

# KANSAS FARMER

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## AGRICULTURAL COLLEGE COMMENCEMENT.

The following is the annual address delivered by Hon. Geo. R. Peck at the Commencement exercises of the Agricultural College of Manhattan:

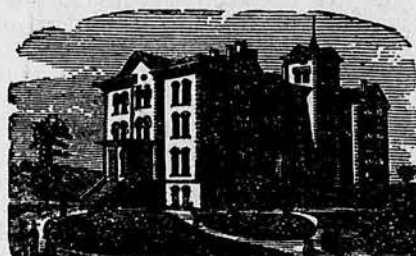
### THE CONFLICT OF SOCIAL FORCES.

A wise custom has selected the early summer for occasions of this kind. It is the season of perfect days; the year's high tide; the month of roses and of tranquil skies. The air is full of murmuring life, and nature, rejoicing in ever returning youth, clothes the meadows with all the smiles of June. The institution with which you are connected is typical of our State, and of our age. It is the representative, and the exponent of modern thought. Here, and everywhere, the tireless search is going on for that knowledge which shall be most helpful in these busy times. Here, and everywhere, eager hands are reaching out to touch the springs of wisdom. The eternal mysteries cover us like a veil. Philosophy is dumb when it faces the problem of human destiny. Science cannot penetrate the secret of a blade of grass. Yet it is the sure evidence of man's divine relationship, that he can never rest in the presence of these obstinate questionings. Let the oracles speak from the clouds, or from the caves, there is always a listener, waiting for some word of hope, some hint that shall help him to solve the problem of his life. The mind feeds on disappointments. All the ships that Arctic seas have crushed, are but beacons to him who sails for the pole. It seems like refinement of cruelty that we should be doomed to a perpetual desire to know, and a perpetual impossibility of knowing. But it is not cruelty. It is safety. Without the constant play of these unsatisfied cravings, the years go wearily by, and man exists, but does not live. The very stars must move, or their lights go out. Evolution is not simply a doctrine of physical science. It is the law of growth. The fittest survives. Laws, language, manners, habits of thought and forms of government, are but the incomplete result of human effort up to to-day. The ages touch each other. It was but yesterday that Plato was teaching in the academy; but yesterday that Job bowed his head in sorrow, confessing the vanity of worldly wisdom. We build upon all that has gone before. The religions, the philosophies, the social and political systems of the Jew, and the Greek, the Goth, and the Saxon re-appear in life of to-day. "We are sprinkled," says Emerson, "by the spray of antediluvian seas." The thoughts of all the generations converge on this hour. The nineteenth century ought to bring forth men immeasurably superior to our ancestors of pre-historic times. And so she does; but only relatively. Nature is never outwitted. She keeps the balance of power. Every secret she gives up suggests a thousand she has concealed. When Professor Morse compels electricity to write, the cunning fluid straightway challenges all the wise men to make it talk; and now when Edison and Bell have given it a tongue, we are all wondering what his next possibility may be. The forces of the physical world never give out. Newton and Bacon and LaPlace found them as exhaustless as did the primeval man, to whom the firmament was a picture, and wind a giant's breath.

I am to talk to you to-night, not of the problems of nature, but of those other and

mightier ones which concern our relations to each other. The simple laws of human well-being are harder to understand than the subtlest processes of chemistry. It is easier to tame the lightning than to subdue the soul. We have built up communities and states. We have golden rules and precepts of teachers inspired and uninspired, but the perfect age waits for some far distant to-morrow. We move in currents. In the vast whirl of modern life, we are caught up like toys, and hurried hither and thither, by the exigent stress of events. Communities and states are the blended products of all individual forces. "In human conduct," say the metaphysicians, "the strongest motive governs the will." In every social or political system, there is a conflict of forces, in which the strongest gains inch by inch on the others and finally dominates all. It is the part of wisdom to give to each influence its due play and scope, preserving that just equilibrium which gives health, strength and harmony. "You cannot serve God and Mammon," saith the teacher. But in all humility I believe that nations can, and must serve both; but happy is that nation that serves God a good deal, and Mammon only a little.

And this brings me to mention the two great forces of modern, and, indeed, of all society, the ideal and the material. I give them these names, though the economist and statesman might call them something else. They are both necessary. One is the soul, the other the body of our social system. They are not enemies but friends. I shall not forget that I am addressing students of an industrial school. In the coming days you are to be workers, but you are to be thinkers too. The farm and the mill and the railway are to be yours. Steam and coal and electricity are to be your servants. I am sure you will not be offended when I tell you these are but means to be used, and not ends to be gained. I am coming to dangerous ground, but I must speak what I think, or I have no right to speak at all. The youngest student here has heard the word "practical." To many ears it is the sweetest word in the language. I blush for my own audacity when I tell you that in my opinion it has been a trifle over-worked. Good in itself, and filled with beneficent possibilities it has been made the excuse for unworthy aims, and degrading statesmen of all sizes, have told us that the great need of the age is practical men and women. They said so thirty years ago, Mr. President, when you and I sat side by side in that little old school house of blessed memory. We live in a practical age and need practical men. Undoubtedly the assertion is true, but as Captain Cuttle wisely remarked, "the bearing of this observation lays in the application of it." What do you mean by practical? If you mean faith, and courage, and honor, and charity, I am in favor of it. But the gospel of the hour is the gospel of material success. Hand me down a star, says the practical man, and let me sell it. Teach me the secret of the universe, and I will put it up at auction. I am sure the students of this college will protest with me against that spirit of selfishness which reduces all motives and all ambitions to the dead level of commercial value. The market reports do not tell us what truth is worth to-day—perhaps because there is so little demand for it. But I say unto you that if all our prairies were covered with practical men, thick as the daisies on a New England com-



WASHBURN COLLEGE, TOPEKA.  
REV. PETER MCVICAR, D.D., President.

mon, they would be worth less than one man who stands for the truth though the heavens fall. If you are to be farmers I beseech you to raise good wheat, for good wheat makes good bread. But remember that man does not live by bread alone. He needs the companionship of kindred minds; he needs love, joy, and the sympathies that grow in tender hearts. There was once a royal ploughman, who followed his team along the hillside, singing his idle songs, and shocking the souls of his practical neighbors; but the whole world rejoices that God gave us Robert Burns. The lowliest occupation is noble if you give it the sweetness and grace of a beautiful sentiment. As quaint old George Herbert expresses it:

"A servant with this clause  
Makes drudgery divine,  
Who sweeps a room as for the laws,  
Makes that and the action fine."

Again, I say: If you are to be farmers be good ones. Get your crops in at the right time; and if, by the side of your onions you should plant a little patch of marigolds, the ground upon which they grow will not be wasted.

To be sentimental is supposed to be a luxury indulged in by young ladies only. But a few years ago this whole nation was in arms for a sentiment. The love of kindred, of home, of country is but a sentiment, an emotion if you please, which shows no tangible profits. But I am glad the Declaration of Independence has no coupons attached. I am glad there are those who believe the American flag is more valuable than the quartermaster's stores under it.

"Of what avail are plow, or soil,  
Or land, of life, if freedom fail?"

For twenty years the material seas have been surging like a mighty river over our social system. Wealth has increased, and we have learned to love it. They say truly who tell us we live in a practical age. I hope you will believe with me, that it is fully as practical as it ought to be, and needs no stimulus to increase its active forces. The practical takes care of itself. It follows the railroad, opening its temples of trade before the iron horse has had time to rest. It traces the walls of the future city. It establishes a store, and a branch store. But if the modern Romulus will lay out a park and establish a public library, he will do more for the welfare of his town than if he would persuade the railroad company to build its round-house there. There was a foolish man in New York—Theodore Thomas by name—who believed that one of the greatest needs of the American people is good music. Year by year he pursued his ideal mission, and no one who has heard the noble orchestra but thanks him for bringing the harmonies of the upper world down to our common lives.

Yes, we believe in a practical age; but sometimes it goes wrong. The lilies are

here again, even as they were in the days when Solomon tried in vain to rival them. Can you tell me why God endowed us with the sense of beauty? Why did he make the sky, the clouds, the sunset? Yes, more; why did he give us love, and laughter and tears? Is it possible that even God is not practical?

I wish I could summon you, young men and women, to take the highest side of every question. If some cynic inquires "Is life worth living?" answer "yes," then prove it by your own lives. The artist who said he mixed his paint with brains, spoke for every true worker. It is the heart and not the hand of the toiler that dignifies his labor. If a purpose is great the result cannot be small. It is not for wheat and cattle and corn that the men of the early days came to Kansas. They came to plant freedom in the commonwealth. They dedicated you and all that shall come after you, to the science of sentiment, a thousand times more valuable than all the flocks and fields within our borders. There is no age so prosaic as to have no wrongs to be righted. I would rather side with Don Quixote, that immortal dreamer, charging embattled wind mills than to live with no other aim than material success. It is a great thing to make two blades of grass grow where but one grew before; but it is infinitely greater to make truth grow in the place of falsehood, and courage in the place of fear.

I pray you, do not misunderstand me. I know you cannot live on fine sentiments. I only insist that the material forces in our civilization are so strong that they need no stimulus. They assert themselves in every form. They are positive and aggressive. They feed on man's ambition for power, and for display. The prominent place given to scientific studies in our educational institutions for the past generation, has unconsciously strengthened this tendency. The Tyndalls and the Huxleys have done a noble work, but they have led many people to believe that only such phenomena as relate to physical science are of any value. But standing face to face with the students of an industrial school, I tell you plainly, science falls of its true purpose if it does not give you a glimpse of something higher and better than itself. It has grander objects than to enable a man, as Wordsworth says:

"To peep and botanize,  
Upon his mother's grave."

Give it a human life. Teach the chemist, the geologist, the astronomer, they are but servants and ministers of a higher wisdom than their own. We are forever glorifying success. Every eye kindles at the story of modern achievement, but it is hard to comprehend the silent power of truth, wrought out by some unobtrusive worker in the loneliness of his own thoughts. "The world is too much with us." Night and day you can hear the grinding wheels. The thoroughfares of life are crowded with a mighty host, surging onward together, sounding victorious trumpets and proclaiming the glory of triumph. It is but natural that we should fall into the current. Yet I am sure we shall be better men if sometimes we can get within range of other influences. Eighteen centuries ago there appeared upon the earth a Prince of David's royal house. Around him gathered a throng of expectant followers, eager for the coming of his kingdom. They dreamed of an empire that should surpass the splendor of Babylon;

(Concluded on page 4.)



## The Stock Interest.

### PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

September 30—Clay Co., Mo., Short-horn Breeders' Association, Liberty, Mo.  
October 9—C. S. Richholtz, Wichita, Kas., Short-horns  
November 6—S. E. Ward & Son, Short-horns, Kansas City, Mo.  
November 20—Jos. E. Miller, Holsteins, at St. Louis, Mo.

May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.

### Roots as Stock Feed.

Mr. R. K. Slosson, of Verona, Illinois, writes to the *Western Rural* some pertinent thoughts on this subject. We believe that farmers in Kansas ought to devote more attention to roots as stock feed. They take the place of grass when cold weather comes. They are great health preservers, and when land becomes more valuable, as it will soon, they will be found to be economizers as well.

We quote Mr. Slosson: The English farmer raises mangolds for cattle and turnips for sheep, whereas the American farmer raises neither only on a very limited sense. It is understood in all lands that roots are healthy food, which should be a sufficient inducement to raise them. The English farmer from sheer necessity of making the most off from the land he tills learned the lesson of economy that root feeding taught him. He found that ten tons of roots were worth more to him in the health and growth of his stock than hay or grain that could be raised on the same ground, and he practically applied the lesson. Now mangolds and turnips are not equal in value as food to carrots and sugar beets—why then does he not raise these instead? We suppose because mangolds and turnips yield more to the acre, and with less work; and then the turnips are eaten by the sheep in the field without pulling at all. Movable fences are used to enclose the ground according to the number of sheep, and they are kept till the turnips are consumed without much attention. This ground grows enormous amounts of mangolds to the acre, a cheap and abundant supply from little land. As our country grows older, land higher and economy more urgent we shall follow in their footsteps, but we expect our roots will be more carrots and sugar beets, because there is considerable more nutriment in them than in the other, and besides we shall have to keep them from freezing. But if it be more profitable to raise roots why do not farmers here raise more now? Roots are raised to some extent where land is worth one hundred dollars or more per acre, but it is far from general, even there. It takes labor to raise roots, and so it does everything else grown on the farm. But the western farmers laugh at us when we talk about raising roots for stock. The truth is his land is yet comparatively cheap, and the great mass of farmers own from 160 to 640 acres. They have plenty of pasture, hay, corn and oats, what need have they of fussing among the weeds to clean out acres of roots so that a respectable crop may be obtained? They deem it of vastly more consequence to devote their time and energies to the raising of wheat, corn and oats, and as long as land is not worth more than sixty dollars per acre, they will not condescend to stoop to pull weeds from about tiny carrot roots; not they. They have not yet learned the value of them and cannot be expected to save money in that way. Plenty of hay and grain, what more do they need? But western farmers are sadly deficient in matters of economy, as any one may see by the great number of agricultural tools turned up against the fence to winter. This is a fast end of farming in the West which would cause an eastern

man to wonder how they lived at all and come out with a clean balance sheet at the end of the year. But time and experience is the great healing ointment for these unsightly sores, they will heal in due time and a more rational economy will supervene, new methods be introduced, and thousands saved which are now annually lost. Roots should come into more general use, because they promote the health of animals—a less area of land is required to feed a given number of animals, which is so much gained for other crops, and the surplus grain raised is a clean gain from raising the roots. Then we believe young stock will gain more pounds of bone and muscle than if fed in the usual manner, because being healthy, their appetites are kept good—the roots answer another good purpose, that of stuffing.

By the way this matter of stuffing with coarse but healthy food is really a *sine qua non* to rapid growth. It develops a large and strong stomach whose mucous coat is susceptible of great digestive powers, just what the animal needs to be putting on the most pounds of fat in the shortest time, by the use of the fattening but heating corn meals. These reasons one would think would compel belief in the economy of using roots, but new settled countries with cheap lands of great fertility rather induces to wastefulness and non-attention to what they esteem minor considerations in the cultivation of the soil and raising animals. The age of the country and natural progress, linked to financial results will overcome false ideas and substitute the practical experience of those who are better competent to give advice. We once had a single cow, and we raised carrots and sugar beets for her—that cow gave milk and she gave a common wooden pail full twice a day. That cow had simply good hay and these roots, but she gave a good quantity of rich milk, and her butter was yellow and of excellent quality. Allow us to say right here that sweet corn sown just thick enough to have small stalks well cured with roots would furnish rich milk and superior butter. Much grain is too heating for milch cows. The most careless farmers or their children will learn old or new economical methods when the spirit of necessity pricks them in the region of the pocket, and so we have no fears, but ultimately we of the West will adopt the sober second thought of well tried experience, and abandon some of the hardy foolishness that unthinking independence has thrown about us.

### Digestive Organs of Cattle.

The greatest obstacle in the way of successful prevention and treatment of disease is ignorance of the animal and human structure. If we knew more about the anatomy and physiology of living organisms, we would be much better equipped for the proper handling of stock. The FARMER has aimed to give useful information from time to time on this important subject.

It is from digestion that our profit in raising animals comes. A dyspeptic horse or cow is no better than a dyspeptic man so far as robust health is concerned. Unless the digestive organs are in good condition, the animal will not thrive. Our efforts to produce rapid and healthy growth by stimulating natural functions without producing disease will be materially aided by a knowledge of what the digestive organs are and how to deal with them.

The operation of animal anatomy is continuous. The various organs are always at work. New matter is coming in and old going out. Every tissue of the structure is undergoing change at all times. The intestinal organs are the

machinery through which the supplies must pass in order to get into and out of the substances of the body.

The masticating machinery of the ox consists of twenty-four molar teeth, or grinders—six in each row—and eight incisors, or nippers, which are situated in the lower jaw, their places in the upper jaw being supplied by an elastic pad; these incisors are not as firmly fixed in the jaw as are those of the horse, a provision of nature which prevents them from injuring the elastic pad in the upper jaw.

Deglutition or swallowing needs the assistance of slippery moisture. This is furnished by glands which secrete saliva and impart it when the chewing process is going on. There are at least three of these glands delivering their secretions by different ducts into the mouth where the food is moistened and made ready for swallowing.

The gullet, *oesophagus*, in the act of swallowing operates very much like one's fingers when slowly pressing milk from a cow's teat. The muscles move in such order as that those above and nearest the descending food urge it farther toward the stomach.

An ox's stomach is divided into four parts. It is often said he has four stomachs, but this is not true, the divisions being only four parts of one organ. Each of these receptacles has to perform a particular part of the work of digestion. The coarse, rough food, after being chewed into "cuds" is sent through the gullet into the *rumen* or paunch, which is the largest of the four receptacles. It is from this one that the "cud" is returned to the mouth for remastication. A study of this part of our subject will help people understand the philosophy of cattle dying from overeating dry cornstalks. The rumen is filled with dry material which requires more moisture to move it than it can get from the animal's body. It becomes dryer rather than moister, gas is produced, the animal bloats or dies from inability to empty the paunch. Could the contents of the rumen be moved and returned to the mouth and be there again subjected to mastication and salivary softening, there would be no danger.

The *reticulum* or second stomach, which lies immediately at the gullet's end, is lined with honey-comb-like cells. In this is deposited water and soft foods which cannot be retained in "cuds."

The mainfold, *omasum*, third stomach, is so called because it is made up of a hundred or more folds or leaves. It lies between the second and fourth receptacles, a kind of half-way house between them, and receives the product of the second mastication.

The fourth stomach, *abomasum*, is the finishing department of the establishment. It is furnished with a soft lining and numerous little teat-like projections. This stomach, in the calf, is called rennet, and is used in making cheese. After having been prepared in the other stomachs, the food is passed into this one, and then the real digestion is begun. The fluid that acts first in digestion is called the gastric juice. It is secreted by the little teat glands all over the inner surface of the abomasum. The chyme, that is, the food saturated with the gastric juice, is then set forward into the first small intestines, where other fluids come in to complete the process of digestion. The bile from the liver, through the gall bladder, and pancreatic juice from the pancreas, or sweet-bread, do their work here. These operate to divide that which is to be used from that which is to be cast away. The part to be assimilated soon reaches the blood where it is sent out to all parts of the body and used up in muscles, fat, bones, etc.

This description ought to teach us

that if we would preserve good health in our animals of the cow kind, it is very important that we take good care of the first stomach so that it can perform its functions unhindered. This excludes the use of dry, pithy food, like corn or cane stalks dried, in large quantities. If we find that cattle have eaten such stuff largely, we should give water to them at once. And when cattle are in stalk fields they ought to have water often. The better way is to let them remain but a short time in the field, having had water before going to the stalks.

The same precaution is needed in case of early pasturing. When stock first taste green grass in the spring they hurry and fill up the stomach with grass not well masticated, and it produces gas. The animal swells out like a drum, and unless some movement of the coarse mass in the first stomach can be moved and that soon, death is inevitable.

There are many other thoughts pertinent, but we have written enough for one time.

### Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellow-men. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Power's Block, Rochester, N. Y.

Every apple, pear or peach that is not intended for use should be destroyed, either by throwing them into the pig pen or turning the hogs and sheep into the orchard. Let none remain, either green or ripe.

Mr. George Wells, architect, Kansas City, Mo., writes that he has for some time past used Leis' Dandelion Tonic for torpid liver, deranged stomach and loss of appetite, with the happiest results. He considers it a very valuable medicine.

