



TWO

TOPEKA: BUSINESS: INDEX

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The Western School Journal, TOPEKA, KANSAS.

OFFICE STATE SUPT. OF PUBLIC INSTRUCTION, TOPEKA, KAN., January 16, 1899. To County Superintendents:—I have this day designated the Western School Journal as the official organ of this department, through which medium, by agreement with the editor of the Journal, I shall in each issue reach Superintendents, teachers and many school officers. This designation is complete evidence of my confidence that the Journal can be safely entrusted by Superintendents as a paper which should be in the hands of every teacher.

The Western School Journal publishes monthly all the opinions and decisions of the State Superintendent, Attorney General, and Supreme Court on questions relating to our schools. These opinions and decisions will be worth much more than the cost of the Journal to any school officer. According to an opinion given by the Attorney General, school officers have the power to subscribe for an educational journal and pay for it out of the district funds. Our regular rate is \$1.25 a year, but to district boards, if three copies be taken, we can make the rate \$1.00. Please remit by money order, postal note, or registered district order. Address WESTERN SCHOOL JOURNAL, Topeka, Kansas.

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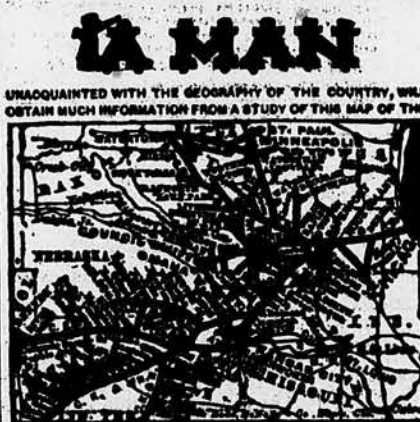
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## Agricultural Matters.

## Does the Farm Pay?

Paper read by P. J. Spreng, before a Farmers' Institute, at 'ak Grange hall, Shawnee county, February 15, 1889.

It pays as conducted; that is, it pays a profit under the management of some individuals; while, in the hands of others, it not only fails to pay a profit, but entails absolute loss. In consequence of this disparity of results, the difference in the systems of the plans pursued in the respective managements becomes a question of vital importance, an intelligent and satisfactory solution of which may be arrived at by a retrospective view of individual experience and observation of results. Cause and effect, which, to my mind, clearly and forcibly establish this fact—that we may only hope to succeed in such degree as we shall in our management, exercise and decree, personal vigilance, personal forethought, personal industry, personal frugality, personal courage, patience, and perseverance, personal order, methodical precision, sound discretion and ready judgment. These elements lead us to look closely and carefully into every detail of the internal workings of our management. They impel us to watch keenly, and study carefully, the influence of surrounding conditions, the prospects of supply and demand of future markets, and to be prepared to supply such products as are likely to bring the best returns.

The world must be fed so long as it is a world; and those who contribute to that end with the best judgment, will do so at a profit; while those whose management is thoughtless and indiscrete, will do so for little or no consideration aside from the scanty and indifferent supply of the bare necessities required to satisfy the stern demands of their own natures, which are usually soured by hard luck, as they have it, and rendered unhappy and discontented; for it is not human nature or American to be satisfied in any business that is not fairly profitable. And there is nothing which gives and individual higher social standing in the community than the fact that he is a success. I believe in the axiom, that the man makes the business, and not the business the man. And while in our pursuit, I recognize the fact that competition at home and abroad is increasing, middle-men, trusts and monopolies are multiplying to the disadvantage of both producer and consumer, necessitating on their part closer application, more earnest vigilance, greater perseverance and deeper

study in order to succeed. I also recognize this other fact that it is not so much the want of money that causes poverty amongst us as the want of a proper knowledge how to earn, how to spend and how to save.

While in our pursuit, as in every other business, there are many disappointments and unpleasant things to contend against; we also have much to encourage us. It is the most dignified, independent, ancient, honorable and important of all occupations. It is the focus upon which all other industries converge. It marks the position of the community upon the scale of civilization. It is the basis of our national prosperity and existence. Its birth was made possible only by the yeomen who left their plows in their furrows to aid the farmer of Mount Vernon in the overthrow of British tyranny. And in recalling the patriotic devotion of our forefathers, which has since been imitated again and again. When the tocsin of war was heard in our land, let us bear in mind that when the imperial mother of nations suffered her noblemen and urban citizens to crush the cultivators by unjust legislation and the free admission of agricultural products, her power began to wane. Goldsmith truly said:

Princes or kings may flourish or may fade,  
A breath can make them as a breath has made;  
But a bold yeomanry, their country's pride,  
When once destroyed, can never be supplied.

Of the 20,000,000 working people in this country, nearly 9,000,000 are agriculturists, a percentage of the whole sufficiently large, if organized and united upon any question of public interest, to compel favorable recognition by their public servants. And the great practical truth and characteristic of the present generation is that all reforms and public improvements are brought about only by voluntary association and combination. The principle of association—the practice of bringing men together for the same general object, pursuing the same general end, and uniting their intellectual and physical efforts to that purpose, is a great benefit. Our meeting together here that we may exchange opinions and experience with one another is of great importance. Conversation and intercourse with other minds is a general source of obtaining knowledge. The meeting of intelligent men and women face to face, talking over what they have in common interest makes them social, sharp and ready to give and receive such instruction as will shed new light upon the workings of nature in the economy of animal life, and in the vegetable productions of the earth, to make plenty rise from the encouraged plow to fill, enrich and adorn our happy homes.

## About Silos and Ensilage.

EDITOR KANSAS FARMER:—Seeing several articles in your valuable paper on farming, crop-raising, and so forth, I thought I would write a short article, and ask for information in regard to silos and ensilage. In the first place, I would like to know the cheapest, and at the same time, a good way of preserving green feed for the winter. Some farmer who has had some experience in the silo and ensilage business, please write, giving us the cheapest and easiest way of making silos, as we western farmers are not able to buy lumber and build any building which would cost us more than our feed is worth after we have it preserved. I would like to know if a silo dug in a hillside would answer the purpose of a frame building (providing it is perfectly dry), and if it could be covered with hay (providing enough is put on to turn rain and snow) instead of lumber, and is it necessary to cut the feed up in

short pieces, or could it be packed without? I would be very thankful to any farmer giving any light on this subject.

I think your paper is the best paper I have ever read concerning farming, stock-raising, and so forth. I wish every farmer could read it. I do not think there would be as much grumbling about no crops and hard times as there is in southwestern Kansas; they all could read and give each other their views on all subjects concerning farm life.

PERRY HARRINGTON.

Ingalls, Gray Co., Kas.

## The Best Rotation.

EDITOR KANSAS FARMER:—At our last Farmers' Club meeting the question for discussion was the best rotation of farm crops. One member claimed that corn, oats, clover and back to corn, plowing the clover under in the fall and following this up, having a permanent pasture and a permanent meadow, and keeping the meadow up by applying top-dressing of well-rotted and fued manure. Another claimed that corn, oats, clover, wheat and grass, plowing up the grass and putting in corn, and then following with oats again was the better system. But taking the average yield of wheat and at present prices the crop does not pay expenses. But a better yield must be secured. One of the advantages in following a system or plan of rotation is to make the soil rich and thereby increase the yield, and in doing this in many cases the growing of wheat may be made profitable. Another suggested that it was often difficult to secure a good, even stand of clover or meadow grass, and for this reason it was not always a good plan to plow up one lot until another had been secured; and his plan of a rotation would be one that would admit of the one remaining until the other had been secured; so that the risk of a failure to secure a supply would be materially reduced. There is but a small amount of benefit to be derived from a system of rotation and plowing under clover unless their is something to turn under. To harvest and sell the first crop, and then kept in portions during the summer so as to keep down the growth, as to cut the second crop for seed, and not leave a good growth to turn under. Of course there is some benefit in the roots, but not sufficient to add any considerable quantity of fertility to the soil. But there are other crops suggested. The rotation must be varied to suit the requirements of different localities. What is best in one section will not be always the best in another. One advantage with a rotation is that a better division of labor is secured and the work can be done with less extra help than where a speciality is made with one or two crops. Whatever plan is followed, arrangements must be made to feed out the various crops to stock on the farm, making, saving and applying all the manure possible. Growing and selling clover or hay is as heavy a drain upon the fertility as that of any other crop.

N. J. SHEPHERD.

Eldon, Miller Co., Mo.

## Seed Corn.

By D. D. Perry, and read before the Golden Belt Institute, held at Peabody, Kas., February 27, 1889.

To my mind the farmers who have been sending North and away from home for their seed corn and changing every year have been making a mistake. I selected my seed corn last fall from the same kind of corn that I have been raising on my farm for the last ten years, and I must say that the cob is smaller, the corn is sounder and weighs heavier than when I first started with it. One of my neighbors is still raising the same kind of corn that was brought from Indiana twelve or fourteen years ago, and it

has increased in quality and yield since. I do not wish it understood am opposed to trying new varieties, and most when you get a good one stick to it. . . . C. E. you select and plant the best, it will be a breeder ter every year. I am thoroughly convinced that Marion county grown corn is the Angrez for Marion county. In other words, I believe that corn must become acclimated before it will yield the best. I urge the necessity of selecting your seed corn from your own field, and select when you gather your crop. Choose a full-grown, sound ear, with small red cob. Seed corn ought to have a certain standard as well as horses and cattle, and if it does not come up to this standard, discard it. As to the color, I have but little to say, only I prefer the yellow dent, as it is more oily and consequently weighs heavier. As to the early or late, I have much to say, and I wish to say it emphatically, without being misunderstood. I have tried both, and I have seen it tried. Early corn as a profitable crop is a total failure. One year ago I sent to Lawrence and got one bushel of what was called the improved ninety-day Learning corn. I also sent to Topeka and got one-half bushel (though by a little different name), but it turned out to be the same. I planted the early corn one day and late corn the next. I plowed the ground the same and cultivated the same, and what a result. (Here showing average samples of both early and late varieties, three ears of the early weighing fifteen ounces, while three ears of the late weighed two pounds and eight ounces.) Now then, understand me, this is not my first experiment, for I tried it before and always with the same result. I have bought a great deal of corn, and I never bought a good load of early corn in my life. It always tassels and comes into bloom about the middle or last of June and looks very promising until the first or middle of July, when it begins to set ears and ripen; at that time we always, or nearly always, have very hot and dry weather, and as it is quick to mature it does not get the benefit of but few light rains. Nine times out of ten it will not succeed. To my mind, the following are the rules to go by to insure a good crop of corn: Select the best seed corn; plow deep; cultivate often; trust to God, and you will have corn to sell and keep.

The through vestibuled sleeper of the "Chicago Vestibuled Limited" now leaves Topeka via the Union Pacific at 2:53 p. m., arriving in Chicago via the Chicago & Alton at 8 a. m. next morning. This train is vestibuled from end to end, and is composed of smoking cars, palace reclining chair cars, Pullman palace buffet sleeping cars and dining car. The only through sleeper between Topeka and St. Louis leaves Topeka via the Union Pacific at 2:53 p. m., arriving in St. Louis at 6:40 a. m. next morning. No other line offers such unusual facilities for comfortable travel or for quick time. Tickets may be obtained of F. A. Lewis, city ticket agent, 525 Kansas Ave., or of J. F. Gwin, at the depot.

The Union Pacific has added another round to its ladder of popularity by placing a buffet service for its sleeping car patrons in the Pullman sleepers run on the regular overland trains.

An appetizing lunch which can be enjoyed at leisure in the Pullman buffet sleepers run on the regular overland trains of the Union Pacific is one of the many inducements offered Pullman sleeping car patrons to take the "Overland Route."

## Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought. T. E. BOWMAN & Co., Jones Building, 116 West Sixth street, Topeka, Kas.

## Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for Consumption. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Express and P. O. Address. Respectfully, T. A. SLOCUM, M. C., 181 Pearl St., N. Y.

