors' and Engineers' Conference, Manhattan Poultry Association, Kansas Millers' Conference.

Other meetings may be called to meet at the college that week. Definite dates for the several meetings will be announced later.

The best farmers in Kansas are urged to attend the State Farmers' Institute and bring their wives and their sons and daughters, 15 years old and over. A detailed program will be published by Dec. 20, 1909. For in-

formation address, Superintendent Agricultural Extension, Manhattan, Kan.

Cement Posts.

An Iowa farmer writing to Wallace Farmer thinks it foolish to talk about growing trees for posts. He favors concrete and his plan is to make posts three inches square at the top and five inches square at the bottom, six and one-half feet long. Three or four parts of gravel, ranging in size from grains of corn to hickory nuts, added to the usual one to three mixture will make a strong post and make a large saving in cement. In other words, use one to three mixture as a filler to fill voids and openings in the gravel and when that is done the concrete will be better and stronger than sand and cement mixture will make.

It is wasting time and patience with wooden molds in which the posts must set two or three days before they can be removed. He uses a cast iron mold which is removed from the post immediately, and with which ten or a dozen posts can be made per hour. The posts are left where they are made, either on pallets, concrete or dirt floor, until thoroughly cured. They may be covered with straw, burlap, or other covering and kept damp when the season or circumstances require.

Barbed or smooth wire may be used for reinforcement, but wire is hard to keep in place while tamping, and I have found perforated flat steel bars less expensive, easier to handle and they make a stronger and more rigid post.

The concrete post furnishes the best solution for the post problem. Concrete posts will not rot nor heave with the frost and it is impossible to burn them. They certainly add much to the looks of the farm and increase its value greatly.

County Experiment Stations.

Much interest is being taken throughout the state over the work of the demonstration farms now being organized by Superintendent J. H. Miller of the Farmers' Institute department in the State Agricultural College. The law passed by the last legislature setting aside the county poor farms or a portion of them is now being more fully understood as the organizers are going from county to county and the more it is understood the more it is finding favor with the farmers in every section. It will be an effective means of bringing the demonstration of the best methods of agriculture to those who can not go to the state experiment station.

The law as passed provided for the use of the county poor farms for this purpose. These farms during the recent years of Kansas prosperity have largely lost the purpose for which they were established and being maintained. Besides these county poor farms being placed under the charge of the college agricultural specialist, any private farmer may place his farm or portions of it under the direction of the Farmers' Institute officials which will give him all the benefit of their knowledge and experience and will require little extra work on his part.

A farmer near Scott City is arranging to put his entire farm of 320 acres in charge of this department of the college.

Superintendent Miller and some of his assistants are meeting with the commissioners in the central and western parts of the state for the purpose of drawing up agreements and making final arrangements to assume charge of the county farms wherever the boards are willing to take advantage of the new state law.

Large Farmer Does Big Business on Scientific Basis.

Arthur J. Bill is a young man who does reporting for the Illinois farmers' institute, and he is furnishing the farm papers with a quality of material of great value, in-as-much as he tells what farmers are actually doing. The following article is given space, not on account of the magnitude of the undertaking, but to demonstrate how the

November 20, 1909.

KANSAS FARMER

11

mastery of details, the exercise of brain, the value of knowing how, makes it possible to make a profit where the lack of these things would result in failure.—Editor.

Mr. John W. Sudduth feeds about 700 cattle per year upon his 1,245-acre farm in Sangamon county, Illinois. There the writer saw a rare object lesson in extensive and successful farming on a plan that provides most of the conditions for a permanent agriculture and that is worthy of particular mention at a time when so many farms illustrate abuse and depreciation of the land, and so many farmers think there is no money in well fed beef cattle.

Corn occupies 300 acres of this farm; pasture, 400 acres; wheat, 100 acres; oats, 60 acres, and 360 acres are rented out. There were 1,457 cattle on this place at one time, and another year only 150. Hogs are also fed, about one and one-half per steer. All the stock is sold off before midsummer to avoid fly time. A foreman is in direct charge, but Mr. Sudduth spends many forenoons on the farm, and gives particular and personal attention to the cattle.

NOT FOLLOWING THE CROWD.

Mr. Sudduth is not afraid to feed high priced corn to hogs and beginning October 1, 1908, he bought more than 1,000 stock hogs, getting eight car loads of thin shoats at 4 cents and less from one locality last fall, and others last spring at 6½ cents. They all sold at good prices this summer, one bunch of 120 topping the market at \$7.35. He was as eager to get hogs as most farmers were to get rid of them, and he has reaped a large reward.

FINDS BALANCED FEED PROFITABLE.

A special feature is the feeding of corn silage and clover silage to the fattening cattle. Mr. Sudduth has two large stave silos and the silage is counted one of the most valuable and practical feeds on the farm. It is fed in the late winter and spring, not more than 20 pounds a day per steer with clover hay, grain and cotton seed meal.

Mr. Sudduth's fifteen years of personal and successful management of cattle has led him to feed practically a balanced ration, consisting of four pounds of cotton seed meal and one-fifth of a bushel of shelled corn per day, on clover pasture. Cotton seed meal is fed about four months, a quarter of a ton per steer. In feeding cotton seed meal ten years on grass, it has never hurt the cattle.

WHY HE SUCCEEDS WITH CATTLE.

Mr. Sudduth can recall but one year when cattle lost him money and that was at a time of both drouth and panic. He buys all kinds of feeders and has made as much money from poor cattle as from the choice kind. But he maintains that one must really like the business, be a close, practical judge of cattle and of markets and must give personal and continuous attention to the herd, inspecting the animals daily.

A point made emphatic by Mr. Sudduth is that mastery of the details and reputation for successful handling of cattle and the proper equipment and pastures are more important than large capital, because having these it is easy to get credit on cattle.

ENORMOUS EFFECT UPON SOIL.

The 14,000 to 20,000 bushels of corn raised is fed to live stock on this farm; in 1907, 50,000 bushels were fed. About 400 acres are in pasture. One man is kept hauling manure all the year. Large quantities of rich feeding stuff are brought upon the farm. Under this system the yield of corn has increased from 27 bushels per acre 16 years ago to an average of 42 bushels in 1906; 57 bushels in 1907 and 54 bushels last year, when we had both flood and drouth. In many instances fields have yielded 70, 80 and 90 bushels per acre, and 40 acres one year produced 107½ bushels per acre.

TWENTY-TWO TONS PER ACRE OF MANURE.

This year an immense crop of corn was grown upon a 40-acre field which had been in grass five years and in that time had received 22 tons per acre of manure in two applications. Cattle have been fed upon all fields and manure hauled to many. There is thorough cultivation of the ground and destruction of bad weeds. These methods produce as much corn in four crops as he could grow in eight crops, without the live stock and grass, besides the profit in cattle and hogs.

This all means that Mr. Sudduth is making money while solving the great problem of building up the soil of a



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All other Tongueless Discs Are Imitations—Get the Genuine—Better Than Ever—Same Low Factory Price

The Lightest Draft Harrow Made



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YOU won't know what a real tongueless disc is until you see and try the Detroit-American. Others are makeshifts—old-style discs with tongues cut off and trucks stuck under in front. They can't do the work or save the horse or last as long—they can't be worth as much to you—as the improved—

Detroit-American 30-Days' Trial—No Money Down—Cash or Credit Terms

All-steel frame; Hard maple bearings; Rigid steel adjustable standard; Pipe oilers; Shifter bar and adjustable bumpers; double levers; indestructible steel spools between blades; steel sectors. Nothing to break, loosen, or wobble, and guaranteed for an unlimited time—not 5 years or 10 years, but forever. Try one free a month. If satisfactory, pay—if not, return. We take care of the freight in both cases. Buy on credit if you choose.

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Get our big, money-saving, free book. See the genuine tongueless disc and note the bed-rock, factory price. Prompt delivery is our hobby. Warehouses at many points. Send coupon or postal now for guide to the right disc at the right price. Also shows the famous Detroit-American Manure Spreaders and Cultivators at cut prices. We sell only direct from factory. Don't let a dealer pretend that he is giving you a real tongueless disc. We never sell dealers.

AMERICAN HARROW CO.

10125 Hastings St., Detroit, Mich.

American Harrow Co. 10125 Hastings St., Detroit, Mich.
Send me your big Harrow Co. freight-prepaid prices.
Name.....
Town.....
State.....

large acreage. His uniform success challenges the inspection of the hundreds of large land owners who face the same problem but have not seriously tackled it.

THE MEN AND THE MULES.

Mr. Sudduth does all his work with big mules and sells off the surplus animals at good prices as soon as corn plowing is over. This is good economy. The writer saw five of them sell on the farm for \$975. Hired men are never allowed to whip or jerk the mules or swear at them.

Two cattle lots are paved with brick and another with cinders. Good sheds are provided. A wide outlet has been made for the escape of cattle in case of fire, and the fence is purposely left low in one place so that frightened an-

imals could go over it. The buildings, fences and equipment are in first-class condition.

UNUSUAL WATER SUPPLY.

A 25-acre slough was profitably rented for a long term of years to the Chicago & Alton railway, which has made a great reservoir and fish pond of it, and Mr. Sudduth retains the right to an inexhaustible supply of water for all his cattle. He put in a steam pump, elevated tank of 26,000 gallons capacity and gravity distributing pipes three-fourths of a mile to his barn, sheds and fields, at a cost of \$1,500. It is only necessary to pump twice a week.

HIRE MEN AT \$1.15 A DAY.

Mr. Sudduth pays his men \$1.15 a day for every day that he can furnish

them work and that is perhaps 23 out of the 26 working days in a month. They are allowed to keep a cow and have a garden spot and chickens, but are not permitted to keep dogs, geese or other live stock. Twelve men are kept the year around, and 18 were given work most all of the spring. The cattle feeders who must work Sundays and every day are given \$1 a day and board.

SUGAR Fine Gran. lb. 2½c

We SAVE you about one HALF on Groceries and general Merchandise and pay freight. Send no money but write at once for Free Catalogue T
CENTRAL MERCANTILE COMPANY,
263-269 Dearborn St., Chicago.

November 20, 1909.

flavor. Firmness of both lean and fat are to be desired, and in this connection it seems to me a diet composed entirely of corn, or nearly so, is better than a mixed one, or in fact any kind of feed available in this section, on account of corn making firm fat and solid meat, which the public in this and foreign countries prefers, and furthermore this fat yields well when put into the lard kettle. Both public and packer discriminate always against oil meat; it is unpalatable and of little value for lard.

Color also seems to have some small influence on the minds of certain hog buyers. The red hog, for instance, being less in favor than the black, and, while I do not know that it has been proved that tuberculosis is found oftener in the red than in the black hog, there is at least a prejudice of this kind existing. I am inclined to think on account of the red hog's roving disposition that he seems to possess more energy than his black brother in rooting around and finding disease germs, if there be any, particularly tuberculosis, that the black hog on account of his more lethargic temperament would pass over. My impression is that the percentage of red hogs condemned for tuberculosis is greater than that of the black one. Speaking from my observation and on what little I have learned regarding the different breeds of swine. I think if I were in the swine raising business in the state of Iowa I should favor the Poland China and similar breeds as against the other and more dissimilar kinds.

I am given to understand the object of your association is to produce a smooth, well formed hog of symmetrical proportions, and this is worthy of the highest praise. I have already explained why it should pay to raise such stock. There is nothing in any way to be gained by the breeder in producing common stock with no merit but that of being a big-boned, coarse weight maker.

Green Alfalfa in Pork Production.

An experiment station reports that during the summer it was found that 170 pounds of green alfalfa, cut and fed to hogs fresh in a dry yard, was equal to 100 pounds of corn, and in this experiment it took six pounds of corn to produce a pound of pork. Therefore, assuming 170 pounds of green alfalfa would produce 16-23 pounds of pork, a fraction over 10 pounds of green alfalfa would produce one pound of pork. Estimating that an acre of alfalfa will yield during the season 20,000 pounds of green hay, this experiment would show that such an acre of alfalfa, cut green and fed fresh, would produce something like 2,000 pounds of pork. Of course, this is fed in connection with corn, and a statement that an acre of green alfalfa would produce 2,000 pounds of pork would be very misleading. Figuring on the basis of these two experiments, alfalfa hay yielding four tons per acre (8,000 pounds) would produce 1,600 pounds of pork, and its value at 4 cents per pound would be something like \$64 per acre; and with green alfalfa producing ten tons per acre (20,000 pounds) would produce 2,000 pounds of pork, which, at 4 cents per pound, would be worth \$80 per acre.

Draft Horses for the Farmer.

In an address before the Kansas State Board of Agriculture Ex-Governor Glick, of Kansas, said: "There are the men who buy draft horses, and there are the men who need them and who work them. When you take an ordinary team and a 12-inch plow, and you can't use a larger one with an ordinary team of horses, it takes eight miles of travel to plow one acre of ground, assuming that you have turned a twelve inch furrow. Increase the size of draft horses so they can pull a sixteen inch plow, and the result is that an acre can be plowed by traveling six miles. Two miles of

travel are saved and a great deal more work done. This is a very important matter, especially in the present day, when we have to do so much of the work ourselves. Years ago, when I commenced farming, a man said to me, 'You want a nice little horse so he can pull your plow, and when you go out on the road he can trot along nicely and you can go to town quicker and get back sooner. These heavy horses are too slow.' I tried the small horse for quite a while, but when a hired man traveled behind a plow and only plowed one acre I began to study the question of whether I would better use larger horses and larger mules; and the difference was, when you put in 1600-pound horses, a span of them, they came into the barn at night fresh, and you had plowed about three acres instead of two acres a day, assuming you started right and the man understood handling the plow. That makes a great difference to the farmers, and that is the reason they should encourage the breeding of draft horses.

"We haven't enough breeders in this country. We need the draft class of horses. The great market for the draft horses is among the farmers; they are the ones who want the draft horses, they are the ones who need them to haul loads to market.

You can do twice as much in a day with heavy draft horses. A great many farmers think the ordinary light horses are the kind to have because they can go to town quickly. That is where the farmers are mistaken. The farm work is heavy; the plowing, the two-row cultivators, cultivating four rows at the round, can't be done so advantageously with your light horses. You should have horses weighing 1,500 to 1,600 pounds.

"When the bus lines in New York were operated it was found that the small horses required about the same quantity of feed to do the work that the large horse did. This is something that should interest the farmers, and they ought to turn their attention to that, but a great many of these small horses, trotting horses and scrub horses, are being introduced; breeding to such stallions will destroy the horse the farmer needs to lighten his work and lessen the expense.

Balancing Corn for Swine.

Farmers and feeders often ask what concentrates shall he feed with corn to make it a balanced ration for fattening hogs or brood sows.

There are several food stuffs which can be used to supplement corn for both fattening hogs and brood sows. Skim-milk is first choice if it can be had in sufficient quantity. It is highly digestible, exceedingly palatable and contains a high percentage of protein. Tankage is also satisfactory. Owing to the fact that it is highly concentrated, but little is required in the ration. Because of its high protein content and its high price per ton it is not wise to make the ration for brood sows more than 10 per cent tankage by weight. For fattening hogs the quantity may be reduced still more, making it but 5 per cent, or one-twentieth by weight. With tankage at \$34 per ton you could not find any protein supplement that would be more satisfactory and more economical.

Steer and Dressed Beef.

The Provisioner in referring to the steer having the best quality of meat on him says that such a steer weighing 1,200 pounds and costing, say 7c. amounts to \$84. The credits may be figured about as follows: Hide, 84 pounds at 15c. \$12.60; tallow, 60 pounds at 5c. \$3; tongue, 25c; total, \$15.85; making the steer cost \$68.15. Say this steer dresses 58 per cent, or 696 pounds cold weight. This makes the dressed carcass cost practically 10c. per pound. The balance of offal, etc., goes to cover expenses.

The National Horticultural Congress.

Great preparations are being made at Council Bluffs for the coming National Horticultural Exposition, November 15-20. It is predicted that the attendance will be very large, as it will be the greatest exhibit of fruits, vegetables, nuts and flowers ever brought together in the United States. Forty states and territories are to be represented. Liberati's band and grand opera singers is one of the attractions. A grand concert will be given every afternoon and evening during the week. Special rates will be given on all roads. Mention Kansas Farmer and write Supt. Freeman L. Reed, Council Bluffs, Iowa.

ARCADIAN MALLEABLE NON-BREAKABLE RANGES

are fuel savers because they are *riveted* airtight in exactly the same way as a locomotive boiler. And to do this, a range must be made of *malleable* iron. Cast iron or so-called steel ranges cannot be made permanently airtight—they are only bolted, and the seams stuffed with stove putty. When this putty crumbles, in six months or a year, drafts enter everywhere, fanning or checking the fire, wasting fuel, and utterly ruining proper baking and cooking. Because the ARCADIAN is *permanently* airtight, from first to last it is such a fuel-saver, perfect baker and work-saver.

Unless you know inside facts about range construction, it is easier to buy a poor range than a good one. Our free booklet tells *inside* facts. It will save you a good sum of money. It will interest you from cover to cover—and it's *free*. Write for it today. Arcadian Malleable Range Co., Dept. 12 Milwaukee, Wis.

An Ideal Farm For Sale

Many well versed in farming say this is the best farm in Kansas. Any way it will produce with any of them, and is well and beautifully located.

Then here is the one for which you are looking. It adjoins a live town about 40 miles west of St. Joseph. It comprises 300 acres and is exceptionally well improved, well watered and has lots of fine walnut timber.

Do You Want a Great Farm?

One agricultural expert says it is the best conditioned farm he ever saw. It has always been a money maker. Much land in this vicinity, and not so well located has changed hands for more money than is asked for this.

If you are interested, address

R 227, care Kansas Farmer, Topeka, Kan.

HIDES

You Want A Square Deal for the highest market price for your hides—quick returns—in fact—a REAL SQUARE DEAL—then ship to us. If you have any hides on hand now or will have in the future—send them to us on our guarantee that you get a square deal all the time. Write for shipping tags. Postal card is sufficient.

Topeka JAMES C. SMITH HIDE COMPANY Kansas

It Will Pay You To Ship Us Your HIDES

YOU can have a warm, serviceable fur coat made from your cow or horse hide that will wear you for years. We tan and make them up into soft and pliable coats, robes and rugs, moth and waterproof and guarantee the work. Write us today for our FREE BOOKLET. It tells you all about hides.

Des Moines Tanning Co., Dept. F Des Moines, Iowa.

LET US TAN YOUR HIDE.

Mr. Stockman, what difference does it make to you when you send your hides away to be tanned and made up into coats, robes and rugs, whether the distance is less or more, so long as "Crosby pays the freight" both ways when three or more cow, steer or horse hides are sent in one shipment?

Why not send them to the oldest and largest establishment of its kind, where you will receive the best results? In that way you can get better and cheaper fur goods than you can buy.

Figure on it and get our illustrated catalog, which gives prices and a lot of useful information. Address

The Crosby Friesian Fur Company, Rochester, N. Y.

DEATH TO HEAVES

Newton's Distemper Cure Guaranteed or Money Back. \$1.00 per can, at dealers, or Express Paid. 18 Yrs' Sale. THE NEWTON REMEDY CO. Toledo, Ohio.

1,000,000 RAW FUR SKINS WANTED for my manufacturing and exporting trade. Skunk, Mink, Mink Rat and others. Top prices. Write for special quotations.

A. E. BURKHARDT International Fur Merchant, CINCINNATI, O.

Blacklegoids

Simplest, Safest, Surest Vaccination for the prevention of **BLACKLEG IN CATTLE**

NO DOSE TO MEASURE. NO LIQUID TO SPILL. NO STRING TO ROT.

Just a little pill to be placed under the skin of the animal by a single thrust of the instrument. You cannot afford to let your cattle die of blackleg when a few dollars spent on Blacklegoids will save them. Write for circular.

PARKIE, DAVIS & COMPANY
HOME OFFICES AND LABORATORIES, DETROIT, MICH.
NOTICE.—For a limited time we will give to any stockman an injector free with his first purchase of 100 vaccinations.

SHIP YOUR HIDES & FURS

Direct to Biggs & Koch and you will get the highest prices and save all commissions. A square deal and quick returns. Full weights and honest grading. One hide, one skin or a car load. No matter whether you are a trader or trapper, farmer or dealer we can do you good and make you money. It will pay you to write us for price list and FREE shipping tags. For shipments held separate on request, and your furs back if our return are not O. K. "Trappers Guide" free to shippers. Write today for catalogue of Trappers Supplies.

BIGGS & KOCH,
937 Liberty St., Kansas City, Mo.
Largest hide and fur house in Southwest. Estab. 1883

HOME CIRCLE



WHAT I'M THANKFUL FOR.
I'm thankful that I'm six years old,
And that I've left off dresses;
And that I've had my curls cut off—
Some people call 'em tresses.
Such things were never meant for
boys—

Horrid dangling, tangling curls—
They go quite well with dress and
sash;
They are just the things for girls.
I'm thankful I've got pockets four,
Tho' they're almost too small
To hold the things I want to keep—
Some strings, knife, top and ball.
I'm thankful that we're going to have,
All my folks and I,
Just a jolly dinner today,
With turkey and mince pie.

—The Household.

THANKSGIVING.

The ripe, rosy apples are all gathered
in;
They wait for the winter in barrel and
bin;
And nuts for the children, a plentiful
store,
Are spread out to dry on the broad
attic floor;
The great golden pumpkins, that grew
such a size,
Are ready to make into Thanksgiving
pies;
And all the good times that the chil-
dren hold dear
Have come round again with the feast
of the year.

Now, what shall we do in our bright
happy homes?
And what do you say is the very best
way
To show we are grateful on Thanks-
giving day?
The best thing that hearts that are
thankful can do
Is this: to make thankful other hearts,
too;
For lives that are grateful, and sunny,
and glad,
To carry their sunshine to lives that
are sad;
For children who have all they want
and to spare;
Their good things with poor little
children to share;
For this will bring blessing, and this
is the way
To show we are thankful on Thanks-
giving Day.

—Anonymous.

Thank God every morning when you
get up that you have something to do
that day which must be done whether
you like or not. Being forced to work
and forced to do your best will breed
in you temperance, self-control, dilig-
ence, strength of will, content, and a
hundred virtues which the idle will
never know.—Kingsley.

Be Thankful.

Next Thursday is the National
Thanksgiving day; the day set apart
by law when all good people are sup-
posed to turn aside from the pursuit
of gain and by some means express
their gratitude to the Giver of all good
for His mercy and His goodness to
the children of men. As a nation we
have much to be thankful for in this
year of grace. In material things we
have been abundantly blessed. The
granaries of the nation are overflow-
ing and its factory wheels are hum-
ming a tune that means comfort and
happiness to the laborer. The avenues
of commerce are crowded with buyers
and sellers and prosperity abounds on
every hand. The white-winged angel
of peace hovers over our land, and
the wave of reform now sweeping
across the country is rapidly advanc-
ing the time when the "square deal"
will be popular and high-toned thieves
and public robbers will be stripped of
their power and influence. It is a
time when all good men can say with
the Psalmist:

Make a joyful noise unto the Lord,
all ye lands. Serve the Lord with
gladness; come before His presence with
singing. Know ye that the Lord
He is God; it is He that hath made us,
and not we ourselves; we are His
people and the sheep of His pasture.
Enter into His gates with thanksgiving
and into His courts with praise; be

thankful unto Him and bless His
name. For the Lord is good; His
mercy is everlasting, and His truth
endureth to all generations.—Selected.