A. B. Allen thinks that a point which Merino sheep breeders ought to look after now is the breeding off of the horns, holding, with good reason, that no benefit follows their existence.

Cuts from barbed wire fence, cured with Stewart's Healing Powder. No scar or gray hair, 50 cts a box.

## An Old Soldier's EXPERIENCE.

"Calvert, Texas,  
May 3, 1882.

"I wish to express my appreciation of the valuable qualities of

## Ayer's Cherry Pectoral

as a cough remedy.

"While with Churchill's army, just before the battle of Vicksburg, I contracted a severe cold, which terminated in a dangerous cough. I found no relief till on our march we came to a country store, where, on asking for some remedy, I was urged to try AYER'S CHERRY PECTORAL.

"I did so, and was rapidly cured. Since then I have kept the PECTORAL constantly by me, for family use, and I have found it to be an invaluable remedy for throat and lung diseases. J. W. WHITLEY."

Thousands of testimonials certify to the prompt cure of all bronchial and lung affections, by the use of AYER'S CHERRY PECTORAL. Being very palatable, the youngest children take it readily.

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Dr. J. C. Ayer & Co., Lowell, Mass.

Sold by all Druggists.

Cures all Open Sores on Animals from any cause.

At Harness or Drug Stores.

50 Cents a Box.





## In the Dairy.

### Cheese as Food.

Dr. L. B. Arnold had his attention called to this subject in relation to its digestibility and its wholesomeness. In both these respects he says the complaint lies, and then he proceeds to discuss the subject. The conversion of milk into cheese, he says, is unlike the preparation of any other article of food. Cheese, when properly made, and thoroughly cured, so that all of its substance is available for food, has twice the value of butchers' meat for sustaining life, and is quite as easily digested, and as wholesome. But all cheese, even when well cured, is not equal to its highest possibilities. Many circumstances interfere with its perfection. In the first place, good cheese can only be made out of good milk, and this is not always at the command of the cheese maker. The milk which was good when it came from the cow may not be so when it reaches the cheese vat; it may be sour or stale, or uncleanly; and, further, milk itself is liable to wide variations in its constituents, thereby varying the quality of cheese made from it. But these are only accidental irregularities, that are not always present, and cheese made from milk which is free from them are avoidable, and do not, in fact, give much ground for complaint against the use of cheese. There are other things connected with the use of cheese equally avoidable, which give rise to well-grounded complaints, that are telling heavily against its good name and use. Bearing in mind the indigestible, and consequently unwholesome, condition of newly-pressed curd, or, as it is called, green cheese, and remembering that this condition only abates gradually, as the cheese advances in curing, the ill effects of putting it into consumption too soon, while it is yet in its green state, will be understood. Those who at all familiar with the traffic in cheese know very well that much of the cheese of commerce, when it goes into consumption, is too imperfectly cured to have its food value fully available. It is so indigestible as to be unhealthful, and it is used at a loss because much of it is not digested at all. Thus the practice of thrusting green cheese upon the markets gives rise to just grounds for objections to its healthfulness and value, and greatly restricts its consumption, all of which would be obviated by retaining the goods in the curing room till they are fit for use. There are several reasons why this is not done. One is, that if fairly made, cheese acquires an agreeable flavor before it is much cured: another is a desire on the part of the producer to save shrinkage, labor in caring for it, and to realize on it as soon as possible; and a third reason is that much of the hot-weather cheese, from being imperfectly made, and the use of bad rennet, is so short-lived that it must be disposed of while young, or it would spoil on the maker's hands before curing was possible. All these causes conspiring, together with a total ignorance on the part of the makers, middle-men and consumers as to the actual state of facts, tends to push cheese on to the markets when it is so little cured that it can only be about half digested, and therefore justly liable to the charge of unwholesomeness, which would not lie against cheese properly made and cured.

It can hardly be thought extravagant to say that the great bulk of factory cheese goes into consumption in a condition so immature and indigestible as to be unfavorable to health, and at a sacrifice of half its possible usefulness. In fact, the public judgment rates cheese at only half of its possible value.

The average price of cheese is not above that of butchers' meat, if it is as high. Perfect cheese, having twice the life-sustaining power of meat, ought to bring twice as much. The fact that when used as an article of necessity a pound of it brings only the price of one pound of meat instead of two, is evidence that practical use accords to it but half of its possible merit. There is no need of such a sacrifice in the use of cheese, for it can be, and some of it is now, made so that it is as unobjectionable as bread, and can be eaten by invalids with impunity; but the sacrifice will continue till persistent discussion forces a better knowledge of the causes of its dietetical defects.

### Measurement of Milk.

We agree with a contemporary in stating that if the tests of noted cows were made known in quarts instead of pounds, the experiments would be more easily understood. It may be supposed that every farmer knows how many pounds of milk are contained in a gallon, but the common custom of measuring with the liquid system is not easily usurped, and we may safely assert that there are hundreds of farmers who read of the yields of cows, given as so many pounds of milk, and yet do not feel competent to state what that quantity should be in liquid measure. The method of weighing by the scales also misleads, as the quantity is usually seemingly larger than that from good dairy cows; but give the record in quarts, and every farmer understands the quantity at once.

Milk does not weigh the same under all conditions. A gallon of new milk should weigh eight pounds and eight ounces, or two pounds and two ounces per quart. It requires a pencil and paper for the farmer to reduce a certain number of pounds to the more familiar quarts, owing to the weight of a quart exceeding two pounds, and with a fraction to contend against. Again, skimmed milk weighs an ounce more to the gallon, or eight pounds and nine ounces, while cream weighs only eight pounds and four ounces. Buttermilk, however, weighs eight pounds and eight and a half ounces, and the fraction in that case is a bother. Few farmers read milk records closely when pounds are given, for they do not wish too much arithmetic in simple statements, although the weight system may be preferable at times, but give the production in quarts, and greater interest will be created in the tests, for the easier and more thoroughly understood the experiments, the better for those who make them and for those who are indirectly interested.

Asthma and Bronchitis cured by Dr. King's New Discovery for Consumption. Trial Bottles free.

There is no variety of apples that suits the entire country. This fruit has certain kinds adapted to particular sections, and in setting out an orchard this should be considered.

**YORK NURSERY COMPANY**  
(Established 1870). Nurseries and Green Houses at FORT SCOTT, KANSAS. Largest Stock of Nursery and Green House Plants in the West. BEAUTIFULLY ILLUSTRATED CATALOGUE now ready. Mailed to applicants free.

**Elk Valley Herd of Recorded Poland-Chinas.**



BRED BY J. WRIGHT, ELK CITY, KAS.

My stock was selected from the best herds in Illinois, Indiana and Ohio. Young stock for sale; also high-class Poultry. Send for catalogue and prices. JOHN WRIGHT, Elk City, Kas.

## BREEDERS' DIRECTORY.

*Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.*

### CATTLE.

**U. P. BENNETT & SON**, Lee's Summit, Mo., breeders of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

**POWELL BROS.**, Lee's Summit (Jackson Co.), Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Fowls. Stock for sale. Mention this paper.

**W. A. POWELL**, Lee's Summit, Mo., breeder of the Poverty Hill Herd of Thoroughbred Short-horn Cattle. Inspection and correspondence solicited.

**DR. R. PATTON**, Hamlin, Brown Co., Kas., breeder of Broadlawn Herd of Short-horns, representing twelve popular families. Young stock for sale.

**J. M. MARCY & SON**, Wakarusa, Shawnee Co., Kas., breed Thoroughbred Short-horns of fashionable families. A few yearling bulls and young cows left for spring trade. Correspondence solicited.

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**HOLSTEIN CATTLE AND SHROPSHIRE SHEEP** bred and imported by Jos. E. Miller, Ellwood Stock Farms, Belleville, Ill.

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## SHORT-HORN CATTLE



IMP. BARON VICTOR

**W. A. HARRIS**, Linwood, Kansas. The herd is composed of VICTORIAS, VIOLETS, LAVENDER BRAWN BUDS, SECRETS and others from the celebrated herd of A. Cruickshank, Sittytton, Aberdeenshire, Scotland. GOLDEN DROPS and URRS, descended from the renowned herd of S. Campbell, Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLLISES, LADY ELIZABETHS, etc. Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOSTER head the herd. Linwood, Leavenworth Co., Kas. is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.



(Continued from page 1.)

whose arms and power should cover the earth; whose legions should march in conquest where even Rome had stayed its imperial steps; whose banners should stream in every breeze until all the nations should bow in submission to him, the King of kings. But he said unto them, "The kingdom of God is within you."

The great central error of the advocates of the purely practical in social relations is, that they ignore the idea of duty. I owe you nothing; you owe me nothing. If there is not room for both of us I shall crowd you to the wall, and you may do the same by me, if you can. This, it is said, develops strength of character, and that independence of thought and of action so necessary to our social well-being. Undoubtedly there is much force in this position, but strength is not the only element to be considered in the formation of character. It is not the size but the quality of fruit that determines its value. Turn me loose, says the apostle of the practical, and let me grow; as for the State it must keep its hands off; it must not interfere with the liberty of every man to make the most of himself—and the least of everybody else. This is what the French call *Laissez Faire*, the gospel of social freedom, misnamed "individuality." The State must go to the rear while individual effort strides forward to the front. Some of the greatest thinkers advocate this doctrine, and it is undeniably a force of enormous power in modern civilization. At the risk of being considered old-fashioned, or even eccentric, I venture to enter my protest against *laissez faire*. I do not believe that the State should be a mere negative, but a positive and distinct force. If it may say "no" to the criminal, it may say "yes" to every influence that maketh for righteousness. I believe it is right for the State to help those who help themselves; but I believe it is still more right to help those who never get a chance to help themselves. I believe, if you choose to give it that name, in a paternal government,—one that considers none of its citizens as orphans. *Laissez faire* believes the relation of the government to the people is one of convenience only—for the appointment of policemen. I believe it is that and a good deal more. I believe the State has the right—if it has the wisdom—to make policemen unnecessary. Herbert Spencer says, the sole function of government is to administer justice; and he may well say that, for justice touches every point of human interest. It is promoted not only by punishing larceny, but by teaching men to be honest, and the State has the right—if it has the wisdom—to do both. On the banks of the Hudson, in a place of grand historic memories and marvelous natural beauty, the nation has established a school where young men are taught how to kill. Good citizens do not complain that they are taxed to maintain West Point, for they know that some day the beardless youths whom a paternal government has placed there may command our armies and uphold the honor of the American name. But the same principle which gives the State the right to establish a military training school, gives it the right to establish an agricultural college on the banks of the Blue, and a State University on the banks of the Kaw. But *laissez faire*, always practical, grumbles, and says, can you rightfully tax me to educate somebody else? To such an inquiry the State will answer: If your money is your own, take care of it yourself, and expect no help from the State. But the better answer is, "no, it is not your own. It represents all the influences which working together enabled you to get it; it represents the intelligence, the moral influences, the habits of industry, the spirit of enterprise, the respect of law, which have made it possible for you to have money. All rights are relative. The only individual right that any man can legitimately claim from the State, is that he shall be treated precisely like every other man in the same situation. That is justice; the justice which is the majesty of States, and the glory of every commonwealth. "The world is governed too much," is the cry of the man who prefers not to be governed at all. It is true we have too many laws, but not enough law. Nothing can be more illogical, it seems to me, than the position of those social teachers, who oppose any attempt by the State to

keep up with the changed conditions which modern civilization has brought about. When Abraham and Lot, out on that wide eastern plain, found that their herdsmen were at strife, it was an easy matter to settle it. "Is not the whole land before thee? If thou wilt take the left hand I will go to the right, or if thou depart to the right hand, I will go to the left. And Lot lifted up his eyes, and beheld all the plains of Jordan, fair as the garden of the Lord, like the land of Egypt, as thou comest unto Zoar." And so they separated, and the quarrel was over. But put Abraham and Lot in the midst of the clang and clash of to-day. Surround them with fifty millions of restless people; give them a taste of Wall street, and the rush and whirl of our business life. Startle them with telegrams, and beset them with embezzlements and defalcations; let all the forces of our modern life be turned on at once, and the poor old patriarchs will tell you that *laissez faire* is about right for a cattle dispute on the plains of Jordan, but entirely too small for the nineteenth century. The governing power should always be proportioned to the places which are to be controlled. *Laissez faire* reverses this principle, and insists that as society becomes more complex, and the forces within it more numerous and violent, there is less and less need of governmental attention. This is like saying that a fish-smack requires care and skill in navigation, but a steamer laden with human lives should be left to run itself.

The disciples of non-interference condemn legislation on matters of mere personal interest. You must not touch trade or commerce. You must not interfere with the laws of political economy. Labor and capital will take care of themselves—especially the latter. In other words, this kind of statesmanship tells us that the very questions which everybody else is considering the State must not consider. Every newspaper and every magazine is filled with discussions of economic questions. The banker and merchant are talking about them. The artisan as he goes to his shop broods over them. They make him discontented when he compares the things that are with the things that might be. But it is urged that no government is competent to deal with problems of such complexity. This, indeed, is largely true, but should government therefore fold its hands. *Laissez faire* says "yes." Common sense says "no." That there are many evils in our economic conditions no one will deny who is not interested in perpetuating them. When the whole country stands breathless upon the result of a single throw of the dice-box, a single venture on the stock exchange, there must be something wrong. It may be beyond your wisdom or mine to find the remedy, but if fifty millions of people should resolutely try to find a remedy, who knows but they might succeed? But stop, says *laissez faire*, government interference will disturb values. There is a grim irony in this suggestion, when we remember how the practical men who control the stock operations of the country have used values as kites to be flown, or plummets to be sunk with the joyous freedom of children at play. Yes, the bulls and bears have an almost human tenderness for values. Without restraint or hindrance from government, stock gambling has many times brought ruin and disaster upon people far away from the scene of operations, and who never owned a share of stock in their lives. Government interference could not make matters worse. Indeed, when the inevitable panic that follows comes, the sick and weary gamblers are the first to ask the government to come to the rescue, as Secretary Folger did the other day. In the general wreck and crush of fortunes *laissez faire* lifts its drooping head and calls upon the government to be father, mother and nurse. By and by, when Northern Pacific gets out of the hospital and Western Union feels its pulse beating again, the government will be politely told that it can go back to its regular business—whatever that may be.

We are told by practical thinkers that the State has no right to interfere with prices. This may be so, but it seems to me it has a right to prevent others from interfering. If the State cannot reduce, for instance, the price of coal, it can prevent combinations to raise the price. It can say to the dealer, if you must have *laissez faire*, let your customers have it, too. The most strik-

ing tendency of our business life is the tendency towards combinations. Smith and Jones, who are rival hatters, carry on a war of competition, which gives but small profit to either. "Stay," says Smith, "a happy thought; let us be friends; we are fools to fight each other—the public is our natural enemy." And so they combine, and two-dollar hats now cost three. In a little while Smith and Jones are kings. If Brown or Robinson starts an opposition hat store, they know how to deal with him. They either take him into the combination, or break him down—sometimes both. Another happy thought strikes one of the kings: "Let us take out a charter and become a corporation." They do so, and Smith and Jones have become "The Great American Consolidated Hat and Cap Company," capital one or two millions of dollars, to suit the taste; and it is the same old stock of hats. This is but a leaf of every-day history. Where combination is possible, competition is impossible, said George Stephenson, many years ago. How rapidly all the industries of the country are gathering into vast aggregations is shown by Mr. Lloyd in a remarkable article in the *North American Review* for June. Coal, iron, cotton, glass, lumber, chemicals, sugar, barbed wire, oil—everything we eat, drink or wear, is wholly or partially controlled by combinations whose sole object is to keep up prices. Those who engage in these combinations do not think they are doing wrong—at least not very wrong. They are respectable gentlemen who are fully conscious that we live in a practical age. Even lawyers sometimes combine to keep up fees; and only a few weeks ago the undertakers of Kansas organized in Topeka, presumably to prevent the cutting of rates for attending funerals. I do not say that legislation can cure the evils that spring from selfishness and greed. But will they cure themselves? With capitalists combined in vast organizations to control trade, and labor organized in guilds and brotherhoods to keep up wages, the situation is strained and unnatural. The result is ill temper on both sides. We all understand what is meant when a thousand men quit work. They have struck for higher wages. But what is meant when a thousand men are notified that their wages are reduced 10 per cent? It means that capital has struck—for higher profits. I cannot understand how one is wrong and the other right. The currents of thought are running fast in the direction of those economic questions. But the impenetrable wisdom of let-alone statesmanship is not disturbed, for it is sure that business principles will carry us through every difficulty. Whether this be so or not, it is certain that business principles, so-called, have got us into whatever complications now exist. Business principles enabled three young men of brief experience to fall for fifteen millions of dollars. Business principles in a single hour swept away the future of one old commander, even as he used to sweep the enemies of his country, with the shot and shell of his victorious guns. I believe business principles which bring about such results are not principles at all but shameless counterfeits. Commercial freedom, in the highest sense, is no doubt essential to our social progress, but freedom is misnamed when it permits one man to rob another, or six men to rob the rest of the community. There are fleets out on the ocean laden with the products of every zone. The mariners toiling homeward are happy when they know Captain Kidd is a long way off. Piracy is a crime by the laws of every civilized nation, but there are many gentlemen with soft white hands and cheeks that never felt an ocean breeze, who think it proper to amass fortune by means which would make an old-time free-booter blush for shame. But who is to blame that such practices grow and flourish under the shield of modern civilization? There are many who are culpable, all of us in some proportion. But chiefly they are responsible who have stimulated and pushed on that mighty force in our social system—the love of material success. *Laissez faire* has won its greatest triumph in the most practical age. It is only the visionary enthusiast who believes that false freedom is worse than none, and that the State as the representative of all should be the protector of all. Strikes and riots are not remedies for, but evidences of, social disease. Communism, socialism, agrarianism, lead only to anarchy,

and anarchy is but *laissez faire* pushed to its legitimate end. The Mosaic law was content to say, "Thou shalt not," but the Divine spirit of Christian morality is ever emphasizing, "Thou shalt." Responsibility is the cardinal feature of social duty. The citizen is not a unit, solitary and alone, like a star in the infinitude of space, but he is part of a system to which we all belong, so united and interfused, that we are all in all, all with all, and all for all. You are my trustee. Have you talents, genius, imagination, hope? They are mine. They are his, whoever he may be, who hungers after them. Give them to the State, so that codes and laws and institutions shall be humanized and made alive. "Government," said our great thinker, "is not a fossil, but a plant." It must grow. The steps we take toward better conditions must be largely tentative. How often is the foolishness of to-day the wisdom of to-morrow.

"and may be wildest dreams  
Are but the needful preludes of the truth."

Yonder rise the walls of the ideal State, justice, truth, courage, faith, and above them all, based upon all law, "whose seat is the bosom of God, whose voice is the harmony of the world."

We learn that Mr. J. W. Wellhouse, of Fairmount, Kas., President of the Horticultural Society of the State of Kansas for a number of terms, and widely known throughout the Missouri valley as one of the most energetic and progressive members of the guild of horticulturists, has ordered the largest single evaporator ever erected west of the State of Delaware. It will be a special size (No. 9), and will be made by the Plummer Fruit Evaporator Co., of Leavenworth, Kas. Its capacity will be 800 bushels per day. This is his second order for factory-size Plummer evaporator. Mr. Wellhouse has spent the greater portion of his life in the fruit business, and is impressed with the idea that the evaporation of fruit is the coming process for preserving it, and, accordingly, he has provided himself with the celebrated Plummer evaporators for the purpose of handling all the fruit he can grow. When the market is weak, he proposes to evaporate and ship to European markets all he can produce. He is the largest fruit-grower in the State of Kansas, having 437 acres of orchard, containing 48,000 bearing apple trees.