## TW Stock Interest.

"For 25 cents per copy" (Hogs in Southwest Kansas. A recent number of the *Clark County Clipper*, the following suggestion article appeared:

As we are so far from any market for the crops that are surest in this county that they cannot be raised and shipped profitably, it becomes our farmers to secure some kind of stock into which to feed these crops, that the farmers may reap the profits rather than the middlemen. This list will comprise horses, cattle, hogs, sheep, poultry, etc. As raising horses for market successfully requires a larger capital than many of our farmers can command, it would be useless to urge our farmers to all start horse ranches, although many may make money by going as far in this direction as their means will admit of. Cattle, although not so expensive as horses, it is still beyond the limit of a majority of our farmers even to have a large herd of cattle. We would like to urge them, however, to get all the calves they can and hold on to all they get. Sheep require so much care and close attention that not every one is able to handle them profitably. But hogs multiply rapidly, thrive well and can not only be kept but fattened on so many crops that are easy to raise and sure to produce, that the cost of keeping and fattening a hog is very small. A man with a very small amount of money can buy from five to twenty good brood sows and by careful breeding can, in two years, have a large drove of hogs. He can keep them or fatten them on sorghum, rice corn, milo maize, peas, peanuts, Kafir corn, pumpkins, watermelons, any of which are a sure crop, and easily raised and cared for. After the first year, if properly handled, he can market twice a year a bunch of hogs from 6 months to 1 year old, weighing from 100 to 250 pounds apiece, and bringing more per pound than any other kind of hogs. A brood sow is supposed to be in her prime between the ages of two and five years, and should then be fattened. By being careful to breed to nothing but the best of hogs, and by carefully selecting the most likely pigs each time for brood sows and preventing the others from breeding, you can raise the standard of your drove of hogs instead of letting it run down. The care of hogs is something that is considered but very little. They are the most abused of any class of animals. Any number less than one hundred head should have a lot 300 by 500 feet at least. It ought to have a draw or some rough land in it, the more the better. It must be closely fenced so as to prevent the hogs from getting started to tearing through, for if they get started you never can stop them. They must have plenty of fresh, pure water at all times, not occasionally, and they ought to have all the feed they can eat, so they will leave a little but not waste any. A change of feed every two weeks is beneficial. Shade is necessary. If there is no natural shade, it must be provided by trees, or a shed built on posts, covered with cane or straw, which should be fully six feet high and flat-roofed, and as large as possible, well drained and with no sides. When fattening, the hogs should be crowded in a much smaller space. Vicious hogs put by themselves, so there will be no fighting or running around. Be kind to your hogs—you will have less trouble with them and they will fatten faster. The main question after that of feed is the market. Heretofore, Kansas City has been our nearest market, but now we

have just as good markets nearer home. With about half the expense our farmers can now ship to Wichita or Hutchinson and receive just as good prices as at Kansas City. Two of the largest pork-packing institutions in the country are now located at Wichita, and Hutchinson also has ample facilities in that line, and Clark county has direct railway communication with both cities. The question that now remains to be solved is whether our people will utilize these opportunities as they are brought face to face with them. There is more profit in hogs than in anything else farmers can raise, considering the amount invested, and a better market afforded for them than anything else. Farmers, if you want to roll the mortgages off your farms, roll the hogs out, and care for them properly, and Clark will soon be one of the wealthiest counties of the great West.

### Hog-Raising for Profit.

Mr. H. F. Mellenbruch, of Brown county, is thus reported at the Hamlin Institute, recently:

He favored the cross of the Poland-China with the Jersey Red, using thoroughbred males, because that produced a thrifty hog, prolific in raising pigs, marketable at seven or eight months, and also profitable to feed eighteen months, and ranging in weight from 225 to 600 pounds. He advised saving only the very best for breeding purposes; neglect of this will make any breed run out. The choicest sows should have pigs early in March, and these bred again to have pigs in September. The rest should have pigs in May. Do not keep too many in one place, for health and comfort; if in a hog-house, give them plenty of air; if in a pasture, shade and water is desirable. Feed at regular hours. Corn is good feed for hogs, but they must also have some other for a change; summer grass will do. Marketing with profit is an unsolved problem when prices are fixed by the combined buyers to suit their avarice. Kansas farmers should at least butcher enough hogs and cure enough hog meat to supply Kansas people, and thus save to themselves the profit that transportation both ways costs. Have hogs mature at different times of the year and it will enable us sometimes to avoid a crowded market. Kind treatment in handling will make hogs gentle, and their raising a source of pleasure.

### The Commercial Hog.

The *Michigan Farmer* presents a very interesting paper on the above, read by Mr. Gibbons before the Michigan Swine Breeders. He says:

"I will start out by saying that the 'commercial hog' (I intend nothing personal in the term, although I have heard it applied to various citizens with strong accumulative propensities), is rapidly changing. The change can be noticed by any person who frequents the stock yards and meat markets of our large cities, and watches the style of hog meat in demand by the curer, the packer and the retail butcher. Twenty years ago the hog which filled the barrel quickest was the best hog to raise, and gave the best returns to the breeder, the feeder and the packer. We had the 'big hog' on the brain. Every neighborhood had one, which the local press glorified as a bigger hog than any other big hog. That part of the hog business has, to use an Americanism, 'played out.' The next change was to a big hog of lighter weight, light offal, and a perfect tub of lard. That hog has got to go with his illustrious predecessors; and in his place must come the 'commercial hog,' good for the feeder, because he can be put in the

market early, and good for the curer or butcher, because he will furnish the grade of meat which is demanded by the public.

"You will naturally ask for a description of such a hog, and want to know the breed he belongs to. He is of no particular breed, and may be any one of those now claiming favor. The butcher who supplies his customers with nice juicy roasts and steaks refers to this hog as a 'block hog'—that is, the hog which will cut up best on the block and furnish the most desirable class of meat to his customers. The curer, and he is getting to be a more important party in the hog business each season, calls his particular style of animal a 'bacon hog.' He is the hog which will furnish the best cuts of bacon for curing, with good hams and shoulders. Now I notice that the curer's bacon hog and the butcher's block hog are very similar in make-up, and that in the stock yards these two classes are competing for the same style of animal.

"This animal is of medium or even light weight, anywhere from 175 to 250 pounds, rather long-bodied, free from any inclination to a large belly, the back well rounded from the ribs being sprung, and the bulk of meat being carried above the center of the body. His back will be broad and straight, while his bottom line will be equally so. His hams are full and well rounded, the meat carried well down to the hock, and the legs straight and well set under the body. He has more bone than the lard hogs of five years ago, and can be shipped 500 miles without coming into the yards as a cripple. He is an active hog as compared with his predecessors, looks like a 'rustler,' and evidently has a good deal of muscle mixed with his fat. His head is rather small, and his nose not too long, with fine ear; he has good feet, a good coat of hair, stands square on his legs, and has an independent expression which shows plainly that he knows he is a popular favorite. Now that is the 'commercial hog' as I gather from contact with those who make themselves rich dealing in his carcasses. So far the demand for him has not been supplied, for it is growing much more swiftly than our population is increasing, while the bacon and cut meats shipped abroad are becoming a more important item every day. I must content myself with offering you a pattern of the 'commercial hog,' but your skill as breeders and feeders must be the reliance of those who need them. I am not in a position to do more than talk, and give the results of observation. But you will see that if the change described is really taking place in the class of hogs needed to meet the requirements of consumers, either home or abroad, it is a very practical question to you, gentlemen, as to how this demand shall be met. For no matter how much you may differ in respect to the best class of hogs to raise, and though the present popular demand may not meet your approval, yet, as a business proposition, the man who comes nearest meeting the demands of his market is the one who must be the most successful financially."

In the description of this ideal commercial hog, he says: "He has more bone than the lard hogs of five years ago, and can be shipped 500 miles without coming into the yards a cripple." We would ask, to what extent does size of bone signify strength? In our opinion, size of bone is not indicative of strength. The quality strength is demonstrated through the formation of the bones and joints. A large bone signifies coarseness of grain, openness and softness, and such a bone if sawed will have the appearance of a sponge or the inside of a loaf of bread that has

not been well kneaded. The smaller the bone the finer the grain; the more solidified the minor portions the more hard the outside, and in proportion to its size a bone of this formation will support twice the weight, and do it better than the large, coarse bone. This being a fact, and it is demonstrated in nearly every carload of hogs received at any of our large stock yards, or small ones either, why introduce into this commercial hog the large bone? The packer has no use for ten or twenty pounds more of bone to each hog. We who eat the "juicy steak, ham and shoulder" do not want to buy a pound of bone to each pound of steak. The ideal 'block hog' is not one that will keep the butcher busy chopping and sawing bone. The fact of the matter is, large bone is wanted by no one. It has had its day, and the compact meat, hard bone, with joints well set, is what handlers of the hog and hog products want, and it is that style of bone the commercial hog must have if he be a successful traveler, a perfect cutter, either for packers, butchers or private consumers.

### Collecting and Distributing Information About Stock.

Mr. D. H. Talbot, Sioux City, Iowa, proposes a system of collecting and distributing information useful to stock-raisers. Here is a brief outline of his plan:

"Last season, as a matter of experiment, I sent to several hundred owners and feeders of cattle on the range and elsewhere in the country, circular letters, in which were asked various questions pertaining to the cattle trade. A great many gave me the required information, and taken as a whole, proved of great benefit to me. So much so, that while the information did not seem of any immediate value, by making a careful study of the whole list, these answers with other general information, even after months, proved its reward. This beginning proved to me that by a general co-operation of cattle-owners, growers and feeders giving such information in a general way, that they can at regular intervals, say once in two weeks, or better, once a week, be made aware of the condition of the cattle trade in the various parts of the country, then each should operate upon such a basis that would certainly prove to his advantage and make seemingly in a short time a more steady market. The plan I think most feasible is as follows: To begin with. That we may know that the information will be of some value, cattle-owners, growers and feeders in the various parts of the country will be consulted and requested to give answers to these general questions, that may prove of advantage to the cattle trade. In some cases my agents will make special investigations and reports, but the information will come generally through correspondence with cattle men. In a general way, aside from my special agents, circular letters will be sent weekly to cattle men, who are subscribers to the report, and who will be expected to return as accurate a report of the cattle movement in their section of the country as it is possible for them reasonably to give. Thus individual reports will at once, upon receipt at my office, be rearranged, but not necessarily very much condensed, and printed. These printed weekly reports will be at once sent by mail to the various subscribers who will then have every week this collated information from the best sources in the country."

Persons further interested would do well to correspond with Mr. Talbot.

BEST EVERGREENS FOR KANSAS. See Tinscher's cedar ad. in two-cent column.

**In the Dairy.**

**Address to the Butter and Cheese Manufacturers of Kansas.**

The manufacture of butter and cheese in this State has made rapid strides within the last year. There are now in operation about 160 factories. The large majority of them are in the hands and under the control of men of little experience and practical knowledge of the business. Some time ago it occurred to these manufacturers that it would be profitable and beneficial to form an association for the purpose of aiding and assisting one another by disseminating knowledge and information respecting the dairy business.

Actuated by such motives, a meeting was held last May at Salina, followed by several others. The last was held at Salina, on the 16th day of February, 1889, and was attended by delegates from many of the factories in the central part of the State. Great interest was manifested in the ends and objects to be attained by means of the association. The constitution and by-laws were adopted, a program of exercises for the next meeting was prepared and the delegates separated, all convinced that great good would result to our growing dairy interests through the medium of the association they had just formed, and each carrying away with him, as a result of the intercourse with his fellow manufacturers, new ideas applicable to his own business. Among other things determined at the meeting, was to issue an address to all the factories of the State, requesting them to give some thought and attention to the advantages to be derived from such an association, and requesting them to send delegates to the next meeting, to become members of the association, and to assist those already in the field in the grand work of pushing Kansas to the front rank among the dairy States.

Concerted action gives up power. The better we are united the greater influence we can exert on markets and legislation. The more thoroughly we are organized the better we can scatter abroad the knowledge and information necessary to the successful operation of the business and the greater the benefits which may accrue to individual factories.

A factory management can, if its purse is long enough, shut itself up in its own shell and buy its own experience, or, it can unite itself with such an association as this, and by a very small outlay of money and a very moderate expenditure of time, learn a great deal that is useful in carrying on its business. The interchange of ideas with others engaged in the same line, will be advantageous to the wisest, and will often save the inexperienced from loss. We can teach one another how to manage factories, how to make butter and cheese in the most economical way, how to produce goods of the highest quality, where to find the most remunerative markets, and how to protect ourselves against the depredations of dishonest dealers. We can gather valuable information as to machinery and appliances used in our business, and carry back with us to our patrons many ideas of great value, primarily to them and secondarily to us. In organizing for instruction and protection, we are but following in the footsteps of all other manufacturing industries which have achieved any degree of success. We cordially invite every factory in the State to join with us. Our next regular meeting will be held at the National hotel, in Salina, on the second Wednesday of April, 1889, to which meeting we

hope you will send a delegate to help the good cause along.