HOUSEHOLD HELPS.

When covering buttons for a dress,
it is a good plan to make one or two
extra ones and drop them in your
workbasket. I used covered buttons
to trim my daughter's school dress
and made just the number needed.
When she lost one it took me a full
hour to hunt up the extra button
mold and the pieces to cover it.

This device for keeping bristles stiff
in a hair brush comes from a trained
nurse. After washing and rinsing the
brush, lay it for a moment in a rather
strong solution of alum. If this is
done after each washing, the brush
will retain its original stiffness almost
as long as it lasts.

How to Make Homemade Soap.

In trimming meats before cooking
save all waste scraps of fat, try out
and put in a tin pail until you have
collected about five and a half pounds
of grease. Melt, strain through a wire
sieve into a dishpan and cool to luke
warm. Dissolve in an earthen vessel
a ten cent can of lye and three table-
spoonfuls of borax in three and one-
half pints of cold water. Let the lye
mixture also become lukewarm.
When the grease and lye are of the
same temperature pour the lye into
the grease, stir about two minutes and
pour into square or round granite pans.
The soap will be hard and ready to cut
in about twelve hours. This makes a
about twelve hours. This makes a
hard soap that does not injure the
hands.—Larned Chronoscope.

How to Keep Rugs Flat.

Girls who have a habit of shuffling
their feet, thereby incurring frequent
scoldings for kicking up rugs, will
find life pleasanter if they cut tri-
angles of medium weight cardboard
and sew them on the under side of
rugs at each corner.

Sunning the Bedding.

It cannot be too often urged that the
bedding should be frequently sunned,
not only aired, but exposed to the
finest sunshine possible. There is not a
better sweetener, cleanser, or dis-
infectant than pure air and hot sun-
shine. Not only should the covering
be spread on the line, but the sheets
and mattress should also be laid out
to air as often as the strength of the
housewife can manage it. The mat-
tresses should be carried into the
yard by some stronger person than
the woman, but if no other way is
found, the bedstead may be drawn
across the window and the sunshine
let to lie on it as much as possible.
Old, heavy feather pillows should be
renovated, and given plenty of fresh
air as often as possible. Feather pillows
are not as sanitary as pillows of some
other kinds, though they may
be softer. Be sure to keep the bed-
ding clean and well aired, as well as
have the sleeping rooms well ventilated.
Try it.

Bravery.

"Elton Tilton is just the bravest
boy you ever saw, mother. When we
were playing this morning we saw a
big snake, most as large as my arm,
coming toward us, and we all ran fast
as we could—all but Elton. He threw
a stone at it. Wasn't that brave?"

"There are different kinds of brav-
ery," the little boy's mother answered.

"Yes," said Winfred, "and one day
a big dog came along, with his tongue
hanging out, and we thought it was
mad, and scrambled over the fence,
but Elton walked right along, as calm
as ever. He says he isn't afraid of
tramps or bears or anything. I wish
I was as brave as Elton, but I'm
afraid I never will be. He says he
hopes there will be a war when he
grows a man, so he can go and fight."

"I heard a story about two boys the
other day," said his mother, "and I
thought one of them was very brave."

"Do tell me about it," said Winfred,
eagerly.

"They went to school together, and

one day they thought it would be
great fun to hide a frog in the teach-
er's desk, but it did not turn out as
they expected. That is the way with
jokes. The frog tipped over an ink-
bottle and spoiled a number of exam-
ination papers and other things, and
the teacher was very angry. He
asked the guilty boy to own his fault
like a man, and take the punishment
he deserved. He put it upon his
honor, you see. Well, the oldest boy,
who found the frog and first thought
of the joke, sat still in his seat, with-
out a blush; but the little boy, though
he trembled with fear, went to the
desk before the whole school, and
owned his fault. And he sat for an
hour on the dunce's stool, a target for
fifty pairs of eyes."

"O, mother," cried Winfred, "I was
so ashamed! I'll never do anything
so mean again as long as I live. How
did you know?"

"I heard two boys talking about it
as I rode in the car. I was proud of
my boy, Winfred, and I pitied Elton
Tilton's mother, for I said to myself,
'My boy was brave, but her boy was
a coward.'

"Why, I never thought that was being
brave!" said Winfred.—Julia D.
Peck, in *Youth's Companion*.

The Free Paint and Its Evils.

Since the craze for advertising has
grown to its present proportions, and
wire fences have made the old-time
methods of announcing their wares al-
most impossible, business men have
conceived the idea of painting barns
and outbuildings through the country
with their signs. Bill boards erected
along the highways or in fields are
the target for the small boy, as he in-
dustriously throws stones, and no one
ever seems to interfere with this right,
but a barn or shed is usually free from
vandals. Often farmers will not allow
bill boards to be erected in their fields,
on the ground that they tempt pass-
ers-by, but they will be caught by the
bait of cheap painting nine times out of
ten. Campers and poachers seem to
think bill boards their legitimate prey,
and many a gaudy sign has gone to
keep the "poor white trash" warm on
a chilly evening, or to cook the food
begged from the farmers, so that
method of advertising is expensive
and troublesome.

The farmer usually argues that he
gets his buildings painted free of
cost, and often the merchant pays a
bonus besides, if the building is espe-
cially prominent. The farmer figures
that he can be confronted three hundred
and sixty-five days each year by
"Wilton's Ointment" or "Smith's
Green Pills" if he is relieved of the
burden of painting the buildings, so
letters two or three feet high pro-
claim to every one within seeing dis-
tance that the proprietor of the place
believes in cheap paint.

And almost always the paint is ex-
ceedingly cheap. A half-grown boy or
some sign painter proceeds to daub a
black or bright-colored background on
the building, and then the letters are
placed on it in some other color. Often
the sign painter has been instructed
to be "funny" in getting up the ad-
vertisement, so he proceeds to spell the
words wrong or use other devices for
attracting attention. An eye, a figure
four, the latest slang, and all the other
"catchy" devices appear on roofs
and surfaces done in the cheapest of
cheap paints, to disfigure the farm
buildings as long as a trace of them
lasts. In examining some of the paints
used in sign painting, one is led to
believe they were mixed with water
and answer the same purpose as
whitewash, except that whitewash is
more to be commended. The coloring
is a sort of stain that clings to the
wood, but does very little toward pre-
serving it.

And even when good paint is em-
ployed it is tiresome in the extreme to
look out forever at some advertise-
ment. The big, disfiguring sign robs
the farm of its beauty, and does more
to advertise the owner as penny wise
and pound foolish than anything else.
He would never think of buying a
cheap stain and whitewashing it on
the buildings himself, yet when the
ugly job is done for him, he compla-
cantly regards it as a saving of money.
There are plenty of newspapers to ad-
vertise in, without making the barns
hideous. Whether a man wants to sell
his farm or not, it should be his am-
bition to have a neat, attractive look-
ing place, and surely that can never
be as long as barn advertising re-
mains in vogue. The idea of a farmer's
being able to build a fine new
barn and then not having money
enough to paint it! As a matter of

common sense, he should have the
very best paint money can buy to pre-
serve the wood, and get as much
back in service as he can.

And when the stain begins to fade
the appearance of the outbuilding is
most forlorn. The dealer goes out of
business or no longer wishes to keep
up the sign, and storms streak it into
a dirty, muddy mass that must be
painted if it is to be hidden at all. Of
course if a contract is entered into
for a period of years, as very often is
the case, no matter how dirty the
painting may become, nor how much
the farmer may desire to paint his
buildings with a paint worth having,
the advertisement must remain in
its place. It is well to think twice be-
fore getting so economical as to spoil
a good building with cheap paint and
a disfiguring sign, for it does not
speak very well of the thrift of the
owner. Cheap paint is about the most
expensive thing any man can use, and
it is hard to find a merchant who uses
anything but a cheap article when he
sets out on a sign-painting tour.—Hilda Richmond, Hardin county,

Selection and Preparation of Meat.

Probably no part of the daily ex-
penditure for food requires as much
thought as the purchase of meat, for
meat is expensive, and the difference
in price of the different cuts is not
always a guide to the difference in
food values. Every housekeeper
should make a careful study of a
good meat chart and learn the location
of the various cuts.

Meat is the name applied to the
flesh of all animals used for food.

Beef is the meat of the steer or
cow, and is the most largely consumed
of all animal foods.

Veal is the meat obtained from the
young calf. Veal should be thor-
oughly cooked. It is deficient in fat,
and has not much flavor; therefore, it
is advisable to season it well and to
add salt pork while cooking. Good
veal is pink in color and has white
fat.

Beef is digested easily, and a
healthy stomach will digest it with-
out any trouble.

Meat is comprised of fat, mineral
matter, water, and protein. There is
about four times as much protein in
a pound of meat as there is in a
pound of milk. The color of meat
comes from the matter which is found
in the red corpuscles of the blood.

The most expensive cuts of meat
come from the parts of the animal
where the muscles are little used.
These cuts are tender, fine grained
and of a good flavor. On the other
hand, those parts much used produce
tougher cuts, but they are often very
juicy and of fine flavor if properly
cooked. The tough meat forms more
than half the animal, but is just as
nutritious as tender meat. While, in
many cases, the tender cuts are desir-
able and preferable for people who
have a large income, the cheaper cuts
may be used to better advantage if
well cooked.

At the Colorado Agricultural Col-
lege, the students are shown how to
cook a cheap piece of meat so that it
is nutritious, palatable and attractive
enough to put on the rich man's table.
—Mary F. Rausch, Colorado Agricul-
tural College, Fort Collins.

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I'm Afraid to Come Home in the Dark

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FASHIONS

8616 Girls Dress.—A Unique Design showing the Newest and Most Practical Feature In Styles for Girls.

What could be more comfortable or pleasing to mother and daughter than a dress that can be closed without help or trouble. This model was made with the now so popular centre front closing. The fullness of the waist is tucked over the shoulders in



front to yoke depth, while at the back the tucks are stitched to the waistline. The skirt may be plaited or gathered. The design is suitable for galatea, chambray, linen, woolen goods or silk. The pattern is cut in 5 sizes, 6-8-10-12-14 years. It requires 4 1/4 yds. of 36 inch material for the 10 year size.

8619—A Practical Kitchen Apron.
Every woman whether she has to do the work about the house or not will find use for a simple, practical work apron, such as the one here pictured. It slips on and off easily and is the simplest of garments to make. Besides it is infinitely attractive and becoming with its long lines and square-cut neck. The usual apron materials are suitable for reproduction such as linen,



Gingham, Holland and percale. The medium size requires 3 3/4 yds. of 36 inch material for the medium size. Cut in sizes small, medium, large.

8542—Ladies Tucked Shirtwaist.
For a separate blouse to wear with old skirts, there is no style better for the purpose, than well fitting tucked model. This one has a broad pleat laid over the shoulders in Gibson effect and small tucks on each side the front closing. The sleeve is in regulation shirtwaist style. The design will develop well in madras, linen, cotton, silk and woolen. The pattern is cut in 6 sizes, 32 to 42 inches bust measure. Size requires 3 3/4 yds. of 24 inch material.

8539—A Simple Morning Jacket.
This model shows a simple graceful model, with the fronts lapping in diagonal effect. Deep tucks at the shoulders contribute to the front fullness which may either hang loose or be held in place at waist by a belt or ribbon. China silk, dimity, lawn, challis, and cotton crepe are all suggested for the making. The pattern is cut in 6 sizes, 32 to 42 inches bust measure. Size 6 to

quires 4 yds. of 24 inch material.

8608.—A Neat and Popular Model. Girls Dress.

Here is an attractive, simple, easily made frock, just the thing for hard service or school wear. The model is in one piece with the fullness of the front laid in a box plait over the centre. At the underarm seam are inverted plaits, which give necessary fulness to the skirt. A dutch collar finished the neck edge, and the sleeves may be made in wrist length or to the elbow. The pattern is cut in sizes, 2-4-5-8-10 years and requires 3 3/4 yds. of 36 inch material for the 6 year size.

8605.—A Simple Effective Model.
Women realize the importance of having a house dress that is adapted to its purpose, is simple in design, and comfortable. We submit in the design here shown a model that is practical and that will prove desirable and suitable. The waist may be developed with centre front plain closing, or with the extension as illustrated. The skirt has the new back panel effect and closes at the centre front. This practical feature will appeal to every houseworker and laundress, as it renders the ironing of the dress easy. The sleeves may be made in el-

bow length or in wrist length. The pattern is cut in 7 sizes, 32-34-36-38-40-42 and 44 inches bust measure, and requires 6 yds. of 36 inch material for the 36 inch size.

8603.—Ladies Corset Cover nad Drawers.

A popular and quickly made corset cover model is here illustrated; it is appropriate for lawn; batiste, all over embroidery, drawers pattern which is also appropriate for all lingerie materials is cut without any fullness at the waist. It is lengthened by a ruffle that may be made of the material or embroidery edging. The pattern for these two desirable designs is cut in 3 sizes, small, medium, large. The medium size requires 3 3/4 yds. of 36 inch material.

8626.—Doll's Middy Suit, with Military Cape, and Cap. Just for Miss Dolly.

At this time of the year mothers and friends of children are busy making clothes for dollsies, and there is probably no set of clothes that will appeal more strongly to the "Little Mother" than one which will be like an up-to-date "Grownup suit. The design submitted shows the popular "middy" blouse, a jaunty cap, and a stylish military cape. All of these models are simple and easy to make so that even "little mothers" could attempt to develop them. Wash or woolen goods may be used for the

bow length or in wrist length. The pattern is cut in 7 sizes, 32-34-36-38-40-42 and 44 inches bust measure, and requires 6 yds. of 36 inch material for the 36 inch size.

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This model shows a simple graceful model, with the fronts lapping in diagonal effect. Deep tucks at the shoulders contribute to the front fullness which may either hang loose or be held in place at waist by a belt or ribbon. China silk, dimity, lawn, challis, and cotton crepe are all suggested for the making. The pattern is cut in 6 sizes, 32 to 42 inches bust measure. Size 6 to

suit, white broadcloth, silk or velvet are suitable for the cape. The pattern is cut in 3 sizes, for dolls 18-20-22 inches in height. It requires 5/8 yd. for the cap, 1 1/4 yds. for the suit, and 5/8 yd. for the cape of 27 inch material.



last several days, without danger of souring, if kept in a cool place.

For the benefit of those who do not understand lye making from wood ashes, I will give my way, which is very simple. Take a kettle or earthen jar, fill two-thirds full of good wood ashes, then add boiling water until the vessel is almost full. Put it on the back of the stove and leave it for an hour or two, when the ashes will settle to the bottom, leaving a clear liquid on top. Dip this off and strain it, using about a quart to a pail of water in husking the hominy. Choose a bright, day time for drying the corn.

GERMAN POTATO SALAD.
Pare and boil in salted water about six potatoes. When done, but while



Recipes.

BAKED PARSNIPS.

Scrape, split lengthwise and boil till tender in clear water, enough parsnips for a meal. Then take them from the water, lay in a pan, and dot with pieces of butter, sprinkle with pepper and salt and sugar. Brown in oven.

FRIED CABBAGE.

Chop fine 1 quart firm white cabbage. Have ready in a skillet 1 tablespoon each of butter and lard, or nice bacon fryings. Put in the chopped cabbage and season with 1 teaspoon salt and scant 1/2 teaspoon pepper. Do not add any water, but stir with a



still hot, cut into dice and add a dressing made as follows: Cut up about a third of a pound of bacon into small bits, fry until crisp, and add four tablespoons of vinegar, salt, black pepper, two teaspoons of minced parsley and one onion cut very fine. Serve in a bowl lined with shredded lettuce.



wooden paddle till done, but not quite tender. Do not let it brown, or it will not be so nice.

DRIED HOMINY.

Husk in the usual manner with lye made of wood ashes 1/2 bushel of choice white corn. It is just as easy to husk this quantity as a smaller amount, if a boiler or large kettle is used. As soon as the husk slips easily, remove from the stove and wash thoroughly, changing the water 6 or 7 times. Spread thinly on cloth laid upon some surface exposed to the sun's rays. When entirely dry, put into sacks. When needed, as little or as much as one wishes may be cooked without the trouble of husking every time. It requires 12 hours to cook hominy to the right degree of palatability. In cold weather a sufficient quantity may be cooked in one day to



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It is possible for one Percheron stallion to win \$170 in cash and 2 gold medals; one Percheron mare \$120 in cash and 2 gold medals; one stallion and 4 mares \$715 in cash, 5 gold medals and 2 silver loving cups. One bull \$175 in cash, one cow \$140 in cash; one bull and 4 females \$685 in cash. One boar \$35 in cash, one sow \$35 in cash; one boar and 3 sows \$130 in cash.

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100 Percheron horses, Dec. 18.

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100 Shorthorn cattle, Dec. 16.
25 Coach horses and jacks, Dec. 17.
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We will sell the best hogs, cattle and horses ever offered at auction to the breeders of Oklahoma and surrounding state.

Percheron horses consigned by J. C. Robison, Dodson Bros., Walker Bros., D. W. Thomas & Co., Holland Stock Farm, B. S. Harper, W. C. Baum, Taggart Bros., and P. A. Pontow.

Consignments solicited. Send in your entries now.

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Straight speedway 700 feet long and 40 feet wide. All under one roof. Show and sale takes place rain or shine.

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Saturday, November 27

AT CORNING, KANSAS 50 Head = 50 Head

Consisting of 17 tried sows that have made money for me, bred for early spring litters. 15 fall and spring gilts, 12 spring and 10 fall boars, including the good herd boar, McDowell's King. Among the sows are daughters of Crimson Wonder I Am, Sir Thomas by Kansas Wonder, Chief Ohio Again by Ohio Chief 2nd, and Jolly Jim. The fall sows and spring pigs are by the herd boars, McDowell's King by Colossal by Golden Rule and Jolly Jim by Wesley's Improver. Sows are large and smooth. The young stock has been fed and handled like breeding stock should and will make money for their owners. I have always bought good stock and trust this offering will be appreciated. Every farmer and breeder that likes good hogs invited. It will be a good, useful offering. Write for catalogs. Bids may be sent to Jesse Johnson in my care. Jas. T. McCulloch, auctioneer.

F.G. McDowell, Corning, Ks.

POULTRY



The farmer who allows his fowls to drink impure water is inviting disease. It costs but little to have earthen or iron drinking vessels and in these the water can be kept clean and pure. Plenty of pure water should be at the disposal of the poultry flock at all times.

While lice upon fowls and in the poultry house are not as prevalent in winter as in summer, they still thrive and flourish if not attended to. See that the fowls are free from lice before they enter on the winter campaign or you will find the contents of the egg basket diminished considerably.

In order that the poultry house should be sanitary, it should be disinfected at least once a month. Burning sulfur is as cheap and good a disinfectant as can be used. But remember that all the disinfecting in the world won't do any good unless the houses are kept clean and dry. They should be cleaned out every week, if not oftener.

The front of your poultry house should be so situated that the sun can shine in it at least for some portion of the day. Sunshine is very beneficial to the health of the flock and detrimental to lice and disease germs of all kinds. Don't be afraid of too much sunlight and in this sunlight have a place where the fowls can dust in and rid themselves of any lice that may be on them.

While we all know that pullets will lay more eggs than hens and are therefore more profitable simply as egg-layers, still it will not do to discard all the one and two-year-old hens, for we must depend on them, rather than on the pullets, for our new crop of poultry next season. The eggs that hens lay are much larger than those that pullets lay and therefore are much better for hatching purposes, producing larger chicks which are hardier and have more vitality than chicks hatched from pullets' eggs.

It is very essential that all decaying animal matter be buried as soon as discovered, for the hens are sure to find such matter if left exposed and on eating it they become sick and have a disease that is called limber-neck. Whenever a hen dies of any disease, see that she is buried at once or better still cremate her. Very often the dog will catch a rabbit and eat only a portion of it, allowing the remainder to rot and decay. Hens are ravenous after animal food and will pick at such no matter how filthy it is. The only remedy is to bury or burn all such rotten things at once.

That bran is a good chicken feed is known to all poultrymen, for it is used in all the mashes that are fed to poultry. It is also good when fed in its dry state; some poultrymen keep bran before their chickens at all times and they eat an immense quantity of it. But there is on most farms a product that has more protein in it than bran, and therefore more valuable as a poultry food, and that is alfalfa leaves. It has been proven by analysis that pound for pound there is more protein in alfalfa meal than in wheat bran, and alfalfa meal is composed of the whole alfalfa plant, fiber, leaves and all. The alfalfa leaves, therefore, that are found in the hay mows on alfalfa farms, are more valuable still and should be fed to the chickens in the dry state and also made into a mash by scalding with hot water and mixing with corn chop. A cheaper and more valuable food cannot be fed to the laying hen.

If you have not already done it, you should thoroughly whitewash your poultry houses, so that they may be in fit condition for your chickens to pass the winter therein. Fresh slaked lime to a proper consistency, with an addition of some crude carbolic acid makes a good coating for the house, but if you want to do an extra good job of it, so that the wash will be almost as durable as paint, use the following formula, which the United

States Government uses on its forts and light houses and no doubt outranks any other formula in existence. Take a half bushel of unslaked lime, slake in warm water, cover it during the process to keep in the steam; strain the liquid through a fine sieve or strainer; add a peck of salt, previously well dissolved in warm water, three pounds of ground rice boiled to a thin paste and stirred in boiling hot, half a pound of Spanish whiting, and a pound of glue which has been previously dissolved over a slow fire. Add five gallons of hot water to the mixture stir well and let it stand for a few days, cover to keep out the dirt; strain carefully and apply hot.

Buff Leghorns.

All breeds of fowls have some admirers. I like the S. C. Buff Leghorns because they have so many good points. First, their great laying qualities. Their eggs are large and white, larger than most other Leghorns.

Second, they are so active they make their own living, if given free range.

Third, they are non-setters; you don't have to be breaking them up all summer.

Fourth, they are easy keepers, and small eaters.

Fifth, they are a good table fowl. Their flesh being very sweet and the skin yellow.

Sixth, their rich yellow color is a great attraction to all who admire poultry.

The Buff Leghorns are good to cross with common stock to improve the laying qualities. You can buy your cockerels now at about half what they cost in the spring. Any one wishing a good layer should keep a few Buff Leghorns.—Paul Cress, Abilene, Kan.

Fattening Chickens.

Professor Dryden says: "Young cockerels that have free range on the farm possess a good frame and constitution, but they lack in flesh and in quality of meat. When fed in pens or crates for two or three weeks, they gain in flesh very rapidly, while the increase in the bones or frame is relatively very small. Professor Robertson demonstrated by experiment that one fatted chicken had as much edible material on its frame as three like chickens not fatted. Young cockerels of the general-purpose breeds, two to four pounds in weight, are very economical producers of meat when confined in pens and fed properly. In Professor Robertson's experiments 131 chickens weighing 492 pounds gained in four weeks 335 pounds. The cost per pound of gain was 4.9 cents. This represents not only a gain in weight, but a gain in quality, and the market will pay much more for such chickens than for those direct from the range. From lack of exercise the muscles become edible or tender. A considerable business in fattening or, more properly, fleshening chickens has grown up in several western states. This business is largely done by the large packing companies, who buy the chickens from the farmers and fatten them at fattening stations."