When their queen died, the poor people of Madagascar wore no clothes for a period of thirty days. This is a good deal cheaper than the American plan of bankrupting yourself in a mourning store.

THE 2  
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KING OF THE TURF  
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### Our Public Schools.

They are the people's institutions of learning; they are established, not in a spirit of philanthropy as we would carry needed supplies to a poor family, but from a motive of State policy in the interest of progress and good citizenship; they are organized that every boy and girl in the land may be equipped with means of self-help, that they may be enabled to take care of themselves, attend successfully to their own business and grow up into useful and helpful citizens, competent to work their own way through life and not become burdens upon the community. The public school is intended to supply a practical education to the young people who are every year going out into the great world of strife, an education that fits them for the ordinary business of men; an education that is capital in trade, ready for use in emergencies that lie scattered all along the way.

Let us consider a moment in detail a few features of what this practical education ought to be. Mr. A. and Miss B., farmer's children, we will suppose, contemplate marriage and to enter upon married life as farmers. They purchase a piece of land of irregular form, and they agree to pay a certain number of dollars per acre for it. How much must they pay? How many acres are in the tract? Can A. and B. or either of them measure it, or must they employ a professional surveyor? Having agreed upon the price, it is paid. Then, a house is to be built, lumber and other materials must be supplied. How much of the different kinds of lumber will be required? There will be 2x4, and 2x6 or 8 or 10, 4x4, and perhaps other dimensions. Then flooring, and sheathing, and shingles and finishing lumber. If the rooms are to be plastered, how many yards of this kind of work will be necessary and what will be the expense? And painting at so much a square of 100 feet, how much will that cost? When the house is completed, perhaps it is to be carpeted. How many yards will be required? The material may be 27 or 30, or 34 or 36 inches wide, and the rooms may be 10x13 feet or any other size. Can A. and his wife inform themselves how many yards they must buy? If they are tasty and have means at command, they may desire to paper the walls. How many bolts will be required, and what will it cost to put it on?

After the house is built and the new tenants are at home, Mr. A. wants to rent a piece of land adjoining, and on certain conditions. Can he and his wife draw a written agreement of the lease? Then Mr. A. is elected a member of the district school board. The district needs a certain amount of money for school purposes, something for teacher's wages, something for incidental expenses, something for repairs. What shall be the rate of taxation on the property of the district? Can Mr. A. give the per cent?

These are given merely to call attention to the details of common life in which a practical education is needed. Instances are absolutely without number that call for the use of practical knowledge of figures and rules of business. Not a day passes that a farmer does not have to do a little thinking about necessary details or hire somebody else to do his thinking for him. A practical education supplies him with requisite knowledge to handle all these things, and the object of public schools is to furnish this kind of an education. But they do not do it. Go into the schools anywhere and at any time; call up the advanced classes and give to them the dimensions of the rooms and windows of your houses and ask for the cost of plastering, painting and carpet-

ing. Give them the value of the school district property, the amount of taxes to be raised, and the value of Mr. C.'s property; then inquire the per cent. or rate of taxation, and how much C. must pay on his property. The confusion in the classes will astonish you. It is surprising when we investigate, how little our children are taught of what they ought to know. Listen to a recitation in grammar for instance, and note the rapidity of answers to questions about relations, objects, antecedents, etc., and then ask every member of the class to write on the board one sentence of six words, or engage in conversation with them a moment and note how little they know about the correct use of language.

The truth is, that while our schools are doing much good, and the teachers are honestly trying to do good work, they fall wonderfully short of doing what they are intended to do and ought to do. A child starts to school young. One, two, or three terms a year for five to ten years; many weary days it repeats, parrot-like, words, phrases and rules, and at the age of 16, 18 or 20 years, leaves school and cannot tell the cost of a board 11½ feet long and 9½ inches wide at the rate of \$2.50 per 100 feet, or \$25 per 1,000 feet. There are exceptions, we know, but they are not because of the school methods; they are in spite of them. Let every reader of this test the matter in his own experience.

Do you ask how this may be remedied? Think about it. That is the first step. Then organize weekly or bi-weekly meetings in the cooler seasons and discuss these and cognate matters. Have the teachers attend these meetings and learn what their employers want—what their pupils need; visit the schools frequently and take with you some questions in practical life about things with which the children are familiar; put them to the scholars and ask for answers; let them understand that their education is a practical, every-day matter, intended to make life work easier, that it is not in any sense a mere device to keep boys and girls out of mischief, but a stern reality, having intimate relation to the affairs of every-day life. If a man goes into a school room and states that he wants to build a house—foundation stone, superstructure brick, giving dimensions, and appears anxious to learn how many cords of stone and how many thousand brick, allowing for windows and doors and a certain per cent. for breakage, the whole school will eagerly listen; every child will interest himself in the solution of the problem and every quick-witted person in the neighborhood will go to figuring on that house.

Our attention has been called many times to this subject in actual experience. Only a short time ago, we asked a college student to give us the depth of a cistern which we proposed making six feet in diameter, to hold fifty barrels. We did not get the figures. The writer of this has just completed an addition to his dwelling. On one place 14 feet wide it was intended to run forward straight 8 feet and then to close with three faces of equal width, to make the end of the room have three faces instead of one—bay-window-like. The query was, what is to be the width of each face? Then, one room is 13 feet wide and 18 feet long. Query, how many yards of carpeting that is 27 inches wide will be required to carpet the room? Both these latter propositions were submitted to persons that have been at school years, and no answer obtained.

The people are interested in this subject and from them reform must come.

A pound of raw silk contains 280 miles of thread, each thread composed of eight or ten filaments of silk.

### Horticultural Notes.

[The following notes and personals were picked up during the semi-annual session of the Kansas State Horticultural Society held at Junction City.]

B. F. Smith and Dr. Ewart, of Lawrence, both make a specialty of raising strawberries and do a large business both in fruit and nursery stock.

W. F. Schell, of the Hart Pioneer Nursery, of Fort Scott, Kansas, took a decided stand against all Russian apples. No varieties of this apple should be recommended to orchardists, he thinks, at the present time.

It is reported by the orchardists living in eastern Kansas that the Ben Davis apple trees of 12 to 15 years of age are rapidly dying. There is no more successful variety for Kansas, but constant and heavy bearing is having this telling effect.

Miss M. Davidson, of Junction City, made an interesting exhibit of cocoons, also silk worms feeding upon the leaves of the osage orange. The specimens of silk were of various patterns and designs. Silk culture will yet become an important industry of Kansas.

D. G. Watt, Lawrence, has a vineyard of twenty varieties of strawberries. The Crescent, he considers one of the leading sorts. The yield of berries will exceed that of last year. He has 30 acres devoted to fruit and is establishing a small fruit nursery.

C. R. Scranton, Lacrosse, Rush county, informs the FARMER that forest and fruit tree planting is progressing rapidly; the sturdy pioneers of the frontier have confidence in the ultimate success of trees on the plains. Many of the walnuts on timber claims are already bearing.

J. A. Beal, a successful orchardist of Pottawatomie county, favors trimming fruit trees so that the sunlight may permeate to every part of the tree. He is a strong advocate of heavily manuring orchards. He finds that it pays well. There are fifty bearing pear trees in his orchard.

Prof. F. H. Snow, of the State University, Lawrence, Kansas, made a very generous offer to Kansas horticulturists. He will take the trouble to report on any new or troublesome insect that may be sent him. His facilities for examination are of the best and he ranks high as an efficient entomologist.

Judge L. A. Simmons, of Sumner county, is the Henry Clay of the Society, as well the standing committee on geology. He is becoming famous on account of his indefatigable oratory in behalf of the society. As a committee on needed legislation he is preparing a bill to present to the next legislature in the interests of horticulture.

President Gale, of Manhattan, is the clerical member of the State Horticultural Society, and has been the presiding officer for a number of years. In his semi-annual address he stated that we have three million bearing fruit trees in this State and three and a half millions of trees in orchards that have not begun to bear fruit at present.

Wm. Cutter & Sons, Junction City, have the largest orchard in Davis county. It consists of 50 acres. Junction City will long be remembered, especially on account of its musical talent and for their cordial entertainment of the members in attendance at the semi-annual session. Never before at any session has the society had such good musical exercises.

Capt. Frank Bacon, of Chanute, Kansas, Commissioner to the World's Exposition at New Orleans, attended the semi-annual meeting. He has the cordial and individual cooperation of the Society, who will assist him in making the best pomological display for Kansas that will incite the envy of other exhibitors as well as the admiration of the world to our resources in horticulture.

The great tree advocate of the Society is F. Wellhouse, Fairmount, Leavenworth county. He has the great commercial orchard of the west, which consists of 437 acres, all apple trees. In this orchard but five varieties are grown, viz: the Ben Davis, Missouri Pippin, Wine Sap, Jonathan, Cooper's Early White and Maiden's Blush. He expects to gather at least 25,000 bushels of apples this season. The orchard contains about 48,000 trees and was planted as follows: 120 acres in 1876, 160 acres in 1878, and 160 acres in 1879. The orchard is now sown down to red clover. Besides the son

of Mr. Wellhouse, L. B. Wheat is also interested in this remarkable orchard.

Judge M. B. Newman, Wyandotte, is not only the most eloquent speaker of the society, but is the unanimously conceded "lady's man" of the party; the latter distinction was won at the 14th semi-annual session, when he presented in behalf of the ladies of Chanute, an elegant bouquet to the society. Geo. Y. Johnson will now have to take second place.

The members of the Douglass County Horticultural Society, with characteristic enterprise, have inaugurated a new enterprise, a Strawberry Fair. The first one will be held at the skating rink at Lawrence this month. Nearly all the varieties grown in Kansas will be exhibited and the merits will be discussed. The fair, of course, concludes with a strawberry feast.

Prof. J. W. Robson, Cheever, Dickinson county, is one of the most tireless workers in the cause of horticulture, in the State. He is the botanist for the society. His kind manner, his earnest plea for the birds, and his thorough knowledge and strong convictions have won him many friends and encomiums. He is a close and diligent observer and his writings are accepted authority.

Judge M. B. Newman, of Wyandotte, Kas., has been belaboring members of the State Horticultural Society for spending valuable time in reiterating well-known principles and experiments. Let each session give out a number of new decisions of well established principles derived from practical experience, and then in a few years we will have given the public a fund of useful information.

G. C. Brackett, Secretary of the State Horticultural Society, is the right man in the right place. He is not only an efficient and thorough-going worker, but is a practical fruit-raiser. He has 40 acres devoted to the various classes of fruits and is one of the pioneers in the culture of the strawberry. He is very aggressive in his attacks upon frauds and humbugs of all kinds, and has been of immense service to fruit growers in various ways.

A Roman architect discovered the means of so far altering the nature of glass as to render it malleable; but the Emperor Tiberius caused the architect to be beheaded. A similar discovery was made in France during the reign of Louis XIII. The inventor presented a bust, formed of malleable glass, to Cardinal Richelieu, and was rewarded for his ingenuity by perpetual imprisonment, lest the French glass manufacturers should be injured by the discovery of it.

There are about 4,000,000 farms in the United States. There are five States each having 200,000 farms, namely: Illinois, Ohio, New York, Missouri and Pennsylvania.

Celery may be grown without trenches by planting them close together (about eight inches apart each way). To blanch them set the plants in barrels in the cellar.

A Vermont dairyman says a young calf should be fed three times a day. Over feeding at long intervals, and especially with cold feed, kills a good many valuable calves.

Canadian cheese factories expect to make more cheese the present season than ever before. If our dairymen also increase their output we may expect low prices for cheese.

The belief was formerly current that the panther's breath was sweetly scented and enticed small beasts to come within reach of the great flesh-eater.

John Wesley published a dictionary in early life, and put on the title-page: "The Complete English Dictionary, Explaining most of the Hard Words which are Found in the best English Writers. By a Lover of Good English and Common Sense. N. B.—Author assures you he thinks this is the best English Dictionary in the world." In this work a Methodist was defined as "one who lives according to the method laid down in the Bible."



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## The Home Circle.

### Our Homestead.

Our old brown homestead reared its walls  
From the wayside dust aloof,  
Where the apple-boughs could almost cast  
Their fruit upon its roof;  
And the cherry tree so near it grew  
That when awake I've lain  
In the lonesome nights, I've heard the  
limbs  
As they creaked against the pane;  
And those orchard trees, oh those orchard  
trees!  
I've seen my little brothers rocked  
In their tops by the summer breeze.  
The sweet-brier, under the window-sill,  
Which the early birds made glad,  
And the damask rose, by the garden fence,  
Were all the flowers we had.  
I've looked at many a flower since then,  
Exotics rich and rare,  
That to other eyes were lovelier,  
But not to me so fair;  
For those roses bright, oh those roses  
bright!  
I've twined them in my sister's locks,  
That are hid in the dust from sight.  
We had a well, a deep old well,  
Where the spring was never dry,  
And the cool drops down from the mossy  
stones  
Were falling constantly;  
And there never was water half so sweet  
As the draught which filled my cup,  
Drawn up to the curb by the rude old sweep  
That my father's hand set up.  
And that deep old well, oh that deep old  
well!  
I remember now the plashing sound  
Of the bucket as it fell.  
Our homestead had an ample hearth,  
Where at night we loved to meet;  
There my mother's voice was always kind,  
And her smile was always sweet;  
And there I've sat on my father's knee,  
And watched his thoughtful brow,  
With my childish hand in his raven hair,—  
That hair is silver now!  
But that broad hearth's light, oh that broad  
hearth's light!  
And my father's look, and my mother's  
smile,  
They are in my heart to-night!

### The Boys.

Teach them to do something promptly and  
faithfully, if it is nothing more than to go  
for the yeast or gather the eggs. Many boys,  
fresh from school, are seeking places, but,  
while anxious to earn a living, the great  
trouble is they don't know the meaning of  
work. Teach them to use their hands.  
Said a friend of the writer, a college gradu-  
ate: "I don't know how to use my fingers;  
they are good for nothing except turning  
over the leaves of books." What a poor,  
helpless being, in spite of Greek and San-  
skrit! Encourage your boys to use their  
hands. Nailing slats upon a poultry yard  
fence is a good lesson.  
Out of one hundred representative busi-  
ness and professional men in Springfield,  
Mass., to whom the Rev. Washington Glad-  
den sent a circular of inquiry regarding  
their youth, eighty-six returned answers.  
Of these, sixty-four were brought up on  
farms, twelve spent their boyhood in vil-  
lages, and twelve were brought up in cities.  
Six of those brought up in villages and  
cities were accustomed to do farm work,  
and were practically farmer boys, and only  
five reported that they had no work in par-  
ticular to do in youth. To sum up: Of  
eighty-six solid men of Springfield, eighty-  
three were workers in boyhood.  
Parents, do not measure the value of your  
boys' tasks in manual labor by their imme-  
diate results. Training in systematic, per-  
sistent work is worth more to them than  
money. Never mind even if it takes more  
of your time to show your son how to do a  
job than it would to do it yourself, for there  
is no way in which you can spend your val-  
uable time to better advantage than in  
showing him how to spend his time.  
"Ah! Pat, I understand you were bitten  
by a dog yesterday. Do you know if he was  
mad?" "Mad is it? Faith, what right  
had he to be mad?" Shure 'twas meself that  
was mad intirely."

### HAUNTED BY A BALL OF LIGHT.

#### A Curious Apparition Which Comes From an Old Slave's Grave.

The Constitution publishes a curious  
story told by Mr. Alonzo Lyon and vouched  
for by hundreds of the best citizens of  
DeKalb county, concerning what is called  
"Jude's light." Mr. Lyon was raised in  
DeKalb county, Ga., four miles from  
Lithonia, and about thirteen miles from  
Atlanta, one-half mile from Macedonia  
Baptist church, on the Stone Mountain and  
Flat Shoals road. It is in the quiet rural  
hamlet, on the farm formerly owned by his  
grandfather, Edmund Bunt, deceased, then  
after his death bought by Mr. Lyon's  
brother-in-law, Mr. Hartman, and now  
owned by Mr. David McWilliams, that  
"Jude's light" makes its regular appear-  
ance.

About forty years ago a man named Reid  
owned the farm, and he also owned a negro  
woman by the name of Jude. Reid had  
Jude punished for some offense by placing  
her in close confinement and on very short  
rations. Mr. Lyon's mother, who now re-  
sides with him, was a young girl, and says  
she remembers slipping some food to poor  
Jude, and will never forget the eagerness  
with which the famished woman devoured  
it. Jude finally died, it was believed, from  
the effects of cruel treatment and depriva-  
tion of food. She was buried in the woods  
on a hillside across a branch about 300 yards  
from the house occupied by Reid's family.  
No one else was buried there, and the grave  
is to this day a solitary one. Soon after the  
burial "Jude's light" appeared emanating  
from the grave and wandered about the  
house and premises at all hours of the night.  
This "light" manifested so much intelli-  
gence, and struck such terror into the hearts  
of the Reid family, that they sold all their  
possessions and hastily left the State of  
Georgia. The "light" has continued to  
appear frequently from that time to this, but  
never seemed to inspire terror and uneas-  
iness in the breasts of those who visit the  
dwelling often. After Edmund Bunt,  
grandfather of Mr. Lyon, purchased the  
Reid farm, Mr. Lyon lived several years  
with him. He saw the "light" probably a  
thousand times, at all seasons of the year  
and in all kinds of weather. So also did  
his mother, brothers and sisters. Many of  
the neighbors have been present occasionally  
and watched it. The Reid dwelling is situ-  
ated in the fork of two small streams which  
flow together and form Poll Bridge Creek, a  
short distance from the house. The bottom  
land along the creek is here very broad and  
extensive and covered with a dense growth  
of cane and bushes. A field had been  
cleared between Jude's grave and the dwell-  
ing, so that the grave could be seen from the  
house.

"Jude's light" always seemed to come  
straight up out of the grave about eight or  
ten feet high, and, keeping about the same  
distance from the ground, it would float  
slowly off up or down the swamp, or toward  
the house, or up the hill through the woods.  
It would often glide about for an hour or so  
in sight, then suddenly go straight down out  
of view. At such times, said Mr. Lyon, he  
and others had sometimes started for the  
grave with the intention of beating this  
"light" there, in order to see what it was, if  
possible, but none had ever succeeded in  
doing so. By the time they had taken ten  
steps in the direction of the grave they  
would see the "light" returning toward that  
point with railway speed, reaching it before  
the would-be investigators were fairly  
started. It invariably paused an instant  
just over the grave, then dropped straight  
down and disappeared. A visit there imme-  
diately afterward revealed no phosphores-  
cent or other lights. Mr. Lyon described  
the "light" as about the size of a man's  
doubled fists, of a somewhat reddish tinge,  
sparkling somewhat, but not very brilliant,  
and only slightly illuminating the bushes  
and trees in passing among them. The  
nearest Mr. Lyon was ever to "Jude's light"  
was about the distance from the dwelling to  
the small stream in the direction of the  
grave—say 100 yards. His brother-in-law,  
Mr. Hartman, who owned the place after  
Edmund Bunt's death, and lived on it till  
1876, was once within six or eight paces of  
it. On that night his wife and her sister,  
Mrs. Thomas Mize, and himself were all  
awakened from sound sleep just after mid-  
night by some mysterious sensation, and on

looking out into the yard they saw a very  
unusual illumination. Mr. Hartman opened  
the door, and there in the yard was the  
familiar ball of reddish sparkling light. It  
remained stationary a few seconds, then  
slowly glided off in the direction of the  
grave. Mr. Hartman said he was not par-  
ticularly scared, nor were the ladies, but  
each felt that they had been awakened by  
this unusual approach of the "light."