J. M. ANDERSON,  
Secretary of Kansas Butter and Cheese Manufacturers' Association.

**Butter Factories.**

The average dairyman who has been making butter always finds that he can do better to patronize a good butter factory than to undertake to make butter on his farm. Of course under the most favorable conditions as good or better butter can be made in a private dairy. A butter factory can take the cream from any neighborhood and get more money for the butter than an average price if made by the same patrons at their homes. This is because it is better made and is more uniform and it makes for itself a reputation. Then the factories employ educated and trained butter-makers. The average dairyman does not equal them in skill, and does not have the appliances to do it with. The reduction of the labor on the farm and the consequent benefit to the wives is reason enough why the average farmer should patronize the butter factory. This everlasting talk about the percentages of cream, and one man doing more than his share and another doing less, is mighty unprofitable. No good comes out of it. It can only lead to distrust, dissatisfaction and discouragement, and some men who are doing better and getting more money than they ever got before from their dairy will imagine they are being robbed.

It is an easy thing for a factory to run smooth and prosperous, and it is as easy for it to run to the down end. The way to prosperity is for every one to do their best and to keep their tongues still and not run around and growl and find fault. Occasional tests made by this man and that one to show whether he is getting his full share of butter credit as to milk or cream, do not prove anything. Get as near as possible, cows of the same breed, and then follow a general rule in their care and feeding. The next thing is to secure uniformity of conditions for the handling of this milk, apartments of a similar character, and apparatus similar for the raising of the cream.—*New England Farmer.*

**How to Keep a Dairy Cool.**

A correspondent of *Hoard's Dairyman* sends the following borrowed plan of keeping a dairy cool, and then suggests that while it may do well for a butter dairy, it would probably make the room too damp for cheese. Here is the article:

"I must just give you to understand that my dairy is not a grand stone structure, with flagged floors, neither is it built of brick, nor is it dug out of the side of a hill. But though simply wade of timber, of the board and batten type of construction, and attached to the back part of my house, I will venture to say that it is one of the coolest, if not the coolest dairy, in the Kaipara.

"Having made this assertion, I shall now endeavor to show, for the benefit of any of your readers who may like to try the plan, how it is that I dare to do so. At each end of my dairy I have a large opening or window, covered with perforated zinc, to keep out flies and other insects, and at the same time to insure a thorough draught. On the outside of these openings are stretched pieces of canvas nailed to tapering strips of wood, placed one on each side of the window. Above each window is fixed a kerosene tin can cut open on one side to allow of its being filled with water. In this receptacle I introduce one end of a piece of cloth, the other

end hanging over the outside of the can, and touching the canvas blind, to which it is sewed, in order to prevent it blowing about with the wind. Along the bottom of each canvas blind is a trough of tin forming a gutter, and under the lowest part of this gutter stands a bucket. The apparatus being thus completed, the tin cans are filled with water, which being gradually absorbed and drawn up the cloth by the force known as capillary attraction, drops down on the outside, and keeps the canvas blind saturated with moisture.

"The evaporation from the film of water thus spread over the canvas covers, produces cold, and the air chilled by this means, enters the dairy through the perforated zinc.

"A kerosene tin can filled with water, with cloth attached, will keep the canvas saturated for fifty hours, without attention, and then all that is necessary is to pour the water which has run into the buckets beneath the gutters, back, adding, of course, the quantity lost by evaporation.

"In this way any one can secure a perfectly cool dairy with very little trouble and scarcely any expenditure. As a proof of the efficiency of the plan, the following will show:

"From the meteorologic tables published from the observatory, I find that the hottest day of the year before last was the 5th of November. On that day the temperature in the sun was 154 degrees, and in the shade 97 degrees. From the state of the atmosphere as to dryness on that day said dairy window would have been 23 degrees lower than the shade temperature, and those adopting this inexpensive and simple means of cooling, would have a temperature of some 74 degrees, while that outside in the shade was nearly 98 degrees; while the unfortunates in the sun were suffering 154 degrees."

Program of the next quarterly meeting of the Kansas Butter and Cheese Association, to be held in Salina, commencing Wednesday, April 10, 1889: Cheese-making, A. Curtis; Kansas and the dairy cow, W. B. Sutton; feeding and caring for dairy cows, T. B. Sears; milk-testing, W. T. W. Sterling; manufacturing and storing of butter, C. F. Armstrong; silos and ensilage, Capt. A. C. Pierce; ice houses, J. F. Crofoot; creamery management, J. E. Nissley; the best system of dealing with patrons, W. R. Kaffer. The association will endeavor to provide instructive entertainment for the delegates in addition to the above program.

To break a cow from kicking, take a strap or rope and fasten just front of her bag around the cow, moderately tight. She may buck a little at first, but she will not kick or run. Best tie her up at first, until she gets used to the strap. Cut this out and paste it in your hat until needed. C. M. STARK  
Elk City, Montgomery Co., Kas.

"I am weary of living," moaned poor Mrs. Black.  
"For I'm fairly worn out with the ache in my back."  
My nerves are a chain  
Of weakness and pain,  
And my poor head is aching as if it would crack."  
"Now, don't be discouraged," cried good Mrs. White,  
"It is never so dark but there's promise of light."  
I can tell you, in brief,  
What will give you relief—  
Pierce's Favorite Prescription will soon set you right."

It is the only remedy for woman's peculiar weaknesses and ailments, sold by druggists, under a positive guarantee from the manufacturers, that it will give satisfaction in every case or money will be refunded. See guarantee on bottle wrapper. Large bottles (100 doses) \$1. Six for \$5.

Throughout the United States 2,000,000 acres are devoted to apples alone.

**WELLS, RICHARDSON & CO. and most Improved Butter Color.**

**EXCELS IN STRENGTH PURITY BRIGHTNESS**

Always gives a bright natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's Improved Butter Color. Three sizes, 25c. 50c. \$1.00. For sale everywhere. **WELLS, RICHARDSON & CO. Burlington, Vt.**

**TO MONTANA, OREGON AND WASHINGTON.**

If you are going West, bear in mind the following facts: The Northern Pacific railroad owns and operates 987 miles, or 57 per cent. of the entire railroad mileage of Montana; spans the Territory with its main line from east to west; is the short line to Helena; the only Pullman and dining car line to Butte, and is the only line that reaches Miles City, Billings, Bozeman, Missoula, the Yellowstone National Park and, in fact, nine-tenths of the cities and points of interest in the Territory.

The Northern Pacific owns and operates 621 miles, or 52 1/2 miles, or 56 per cent. of the railroad mileage of Washington, its main line extending from the Idaho line via Spokane Falls, Cheney, Sprague, Yakima and Ellensburg, through the center of the Territory to Tacoma and Seattle, and from Tacoma to Portland. No other transcontinental through rail line reaches any portion of Washington Territory. Ten days stop over privileges are given on Northern Pacific second-class tickets at Spokane Falls and all points west, thus affording intending settlers an excellent opportunity to see the entire Territory without incurring the expense of paying local fares from point to point.

The Northern Pacific is the shortest route from St. Paul to Tacoma by 207 miles; to Seattle by 177 miles, and to Portland by 234 miles—time correspondingly shorter, varying from one to two days, according to destination. No other line from St. Paul or Minneapolis runs through passenger cars of any kind into Idaho, Oregon or Washington. In addition to being the only rail line to Spokane Falls, Tacoma and Seattle, the Northern Pacific reaches all the principal points in northern Minnesota and Dakota, Montana, Idaho, Oregon and Washington. Bear in mind that the Northern Pacific and Shasta line is the famous scenic route to all points in California.

Send for illustrated pamphlets, maps and books giving you valuable information in reference to the country traversed by this great line from St. Paul, Minneapolis, Duluth and Ashland to Portland, Oregon, and Tacoma and Seattle, Washington Territory, and enclose stamps for the new 1889 Rand-McNally County Map of Washington Territory, printed in colors. Address your nearest ticket agent, or CHAS. S. FEE, General Passenger and Ticket Agent, St. Paul, Minn.

**The "Eli" Once More.**

The Burlington Route (Hannibal & St. Joseph R. R.) once more leads all its competitor, in restoring the fast train service between Kansas City and Chicago. The train so well known a year ago as the "Eli," and so deservedly popular with the traveling public, has once more been put on. It is a solid vestibule train with sleepers, free chair cars and coaches, and makes the through run between the two cities in about fourteen hours. Leaving Kansas City in the evening the passenger takes supper on the dining car and arrives in Chicago for breakfast, and vice versa on his return. This is a great saving of time, and the Burlington's action in restoring this service meets with the hearty approval of all business men and the public generally.

The Burlington's new St. Louis line increases in popularity every day, and now holds a high place in public favor. The Burlington runs on this line through Pullman Sleeping Cars of the latest improved design, and Reclining Chair Cars, seats in the latter being free of charge. We should also strongly advise any one going to Omaha, St. Paul, Minneapolis or the Northwest to take the daily forenoon train on the K. C., St. J. & C. B. R. R., which has a through Pullman Buffet Sleeping Car from Kansas City to St. Paul and Minneapolis and free Chair Car to Omaha, or take the evening train from Kansas City, which has a through Sleeper and Chair Car to Omaha. All of the above trains are in every way models of comfort and convenience. A. C. DAWES, General Pass. & Ticket Agent, St. Joseph, Mo.

**Bulls for Sale.**

Fifteen choice Short-horn bulls, from 8 to 20 months old; also a choice number of heifers. Will sell at reasonable prices on terms to suit purchasers. Address T. P. Babst, Dover, Shawnee Co., Kas.

I will mail a valuable present to any minister, teacher or friend of education on receipt of address. THOS. J. BRYANT, St. Joseph, Mo.

## Two Correspondence.

### Alfalfa Culture.

For so many years I consider alfalfa or Lucerne, where it grows, as altogether the most valuable of the grasses here, you will not be surprised if I have more to say of it than of the other grasses at this time. Lucerne or alfalfa is the oldest of the forage plants and has been in cultivation for 2,500 years. That most successfully cultivated here in the West was taken from Spain to South America, where it now grows wild or uncultivated; from there to California, thence East. Alfalfa is the Spanish name. It is said the plants from the California seed will stand the most drought; that from the seeds directly from Europe the most cold. It is a perennial, two to three feet high, with a strong woody taproot ten to twenty feet long. It is probably the deepest-rooted plant grown. It is very slow in establishing itself, requiring two or three years to fully complete the work. It will live from ten years upwards, depending on the suitability of the land and the usage it gets. To be successful in its cultivation you must have land thoroughly tamed by cultivation, reasonable fertile, with a permeable subsoil, not subsoil as usually understood, but ground through which roots can go for ten or fifteen feet at least. For this depth there must be no hard-pan, no strata of rock or of tenacious clay holding or carrying water. If water will rise within ten or twelve feet of the surface you will not succeed. Nor must water lie on the surface more than a few hours at a time, winter or summer. It will not bear standing water, either top or root. Nor will it bear shade, the sun is never too bright for it. It will not succeed unless it can root ten or fifteen feet deep. Land known as made land, i. e., land having no regular strata, if dry enough, is just what suits it.