"Which grain to use in fattening will be governed partly by its price. For best results the grain is ground and fed moist. It is usually mixed with skim-milk or buttermilk. Professor Graham, of the Ontario Agricultural College, says that the best ration used at that station is one made of two parts finely ground oats, two of finely ground buckwheat, and one of cornmeal, mixed with sour milk, using one and a half times as much milk as grain, and sometimes twice as much. Where the markets demand a yellow-flesh fowl, as most of them do in this country, a larger proportion of corn



KANSAS FARMER

will be desirable in the ration, but corn alone will prove unsatisfactory. Ground oats alone, with the coarser hulls removed, will give good results where white flesh is not discriminated against. Barley may also form part of the ration. The chickens should be fed lightly the first week; after that all they will eat up clean three times a day. It is important that they keep quiet, and that the sexes be separated. After three weeks of feeding the chickens generally begin to lose their appetites, when they should be sold."

Disinfectants for Poultry Houses. The United States Department of Agriculture has carried on a number of experiments with disinfectants to find a material well suited to the needs of the poultryman which should at the same time be cheap and easy to manufacture. As a result of these experiments the conclusion has been reached that, on the whole, cresol is an excellent substance for poultry house disinfection. Experiments of the Department of Agriculture have shown that cresol is one of the most powerful germicides and disinfectants known. The experience of the station shows that in addition to the germicidal value of a cresol solution it has a very considerable value as a poultry insecticide. It has even been used with satisfactory results to rid hens of lice by direct spraying of the birds. A very small application in spray was found to rid a bird of lice without harmful effect to the bird itself. Furthermore, in the experience of the station, it is, when applied as a spray very effective in ridding the houses, etc., of lice.

Cresol may be stirred up directly with water and used as a spray. Since cresol is only slightly soluble in water it is better to make use of the "compound solution of cresol" (liquor cresol compositus) of the United States Pharmacopoeia.

Liquor cresol compositus, or, as it may for convenience be called, cresol soap, may be easily manufactured by any poultryman. The only requisite is a careful attention to the detail in the process and a rigid following of the instructions given below.

The solution or soap referred to is made as follows: Measure out four quarts of raw linseed oil in a four or five gallon stone crock; then weigh out in a dish one and three-fourths pounds of commercial potassium hydroxide or caustic potash, which may be obtained from any druggist at a cost of from 10 to 15 cents a pound. Dissolve this caustic potash in one pint of water; let it stand for at least three hours until the potash is completely dissolved and the solution is cold; then add the potash solution very slowly to the linseed oil, stirring constantly. Not less than five minutes should be taken for the adding of this solution of potash to the oil. For five hours after mixing the oil and potash mixture (soap) should be stirred thoroughly about once every hour and then left standing for ten or twelve hours. By the expiration of

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Choice Rose Comb R. I. Reds, young and old stock. Prices right. Tell me your wants.

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SMITH'S LAYING STRAIN OF ROCKS.
Barred and White Plymouth Rocks of quality. Young and old stock at all times.

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ROSE AND SINGLE COMB RHODE ISLAND REDS.

Good breeding and exhibition cockerels now ready to send out. Don't wait until show time or spring and take just what you can get. We are crowded for room and are making low prices. Few S. C. Pullets in pairs, trios, and pens. No R. C. hens or pullets for sale.

H. A. SIBLEY,
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FOR SALE—100 CHOICE GOLDEN WYANDOTTES; also a few pure bred Bronze Turkeys from prize winning birds; prices reasonable. Mrs. E. B. Grant, Emporia, Kansas.

FOR SALE. Pure bred White Wyandotte cockerels, \$1 each.

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FOR SALE 50 CHOICE GOLDEN ORPINGTON COCKERELS. These birds are extra good; all from my prize winning pens. We guarantee every one to be first class. Prices reasonable.

WHITE BROS., Buffalo, Kan.

SUNNY CREST. Stock, fruit and poultry farm. Eggs to sell from M. B. Turkeys, R. I. Reds and Leghorns. Registered Jersey calves and Poland China hogs for sale. Write me MRS. WM. BRITTE, Pierce City Mo.

BUFF ORPINGTONS—Ckls, pens, baby chicks, eggs. More first prize State Fairs and State Shows than all other Breeders. My POULTRY BOOK, containing information worth hundreds of dollars to farmers sent for 10 cents. W. H. MAXWELL, R. 5, Topeka, Kan.

that time saponification should be complete. The soap should then be stirred and broken up into small pieces and five and one-fourth quarts of commercial cresol should be added. The soap will slowly dissolve in this cresol. It may take two days for complete solution to be affected. The length of time taken in dissolving will depend on the conditions of the soap, which in turn varies with different lots of linseed oil. When the soap is all dissolved, the solution, which is liquor cresol compositus or cresol soap, is then ready to use. This cresol soap will mix in any proportion with water and yield a clear solution.

As has been said, cresol soap is an extremely powerful disinfectant. In the station poultry plant for general purposes of disinfecting the houses, brooders, brooder houses, incubators, nests, and other wood work it is used in a two per cent solution with water. Three or four tablespoonfuls of the cresol soap to each gallon of water will make a satisfactory solution. This solution may be applied through any kind of spray pump or with a brush. Being a clear watery fluid, it can be used in any spray pump with out difficulty. For disinfecting brooders or incubators which there is reason to believe have been particularly liable to infection with the germs of white diarrhea or other diseases the cresol may be used in double the strength given above and applied with a scrub brush in addition to the spray.

The first consideration in choosing a disinfectant must be its effectiveness. It is a poor sort of economy to use a disinfectant which costs little and will kill few or no germs. Taking into account its effectiveness in dilute solutions, liquor cresol compositus is believed to be one of the best and cheapest germicides and disinfectants available. The station is using it altogether in its own work and feels justified in recommending it to poultrymen.—Bulletin United States Department of Agriculture.

To Cheapen Feed Cost.

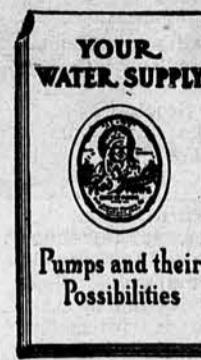
Alfalfa and clover are the two great plants to go along with corn in feeding, and experience has shown that alfalfa greatly exceeds clover. Take this illustration of actual experience of one of the State Experiment Stations, that one acre of alfalfa yields one and a half times as much actual digestible nutrient material as an average acre of corn, including the fodder as well as grain. From a bulletin of the Kansas Experiment Station we take the following which should awaken much interest in this question of hog feeding, now that corn is so valuable. The bulletin says:

"At this Station some years ago a gain of 800 pounds of pork was made from a ton of alfalfa, and a little less than that amount of gain was made from an acre of alfalfa pasture. In another test here an acre of alfalfa produced \$20.20 worth of pork, while an acre of rape fed to a similar lot of hogs returned \$10.05 worth of pork.

In a later experiment we found that 100 pounds of alfalfa hay saved 96 pounds of corn. Figuring on the basis of 5 pounds of corn producing 1 pound of pork, the 96 pounds of alfalfa would produce 19 pounds of pork. Estimating the average yield of alfalfa to be four tons per acre, on this basis it would mean a production of 1600 pounds of pork per acre with alfalfa fed in the form of hay in connection with corn. This experiment was concluded during the winter season."

It is said that draft horses are to be reared heavier to get increased strength. If the weight will largely consist of better bone and larger and stronger muscles, the added strength may be realized, but if it is to consist of fat chiefly, then the man who lays weight to get strength will be fooled. If strength is not supplemented by the constitutional vigor which imparts staying qualities to strengthen the last is of little importance.

It is often argued that discriminating breeders prefer animals just as they are under average management and that anything like pampering or overfitting is not wanted at a breeders' sale. This is no doubt true in cases of actual overfitting, but more money is lost through lack of fitting than through overfitting. The purchaser wants the animal that looks right and he is usually willing to pay for it.

**"Your Water Supply"**

WRITE for this free booklet—it treats of pumps and pump possibilities—it contains a lot of information valuable to you. You will be surprised to learn the difference between ordinary pumps and the up-to-date double acting force pumps sold under our sterling trade mark.

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FORCE PUMPS**

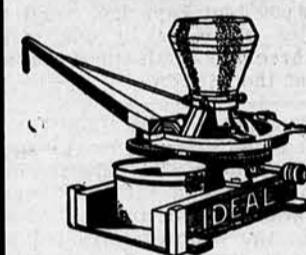
Are pumps of quality—built on scientific principles—of the best materials—adapted to your special pump requirements. They cost but little more than common lift pumps—they will throw a solid, steady stream to the top of a tall building. To replace feathers or make other repairs, you don't have to tear up platform or disturb pipe—a monkey wrench, two hands and a few minutes' time will do the work.

The patented Red Jacket Cylinder has been endorsed by leading hydraulic engineers as the one absolutely perfect cylinder—it's the cylinder that makes the pump."

No mere advertisement can give the many superior points of Red Jacket construction.

Red Jacket pumps are sold by leading pump dealers. Write today, giving name and address of your dealer, and we will mail you an interesting booklet, "Your Water Supply."

Red Jacket Mfg. Company, Davenport, Iowa
Largest exclusive manufacturer of pumps in the world.

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Twenty-five years of experience behind our complete line of Feed Grinders and Feed Mills. Improvements and new attachments added which have doubled the output.

Results have been highly satisfactory. Every mill manufactured with extreme care and tested before leaving the shop. Power required to operate them known to a fraction. Write for information concerning Mill No. 15, which is four machines in one. We make Grinders for doing all kinds of grain grinding.

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Shipments immediate.

We are also manufacturers of the world-famous SAMSON WINDMILLS and STOVER GASOLINE ENGINES.

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GALLOWAY SAVES YOU \$50 to \$300

SAVE from \$50 to \$300 by buying your gasoline engine of 2 to 22-horse-power from me I make on the class of engine I sell has ever been made before in all Gasoline Engine history. Here is the secret and reason: I turn them out all alike by the thousands in my enormous modern factory, equipped with automatic machinery. I sell them direct to you for less money than some factories can make them at actual shop cost.

All you pay me for is actual raw material, labor and one small profit (and I buy my material in enormous quantities).

Anybody can afford and might just as well have a high grade engine when he gets in on a wholesale deal of this kind. I'm doing something that never was done before of it! A price to you that is lower than dealers and jobbers can buy similar engines for in fact, for spot cash.

An engine that is made so good in the factory that I will send it out anywhere in the U. S. without an expert to any inexperienced user, on 30 days' free trial, to test against any engine made of similar horse-power that sells for twice as much, and let him be the judge. Sell your poorest horse and buy a

3-H.P. Only \$119.50

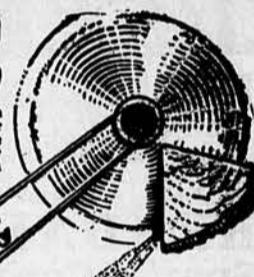


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A Germ Killer and Vermin Destroyer

Don't risk sow and growing pigs in filthy, vermin infested quarters—don't by your neglect, invite an outbreak of Cholera or Swine Plague, or Infectious Pneumonia.

Clean up and disinfect everything with Dr. Hess Dip and Disinfectant. Nothing like it to purify pens, stables and out-buildings, and to destroy lice, ticks, fleas. It also cures all parasitic skin diseases.

It requires only one gallon to make from 70 to 100 gallons of Dip, and in a proportion of 1 to 70 of water meets the government requirements for official dipping.

If your dealer can't supply you, we will. Write for circular.

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DON'T let that Spavin, Curb, Splint, Ringbone or Lameness go, in hopes that it will "cure itself." Use Kendall's Spavin Cure promptly and save the horse. Thousands have used it in the past 40 years and all say it's the best.

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is the World's best remedy for man and beast. Leaves no scar or blemish. Read what this man says:

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Thousands of horsemen depend on Kendall's Spavin Cure. It pays them big money. Get a bottle from your druggist to keep on hand. You may need it any day and you will have it for prompt use. Sold by all druggists, \$1 a bottle, \$6 for \$3. Get the valuable book, "Treatise on the Horse," free, from druggists, or write to

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that make a horse Wheeze, Roar, have Thick Wind, or Choke-down, can be removed with

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or any Bunch or Swelling. No blister, no hair gone, and horse keeps at work. \$2.00 per bottle, delivered. Book 3 D free.
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In 1, 2 and 4 hole size; Slices corn from $\frac{1}{4}$ to 2 in.; does it rapidly; just the machine to prepare corn for calves, stock or fat cattle; no waste, they eat it all. Cutter returned at our expense if not satisfactory. Circulars free; write today.

Enterprise Wind Mill Co.,
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Kansas at Chicago.

The animal husbandry department of Kansas State Agricultural College is making preparations for an exhibit at the International Stock Show, to be held at Chicago the latter part of this month. The School will also be represented by a stock-judging team.

Your Name on Farm Tools.

Saws, axes, hatches, spades, hoes, plows, in fact any farm tools can be easily and indelibly marked. Clean off a place where it is desired to make the engraving, and coat it with melted beeswax or tallow. Scratch the name or number through the wax with an awl or any sharp pointed instrument. Then pour a few drops of nitric acid, which can be obtained at any drug store, over the characters made. In a few minutes peel off the wax and the lettering will be in the metal. The boys can try this this winter.

Timber for the World.

An exchange says there is no use in the present generation worrying about the timber supply and says:

"There is enough timber standing in the state of Washington to build 5,000,000 six-room houses, sufficient to shelter one-third of the population of the United States, or furnish ties for 1,893,939 miles of railway track, or construct a plank road three inches thick and 500 feet wide twice around the world. Cut into lumber, these trees would load 10,000,000 45-foot cars of 20,000 feet capacity, equal to 85,277 miles of trains, or one train reaching three and a half times around the globe at the equator.

Swat the Rat.

A recent bulletin issued by the agricultural department has it figured out that a single rat can eat sixty cents worth of grain a year and that if all the rats in the country were fed on grain alone it would cost more than \$100,000,000 a year to board them.

It has been estimated that a single pair of rats and their progeny breeding without interruption and suffering no losses would in three years increase to more than twenty millions. While praising the persistent use of traps and poisons, the experts think the most promising lines of extermination effort lie in rat proof construction of buildings, especially the use of concrete in foundation and in reducing the food supply of rats by the disposal of garbage and the protection of food supplies.

Ten Advantages of Silo.

The Missouri Experiment Station summarizes the value of the silo as follows:

1. Silage keeps young stock thrifty and growing all winter.
2. It produces fat beef more cheaply than does dry feed.
3. It enables cows to produce milk and butter more economically.
4. Silage is more conveniently handled than dry fodder.
5. The silo prevents waste of corn stalks in the manure when silage is fed.
6. The silo will make palatable food of stuff that would not otherwise be eaten.
7. It enables the farmer to preserve food which matures at a rainy time of the year, when drying would be next to impossible.
8. It is the most economical method of supplying food for the stock during the hot, dry periods in summer, when the pasture is short.

Farmers are Asking Questions.

The agronomy department of the Kansas State Agricultural School, under the direction of Prof. A. M. TenEyck, has developed remarkably during the past few years. The Students Herald says the income of the department, including the receipts from seed grain and other products for the year amounted to \$9658.16. The running expenses of the department, including all expenses, with the exception of salaries of the teaching force, amounted to \$21,400. The extent of the correspondence of the department is something immense, the stamp bill alone for three months amounted to \$74.30. On an average over 700 letters a year are answered and during the past two months have answered from 25 to 40 letters every day. These letters are replies to inquiries from farmers in all parts of the state. This indicates clearly that Kansas farmers are using this department.

Pays to Grow Good Seed.

In a letter to Professor TenEyck, O. E. Hartwell, Eldorado, Kan., writes

as follows regarding his success with planting Kafir corn which he secured from the College last spring: "I bought of you two and one-half bushels of Kafir corn seed last spring for my son-in-law. The neighbors laughed about giving so much for seed, but they see now that good seed pays, as the boy took the seed to a fair and took first premium and the man that took the second premium offered him \$1.25 per bushel for what seed he wanted to plant next year, so you can see it pays anyone to get good seed of any kind. I thank you for your kindness in sending good seed. All the neighbors want this seed for next year, so it will encourage people to buy their seed of you after this. They do not spend enough time in their fields to get the best results."

Corn Supplements and Substitutes.

The proper supplementary feeds which balance corn in a ration not only enable the hog to show better results in fattening, but they also make possible a more economical ration. For feeding a hog on corn alone, whatever the form, is a false economy by which the feeder cheats both himself and the hog. Its natural supplements are those which furnish protein and mineral matter, and, if not easily available on the farm are usually purchasable so as to be used at a profit. Some, such as clover, alfalfa and other pasturage, are unquestioned as to their desirable qualities, and others, such as the prepared meat scraps from the great packing houses and known by their trade names of meat meal or tankage, have rapidly come in favor for the large amount of protein they supply. The ash or mineral matter of the corn grain is considered indigestible for swine, and the absence of mineral matter impairs the nutritive process and injures the structure; yet it is neither difficult nor expensive to supply hogs with ashes, salt, coal, charcoal or charred cobs as correctives with corn.—Coburn's 'Swine in America.'

Best Feed for Less Than Dollar Per Ton.

According to figures compiled by the United States Department of Agriculture it costs the average farmer in Minnesota \$10.43 to plant, raise and harvest an acre of corn if he husks it in the field. If he shocks and shreds the plants thickly and puts it in the silo the cost is \$19.89. These figures show that the shredded fodder from an acre costs \$4.86 and that the silage costs \$9.46. An acre will average anywhere from 12 to 20 tons of the best winter feed that can be raised on the farm and it costs less than \$1 per ton. Another phase of the subject is shown when you compare the crop in the silo with the crop in the crib. The former contains 40 per cent more food value per acre. That is, an acre of corn put in the crib is only a little over half as valuable as an acre put in the silo, provided the stand is the same. If, as is usually the case, the stand is much heavier on the acre of silo corn the value of that acre will be proportionately greater. Some may say that this is true only from a dairy point of view. Silage is of value for practically every class of farm stock. You can't find a feed that more closely reproduces pasture conditions, hence you can't find a feed that more nearly approaches the ideal in the winter ration; and you get it all for less than \$1 per ton.

FARM

Yield Shows Stand of Corn.

As corn husking proceeds and yields are known, it is a good time to figure back to the stand of plants and the doing of each hill. The Illinois University exhibit at the State fair contained a new chart of the results of such figuring. This chart was headed, "What is your Stand of Corn? The Yield Shows."

With hills three and one-half feet apart each way there are 3,556 hills per acre. With one stalk per hill and an 8-ounce ear on each stalk the yield would be 23 $\frac{1}{4}$ bushels per acre worth \$14.25. A 12-ounce ear per hill would make 35 $\frac{1}{4}$ bushels per acre—equal to the average yield for the State of Illinois. A pound ear per hill would yield 47 $\frac{1}{2}$ bushels per acre worth \$28.50.

But if each hill had two ears of only 14 ounces each the yield would be 83 bushels per acre, while three 12-ounce ears per hill would yield 106 $\frac{1}{4}$ bushels per acre. Many other items were shown in the table, as that a pound ear and a 6-ounce nubbin per hill

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As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle, paid by druggist. On receipt of payment, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

Thanksgiving Time

is here. You have much to be thankful for—we have much to be thankful for—but both you and we will have more prosperity if you send us your consignments of hides—guarantee you highest prices—quickest remittance—a square deal in every way—ship to us.

HIDES

Postal card is sufficient

JAMES C. SMITH
HIDE COMPANY

Topeka Kansas

would make 65 $\frac{1}{4}$ bushels per acre worth \$39.15.

This corn lacks much of being a perfect stand or else the production per hill is low. Some careful work this winter selecting seed corn, testing the seed, grading the kernels, and the careful adjustment of the planter next spring to drop just the stand and yield of the next crop. It is the missing hills, hills of one stalk, barren stalks and nubbins that cut down the yield, and most of these factors are largely under the farmer's control.

Fitting the Harness.

The fitting of harness is important from the horse's standpoint. With the short working season on the farm, the penalty of ill-fitting harness in loss of time can ill be afforded or excused from any standpoint. Harness should be buckled tight enough to serve as support without galling the skin at any point. Harness which is very loose is worse than that which is too tight.

The bridle should be adjusted to the shape of the horse's head and with proper regard to his disposition. Commonly the browband is so short as to chafe the ears. The cheek pieces should be just long enough to keep the bit from annoying the horse either by being so low that he will get his tongue over the bit or so high as to pinch the corners of the mouth. A good coachman will tell you that about two-thirds of the blinker should be above the lower line of the eye.

Ill fitting collars, especially those too large, cause more trouble than all the rest of the harness put together. Most of the pressure in moving the load comes on a very small part of the horse. If the collars fit tight enough everywhere with room to run the open hand in towards the breast, there is not likely to be any trouble. For long service a leather collar seems to best fill the bill. Most of the humane collars so called have not proved satisfactory for heavy hauling especially for stiff tongue work.

One of the best teaming stable managers known to the writer saved several hundred dollars a year for the firm by absolutely forbidding a teamster opening a collar to take it off or put it on. It must slip on and off over the beast's head. This practice with care to see that the hame straps are tight greatly prolong the life of a collar.

If the hame tugs are given proper adjustment they will obviate the wobbling of the collar at the top, which is a common trouble when they are adjusted too low.

Keeping Boys on the Farm.

The following story is printed in several western papers and has a good lesson:

Charles Kirtland, of Salina, Kan., has solved the much-discussed problem of keeping boys on the farm.

Mr. Kirtland owns 250 acres six miles from Salina. He has three boys, Fred, aged 16, John, 14 and Chester, six. There are three girls.

In the winter Mr. Kirtland's family live in Salina on account of school facilities and to enjoy the social life. So much is the family in love with the country, however, that before the snow has fairly gone all are begging to go back to the farm.

The secret of it?

Co-operation, partnership.

The Kirtland family is a pure democracy in which every member is a citizen, with the rights and the privileges of citizenship.

Ever since they had been old enough to be interested in any way the children have had some share, however small, in the farm. Each has something that he can call his own.

Mr. Kirtland has "toted fair" with the children. If they were not old enough to exercise judgment as to money or property, they were properly credited on the books. It is interesting to note how the boys are getting on.

For instance—

Last year Fred and John, having accumulated some capital, rented an adjoining 40 acres. They used the family teams to break the ground, paying a stipulated sum per day for the use. They bought seed wheat and paid for the thrashing.

The two boys made a profit of \$450 on the venture. Next year they say they will do better. And they did this without neglecting their home duties of their schooling.

Do you wonder that these boys are content and happy on the farm?

Chester, the little one of six years determined to acquire some property. He bought with his little savings a couple of orphan pigs, baby pigs. That was a year ago. Twice daily he filled his little pail from the milk separator and fed the orphans.

The pigs thrived, and a short time ago, when the father sold a bunch of hogs, Chester's orphans brought \$15. Every cent went on Chester's bank book.