"Jude's light" differs from the phosphores-  
cent lights of the swamp in many respects.  
It is always about the same size, always  
keeps about the same distance from the  
ground, and travels against or in an opposite  
direction to the strongest of winds. It also  
appears in the driest and hottest as well as  
the coldest and stormiest of weather. It  
rarely appears, however, in stormy weather,  
which might be taken to be another indica-  
tion of intelligence. Phosphorescent lights,  
it is well known, can only travel with the  
wind, and also vary greatly in size and ap-  
pearance.

Mr. Thomas Mize, of Atlanta, a brother-  
in-law of Mr. Lyon, was present when the  
foregoing was related, and confirmed it in  
every particular. He lived on the Reid  
farm for two years, and believed he had  
seen "Jude's light" on at least 300 nights  
during that time. The "light" is not seen  
in the earlier part of every night, but both  
Mr. Lyon and Mr. Mize thought it could be  
seen at some hour of every night, if a watch  
were kept for it.

### How to Paper a Room.

An experienced workman in this line thus  
advises: "Don't try to paper with a carpet  
down. Make paste, cut, bordering and the  
paper, the day before. If the wall has been  
whitewashed, it must be washed in vinegar  
to neutralize the alkali in the lime. If pa-  
pered before and you wish the paper re-  
moved, soak with water and it will peel off.

"If convenient, provide a long board as  
wide as the paper, though a table or two  
will do. The paper must be measured,  
placed right side down on the board, then  
with a brush proceed to lay on the paste,  
not too thickly, but over every part, and be  
careful that the edges receive their share.  
When completed, double within three  
inches of the top, the paste sides being to-  
gether; carry to the wall, mount your chair,  
and stick your three inches pasted paper on  
the wall at the top. That holds it; now  
strip down the other, and see that it fits just  
right; if not, peel down, make right, then  
press to the wall from the centre right and  
left. Leave no air under, or when warm it  
will expand, bursting the paper.

"Of course the paper must be matched;  
it will not do to measure by line unless the  
walls are perfectly plumb. Small figures  
make less waste, and a small room looks  
the larger. Stripes make a low room look  
higher, and if there are no figures between,  
or in the stripe to match, there is no waste,  
and no trouble in putting on. If a narrow  
border is the style, let it be bright, if the  
paper be neutral; but if that be bright, the  
border had better be dark and neutral.

"If the paste be made too thick, the paper  
will be apt to crack and peel off; if too thin,  
it will saturate the paper too quickly and  
make it tender in putting on. A counter-  
duster (Brussels brush) is nice to brush the  
paper to the wall. White clean cloths will  
do, but it will not do to rub the paper with  
them; being damp the paint or color rubs  
off the paper. The tables must be dried  
each time after pasting, for the same rea-  
son. Paste under paper must not freeze,  
neither dry too quickly. If white-washing  
is done after papering, place a shingle next  
to the border, or better, tack double strips of  
newspaper wider than the border all around  
the room."

Though the transient springs have failed  
thee,

Though the fountains of youth are dried,  
Wilt thou among the mouldering stones  
In weariness abide?

Up and onward! Toward the east  
Green oases thou shalt find—  
Streams that rise from higher sources  
Than the pools thou leav'st behind.

There is no death! What seems so is  
transition;  
This life of mortal breath  
Is but a suburb of the life elysian,  
Whose portal we call Death.

—Longfellow.

### A Feat of Telegraphy.

We have often heard of the wonderful  
line between this country and Teheran, the  
capital of Persia, a distance of 3,800 miles,  
but we scarcely realized the fact that good  
signals were obtainable through so great a  
length of wire until recently, when we  
availed ourselves of an invitation from Mr.  
W. Andrews, the managing director of the  
Indo-European Telegraph Company, to  
make a visit of inspection. It was between  
7 and 8 on Sunday evening, April 13, when  
we reached the office. In the basement of  
an unpretentious building in Old Broad  
Street we were shown the Morse printer in  
connection with the main line from London  
to Teheran. The courteous clerk in charge  
of the wire, Mr. Blagrove, informed us that  
we were through to Emden, and with the  
same ease with which one "wires" from the  
City to the West End we asked a few ques-  
tions of the telegraphist in the German  
town. When we had finished with Emden,  
we spoke with the same facility to the gen-  
tleman on duty at Odessa. This did not  
satisfy us, and in a few seconds we were  
through to the Persian capital (Teheran.)  
There were no messages about, the time was  
favorable, and the employees of the various  
countries seemed anxious to give us an  
opportunity of testing the capacity of this  
wonderful line.

T. H. N. (Teheran) said, "Call Kurrachee,"  
and in less time than it takes to write these  
words we gained the attention of the Indian  
town. The signals were good, and our  
speed must have equaled fifteen words a  
minute. The operator at Kurrachee, when  
he learnt that London was speaking to him,  
thought it would be a good opportunity to  
put us through to Agra, and to our astonish-  
ment the signals did not fail, and we chatted  
pleasantly for a few minutes with Mr. Mal-  
com Kahn, the clerk on duty. To make this  
triumph of telegraphy complete, Agra  
switched us on to another line, and we soon  
were talking to a native telegraphist at the  
Indian Government Cable Station, Calcutta.  
At first the gentlemen "at the other end of  
the wire" could not believe that he was  
really in direct communication with the  
English capital, and he exclaimed in Morse  
language, "Are you really London?" Truly  
this was a great achievement. Metallic  
communication without a break from 18  
Old Broad Street, London, to the telegraph  
office in Calcutta! Seven thousand miles of  
wire! The signals were excellent, and the  
speed attained was not less than twelve,  
perhaps fourteen, words per minute.—Tel-  
egraphist.

### Recipes.

Lemon butter to fill tarts with is made of  
one cup of white sugar, three eggs, butter  
the size of half an egg, the juice and rind  
of one large lemon. Put this, after beating  
it well, into a bright basin and set into a  
pan of boiling water. Stir it constantly  
until it is thick. Small cakes are nice if  
split and put together with this jelly. It is  
also very nice as a filling for a layer-cake.

A breakfast dish that is especially appe-  
tizing is made by broiling some very thin  
slices of ham. Butter some thin slices of  
toast and lay the ham on them; then pour  
over it a sort of omelet made by beating  
eight eggs with about one cup of sweet  
milk; add pepper and salt, and fry this in a  
sauce-pan in which you have put a lump of  
butter and allowed it to melt. Serve at once  
and while very hot.

A delicious pudding is made of one egg,  
one cup of sweet milk, one large table-  
spoonful of butter, one cup of sugar, a tea-  
spoonful of lemon extract, a heaping  
teaspoonful of baking powder, and flour  
enough to make a light dough as if for com-  
mon layer-cake; bake this; when done  
spread over the top pieces of orange and  
powdered sugar, then pour a sauce like  
boiled custard over it.

Another entree, made principally of cab-  
bage, is prepared in much the same way,  
only after chopping the cabbage add a third  
of cold meat chopped fine. Season highly  
with pepper and salt. After putting it in  
the pudding dish put a layer of fine bread  
crumbs over the top; moisten them with  
milk, and lay small lumps of butter at inter-  
vals over it. Bake for half or three-quarters  
of an hour, the time to depend upon the  
state of the oven.

A good fit—a fit of laughter.



## The Young Folks.

### Mother Love.

No love like the love of a mother  
When trials are gathering fast—  
Though fond is the care of a brother,  
Sometimes it will fail at the last.  
Should you turn from the pathway of duty,  
A sister's affection may fade;  
But mother-love shows its best beauty  
When her child to sin is betrayed.

A father may speak stern and coldly  
If his son has wandered astray;  
But mother will stand forward boldly  
And help him regain the lost way,  
And speak to him kindly, in warning,  
With just as tender a tone  
As she did in childhood's pure morning,  
Ere sorrow and crime he had known.

Ah, no! there's no love like a mother's,  
So noble, forgiving and true;  
We may trust to many another's  
And value it, that it is new,  
To find, when life's sun is shrouded,  
And our pathway enters the gloom,  
Their love for us, too, will be clouded,  
While her's follows us to the tomb.

I sit where the leaves of the maple,  
And the gnarled and knotted gum,  
Are circling and drifting around me,  
And think of the time to come.

For the human heart is the mirror  
Of the things that are near and far;  
Like the wave that reflects in its bosom  
The flowers and the distant star.

### Children in Japan.

Professor E. S. Morse, in his account of Japan, notes that the treatment of children in that country is quite different from ours. The Japanese have the best children in the world, and it is largely due to education and training. Children are almost sacred, treated with great care and kindness, but almost entirely without restriction. Everywhere they are to be found, at theatres, at festivals, playing on the steps of the temples.

The character of Japanese houses saves much trouble about children. There are no stairs for them to tumble down, no furniture for them to fall over, no sticky food with which to bedaub themselves. So there is seldom need to reprove them. They are rarely heard to cry, but when they do break forth they make a tremendous racket, yelling with great fierceness. In his travels through the country Professor Morse only once saw boys fighting, and then they were only slapping each other.

The dress of the Japanese children is the same as that of the adult. The sleeves are open on the inner edge, with a pocket on the outer side. The dress is very simple, easy, and free, with tucks to be let down as the child grows, so that, as the fashions never change and the dress is made of strong silk brocade, or silk and cotton, it will last from ten to twenty years.

The children's shoes are made of blocks of wood, secured with cord. The stocking resembles a mitten, having a separate place for the great toe. As these shoes are lifted only by the toes, the heels make a rattling sound as their owners walk, which is quite stunning in a crowd. They are not worn in the house, as they would injure the soft straw mats with which the floors are covered. You leave your shoes at the door. Every house is built with reference to the number of mats required for the floors, each room having from eight to sixteen; and in taking lodging you pay so much for a mat. They think it extravagant in us to require a whole room to ourselves. The Japanese shoe gives perfect freedom to the foot. The beauty of the human foot is only seen in the Japanese. They have no corns, no ingrowing nails, no distorted joints. Our toes are cramped until they are deformed, and are in danger of extinction. The Japanese have the full use of their toes, and to them they are almost like fingers. Nearly every mechanic makes use of his toes in holding his work. Every toe is fully developed. Their shoes cost two cents and will last six months.

The babies are taken care of on the backs of older children, to which they are fastened by loose bands. You will see a dozen little girls, with babies asleep on their backs, en-

gaged in playing battledore, the babies' heads bobbing up and down. This is better than howling in a cradle. The baby sees everything, goes everywhere, gets plenty of pure air, and the sister who carries it gets her shoulders braced back, and doubtless some lessons in patience. It is funny to see the little tots, when they begin to run alone, carrying their dolls on their back.

Where we have one toy the Japanese have a thousand. Everything in art and nature is imitated in miniature. Toys can be bought for half a cent, and elegant ones for eight or ten cents. There are stands on the streets kept by old women, where little girls can buy a spoonful of batter and bake their own toy cakes. Then comes along a man with a long bucketful of soapbuds, of which he sells a cupful for the hundredth part of a cent (they have coins as small as that) to children, who blow soap bubbles through bamboo reeds. The babies make mud pies and play at keeping house just as ours do. They are taught always to be polite and say "Thank you." If you give a child a penny he will not only thank you at the time, but whenever he meets you again. Politeness, etiquette, filial piety and modesty are taught in all the schools and colleges.

There is no locking of doors, yet the most valuable articles left in your room are safe. A Japanese gentleman inserted in his gate on the public street a most delicately carved pannel, such as we would place in our parlor, and in a period of five years it was not touched or defaced in any way. Noting the contrast this offers to the state of things in our own country, Professor Morse believes it to be owing to our more careless way of bringing up our children. It may be said that the Japanese are naturally gentle; yet they make the fiercest fighters in the world. It is mostly in the bringing up.

### Live Honey Bottles.

Thrusting his hand into a desk, the fruit dealer brought out a small box, uncovered it, and lifted out an insect of such curious shape that it seemed impossible that it could be a living reality. Putting his finger under it, the dealer lifted out an ant with a small, black head and an amber-hued abdomen, perfectly round and as large as two peas.

"She's a rouser, ain't she? and as full as a lord," said the fruit importer, gazing at the creature with the eye of an expert.

"Yes, it's a real ant," he continued, "and this isn't the first one that ever came here. I imported 500 three years ago for a big dinner of some Mexican swell up town. Do they eat them? Well, I should smile. You've never been in Mexico, I take it? Well, this is a fair specimen of the honey ant of Mexico, and there they are considered great delicacies, and are always served as dessert, just as you serve shrimps here, only these are put on alive and kicking. My brother has one of the biggest collections of ants in the country. This was brought on for him, and they're trying to fix up some way to preserve it without putting it in alcohol. I reckon they'll put it in Canada balsam. You see those ants live in big families, and most of them don't look like this; but at a certain time of the year certain ones are selected by the others to act as bottles or storehouses for the rest. This being done the other ants bring all the honey they can collect and give it to the ones selected, and they take it in until each one is as full as it can hold and looks like this. As fast as they are filled they are taken by the other ants to a dark room made for the purpose, where they cling to the wall. In fact they are living bottles in which the ants store away their honey, and whenever they want it they go to the storehouse and take down a bottle, brush off the cobwebs, and make the ant give out a supply.

"Yes, it is wonderful, but not half so wonderful as some things ants do. One of the best authorities on ants, Sir John Lubbock, who has started a dog school in London, says ants stand next to man in point of intelligence, and I reckon they do. For instance: I have lived nearly all my life in the South, where the ants tackled everything. Beds, tables, cupboards—in fact, every article that you wanted to keep ants out of had to be stowed in water—that is, in peach cans cut off and filled. But even this wouldn't do; the ants would find some little floating matter on the surface, and bridge the moat with their bodies and so get over. Then we tried tar water, and suspended sugar in pails from the ceiling. For a while

this nonplussed them; but, attracted by the smell, they gathered on the safe under it, and after a while we found them coming down the rope. They had gone up the ceiling, and so on down. A friend of mine in the African fruit trade told me that one night when up a river, near the Congo country, he was awakened by a yell, and tumbling out of his hammock, found himself standing a foot deep in solid ants. He ran for his life, covered with them, and finally got beyond their line of march and stayed in a tree all night. The next morning, when he returned, the whole house had been cleaned out. A dog that was tied to a tree was represented only by a lot of clean-picked bones. When they come there is no way to do but to surround the place with fire. Animals run from them.

"This sounds like a yarn," said the ant authority, "but the story told by Jægar, the naturalist, is a bigger one. He states that a Catholic missionary was sick in Congo, when one of these armies came along, and it was by sheer luck that the natives got him up. As they carried him out of the house the floor was over a foot deep with the insects, and of a cow that they forgot in the stable the bones alone told the story next morning.—New York Sun.

### Speed of Thought.

Many people have noticed the remarkable quickness of thought in dreaming, how a long story, with many details and extending over a great period of time, will flash through the mind in a few minutes, but they seldom have any means of even approximately measuring the quickness with which they sometimes dream. There is now going the rounds of the press a story purporting to tell the dream of a railway engineer, which, if true, affords a means of measurement, and the story itself has every appearance of being a genuine relation of experience. The engineer had been without sleep and on duty for many hours, and at last fell asleep on his post. Then he dreamed quite an elaborate story of an accident resulting from a confusion of train orders; how he studied over the words of the dispatch, trying to make out their meaning, and then how, his train coming into collision with another, he was thrown into the air and dropped back into his seat in the cab with his hand on the throttle. At that instant consciousness returned, and he found that it was all a dream, and that although his train was traveling at the rate of 45 miles an hour, it had gone only 250 feet while the dream was passing through his mind, this distance being fixed by the position of the train with respect to signal lights on the line. This is the interesting part of the story, for if these measurements are approximately correct the dream occupied less than four seconds of time.

### Buildings that Resist Earthquakes.

The volcanic eruptions in Java, the earthquakes in schia, and our own western tornadoes, have probably caused much more destruction of life and property than they would have caused if buildings had been specially adapted to resist them. In Japan, where shocks of earthquake are frequent, a contemporary says that it is not usual to dig foundations for any building, no matter how large or important it may be. Rocks slightly rounded at the top are placed where the corners of the house are to be. The corner posts, rounded at the end, rest on these. The timbers are all pinned together, not nailed, so as to allow of considerable movement without coming apart. In the central portion of the building the timbers are particularly heavy, and act as ballast. In high towers there are sometimes huge beams swung from the roof and reaching to within a foot of the ground, which prevent the building from being overturned either by earthquake or storm. The oldest building in Japan, the Treasury at Nara, is built in this manner, without the swinging beam, but with a very heavy ballast in the framework of the center of the floor. A well known artist is the inventor of a painting hut which is constructed in part on the same principle. It rests on stones at the corners, the timbers are keyed together, and it carries a heavy ballast under the floor. It is, however, in addition, secured to the ground by ropes and anchors. This hut will outlive a gale in perfect safety.

The golden age—courage.

### Shoe Making by Machinery.

The *Shoe and Leather Reporter* justly remarks that the introduction of labor-saving machinery has been the most potent cause of the changes that have been wrought in the shoe manufacture within a decade. The genius of inventors has devised implements for doing pretty much all the work that is required from the cutting to the finishing of a shoe, and doing it so neatly that the inexperienced cannot distinguish hand work from machine work, and the experienced know perfectly well that the latter is for all practical purposes as good as the former. The instruments first contrived for sewing leather were crude and imperfect; there were so many little defects about them that they were not regarded with favor, and did not do satisfactory service. But by degrees the faults have been so completely remedied that they do their work admirably, until now three-quarters of the hand-somest shoes sold in the country are put together by machinery. In the factories the hands are distributed into "teams," each team constructing a particular part of a shoe, many men contributing in their several ways to its configuration. Of course the closest attention has to be given to all the details; it is essential that the materials should be selected with discriminating judgment; that the cutting should be so skillfully done that there may be no waste of stock on the one hand, and no inferior material used on the other.

The best known remedy for that state of nervous exhaustion brought about by severe mental or physical labor or other excesses, is *Leis' Dandelion Tonic*.

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## THE KANSAS FARMER

Published Every Wednesday, by the  
**KANSAS FARMER CO.**

H. C. DEMOTTE, President.  
E. E. BROWN, Treasurer and Business Manager.  
H. A. HEATH, General Business Agent.  
W. A. PEPPER, Editor.

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One copy, one year, \$1.50  
One copy, six months, 1.00

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nied by the Cash.

KANSAS FARMER CO.,  
Office, 273 Kansas Avenue, Topeka.

Plantain and walnut leaves, if worn  
in the hat on the head in hot days, are  
said to be preventives of sunstroke.

Returns of assessors in the different  
countries of the State show gains since  
last year in population and wealth.

Wheat harvest will begin next week  
in the Southern part of the State. Re-  
ports still continue favorable as to the  
condition of wheat.

Ex-Governor St. John says he will  
not support the Republican platform  
adopted at Chicago, because it does not  
say anything about prohibition.

Camphor on horses and cattle will  
keep flies away, so we are informed. A  
decoction of walnut leaves rubbed on  
the animal's hair, is good, also, for  
same purpose.

Corn is growing well now. Weather  
was not, until quite recently, favorable  
to corn growth, it was cold. But sum-  
mer is here now to stay, judging from  
the heat of the last week.

Subscription Agents, Publishers and  
Postmasters, please preserve the cards  
we send you, and encourage the FARMER  
by sending us a large number of sub-  
scribers each for one year.