When you have selected your land as indicated, sow for a year or two with millet or some cleaning crop, using any manures you may wish to apply to chafed spots; take all the pains you can to get rid of weed seeds and perennial roots, especially artichokes, ragweed, field convolvulus and buckwheat vine, for it appears to make a poorer fight with these than any other weed, especially the former three, as they beat it both root and top. Either sow on the millet stubble or plow late in fall or in winter; the ground is better for being solid. Before sowing harrow thoroughly; plank or roll if you can. After you have sown, harrow with a smoothing harrow or other light harrow. The ground is better left so, not blowing so readily. Sow without any other crop, using about sixteen to twenty pounds of good seed. Sow as soon as danger of freezing is past. I never found any trouble with it sprouting and then drying out. If spots show weedy you must use the hand scythe on them as soon as high enough to be able to top them. If the whole or greater part of the field shows weedy, run over it with machine three or four inches high. When the alfalfa is from six to twelve inches high and commencing to bloom, run over it with machine, whether weedy or not. It will again offer to seed in perhaps six weeks and must again be run over with machine. After the first of September let it alone and see that everything else does; there may be very good pasture, but you can't afford to use it, as it will be a protection during winter and spring. It must neither be choked with weeds nor allowed to seed the first year, and on ordinary land it will be a very puny looking affair the first fall; but if you have a good stand you are all right. It does not spread and is hard to thicken by re-seeding. The second year, while not fully established, it usually pays its way. Cut just as soon as it commences to bloom freely; don't be tempted to let it stand and seed, hoping it will thicken itself, for it won't. The seed won't winter over on the ground. It will need cutting three times and may be moderately pastured in the fall and winter until the ground freezes. The third year it is considered established. Always arrange to cut it as soon as it commences to bloom freely. It is a great mistake to not cut promptly when it commences to bloom. Weight for weight, the young cut is very much the best. By analysis the loss in a short time is 20 per cent. of its feeding value,

besides that it loses weight. Its habit of growth is peculiar. By the time it is in full bloom on top, so that the field looks purple, nearly all the bottom leaves have fallen off. By the time the seeds are formed the leaves are all gone and the stem woody. It now sprouts out along the stem as any other shrub does, blossoming and acting as before; while if cut at the proper time it will promptly sprout from the ground, the second cutting being usually the best. In a favorable season it will need cutting every thirty or forty days. It appears a benefit to pasture in the fall, tending to keep the crowns from growing above the surface of the ground. It is not at all suited for rotation of crops, taking too long to establish itself. When established it keeps the ground clean.

A word about the management of the hay may not be out of place. The first cutting is usually the first week in June, and it is nearly impossible to get it dry. I find it makes more and better feed to cut in the morning after the dew is off and stack the afternoon of same day, using a moderate amount of salt. So continue till done, the bigger and taller the stack the better, as some of the outside and top spoils or at least is not so good; and it wants weight to pack it air-tight, for it practically makes stack silage, and it don't smell like sour mash or vinegar, either. It gets very hot and settles very solid, but gets tender, and stock will eat it in preference to the brightest hay you can find. The later cuttings can be cured as hay usually is, or put up the same way.

### Rights of Railroad Employees.

EDITOR KANSAS FARMER:—The following extract is taken from our Railroad Commissioners' report for 1887: "There are many questions between carriers and shippers constantly arising of disputed right. It must be evident that in the conduct of the business of transportation over railroads—a business that comes in contact with nearly every member of the community and involving every possible variety of circumstance and contingency—questions of this character must forever be of recurring frequency and these must be settled from time to time as they arise by some appropriate tribunal or agency clothed with public authority. Many of these may involve to the individual shippers hardly a sufficient pecuniary consideration to compensate for the expense and labor necessarily incurred in a direct appeal to the courts for redress, in which case, in the absence of any other public agency for the determination of public questions, the individual, perhaps unjustly, suffers, and the community is deprived of the benefit of an authoritative declaration upon the subject which might serve for the guidance of future conduct in similar cases. The fact that general principles by which mutual rights and obligations are measured and prescribed are well settled, is not sufficient. It remains to apply these principles to the ever-varying and complicated conditions arising between carrier and shipper in cases of doubt and difficulty."

If in the above our Commissioners had included the employes of carriers, too, it would have been well, for there are many differences between employe and carrier that it were better for them and the public that our Commissioners should arbitrate on, than to try and settle them as they have done heretofore by a strike. While strikes sometimes brings justice to the employe, it very often makes their situation worse. And the public always has to suffer, no matter which side wins. While section 5, in the law creating our Railroad Commissioners, makes it their duty to see that the laws are not violated, it should also make it their duty to see that all difference that would be likely to affect the public between carrier and employe should be settled satisfactory to all parties if possible. In order to give employes of railroad companies an equal chance, section 18 of railroad law could be amended so that where it says "and if twenty-five or more legal voters in any city or township shall petition," add or twenty five or more employes of any railroad shall petition to our Railroad Commissioners, they shall make an examination the same as for the other parties, it would give employes of railroads some idea that they would have justice done them, while at present there seems at times as if the only way to get their rights is to quit work and make the grievance of one person the grievance of all. And if the Governor and At-

orney General were added to the Commission it would be better. By their help we all remember how what appeared to be a strike of weeks' duration was settled satisfactorily to all in a day or two by the argument and persuasion of our State officials and Commissioners. E. W. BROWN. Vining, Clay Co., Kas.

### Alliance Matters.

EDITOR KANSAS FARMER:—Valley Alliance No. 15, Reno county, is in a flourishing condition; from a chartered membership of fifteen last fall we have near one hundred good working members now. We are buying and selling our commodities on the cooperative plan, with the assistance of our live and energetic State agent, C. A. Tyler. Last fall there were two Alliances in Reno county, both in Valley township. Now we have twenty-one sub Alliances and a County Alliance.

While farmers are organizing or being organized by "city farmers," they should go slow and inquire more into the merits of the Farmer's Alliance and Co-operative Union. While we ally ourselves together, we also co-operate in buying and selling, and we have found out that by thus doing we can go to the banks (if need be) and hire money at bank rates and pay cash for what we get and save money. We have also found out that wagons, plows, wire, and even lumber, have come down wonderfully in price in our local market since the organization of the Alliance. Potatoes that were shipped in here sold at \$1 a bushel, but when co-operation commenced the same ones sold at 50 and 55 cents per bushel, and so on down the whole list. What we are doing is being done throughout the State wherever the Alliance is organized, and I am pleased to say that the organization is spreading very rapidly. Other organizations are coming into our order, joining with us, in extending our principles and adopting our work. We have our State business agent, also county and sub agents, all working together. Don't you know that an order for twenty tons of wire can be bought at less figures than an order for 100 pounds? Farmers, make the calculation of how many middle-men you could dispose of in your own little town by attending to your own selling and purchasing. I hope that the farmers will give the Alliance and Co-operative Union a careful investigation. This is no new organization. It has been in operation for more than fifteen years; has more than fifteen States organized; one State alone done over \$15,000,000 business. In religion we are non-sectarian; in politics non-partisan. Equal rights to all, special favors to none. In things essential, equity; and in all things, charity. While we do not wish to tear down our neighbor's house, we think we have built a better one for him and invite him over.

NAMHGUAB MARIE.

Burton Harvey Co., Kas.

### Chinch Bug Remedy.

EDITOR KANSAS FARMER:—This chinch bug question has got to be a serious thing, not only to the farmers, but to every one in general. Chinch bugs do more damage financially to the United States than all the cattle and hog diseases put together, but still nothing is heard of the government making appropriations of money or appointing officers at large salaries to see after this great crop disease which has been growing worse for the last forty years. Something must be done to check the devastating chinch bugs, or else step aside and let the bugs take full possession. I for one don't propose to do this, for I believe it is in our power to put an end to their depredations to such an extent that the injury they do to crops will not be noticed. This can be done better by growing wheat and rye, for when the bugs move in the spring they go to the best foraging ground, which is wheat or rye, and if there is none of this in the country they take the next crop in locating until the oats and corn are up, and then go into that, as was proven here last summer to the great destruction of the aforesaid grains.

My mode of warfare, after forty years of study and experience with them, is this: Do your first planting of corn next to small grain that you expect the bugs to come out of at harvest; the corn by that time will be five or six feet high. The first two or three rows must be made as mellow as possible by plowing and dragging a log; then run a fur-

row with a small plow between these rows. This is to stop the bugs on the first row. Then take an iron rod—I use the end rod of a wagon—and wrap old rags around one end in a ball the size of a man's fist; then take small binding wire and wrap tightly around that as much more rags, winding again with wire, then wrap the end of the wire around the rod above the rags to keep them from dropping off; then soak the rags full of kerosene, and when the bugs get over on the first row, set fire to the ball of rags and start along the row, holding next to the ground and gradually raising up; move fast enough not to injure the corn, but kill the bugs. A little breeze will flap the blaze around the stalk and kill all the bugs. Your bunch of rags will go about forty rods. Then wrap on more rags and saturate with kerosene. The number of times a day to go over these rows of course depends on how fast the bugs are coming. If this is well attended to it saves the August crop as well as present; but to make doubly sure, pulverize a strip between the corn and the grain that the bugs are coming from; run a furrow along with a shovel plow, so when the bugs get into the furrow they cannot get out; then take an old broom-handle, sharpen it off, blunt at one end, stick as deep as you can in the furrow, wobble it around so the hole will be larger at the top, so the bugs cannot pass along the furrow without falling in. The hole will soon be full; then cram the dirt down on them and make another hole as before. You want a hole about every ten feet. This is your only remedy between wheat and oats to keep them out of the latter. If these rules are followed you will not be bothered with many bugs. The piles of bugs you see in the stubble field and in the grass around the field a great many people call dead bugs. These are only shells they pile up to help one another pull their outside shells off; they then come out full-fledged, wings grown, and leave their old shells in piles which seem to be dead bugs.

OLD FOGY.

New Chillicothe, Dickinson Co., Kas.

### Universal Suffrage versus the Moral Law.

EDITOR KANSAS FARMER:—The law of equity in our civil courts is but a subterfuge for justice, and is in itself an acknowledgment of man's inability to frame laws compatible with justice under all conditions. There may be justice in equity, but equity is by no means justice. To illustrate: See chapter 3, 1 Kings. The two women disputing over the living and dead child. King Solomon, by equity, is enabled to discern the true claimant. Equity would have divided the living child. But the inherent moral law in maternity in recalling from such injustice revealed the true applicant. The moral law guarantees to humanity the right to life, liberty and protection. It is conditional. Whatever conflicts with these laws meets the certain penalty; therefore this moral law sustains within it the power to enforce. Being vital, or necessary to the promotion of the best interests of humanity, it maintains its superiority over all man-made laws. Immutable as the laws which govern the forces of gravitation. Inasmuch as it proposes by its imperative authority to govern the forces by which humanity can alone perpetuate its existence, we must of necessity attribute to it an origin superior to man and independent of his will. In that it is designed to promote the welfare and happiness of humanity, we are of necessity compelled to attribute its origin to a wise and beneficent Superior. Therefore God is, and Christ was sent to lead us to Him.

But to the application: The law of universal suffrage, man-made, having its origin in the principles of social and political equality, this law by its results proves itself to be incompatible with the higher moral law, because it subjects the moral class to the immoral. It subjects the intelligent to the ignorant. It subjects virtue to vice. It degrades the administration of government to the level of the lower and vicious classes. And consequently all classes must suffer the wrongs of administration of laws resulting from this source. "A stream will not rise above its source." For these reasons I plead that morality and intelligence be made the qualifications eligible to suffrage, without regard to class or nationality. This is the foundation stone upon which can safely be built a national reform party.

Concordia, Kas.

M. J. HUNTER.

## WEATHER PREDICTIONS.

By Prof. C. C. Blake, Topeka.

[Parties interested in this Weather Department will please send their subscriptions for the KANSAS FARMER to C. C. Blake, Topeka, Kas. All others will please send to the KANSAS FARMER direct. See advertisement of Blake's Weather Tables on another page.]

## THE GREAT CALAMITY

has commenced. The papers are now publishing reports of too much dry weather in Illinois, Indiana and some adjoining States. The daily reports of the Signal Service are confirmatory. By reference to our "Tables" it will be seen that we predicted a very small rainfall for April in all the States in the Ohio valley, upper Mississippi valley and upper Lake region. It is but natural to expect this drouth to first appear in some States during the last of March. Such is the fact. While there will be considerable more rain this spring in part of the Northern States, yet the long drouth has already started in some of them. But in Kansas there has been plenty of rain this month in nearly every county, and the large acreage of winter wheat is growing and stooling finely. When we published our "Tables," Eastern people considered it presumptuous and absurd in us to single out the State of Kansas as one that would have plenty of rain in most counties for most of the season, while a great drouth was predicted for most of the other Northern States; but already the facts are beginning to verify our figures.

This state of affairs was revealed by our calculations as long ago as last July, and we then began to urge farmers to prepare to seed largely with winter wheat, stating that it would be worth fully \$1.40 per bushel by July, 1889. The telegraph shows that May wheat in Chicago reached \$1.07 last Saturday, having advanced 12 cents per bushel in three days on account of the drouth. What will it do when the drouth becomes general in most of the wheat-growing States? The rapid advance in price at the first sign of drouth tends to indicate that the extreme prices named in the "Tables" will yet be reached. If so, Kansas mortgages will be quickly liquidated with her immense crop of wheat, which will serve as a God-send in feeding the people, thus averting a national famine. We have tried to give advice to the people of other States as well as to Kansas farmers, who went to work like men last fall, with the result that now they are prepared to show their spirit of self-abnegation by feeding the nation at \$2 per bushel for the largest crop of wheat ever raised in this State.