The girls also have their own property. But that is another story.

The Kansas farmer has simply treated his children as intelligent units of the little republic family. He has supplied the motive, so lacking to most farm boys, of intelligent self-interest.

Harvesting Alfalfa Seed.

The long evenings have come and KANSAS FARMER would like to know that every one of its readers will this winter study two or three important farm subjects taking one subject up at a time. After going through the farm papers carefully take up a book on a subject near your heart and master that subject. A good book to begin on is Coburn's Book on Alfalfa. This editor picked it up a few moments ago and found the following regarding harvesting of alfalfa seed. This was marked months ago to appear in Kansas Farmer sometime in July, but was overlooked. It is given now and readers will have it in mind when alfalfa harvest arrives next season:

In harvesting alfalfa for seed cutting should be done when the greater proportion of the seeds are hard, but not sufficiently ripe to shell. At this stage a majority of the pods are turned a dark brown color and the seeds are fully developed. Frequently the cutting can be raked into windrows after two hours if the weather is drying, and in two or three hours more put into cocks and let stand from 24 to 48 hours as the weather may justify. It should however, be well cured and thoroughly dry when put in the stack, or there is danger of heating, and stack-heating seriously injures the vitality of the seed. It is not uncommon, if extremely ripe, to leave the cutting in the swath only an hour or a half hour, then stack and let stand for autumn or later thrashing. If allowed to stand in the stack for about thirty days the entire mass goes through a sweating and curing process which makes the thrashing easier, while less of the seed is left in the straw than would be if it had not been stack-cured. In

western Kansas many seed raisers cut their seed crop with a self-binder, put the sheaves in shocks the same day, and thrash in about ten days, or put it into a stack to await a convenient threshing time. They claim to secure 20 per cent more of the seed in this way than if they cut with a mower having a dropper attachment which leaves the alfalfa in small bunches at the will of the driver, in the center of the swath, and these are "straddled" by the team and the wheels of the mower in the subsequent rounds. These bunches are left for two or three days and then stacked. There is little, if any, danger from mold or spontaneous combustion in stacks of alfalfa cut for seed, but there is danger of the seed heating in the stack if stacked when damp. If bright, clean seed is expected, the stacks must be well topped with slough grass, covered with tarpaulins or boards, or given other protection. It is better still to put the alfalfa intended for seed into a barn.

One western Kansas Farmer reports that he used a self-binding harvester, shocked the sheaves like those of grain, let them stand ten days and then put in a mow, with no bad results.

Some Figures.

The report of the United States Department of Agriculture indicates that on Jan. 1, 1909, there were 5,147,000 hogs on farms in the United States. At the same date 1908 there were 56,084,000, and in 1907 54,794,439. The chief swine producing states are Iowa, Illinois, Missouri, Nebraska, Texas, Indiana and Kansas. On Jan. 1, 1909, 7,908,000 were reported on Iowa farms and the average price per head on that date was given at \$8. Illinois had 4,438,000, at an average price of \$7 per head. Nebraska had 3,904,000, at an average price of \$7.25 per head. Texas had 3,304,000, at an average price of \$5.60 per head. Missouri had 3,270,000, at an average price of \$5.25.

Draft Horse Demand.

Motor vehicles have not as yet affected the demand and prices for draft horses. It is doubtful if the automobile will ever affect the value of good drafters. The motor has its place in the commercial world, but the draft horse holds fast a place which the automobile can never occupy. In our opinion the demand on drafters will exceed the supply for many years. This is a big country and every day reveals more work for and the increased necessity for heavy horses. Farmers may go to breeding draft horses with a certainty of good prices. But be sure to breed farm mares to pure bred, first class stallions for good grade colts. A pure bred mare or two on the farm would prove a good investment.

Real Swine Breeder.

The young farmer who has an ambition and desire to become a breeder should obtain instruction from an accomplished breeder, equip himself with this knowledge and experience and then determine to progress from this point.

The breeder of swine is a successful manipulator in mating animals, to improve the progeny. He strives persistently to change a defect in the succeeding generations; to breed out a weak point and to improve every desirable quality hoped for. This is brought about by mating, feeding and handling, each of which is an important essential in contributing its share to the whole improvement.

If you are not a competent feeder, you are almost sure to fail to attain a high rank as a breeder.

Uncle Sam to Help Rid Kansas of Hog Cholera.

The federal government has come to the rescue of Kansas in its fight against hog cholera. A representative has been assigned to Kansas with a supply of hog cholera serum and he will remain in the state until the Kansas Experiment Station is in operation and turning out the serum. It will be several weeks before Kansas will be able to furnish cholera serum. In the meantime farmers will be supplied by the United States Department of Agriculture.

The serum will be dispensed to the farmers at actual cost. All the state has to do is to pay the living expenses of the government man. Hog cholera is reported from many sections of the state. Hogs in some sections are dying by the hundreds. There is a particularly bad locality in Osage county. The serum will not cure



Anti-Friction 4-Burr Mills Double the Capacity of Geared Mills.
Two-horse mill has 24 ft. grinding burrs, (two set) all grinding at once, and grinds from 25 to 50 bu. per hour. Four-horse mill grinds from 60 to 80 bu. per hour.—30,000 Bu. WITH ONE SET OF BURRS: I have ground with one set of burrs more than 30,000 bushels of corn with my Mogul No. 1 mill and the burrs are still in good condition.—F. F. Craig, Mt. Carroll, Ill.
Two complete mills in one, has double the capacity and double the durability. ABSOLUTELY NO FRICTION OR GEARING. Will earn cost price in three days. The largest ears of corn to these mills are like popcorn to other mills. We manufacture the most durable and fastest grinding line of mills sold, including our FAMOUS IOWA NO. 2 for \$12.50. Send for our free Catalog.
Bovee Grinder & Furnace Works, 118-8th St., Waterloo, Iowa.

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Sumner County's rich mellow soil will soon be as famous for the production of Corn and Alfalfa as it is for wheat which will send the prices soaring. Better get in on the ground floor and get a good farm while the prices are yet comparatively low. We will be pleased at any time to show you field after field of Alfalfa that cuts from 5 to 7 tons per acre. Write me now for my list of land at \$25 to \$50 per acre. Owner's price my price.

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Liquid Manure Most Valuable.

The value of farm manure as a fertilizer is exploited in every issue of every farm paper from one end of the land to the other. It is also known that manure resulting from such feeds as alfalfa, clover, bran, cow-peas, cow-pea hay and other feeds rich in protein is more valuable in fertilizing constituents than manure from such feeds as timothy hay, straw, corn fodder, etc.

The writer of a farmer's text book says that when highly nitrogenous feeds are given steers all except 8.9 per cent of the nitrogen of the food is voided either as a solid or liquid excrement and that 73.5 per cent of the whole is voided as liquid excrement. The same author says that 2.3 per cent of the ash of the food is stored up in the body and that 97.7 per cent is voided in the excrement when the feed is given to the steer and of this about the same proportion is voided as liquid. It is apparent that on account of the large percentage voided as liquid that to obtain the greatest value of the manure sufficient absorbent should be used in the bedding and in the lots to save the liquid excrement. The value of liquid manure is so recognized in many sections that cisterns are provided for its reception and a specially designed implement is used for distributing the liquid over the land.



Good News, sired by New Goods, herd bull now used in John Regier's herd at White Water, Kan. Good News was first in class at Kansas and Oklahoma State Fairs, and was the highest price young bull selling in the Harriman Bros.' dispersion sale.

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Tuesday, Nov. 20th, 1 P. M. 50 choice Herefords. For catalog write C. R. Thomas, Secy., American Hereford Assn., Kansas City, Mo.

Wednesday, Dec. 1st, 1 P. M.—50 carefully selected Shorthorns. For catalog write B. O. Cowen, Asst. Secy., American Shorthorn Assn., U. S. Yards, Chicago.

Thursday, Dec. 2nd 1 P. M.—100 choice Shetlands sale to be held under the auspices of the Shetland Pony Club and in the Dexter Park Pavilion, south of Exposition grounds. For catalog write Mortimer Levering, Secy., American Shetland Pony Club, Lafayette, Ind.

Rambouillet Sale—Tuesday, Nov. 20th.—For catalog write Dwight Lincoln Shropshire Sale, Wednesday, Dec. 1st, 1 P. M.—For catalog write Mortimer Levering, Secy., Lafayette, Ind.

Hampshire Sale—Thursday, Dec. 2nd 1 P. M.—For catalog write C. A. Tyler, Secy., Coldwater, Mich.

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THE VETERINARIAN

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of "The Kansas Farmer." Kindly give the age, color, and sex of the animal, stating symptoms accurately, and how long standing, also what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department, The Kansas Farmer, Topeka, Kans.

Clip Off Wart.

I have a milk cow with a wart on one of her teats. It gave no trouble until recently. It bleeds while milking. It is where the pressure of the hand comes. The cow will be dry soon. What can I do to remove the wart before the cow freshens again? —H. P. Goodell, Rich Hill, Mo.

Ans.—Clip off the wart down even with the skin. Use sharp scissors to do it, then take a stick of lunar caustic and apply it for about a minute or two. In a few days the scab will come off then touch it up again.

Mare Has Rough Skin.

I have a mare that has an eruption of the skin in the form of pimples, which seem to itch badly, as she bites herself and rubs against anything she can reach. The hair is entirely off in places and very thin all over. I have given her medicine for the blood but it did no good.—A Subscriber, Beloit, Kan.

Ans.—Make a wash of lime and sulfur, one pound of each to about 10 quarts of water, and apply three times a week. Get a pint of Fowler's Solution and give a tablespoonful twice a day in feed. Whitewash manger and stalls.

Sore Lips and Tongue.

Please tell me what is the matter with my mares. They have sores on their lips and tongue. It is a raw, dry sore, more of the nature of a cancer. The sores are spreading and eating down. The mares have had but very little grain and have been on alfalfa and fox tail pasture.—Perley W. Hammond, Emporia, Kan.

Ans.—The sores are caused by the fox tail and crab grass they are eating. Change the feed to pure alfalfa and prairie hay and make a wash of borax and alum and sponge three times a day. Have a qualified veterinarian examine the teeth and if any sharp ones are found cutting the cheeks or tongue and starting the sores have them cut off and leveled.

Change Cow's Feed.

I have a Jersey cow, 8 years old, which has been sick quite a while. She seemed stiff when I got her up in the morning to milk, and then commenced scouring and got very weak. She can get up on her feet, but staggers and falls down when she tries to walk. Have given her two doses of castor oil. She runs in pasture along the river, and has not been out of pasture all summer.—C. M. Mears, Beloit, Kan.

Ans.—This is caused by something she has eaten. Castor oil was the right medicine to give if you have enough of it. A pint of it is not too much with about a quart of raw linseed oil. You can give two ounces of paragoric and one of ginger and repeat it in four hours if she physics too much.

Lame Mare.

I have a mare that is lame in one hind leg. She has stood on the other foot so much she is sweeney in the hip. The muscle or cord from the hip to stifle joint seems to be shortened. I have blistered it with fly and some other ingredient and have also used Kendall's Spavin Cure and turpentine straight. The sweeney is getting better, but the lameness still remains. She walks on this leg but when she trots she goes on three legs. She can not use this leg as fast as she should. She is 11 years old, bay, and a fine mare. She has been in this condition for two years, although I have owned her only one month. At times she draws her foot up under her.—D. T. Clay, Hays City, Kan.

Ans.—Take four ounces of Iodide of Potassium, add sufficient water to make one pint, mix and give tablespoonful twice a day in a little feed. We do not think that external treatment will do much good where the case is of long standing. The tendons might be cut there and help her, but would not torture her with severe

blisters. The atrophy or sweeney of the muscles is hard to cure until lameness is cured and she uses the muscles.

Alfalfa Caused Bloat.

We are pasturing our last crop of alfalfa with cows and today we lost a cow by bloat. She was to be fresh in about two weeks. We have been pasturing the alfalfa for about two weeks, and this is the first cow to bloat. It has not affected the others as yet, but if it does I should like to know the treatment to give. I stuck the cow after she was down, about 6 inches in front of the hip. Was this the right place? The cows have dry feed at night. Would you consider it safe to pasture on alfalfa in the afternoon?—A Subscriber, Lawrence, Kan.

Ans.—You tapped her a little too far back. A good place to tap a cow is three inches back from the last rib and three inches down from the bones that come out from the back bone.

Use a good cattle trocar to tap if you have it sharp and ready and the stomach will not be so apt to pull off of the tube that you leave in when the stomach is acting. Do not wait on a trocar if it is not handy, and the cow is badly bloated, but use the large blade of a good pocket knife, and give it one quick stab two inches deep, so you can put your fore finger through the opening down into the stomach. Enlarge the hole so it will drain well, and gas will not collect under the skin. Then give one ounce of salicylic acid, two ounces of turpentine in one quart of raw linseed oil as a drench. It is only safe to herd cattle a short time each day, after they have had some other feed and all the water they want about an hour before they are herded on the alfalfa. And even then they should be looked at once in a while for a few hours afterward.

Ailing Cow.

Two years ago last January I found a fine Jersey cow choking in the barn. All simple remedies failing, I went to a neighbor to phone for a doctor. The neighbor said there was no use we would run a whip handle down her throat and save expense. We got the substance down but did not get the whip stalk out soon enough, it broke and sixteen or seventeen inches of that handle went down. This was ten at night. By ten the next morning the cow was frothing and in spasms of pain from that whip stalk. I sent for the doctor (and we

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have a good one) but he would not open the cow and get it out, but had me give slippery elm water by the gallon to soften it, also aconite to keep down fever.

She seemingly recovered but gave little milk all the summer following but grew immensely fat. The following January she gave birth to a fine male calf (I sold him for \$25) and she did well for about a year but had no calf, continued to milk and grew

She developed a lameness last winter which led me to think she had slipped on ice and dislocated her hip. A swelling appeared and grew slowly but steadily below the hip joint on the right side toward the back. I tried to reduce this when on the left side between the paunch and a point below the hip joint another swelling appeared larger than a man's fist and round and smooth. The doctor came, pronounced them both abscesses and thought they were caused from the trouble that whip stalk had given her two years previous. He lanced the abscesses, they discharged freely and were very offensive. We put the cow in a wagon and took her to his hospital for care for over two weeks.

He dosed her with iodide of potassium and used peroxide of hydrogen on the wounds also carbolized oil (oil of tar, carbolic acid, olive oil) in healing. When her board bill had reached \$23 I concluded she had better come home and I took care of her with the doctors instructions.

The wounds were slow in healing but one has been healed for two months. The one on the left side healed but has broken out twice since but does not discharge a great deal and soon heals. When she lies on her left side there is a sharp point just out from where the abscess was on the right side. Do you think that whip stalk is doing that mischief? She has milked well all summer but we have not used the milk. Is it fit for human food? When can I have milk tested as to its sanitary conditions?

When fresh she makes two pounds of butter per day and one of her heifer calves with her second calf sold for \$100 last spring so I would like to save the cow if possible.—M. H. MacDuff, Atchison, Kan.

Ans.—This is a good case for the Humane society if there is one in your town. And a good case of malpractice for your so-called veterinarian. Iodide of potassium is good in some cases, but it would not absorb the butt end of a whip. What he should have done when you first called him and told him what you had done was to perform rumenotomy. That is, to make an incision into the paunch and remove the whip and all food and then stitched up the stomach and then outside and fed her on gruel until the wound was healed and your cow would have been as well as ever and saved all of this suffering of this poor cow. That whip is still there as good as ever and is causing all of this trouble and suffering. Have a qualified veterinarian operate on this cow and remove the whip and open the abscesses freely and wash them out a few times and they will soon heal when the cause is removed, the whip. This is a simple operation for a man that understands his business. You can have her tested for tuberculosis after she is well from this. Call on Dr. Shoenleber at Manhattan, Kan., when ready to have her tested.

No Cheap Hogs in Sight.

Students of conditions affecting the hog trade are nearly a unit in the conclusion that there are no "cheap" hogs in sight. Discounting the claims of a shortage in the supply of matured and immature hogs, as proclaimed by shippers and producers, it cannot be disputed there is extant a decided discrepancy as compared with recent averages. Highest "fall" prices in twenty-seven years, or since 1882, and highest September average prices since the war, combined with the old bugaboo that packers always exert bear pressure prior to the opening of the winter packing season, failed to drive in a run, the best evidence to most minds that the country does not possess the goods. Careful compilation of reports from Clay, Robinson & Co.'s nine offices indicated weeks since that there was decided reduction in the number of young hogs in farmers' hands. That this condition exists generally over the hog producing territory, was corroborated last week by the results of a compilation of reports to the Department of Agriculture. It is further indicated by the demand for stock hogs from practically every section of the feeding belt. Heavy cattle

feeding operators will be especially hampered by their inability to secure young hogs in necessary totals. Time was perhaps when the hog raiser could be a little careless of the health and opportunity for growth of his young swine. He is far from facing such a condition now. Prospects are so favorable that the hog will continue so valuable a product of the farm that extreme measures to insure his health, comfort and rapid growth are surely warranted. Don't hurry him to market by the green corn route; give the brood sows extra care and attention and thus add to your profits. He who reaps greatest benefit from a condition affecting trade is he who grasps it quickest, then obeys the dictates of his judgment and plays the string out. There are no "cheap" hogs in sight for many, many moons.

Alfalfa and Sheep.

The use of alfalfa cannot be too strongly urged with sheep, either the breeding or fattening stock. As the method of farming has become more intensified and the open range grows less each year, an acre of alfalfa must be made to take the place of many acres of range pasture.

Sheep, being ruminants, are able to handle a much more bulky feed than horses. A breeding flock of sheep can be carried through the winter season very successfully with but little grain in addition to alfalfa hay. The College flock, consisting of Hampshires, Shropshires, Dorset, Rambouillet and Cotswolds, have been wintered, almost exclusively on alfalfa for the past three winters, and each spring have brought forth a good, large crop of strong, vigorous lambs. Ordinarily the first cutting of alfalfa is not as good for sheep as the second and third cuttings, as it is usually coarse and stemmy and sheep do not eat these stems readily.

It is about as safe to pasture old sheep on alfalfa as it is cattle. They thrive on it and make excellent gains, but sheep bloat easily and there is likely to be some loss from this source. Lambs can be pastured on alfalfa with but little danger of bloat, and the way they grow on alfalfa is a delight to the shepherd. They should never be put on the pasture when they are empty and hungry, and it is always well to allow them access to some dry feed and keep them off the alfalfa until the dew is off, also on damp days. A mixture of alfalfa and bromegrass or alfalfa and orchard-grass is a safer pasture than alfalfa alone. A flock of ewes and lambs can be grazed for a short time each day on alfalfa with but little danger of loss. If a lamb-creep can be arranged from the sheep corral to an alfalfa pasture, the lambs will soon learn what it is intended for and will do far better on it than if confined to a dry yard.

Newly seeded alfalfa can be pastured with less danger of bloat than an old field, and the packing of the ground by the sheep passing over it is frequently a great benefit to the alfalfa. As a roughage for fattening sheep alfalfa hay has no equal, and cases of bloat from the hay are exceptionally rare. It can be fed either whole or cut, and fed with grain. Many prefer this method of feeding, claiming that there is less waste by it.

In feeding experiments at this Station with sheep we have never found any other roughage or any combination of roughage that would equal alfalfa for fattening sheep. In a feeding experiment at this Station alfalfa and prairie hay were compared as roughages for fattening western lambs. In the test the grain ration was corn and cottonseed-meal for both lots. Those receiving alfalfa hay made an average daily gain of 0.334 pounds per head, while the lot on prairie hay made only 0.188 pounds per head daily, the alfalfa lot making almost twice as great gains. The alfalfa seemed to give the lambs a better appetite and they were always ready for their grain, and as soon as their grain was cleaned up they were ready for the alfalfa.—From Bulletin Kansas Experiment Station.

Don't neglect to keep a file of the agricultural papers you read and you will find that their usefulness will be more than doubled and every day you will learn to turn to them to verify facts same as the crippled man learns to lean on his crutch. The good farm paper collects information every week in the year, which information you cannot get in any other way. The farm paper can be used as a reference work to good advantage.

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SHORTHORN CATTLE—50 head registered cattle. Herd headed by Royal Goods 293325, by Select Goods, by Choice Goods. Young bulls ready for service, for sale. MEALL BROS., Cawker City, Kan.

SCOTCH AND SCOTCH TOPPED Shorthorns, 40 head. Herd headed by Popular Knight, by Gallant Knight. Some choice bull calves of fancy breeding for sale. JOHN STROH, Cawker City, Kan.

ELMVALE STOCK FARM, Shorthorn cattle and Percheron horses. For sale 7 yearling Select Goods heifers; also a few bulls of same age. Write for description and prices. FRANK F. COOKE, Beloit, Kan.

DUKE OF DUNDEE 285352, by Archer 205740, dam by Gallant Knight is at the head of my herd. 6 cows by Rose Duke and some by Scotchman. Inspection invited. CHAS. S. McCLEARY, Beloit, Kan.

UPLAND HERD OF SHORTHORNS. Headed by the Scotch Duchess of Gloucester bull Dreadnaught. 1 red bull 20 months old out of a Lord Mayor dam for sale. GEO. W. BEEMIS, Cawker City, Kansas.

LOCUST GROVE SHORTHORNS. Herd headed by the pure Scotch bull Gloucester's Model 287840. Three Scotch topped yearling bulls for sale. Also a few cows with calves at side. ELMER C. CREITZ, Beloit, Kan.

A YOUNG HERD of up-to-date breeding. Everything recorded. Our herd bull Alfonse by Magnet has produced us some great calves this season. BRINEY & BRINEY, Beloit, Kan.

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JENNINGS' SHORTHORNE—Some young bulls for sale by Senator by Hedgehog. Also a few got by Spartan Viscount. Prices right 2 miles north of Simpson, Kan. S. G. JENNINGS, Simpson, Kan.

FOR SALE—A few young Shorthorn cows and some young bulls ready for service. Best of breeding. Write for information and prices. VINTON A. PLYMAT, Barnard, Kan.

HEREFORD CATTLE.

A FEW HEREFORD bull calves got by Hobson 977221 and out of dams tracing through Lamplighter to Anxiety 4th, priced later. Berkshire bulls, spring farrow, for sale. W. B. & J. M. RODGERS, Beloit, Kan.

50 HEREFORD CATTLE comprising the H. B. Woodburg herd. Some famous cows in this herd. 8 young bulls of serviceable age for sale. 4 miles from Tipton, Kan. 8 from Cawker City. JOHN SCHMIDT & SONS, Tipton, Kan.

100 HEAD OF HEREFORDS. The home of Caster 259475, the winner in every big show he was ever in. A few choice young heifers and cows for sale. F. L. BROWN & CO., Sylvan Grove, Kan.

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ABERDEEN-ANGUS CATTLE—A young but fashionably bred herd. Some fine spring calves to price later. BOY C. BIRT, Beloit, Kan.

ANGUS CATTLE, the feed yard and show yard type. Young bulls for sale this winter. Inspection invited. HARRY BARNES, Beloit, Kan.

PERCHERON HORSES.

REGISTERED PERCHERONS—The home of Vidoque (Imp.) 40408, also the brood mare Risette (Imp.) 51115. Inspection invited. Farm adjoins town. E. N. WOODBURY, Cawker City, Kansas.