We hope that every one of our readers  
will find time to read Captain Peck's  
address delivered at the Agricultural  
College commencement, which we print  
this week. It is good matter and will  
pay its way.

Corn is growing fast now. Keep it  
clean, but do not work deep. Needed  
roots are running out in all directions  
and spreading themselves near the sur-  
face. Do not disturb them or tear  
them out. Cultivate shallow.

Let every farmer study how he can  
best take care of the cut grain, and then  
resolve that as fast as it is fit for the  
stack or mow it shall be put there. So  
much grain is lost every year by care-  
lessness or delay that we feel like urging  
men to do their duty.

Wherever and whenever you see a  
troublesome weed, as thistle or dock or  
burr, dispose of it then and there. The  
best way to do it is to pull them up by  
the roots. That is an end to them.  
But repeated cuttings off will eventual-  
ly destroy any plant. But bad weeds,  
like bad habits, must be destroyed or  
they will take general possession in  
time.

We are in receipt of a copy of the  
Transactions of the State Teachers' As-  
sociation held at Topeka in 1883. It  
contains some good matter, several pa-  
pers being devoted to defects in our  
public school system. One address  
commends itself to our judgment spec-  
ially. It was prepared by Mr. Gray, of  
Coffey County, and deals with practi-  
cal matters. It strikes at real, glaring  
defects in the schools and does not  
mince matters. Our schools need the  
reforming spirit, not in the direction of  
useless and bewildering verbiage, but  
in the line of practical learning.

### Sunshine in the Barn.

The stored sunshine in our barns, in  
the form of grain and hay, Dr. Nichols  
says, in its utilization, is attended by  
losses corresponding with those con-  
nected with change in other forms of  
organized material. In modern barns  
properly constructed we are astonished  
to find how comfortable the temperature  
is when we enter them on the cold  
mornings of winter. It may be difficult  
for many farmers to realize that this  
warmth all comes from the contents of  
their hay-mows and grain-bins—from  
actual burning or combustion of these  
nutrient materials. The long rows of  
cows and oxen in the stalls may be  
properly likened to an arrangement of  
little stoves, in which the products of  
the summer fields are burned; each  
animal representing a stove of greater  
or less capacity, according to the size.  
This burning is not spoken of in an  
ideal or poetical sense; it is actual, posi-  
tive. Every load of hay which the hus-  
bandman takes to his barn from his  
fields in July or August is to be burned up  
in winter, and the exact amount of heat  
which would be afforded by its active  
combustion in the field is to be gradual-  
ly eliminated from his animals in cold  
weather. And further, the amount of  
heat liberated must represent in its en-  
ergizing capabilities the solar energies  
consumed in the growth of the grass or  
grain. In other words, the number of  
increments of heat made sensible in the  
organization of a cow by the consump-  
tion of 100 pounds of hay exactly repre-  
sents the number of increments of heat  
in the sunshine which produced that  
amount of forage. The food energies  
of a cow are not all expended in pro-  
ducing animal warmth. A considerable  
portion goes toward the milk-pail; and  
all the sunshine of our fields that we  
can utilize in the cow is the milk pro-  
duct and the adipose tissue resulting  
from the fattening process. The  
warmth which we experience in our  
barns in winter is to a considerable ex-  
tent wasted heat energy; it is the sur-  
plus heat generated by the animals, and  
and which is radiated into space through  
the respiratory and excretory organs.  
We diminish this radiation of heat  
when we give a bucket of cold water to  
each animal, as is often done in the  
morning, and the diminution of warmth  
in a barn where there is a large number  
of animals is so great that the thermom-  
eter is sensibly affected. The same re-  
sults are reached when water is thrown  
upon a hot bed of coals. It requires the  
same expenditure of heat to raise 100  
gallons of ice-cold water to the tempera-  
ture of 90 deg. F. in the organism of a  
herd of cows that is required to raise  
the same to like temperature by the  
fires in a farmer's kitchen. As wood  
and coal are cheaper products than hay  
or grain, it follows that it is a matter  
of economy to warm the water supplied  
to milk cows in the winter season. I  
but give voice to the experience of ob-  
serving farmers when I assert that  
three gallons of water at the freezing  
temperature given twice a day in winter  
to a cow will cut short the milk product  
more than six per cent. in the twenty-  
four hours. The chemical energy re-  
quisite to produce milk cannot be di-  
verted to heating water in the system of  
the cow without serious loss.

There is an atmosphere of summer  
all through the July *Harper's*, which is  
nearly ready for publication. The  
opening paper deals with the Nile, now  
in the season of its inundation, and  
another with the St. Lawrence and its  
summer resorts; while, the approaches  
to New York, a London suburb, "Har-  
row-on-the-Hill," and one of the sub-  
urbs of Washington, Kendall Green,  
are the subjects of other articles. Both

the serials are very summery; the pa-  
per on Bismarck gives a pleasant ac-  
count of his summer life, and one on  
"Professional Beauties of the Last  
Century" includes a graphic description  
of a summer night's party at Rahelagh  
Gardens. There is also a paper on cat-  
tle-farming at the West, and a poem by  
Philip Bourke Marston sings of "Roses  
and Nightingales."

### Gossip About Stock.

John K. Wright, Junction City, has  
the largest herd of Holstein cattle in the  
State of Kansas.

F. McHardy, Emporia, Kas., has a  
Galloway calf that at 5 months and 10  
days weighed 610 pounds.

Carey H. Smith, Iowa City, under date  
of June 7, writes—My Holstein cow,  
Mink 402, to-day reached the remarkable  
daily yield of ninety-six pounds.

"Prairie Queen" is the biggest cow in  
Kansas. She is a grade roan Short-horn  
4 years old and weighs 2,700 pounds.  
The present owner is John T. Pratt,  
Cottonwood Falls, Kas.

The fourth annual meeting of the  
Central Kansas Wool Growers' Associ-  
ation will be held at Russell, Kansas, on  
Thursday, June 26, at 1 o'clock p. m.  
As this is the time for the election of  
officers for the ensuing year, a full at-  
tendance is desired.

We are requested by J. H. Pickerell,  
secretary, to state that volumes 1, 3, 9,  
10, 11 and 12 of American Herd Book  
(Short-horn) are being revised. If any  
of our readers know of errors in the old  
books, please report them to the editor  
at Room 27, Montauk Block, Chicago.

Dr. Eidson has recently purchased for  
breeding purposes at River Home Stock  
Farm, Reading, Kas., three more stand-  
ard-bred brood mares—Arabian Queen,  
Lorna Doane, and Prairie Bell. Any  
one can know their pedigrees by ad-  
dressing Bruce's Stud Book, 49 Park  
Row, New York, or the *Turf, Field and  
Farm*.

S. T. Bennett and the Prathers', of  
Illinois, had a good sale of Short-horns  
at Safford, Kas., on the 11th inst. The  
cattle, while very plainly bred, were ex-  
ceedingly good individuals and Col.  
Sawyer, the auctioneer, succeeded in  
squeezing pretty good prices out of the  
buyers. Thirty-nine females sold for  
\$4,655, an average of \$120; 11 bulls sold  
for \$1,220, an average of \$111. On the  
second day 10 grade Norman mares,  
with colts at foot, sold at an average of  
\$217.50, and 5 colts averaging \$82 each.  
The grade cattle sold as follows: 25  
yearling heifers \$38 each, 21 same \$29  
each, 61 cows were bid off at an average  
of \$61, and 30 yearling steers averaging  
\$29.

### Remarkable Cattle Sale.

A special correspondent of the FARM-  
ER sent in a report of the Hamilton sale  
of Short-horns, from which we condense  
the following:

The sale of A. L. Hamilton took place  
at his house near Lexington, on the 11th  
and 12th of June, when 108 head of  
Short-horns were sold by Col. J. W.  
Judy and L. P. Muir, auctioneers, for  
\$87,470, an average of \$810 per head.  
Although there were Short-horn breed-  
ers from nearly every State in the Union  
where Short-horns are bred, besides a  
few persons from Canada and England,  
the West turned them all down and took  
the plums of the lot, Missouri leading  
with over \$30,000 worth, and Kansas  
coming in next best. The heaviest  
buyers from Kansas were C. M. Gifford  
and his son Fred—they paid \$2,275 for a  
Young Mary and cow calf, \$1,675 for a  
yearling Barrington bull, besides quite a  
number of other nice things which they  
took.

The highest price reached at the sale

was \$7,000 paid by L. O. Swope, Inde-  
pendence, Mo., for a Duchess heifer.  
He also paid \$5,075 and \$4,700 for two  
others of the same family. A. C. Briant  
took two Wild Eyes for a little over  
\$3,700. Three head, one male and two  
females, were bought by H. F. Brown,  
of Minneapolis, Minn., for \$6,700, \$3,550  
of which was paid for a bull, the high-  
est price paid for a male.

For fifty-one head of cattle sold at  
this sale which come west of the Miss-  
issippi river, there was paid an average  
of a little more than \$1,800 per head.

### About Seed Wheat.

A correspondent of the FARMER, in  
the following letter, calls attention to a  
very important matter, and we earnestly  
request replies from any of our readers  
that have leisure enough to devote a  
minute or two and a penny card for the  
benefit of their neighbors. The time  
for sowing is not far distant. It is well  
to be discussing this matter now, so  
that all may be ready for decision when  
the time comes. Here is the letter:

*Kansas Farmer:*  
I would like to see from some of your  
able correspondents, something on the  
topic, "What kind of wheat shall we  
sow this fall?"

We sowed Fultz wheat for several  
seasons. It had many good qualities.  
Fine berry, good milling wheat and stiff  
straw, but in severe winters is badly  
winter-killed. This season the main  
crop is Russian or Turkey wheat. It  
yields very well, stands severe winters,  
but is soft strawed and brings from ten  
to twenty cents per bushel less in mar-  
ket, because it is a hard wheat. Can  
some one tell us about the Oregon and  
Rocky Mountain varieties?

### WHEAT GROWER.

Young chickens need attention now.  
The *Fancier's Gazette* urges that too  
much care can hardly be exercised in  
keeping young chicks warm and dry.  
Exposure to cold and wet will also  
induce a sort of canker, which is mani-  
fested by drooping and sleeping, the  
head appears long and "wizen," the  
tiny wings stick out from the body, and  
a general wretchedness indicates a brief  
existence. The mouth generally shows  
canker sores in various places, or coated  
all over with a whitish appearance, and  
the opening into the windpipe will be  
cankered. But very little can be done  
for such subjects. With a sharpened  
pine stick, remove as much of the can-  
ker as possible, and sprinkle the sores  
with a little powdered burnt alum, place  
a few drops of spirits of camphor in  
the drinking water, and give them  
small pellets of food wet with spirits of  
camphor. For prevention, use warm  
crops, dry and sunny runs, good brood-  
ers, and no exposure to high winds,  
damp ground, wet grass, or storms.

The State Veterinarian reports to the  
State Live Stock Sanitary Commission:  
"I have received during the month fifty-  
six communications from thirty-one  
various counties. Of these 56 commu-  
nications, 48 referred to the subject of  
glanders, 6 to diseases of cattle and 2 to  
diseases of pigs. Twenty-six counties  
have reported cases of glanders, show-  
ing that the disease is very widespread.  
Forty-two farms reported to be infected,  
having thereon 174 animals (horses and  
mules) have been inspected. Of these  
174 animals, 45 have been found infected  
with glanders and ordered killed. Of  
the 45 ordered destroyed, 12 were in  
Marion county, 16 in Ottawa county, 2  
in Montgomery, 2 in Neosho, 3 in Shaw-  
nee, 3 in Jackson, 2 in Reno, 2 in Rice  
and 3 in Dickinson."

We made a mistake in our issue two  
weeks ago in the matter of credit for the  
article headed—"Care of sow and young  
pigs." It was copied from *Farm and  
Fireside*, but credited to *Swine Breeders'  
Journal*.



Boston and New England passengers should bear in mind that THE WABASH is the only line running a through sleeper from St. Louis to Boston.

Mr. A. H. Griesa, nurseryman, Lawrence, has thanks of the KANSAS FARMER Company for samples of his Manchester and Jersey Queen strawberries and Hansell raspberry.

The *State Journal*, a Democratic daily and weekly paper published at Topeka, has recently changed its editorial management for the purpose of urging a re-submission of the prohibitory amendment and the repeal of all prohibitory liquor legislation.

If you have any vacant ground now that is growing up in weeds, mow them down or plow them under. They make mulching, and they make good manure, but they are a very bad crop. Do not let them grow to seed. No matter whether the ground is to be used soon or not, keep the weeds down and have the soil clean when needed. A heavy growth of green, growing weeds, is a good green manure if covered in the soil.

Unusually heavy rains have injured crops in California. The rain fall for June thus far is more than twice as much as for any preceding June since records have been kept. A San Francisco dispatch says that reports received from fifteen different localities announce the hay crop is almost completely destroyed and wheat and barley seriously injured. The losses in some sections are estimated as high as 10 per cent. of the estimates of two weeks ago.

To prepare ground for turnips, the time of plowing will depend on the character of the ground to be used. If wheat or oats stubble ground is to be used plow immediately after removing the crop, harrow well, roll, sow, harrow lightly again. If the ground to be used is not in use, plow fifteen or twenty days before the time for sowing. Harrow and let lie till weeds start well, when harrow and cross harrow to kill the weeds; then sow the turnip seed and roll. If the ground is foul, plow still earlier and destroy weeds twice before sowing turnip seeds.

We are in receipt of a circular letter dated at Philadelphia, which states: At the meeting of the American Carp Cultural Association in this city, on Saturday, May 10th, it was decided to take steps for the establishment of a monthly journal to be devoted to carp culture and allied interests. Directors Dr. S. T. Davis, Lancaster, Pa., W. G. Hill, Clayton, Delaware, and Wm. A. Wood, Pittsgrove, N. J., were appointed a committee to consider and report a feasible plan for the issue of such a publication under the auspices of the association.

A Nebraska farmer says he has discovered a certain protection against borers, and also against rabbits. Take a pint of rye flour, put into a common wooden bucket, and make into a thick paste. Then take two and one-half pounds of sulphur and gradually add to the mass, adding sufficient water from time to time to keep the mass in a thick state. When all the sulphur is thoroughly mixed to the consistency of a paste, fill the pail with water, and take a medium-sized whitewash brush and go at your orchard. Commencing March or April 1st, and repeat it 1st of June or July. Keep well stirred. The rye flour comes with it on to the tree myriad particles of sulphur which adheres there, and remains until repeated rains washes it off. The same applied in November and January is sure preventive of gnawing by rabbits.

### Morr About Rye Hay.

*Kansas Farmer:*

Referring to "Russell County Farmer's" article in last number of FARMER, and your editorial on the question of rye for hay, permit me to give you a little of my experience. Last summer the hail cut down some of our rye in this neighborhood to such an extent that one of my neighbors, Mr. H. Weisen-danger, a heavy stock man, concluded to mow his wrecked rye-field for hay. He was so well pleased with the venture and quality and quantity of the fodder, that he told me the other day he should repeat the process. His words started a train of thought in me, and I weighed the matter over in my mind thus: Harvest hands are high and scarce; threshing is a costly farm operation, and after all of this, what have I to show? A stack of hard woody straw, likely half rotten, and say 20 bushels of grain not worth as much for feed, bushel for bushel as corn, with the market price at railroad station, 11 miles away, at 35 cents. The rye had just about finished blooming when I entered the field with the mower. It was thin on the ground, but I stacked 13 two-horse loads of sweet smelling hay from about 5½ acres. Allow me to state here in passing that rye is easily cured, but is harder to handle and stack than timothy or millet, as it does not adhere together and is very slippery.

As soon as the last cock was in stack, I hitched to my lister and drilled in corn, one grain to the foot, to be cut up for fodder. I just finished yesterday. Now for the result. Two tons of No. 1 hay per acre worth 3 tons of common prairie hay; with a half way favorable summer at least 2 more tons of feed per acre, or with a good season 40 to 50 bushel corn, and fodder besides. So you can easily figure out the possibility of an acre of rye, sown in September until September comes again, over a large area of our rich State. Succulent pasture from late in fall till late in spring (mine was heavily pastured until May 1st) then two crops of first class nutritious dry feed.

Very truly yours, ED. SECREST.  
Randolph, Riley Co., Kas., June 15.

### Book Notices.

FLOYD GRANDON'S SON is a novel by Amanda M. Douglas, author of "Old Woman in a Shoe." Price \$1.50, published by Lee & Shepard, Boston, and sold by T. J. Kellam & Co., Topeka, Kas., who keep a large assortment of miscellaneous books at publishers' prices. They also keep a large supply of agricultural books. We can confidently recommend this house as honorable and courteous.

COOKERY FOR BEGINNERS, by Marion Harland, a competent writer on culinary matters. This is really a good book. It contains upwards of one hundred different recipes of merit. Young housekeepers will find it very serviceable. Kitchen edition in waterproof cloth binding, limp, 60 cents. With extra pages, blank, for new recipes, in extra cloth binding, stiff covers, \$1.00, Boston, D. Lothrop & Co.

THE DRUMMER BOY, Lee & Shepherd, Boston, \$1.50, sold by T. J. Kellam & Co., Topeka, Kas. This is a story of the great civil war in this country, descriptive of army life, written in a pleasing style. To old soldiers and interested families, the Drummer Boy will be an interesting reminder of those bloody years. Young persons who have grown to reading years since the war closed will learn many things of the great struggle in this book.

FRANK LESLIE'S SUNDAY MAGAZINE.

The July number opens with a descriptive article by Rev. Edward Barrass, M. A., entitled "The Cannibal Islands," with thirteen illustrations. Another, by Laurence Lamb, is descriptive of "The Cherokee Nation," with seven illustrations. "The Gospel According to Rembrandt" is a remarkable article, giving etchings by that eminent artist, and arguing that his work show what the common people in Holland and Germany actually believed in the sixteenth century concerning the Gospel of Jesus Christ. "Scenes in and about New Orleans" has eight illustrations. The editor, Rev. T. De Witt Talmage has a characteristic article on "The Divorce Abomination," and a sermon in the Home Pulpit, "The Floral Gospel." There are two serial stories, and sketches, essays, etc., by G. A. Davis, Argeline Alexander, Hervey, J. A. Patton,

etc., etc., several poems and a comprehensive miscellany. The embellishments are numerous and admirably executed. Price 25 cents a number, or \$2.50 a year, postpaid. MRS. FRANK LESLIE, Publisher, 53, 55 and 57 Park Place, New York.

THE SQUATTER'S SOVEREIGN; Kansas in the '50's.—This is a Kansas story, written by a Kansas woman, Mary A. Humphrey, Junction City. It is "a story founded upon memorable and historical events, whose characters have been carefully chosen to represent the various types of men and women who met upon the plains intent on settling the vexed question as to whether the Territory should come into the Union as a free or a slave State." It is illustrated with suggestive pictures of the times, and is written in a style clear and graceful. All Kansans will be interested in this book. It is published by Coburn & Newman, Chicago, Ills. We do not know the price, but guess about \$1.50.

MARGIE'S MISSION, by Marie Oliver, Boston: D. Lothrop & Co. Price 25 cents. This deeply interesting story, by the author of *Seba's Discipline* and *Ruby Hamilton*, forms the second issue in the Young Folks' Library Series, an honor it richly deserves. The plan of the publishers is to make this series a model in everything that goes to constitute good books—interest, purity of tone, and a direct purpose to teach lessons of truth, honor and usefulness. These qualities give each separate book a claim upon the consideration of every parent who exercises a judicious care over the reading of his children. The present volume may well stand as a representative of the series in all these respects.