We said so much on the subject last fall that some parties thought it a "chestnut," and so stated in print; but we succeeded in getting a large acreage seeded in Kansas. Also, this spring, we have urged farmers to sow spring wheat and oats as extensively as possible, as they will mature in Kansas with the spring rains, and then in a large part of the State corn can be listed as the grain is cut in June. By so doing Kansas can again show her philanthropy in feeding the famished world with \$1 corn. In most of the States outside of Kansas we think the demand for twine next summer will not be sufficient to enable the "twine trust" to pay off the national debt. Buckwheat does better sown early than late, and we think it should be sown as soon as the cold spell is over about the middle of April. It will then mature in time to list the ground with corn.

We wish to say to the farmers of Kansas that we do not expect a literal fulfillment of our predictions; that while Kansas will generally have enough rain for the crop of small grain, and probably about two-thirds of the State will have enough for ordinary corn, yet it is safest to prepare for a little more drouth than we expect. In view of the great general drouth this would be prudent, and then if it should be a little drier than we expected we would be prepared for it, while no harm would be done if we should receive a little more rain than expected, except the inconvenience of harvesting between showers. As to the corn crop, we do not know how this preparation can be made better than to plant eighty or ninety-day corn in those parts of the State where the "Tables" show the greatest drouth; and in all parts of the State to be fully prepared to plant the whole corn crop in the first few days after the cool weather ends about the middle of April. Most farmers will appreciate the great importance of this. The intention is to have it so forward that it will be out of bloom when the hot, dry weather

comes in July. If it has passed that stage before being damaged it will make fair corn even if the drouth should continue. But if caught by drouth while in bloom it is blighted and no ears set. If we were farming, we think we would plant corn now in southwestern Kansas and take our chances as to getting a good stand and as to frost in April. We believe the chances for damage will be less than to wait till the last of April before planting and then take the chances of damage by drouth.

## ON THE PACIFIC COAST.

There was not so much rain as expected in January, though the rain for the season will be enough. M. D. Atwater, of Merced, in the San Joaquin valley, under date of March 15, says: "At my place five miles north of Merced there has been considerably over two inches of rain within the last twenty-four hours. One of my neighbors, to whom I had given one of your 'Tables,' told me last evening he wished I would write Blake to hold on—the rain had been pouring for some time in torrents. I receive the KANSAS FARMER regularly and like it much." We do not get the details for the Pacific coast correct at all times for the reason that the storm centers there are generally over the Pacific ocean, where there are no stations from which records can be obtained. We need such records from stations west of California as a basis for calculating details after our astronomical figures have been completed. As it is not possible to obtain them we may not be able to calculate details for that coast as accurately as we would like to do, though we generally have the amount of the seasonal rainfall nearly correct. We calculate that there will be a reasonable amount of rain in most of California during April, which will insure the crops there.

## THE TWINE TRUST.

Whenever you have the enemy to fight, the first thing to do is to whet your sword and get your ammunition ready, and then hit the enemy instead of cutting off your own nose. While it will not be practical for Kansas farmers to cut the great crop of wheat and oats this year without twine, yet we fully believe they can dispense with about seven-eighths of it. The self-binder without twine deposits the grain in bunches ready for binding by hand. All small fields can be hand-bound cheaper than to pay 25 cents a pound for twine. As to large fields, it is well known that when the self-binder starts each morning the shockers are idle for an hour or two till the binder has made several rounds. Now what we would suggest is that those having fields of forty acres or less bind it by hand. Those who have larger fields might buy enough twine to bind one-fourth of their grain, then start the self-binder without twine and bind by hand till the self-binder is two or three hours' work ahead of the hand-binders. Then it will be best to use twine on the self-binder till the hand-binders and shockers can catch up, when it can be dispensed with again. By a little planning we believe the farmers can dispense with most of the twine ordinarily used and still have their grain well bound. It will be cheaper to hire a few extra hands than to pay 25 cents per pound for twine. Then, too, it is a patriotic duty we all owe to ourselves, our country and humanity, to inconvenience ourselves to a reasonable extent for the sake of circumventing all "trusts" or others who combine to rob the people.

## Topeka Weather Report.

For week ending Saturday, March 23, 1889:

Date.	Thermometer.		Rainfall.
	Max.	Min.	
March 17	51	39	.89
" 18	52	39	.60
" 19	64	29	.....
" 20	63	33	.....
" 21	58	41	.....
" 22	53	39	.....
" 23	62	38	.....

## NEW ADVERTISEMENTS.

Bloss Bros.....	Cane seed.
Dairy Implement Co.....	Champion Creamery.
Denmore Bros.....	Sorghum Strup & Sugar.
Fiedler, Wm.....	Breaking plow.
Griffing, W. J.....	Poultry.
Lewis, P. C.....	Spray Your Trees, etc.
Mellard, J. H.....	Bull for sale.
McCreary, J. A.....	Registered Holstein.
Morell, N. H.....	Pekin duck eggs.
Pounder, G. H.....	Harrow.
Prescott & Hanna.....	Horse buyers.
Sutton, W. B.....	Holstein bull.
Stone, J. C.....	For exchange.
Travis, W. A.....	Jersey bull.
VanBuskirk, D. F.....	Red Puled bull.
White, S. K.....	Wanted.
Walker, O. E.....	Angus bulls.
Wilhelm & Co., W. B.....	Wool buyers.
Ward Bros.....	Poultry.
Weir, R.....	Stolen—\$50 Reward.

## Gossip About Stock.

Every breeder of poultry and pet stock should become a member of the Kansas Poultry and Pet Stock Association. For particulars write to the Secretary, care of this office.

Hon. G. W. Gilck, Atchison, reports that the Shannon Hill Short-horns are doing well and a fine lot of Bates calves this season, and among the number one Waterloo and a Craggs helper. John Hall, of Pawnee Rock, purchased of them two nice bulls to use on his herd.

The breeders of pure Clydesdale horses of this State complain very much of the trouble in recording in the American association. It seems to require twelve months to have a pedigree duly recorded, and unless this can be remedied they will probably go in a body to the Select Clydesdale Stud Book in order to facilitate business.

T. J. Higgins, breeder of Herefords, Council Grove, Kas., writes: "Stock has come through the winter in elegant shape, and there will be a good surplus of feed left. The mild winter has been a great blessing for stockmen. My thoroughbreds are looking fine and having a fine lot of calves. My advertisement in the FARMER brings many inquiries for young things, and I think sales will be an improvement over last year. Still have a few choice young bulls. A short time ago I brought home twenty-three heifers which I purchased at your place and Lawrence."

Jacob Hey, Overbrook, Kas., writes: "Being a constant reader of the KANSAS FARMER for years back, I have taken a great interest in dehorning cattle. Seeing the advertisement of the Webster chute from time to time in its columns and seeing him spoken of as a great dehorner, I wrote for him to come and operate on my cattle, which he did with one of his new chutes. I was so much pleased with it that I bought the Osage county right and his chute for \$125, and the next forenoon I dehorned with the help of one of Mr. Webster's experts enough to clear \$25. I consider it the best investment I ever made. I am satisfied that the people will all embrace the practice and will want nothing else to hold the cattle but the Webster chute. I am now a dehorner, thanks to the KANSAS FARMER."

One of our correspondents, in a graphic description of Sumner county, has the following about that stronghold of breeders: M. D. Covell, proprietor of the Sumner county Percheron stud farm, resides three miles southeast of Wellington, upon possessions admirably suited to the business in which he has been engaged for over sixteen years. His animals are all registered stock of pure blood and fully acclimated. At the head of stud is Theophile 2785 (3746), black, imported by M. W. Dunham in 1884; foaled in 1882 and got by his celebrated Brilliant 1271 (755), a descendant of the famous Arab stallion, Gallipoli. Although Mr. Covell is not an extensive breeder of Percherons, still he will have twelve head of pure-blood colts drop this season, and is in shape to sell at as low a price as any one can for good stock. Whilst this gentleman had not the money to compete with the largest importers, he was of the first to import Percheron horses, and came to Kansas from that portion of Ohio in which the first importation was received.

....Mr. M. B. Keagy, breeder of Large English Berkshire hogs, is located one-half mile southeast of Wellington, and has without question one of the finest herds of this much-sought-after breed, as can be found in the country. His motto is ever to please, and those in search of Berkshires need not hesitate to place an order, for all will be as recommended. His Plymouth Rock poultry are of the best strains, a pleasure to look upon and a source of revenue to all investors....J. M. McKee, residing near Mr. Keagy, is proprietor of the Gold Dust herd of Poland-China hogs, of which many words of commendation have been spoken by his scores of purchasers. This herd, being established in 1880, gives it preference over herds of recent date. Mr. McKee also breeds Golden Polish, Light Brahmans, Plymouth Rocks, Bronze turkeys, Toulouse geese and Pekin ducks. All choice birds. ....T. A. Hubbard, of Rome, situated seven miles south of Wellington, is proprietor of the Rome Park stock farm, which has a reputation second to none. His specialties are Poland-China and Berkshire hogs, Short-horn cattle and fine horses. His

establishment is one of the best and most extensive anywhere in the West....C. E. Davis resides in Wellington, and is a breeder of A. J. C. C. Jerseys from the greatest prepotent butter families. He owns Angrez Princess 22880, an imported cow of great value, by private test having produced 23 pounds and 12 ounces of butter in 7 days. Pedro's Pet 88510 is another valuable cow, having produced 19 pounds even in 7 days. She is young. The bull at head of his herd is Kansas Pedro 18398, an animal of exceeding choice individual merit and prepotent butter qualities. Mr. Davis also breeds fine horses. Battle Clay (Vol. 7 Wallace's Register), by Lepante 5685, out of Fawn, by Robinson 3271, with a record of 2:27, is one of his possessions. She is 7 years old this spring, and has taken seven first premiums at State fairs as being the best bred mare, at one time competing against twenty-one mares in ring. She is a blood bay, strong constitution, well developed and a rustler. ....E. E. Flora lives a short distance north of Wellington, and is a breeder and shipper of pure-bred poultry, such as Partridge Cochins, Plymouth Rocks, single-comb Brown and White Leghorns, rose-comb Brown Leghorns, Wyandottes, Light Brahmans, Buff Cochins, Langshans, Pekin ducks, Hong Kong geese and Bronze turkeys.

J. E. Guild, of Silver Lake, spent several days in visiting the various draft horse establishments of Illinois, and finally found just what he wanted, as shown by the following letter from W. L. Ellwood, of DeKalb, Ill.: "As usual at this season of the year, our sales have been very numerous for a few weeks past; among others that is especially worthy of mention and will be interesting to you and your patrons, is the sale made to J. E. Guild, of Capital View stock farm, Silver Lake, Kas., of the imported Percheron stallion Voyageur 5013 (7198), foaled February 15, 1884; sired by Nogen (435), he by Madeira 1546 (770), he by Vidocq 488 (732), he by Coco II (714); dam Bijou (7197), she by Bayard (717), he by Favori I (711), and the imported Percheron stallion Annibal 6563 (9961), foaled March 4, 1885; sired by Lord Baron (398), he by Favori 1549 (765), he by French Monarch 205 (734); dam Margot (9960), she by Missouri (7255), he by Meuton (1640), and also by French Monarch 205 (734). These two stallions are, as will be observed, very fashionably bred, and from the same strains of breeding as the most noted Percheron horses of this country, and Mr. Guild is entitled to a great deal of credit for the enterprise and judgment he has shown in making this investment. He also purchased at the same time three very fine brood mares, which, with the stallions he has purchased, puts him in the way of owning one of the finest herds of Percheron horses in Kansas within a short time."

## Publishers' Paragraphs.

To those of our readers interested in gardening, trucking, etc., can secure a valuable catalogue of tools, free, by addressing a card to S. L. Allen & Co., Philadelphia.

A leading Dakota farmer, who sows annually 3 000 acres to wheat, says he finds the Pounder harrow the best he ever used on both wheat and corn (he uses eight of them). See small advertisement in this issue.

Does your neighbor read the KANSAS FARMER? If not, send his name and address for a free sample copy. We are determined to double our list in order to still further improve the paper. We want every reader to both talk and act occasionally for the KANSAS FARMER.