REGISTERED PERCHERON HORSES—Imported Rabelais 42539 by Cosaque by Theldius, who sired Calipso and Casino. Visitors welcome. G. J. JOHNSON, Solomon Rapids, Kan.

THE HOME OF JACQUE W. 41659 by Tlatrey, dam Imported Risette. Inspection of my Percherons invited. RALPH G. MCKINNIE, Glen Elder, Kansas.

COLEDALE STOCK FARM—The home of three first prize winners at the International. Nothing but the best in this. Come and see us. FRANK A. COLE, Barnard, Kan.

GRANITE CREEK STOCK FARM. Percheron and Standard-bred horses. Make known your wants to M. A. SMITH, Supt., Cawker City, Kansas.

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EUREKA HERD POLANDS—Duroc. I breed both and have a nice lot of serviceable boars of both breeds for sale and a few choice gilts. Priced right. W. H. SALES, Simpson, Kan.

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SPECIAL ANNOUNCEMENT

To our old customers in Kansas and to those who may become our customers, we take this opportunity to call your attention to the fact that we have just completed our new importing establishment opposite the Nebraska State Farm at Lincoln, Neb., and believe that we have one of the most complete importing establishments to be found in the West today, and are in a better position than ever to fulfill the needs of the stallion men throughout the country. At the present time we have 100 head of imported Percheron, Shire, Belgian and German Coach stallions in our stables. These horses were all imported during the months of August, September and October and are the low-down, heavy-boned kind with lots of quality. They range in age from two to five years, in weight from 1,700 to 2,800 pounds, all the fashionable colors. Write us telling us your wants. All correspondence cheerfully answered. Write for our new catalog. It will be ready for distribution in three weeks.

WATSON, WOODS BROS. & KELLY CO., Lincoln, Nebraska

Mention this paper when writing.

Relation of Animal Husbandry to Farm Economics.

*F. B. Mumford, Professor of Animal Husbandry,
Missouri State Agricultural College.*

Agriculture or the management of land is an industrial vocation. The purpose of all agricultural operations is profit. We plow, plant and reap not that we may recover only the seed sown and bare returns for the labor applied to the land. The cost of production includes not only the factors of labor and seed, but the condition of the land after the crop has been removed is an ever present and important factor which sooner or later must become a definite quantity in our calculations.

The farmer of the nineteenth century had presented to him an opportunity such as will never again be offered in this or any other country. Cheap land of unlimited productivity encouraged the production of crops without regard to the residual effect upon the land. The most unskillful were able to secure large yields with little labor and small application of technical knowledge. The farmer in the twentieth century is confronted by a very different condition. The days of cheap lands of inexhaustible fertility have gone, never to return in this country. The once fertile soils have advanced to 10 times their original value and in many localities because of unskillful methods of cultivation these lands have become less and less productive so that notwithstanding better methods of cultivation, greater use of labor saving machinery and a more universally distributed knowledge of the principles of production, we find high priced lands yielding absolutely a smaller amount of product than did the same land when valued at one-tenth their present value and managed with less skill.

The problem of the nineteenth century farmer was a comparatively easy one. Changed conditions have made the problem of the twentieth century farmer difficult in the extreme. We are confronted first with the problem of how to make land worth \$100 an acre return good interest on the investment. The problem does not apply to one year's crop, but we must manage the land this year in a way to return an immediate profit and at the same time maintain its productiveness for succeeding crops.

In other words, we are now confronted with the problem of how to maintain a permanently prosperous agriculture. A permanently prosperous agriculture must fulfill two requirements. It must be profitable to the present generation and it must maintain the fertility of the soil for succeeding generations.

I hope to show you that a continuously profitable system of agriculture is impossible without the large use of domestic animals. If the present generation could be induced to practice the systems of agriculture which would leave the soil more productive than at present, and were not from necessity compelled to regard income for present needs, the solution of the problem would be simple. But so long as you and I are compelled to secure a living from the soil, we are compelled to adopt only those methods of farm management which will first provide for our immediate needs and, second, will maintain the productiveness of our soils for our children and their descendants. Fortunately we may combine both these with present profit and future gain.

The greatest single factor in agriculture as a profitable occupation is the productiveness of the land. It is possible for a man to farm land so poor and unproductive that 1,000 acres may be required to yield an income of \$1,000 per annum. It is equally true that a fertile farm of 160 acres may be so productive as to net its owner \$1,000 per annum. Other things being equal then it must always follow that the productiveness or fertility of the acre of land is the greatest single factor in determining the profits from agriculture as a profitable vocation.

The profits resulting from any given system of farm management will depend upon the intrinsic productive power of the soil. In all farming oper-

ations there are certain fixed charges which must be met whether the yield of corn is twenty bushels per acre or sixty bushels on the same area. The cost of plowing, harrowing and cultivation are practically the same no matter what the yield. We may say that it requires a certain minimum yield of grain to pay the expenses of production. This minimum cost is a fixed charge and will be about the same whether the yield is large or small. The excess above this so-called minimum requirement will represent profit. If we assume that 20 bushels of corn per acre will pay this fixed charge then land yielding only 20 bushels of corn per acre will barely pay the cost of production. Land yielding 25 bushels per acre will represent five bushels profit. Land yielding 50 bushels of corn per acre will yield 25 bushels profit or five times as much profit as the land yielding only 25 bushels per acre. This difference in profits resulting from difference in fertility is greater than any other single factor which may enter into the cost of production.

The profitable production of any crop continuously on the same area is impossible. Sooner or later the yield will reach a point where the fixed charges will equal the value of the crop produced. When that time comes agriculture is no longer profitable. At the great Rothamstead Experiment Station a continuous production of wheat on the same land for a half century resulted in an average of 13 1-10 bushels per acre. This yield was too small to pay the cost of production and the fixed charges on the land and then leave a profit. On the same kind of land the annual application of farm yard manure resulted in an average yield of 35 7-10 bushels of wheat per acre for a period of 51 years.

In this discussion it is understood that the facts presented have reference to the typical farm conditions of the middle west. It is not intended that the statements here made apply to special kinds of farming which are conducted under specially favored conditions, such as truck gardening, fruit growing, etc., near large cities.

If we admit the facts already presented it will be necessary for us to demonstrate the relation of animal husbandry to the fundamental economic factors which have been mentioned.

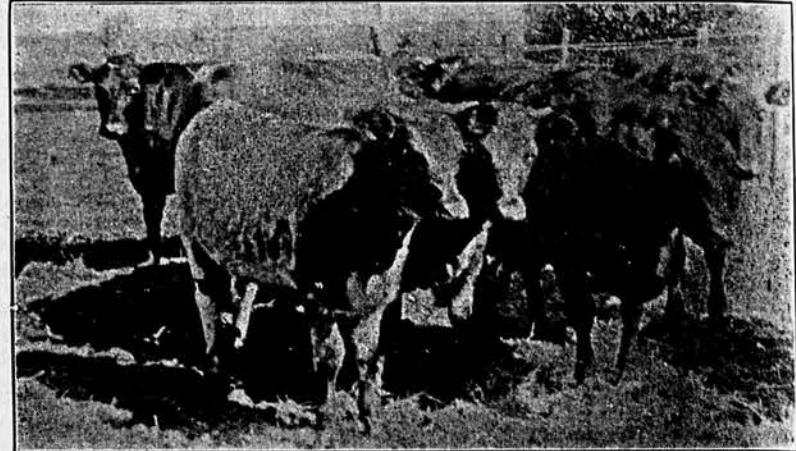
In the important investigations which have been conducted in recent years on practical methods of maintaining and improving soil fertility, one of the most significant results has been the increasing importance which has been given to the use of farmyard manure. The investigations of Hopkins of Illinois, Thorne of Ohio, Ten Eyck of Kansas and of Miller of Missouri, all agree in the conclusion that farmyard manure must now and hereafter be the main reliance of the American farmer in keeping up and improving the productiveness of his soil. Dr. Hopkins says, "Farm manure always has been and, without doubt, always will be, the principal material used in maintaining the fertility of the soil." Director Thorne, as a result of 20 years of careful experimentation with commercial fertilizers and farm manure, concludes that "it is possible to bring up the rate of production of a run-down soil to a point exceeding that of its virgin condition, by the intelligent use of commercial fertilizers, but the same results may be obtained more certainly, and at a very much smaller cost, by the production and well-informed use of animal manure."

What is the actual practical value of a ton of farmyard manure produced on the average farm? In asking this question, I am not asking for the chemist's theoretical value, as compared with commercial fertilizers, but the actual cash returns in bushels of corn or wheat resulting from the application of a ton of the average manure produced on an average farm.

There are two methods of estimating farm manure values. The first one is the chemist's method, and may

C. S. NEVIUS' FALL SALE SHORTHORN CATTLE CHILES, KAN., NOV. 26, 1909.

40 head of show cattle, good breeding cows and heifers well along in calf, to the valuable herd bulls, Searchlight and Prince Pavonia.



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After Mr. Nevius had won 1st at the American Royal on Searchlight he was offered \$2,500 by one of our large breeders, but refused to let him leave his herd. Send for catalogue and arrange to attend this sale.

C. S. NEVIUS, CHILES, KAN.

Auctioneers, Col. R. L. Harriman, Col. John D. Snyder.

not be the correct statement of the actual cash value of this material to the average farmer. The other, and by far the more practical economic method of determining manure values, is by actually applying the manure to an acre of land, and compare the increased yield with that on the same land untreated. This latter method has been employed by the Ohio Experiment Station through a period of 18 years. The results secured by this station are of inestimable value to the farmers of the middle west, and the facts revealed are applicable to our conditions as well as those of Ohio.

As a result of 18 years' careful experiment the Ohio Experiment Station has determined that the value of a ton of farmyard manure from cattle, registered in the cash value of increased crops produced, is \$2.27 per ton. The same station has also determined, by careful experiment, that the manure produced by a 1,000-pound steer during a six months feeding period will amount to three and a half tons, which, at \$2.27 per ton, is worth \$7.95.

A wise farm economy requires that every bushel of grain and every pound of hay shall be fed to animals. The resulting manure under good methods of farm management will return 70 to 80 per cent of the original fertilizer value of the foods to the soils. The manure thus returned to the land, together with the natural disintegration of the soil and with possibly a small application of mineral fertilizers with a rational rotation of crops, will unquestionably increase the productiveness of 90 per cent of the soils of the middle west. There is, however, ample justification for the feeding of all crops grown on the farm to some kind of farm animals from the standpoint of soil fertility alone.

Animal husbandry, however, is bound to be a controlling factor in modern systems of farm management for other reasons than merely soil fertility. We must continue to use animals as prime motors. There is no immediate prospect of displacing horses by mechanical motors. The horseless age is farther away than ever before in the history of this country. There has never been so large a number of horses per capita in the civilized world as at the pres-

ent time. The demands for horses were never greater. In the United States the development of horse breeding and the production of good horses on farms has been co-extensive with the development of automobiles and other mechanical motors. The last few years of the nineteenth century and the opening years of the twentieth century have seen the perfection, production and use of thousands of automobiles for pleasure vehicles and for city drayage. It is a significant fact that during this period we have also enjoyed the greatest development of horse breeding operations ever known in this country. In 1850 for every horse or mule on farms in the United States there were 4.8 persons. In 1900 the supply of horses had increased so that there was one horse or mule for every 3.8 persons in this country. It is safe to predict that the time will never come when we can dispense with horse power to any great degree on the farms and in the smaller villages of this country.

The use of animals for food is not recent, but the largely increasing demand for meat products among civilized peoples has created a need for animals and their products unprecedented in the history of the world. According to Hunt, "during the last half of the last century horses and mules have increased two times, meat cattle about three times, milk cows rather less and other cattle rather more than three times, while sheep and swine have each doubled in numbers in the 50 years. The population in the same period has increased about three and a half times." The demand for these products will continue. The sources of supply cannot now be largely increased. All government areas of free land have been occupied. Japan and China, especially the former, have become intelligent purchasers of our horses, cattle, sheep and swine.

Another very interesting fact in connection with the animal husbandry in America in the past half century is that while animals have increased only about three times in numbers they have increased six times in value. This increase in value is partly due to the increased cost of production, but unquestionably the increase is partly due to the remarkable im-

provement of the specialized characters which have added to the actual efficiency of the animals reared.

The average production of wool in 1850 was 2.4 pounds. In 1900 the average was 6.9 pounds. If it were possible to secure the statistics for dairy cattle we should find equally startling results. Official records of the dairy cows of the present day show that a cow may produce 30,000 pounds of milk and over 1,000 pounds of butter in 365 days. Entire herds of dairy cows are maintained that produce an average of more than 400 pounds of butter in a year. The first trotting race in America, about 80 years ago, was won by a horse that covered the distance in three minutes. The first American fat stock show gave prizes to 4-year-old steers. No fat stock show in America offers prizes for such animals at the present time. Yearling and 2-year-old beef cattle of the present day are placed on the market weighing almost as much as the ancient 4-year-olds of those comparatively recent years.

These significant evidences of marked improvement indicate that the produce on one acre devoted to improved live stock is intrinsically of greater value now than ever before. You will, however, agree with me that there is as much opportunity for improvement of the average animal during the next 25 years as has been achieved during the last three decades. When we consider the very small number of pure bred sires in use on the farms in the middle west and the relatively low grade of cattle, horses and sheep now produced in many sections of the middle west today, I am sure that you will be confirmed in the belief that there is a great field for associations like this, and for the earnest work of every man interested in the breeding and handling of improved live stock.

But the main reason for raising animals on our farms is that it is a more profitable method of husbandry than selling grain. Laying aside all other considerations it is more profitable to feed the products of our farms to animals than to sell on the open market, and with the improvement of our animals there is no reason why the rearing of live stock should not become increasingly profitable.

But we must also remember, in considering the production of animals on the modern farm that a large amount of the material grown on the farm consists of cheap and bulky feed which cannot be readily transported to distant markets, but is available for the rearing and feeding of animals, and the animal thus becomes the condensing machine by which we are enabled to profitably utilize large amounts of otherwise cheap by-products. What, for example, would be the gross value of the increased numbers of animals which might be produced in Kansas alone from the corn stover which is annually wasted on the thousands of acres?

The modern farm must be as much as possible self-sustaining. On the small farm the greatest profit is to be derived from improved conditions of living. Wholesome food the farm must supply, and beef, pork, mutton, milk, butter, poultry and eggs may and should be produced in abundance on every farm. The value of these products in the state of Kansas it is impossible to accurately estimate.

Another ever present condition in modern farm practice which determines our systems of management is the difficulty of securing farm labor. Men have found it possible to cultivate much larger areas if we make large use of domestic animals. One man can administer a much larger farm if this farm is managed exclusively as a stock farm. This is by no means an unimportant advantage, and it is not too much to say that this fact has kept many a man on the ancestral acres who might otherwise have been compelled to rent or sell portions of the farm area.

The rearing and skillful handling of animals requires higher skill and more intelligence and thrift than other methods of farming. This is an advantage from a cultural standpoint. The careful and systematic labor conducted at the right time and in the right way is imperative in successful live stock farming. Much of this labor is worse than useless, unless it is directed by an exact knowledge of what to do and how to do it.

Some of the disadvantages which may be urged against live stock farming are that the capital required is greater; live stock are subject to disease, and one's entire working capi-

tal may perish in a short time; capital in live stock is also bound up for a longer time and cannot be so readily turned into cash.

What of the future? Are the present high prices of animal products to continue? Will the demand for all kinds of animals and animal foods diminish, hold its own, or still further increase? It is impossible to predict the financial conditions of the future. It is, however, perfectly safe to say that never in the history of this country has population and consumption been relatively so large as at the present time. Consumption and the consequent demand for animal products have overtaken the supply, and no matter what temporary economic conditions may obtain in the country, the demand for animal products is certain to continue. The day of free range and of unlimited areas of cheap lands is past. More people live in cities, and hence more people are dependent upon purchased food than ever before. There are, therefore, relatively fewer farmers to supply this need. The vast industrial enterprises cannot suddenly collapse. The needs of a civilized and wealthy nation will continue to exist. In the opinion of the writer, there was never a more favorable outlook for animal husbandry on the farms of America than at the present time. Temporary low prices may, and undoubtedly will prevail, but skilfully conducted animal husbandry for a series of years is undoubtedly the most stable and economically sound system of farm management on the American farm at the present time.

Needs of the Farm.

Does it not seem a bit strange that from one end to the other of the great middle west states, which a few years ago were regarded the richest in soil fertility and so rich in food that it seemed the land would forever grow good crops, there is sent up one long, loud cry urging a system of farming whereby the fertility of the soil can be maintained. A cry is not started until some one is hurt. The farmer is hurt. This grain yield is growing less and less per year and he wants to know how he can stop this annually decreasing yield. On this subject the Minnesota Farm, Stock and Home says:

"Look at farms upon which the same crops have been grown year in and year out. If they are not to be seen in your own locality, come down to the Experiment Station and see plots so handled. Compare these with farms where rotation is practiced. What is the difference? On one the yields are high, if not increasingly high, at least uniformly so?"

"Grass or clover and cleaning crops must be grown in rotation. Something must be at hand to utilize them. What can do this to better advantage than sheep and cows? Manure moreover must be supplied if fertility is to be maintained. The sheep is one of the best manure producers and spreaders to be found anywhere."

"The farmer is dependant upon the soil for his gains, no matter in what form he markets the produce. Unless he maintains the soil fertility from year to year, he is curtailing his gains by just so much. Manure and crop rotation are necessary to the maintenance of fertility. No other way has as yet been discovered for keeping soil fertile than by enriching it by decaying animal and vegetable matter and by growing upon it successive crops that keep the soil in good physical condition, and keep the available supply of plant food high."

"On a farm so managed either sheep or cattle must be kept to furnish the necessary manure, and consume the necessary roughage."

Why the Difference.

The average yield of wheat in Kansas for the 10 years ending with 1906 was 13.1 bushels per acre. At the Kansas Experiment Station in 1906 a measured acre of wheat produced 58.6 bushels, another acre 60.6 bushels, and twelve acres in the same field yielded on the average over 50 bushels of wheat per acre. The difference in these averages is little less than 37 bushels, and this in large part is the difference between good farming and slovenly farming. The larger average was made possible by good carefully selected seed and scientific tillage, the smaller average was reduced to unprofitableness by poor seed and indifferent soil preparation. The lesson will apply to all crops and all sections.

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JACKS FOR SALE

WE have at all times a good supply of Jacks from 14½ to 16 hands high. Buy one this fall and save money. Thirty head to select from. All Guaranteed.

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STALLIONS AND JACKS.

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One Standard bred stallion.
One eight-year old extra good black jack, mealy points, guaranteed all right and a good breeder. All these stallions are registered and will be sold at a bargain if sold soon. Will trade for good land. Come and see me.

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FARM INQUIRIES



ANSWERED BY
Prof. A.M. Ten Eyck

Deep Tillage for Low Bottom Land.

I am interested in one-half section of low bottom land that has a large amount of salt grass on it, which we have been using for pasture. The soil is of a chocolate color and is six to 10 feet above the ground water. Is salt grass hard to kill out? Does it grow on land that will raise good crops? Is this land generally alfalfa land? It is not swampy. Would you advise farming such land?—E. S. Crumpacker, Medicine Lodge, Kan.

Salt grass seems to grow most thrifly on land which is rather wet, at least during seasons of the year, and on land which is perhaps inclined to be alkaline. Usually if such land is well drained it will grow other crops well and may make good alfalfa land. With too much alkali in the soil it will be quite difficult to start alfalfa. A couple of years of deep tillage and thorough cultivation will put such land in much better condition for starting and growing alfalfa and as suggested above it may be advisable to arrange for drainage. I can hardly advise regarding the farming of such land since the location and condition will vary so much in different localities. Would advise growing other crops practicing, as suggested above, deep tillage, thorough plowing and deep cultivation until you have subdued the salt grass and put the soil in good physical condition then try alfalfa. Salt grass appears to be rather difficult to eradicate but by thorough tillage for two or three years may be subdued and practically destroyed.

Heredity in Breeding.

The qualities of animals represent a combination of attributes of immediate and remote ancestors. An animal may inherit the color of a remote ancestor, the conformation of its sire and the disposition of its dam, and the balance of its characteristics trace to intermediate progenitors. Color is easily noticeable than any other qualities. All transmissible attributes are controlled by the laws of heredity, with a constant tendency to revert to type or temperament of some remote ancestor that appears in the blood inheritance of the animal. We buy pure bred animals for breeding purposes because in these the ancestors have for many generations been bred to conform to certain type, color etc., and the probability of variance is so decreased. In the use of the grade as a breeder the probability of the offspring to possess the inferior and undesirable qualities of some ancestor is always expected.

The constituents most desirable in feed for swine depend greatly upon the use to which the animal is to put them. A newly born pig's body is largely water, and to grow he must have food that will produce tissue. That is why the milk, primarily designed to furnish proper nourishment for growing animals, needs to be, as it is, so rich in nitrogenous substance. Later, when the time comes that he is intended for quick-fattening, he should, naturally, be supplied with feed containing much fat-making material, and it is that quality which has given corn its high place in finishing hogs for slaughter. It is readily seen, therefore, that different kinds of feed will be needed to furnish the most beneficial results, according to stage of growth of the animal, the energy required for its maintenance, and the end to which the animal is destined; yet it does not necessarily follow that a ration should be one-sided, or be dominated by one element to the exclusion of the variety. Losing sight of this is a mistake that has been made more frequently in the use of corn than any other feed; not so much, perhaps, because it is rich in carbonaceous matter, as by reason of its convenience and cheapness in the regions where it flourishes.—Secretary F. D. Coburn.

Any soil which will produce good corn will also produce good broom corn; in fact, broom corn is grown successfully much farther west than Indian corn, growing perhaps best on the fertile bottom land but also giving good results on good upland soil.

In order to make the best broom the brush must be harvested early, before the seed is ripe, hence, such seed should not be planted, even though some of it may germinate. Broom corn seed has very little use; it may be mixed with other grain for poultry or it may be ground and mixed with other grain for feeding stock, but its feeding value is comparatively low, in fact stock do not seem to relish it.

The Dwarf variety of broom corn is perhaps more generally grown in western Kansas though for fertile bottom land the Standard may give good results. We have been breeding broom corn at this Station for several years for the purpose of eliminating the center stem in the brush; this center stem is objectionable. I think we have improved the variety, we have been working with the Genuine Dwarf. We have considerable seed of this variety for sale, price \$2.00 per bushel, f. o. b. Manhattan. We also have seed of the variety Standard broom corn, at the same price.

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THE season of year is at hand when hundreds of our subscribers will soon be making up their list of magazines and other publications for the coming year. We have made arrangements with more than a thousand periodicals of general circulation whereby we can give to KANSAS FARMER subscribers almost any magazine, daily paper—in fact any paper you want at greatly reduced rates.