### Inquiries Answered.

INCUBATORS.—A lady writes from Springfield, Mo., asking information about incubators. We never used one and therefore cannot state anything on the subject from personal knowledge. All we can safely say is, that incubators are successfully used in many places, and where successful, they are profitable. But they require experience, care and patience. No one can learn the practice of anything from reading of it only. We may have the theory perfect in our minds, yet we need practice before we know just how to handle the business whatever it may be. If our correspondent desires to experiment and learn how to hatch poultry in incubators, if she will address Jacob Yost, North Topeka, Kas., she will learn something to her advantage. Mr. Yost is engaged in the poultry business and makes his own incubators. He makes the same kind for sale. We will prepare an article on the subject for "The Poultry Yard" in our next issue.

Wherever red clover can be grown in Kansas it ought to be cultivated. It is an exhaustive crop, but if the growth is fed on the ground, and a green crop occasionally plowed under, it is a great fertilizer. An experienced farmer concludes an essay on clover with these words which we endorse: And so there seemed to be two points well settled: First, we shall rapidly exhaust our soil if we grow clover and sell or remove it; second, we may maintain and even slowly increase at least its productive-ness if we grow clover and feed it wisely on the farm. This, however, implies thorough tillage, tile drainage where needed, the careful saving and wise use of all the "roughage" of our crops, and of all animal voidings; both liquid and solid; the sale chiefly of condensed products, such as meat, butter, wool and flour.

The Pike's Peak Railway, which will be in operation next year, will be the most notable piece of track in the world. It will mount 2,000 feet higher than the Lima & Oroya Railway, in Peru. It is now in operation to a point over 12,000 feet above the sea level. The entire thirty miles of its length will be a succession of complicated curves and grades, with no piece of straight track longer than 300 feet. The maximum grade will be 316 feet to the mile, and the average grade 270 feet. The line will abound in curves from 500 to 1,000 feet long, in which the radius changes every chain.

## THE MARKETS.

*By Telegraph, June 16, 1884.*

### STOCK MARKETS.

#### Kansas City.

The Live Stock Indicator Reports:

CATTLE Receipts since Saturday 2,409 head. The market to day was firm and fairly active to the extent of the supply of good to choice native steers; other classes were quiet. Sales ranged 43¢ to 60¢.

HOGS Receipts since Saturday 6,337 head. There was a weaker market to day with values 5a10c lower than Saturday. Extreme range of sales 48a5a 20; bulk at 49a5a 05.

#### Chicago.

The Drovers' Journal reports:

HOGS Receipts 6,000, shipments 2,100. Market 15a20c lower. Rough packing 50a54 40 packing and shipping 54a55 65, light 48a54 45, skips 35a44 70.

CATTLE Receipts 4,900, shipments 600. Market strong; best grades 10c higher. Exports 660a 675 good to choice shipping steers 615a660, common to medium 535a600, grass Texans 350a450, corn fed 40a 475a 5.

SHEEP Receipts 200, shipments 100. Market steady. Inferior to fair 20a30c medium to good 35a44 00, choice to extra 40a45 50.

The Journal's Liverpool cable says: Cattle good to choice American steers 14a15 1/2 dressed.

#### St. Louis.

CATTLE Receipts 2,900, shipments 1,800. Market consisted mainly of poor grassers which were dull and weak. Exports nominally 650a675, good to choice shipping 650a675 common to medium 55a60 00, native grassers 475a50 50, Texans 350a450.

SHEEP Receipts 1,700, shipments 100. Supply of poor quality. Natives 235a450, Texans 260a 400.

#### New York.

CATTLE Receipts, receipts 4,800. Market active and firm, 1/2c higher for extremes. Steers 517a 775, mainly 62a712 1/2.

SHEEP Receipts 12,000. Owing to oversupply the market closed heavy at 25c lower for sheep, 10c lower for lambs. Sheep 46a610, lambs 600 a85.

HOGS Receipts 9,800. Market dull, 510a575.

### PRODUCE MARKETS.

#### Kansas City.

Price Current Reports:

WHEAT Received into elevators the past 48 hours 37,900 bus, withdrawn 11,488, in store 129,960. The market was weak and 1/2 to 3/4c lower and nominal save No. 2 soft cash which was in light demand and weak at 90c.

No. 3 Red Winter, cash 70 1/2c bid, 72 1/2c asked.  
No. 2 Red Winter, cash, 78 1/2c bid, 79 1/2c asked.  
CORN Received into elevators the past 48 hours 26,014 bus, withdrawn 27,138 bus, in store 91,938.  
No. 2 Mixed, cash 1 car at 44 1/2c, June 2 cars at 45c, July 15,000 bus at 45 1/2c, August 45 1/2c bid, 46 1/2c asked.

No. 2 White Mixed, cash, 8 cars at 50 1/2c, 6 cars at 50 3/4c.

OATS No. 2 cash, 29c bid, no offerings.

RYE No. 2 cash, no bids nor offerings.

CASTOR BEANS Quoted at 165a175 per bus, FLAX SEED We quote at 13a135 1/2 bus upon the basis of pure.

BUTTER The receipts to day run a little lighter and the quality not so good. Packers goods are steady and reasonably active.

We quote packed:

Creamery, fancy 17a18  
Creamery, choice 15a16  
Choice dairy 11a12  
Fair to good dairy 9a10

EGGS The receipts are moderate to-day and prices irregular according to quality. Choice fresh quotable at 12a12 1/2c and held, and southern stock at 11a11 1/2c.

CHEESE We quote eastern out of store: Full cream: Young America 15c per lb; do twin flats 14c; do Cheddar, 13c. Part skim: Young America 11a12c per lb; flats 10 1/2a11c; cheddar 9a9 1/2c. Skims: Young America 9a10c; flats 8 1/2a9c; Cheddar 7a7 1/2c.

NEW POTATOES We quote new southern consignments 3 bbl 375.

BROOM CORN Common 2a2 1/2c per lb; Missouri evergreen 4a5c; hurl 6a7c.

#### New York.

WHEAT Receipts 25,000 bushels, exports 155,000 bushels. No. 2 Chicago 99c, ungraded red 80c 10, No. 3 red, 95 1/2a96c, No. 2 red 101 1/2a 101 1/2c do.

CORN Receipts 271,000 bushels, exports 18,093. Ungraded 56a63 1/2c, No. 2 62 1/2a63 1/2c.

#### Chicago.

WHEAT June 56 1/2a56 3/4c.

CORN Cash 54 1/2a54 3/4c.

OATS Firm, Cash 32 1/2a33 1/2c.

RYE Irregular. Cash and June 65c.

BARLEY Dull at 62a65c.

FLAX SEED Easier at 165a167.

#### St. Louis.

WHEAT Active and higher especially for cash. June and July, No. 2 red 103 1/2a cash, 101 1/2a, June 93 1/2a93 3/4c July.  
CORN Very dull at 52a53 1/2c cash.  
OATS Dull at 31 1/2a31 3/4c bid cash, no options.  
RYE Slow at 57a58c bid.  
BARLEY No market.



## Horticulture.

### "Russian Fruits for American Prairies."

A short review of Professor Budd's "Bulletin," appearing under the above title in No. 36 of this paper, is construed by some of our horticultural correspondents as a hearty endorsement, by the writer of the review, of the views of Professor Budd on this question. To quote from a letter in hand: "There are many agents now in our State offering such fruits at the fabulous prices of \$1 to \$1.50 per tree," and they "will use such articles as the one referred to as an endorsement of their stock; and encouragement for people to buy."

It was the intention of the writer of the article in question to offer only a bare statement of the contents of Professor Budd's interesting little pamphlet, and mainly in the Professor's own words. Unless such reference to that work is itself an encouragement to the tree peddler, the only comfort he would find in the article in question would be found in the last paragraph, which, on second reading, has been found susceptible of a misleading interpretation; although, if read as was intended—i. e., "that the early dissemination [of trees of these varieties] among the intelligent horticulturists of the Northwest will soon show to what extent they are valuable, and how far the enthusiasm of Mr. Budd is warranted,"—there would be found but slender encouragement to the tree buyer to pay the prices quoted.

Moreover, the Kansas horticulturist, if he has read the rural papers, and examined the catalogues of the dozens of reliable nurserymen who have these trees to sell at usual prices, will never be gulled by the misrepresentations of the tree peddler into paying \$1 to \$1.50 for rare apple trees, Russian or otherwise; for he will know that they are as readily propagated and grown as many other varieties, and should accordingly be sold at corresponding rates. Further, for the tree buyer who will not make use of such ordinary means of information there is no school but experience; and, if he does not buy Russian trees at \$1.50, he will pay that amount, many times perhaps, for some other peddler's goods of equal reputation, and his bank account will be no less light at the end of the year, without "encouragement."

Our friend, who is one of the most prominent of the horticulturists of this State, as well as candid and sincere gentleman, will pardon us for publishing the following extracts from his letter, which contain facts that, while generally known among those familiar with the progress of horticulture, may be new to some of our readers.

"The introduction of nearly 10,000 trees of the Russian apples into this State some ten years ago, and their absolute failure both in tree and fruit, should be a lesson of caution, and a proof of their non-adaptation to our soil and climate. Some ten or twelve years ago the nursery firm of Ellwanger & Berry, Rochester, N. Y., whose very name is a sufficient guaranty for honor, integrity and intelligence with the horticulturists of the United States, thinking that there might be something valuable to our people in the Russian fruits, sent an agent into that country, who spent the entire summer among the orchards for the purpose of selecting, during the fruiting season, such varieties as were most promising for introduction here. Cions of such, numbering over 100 varieties, were taken, and tried in their vast and most thoroughly conducted experimental grounds at Rochester; and these are the

results as reached and published in their catalogue for 1884; viz.—'We have spared neither trouble nor expense to ascertain the true value of these apples. After having fruited many of them several times upon our grounds, we are of the opinion that few, if any, will be valuable for this or similar climates where the choicest apples can be successfully grown. But in the colder regions of this country, where only the hardiest varieties succeed, they will undoubtedly prove desirable. All the sorts which have borne fruit thus far are summer or early fall apples.'

"Such is the verdict of a firm qualified in every respect for the experimentation as no other firm in the United States is, and who were even anxious to find a valuable acquisition to our present lists, even at great costs; and I would further say that I am of the opinion that the conclusion of that firm upon this class of fruits has been the cause of their exclusion from the catalogue of the American Pomological Society, as Mr. Barry is the chairman of its committee on the fruit lists of the Society.

"The conclusions of Messrs. Ellwanger & Berry have been reached by thorough tests and after a period of years which would enable them to reliably determine the character of the varieties under treatment, and these conclusions, also, I presume were greatly against their expectations, and a sore disappointment, as many hundreds of dollars were invested in the effort."—Prof. Popenoe, in *Manhattan Industrialist*.

### The Apple Tree Borers.

Here are some useful facts and inferences taken from the *Journal of Agriculture*, St. Louis.

There are two varieties of these pestiferous and destructive insects, and May and June in our latitude is the period in which their mischief begins by their laying their eggs upon the stems or trunks of the trees. The first is the "round headed" apple tree borer, a native American insect first discovered in New York in 1824, by the learned entomologist Thomas Say. Besides the apple it attacks the pear, quince, Juneberry, hawthorn and mountain ash. The beetle in its perfected state is known among entomologists as the Two-striped Saperda (*Saperda bivittata*, Say). The average length of the larva is about an inch, and one fourth inch in width. Its color is light yellow with a tawny yellow spot on its first segment. The head is a chestnut brown, polished and horny, and the jaws are a deep black. But as it flies or moves only at night it is seldom seen by any but the entomologist who makes a point of hunting for it. The female deposits her eggs in June and mostly at the foot of the tree, where the young hatch and commence boring into the bark in twelve or fourteen days, and they invariably live on the inner bark and sapwood, in flat cavities stuffed full of sawdust like excreta. The small entrance usually fills up, but the sawdust is pressed out and falls in a little heap on the ground. The insect lies under the bark a first and second summer, doing the most damage in the latter. In the course of the third summer it commences to cut upward into the hard wood, and frequently bores entirely through small trees, and having finished its larval state emerges from the tree in the following spring and later the female lays her eggs.

The "flat-headed" apple tree borer is readily recognized by its enormously enlarged and flattened head. It is paler than the "round-headed," and bores a hole twice as wide as high, and scarce ever attains to more than half the size of the latter. It is almost always found

with its tail end turned completely toward the head. It lives but one year in the tree and produces a beetle of a greenish black color, with brassy lines and spots above, the underside appearing like burnished copper. This beetle flies by day and may often be found basking in the sunshine on the bodies of trees. This insect attacks the apple, peach, oak and soft maple, and is especially destructive to the latter. Of course the removal of these destructive worms is the consummation devoutly to be wished, and the common mode of going at it is to run a stiff wire up the "ways" in the hope of crushing them; but this is not always successful if the "way" is not sufficiently straight to accomplish it. Another method is to make a quantity of good clay and make a kind of stiff mortar of it so that it will hold water, and putting it around the tree, fashioning it into the form of a dish and extending it up the tree as far as it is supposed the worm has ascended and fill it with water. This is intended to drown out the vicious fellows, but whether it will do it or not we may probably be able to judge after a thorough trial though we confess that we have not much faith in it. Another and the best way undoubtedly is to take a sharp strong-bladed knife, and following the course of the borer, which is just under the bark, as we have already said, cut it out. The runs will easily be found, and as the incisions will be only narrow openings perpendicularly made they will not damage the trunk and you will be sure of ferreting out and dispatching the enemy. This work is done rapidly and is certain to be effectual. But let it be borne in mind that the enemy should be tackled as soon as the evidence—the sawdust—shows its presence. Another thing is that at least a second visit should be made to the trees, for frequently some of the borers may escape, or some of them may begin operations later. Should the leaves show that the borer is at work, it will prove that it has made good progress and several may be operating in a single tree. And by exterminating them entirely you will see what a change there will be made in the freshness and greenness of the foliage.



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They cure Rheumatism, and all Uri-  
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Will purify the BLOOD, regu-  
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and RESTORE THE HEALTH  
and VIGOR of YOUTH. Dys-  
pepsia, Want of Appetite, In-  
digestion, Lack of Strength,  
and Tired Feeling absolutely  
cured. Bones, muscles and  
nerves receive new force.  
Enlivens the mind and  
supplies Brain Power.

**LADIES** Suffering from complaints  
peculiar to their sex will  
find in DR. HARTE'S IRON TONIC a safe and  
speedy cure. Gives a clear, healthy complexion.  
Frequent attempts at counterfeiting only add  
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Send your address to The Dr. Harter Med. Co.,  
St. Louis, Mo., for our "DREAM BOOK."  
(Full of strange and useful information free.)



## The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

**BLOODY MILK.**—Young cows in very high condition are often liable to affections of the udder, says the *Breeder's Gazette*. Keep the animal indoors; give plenty of bedding to prevent bruising of the bag; preferably keep her in a box stall. If the bag is tender, bathe it several times daily with a mixture of equal parts of tincture of arnica and soft water. Draw the quarters clean of milk thrice daily, without much pulling of the teats. If pain is occasioned by milking, it is best to draw the milk by means of a milk tube, carefully inserted. Give sloppy or steamed food, besides sliced apples or roots, and good, aromatic upland hay. But bloody milk is due to a variety of causes, and to treat it most successfully it would be necessary to know the cause.

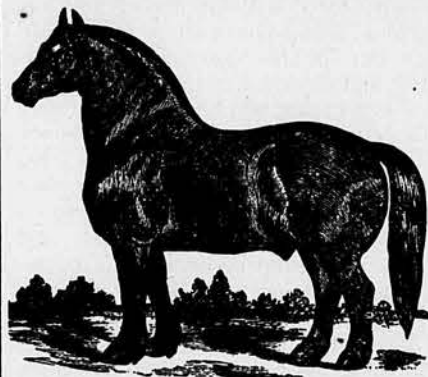
**CURE FOR A TIMID HORSE.**—The *Stockman* says timidity is a fault in a horse which can usually be cured, but only by a course of kind and patient treatment. Rough usage will never accomplish that end, but it is only calculated to make the trouble more deep-seated. An experienced horseman recommends the following treatment for such an animal: If he scares at any object, speak to him kindly and let him stop and look at it; give him a few gentle strokes on the neck with your hand, speaking kindly to him all the time, and gently urge him toward the object he scared at; be careful not to urge him too hard at first: above all do not whip him; give him time to see that he is not going to be hurt; when you can do so let him smell of the object, provided it is not some offensive carcass; he will not scare at it again. When this has been done several times he will have gained confidence in you and himself. The timidity will soon wear off and your horse will be cured.

**THE THUMPS.**—A variety of ailments in the pig are called by the name of thumps; in fact most any affection accompanied with fever and accelerated breathing is called the thumps; and if they were to be doctored all alike, as they are in many instances, little relief could be expected from the treatment. Affections which most properly might be termed thumps, are either palpitation of the heart, or a spasmodic contraction of the midriff (diaphragm), neither of which occur with such frequency in the pig, as the numerous inquiries "what is good for the thumps?" would indicate. When you say that the pulling out of their mouth of a few so-called black teeth, cured the pigs of the thumps, the probability is that the pigs were feverish from some cause connected with the teething process. Hence, when the source of the local evil was removed, the symptoms would naturally disappear.

**IMPERVIOUS TEAT.**—My three-year-old grade Jersey cow dropped her second calf about one week ago. I milked her twice on that day and every morning and evening since. The milk seems to be all right, but her left hind teat appears to be almost closed. The milk comes in little spurts; it takes nearly an hour to get it all away. How can I get the milk to flow freely from the affected teat? \* \* \* [That there is some serious obstruction to the free flow of milk from the udder is very evident. This we think is probably due to a diminished caliber of the duct from thickening of the mucous membrane and contraction of its walls, or from a stricture, caused by the formation of a membrane across the duct of the teat. The proper course for you to pursue is

to make two or three probes out of hard wood; they should be round, perfectly smooth, probe pointed and of different dimensions in diameter; we will suppose them to be numbered 1, 2, 3, etc.; let No. 1 be made of proper size to enter the duct of the diseased teat without using any force. This may be well oiled and carefully introduced. If it will not pass without too much force, it will be best to make it smaller. The next day or two you may use probe No. 2, which is supposed to be a trifle larger in diameter, and so on, using the probe twice a day, at the same time being careful not to dilute the diet too much at first, as by so doing you would be very liable to set up irritation, and as a consequence inflammation. In veterinary practice a knife made expressly for dividing the structure is in use, but as you cannot very well get one, we have advised you of the next best way to proceed.

## PROSPECT FARM.



The two imported Clydesdale Stallions **Carron Prince** and **Knight of Harris** will stand at the stable of the undersigned this season.—the one at \$20.00, the other at \$25.00, to insure. Both horses imported from Scotland in 1882 and recorded in A. C. S. Book, pages 364 and 370.  
The two High-grade Stallions, **Donald Dean** and **King William**, will stand at same place at \$10.00 each to insure. These two horses were sired and grand-sired by noted imported Clydesdale Stallions. Farmers, come and examine these horses for yourselves. **STALLIONS AND MARES FOR SALE.**  
H. W. McAFEE.  
Three miles West of Topeka, 6th St. road.

## MARQUIS 2D,

**A Pedigree English Shire Horse,**  
Stands for the season at Fowler's Ranch, Maple Hill, Kas., on Tuesdays, Wednesdays and Thursdays; at the West Ranch on Mondays, and at St. Marys, on Saturdays, in each week.