Our valuable list of books, special club offer, and free offer to those securing new subscribers, should be familiar to every one of our readers. We especially commend the "A. B. C. Butter-Making" and *The Home Magazine*, the former a 30 cent book, bound in boards, the latter a monthly ladies' home journal, price 50 cents. We send either to any one sending us \$2 and two new subscribers. Either or both are well worth the effort of any reader of this paper.

The Lewis combination force pump is advertised this week. The spray attachment for fruit trees is of inestimable value. Insects and vermin that infest the trees are quickly removed. Besides the spray attachment, there is the potato bug exterminator or agricultural syringe, also veterinary syringe besides the pump which will throw a solid stream over fifty feet. Pump making three complete machines sent for \$5.50 by the manufacturer, P. C. Lewis, Catskill, New York.

## Stolen--\$50 Reward!

Stolen from First Congregational church, Topeka, on evening of March 25, a dark sorrel mare, 8 years old, weighs 1,100 pounds. 15½ hands high, short mane and tall, white star in forehead, hitched to side-bar Brewster top buggy. \$25 for return of property and \$2 for capture and conviction of thief.

R. WEIR.

1154 Kansas Ave., North Topeka, Kas.

## The Home Circle.

### To Correspondents.

The matter for the Home Circle is selected Tuesday of the week before the paper is printed. Manuscript received after that, almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

### Let Us Worship God

Let us worship God on the mountains,  
In the valley, on the hill,  
Where the wild free harps of nature  
With the grandest music thrill.  
Let us worship Him with singing,  
And with the voice of prayer,  
And, as he is ever present,  
Let us worship everywhere.

Let us worship God in the winter,  
When the wild winds seek our path,  
And we feel the awful presence  
Of the storm king in his wrath.  
Let us calmly wait, nor suffer  
Our fears to overwhelm  
The child-like trust that crieth,  
"Our Father's at the helm."

Let us worship God in the spring-time,  
When the beautiful is born,  
And we hear the rapturous singing  
Of birds in the early morn;  
Let us worship Him with gladness,  
Who out of the wintry strife  
Hath wrought, with unseen fingers,  
Such miracles of life.

Let us worship God in the summer,  
When the earth is in her prime,  
When winds, and the wandering breezes  
Have a soft mellancholic chime,  
Let us worship Him with fervor  
In the forest aisles and bowers,  
Where the angels talk with mortals  
Through their alphabet of flowers.

Let us worship God in autumn,  
When the sighing breezes come,  
And, like laborers in His vineyard,  
Sing with joy the "harvest home."  
In all times and in all seasons,  
Through labor and in prayer,  
Let us worship God, the Father,  
And praise him everywhere.

—Belle Bush.

A single jail, in Alfred's golden reign,  
Could half the nation's criminals contain;  
Fair justice then, without constraint adored,  
Held high the steady scale, but sheathed the sword;  
No spies were paid, no special juries known;  
Blest age! but ah! how different from our own.

—Dr. Johnson.

### THE CARE OF BED-CLOTHING.

The housekeeper is beginning to notice different articles of wearing apparel and bed-clothing which must be put away for the summer, clean. If she does not feel very strong, her imagination pictures this dusty, soiled clothing as piled mountain high. She wonders if some way can not be invented, especially as far as the bed-clothing is concerned, to keep them clean for a longer period. She notices that the dirtiest places are at the top of the quilts, comforts or blankets, and she thinks of the probable reasons for this unpleasant, inconvenient filth. She notices that some of the beds have come through the winter comparatively clean, and she wonders why it could not have been so in every case. She wonders in one sense, and in another she does not. She knows that some members of the family have gone to bed clean, and she wonders why the others could not have done the same. She is a strong advocate for the "ounce of prevention," when she thinks of the hard work which must be performed to obliterate these finger-marks, and other marks. Her indignation sometimes rises to an unpleasant pitch when she thinks of the carelessness and thoughtlessness which verges on selfishness that made it possible for a member of the household to go to bed dirty. Of course when that member was tired and sleepy it might have been a little unkind to ask him to see that his neck, face and hands were clean before getting into a clean bed; but how the clean upper sheet betrayed him the next morning! Let the housekeepers teach the little ones that it is just as necessary to go to bed clean, as it is to sit at the table in a presentable condition, and perhaps when they are old they will not depart from it.

But here is that pile of soiled bed-clothing yet! It must be washed—that is inevitable. I take a cone-shaped tin "pounder" and pound and soap and soak those dirty spots until strength and patience give over, and sometimes also the soiled places. If there is a wringer in the neighborhood that will "give" sufficiently you can wring with that; but if your wringer was made for smaller pieces, with the help of a pair of strong arms in addition to your weak ones, twist the huge unwieldy quilt until a good deal of water is forced out. Then rinse several

times, or until the suds are washed out. This primitive wringing and rinsing process can be performed over clean grass to the better preservation of the quilt from further stains.

The very thought of this nervous task compels me to renew the "charge;" if "line upon line" can do anything, I shall give it an opportunity. I know of one woman, well known for her force, who told her hired men, of whom she had several: "If you will agree to be clean and neat, I will take care of your beds; but if not, I will give you blankets and you can camp out anywhere you choose; I will not take care of dirty beds." This was a revolutionary spirit, and so recognized by the men who were surprised into the choice of clean beds. Revolutions bring about advanced civilization, and there are always some leading spirits who deserve our thanks, even if their natural aggressiveness is not positively agreeable.

I read some time ago another means for preserving the cleanliness of bed-clothing. It is as yet untried by me; but I hope soon to find out just how, and then try it. It was something like this: Take a breadth of cloth and tack it, half on one side and half on the other, over the head of the cover. It would be a comparatively easy matter to wash such shields, and thereby the quilts and comforts would longer preserve their color and newness, which are so spoiled by repeated washings.

Another way would be to make the comforts of cheese cloth, tacked on to the cotton, and then make a huge case formed like a pillow case, to be drawn over them and taken off at will.

An aspiring housekeeper longs for cleanliness, and is not happy if she feels that more than her share of dirt finds its way into her house. But she can not attain any degree of perfection unless each member of the household is in full sympathy with her. And in no place is dirt so distasteful to her as when it reaches her bedding; she would rather have clean, sweet bed-rooms and bed-clothing than a handsomely-furnished parlor.

PHOEBE PARMALEE.

### The True Home Life.

What is the central point of the true home life? Is not this the question which we should each, as home-builders, ask ourselves? What are the things of all that we do, daily, weekly, or returning in their appointed time, which are not only not necessary, but are harmful to the true home life? It may be that the only reason for doing certain things is because the preceding generation has done the same things, and that, too, in very mechanical ways. A mother holds her first child while it sleeps upon her lap; it becomes accustomed to it. When she grows stronger she must lay it down to do necessary work; it frets and cries and refuses to take its naps. The mother is worn out in her efforts to do the work and quiet the cries; so she carries the child about in her arms. It is slow to walk. She becomes nervous and irritable, toward her baby, even. Her second child is cross and restless. She bears and rears several children. All through these years the mistake pursues and wears her out. The children are not taught to depend upon themselves and to be helpful.

This mother does non-essential things and leaves the essential undone. Her mental growth stopped long ago. Alas for the time when the little children find that mother cannot help them in their studies, and alas for the mother who has let the knowledge of her girlhood slip from her, and has not added to it both for herself and family! What is more beautiful to see than great sons and daughters asking mother's opinion of some point which they are in doubt about, which they bring to her to have settled before they return to school? To have them hasten eagerly to tell her upon their return that their work was right?

Sometimes it is through suffering only that a woman learns that there are many things which need not be done. It is often in these times of forced quiet that she sees most clearly that real living is not a part of her home life. After her experience is gained and she has but little strength, she can then think what she should do with the strength which still is left to her.

Temporal wants and pleasures must be considered, and indeed planned for, but there are many things done in the way of

cooking food, unwholesome through its richness, which should be made rarely, if at all. Sacrifices which take away rest and sleep to keep up pride in dress or some adornment, should never be made.

Let children be taught that they may have fussy clothes when they can make, iron, and keep them in order. In a home where the work is done by the mother and daughters, this plan is pursued. She found that when her daughters were old enough to iron much ruffled white dresses they preferred plain ones.

Nothing can take the place of neatness and order. These depend much upon good management, for one can always be cleaning, yet never clean, always arranging, yet never in order. Sometimes one's own spirit is restless, which is the secret cause of the lack in the divine part of a true home life.—*Good Housekeeping.*

### A Dinner Set That Cost \$100,000.

There are at least 100,000 handsome dinner services of either silver or fine china in New York, says the *New York Journal*, but the one owned by Mrs. William Astor is the most costly and most beautiful. There is not its match in all America, and in Europe you must seek the dining-rooms of kings and dukes to find its equal.

Twenty years ago Mrs. Astor determined to have a complete dinner service of solid silver. She traveled abroad with her husband and saw all the noted silver antiques in the Old World, and then a special artist was commissioned to draw designs for her service. Each dish was to be highly carved and of graceful form, and there were to be dishes enough for a twelve-course dinner party for twenty-four guests. The order was given to a noted Paris firm, and the small silver, the knives, forks and spoons were made by a famous Baltimore silversmith, from special designs furnished by the artist. It was a full year before the superb service was finished, and another year before it was packed, shipped across the ocean and used in the family mansion at No. 350 Fifth avenue. It is valued at \$100,000.

There are eleven dozen plates in the service, each with a carved border and marked in the center with the monogram "W. A." and the family crest, with the motto, "Semper Fideles"—"Always Faithful"—under it. These plates cost over \$40 each, and \$5,000 for all of them.

Then there are thirty-five dozens of the small silver knives, forks and spoons. Just think of it! Many families are content to own one dozen of solid silver teaspoons. Even each of the small teaspoons weighs over four ounces, and the workmanship on each one brings them up to \$10 each. The tablespoons are unusually large, and there are curious oyster and fish forks. This small silver cost over \$5,000.

A punch-bowl of unusual size with a cover, a dozen vegetable and entree dishes, all with repousse carving and close covers; two dozen after-dinner coffee-cups and saucers wreathed in little Bacchantes and roses; tiny salt-cellars and pepper-boxes for each plate, and two dozen silver punch goblets are in the service. When one looks at the vast array, \$100,000 does not seem too much for it; yet, were this sum out at interest, it would yield a yearly income of \$4,000. This service does not include all of Mrs. Astor's silver. She has an exquisite little breakfast service, which was one of her wedding presents, and which has been in her family over 150 years, and another tea service is almost as old. Then her collection of china is one of the finest in America. Mr. Astor is a connoisseur in china, and each year he brings home from Europe some choice bit, or, perhaps, an entire set of Sevres or Worcester, worth its weight in gold.

Certainly the most costly dessert set in America is owned by Mrs. Cornelius Vanderbilt. The first Cornelius Vanderbilt ate his pumpkin pie off a common white delf plate. The present Cornelius Vanderbilt cuts his orange on a golden plate set with uncut gems. Probably some future Cornelius Vanderbilt will eat candied violets from a plate of diamonds.

It seems like a fairy story to hear of a mortal eating from golden plates, set with rubies and emeralds, turquoises and garnets, but all the twenty guests at the dinner party given by Mrs. Vanderbilt ate from dessert plates of real gold. Mrs. Vanderbilt has choice set in in Royal Worcester, and is

## The Old Doctors

Drew blood, modern doctors cleanse it; hence the increased demand for Alteratives. It is now well known that most diseases are due, not to over-abundance, but to impurity, of the Blood; and it is equally well attested that no blood medicine is so efficacious as Ayer's Sarsaparilla.

"One of my children had a large sore break out on the leg. We applied simple remedies, for a while, thinking the sore would shortly heal. But it grew worse. We sought medical advice, and were told that an alterative medicine was necessary. Ayer's Sarsaparilla being

### Recommended

above all others, we used it with marvelous results. The sore healed and health and strength rapidly returned."—J. J. Armstrong, Weimar, Texas.

"I find Ayer's Sarsaparilla to be an admirable remedy for the cure of blood diseases. I prescribe it, and it does the work every time."—E. L. Pater, M. D., Manhattan, Kansas.

"We have sold Ayer's Sarsaparilla here for over thirty years and always recommend it when asked to name the best blood-purifier."—W. T. McLean, Druggist, Augusta, Ohio.

"Ayer's medicines continue to be the standard remedies in spite of all competition."—T. W. Richmond, Bear Lake, Mich.