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A few suggestions of good combinations follow:

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The Western Poultry Journal ..	.50
The American Swineherd.....	.50
The Pig Feeders' Manuel (a book of intensely practical information on feeds and feeding of hogs for profit, 31 chapters)50
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The Kansas Farmer.....	\$1.00
Kimball's Dairy Farmer (twice a month)50
The Western Poultry Journal..	.50
The American Swineherd.....	.50
Total	2.50

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The Kansas Farmer.....	\$1.00
The Fruitman and Gardner...	.50
The Western Poultry Journal..	.50
The American Swineherd.....	.50
Total	2.50

Our Price for all \$1.25

The Kansas Farmer.....	\$1.00
The Chicago Weekly Inter-Ocean	1.00
The Kansas City Weekly Star25
The Peoples Popular Monthly25
The Western Poultry Journal50
Total	3.00

Our Price for all \$1.50

The Kansas Farmer	\$1.00
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The Wkly Kansas City Journal25
The Peoples Popular Monthly25
The Western Poultry Journal50
Total	3.00

Our Price for all \$1.50

The Kansas Farmer.....	\$1.00
Bryan's Weekly Commoner....	1.00
The Western Poultry Journal..	.50
(Choice of Kimball's Dairy Farmer, American Swineherd or Fruitman and Gardner)50
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The Kansas Farmer.....	\$1.00
Gleanings In Bee Culture.....	1.00
The Western Poultry Journal..	.50
The Fruitman and Gardner....	.50
Total	3.00

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The Kansas Farmer.....	\$1.00
The Shepherds Journal.....	.75
The Peoples Popular Monthly25
The Western Poultry Journal..	.50
The Fruitman and Gardner....	.50
Total	3.00

Our Price for all \$1.50

The Kansas Farmer.....	\$1.00
La Follettes' Weekly Magazine..	1.00
The Western Poultry Journal..	.50
(Choice of Kimball's Dairy Farmer, the American Swineherd and Gardner)50
Total	\$3.00

Our Price for all \$1.50

The Kansas Farmer.....	\$1.00
Good Housekeeping.....	1.25
The Western Poultry Journal..	.50
McCall's Magazine50
One of McCall's Patterns (to be selected)15
Total	\$3.40

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
The Western Poultry Journal..	.50
Good Housekeeping.....	1.25
Cosmopolitan Magazine.....	1.50
Total	\$4.25

Our Price for all \$2.25

The Kansas Farmer.....	\$1.00
The Western Poultry Journal..	.50
Good Housekeeping.....	1.25
Cosmopolitan Magazine.....	1.50
American Magazine	1.50
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The Kansas Farmer, Western Poultry Journal and your choice of Good Housekeeping, Cosmopolitan or American Magaine for.....	\$2.00
The Kansas Farmer.....	\$1.00
Woman's Home Companion....	1.50
The Western Poultry Journal..	.50
Total	\$3.00

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
McClure's Magazine	1.50
Western Poultry Journal.....	.50
Total	\$3.00

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
Hampton's Magazine.....	1.50
Western Poultry Journal.....	.50
Total	\$3.00

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
Success Magazine.....	1.00
Western Poultry Journal.....	.50
McCall's Magazine50
One of McCall's Patterns (to be selected)15
Total	\$3.15

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
Uncle Remus Magazine.....	1.00
The Western Poultry Journal..	.50
And your choice of any one of these: American Magazine, Women's Home Companion, Metropolitan Magazine, McClure's Magazine, Hampton's Magazine, The World Today, Technical World Magazine, Cosmopolitan Magazine, Pearson's Magazine.	1.50
Total	\$4.00

Our Price for all \$2.00

The Kansas Farmer.....	\$1.00
The Western Poultry Journal..	.50
Uncle Remus' Magazine.....	1.00
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Total	\$5.50

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The Kansas Farmer.....	\$1.00

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160 acres adjoining town, all in cultivation, good house, barn, granary, good orchard of all kinds of fruit, fenced and cross fenced. This is one of our best bargains, and if you are interested do not delay. (First come first served.) HUNTER REALTY COMPANY (Est. 1893).

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110 acres fine river bottom. All in cultivation. A few nice pecan trees, no gumbo, sandy loam. Produce 60 bushels of corn to the acre. Finest alfalfa land. barn, but no house. Incumbrance \$2,000; long time if sold quick. Price \$50.00 per acre. Write GUARANTEE LAND & LOAN CO., Wynnewood, Okla.

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TEXAS LAND

Section of Fine Land in Texas.

12 miles east of Amarillo, 2 1/4 miles east of Washburn; railway fence of Denver & Ft. Worth Ry. is south line of land; Santa Fe and Rock Island Rys. 2 1/4 miles from land; as fine land as is found in Texas. \$35.00 per acre; terms easy. Will sell whole section, or part. ALEXANDER MASSEY, Owner, 514 Bryant Bldg., Kansas City, Mo.

ZIMMERMAN IRRIGATED LANDS.
Advance \$10 Per Acre December 1, 1909.
Forty acres in alfalfa will afford an annual income of \$2,000 per year, and more than double that amount in fruits or early vegetables. Thirty dollars down will secure you a contract for 40 acres and the balance in 10 or 20 payments, without taxes or interest, if fully paid before 1913; when a warranty deed and deed for perpetual water rights will be given.
Write for particulars about the best investment in irrigated lands in America, to the General Selling Agents, THE HEATH COMPANY, 109 West Seventh Street, Topeka, Kan.

MEXICAN LAND

EXCURSION TO OLD MEXICO

On the first Tuesday of each month we run special car from Wichita.

PINEAPPLE CITY
Is the town now being laid out on our land 60 miles south of Tampico on the coast, and sold to American settlers. Richest of level land, two crops of corn per year. Write us for booklets.
THE MEXICO IMMIGRATION, LAND & FIBER CO.
E. J. Votaw, President, Wichita, Kansas.

OKLAHOMA LAND

OKLAHOMA FARMS.
Best county for corn, wheat, oats, alfalfa and tame grass. 80 acres \$5,500. 160 acres fair improvements, \$4,000. Write for list of bargains.
VOGELE & WOOD, Newkirk, Okla.

FOR SALE—160 acres valley land, 10 miles southwest of Vinita, Okla. This land is level, smooth, bottom land, and will grow anything. It is located just a few miles from the Cheela oil fields, and it is only a matter of time, when the land will be developed. Price \$40 per acre. Mullen & Breker, Room 15, Turner Bldg., Wichita, Kan.

EASTERN OKLAHOMA FARMS FOR SALE.

We own and control over 50,000 acres of choice farm lands in Eastern Oklahoma, the garden spot of the new state, that will produce successfully corn, wheat, oats, timothy, clover and alfalfa. Low prices, easy payments. Perfect titles. Few farms for trade. Agents wanted. Write COMMONWEALTH LAND CO., Vinita, Oklahoma. Branch Offices, Pryor Creek and Nowata, Oklahoma.

800 BUSHELS CORN GOES with 310 acres of the very best land for stock and grain farm in Craig county, near Vinita, Oklahoma. 160 acres in cultivation; balance hay and pasture. Price \$25 per acre. For further particulars, write LEFORCE & BADGETT, Vinita, Oklahoma.

GRANT COUNTY, OKLAHOMA.
160 acres, 2 miles of R. R. town, 110 acres in cultivation, 65 acres wheat with farm, fenced and cross-fenced with 4-foot hog wire, 4-room house, large barn and granary with mow, good dirt, 2 miles of county seat. Price \$7,000 for 30 days. BATTEN REALTY CO., Medford, Okla.

COME TO NORMAN, OKLAHOMA.
The educational center of Oklahoma State University and best system of schools in the new state. Fine farming lands at reasonable prices. Good water. Write for list and prices MONNET & ZINK, Norman, Okla.

A SNAP
160 acres, 5 miles of Ponca City; 110 acres in cultivation. \$6,000 if sold in 30 days. TRUMBLY & BARRETT, Ponca City, Oklahoma.

THE BEST TOWN TO LIVE IN.
If you would like to live in the most beautiful city in the West with unsurpassed education, business and religious advantages, in a city clean, progressive where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest prices, address the Secretary of the Commercial Club, Topeka, Kan.

160 acre farm, good improvements, house worth \$4,500; best orchard, 1 1/4 miles from good town, high school. Smooth, rich corn and alfalfa land, corn is making 50 and 60 bushels this year. Good terms. Price \$94 an acre. Write to V. J. BOSH, Marion, Kansas.

NESS COUNTY LAND.
320 acres, 10 miles from Ness City, 100 acres in cultivation, 4 room frame house, barn, well and windmill, some good alfalfa land, place is all fenced, land lays good, and in good locality. Price \$16.00 per acre. \$2,000 cash, three to five years time on balance.

LOHNES & CASON, Ness City, Kansas.

SCHUTTE & SHINEY, the Rush county Kan., real estate hustlers; 30 years in the same old place. Good farmers raised from 26 to 47 1/2 bushels of wheat per acre here last season. We can sell this land at from \$20 to \$35 per acre. Good improved ranch land, 1/2 good farm land, at \$15 per acre. Good bottom land not over 5 miles from market at \$25 to \$35 per acre. Well improved and running water, plenty of timber. See us, or write us at La Crosse, Kan.

SOLOMON VALLEY LAND.
We have farms for sale in Ottawa and adjoining counties, good upland improved, at from \$25 to \$60 per acre. Bottom land improved at from \$60 to \$125 per acre. You have not seen the best till you see the Solomon Valley.

A. E. ROBINSON LAND CO., Minneapolis, Minnesota.

SMITH COUNTY, KANSAS, LAND.
Let me know your wants. Choice bargains and money makers. Make a specialty of exchanges in land and merchandise. What kind of a proposition have you got? Let me hear from you.

CARL G. ANDERSON, Broker, Athol, Kan.

TWO REPUBLIC COUNTY SNAPS.
800 acres, 3 1/2 miles from Wayne, 9 mi. county seat, 1/2 good farm land, balance pasture, 200 a. cultivated, fair house, 2 good barns, 75 a. alfalfa, 60 a. hog tight, timber, running water. Price, \$45 per acre. Consider smaller tract near Kansas City. 160 a. 2 mi. Wayne, fair improvements, timber, running water, some alfalfa. For other bargains write or see B. J. GEORGE, Wayne, Kan.

DO YOU WANT IT? 640 a., 250 in cult., smooth and level, corn and wheat land, 200 a. in wheat, 6 a. in alfalfa, 275 pasture, living water, new house, 5 rooms, large stable, 2 good wells, granary, etc. Close to school, 3 mi. town. Price for quick sale \$18 per acre. No trades, terms. Big free list. Stinson & Weyand, Spearville, Kan.

FARM BARGAINS NEAR TOPEKA.
320 acres 8 mi. north, 2 mi. good R. R. station, 200 acres cultivation and tame grass, 40 acres meadow, bal. good pasture; 2 sets improvements. \$50 per acre.

160 acres, 15 mi. S. W. Topeka, 3 mi. good town, all fine smooth land, good improvements. \$50 per acre.

80 acres, 4 mi. from good town, all tillable, good soil, large barn, good 5 room house. \$4,500.

80 acres, 9 mi. from Topeka, 3 mi. R. R. town, all smooth, fair improvements. \$4,200.

320 acre farm, best in county, all tillable, well improved, fine location, 100 acres in wheat, good fences, first class farm. \$70 per acre.

120 acre Kaw bottom farm, 4 mi. Topeka; two crops would pay for the land. \$110 per acre.

The above are the best bargains in Shawnee county. Come and see our mammoth list of farms.

GILLET & GILLET, 104 West Fifth St., Topeka, Kansas.

TO TRADE FOR MDSE.
160 a. farm imported, 4 mi. Chandler, Okla., City of 5000 inhabitants. 120 a. tillable, 40 a. timber and pasture. Close to school and plenty of water. Also 720 a. of wheat land in Barber Co., Kan. Clear of incumbrance. Price of Okla. farm \$5,000. Mort. \$950. Price of Barber Co. land \$7,50 per a. Make propositions to owner.

C. E. TINLIN, Corning, Kan.

FOR TRADE

654 acres in Lamb County, Texas; rail-

road building through and station will be

on or near land; fine level, tillable land,

well watered. Land in this vicinity is sell-

ing for \$20.00 to \$25.00 per acre. Want to

trade for Kansas farm.

W. J. RICKENBACHER, 100 E. 6th St., Topeka, Kansas.

KANSAS LAND

WHY NOT BUY LAND of the owner and save from \$5 to \$10 on the acre? Land of all descriptions from \$8.50 per acre up. Send for circular and come and see us. G. N. DAVIS & CO., Cimarron, Gray Co., Kan.

SUMNER COUNTY BARGAIN.
240 acres, 125 in cultivation, balance pas-

ture, good living water, 6-room house; price

\$45 per acre. Write APPLING, HORTON & MEEK,

Wichita, Kan.

BEST FARM IN JACKSON COUNTY for the money. 297 acres, 200 under plow, 225 acres alfalfa, rest pasture, \$10,000 worth of improvements, half mile from town. Price \$80.00 per acre.

MANVILLE & BAILEY, Holton, Kansas.

NESS COUNTY KANSAS LAND.

Good soil as any in the state \$10 to \$15 per acre, well improved land \$15 to \$25 per acre. Partly rough at \$6 to \$8 per acre. Come before the new railroad gets here or write J. G. COLLINS, Ness City, Kan.

80 ACRES NEAR HALSTEAD, KANSAS.
72 acres now in wheat, excellent al-

falfa land, fair improvements, R. F. D., tele-

phone, new school and church. Price \$4,500.

Write McDERMED & GETTER,

Hutchinson, Kan.

SHARON VALLEY ALFALFA FARMS.
Choice corn and alfalfa farms for sale in Barber county, Kansas. Crop failures unknown. Write for particulars and list.

Address WILLIAM PALMER, Medicine Lodge, Kansas.

THE BEST TOWN TO LIVE IN.

If you would like to live in the most beautiful city in the West with unsurpassed education, business and religious advantages, in a city clean, progressive where real estate values are low, but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest prices, address the Secretary of the Commercial Club, Topeka, Kan.

160 acre farm, good improvements, house

worth \$4,500; best orchard, 1 1/4 miles from

good town, high school. Smooth, rich

corn and alfalfa land, corn is making 50

and 60 bushels this year. Good terms.

Price \$94 an acre. Write to V. J. BOSH,

Marion, Kansas.

NESS COUNTY LAND.
320 acres, 10 miles from Ness City, 100

acres in cultivation, 4 room frame house,

barn, well and windmill, some good alfalfa

land, place is all fenced, land lays good,

and in good locality. Price \$16.00 per acre.

\$2,000 cash, three to five years time on

balance.

LOHNES & CASON, Ness City, Kansas.

SCHUTTE & SHINEY, the Rush county

Kan., real estate hustlers; 30 years in the

same old place. Good farmers raised from

26 to 47 1/2 bushels of wheat per acre here

last season. We can sell this land at from

\$20 to \$35 per acre. Good improved ranch

land, 1/2 good farm land, at \$15 per acre.

Good bottom land not over 5 miles from

market at \$25 to \$35 per acre. Well im-

proved and running water, plenty of tim-

ber. See us, or write us at La Crosse, Kan.

SOLOMON VALLEY LAND.

We have farms for sale in Ottawa and ad-

joining counties, good upland improved,

at from \$25 to \$60 per acre. Bottom

November 20, 1909.

KANSAS LAND

MARION, MORRIS AND DICKINSON
county, Kansas lands. Bargains in improved
farms at prices ranging from \$45 to \$80 per
acre. Write for big list.
T. C. COOK, Lost Springs, Kansas.

COWLEY COUNTY FARM.
160 acres, good six room house, about 80
acres bottom, never falling water, 12 acres
alfalfa, 60 acres corn, close to school and
church. Price \$7,500. Terms if desired.
R. A. GILMER,
Arkansas City, Kansas.

BUY A HOME CHEAP.
We are showing lands in the Lost Mountain
section of Canada at prices ranging
from \$10 to \$20. Low excursion rates twice
a month. Write for full information.
NELSON BROS., Clyde, Kansas.

**320 ACRES CHOICE ROOKS COUNTY
LAND, \$6,800.**

Nearly all tillable. Some in cultivation.
6 miles from station.

STEVENS & RUBY,
Stockton, Kansas.

200 ACRES IN MARSHALL COUNTY, KAN.
Three-fourths miles from town, 100 acres in
second bottom land, 160 acres in cultivation,
balance pasture, 7 room house, cellar,
small barn. Cattle shed, hog house, orchard,
well and windmill. A bargain at
\$90 per acre. Good terms. **SUMMERFIELD
REALTY CO., Summerfield, Kan.**

REPUBLIC COUNTY LAND.
25 farms in this county for sale; ranging
in prices from \$50 to \$75 per acre. Choice
corn, wheat and alfalfa land bargains.
Write for information, or call on
J. G. HELWICK,
Belleville, Kansas.

BOURBON COUNTY FARM BARGAIN.
160 acres, 4 miles north of Fort Scott, Kan.
65 acres in cultivation. 40 acres
old and tame meadow. 55 acres pasture,
practically all tillable, good 5 room house,
barn, abundance of water, near school, and
R. F. D. telephone. Small orchard and
grove. Price \$50 per acre. We have others.
Write for list.
MURPHY & SIMPSON,
Fort Scott, Kansas.

FARM UNDER PRICE.
320 acres, 100 acres in cultivation, bal-
anced in grass; located 6 miles from good
R. R. town, 2 miles from postoffice on
R. F. D. and phone in house, 1 mile to
school; in Butler county, Kansas, 40 miles
from Wichita. Improved with good 4-room
house, barn 24x30, granary, crib, etc.,
fenced and cross-fenced, has good wells of
the water. Price, \$35 per acre. This is
a bargain. Land joining it selling for from
\$40 to \$50 an acre. This must sell. See
The Nelson Real Estate & Img. Co., 137 N.
Main street, Wichita, Kan.

44,000 ACRES.
Just put on the market in Texas close to
the Simmons property, lays fine and a
black sandy loam. We will sell the entire
tract for \$10 per acre. A fine colonization
proposition for someone who can handle
this tract.

160 acres, 2 miles from a good town in
McPherson county, Kansas, well improved,
100 acres under cultivation. Price, \$5,500.
Fifteen quarters in Hodgeman county,
one for a ranch. Price \$7,50 per acre.
CHAS. PETERSON,
1/2 N. M. St., Hutchinson, Kan.

BARGAINS For CASH or TRADE

all kinds direct from owners of farms;
ranches, mds., hardware, hotels, livery
Send for our book of trades or
cash list.

Bersie Real Estate Agency,
Eldorado, Kansas.

FARM BARGAINS NEAR WICHITA

280 acres, 8 miles of Wichita, 180 acres
in cultivation, 55 acres in alfalfa. 3 acres
in orchard, trees all bearing, 2 good springs,
6 room house, 2 large barns. You
can't beat this for a home and a money-
maker. Write for our large list of farms.

V. L. MOORE & CO.,
Opposite postoffice, Wichita, Kan.

BUY A CHEAP FARM.
480 acres of good corn land, northwest of
Burton, Kan., 8-room house, barn 30x40,
basement 30x40, cow sheds and other buildings,
3 wind pumps, orchard, groves, fenced
and cross fenced, all good land; a splendid
stock farm, only \$27.50 per acre. 160 acres
south of Hutchinson, 3 miles of Darlow, 7-
room house, stable, 10 acres alfalfa, 7 acres
orchard, near school, \$13,000.

ROSE & SON,
55 Sherman, East, Hutchinson, Kan.

BEST FARM IN KANSAS.
580 acres bottom valley land, all smooth,
fine black sandy loam, no waste land,
small orchard, 200 acres fine alfalfa land,
new 10-room house, hot and cold water,
lighted with acetylene gas, bath and toilet,
500-barrel cistern, sewer system, R. F. D.,
telephone, 5½ miles to two railroad towns.
Price \$65 per acre. For further particulars
write.

NEAL A. PICKETT,
Arkansas City, Kan.

MISSOURI LAND

FARMS FOR SALE in South Missouri. I
have several good farms for sale on easy
payments from \$5 to \$10 an acre. Please
write me for full particulars.

WILLIAM BOWEN,
Houston, Missouri.

Every Man is Entitled to a Slice of This Good Old Earth.

Some Are Getting It; Some Are Not.
Are you one that is not? You can get
a slice from \$10 to \$20 per acre in the
wheat belt, where they have fine soil, fine
climate and plenty of water if you will
write TEED & ORBISON, Jetmore, Kan.,
for their list of farm lands. They have
something good.

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
J. W. Johnson.....Beloit, Kan.

PURE BREED STOCK SALES.

Percherons.
Nov. 15—J. H. Miller, Kirksville, Mo.
Nov. 16, 17—Lakewood Farm, Rock Rapids,
Ia. Sale at Sioux City.

Nov. 18—Closing out sale M. A. Low, Horton,
Kan. O. M. Keats, Manager.

Draft Horses.
Nov. 26, 27, 28—Percherons, Belgians,
French Draft, Shires, Clydes, Trotters, at
Bloomington, Ill. C. W. Hurt, manager.
Arrowsmith, Ill.

Trotters, Sadiers and Drivers.
Nov. 18—Closing out sale, M. A. Low, Horton,
Kan. O. M. Keats, Manager.

Jacks and Jennets.
March 1st and 2d—Monsees & Son, Smith-
ton, Mo.

March 1st and 2d—L. M. Monsees & Son,
Smithton, Mo.

Marriage Muleys.
Nov. 18—John Marriage, Mullinville, Kan.

Jersey Cattle.
Feb. 15—O. P. Dovel, Auburn, Neb.

Herefords.

Nov. 16—Shawnee Breeders' Association, L.
Vrooman, manager, Topeka, Kan.

Shorthorns.
Nov. 17—Shawnee Breeders' Association L.
Vrooman, manager, Topeka, Kan.

Nov. 19—A. M. Jordan, Alma, Kan.

Nov. 23—W. F. Eckles, Green City, Mo.

Nov. 26—C. S. Nevius, Chiles, Kan.

Dec. 8—H. C. Graner, Lancaster, Kan.

Feb. 24—Glover & McGlynn, Grandview, Mo.

Holstein-Friesians.

Feb. 8-10—Henry C. Gilssman, Station B.
Omaha, at South Omaha, Neb.

Poland Chinas.

Nov. 19—A. M. Jordan, Alma, Kan.

Nov. 27—G. W. Roberts, Larned, Kan.

Dec. 8—H. C. Graner, Lancaster, Kan.

Dec. 11—H. N. Holdeman, Meade, Kan., at
Pratt, Kan.

Dec. 11—H. N. Holdeman, Meade, Kan., sale
at Pratt, Kan.

Jan. 7—B. M. Bell, Beattie, Kan.

Jan. 22—H. B. Vanhooser bred sow sale,
Elden, Mo.

Jan. 26, 1910—W. W. Martin, Anthony,
Kan.

Jan. 27—F. G. Nies & Son, Goddard, Kan.,
sale at Clearwater, Kan.

Feb. 12—D. A. Wolfersperger, Lindsay, Kan.

Feb. 15—C. H. Plicher, Glasco, Kan., at
Concordia, Kan.

Feb. 16—J. H. Harter, Westmoreland, Kan.

Feb. 23—G. S. Hamaker, Pawnee City, Neb.

Feb. 25—Chas. O. Parsons, Clearwater, Kan.