**TERMS OF SERVICE:**  
To insure, \$25,—payable when mare proves in foal or if owner disposes of her. Single services \$15,—payable to man in charge, at time of service.

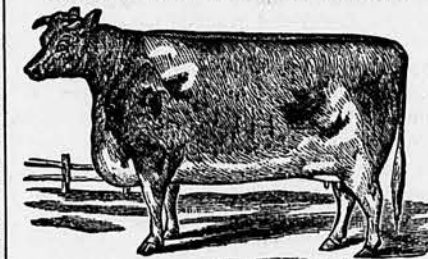
Mt. Pleasant Stock Farm, Colony, Anderson Co., Kansas.



**J. S. HAWES**  
Importer and Breeder of  
**HEREFORD**  
Cattle.

I have one of the largest herds of these famous cattle in the country, numbering about 200 head. Many are from the noted English breeders, T. J. Carwardine, J. B. Green, B. Rogers, W. S. Powell, Warren Evans and P. Turner. The bulls in service are "FORTUNE," sweepstakes bull with five of his get at Kansas State Fair 1882 and 1883; Imp. "Lord Wilton" bull "SIR EVELYN," own brother to "Sir Bartle Frere;" Imp. "DAUPHIN 19th," half brother to T. L. Miller Co.'s "Dauphin 18th;" and "THE GROVE 4th," by "The Grove 3d."  
To parties wishing to start a Herd I will give very low figures. Write or come.

## SUNNY SIDE STOCK FARM.



J. P. FENLON, P. O. Box 148, Leavenworth, Kansas.  
—Breeder of—

**SHORT-HORN CATTLE**  
of the most noted beef strains, and all superior individuals.

**FOR SALE.**—Forty Thoroughbred Pure Short-horn Bulls—Rose of Sharon, Young Mary and Princess, from 9 months to 2 years old; also, 60 High-grade Bulls, all Red and in fine condition, from three-quarters grade cows and pedigree bulls.

Correspondence or inspection of herd cordially invited.

Wm. Gentry & Sons, Sedalia, Pettis Co., Mo.  
Joel B. Gentry & Co., Hughesville,  
Pettis Co., Mo.



**BREEDERS of and Dealers in Short-horn, Hereford, Polled Aberdeen and Galloway Cattle, Jacks and Jennets.** Have on hand one thousand Bulls, three hundred the cattle in calf by Hereford and Polled Bulls. Are prepared to make contracts for future delivery for any number.

**SHORT-HORNS FOR SALE.**  
THE BREEDERS' ASSOCIATION  
of CLINTON and CLAY COUNTIES,  
Mo., own about

**1,000 Short-horn Cows,**  
and raise for sale each year  
**Near 400 Bulls.**

Will sell males or females at all times as low as they can be bought elsewhere. The Annual Public Sale will be held the first Wednesday and Thursday in June of each year. Parties wanting to buy Short-horns Write to

J. M. CLAY, President, Plattsburg, Mo.;  
H. C. DUNCAN, Vice President, Osborn, Mo.  
or S. C. DUNCAN, Secretary, Smithville, Mo.

**M. R. HUGHES & SON,**  
Independence, : Mo.,



Breeders of Short-horn Cattle and furnishers of High-grade Red and Roan Bulls and Heifers. Specialty of Grade Polled-Angus and Galloway Cattle for Western trade.

200 choice High-grade Cows and Heifers for sale.

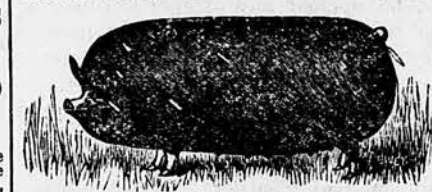
## HEREFORD CATTLE.

THOROUGH-BRED BULLS and HIGH-GRADE BULLS and HEIFERS for sale. Inquiries promptly answered.

**WALTER MORGAN & SON,**  
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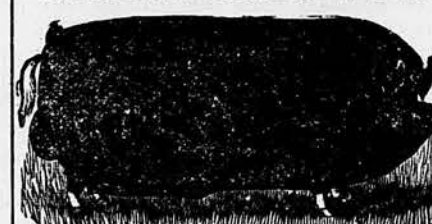


**PLEASANT VALLEY HERD**  
—OF—  
**Pure-bred Berkshire Swine.**



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.  
S. McCULLUGH,  
Ottawa, Kansas.

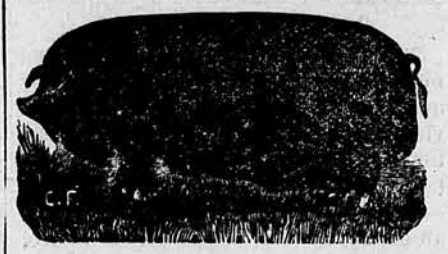
## WELLINGTON HERD ENGLISH BERKSHIRES.



The Wellington Herd of well-bred and imported Berkshires is headed by Hopeful Joe 4889. The herd consists of 16 matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address **M. B. KEAGY,** Wellington, Kas.

**PIG EXTRICATOR,** to aid animals in giving birth. Send for free circular to **WM. DULIN,** Atoca, Pottawatomie Co., Iowa.

## Acme Herd of Poland Chinas



Fully up to the highest standard in all respects. Pedigrees, for either American or Ohio Records, furnished with each sale. All inquiries promptly answered.  
Address **STEWART & BOYLE,** Wichita, Kansas.

## Riverside Stock Farm.



Herds of pure-bred and high grade Short-horn Cattle, Poland-China Swine, Shepherd Dogs and Plymouth Rock Fowls. The best her of Poland-Chinas west of the Mississippi river, headed by Black-foot 2281, Young U. S. 4491. Landable vol 6 (own brother to Look-No-Farther 405) and Seek-No-Farther (a son of Look-No-Farther). All stock sold eligible to the Ohio Record. Send for new catalogue. **MILLER BROS.**  
Box 298, Junction City, Kas.



**ROME PARK STOCK FARM,** located seven miles south of Wellington, Saline Co., Kansas; Rome depot adjoining farm. I have 35 breeding sows—Poland-China and La ge English Berkshire swine. Also 230 high grade Short-horn cattle. Stock recorded in Ohio and American Records. The animals of this herd were and are prize winners and descendants of prize-winners, selected with care from the notable herds in the different states without regard to price. The best lot of sows to be seen. Also using six boars—Corn-shell 2d, Kansas Queen, Kansas Pride, Corn's Victor, Ohio King, Hubbard's Choice,—sweepstakes. Orders booked for Spring Pigs. Address **T. A. HUBBARD,** Wellington, Kansas.

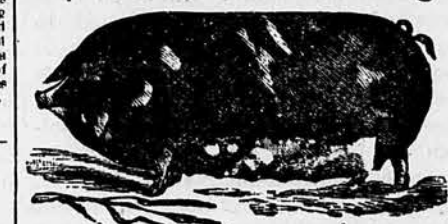
## Thoroughbred Poland-Chinas



**AS PRODUCED AND REED BY**  
**A. C. MOORE & SONS, Canton, Illinois.**

We are raising over 800 pigs for this season's trade. Progeny of hogs that have taken more and larger sweepstakes and pork-packer's premiums than can be shown by any other man on any other breed. Stock all healthy and doing well. Have made a specialty of this breed of hogs for 37 years. Those desiring the thoroughbred Poland-China should send to head-quarters, our breeders will be registered in the American Poland-China Record. Photograph of 34 breeders, free. *Swine Journal* 25 cents. Three-cent stamps taken.

## Improved Poland-China Hogs



We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have

## Hogs of Quick Growth,

Early fattened and early matured, showing a great improvement in form and style, especially in the head and ears.

Our breeders consist of the finest lot of Sows and three of the best Boars in the State, being descendants from the best families in the United States. Those wishing choice pigs should send orders in early as there is a very large demand for stock. Mail orders filled with dispatch. Pedigrees furnished with all hogs sold.

**S. V. WALTON & SON,**  
P. O. Wellington, Kansas; Box 207.  
Residence, 7 miles west of Wellington, near Mayfield.

**D. M. MAGIE COMPANY, OXFORD, BUTLER CO., OHIO,** Originator and Headquarters for Magie or Poland-China Swine. 751 head sold for breeders in 1883. Have shipped stock to Seven Foreign Countries. Send for Circulars.



## The Busy Bee.

### Spring Management of Bees.

The question is, what ought the spring management to be. In answer to this question I propose to give my own views in the matter, subject, of course, to the criticism of others who may have had larger experience than myself. My own experience with bees has covered altogether about eight years, yet I have much, no doubt, to learn. We all can still learn, no matter how much experience we have had or how many books we have read. We have, it is true, our standard works, Langstroth, Quinby, Cook, Newman and others.

But I have noticed one thing, which is this: In a progressive system like bee culture, the best and latest books on the subject get left behind, especially in practical details. They may not be left behind in principles, so far as they contain principles, for first principles never change. But it sometimes happens in bee literature, as in other departments, that theories are developed as principles before they are fully verified by facts and experience. In such cases oftentimes mere hypotheses have ultimately yielded to the stubborn fact of practical experience.

In the spring management of an apiary there are some two or three paramount objects the bee-keeper ought steadily to keep in view and endeavor to accomplish. The first is to preserve his bees from what is called spring dwindling; the second is to get them in good strong condition by the time the first honey flow comes, so that they can duly take advantage of it; and the third is to make such provision for early queens and good drones as he may deem requisite. As to the spring dwindling, it seems to be a fact that bees wintered in cellars and bee houses are more liable to it than those wintered outside properly protected. And here a mistake is, I think, often made in setting out the bees wintered inside too early. A colony well wintered inside and strong is not apt to dwindle in the spring if it gets anything like fair treatment. Do not set them out too early, keep them thoroughly warm after they are set out, and feed judiciously of both pollen and honey, and you will reduce the spring dwindling to a minimum. The best time to set them out, of course, depends on circumstances, and the bee-keeper must use his own judgment. I do not think it prudent to put them out for good much before the first natural pollen appears, especially if the spring is cold and backward. If, however, they get restless in their quarters, and dysentery should appear, they ought to be put out for a flight the first day that is sufficiently warm and fine. They can then be carried back again. But as pollen is required for the rearing of brood, in some cases where there is little or no old pollen in the hive, the colony might do better out if well protected and managed, for in such cases the artificial pollen for breeding can be more easily supplied them outside than in. I would, therefore, other things being equal, put the colonies with least old pollen out first, and keep those with most pollen in the longest. But how can I know how much pollen they may have in the spring before I put them out, you ask. Note the fact in the fall.

If, however, we cannot give the inexperienced bee-keeper very definite instructions as to the exact time to put his bees out in the spring, we can give pretty explicit directions how to manage them after they are out and the season's crop of honey will depend largely upon his spring management of the bees. If this part of his work is wisely and skill-

fully conducted, his chances for an abundant return, other things being equal, will be good. If poorly managed his chances are slim, for the bee keeper who does not know or care to manage his bees right in the spring will not know or care to manage them properly during the honey season. To be successful as a bee-keeper, his enthusiasm and care must reach beyond the inspiring honey season and extend through the whole year. Now the very first thing to be done with the bees after they are set out in the spring is to make them warm by closing all ventilating and other holes except a very small entrance, putting warm quilts on top and taking such other measures as may be necessary to prevent the undue escape of heat from the hive always bearing in mind that our protection does not create heat at all, but simply confines the animal heat which is generated by the bees. In the warm days when the sun is strong there is, of course, external heat, but in cold windy days, and especially when the atmosphere is humid, the escape of the animal heat from the hive, unless it be well protected, is very rapid and very injurious to the bees. Every avenue and crevice ought therefore to be tightly closed, except a very small entrance. In the spring, remember, we want no upward ventilation, as that matter will in the open air take care of itself, we want heat, or rather the bees and brood need it. Having thus duly attended to this first spring requisite, the next thing to do the first sufficiently warm day is to overhaul every colony and clean out dead bees, etc. Also take away all superfluous combs, and crowd the bees up in as small a space as necessary by means of division boards. If the colony is weak two or three of the best frames is enough at first for weak ones. I have very little faith in uniting weak colonies in the spring, especially at this early season. I never unite in the spring, except, perhaps, to get rid of poor queens. My experience is decidedly against the practice, that is when the weak colonies properly handled. Having crowded the weak colonies up into small, warm quarters, upon one or two or three frames, the stronger ones may, of course, be given more room and frames, from three to ten, depending upon their strength and condition.

During this overhaul of the hives, note should be made of two or three important matters and careful record made of them, so that the hives need not be opened any oftener during the cold weather than is absolutely necessary, for I regard frequent spring openings of the hives as a very bad practice. Besides the danger of chilling the young brood there is another serious objection to this practice at such a season, especially in bad weather. It not unfrequently happens that the disturbance caused by overhauling a hive causes the bees to ball and kill their queen. I have known such instances. In the honey season, when the bees are gathering freely, you can knock them about almost with impunity, with no bad results. But at all other times they ought to be handled with the utmost care. The one necessary spring overhaul should therefore be done with great care, and with dispatch, so as not to expose them too long, though the first opening in the spring seems never to disturb the bees as much as subsequent openings.

The two or three matters to be noted and recorded at this time are, first, is the queen all right; second, how many bees; third, how much honey is left in the hive; fourth, is there any old pollen, and finally, is there any young brood or has the queen commenced to lay. These points can all be noted in your apiarian

register or simply upon a piece of paper left under the cover of each hive. You can then tell at any time without opening the hive what its condition was at the time of examination. Years ago I made that mistake, but have got over that as well as other errors; experience is the best school, but the tuition is high, the expenses sometimes heavy. But this plan of building up the weak colonies in the spring at the expense of the strong is not, by any means, an unmixed good. There is this one evil about it which no doubt some have experienced, it sometimes happens that in robbing the best colonies to build up the others, so as to get them all strong by the time the honey flow comes, you find when it does arrive that instead of having all in fair condition, but none at all in first-class order to take advantage of the flow.

This is a great mistake and entails great loss; you might far better have a portion of your colonies strong and in first-rate condition to work when the flow comes, and the rest simply able to go on nicely without giving you any surplus, than to have all in fair condition but not able to give you much surplus, and a portion of them would be in first-class order when needed were they not systematically and unscrupulously depleted to build up the others. No watchful bee-keeper will be apt to make this mistake more than once; here again experience is salutary but dear. Of course in calculating beforehand, in the spring, how long it will be before your young workers will be needed for action, it is hard to hit the mark every time, and we do not care to have to feed a lot of idle bees for two or three weeks before the battle commences. Knowing the time from the egg to the perfect bee, and also the time your young bee hangs around the house and chores inside before it goes to work outside, you may add these times together and calculate, as you may think, with mathematical certainty just when to urge your queens up in laying, and after all nature in her freaks may sell you in the most ridiculous fashion. We had a realizing illustration of this last season; the fruit bloom was abundant; indeed, superabundant, and rich in the coveted nectar, but it came about two weeks or more after the usual time. So you see the bee-keeper must keep his weather eye open in the spring, on dame nature as well as on his queens, or he will surely get left. With all bee lore in bee-keeping, as in almost every other avocation of life, eternal vigilance is the price of success.—C. A. in Farmers' Review.

### This, That and the Other.

The natives of Australia eat the bats of the country, roasting them on coals.

The Chinese say they invented hairpins. We do not care where they came from but where they go to.

The greatest oleomargarine fraud yet perpetrated is labeling the buckets with a ferocious billy-goat to indicate genuine butter.

A spring of blood-red water, smelling like creosote and having a very pungent taste, has been discovered in a mine near Virginia, Nev.

Monkeys follow leopards on their way through the forest, shaking branches at them, chattering loudly, and even making faces at them.

A German professor has recently discovered that he can extract a white crystalline powder, greatly resembling quinine in its action, from coal tar.

The Chinese represent the moon by the figure of a rabbit pounding rice in a mortar, and sometimes by a beautiful young woman with a rabbit at her feet.

A "canina" recently exhibited in London, is an instrument called musical by courtesy, and producing its tones by dogs who sit in a box and growl or howl or bark, as 'tis their

nature to, when struck on the head by a wire connected with a key manipulated by a player.

If you will sit down and wait, young man, at least one huff of the good things of life will at some time eddy around near you, while the more you chase them the more they will break into a run.

Little Tommy was having his hair combed by his mother, and he grumbled at the operation. "Why, Tommy, you oughtn't to make such a fuss. I don't, when my hair is combed." "Yes, but your hair ain't hitched to your head."

"Just think! I once came across a negro that was actually so black that he could not be seen without a light." "H'm! I saw a fellow one time who was so thin that he always had to enter a room twice before he could be noticed."

Six fossil human bodies, those of a man, two women and three children, have been found in a cave in a coal mine at Ballygrenay, Pas de Calais, and eleven have been found in an adjoining apartment, with arms and utensils in petrified wood and stone, and precious stones. The walls were decorated with pictures and combats between men and animals of great size.

# \$11,950

## IN CASH GIVEN AWAY

Premiums No. 4 to 25

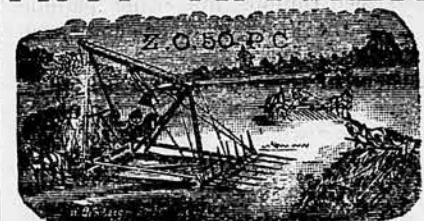
\$500
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\$10

Smokers of Blackwell's Genuine Bull Durham Smoking Tobacco will receive Premiums as follows on terms and conditions here specified:

**1st PREMIUM, \$5,000**  
**2d " \$2,000**  
**3d " \$1,000**  
 22 other Premiums as here shown.

The 25 premiums will be awarded December 22, 1894. 1st Premium goes to the person from whom we receive the largest number of our empty tobacco tins prior to Dec. 15. 2d will be given for the next largest number and thus, in the order of the number of empty tins received from each, to the twenty-five successful contestants. Each tin must bear our original Bull Durham label, U. S. Revenue stamp, and Caution Notice. Tins must be done up securely in a package, with name and address of sender, and number of tins contained, plainly marked on the outside, and must be sent, charges prepaid, to Blackwell's Durham Tobacco Co., Durham, N. C. Every genuine package has picture of Bull. See our next announcement.

## "ACME" HAY RICKER



## LOADER AND RAKES.

Protected by the only Original Patents. This machine is guaranteed to put up more hay in less time, and at less than half the cost by any other known method. One Ricker and two Rakes operated by five employees, will in one day take from 20 to 30 acres of hay perfectly clean from the swath as left by the mower, and pitch the same on the stack or wagon, in better condition than twice the force can windrow and cock the same. It seldom gets out of repair, but if it should any farmer can repair it. No farmer can afford to do without it. Write for price lists, terms and circular giving full information. ACME HAY HARVESTER CO., Mfgs., Peoria, Ill.

## Fast Potato Digging

THE MONARCH POTATO DIGGER  
 Saves its cost yearly, FIVE TIMES OVER, to every farmer. Guaranteed to Dig Six Hundred Bushels a Day!

SENT ON 60 Days' Test Trial.

Agents Wanted.

Write postal card for FREE elegantly illustrated Catalogue, in Six Brilliant Colors, that cost us \$2000 to publish. Monarch Manufacturing Co., 206 State St., CHICAGO, ILL.