## Ayer's Sarsaparilla,

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.  
Price, \$1; six bottles, \$5. Worth \$5 a bottle.

two dozen of them. They are not very large, about seven inches in diameter, and are carved about the edge. No one, except the owners and the dealer, knows how much these golden plates cost, but a prominent jeweler has valued each one at \$300. They were purchased in Paris.

Mrs. Vanderbilt has a silver service, not entire, that cost over \$25,000. The fish plates are shaped like small salmon, and the eye is a jewel. The pate dishes are formed like tiny tubs with close covers, and are provided with carved silver handles, so that they can be served hot, and the ice cream plates are formed like clover leaves, and have special little silver spoons shaped like shovels.

Four very costly china dinner and breakfast services are owned by Mrs. Vanderbilt. The one in common use is of deep blue and white china, and it cost over \$5,000. The complete except in platters and vegetable dishes.

Mrs. W. K. Vanderbilt's special dinner service is in pink and white fine French china, and was made after special designs, which were afterward destroyed, so that no one could have a set like it. Her dessert set is of Royal Worcester and each plate is different. The fruit dish belonged to Louis XVI., and some of the plates once adorned Napoleon's table.

One of the loveliest of china services is owned by Mrs. Frederick Vanderbilt. The design is in yellow and pale blue, and forget-me-nots and primroses border each dish.

Mrs. W. H. Vanderbilt has a set of Japanese dishes which cost over \$5,000. Each dish, whether plate, platter or tureen, has a little vase on the edge in which a rose or pink can be placed, so that each course is served with a flower. This service is in deep Imari blue ware, touched with pink.

One of Tiffany's men, who is familiar with most of the costly silver and china in town, estimates that \$10,000,000 would hardly cover their value.

### Fashion Notes.

Black is likely to be the favored color for early spring wraps.

Flowers in great profusion will be a feature of the spring millinery.

The new grays are dark silver and light heron gray, also steel and slate shades.

Mixed straw, row and row, show Milan braids in combination with a color.

New polonaises of thin goods show indications of slightly bouffant hip draperies.

Many of the new wraps may be called either wrap or jacket, with perfect propriety.

The indications are that the hair is to be arranged lower upon the head than of late. Chemisettes will be worn again with street costumes, but the collars are not as high.

Parcales and prints are shown in similar





# KANSAS FARMER.

ESTABLISHED IN 1888.

A TWENTY-PAGE WEEKLY,

Published Every Thursday by the

**KANSAS FARMER COMPANY.**

OFFICE:  
KANSAS FARMER BUILDING,  
Corner Fifth and Jackson Sts.

S. J. CRAWFORD, - - - - - PRESIDENT.  
J. B. MOAFFEE, - - - - - VICE PRESIDENT.  
H. A. HEATH, - - - - - BUSINESS MANAGER.  
W. A. FEFFER, - - - - - MANAGING EDITOR.

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Topeka, Kansas.

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Display advertising, 15 cents per line, agate, (fourteen lines to the inch).  
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To insure prompt publication of an advertisement, send the cash with the order, however monthly or quarterly payments may be arranged by parties who are well known to the publishers or when acceptable references are given.  
All advertising intended for the current week should reach this office not later than Monday.  
Every advertiser will receive a copy of the paper free during the publication of the advertisement.  
Address all orders,  
**KANSAS FARMER CO.,**  
Topeka, Kas.

Wheat is in first-class condition in Kansas.

There are sixteen sub-Alliances in Jefferson county.

Good rains were reported last week from nearly every part of the State.

The next meeting of the Jefferson county Alliance will be held at Ozawkie, April 10.

Our Russell county friend's inquiry—What shall we do about it?—will have attention soon.

Next week we expect to publish a very complete crop and weather report for the entire State.

Mr. Secretary Graham, of the Agricultural college has a good word for sorghum in the last *Industrialist*.

A friend in Geary (old Davis) county, says, "We have had a fine winter; the best I have seen here in thirty-three years."

Allen county sends in a good report. Wheat is doing well, and the *KANSAS FARMER* crop of readers is growing healthfully.

Reports reach us by every mail showing a good condition of wheat. We expect to make a general showing in our State reports next week.

We note with much satisfaction that Kansas Alliances are following the advice of their Iowa brethren, resolving to let the twine robbers alone.

During a residence of nearly twenty years in Kansas, we never saw as much work done by the people in March as we have seen this present month.

"Common Sense" writes a long letter on the twine swindle. We have received many like it. Our advice is to manage to get along without the twine, and you can do it if you work as hard as the twine swindlers have done.

Blake's drouth was announced in the Chicago market reports last Saturday in these words: "There were some reports of too much and prolonged dry weather in Illinois and Indiana with weather indications predicting clear and cooler weather."

## SENATOR PLUMB AND OKLAHOMA.

We have letters asking for the truth about Senator Plumb's connection with the late legislation concerning the opening of Oklahoma. It is alleged that he defeated the passage of the Springer bill in the Senate, and that his conduct was the result of improper influences which had been brought to bear upon him, that he was acting in the interest of "cattle barons," etc.

It is strange that any body who knows Senator Plumb well would be misled by such talk; it can be accounted for only on the theory that safety lies on the side of suspicion. Our personal relations with Senator Plumb are such that we would believe nothing to his detriment until after we heard from him in his own behalf. A man can be wrong without being corrupt; he can be mistaken without being bad. The *Congressional Record* shows the history of all that was done publicly, and also shows some of the things which were done privately. The *Record* is a public journal which any person may see. The Springer bill as originally introduced was not objectionable. It proposed to sell the lands to settlers at \$1 25 an acre, and contained the usual provisions concerning entries. That bill would have passed the Senate with probably a few amendments which would not have been objected to in the House. But before it passed the House it was amended on motion of Mr. Springer, so as to make inapplicable existing laws relating to town-sites, and to enact an entirely new provision, reserving a strip a mile wide along every railroad existing or projecting in the territory, for the use and benefit of townsite companies. The companies were to pay for the lands and then were to have the privilege of selling them out as a private enterprise. This townsite amendment was objectionable. Men were in Washington selling townsite certificates, offering them to members of Congress and other persons supposed to have influence in legislation. Senator Butler, of South Carolina, speaking of this matter in his place in the Senate, Saturday, March 2, said:

If I felt inclined to indulge in recrimination with anybody, I should say to the Senate and to the country that during my term of service in the United States Senate I have never known so disgraceful, so flagrant, so shameless a lobby around this Capitol as has been here in the interest of the passage of this Oklahoma bill. So unblushing and so bold and so reckless has been that lobby that, I am credibly informed, they have been peddling in the city of Washington townsite certificates in the very land which they want to take from the Indians, and have placed those townsite certificates on this very identical land in the city of New York at 40 cents on the dollar. If I had the time and the occasion required, I could convince the Senate that the so-called cattle barons, not one of whom I have ever known or heard from, are put up as a pretended foil for the reckless and disgraceful attempts that have been made to thrust this legislation down the throat of this Congress in defiance of right and justice and the obligations of this government.

Senator Plumb simply protested against this townsite scheme which would have taken a large portion of the lands away from honest settlers and have given them to speculators. It was his fight on that line that caused offence to men who expected to reap golden harvests from this nefarious sowing. It was one of the best things he ever did, and he is entitled to credit for it. Public lands ought to be held for the people, not for traders.

The Springer bill passed the House, but was not taken up in the Senate. Not a member of that body seemed willing to touch the unclean thing. But when the Indian appropriation bill came before the Senate, several amendments in the way of general legislation—a practice which both houses of Congress avoid generally—were made, including all the good features of the Springer bill, giving the lands to the people under the homestead

laws, and providing for a commission to negotiate with the Cherokees for their interest in the Cherokee strip. All this was agreed to in conference committee, after some verbal changes had been made, and the bill, so framed, was approved by the President. Senator Plumb was active in all this, and he took occasion to denounce the townsite scheme during the discussion. He never was, and is not now, opposed to opening Oklahoma; but he wants to secure the lands for settlers, not for speculators.

LATER.—After writing the above, a Washington dispatch, giving a synopsis of the bill, concludes with this paragraph:

It is not generally known why no Senator was willing to call up the Oklahoma bill after it reached the calendar in that body. Day after day went by and the boomers used every influence, but there they stuck for want of a friend. The reason can now be stated. The Senators had information, very positive, as to the use of improper means to push this measure. Senator Butler hinted at it once or twice in debate. The bill, as it came from the House and was reported back to the Senate, reserved for townsite purposes a mile wide along every mile of railroad in the Territory constructed or to be laid out before the passage of the act, and excluded all these strips from actual settlement. The Senators received information that, based upon these townsite rights, shares of stock had been issued and had been placed where they would do the most good. They were informed that some of these shares of stock had been marketed, and that behind the bill there was a great scheme of speculation. This explains why the Senators would not touch the Oklahoma bill; and, now that the bubble has burst, some of the facts about the secret history of the Springer bill are come out. Lobbyists who worked for the bill are showing their shares, and are telling queer things not at all to the credit of certain Congressmen. It appears that besides the shares of stock scattered in Washington, there were some outside corporations which expected to go into the townsite business when the Oklahoma bill became a law.

## THE LAW OF CARRIERS.

Railway managers are fast learning that they are only agents of that great person—the public. It has required a great deal of preaching and teaching and reaching, but they are coming to understand it a little at a time. Two lessons have been given them recently, one by the inter-State commerce commission, the other by the Kansas board of railroad commissioners. The Northwestern Iowa Grain and Stock commission complained against the Northwestern Railroad company, charging discrimination against Iowa and in favor of Nebraska shippers of grain. The commission decide that a railroad company making different rates for the same distance on a different branch of the road, must justify them, by showing that there is a difference of carrying on the different branches. The company by long maintaining a rate without the presence of competition on other than equal terms, make it evident that such rate is not too low. A company which has two routes between points cannot lawfully charge more for a shorter than for a longer distance on either. A road can carry freights from points on its main line cheaper than another line can carry over a branch road with separate equipment to and over its line, and where one of such branch lines must carry in competition with another road from its main line stations, that branch establishes no criterion for the branches not so situated. The company gave special rates to corn shippers in Nebraska to a point in Illinois by means of which the corn reached the seaboard at low through rates. When the company denied, as it did, such special advantages to corn shippers in Iowa, it gave unlawful preference to Nebraska shippers.

The Kansas board have had occasion to call a company's attention to the law requiring railway companies to haul cars of other companies whether empty or full. The board says: The words of the statute afford no ground upon which to base a distinction between the reception and transportation

of cars by one company, furnished by another, to a destination beyond the common point, and receiving the same for transportation to the delivery or loading tracks of such company at a common point. The plain requirement is to receive and transport to any station on the line of the company receiving the cars. To adopt the interpretation suggested would require the interpolation of an exception into the statute which would limit the duty of companies engaged in transportation to the interchange of freights, and the use of their respective facilities for that purpose, where such freights were consigned to a distant destination. The fact that this interchange of business between roads at common points may be prostituted to purposes of unfair competition between rival lines cannot weigh against the plain provisions of the statute. Nor yet can it be considered an objection that one of the companies at the point in question possesses no facilities for the handling of bulky freights. It is not to be supposed that like facilities will not as soon as practicable be supplied upon one line as exist upon another, when interchange of business may be mutual and equal. It is much better for a company that this should be so, for only by creating facilities upon the different lines operating to a given point, can a fair degree of competition among dealers be maintained, and the people of the community share the benefits of whatever advantages competition may bring. The board is of the opinion and so decide that it is the duty of respondent company to receive from the complainant company over the connecting switch at Abilene loaded or empty cars to be delivered at any elevator, mill, warehouse or other place of business situated upon its tracks at Abilene to be unloaded or loaded, and to return such cars, either loaded or empty, in like manner to such company.

Fort Worth, Texas, is expecting a good time when her Spring Palace is opened, May 29. That will be a good time for strangers to visit the Lone Star State. For particulars write to Secretary of Spring Palace Co., Fort Worth, Texas.

The Jefferson County Alliance was organized last week at Ozawkie, with the following officers: President, J. M. Huber, Meriden, Kas; Vice President, J. F. Truse, Newman; Secretary, O. Chacey, Meriden; Treasurer, E. Bolby, Meriden; Chaplain, V. Brown, Thompsonville; Lecturer, S. McLallin, Meriden; Assistant Lecturer, D. H. Guest, Valley Falls; Door-keeper, W. H. Ricketts, Meriden; Assistant Door-keeper, F. Metzger, Ozawkie; Sergeant-at-Arms, O. T. Clark, Meriden. Forty delegates were present from fifteen sub-Alliances, representing a membership of 400.