Feb. 25—Lee Gress, Nelson, Neb., and John
Barnard, Angus, Neb., at Nelson, Neb.

Durocs.

Nov. 16—F. T. Hadachek, Wayne, Kan.

Nov. 20—S. W. Alfred & Son, Sharon, Kan.

Nov. 27—G. McDowell, Corning, Kan.

Jan. 11—W. M. Puttman, Tecumseh, Neb.

Jan. 24—W. L. Addy & Son, Parnell, Mo.

Jan. 31—J. E. Joines, Clyde, Kan.

Feb. 1—Pearl H. Page, Beloit, Kan., and
R. G. Sollenberger, Woodston, Kan. Com-
bination sale at Concordia, Kan.

Feb. 2—E. M. Myers, Burr Oak, Kan.

Feb. 3—Rinehart & Slagle, Smith Center,
Kan.

Feb. 4—W. C. Whitney, Agra, Kan.

Feb. 7—Frank Elder, Green, Kan. Sale at
Feb. 9—Miner & Cross, Gulde Rock, Neb.,
at Superior, Neb.

Feb. 10—Samuelson Bros., Blain, Kan.

Feb. 14—R. B. Marshall, Willard, Kan.

Feb. 17—Thompson Bros., Garrison, Kan.

Feb. 18—T. E. Goethe, Leonardville, Kan.

Feb. 21—F. T. Fitch, Minneapolis, Kan.

Feb. 23—Pearl H. Page, Beloit, Kan.

Feb. 23—F. G. McDowell, Corning, Kan.

Feb. 23—It. G. Sollenberger, Woodston,
Kan.

Berkshires.

Feb. 15—F. T. Hadachek, Wayne, Kan.

Combination Sales.

Dec. 11-18—Enid Fine Stock Show and Sale,
F. S. Kirk, Manager, Enid, Okla.

Feb. 16, 17, 18—Mitchell County Breeders'
Association, Beloit, Kan.

International Sales.

Nov. 30—American Hereford Breeders' As-
sociation, Chicago, Ill.

H. B. Walter Makes Good Sale.

The 40 Poland Chinas that H. B. Walter,
of Effingham, Ill., drove through the sale

ring on the 10th of this month was a fine
example of what good breeding and feed-
ing will do and the prices received proved

that the farmers living in Mr. Walter's
part of the state are willing to pay good
prices for the kind that they want. No
better grown out heavy boned lot of hogs
have been offered at public sale this sea-
son. There were a few breeders and mail
bids present, but the big bulk went to
farmers at prices neither high nor low, but
about right as a money making proposition
for both buyer and seller. Twenty boars
averaged \$27.75; 20 gilts averaged \$27.95.
Following is a partial list of buyers and
prices paid:

No. 1—Scott Clinton, Atchison, \$31.

No. 2—C. E. Moore, Muscotah, \$35.

No. 3—Wm. Sutter, Effingham, \$40.

No. 4—Thos. Brown, Effingham, \$40.

No. 5—Thos. Brown, \$40.

No. 6—Chas. Keithline, Lancaster, \$38.

No. 7—Scott Clinton, \$34.

No. 8—Wm. Vincent, \$34.

No. 9—M. J. Hines, Shannon, \$34.

No. 11—M. J. Hines, \$34.

No. 14—Joe Yazel, Muscotah, \$30.

No. 17—M. McAuliff, Effingham, \$36.

No. 18—Robt. Newton, Whiting, \$25.

No. 19—J. G. Mick, Effingham, \$31.

No. 23—Jacob Royer, Effingham, \$33.

No. 24—S. A. Kepner, Effingham, \$30.

No. 29—M. T. Williams, Effingham, \$25.

A 30 DAY BARGAIN.

42 acres, adjoins Baldwin, the home of
Baker University. 400 bearing apple trees.

balance good farm land. \$4,200 if sold
in the next 30 days. Write.

Wm. M. Holliday,
Baldwin, Kan.

KANSAS LAND

800 ACRE BARGAIN IN NESS COUNTY, KANSAS.

Only 1 1

KANSAS LAND

A REAL SNAP.

120 acres Atchison County, Kansas, land all under plow and smooth; 90 acres in wheat, 30 for corn; unimproved; 5 miles to town; easy terms; \$55.00 per acre.
JOHN E. SULLIVAN,
Effingham,
Kansas.

RICE COUNTY FARM.

180 acres, 5 miles Sterling, new 7-room house, barn 32x10, 20 acres alfalfa, all good corn, wheat and alfalfa land, 80 acres in wheat goes. Price \$15,000, good terms. Other bargains.

W. W. BARRETT,
Sterling,
Kansas.

MONTGOMERY COUNTY BARGAIN.

120 acres, 1 1/2 miles from good shipping town, 80 acres in cultivation, balance pasture orchard, 5 room house, barn, telephone. R. F. D., free gas for domestic use. Price \$30 per acre. \$1500 cash; balance to suit purchaser. For further particulars write

ROSS DEFENBAUGH,
Independence,
Kan.

SPLendid IMPROVED FARM.

\$8,000 will buy 78 1/2 acres of good second bottom land, 60 acres in cultivation, good new 5 room house, cellar has sand rock floor, good out buildings, close to railroad, school and church. On R. F. D., telephone and gas line. Perfect title, no encumbrance. Rents for \$400 the year write

LEROY N. WALLING,
1007 Massachusetts Sts., Lawrence, Kan.

SEDGWICK CO. FARM BARGAIN.

For sale: 480 acre farm, level dark soil, 300 a. in cultivation, 180 a. in pasture. Good 11 room house, large barn 32x56 ft., also good tenant house and barn, close to good market town, and 18 miles of Wichita, price only \$24,000. \$8,000 cash will handle this balance at 6 per cent interest 5 years.

BEATTY REALTY CO.,
Opposite Post Office, Wichita, Kan.

AN EXTRA FINE FARM.

240 acres, 1 1/2 miles from shipping station, 5 miles from good town, on R. F. D. and telephones, 140 acres under cultivation, 100 acres in pasture, land in extra fine condition. Large house, large cattle barn, 46x52, large horse barn 40x50 all new. Fine young orchard, 2 acres of timber. Lots and all fenced in best of condition. Price \$50 per acre.

T. F. COLLINS,
Harris,
Kansas.

I WANT TO OFFER AS A SPECIAL BARGAIN.

A farm 15 miles from Colby, smooth as a floor, good black loam soil, 100 acres in cultivation, and seeded to winter wheat. Rural delivery running by the farm every day. All the 100 acres of wheat to go with farm. We think this one of the best bargains in the county today. And anyone wanting a quarter section in a good live neighborhood, will find a bargain by getting in touch with the owner.

IKE W. CRUMLY,
Colby,
Kansas.

BARGAIN IN STOCK AND GRAIN FARM

FRANKLIN CO., KAN.

97 1/4 acres lime stone land, lies rolling, nearly all tillable. Fine improvements, 2-story house, nearly new, two good barns, crib, granary, orchard, abundance of water; 3 miles to town, 1 mile to school and church. R. F. D. and telephone. Fine location. \$12,000, half cash.

GREENE BROS.,
Homewood,
Kansas.

BARGAIN.

160 acres, 100 acres in cultivation, 10 acres hot tight, balance grass; timber 20 feet; 7 room house; barn 20x60; wagon, implement and cattle sheds; corn cribs; well and cistern; nice shade; 6 1/4 miles from Climax; school 1/2 mile; R. F. D. Price \$30 per acre, worth \$40; can carry \$2,500.

G. K. JACKSON LAND CO.,
Eureka,
Kansas.

CORN, ALFALFA AND WHEAT LAND.

160 acre farm in Republic, banner corn and alfalfa county of Kansas only 1 1/2 miles from Belleville. 6-room house, new barn and other improvements, nicely located. 35 acres alfalfa, \$42,500. Another 160-acre improvement, 1 1/2 miles from Belleville, \$10,800. These are two of the many choice bargains we have to offer. Write for information or call on

HALL & CARTENSON,
Belleville,
Kansas.

\$2400 Buys 'Eighty'

Near Town-Terms

Because owner must sell we offer a nice smooth fertile eighty, half mile of good town, 5 room house, barn, abundance water, 20 pasture, 60 cultivation, nice neighborhood, worth \$3,000 for \$2,400 on terms to suit.

DONAHUE & WALLINGFORD,
Mound Valley, Labette Co., Kansas.

\$4,000

80 acres, Anderson county, Kansas, adjoins town of 700. On 3 railroads, all in cultivation, good 6 room house, barn for 10 horses. Plenty of good water and gas for light and fuel. Price \$50.00 per acre. \$1,000 down, balance on terms at 6 per cent. Write

EBERT C. SIMON,
Garnett,
Kansas.

WOODSON COUNTY EASTERN KANSAS LAND.

620 acre farm, 400 a. creek bottom in cultivation, well improved, all fenced hog tight, 6 miles to good town, \$40 per acre. ... 240 acre farm, 130 a. in cultivation, alfalfa, clover and corn land, well improved, close to town, price \$50 per acre. ... 160 acre farm, 70 a. cultivation, fine improvements, one mile to town, \$35.00 per acre. ... 160 acre meadow, can all be plowed, limestone soil, 5 miles from town, \$30 per acre. 80 acres, 50 a. in cultivation, well improved, 4 miles from town. Price \$45.00 per acre. Write or come at once.

WOODSON COUNTY REALTY CO.,
Yates Center, Kansas.

The Whitewater Percherons Again Break the Records.

The ninth annual sale of registered Whitewater Falls stock farm, was held in the new sale pavilion recently erected on the farm near Towanda, Kan. Heretofore these sales have been held in Wichita and while several of them have been record breakers none have equalled the sale held Tuesday, November 9. Fully 2,000 people were in attendance including hundreds of breeders from other states. The arrangements for the sale were perfect, and included the running of a special train on the Missouri Pacific railroad from Wichita to Towanda, whence the visitors were carried to the farm house four and one-half miles distant in carriages and automobiles. The home where this notable sale was held was formerly the Whitehouse of the great Robinson farms that were established in the Whitewater River Valley a quarter of a century ago by the late Col. J. W. Robison, so well known and so thoroughly respected by all the people of Kansas for his many qualities, his successful enterprises in agriculture and live stock breeding, and his willingness and ability to help in everything pertaining to the welfare of Kansas. Prior to his death Col. Robison owned a farm of about 12,000 acres, most of which was farmed. This was in no sense a ranch and was divided up into about fifteen holdings or complete farms, each equipped with farm residence and the necessary buildings, orchard, garden, live stock and implements necessary for its operation. Col. Robison's special interest centered around his magnificent Percherons which he owned conjointly with his son, J. C. Robison, who succeeded to the entire ownership of the Percherons and the home estate. During Col. Robison's life the Whitewater Percherons had attained a degree of note that was second to none in the country, and the present owner has maintained their quality and numbers to such a degree that the animals led through the sale ring at this ninth annual sale were pronounced by experienced visitors to be the best show of the breed ever made in a sale ring in the United States. The Whitewater Falls Percherons have won more prizes than any other herd of the breed in the United States, and many of the animals lead into the sale ring were the owners of a sufficient number of ribbons to cover them like blankets. The auction opened by the selling of the show herd consisted of seventeen head of mares and stallions, which brought an average of \$900. J. T. Schmidt of Tipton, Kan., paid the top price of the sale for Navarin a 2-year-old son of Casino. The same buyer bought the show mare Delta for the top price paid for mares. One of the strong points that has always been made in the breeding operations of Whitewater Falls Farm has been that the mare classes have been equally important with the stallion classes. Visitors have always felt that they could be sure of seeing good mares at this farm or in the show herds sent out by it to the larger shows each year. The results of this work in breeding for type and quality in both mares and stallions is shown in the results obtained in this sale. Forty-one mares averaged \$602.92, which is a remarkable average considering the size of the offering. The average for stallions may have been reduced slightly by the fact that seven of them were weanling colts, though this may have been offset by the other fact that these colts were sired by Casino. This record-breaking sale was conducted by Cols. R. L. Harriman, Bunceton, Mo., and J. W. Sparks, Marshall, Mo. Col. Reppert, Snyder, Arnold and Fife did the ring work. Following is a detailed list of the sales:

Mares.

KANSAS LAND

KANSAS LAND

A FEW SNAPS IN ABSOLUTELY LEVEL LAND.

320 a., perfectly level, 200 a. in wheat, 4 miles from two towns. \$20.00 a. 488 a., very fine, not a foot of waste. \$12.50 a. 160 a. 12 miles out, very fine. \$11.00 a. These are special bargains. Write me. H. D. HUGHES, McDonald, Kansas.

820 acres of perfectly level land, 160 acres in cultivation, 160 acres in cultivation, good improvements, close to school, on telephone line and Rural Route. Terms on \$3,000.00 if desired. If interested please write for full complete description.

EDWIN LYMAN, McDONALD, KANSAS.

\$20 PER ACRE.

BUTLER COUNTY RANCH BARGAIN.

760 acre Butler Co., 200 acres first class balance meadow and blue stem pasture; 2 miles to shipping point. R. F. D., telephone, good 5-room house, 2 large barns, never failing running water. Price \$25.00 per acre. For further particulars write

L. L. KISER,

Eldorado,

Kan.

FOR SALE TO PLAT.

55 acres adjoining Wichita City Limits, that will sell for \$100 a lot; 8 2-3 lots to the acre. This will be \$875 per acre. We will sell it for \$125 per acre for the next 20 days, and 2,600 acre well improved ranch in Meade Co., per acre \$16.00.

J. F. BELLEW & CO.,

110 Main St. Wichita, Kansas.

SUMNER COUNTY BARGAIN.

160 acres, 4 miles to good town, good improvements, 100 acres fine wheat, 30 acres corn. If sold soon all the crops and possession for only \$50.00 per acre; good terms. Owner wants to put the money in his store business. See or write

WM. GODBY LAND & AUCTIONEERING CO.,
Arkansas City, Kansas.

THREE BARGAINS FOR POOR MEN.

No. 1, 160, rich black loam corn and alfalfa farm, well located, fair improvements, no waste and finest of soil, worth \$6,000, offered for \$5,000; terms.

No. 2, 160, worth \$4,500, for \$3,600, close to school, 3 miles to town, well improved, 8-room house, big barn, 100 cultivation, 60 pasture and meadow. A snap. Will you get it? Terms.

No. 3, fine nice fertile 80, 26 wheat, 1 mile to school, 4 to town; 5-room house, nice barn, fruit, shade, etc., fine water handy.

All of the above are worth more money and won't last. Come and see, or write for list.

DONAHUE & WALLINGFORD, Mound Valley, Kan.

stone, Lee Bros., Harveyville, Kan., \$610. No. 42—Grandmaster, 3 years, sire Sansonett, M. G. Hamm, Holton, Kan., \$625.

No. 45—Nianza, 3 years, sire, Saphir Walker Bros., Oklahoma City, \$600.

No. 46—Naxarin, 2 years, sire, Casino, J. T. Schmidt, Tipton, Kan., \$1,750.

No. 51—LaNoir, 2 years, sire, Casino, C. E. Foggo, Burr Oak, Kan., \$690.

No. 52—Romain, 2 years, sire, Triton, C. S. West, Beloit, Kan., \$625.

No. 55—Dodson, weanling, sire Casino, G. W. Riley, Macon, Mo., \$390.

No. 56—Steveadore, weanling, sire Casino, W. S. Combs, Yukon, Ok., \$490.

No. 59—Casino, weanling, sire Casino, David Eckright, Hamilton, Kan., \$400.

No. 60—Premier, weanling, sire Casino, O. Salisbury, Ness City, Kan., \$545.

Substitute—G. W. Warren, Eskridge, Kan., \$760.

Summary.

41 mares brought... \$24,720; average... \$602.92
21 stallions brought 16,580; average... 733.52
62 head brought.... 40,250; average... 649.19



New Sale Pavilion at Whitewater Falls Stock Farm, in which about 2,000 people watched the sale of the J. C. Robison Percherons last week.

SHORTHORN CATTLE

FOR SALE.
12 bulls, 12 to 18 months; 20 cows and
heifers for sale. Glade, Kan.
SHAW BROS.

FOR SALE.

10 choice young bulls from 8 to 12 months
old, part straight Scotch.
Choice yearling and short two-year-old
heifers.
Good colors, bright red, priced right.
C. W. TAYLOR, Pearl, Kan.
Address Mail R. F. D. 2, Enterprise, Kan.

ALFALFA LEAF SHORTHORNS.
Special offering of four bulls. One by
Archer 205740 out of a Victoria cow. Three
by Nonpareil Star, one a Victoria, one Imp.
Edelweiss and one Christmas Gift. Also a
few choice heifers of equal quality and
breeding.
JOHN REGIER, Whitewater, Kan.

ALNSDALE SHORTHORNS—As I
can no longer use my two herd bulls, I offer
them for sale at much less than their
value. "Prince Consort No. 187008," beau-
tiful dark red, 8 years old; sired by Im-
ported "Prince of Perth," dam full sister
to "Lavender Viscount," is a straight Scotch
bull of the finest breeding. "Master of
Alydale No. 241819," handsome roan 4
years old; weighs in only fair flesh about
1,000 pounds. Sired by "Dictator No. 182-
45." He is a magnificent animal. His
dam Nellie Cundiff was one of the best
cows in my herd, and a great milker. Also
cows and young bulls for sale. Come and
see them. **CHAS. W. MERRIAM**, Columbian
Building, Topeka, Kan.

**RENO HERD SHORT-
HORN CATTLE**

Bulls in service, Forest Knight 226084 and
Victor Archer 264156. Breeding stock for
sale.

Stewart & Downs, Hutchinson, K.

Evergreen Home Farm.

Milking Shorthorn Cattle, Bred Hornless.
Berkshire Hogs, Oxford Down Sheep.
Bourbon Red Turkeys.

LATHROP, MISSOURI.

JEWEL SHORTHORNS

A young herd of up-to-date breeding.
Also Percheron and Standard bred horses.
In stud, the Percheron stallion Marquis De
Wier, (Imp.) Also the Standard bred
stallion, Red Seth 31185. Farm adjoins
town. Come and see us.

W. T. LOWE, Kansas.
Jewell,

GREENDALE STOCK FARM

25 YOUNG BULLS by Imp. Ardithiam
Mystery and Best of All for sale at bed
rock prices. Can also offer some good Berk-
shire swine and Shropshire rams. Corre-
spondence solicited.

COL. ED. GREEN, Prop.
Florence, Kansas.

GLENWOOD HERD.

The home of the Scotch bulls Prince Fav-
onia 207316 and Searchlight 298231.

Large type Poland China bulls. Designer
39199 and Major Look 48039. The original
Designer kind—choice herd bulls now
ready for shipment. The Designer kind that
grow big. See my cattle exhibit at the lead-
ing fairs this fall. Write your wants.

C. S. NEVIUS, Kansas.
Chiles, Miami Co., Kansas.

**20 Shorthorn Cows and
Heifers**

All are bred or have calf at side.
3 GOOD YOUNG BULLS
that I am sure will suit. Every-
thing nicely bred and in good
condition. Moderate prices.
D. H. FORBES & SONS, Topeka, Kan.
R. F. D. No. 8. Bell Phone 31.

Prospect Farm Shorthorns

The oldest Shorthorn breeders in Kansas.
The largest herd of Cruckshanks in Kan-
sas. Herd headed by Violet Prince 145647
and Orange Commander 220590. Young
stock of both sexes and some cows for sale.
Quality and prices right.

H. W. McAFFEE, Topeka, Kan.
Bell Phone 59-2.

Spring Hill Shorthorns

300 Head Stock and
Bates Pedigrees

C. G. COCHRAN & SONS,
PLAINVILLE, KANSAS.

SHORTHORNS.

Will sell 12 cows with calf at foot and
heifers at \$75 each. Some heifers and bulls
cheap. First reasonable offer will buy them
all. They are Red, all registered.
Am closing out for other business.
Write or come and see **J. E. WELLER**,
Faucett, Mo.

HUMBOLDT NATIONAL STOCK FARM

Shorthorn cattle, large type Poland
China hogs, 10 spring bulls priced right.
Write me your wants. I meet parties at
train. We can do business. Come and
see me.

H. F. PELPHREY & SON, Kansas.
Humboldt,

Center Grove Stock Farm

Scotch Shorthorn cattle and 20 bred
heifers and a few good spring bulls of
large type Poland China hogs. Write me
what you want. No trouble to answer let-
ters. Bell phone.

J. W. PELPHREY & Son, R. D. 6, Chanute, Kan.

Scotch Shorthorn cattle and 20 bred
heifers and a few good spring bulls of
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Scotch Shorthorn cattle and 20 bred
heifers and a few good spring bulls of
large type

KANSAS FARMER

November 20, 1909.

DUROC JERSEYS

DUROC JERSEY BOARS AND GILTS.
The tops of my spring crop. Sired by the Champion Chief Tatarax and G. M.'s Carl Col. Dame of the richest breeding. Reasonable prices.

SEO. M. HAMMOND,
Manhattan, Kan.

SOLLENBURGER'S DUROCs.

Breeding of the very best. Choice boars and gilts of March and April farrow for sale. Write at once if interested.

R. G. SOLLENBURGER,
WOODSTON, KANSAS.

GREENWOOD HERD DUROC JERSEYS.
Herd boar Dandy Duke 64663, few choice spring boars for sale and few extra good spring and fall gilts, few tried sows bred for spring litters. Write or come and see me.

R. D. MARTIN & SONS,
Eureka, Kansas.

WHITNEY'S DUROCs.

Spring boars and gilts of choice breeding for sale. Write for prices and description.

W. C. WHITNEY,
Agra, Kansas.

GOETHE'S DUROCs.

25 spring boars for sale sired by my herd boars Attractive Chief, Big Crimson, Walnut Wonder and others and out of sows by Ohio Chief Kant Be Beat, Nebraska Wonder, Model Chief Again and King of Col's II. Write me.

T. E. GOETHE,
Leonardville, Kansas.

CROW'S DUROC JERSEYS.

Herd headed by Climax Wonder, he by Missouri Wonder, 100 head to select from. Prices reasonable. The electric car runs within three blocks of farm. Come and see my herd at any time.

W. R. CROW,
Hutchinson, Kan.

PLEASANT VIEW HERD.

Spring gilts and herd boar prospects for sale. Sired by Tattarrax, the Kansas and Oklahoma champion. College Lad and Pleasant View King. Out of such sows as Pleasant View Queen, College Girl, John's Choice and Bob Orion. Prices reasonable.

R. B. MARSHALL,
Willard, Kan.

DUROC "GROWN IN THE OZARKS."

Ohio Chief and Col. Blood. Litters by Muncie Chief, Model Prince, King of Models, Inventor, the King, I Am Advance; several by Col. Carter, my leading bred boar. They are grown right, are good, and we answer all letters of inquiry.

C. L. CARTER,
Cabool, Mo.

HOWE'S DUROCs.

Special prices on boars and gilts sired by Rex K., champion at Wichita fair this year. Also a few by Perfect Improver Grand Champion at Wichita 1907 and 1908. Only a few left get busy and send in your order.

J. U. HOWE,
Wichita, Kansas.

STANFIELD HERD DUROC JERSEYS.