## THE STRAY LIST

### HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker to the Kansas Farmer, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is assessed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

### How to post a Stray, the fees fines and penalties for not posting.

Broken animals can be taken up at any time in the year.  
Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.  
If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days after being notified in writing of the fact, any other citizen and householder may take up the same.  
Any person taking up an estray, must immediately advise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

The Justice of the Peace, all within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray. If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having been notified of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs. If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said appraisers, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting, and taking care of the stray, one-half of the remainder of the value of such stray. Any person who shall sell or dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

### Strays for week ending June 4, '84

**Lawrence county—Chas. F. Spencer, clerk.**  
MARE—Taken up by J. E. McCarty (P. O. Rossville) in Rossville tp. May 1, 1884, one black mare, 3 to 4 years old, left hind foot white, blaze face, not bridled; valued at \$30.

**Davis county—P. V. Trovinger, clerk.**  
PONY—Taken up by George Heidel, in Jackson tp. April 12, 1884, one bay mare pony, 3 years old, 13 hands high, branded B on left shoulder, small strip on nose, some white on right hind foot; valued at \$25.

**Kingman county—Chas. Rickman, clerk.**  
PONY—Taken up by M. McCord, in Hoosier tp. April 28, 1884, one small, dark-colored sorrel horse pony, blaze in face, 2 white feet; valued at \$15.  
PONY—By same, one small brown mare pony, anchor branded on left shoulder and S on left hip, white feet; valued at \$15.

**Anderson county—A. D. McFadden, clerk.**  
HEIFER—Taken up by A. P. Caldwell, in Rich tp. April 28, 1884, one white yearling heifer, bit out of upper part of left ear; valued at \$18.  
HEIFER—By same, one pale red and white yearling heifer, square bit out of left ear; valued at \$18.  
HEIFER—By same, one pale red and white spotted yearling heifer, no marks or brands; valued at \$18.

**Labette county—F. W. Felt, clerk.**  
HORSE—Taken up by Leander Pond in Hackberry tp. May 10, 1884, one bay horse, 5 years old, blaze face, white spot on each of its sides, indescribable brand on left hip; valued at \$25.

MARE—By same, one bay mare, blaze face, glass eyes 2 years old, as above; valued at \$20.

MARE—By same, one bay mare, about 9 years old, branded as above; valued at \$15.

MARE—By same, one black mare, about 4 years old, star in forehead, branded as above; valued at \$20.

HORSE—Taken up by J. D. Lombard, in Hackberry tp. May 15, 1884, one dark bay horse, 4 years old, 14 hands high, branded on left hip nearly like "I H," had on a head-stall; valued at \$30.

HORSE—By same, one dark bay horse, 15 hands high, 6 years old, branded as above on left hip (I H); valued at \$40.

### Strays for week ending June 11, '84

**Atchison county—Chas. H. Krebs, clerk.**  
HORSE—Taken up by Lewis Brothers, in Lancaster tp. (Huron P. O.) May 21, 1884, one bay horse, shod all around, some saddle and harness marks, about 15 hands high, 10 or 12 years old; valued at \$30.

PONY—By same, one sorrel horse pony, 3 white feet, white on forehead, rope on neck, branded on right shoulder and both hips, harness marks, age not given; valued at \$15.

**Ottawa county—W. W. Walker, Jr., clerk.**  
MARE—Taken up by B. M. Skene, in Grant tp. one gray roan mare, 8 years old, all in right ear; valued at \$30.

**Chase county—J. J. Massey, clerk.**  
HORSE—Taken up by J. D. Rizer, June 2, 1884, one light bay or brown horse, 10 years old, both hind feet white to pastern joint, some white in forehead branded 99 on left hip and a brand like "L," on left shoulder; valued at \$30.

**Cowley county—J. S. Hunt, clerk.**  
MARE—Taken up by G. W. Herbert, in Silverdale, May 2, 1884, one bay mare, 16 hands high, star in forehead with white stripe running down to nose, left

hind foot white, white speck over right eye; valued at \$50.

**Reno county—W. R. Marshall, clerk.**  
PONY—Taken up by George Schlickan, in Haven tp. May 17, 1884, one brown horse pony, 10 years old, branded S on right shoulder.

**Pottawatomie county—I. W. Zimmerman, clk.**  
BULL—Taken up by W. C. Walker, in Blue tp. May 21, 1884, one yearling bull red-roan with white spots behind the shoulders, white spot on left hip, star in forehead; valued at \$35.

**Davis county—P. V. Trovinger, Clerk.**  
MARE—Taken up by W. S. Clarke, in Jackson tp. May 8, 1884, one brown mare, 4 years old, about 15 hands high, narrow strip in face; valued at \$75.

### Strays for week ending June 18, '84

**Morris county—A. Moser, Jr., clerk.**  
MARE—Taken up by H. C. Phelps, of Ohio tp. May 29, 1884, one bay mare 2 years old, black mane and tail, 2 white hind feet, branded H. N. on left shoulder, has had a brand there before; valued at \$68.

**Jefferson County—J. R. Best, Clerk.**  
HORSE—Taken up by J. L. Speer, in Kentucky tp. May 26, 1884, one bay horse or pony, about 14 hands high, about 14 years old, supposed Mexican brand on each shoulder, right hind foot white nearly half way to knee, has saddle and harness marks; valued at \$45.  
HORSE—By same, one bay horse, about 7 years old, about 14 hands high, heavy mane, has saddle and harness marks; valued at \$55.

**Crawford county—Geo. E. Cole, clerk.**  
COLT—Taken up by T. E. Lamb, of Baker tp. May 28, 1884, one sorrel colt, 2 years old, about 14 hands high; valued at \$50.

MARE—Taken up by N. W. Slifer, in Crawford tp. June 2, 1884, one roan mare pony, about 14 hands high, branded M on left shoulder and hip, also with cross on right shoulder, scar on withers, supposed to be 15 years old; valued at \$45.

**Douglas county—Joel S. White, Clerk.**  
HORSE—Taken up by T. O. Blankenship, Clinton (Clinton tp. May 1, 1884, one black mare, about 16 hands high, small white spot on right hind foot; valued at \$75.

MARE—Taken up by R. C. Price, in Marion tp. April 28, 1884, one bay mare, pony-built, branded J. P. on left shoulder, white feet and face; valued at \$50.  
COLT—By same, one medium-size iron-gray horse colt, white face; valued at \$40.

### Strayed.

From the subscriber, 3 miles southwest of Leavenworth, evening of May 10, 1884, team of small horses. One bay, light on hips much darker on shoulders, age about 16 years, has rather large head; other very dark, nearly black, a very heavy mane, tail and forelock, age about 8 years, has Texas brand. Both have collar and saddle marks. A liberal reward will be paid for their return or information where they may be found.  
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## The Poultry Yard.

### How Had I Best Begin?

Among the large number of new subscribers we have added to our *Poultry Yard* lists, for the present year, we are in receipt of several hundred letters from novices in poultry raising, which contain in substance the question we quote as the captain of this article.

Several of these communications contain the request that we reply to them individually, by letter. We can not do this. It is impossible, with the accumulated and continually increasing business of this establishment, for us to devote the time necessary to answer such applications, in that way. We therefore take this method of responding to all, at once; and trust that the friendly new comers, whom we thankfully welcome among our patrons, will appreciate this general reply to their interrogations.

In a word, the best way for beginners in this work to commence is, to begin deliberately. One young man proposes to "start out with five or six hundred fowls, of all varieties," with the intent to raise poultry and eggs for marketing purposes. To him we say, take it leisurely. Learn to creep, before you try to walk or run. If you begin with one-sixth the number of fowls you mention, and choose your stock of only two or three, rather than "all the varieties," you can make more money out of the business in three years, and do this with far greater satisfaction, than if you commence with so large and varied a stock of poultry as you mention, about any kinds of which, thus far, you know so little.

Another amateur thinks he will try the culture of fancy stock only; and wants to embark in poultry keeping with "a hundred first-class fowls, of the very best that can be had, without regard to cost," because he entertains the belief that "this is the better way (if a man has the ready means to do with) to reach the goal of success in the shortest possible space of time." To him we reply, in all candor—don't you attempt this thing in this style. You have plenty of means, you say, and are willing to pay for the best of birds that you can procure. You "will build good houses, you can make use of any quantity of land upon your father's farm that may be needed," and you are "bound to go forward at a jump." Don't jump into this business, young man! Take it coolly. Read, study it for awhile, and then make up your mind to commence it wisely, with a few good fowls, properly selected from a very few fine breeds of the "fancy kinds." Cultivate these slowly, carefully, judiciously and economically, and you will be on the safe side, at the end of a year or two of practical experiment.

To all these anxious inquirers, we say in a general way, avoid unnecessary and foolish risks. The work of raising poultry advantageously is not unlike the prosecution of any other business you may venture into. If you have had no experience as a dry goods man, for example, would you dare to invest your capital in such goods, and open a store, to compete with those who had served a long apprenticeship in that line? If you were fresh from school, and had had no experience in the merchant's counting-house, would you be so presumptuous as to present yourself to assume the post of book-keeper or cashier there? If you had never been taught to handle a carpenter's tools, would you undertake to set yourself up all at once, for a house builder? If you had never studied the ins and outs of any mechanical business or trade, would you think of offering your services to run a steam engine, or a locomotive before a train of railway cars? These questions are pertinent, young men.

Now, although the business of rearing and caring for chickens is not so difficult a task to perform perhaps, as

either of the trades or professions just mentioned, still to raise good fowls, to feed and breed them properly, to hatch the chicks, to house, and mate, and bring them to maturity—to profit—requires some knowledge of our "art," and the work is by itself "a trade," the details of which can not be learned in a day, and which the novice should never undertake rashly, if he expects or hopes to take it remunerative.

It will pay you—yes. That is, it will remunerate you satisfactorily, if you go about it understandingly. But without some information as to its proper conduct, and without any knowledge of its details, how can one expect in this calling (any more than in another kind of business) that can be successful?—*American Poultry Yard*.

### Roup.

This disease is common to all localities and varieties, and, having been requested to give its cure, will briefly state what we can of it. It may be distinguished from ordinary colds by the symptoms, although it is induced and brought on by a cold and bad condition. A fowl out of condition, such as destitute of feather, poorly fed, or subject to exposure, is in shape to contract a cold, which may be known by a watery discharge from nostrils and eyes; the fowl will mope and "hump up" in the sunshine, or in any protected place, and cough or snap more or less.

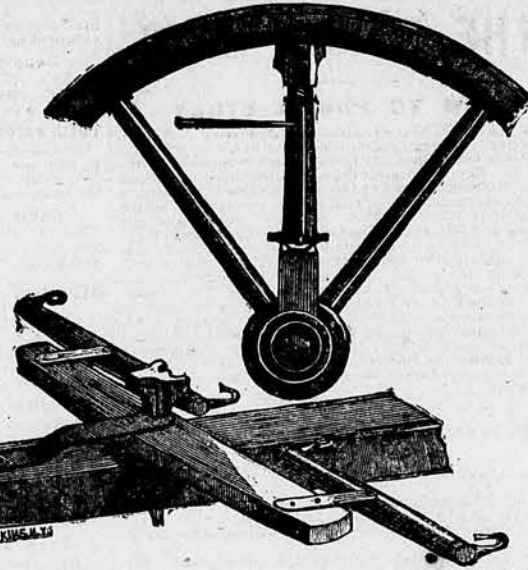
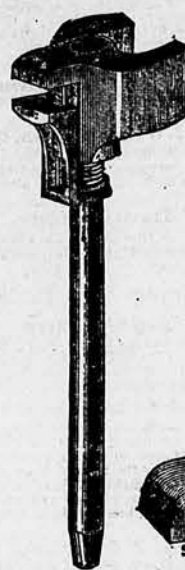
On running into roup the discharge from the nostrils will have an offensive smell, appear thick and stringy, the face will look old and sunken, the comb will draw up and wrinkle, and the fowl will present a dejected appearance. Sometimes the ducts from the nostrils to the eyes will be closed by the accumulation therein, and a large swelling will appear on the face or inside of the eyelids; the eye closes up by inflammation, and frequently the canker therefrom eats into the eye-ball and destroys the eye; in the meantime the fowl continues wasting away, and finally dies from the effects of the disease and starvation. Then, again, instead of fastening upon the head, it attacks the lungs or the passages thereto, and consumption ensues; the fowl coughs and snaps occasionally, but the disease has the advantage, and finally conquers.

One of the best remedies we know of, if taken in the early stage of catarrh and before it has become a "seated disease" is to "blow out" the nostrils. This is done by first washing the eyes, head, nostrils and mouth thoroughly with Castile soap and warm soft water, after wiping dry, open the beak, place the lips carefully and tightly over the nostrils, and with a sudden and vigorous blow open the ducts to the eyes and the nostrils into the mouth. Give the fowl a teaspoonful of castor oil, place it in a warm dry place, and feed on good soft food. The operation should be performed each night for a few days. Usually this will cure. The treatment may be styled heroic, and if any other plan can be devised to clear the head, by all means employ it. A rubber nipple is sometimes used for this purpose, but with indifferent success.

After "blowing out," take a small spring-bottom oil-can (such as is used with a sewing machine) and snap a little camphorated oil into the nostrils and roof of the mouth, rub a little about the eyes, or, what is better, anoint the eyes with Pettit's eye salve.

If this treatment does not cure the roup, the fowl should be relieved of its suffering by the common method. In cases where the discharge has hardened in the eyes, it should be removed by the aid of the point of a sharpened soft wood stick; care should be exercised, however, when operating near the eyes. If a lump has formed in the duct, it should be opened with the aid of a sharp knife, the substance removed, after which touch the place with water slightly blued with blue vitriol, and inspect it frequently for further accumulations.

**Prevention.**—Good houses and sheds, avoid exposure of fowls or chicks in molting time to the sudden changes from hot to cold, or dry to wet weather, as much as possible; keep fowls at such periods in as good a condition of flesh and health as possible; avoid overcrowding them, or allowing young and half-grown chicks to be pushed and crushed down by those more matured. Late chicks are very likely to contract roup in the fall of the year, if permitted to run with early-hatched and more vigorous ones.—*Fancier's Gazette*.



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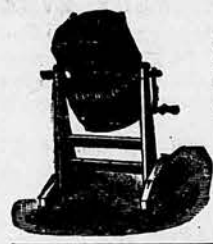
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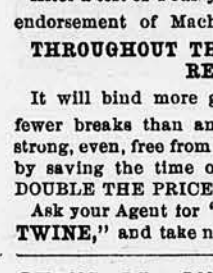
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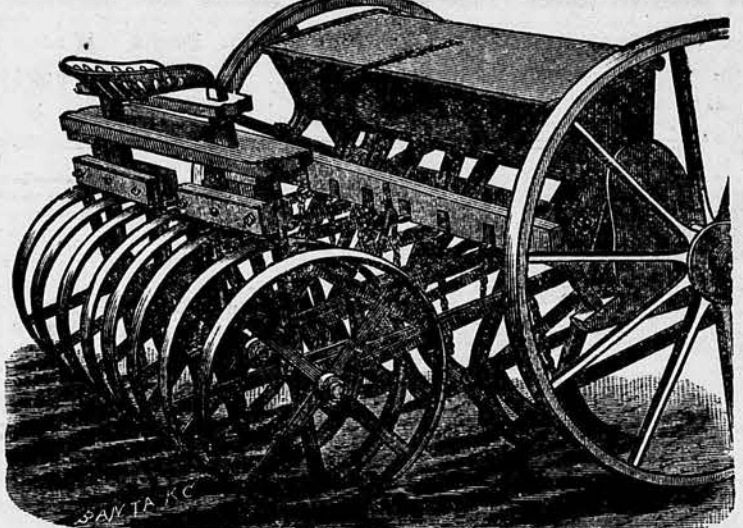
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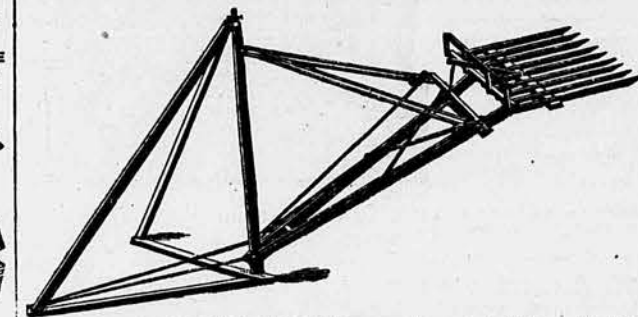
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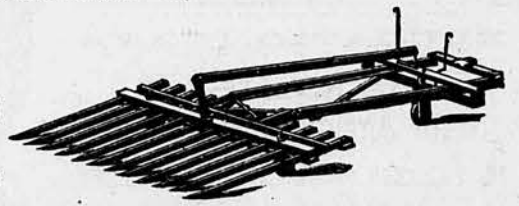


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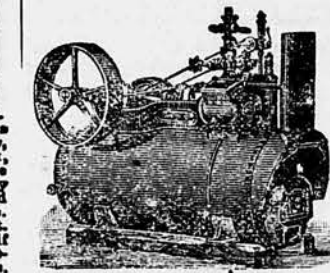
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Will do more and better work than any other Rake sold. Takes the Hay from the Swath.  
It is the cheapest and best Rake made  
One man can rake from 20 to 30 acres per day.



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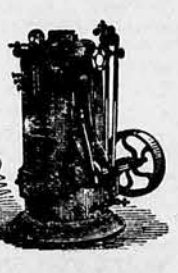
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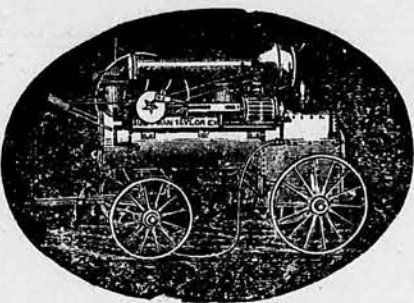
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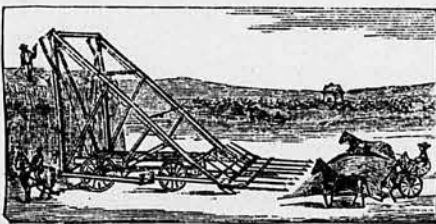
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No other Threshing Machinery can Show such a Record! None other is as Safe and Profitable for the Farmer and Thresherman to Tie to as

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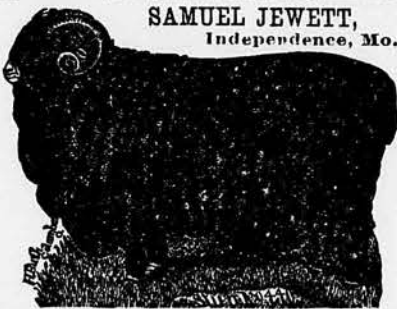
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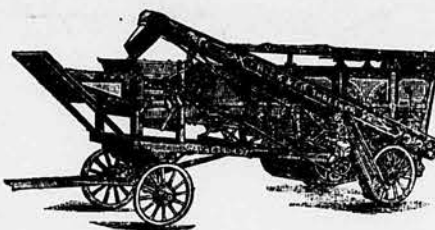
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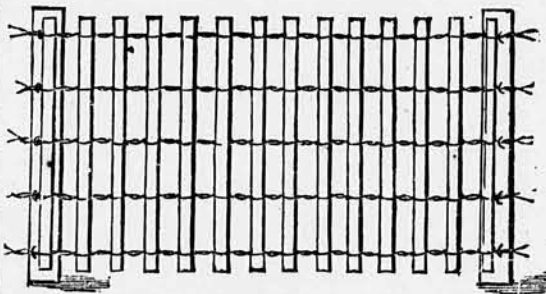
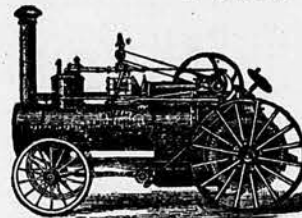
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