Choice young stock for sale, sired by Kansas Kant Be Beat and Jerry Wonder. My sows are of best breeding and good quality all in the 500 pound class. I can please you.

H. C. STANFIELD,
Buffalo, Kansas.

CEDAR LAWN HERD.

Nice lot of spring boars, sired by Long Wonder, Bells Chief, Rose Bells and Top Model, a choice lot of fall gilts open or bred, priced right to sell quick. Write me at once.

F. M. BUCHHEIM,
R. D. 3, Lecompton, Kan.

COFFINS CREST HERD DUROC JERSEYS.

For sale, a few choice spring boars and one yearling. These are sired by Royal Improver, Perfect Improver, Chief Tattarrax and King Ingomar. Priced right and all first class herd leaders.

H. A. J. COFFINS,
Potwin, Kan.

FEW CHOICE DUROCs.

For sale, few fancy spring boars and gilts, 10 fall yearling sows, bred or open, priced right. Gilts are out of Old Variety Maid, she by old Tip Top Notcher. Write your wants. A few bronze turkeys for sale.

J. M. YOUNG,
Fall River, Kan.

R. & S. FARM

In their Bred Sow Sale Feb. 3, 1910, at Smith Center, Kan., will offer about 40 selected Golden Ruler Gilts bred to King of Kant Be Beat 88333, and R. & S. Prince of Cols. 88797. Also a few tried cows bred to Golden Ruler 80555. King of Kant Be Beat is 2 years old and weighs 800 lbs. Has a 10-inch bone and stands perfect on his feet. Breeders should "sit up" and take notice of such an offering.

RINEHART & SLAGE,
Smith Center, Kansas.

GILTS RESERVED FOR MY FEBRUARY 2 BREED SOW SALE.

Big growthy spring boars for sale at bargain prices. Bred right and fed right, priced right.

E. M. MYERS,
Burr Oak, Kansas.

50 DUROC JERSEY BOARS, KING OF COL. 2ND BLOOD 50

I have decided not to hold fall sale and these are for sale privately. They are out of as good sows as the breed affords, and we have them by King of Col's 2nd, P. C.'s Col. and other good boards. Plenty of herd boar prospects.

FRANK ELDER (Successor to Grant Chapin, Green, Kansas).

25 GOOD BOARS—25 SELECT GILTS.

Durocs by King of Col's 2nd, G. C.'s Col. and G. C.'s Kansas Col., excellent individuals and out of daughters of Model Chief Again, W. L. A.'s Choice Goods and other like sires. Also an extra yearling by King and out of an Ohio Chief sow.

CHAPIN & NORSTROM,
Green, Kansas.

ELK CREEK STOCK FARM DUROC JERSEYS

Two valuable mature herd boars for sale. 100 spring pigs to select from. Best of breeding and individuality. Always something for sale. Come and see my herd or write me.

J. E. JOINES,
Clyde, Kansas

by themselves as well as their ancestors. But every one was brought into the ring wearing everyday clothes and sold absolutely upon her merit as a breeder and milk and cream producer. Mr. Young stood at and ringside and cheerfully answered all questions pertaining to the cattle. His recommendation invariably stimulated the bidding. Mrs. Young was much attached to the older of the cows and parted with them with much regret, the children also showed their great devotion to the cattle, a fact that partly accounts for the marked success that Mr. Young has met with as a breeder of Jerseys. You must love a business to succeed with it. R. Oliver, of St. Joseph, bought the great old cow, Fogis Irene, the dam of Jacobs Irene, paying \$315 for her. He also bought three of her heifers. The entire offering, including three bulls, averaged a little over \$152. E. H.

Barry, of Sparta, Ga., topped the sale at \$375, buying the Golden Lad Heifer, No. 18 in the catalog. Following is a partial list of sales:

- No. 1—R. Oliver, St. Joseph, Mo., \$215.
- No. 2—A. T. Smith, St. Joseph, Mo., \$160.
- No. 3—A. Oliver, \$190.
- No. 4—A. Oliver, \$175.
- No. 5—A. Oliver, \$145.
- No. 6—E. W. Marrow, Blue Rapids, Kan., \$70.
- No. 7—Chas. Yost, Hastings, Neb., \$155.
- No. 8—O. A. Adams, Smithville, Mo., \$105.
- No. 9—W. A. Robinson, Allendale, Mo., \$105.
- No. 10—Geo. Bothwell, Nettleton, Mo., \$125.
- No. 11—Jesse Johnson, Clay Center, Kan., \$200.
- No. 12—Chas. Yost, \$170.
- No. 13—Geo. Bothwell, Nettleton, Mo., \$95.
- No. 14—R. D. Parks, Dallas, S. D., \$125.
- No. 15—Mrs. F. H. Manning, \$320.
- No. 16—Jesse Johnson, Clay Center, Kan., \$105.
- No. 17—E. H. Barry, Sparta, Ga., \$375.
- No. 18—W. S. Woodside, Arapahoe, Neb., \$105.
- No. 19—S. B. Lewis, Ashley, Utah, \$100.
- No. 20—Chas. Dale, Weston, Mo., \$100.
- No. 21—S. S. Smith, Clay Center, Kan., \$75.
- No. 22—W. S. Woodside, \$180.
- No. 23—D. G. Smith, Lawson, Mo., \$145.
- No. 24—J. Shannon, Topeka, \$105.
- No. 25—Mrs. Carrie French, Red Hill, S. D., \$200.
- No. 26—Robt. Weir, Severson, Kan., \$250.
- No. 27—S. S. Smith, \$110.
- No. 28—W. Linker, Ideal, S. D., \$275.
- No. 29—John Thompson, Seattle, Wash., \$250.

DUROC JERSEYS

SPRING BANK HERD DUROCs.

Herd headed by W. H.'s Colonel, the first prize junior yearling boar at Hutchinson fair 1909, and Chief's Orion, the third prize aged boar, at Kansas State Fair 1909. A few choice spring boars and sows bred to either of above named boars for sale.

W. H. WILLIAMSON,
Raymond, Kan.

Grandview Duroc Jersey Herd

Headed by Standard Model 80435, Tom Davis 42009, and Crimson Monarch 80429. Fine lot of spring pigs by these sires and out of great dams.

O. A. TILLER,
Lawrence, Neb.

Fitch's Kant-Chief Improver

A nice line of March and April boars to price worth the money after August 1. Write any time for prices and information.

W. T. FITCH,
Minneapolis, Kansas.

Hanley Strain of Durocs

Write for prices.

PAUL B. JOHNSON,
Leavenworth, Kan.

WEST RIVERSIDE STOCK FARM

Durocs as good as the breed affords. Ohio Chief, Tip Top Notcher, Buddy K. IV, King of Cols, Gold Cloud. Blood lines with the individuality to back up this breeding. Write me for prices and let me know your wants. Mention Kansas Farmer. H. E. FISHER, Danville, Harper Co., Kan.

The Chester Thomas Durocs

I am now offering 30 head of choice Duroc Jersey boars for sale. Mostly the get of Nebraska Wonder. Herd is very strong in Crimson Wonder blood. Prices right. Call or write.

CHESTER THOMAS,
Waterville, Kan.

HOLSTEIN CATTLE

BRAEBURN HOLSTEINS.

Bull calves from dams yielding 10,000 pounds of milk in a year and upward.

H. B. COWLES,
Topeka, Kan.

EAST SIDE DAIRY HOLSTEINS.

Our present supply young service bulls is running short, but several of the best ones still on hand, better get particulars about them. Nothing will improve your Dairy herd quicker than one of these youngsters.

F. J. SEARLE, Prop.,
Oskaloosa, Kansas.

HOLSTEIN BULLS

at bargain prices for 30 days. Bulls of serviceable age \$75 and up. Bulls 5 to 12 months \$50 and up. Bull calves 1 to 5 months \$30 and up. A few remain to spare.

"ROCK BROOK FARM,"
Sta. B., Omaha, Neb.
Henry C. Gissman, Prop.

Samuel Drybread Makes Good Sale.

Wednesday, Nov. 10, Samuel Drybread, of Elk City, Kan., pulled off one of the good Duroc sales. The offering from a breeding point was all that one could ask but some of the offering should have been grown out a little better. The writer has been attending Mr. Drybread's sales for several years and we are pleased to say that each year we can note some good improvement. We hope to see Mr. Drybread put up still a better lot of individuals next year. Col. Fred Reppert, of Decatur, Ind., struck the key note in his talk to the breeders and impressed them that one great factor in the breeding business was the loyal support of the farm and stock papers. Col. Reppert is a real live auctioneer and his services are in demand. Following is a list of sales of \$20 and over:

No. 2—L. F. Seaton, Elk City, Kan., \$40.

No. 3—H. C. Stanfield, Buffalo, Kan., \$53.

No. 4—White Bros., \$51.

No. 5—V. A. Scott, Elk City, Kan., \$50.

No. 6—H. M. Shirliff, Elk City, Kan., \$50.

No. 7—C. L. Carter, Cabot, Mo., \$51.

No. 8—J. F. Stoddard, Burden, Kan., \$51.

No. 9—L. B. Davis, Elk City, Kan., \$25.

No. 10—A. Cox, Cherryvale, Kan., \$41.

No. 12—H. C. Stanfield, \$26.

No. 13—W. B. Wallace, Bunceton, Mo., \$45.

No. 18—H. H. Kuper, \$55.

No. 21—C. W. Strickland, Junction City, Kan., \$39.

No. 22—Laurence O'Keefe, Stilwell, Kan., \$50.

No. 24—H. H. Kuper, \$50.

No. 25—H. H. Kuper, \$58.

No. 28—C. W. Strickland, \$37.

No. 31—H. H. Kuper, \$36.

No. 33—R. A. Harriman, \$35.

No. 34—Geo. Wedd & Son, Spring Hill, Kan., \$31.

No. 36—H. H. Kuper, \$35.

No. 38—A. P. Young, Lexington, Mo., \$37.

No. 39—R. A. Harriman, \$40.

No. 40—E. S. Waters, Chiles, Kan., \$30.

No. 41—Bert Harriman, \$40.

No. 42—Roy Johnston, \$42.

No. 45—H. H. Kuper, \$40.

No. 46—H. H. Kuper, \$40.

No. 47—H. H. Kuper, \$40.

No. 48—W. R. Weiss, Bucyrus, Kan., \$23.

No. 2—H. H. Kuper, Thomas, Okla., \$76.

No. 3—H. F. Pelphey & Son, Humboldt, Kan., \$71.

No. 7—Geo. M. Hull, Garnett, Kan., \$52.50.

PUBLISHERS' NEWS

Notice the advertisement of Cal. Hirsch & Sons. It will pay. When you write them, please mention Kansas Farmer.

L. L. Kiser, of Eldorado, Kan., has a good Butler county ranch consisting of 760 acres that he offers for \$35.00 an acre. Write him for full particulars and description. This is one of the best bargains ever offered in Butler county.

Mr. P. M. Wickstrom, the Queen Incubator man, Lincoln, Neb., reports a large increase in the output of Queen incubators and brooders last season over any former season. Surely the Queen Incubator Co. is coming to the front, and well it should, as Queen machines are giving the best of satisfaction in every part of the country. A copy of the Queen Poultry Guide and Catalog will be mailed free to all who request it. Write to Queen Incubator Co., Box 28, Lincoln, Neb., and get one of those big free books and special price list.

Pochel's Pointers.
C. E. Pochel, land and immigration agent, of Newkirk, Okla., has just compiled a booklet giving a few facts concerning the greatest agricultural "Mecca" of the southwest, Oklahoma, the only section of the United States today where good land is cheap and cheap land is good. This descriptive booklet will be sent free to any one interested. Write C. E. Pochel, Land and Immigration Agent, Newkirk, Okla.

The Chicago Housewrecking Company.
One of the most impressive exhibits that the writer saw at the great Iowa State Fair was a complete residence erected on the grounds by the Chicago Housewrecking Company, the material for which sold complete for \$550. They have a series of these ready-built houses, the material for which costs from \$290 to \$1,300, and barns from \$200 up. Their leader is a two-story building, 23 feet wide and 33 feet 6 inches long, exclusive of the porch. It has seven rooms with bath, pantry and a large front porch, and sells for \$650 complete. Ask them for their book of designs, but especially for House Design No. 6, which is here referred to. Remember that they furnish blue prints for any of their designs free to purchasers, and please remember to mention Kansas Farmer when you write them.

A Great Aid to the Farmer.
We know of no better illustrations of a saving for the farmers than the making of steel wheels for their wagons by the

SMITH'S LAYING STRAIN OF ROCKS.
Barred and White Plymouth Rocks of quality. Young and old stock at all times.
CHAS. E. SMITH,
Bayneville, Kan.

AMERICAN ROYAL WINNERS
1st cockerel, 2nd and 3d pullet, 3d hen, out of four entries. Write me for the best in White Plymouth Rocks exclusively.
FRANK KNOPF,
Holton, Kansas.

5,000
Orpingtons, Rhode Island Reds, Leghorns, Rocks and Wyandottes for sale. Each variety bred on separate farms from prize winning stock. We will send catalog free.
L. M. HARRIS,
CLAY CENTER, NEBRASKA.

MISSOURI Auction School BIGGEST IN WORLD

And only school where students make bona fide sales of all kinds of property. We only require one-half of tuition down, the other half when you have become a successful auctioneer. No note required. 80-page catalogue free. Publisher of Auctioneer Joker at \$1 per year. Also Carpenterphone Auctioneering Mail Course now ready.

WM. B. CARPENTER, Pres't.,
Trenton, Mo.

CATALPA SPECIOSA GUARANTEED.
To be pure seed gathered under our direction. Examined by the U. S. Agricultural Department and found to be pure. Copy of their letter and catalpa facts in illustrated booklet mailed free. Write for same.

THE WINFIELD NURSERY CO.,
Winfield, Kansas.

PURE HONEY.
Extracted in cans of 60 lbs. net amber 17.50, white \$9. Comb honey in one lb. sections. Send for price list. Nothing but genuine bees' honey. Reference Kansas Farmer. The Arkansas Valley Apiaries.

CHEEK & WALLINGER,
Los Animas, Colorado.

SHELAND PONIES FOR SALE—20 imported stallions and a few bred mares. We have recently returned from Scotland with the finest importation of ponies ever brought to Nebraska. Write for private sale catalog. CLARK BROS., Auburn, Neb.

DUNHAMS' PERCHERONS

Fourth large importation within the year arrives November 23rd, which, added to our present stock, offers intending purchasers the finest collection in America. If you want the best horses, horses with bone, quality, size, action, and best breeding stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oaklawn. Catalog shows the place and the horses.

W. S., J. B. & B. Dunham, Wayne, Ill.

Don't You do it!
Don't order a single magazine or other periodicals without consulting our great clubbing offers in this weeks Kansas Farmer. It means dollars to you.

BERKSHIRES

BRAEBURN BERKSHIRES

Young pigs, high class in quality and breeding.

H. B. COWLES, Topeka, Kan.

RIDGEVIEW BERKSHIRES.
3 herd boars for sale. 1 two-year-old by Forest King, other males of different ages. Sows and gilts open.

MANWARING BROS., Lawrence, Kansas.

BERKSHIRE BOARS AND GILTS.
for sale. Long bodied smooth spring pigs. The best breeding and excellent individuals. No culs shipped. Visitors welcome.

J. M. NELSONN, Marysville, Kansas.

BERKSHIRES—OVER 250 HEAD.
To select from Choice boars and females of various ages. Baron Duke 75000 and Masterpiece 77000. Spring pigs for sale. We guarantee satisfaction.

Write LEON A. WAITE, Winfield, Kan.

MR. FARMER

You need a Berkshire boar—buy a good one, it pays.

We are offering 50 big boned, growthy boars ready for business, weighing 125 to 250.

Every one a good one. No culs. Order today and get first choice at special prices \$30, \$25 and \$30. Satisfaction guaranteed.

SUTTON FARM, Lawrence, Kansas.

NEW YORK VALLEY HERDS BERKSHIRES AND SHORTHORNS.

25 years experience with these breeds. Sows bred to and sired by Field Marshal 103000 and Lee's Masterpiece 99715. Young stock for sale. 50 spring and summer boars and gilts at \$25 each; two extra fancy herd headers at \$50 each. Bred sows and gilts from \$35 to \$100 each. Write your wants. Visitors always welcome.

J. T. BAYER & SONS, Yates Center, Kansas.

POLAND CHINAS

GRAND PERFECTION NO. 7789.
Spring pigs by this boar and out of richly bred dams for sale, either sex, at \$15 each to move them quick. Write at once.

JEWELL BROS., Humboldt, Kan.

STRYKER BROS. HERD POLAND CHINAS.

The greatest show and breeding herd in the West. Write your wants and they will please you. Hogs any age at reasonable prices. Buy the best and make the most. They breed the kind that win the kind you want. Address STRYKER BROS., Fredonia, Kan.

BIG TYPE POLAND CHINAS.

For quick sale few Aug. and Sept. boars, out of grandson of Expansion and Victor X. L., winner at World's Fair. 3 of the boars out of Lady Youtell 4th, the dam of Prince Youtell. Cheap if old soon.

J. H. HARTRER, Westmoreland, Kan.

BOLLIN'S POLAND CHINAS.

We have for sale some very good spring boars. Write and get our prices on an extra high bred gilt or bred sow. These are representatives of the very best blood strains of the Poland China breed. We give customers satisfaction. Write today for particulars. John Bollin, Leavenworth, Kan., R. D. 3.

IDEAL HERD POLAND CHINAS.

Pigs in pairs, trios and young herds. Some March boars for farmers, large and from large litters, also 10 bred sows, bred, fed and priced right. Description guaranteed. CHAS. O. PARSONS, Clearwater, Kan.

BOARS 15 big, growthy, Poland China boars ready for service. The kind that make good.

CHAS. O. PARSONS, Clearwater, Kan.

GOOD POLAND CHINA BOARS.

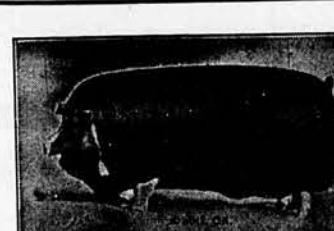
A fine lot of young Poland China boars that were sired by the great Lails Perfection and out of my choicest sows, for sale. all of March farrow and will be sold cheap if taken at once. Must close out as I need the room.

S. W. TILLEY, Irving, Kan.

**SOUTH MOUND STOCK FARM
LARGE TYPE POLAND CHINAS**

Herd headed by Orphan Chief (50986), John Ling 49897, and Logan Ex. (51715) and contains 30 great strictly large type sows the equal to which is hard to find in one herd; the produce of which I will guarantee to be much larger and with as much quality as any medium type herd. Choice spring pigs and they are very choice, weighing as high as 271 pounds. 90 head of summer and fall pigs ready to ship. Let me know your wants and mention Kansas Farmer.

ROY JOHNSTON, South Mound, Kan.



POLAND CHINAS

SHOW PIGS FOR SALE—June pigs sired by Mischief Maker, dam by On and On 2nd; three boars and two gilts. They are extra good show material. Priced right. O. J. MITCHELL, Centerville, Kan.

NOFSGER BIG POLAND CHINAS.
100 choice spring pigs, sired by Young Hadley by Big Hadley, and other good sires. Dams by Blain's Tec King Do Do, Johnston's Chief, etc. Reasonable prices. R. NOFSGER & SONS, Du Bois, Nebraska.

POLAND CHINA TRIO OF MAY FARROW
Headed by a son of Designer out of Chief's Maid 3d. Gilts by Cowles Tecumseh out of Miss Jones, a sow bred by W. A. Jones F. S. COWLES, Lawrence, Kan.

SNYDER BROS. HIGH CLASS POLAND CHINAS.
Either sex, bred sows and bred gilts, priced right for quick sale. Write your wants. SNYDER BROS., Winfield, Kansas.

SPANGLER'S BIG POLANDS
For sale now: 25 big, smooth spring boars and 25 gilts, mostly by Spangler's Hadley. Some top stuff among these but all priced to sell. J. D. SPANGLER, Sharon, Kan.

BRED SOWS AND GILTS FOR SALE.
A few choice sows and gilts for sale bred for fall litters. Write me your wants. can please you. A. W. SHRIVER, Cleveland, Kan.

SPRING BOARS AT BARGAIN PRICES.
Out of sows by S. P.'s Perfection, Chief Perf. 2d, Spellbinder and others. These young boars are fine individuals and by Sportsman by Corrector and out of a Medier dam. Write me your wants. JOHN B. FREESE, Bayneville, Kan.

BIG POLAND CHINAS.
Headed by my big smooth boar Prince 45889. Our sows are strictly on the big order. 75 big strong early pigs ready to ship. Both sexes. Description guaranteed. J. E. BOWSER, Abilene, Kansas.

CEDAR LAWN FARM.
Polands and Shorthorns for immediate sale: 15 choice spring boars sired by Orphan Chief 50986, Priceless King and a good son of Pan Famo. Dams carry the blood of Bell Metal, Logan B., Big Hutch, etc. Also a few good gilts. No culs shipped. S. B. AMCOATS, Clay Center, Kansas.

MELBOURNE HERD POLAND CHINAS.
I have a few choice spring boars and gilts sired by Gold Metal, Hadley Boy and Clever Boy for sale at moderate prices. Let me know your wants. JOHN C. HALDERMAN, Burchard, Neb.

BARGAINS.
Ten choice big type boars for sale, sired by Prince Hadley and Captain Hutch. W. C. SINGER, Hiawatha, Kansas.

RICHLY BREED POLAND CHINAS.
Spring boars and gilts sired by Jewel Perfection 2nd, grandson of Chief Perfection 2nd. Sows equally as well bred. Reasonable prices. GEO. W. COOKS, Clay Center, Kansas.

200 STRICTLY BIG TYPE POLANDS 200
March and April farrow. Bell Metal, What's Ex., Nebraska Jumbo and Colossal head our herd. Sows carry the blood of the biggest sires of the breed. B. M. BELL, Beattie, Marshall Co., Kansas.

HIGHVIEW BREEDING FARM
DEVOTED TO THE RAISING OF
Big Boned Spotted Poland Chinas.

I am now booking orders for June and July pigs for immediate shipment. Pairs, trios, or more not related. Have your order booked early, they will soon be all sold.

H. L. FAULKNER, Box K., Jamesport, Mo.

DIETRICH AND SPAULDING
Have for sale some extra good spring farrow POLAND CHINA BOARS ready for service. 2 good last fall boars. You can always get a herd leader here. If you want a boar to improve your herd and combining size, finish and easy feeding qualities, write them. Prices right. Pedigrees ready with sale. Home phone 1053. Residence 581 Cherry St., Ottawa, Kan.

MENEHAN'S POLAND CHINAS.
I have for sale an extra choice big type fall yearling boar, sired by Hutch Jr. by Big Hutch, dam Beatrice Logan by O. K. Price. Pig has white face and he is a good individual. Write for complete description and low price. J. F. MENEHAN, Burchard, Nebraska.

DINGMANS' BIG POLAND CHINAS

15 big smooth bears, the tops of 40 out of such sows as the 735 pound head sired by the 817 pound Voter and sow, Miss G., and the 550 pound Holly. Write and mention this paper.

C. W. Dingman, CLAY CENTER, KANSAS