"Our Young Folks' Reading Circle," a national organization for the promotion of good reading among our boys and girls, is worth looking after by American parents. It is conducted somewhat on the Chautauqua plan, and is in charge of a board of directors whose names are at once a guaranty of moral tone—Rev. Lyman Abbott, of Plymouth Church; William H. Rideing, editor of *Youth's Companion*; John Bascom, L.L.D.; Francis E. Willard, of the W.C.T.U.; Mary A. Livermore; Professor Stearns, University of Wisconsin. Central office, 106 Wabash Avenue, Chicago. A request for information costs only a postal card. Young people cannot fail to be greatly benefitted by connection with an institution of this character. Address S. R. Winchell, Manager, at place above written.

### ADAMSON'S ROASTING PROCESS IN SUGAR-MAKING.

It may be, and indeed we are inclined to believe that farmers of Kansas are on the eve of great things in the way of sugar-making. Last Saturday Mr. A. J. Adamson, of Sabetha, Nemaha county, inventor of the "roasting process," favored the KANSAS FARMER folks with an interview on the general subject of sugar-making, and upon the Adamson roasting process in particular. A company has been organized for the early and general application of the invention by building factories and making sugar on as large a scale as possible. Mr. Adamson came to Topeka to examine our facilities and conveniences for manufacturing the necessary machinery. He was both surprised and pleased to find machine shops, foundries and other mechanical arrangements quite large enough and well equipped to do all the needed work for early use. It is the company's intention to erect works of their own as soon as they can make necessary arrangements, but that cannot be done in time for this season's work.

That part of our interview which relates to the erection of buildings and cost of machinery by this process will be most interesting to our readers. He claims that "Plants of the capacity of 100 tons per day of twenty-four hours, by this process, can be erected for from \$15,000 to \$25,000, according to circumstances, and can be erected and successfully operated in any township." It is claimed, too, and so advertised in the circular letter which the company is sending out, that by the roasting as much sugar is obtained from any given quantity of cane, as is or can be made by the diffusion process, and at "greatly reduced expense." If that is true it is good news, for it will take factories right to the farmers; every neighborhood so desiring, can build and operate a factory profitably.

As to the process, it consists simply in roasting the cane before crushing it. The juice is boiled and evaporated, like maple juice, and the sugar may be obtained by the centrifugal process, or by letting it settle and drawing the sirup off. The roasting is done by passing the cane through a long, low oven, carried through by an endless chain movement and introduced by the same movement into the crushers, so that one power and one complete machine takes the cane through the oven and through the mill. The oven is made of sections, each four feet long and two feet wide, the width of the sections being measured as length when in the completed oven; that is to say, the oven when completed, is only four feet wide—the length of a section, and may be thirty, or fifty, or one hundred feet in length. The oven is very low, not more than four to six inches high in the clear, and is incased in a brick covering, with a shallow air space between, so that the fire does not touch the oven, though it is made red hot. The cane being first topped, but not stripped, is fed into the oven as fast as the crusher at the other end will receive it, and is carried through the oven very much as straw and chaff are carried away from from a threshing machine by a straw carrier. The heat of the oven is so intense that the leaves are burned as the cane passes through, the joints softened and the gum so dissolved and sweated, that if a stalk which has passed through be held up, juice will drop from the lower end; the shell or wood part of the cane can be peeled from the pith, and the bagasse, if left a few hours to dry, will snap and break like shavings of wood. The burned leaves and shoes came out of the oven as ashes, moved along by cleats. The

bagasse may be carried directly from the crusher to the mouth of the furnace and fed at once, making first-rate fuel. The oven is perforated on top for the escape of steam and other volatile matter from the cane on its passage. The roasting changes the texture and the chemical conditions of the cane. The crushing of the cane in passing between rollers takes out the juice quite as well as the diffusion process, and not a drop of water is used, and no part of the diffusion machinery is needed or used. It is claimed, too, that the roasting destroys whatever it is that imparts the "sorghum taste" to sirup. It is further claimed that there is no need for the use of lime in defecation; that there is no need for the presence of professional chemists, that the roasting takes the place of them and does the work better; that the roasted juice will "sugar" as certainly as well handled maple sap.

The discovery of this process, like most other discoveries in arts and sciences, was purely accidental. It was known to Mr. Adamson that sorghum cane, after being heated to a high degree, would burst and pop with a loud report. Expecting some visitors at his sirup-making place one evening, he heated some cane so that he might amuse his visitors with "cane-popping," when they came. Examining the cane to see how it was "heating," he took out one stalk and held up to look at. Seeing that it was limber, the joints all softened, and juice dripping from the lower end, he thought that was worth paying attention to, and he took out all the stalks, pressed the juice out of them, boiled it down and awaited results. He soon had a nice lot of large sugar crystals, tasting like rock candy, and the sirup was so much superior to the ordinary "sorghum" that it was wholly unlike it. The season was then nearly gone, but he hastened to make a temporary oven, and made some crude experiments with satisfactory results, though it took him far past the sugar-making season. He tested different qualities of cane, some of it already partially soured, and results were the same in every case. He was so late beginning his experiments that what he did had to be done hurriedly and therefore imperfectly, and he could not keep a record of details, so that he cannot give anything but the principal facts. He made several different experiments, with different grades of cane, and at different times, the last time being long after the sugar season, and with cane more or less damaged, and in every instance the sugar crystals formed in the same way and to about the same extent. Of the last making of sirup, he sent a gallon to St. Louis for "sugaring" there, and it was returned to him in a short time with the sugar separated, making about two-thirds of a gallon of sugar. The last named item was reported in the KANSAS FARMER, a sample of the sugar having been sent for our inspection. The crystals were very large and perfect, and ate and tasted like rock candy.

Among the advantages claimed by Mr. Adamson, we quote these from the circular letter before referred to:

And again, as this process requires only sufficient water to supply the boiler for steam, plants can be located on the uplands, where the best quality of cane is grown, as well as in the valleys where water is plentiful. \* \* \* The bagasse, or crushed cane when it comes from the mill, by this process, is so dry that it can be used for fuel, and there is almost, if not quite, enough of it to supply the entire fuel for the plant, thus dispensing with the necessity of shipping and hauling large quantities of coal at exorbitant prices.

The American Sugar company, headquarters at Meade, Meade Co., Kas., is the pioneer company under the Adamson process. There will be great demand for information, and we doubt

not Mr. Wm. K. Palmer, Secretary, will be pleased to respond to all inquiries. The KANSAS FARMER advises its readers to give this matter some attention. If it is worth anything it is worth millions. The company will put up one or more factories this year, so that people can examine it for themselves, and compare it with the diffusion process already established. We are inclined to believe that Mr. Adamson has made a useful discovery. He has secured letters patent will proceed with all possible dispatch to show his process and its results to the world in Kansas this year. If successful on a large scale, and we do not see any reason why it should not be, it will end all anxiety on account of expense in sugar-making.

### A Word About Oklahoma.

There has been a great deal of useless anxiety lately with reference to the opening of Oklahoma lands to settlement. The KANSAS FARMER has said little about this latest movement because our advice had been freely given before. We have repeatedly cautioned our readers against needless haste in the matter, saying to them that such matters are acted upon by the government in a regular and orderly way, and that people are always notified by proclamation in advance when the lands may be taken.

The government has finally purchased from the Seminoles and Creeks all their right, title and claim to the Oklahoma lands, some five or six million acres, and they will be opened to settlement as soon as they are paid for, and certain other preliminary matters are attended to, such as the appointment of local officers to attend to the public business which will follow settlement. It will be midsummer before any person can lawfully locate and settle upon an Oklahoma claim. That will be too late to raise a crop of any thing this year. It will not prevent the raising of a crop in Kansas, however, before going to the Territory, and those persons who have set their hearts on going to Oklahoma, will do well to rent some Kansas land, if they have none of their own, and raise a good crop of corn and potatoes while waiting for the proper time to go to Oklahoma. The law is positive, and the President will enforce it to the letter, that persons who go into the Territory unlawfully before it is opened in the lawful way, will not be permitted to enter any of the land at all. Orders have been issued to take the names of intruders and preserve them for use at the new land office. We repeat our advice—stay out until you can go in lawfully and like good citizens.

They have very peculiar sand up in Decatur county. Here is what the Agricultural college paper—*Industrialist*, says about it: "A sample of sand from Decatur county, received this week with the request, 'Please tell us what the mineral is,' when subjected to examination revealed a clear case of 'salting.' Whether the salt was of the Attic kind, viz., a practical joke, or of the scheming kind, to sell the sand bank, the compound microscope developed the little joker in the form of fine shavings of various metals so plainly marked as almost to tell the tool with which they were made. We'll not give the joker away just yet, but the joke is too good to keep."

Ragweed (*Ambrosia artemisiifolia*) is found almost everywhere. Its pollen aggravates hay fever, and is injurious to health of cattle and hogs. When not attended to, it renders pasture land almost ungrazeable. Along the Illinois river bottoms it is especially abundant. It may usually be killed by cutting just before or while in bloom. Sheep clear a pasture of it.

### Inquiries Answered.

**LAWYERS.**—The session laws are usually printed in pamphlet form by G. W. Crane, Topeka.

**BROOMCORN.**—The actual cost of producing an acre of broomcorn depends on circumstances. Mr. A. H. Cox, Greenwood county, is authority on broomcorn. We are expecting something from him on this subject.

**MIXED GRASSES.**—The best grass to mix with red clover is orchard grass, and for two reasons: (1) it grows better, that is, it is a more certain crop than timothy or any other grass usually sown with clover; (2) it matures at the same time that the clover does, so that the best time to cut one is, also, the best time to cut the other.

**PRAIRIE MEADOW.**—A friend writes that the best way to keep a prairie meadow is to "burn off the old grass after the weeds get fairly started, say first of May, and then cut the grass when ripe, not later than the 10th of August. Must not pasture, as the aftermath protects the roots from the hot sun in fall of the year. Two or three years cutting late will nearly kill the prairie grass."

**CENSUS REPORTS.**—The law does not compel farmers to inform an assessor what crops he intends growing and the acreage; but it is expected of him. The law provides for collecting statistics, not for taxation, but for general information. The assessor is provided with blank forms; he is required to ask these questions and the people are expected to answer them honestly and cheerfully.

### Book Notices.

**HARPER.**—The frontpiece of *Harper's Magazine* for April will be engraved from the Gibbs-Channing portrait of Washington painted by Gilbert Stuart.

**ECONOMIC ENTOMOLOGY.**—A brief treatise on insects, intended to aid persons in acquiring a knowledge of the habits of these little enemies of the farmer. Price 50 cents. Published by A. Flannagan, 185 Wabash Avenue, Chicago, Ill.

**NEWSPAPERS IN 1889.**—From the edition of Geo. P. Rowell & Co.'s "American Newspaper Directory," published April 1 (its twenty-first year), it appears that the newspapers and periodicals of all kinds issued in the United States and Canada now number 17,107 showing a gain of 797 during the last twelve months, and of 7,882 in ten years.

**WALLACE'S YEAR-BOOK, VOLUME IV.**—We are just in receipt of Wallace's Year-Book of trotting and pacing, bringing everything down to the close of 1888. It is handsomely bound in uniform style with Vol. III. The growth of the trotting interest is shown here very plainly in the growth of this volume. Last year it contained 424 pages, and this year it contains 498 pages. It is called a "Year-Book," but it is far more than that. We find that the performances of the last year, exclusive of the indexes, only occupy 184 pages, leaving the balance of the space to be filled up with the cream of all the performances of all the years since trotting commenced. The alphabetical list of all 2,300 performers, from the beginning, with their pedigrees as far as known, is complete and exhaustive. It may be taken for granted that if a horse is not found in this list he has been rejected for some cause.

**THE FAMILY HORSE.**—Its stabling, care and feeding. A practical manual for horsekeepers. By Geo. A. Martin. Illustrated. New York: Orange Judd Co. It is simply a hand-book of facts and hints for every person who keeps one horse or a hundred. It tells how to select a horse, giving very clear directions for judging the age by the teeth, and detecting blemishes. It has a chapter on barns and stables, with views and detailed plans of stables varying in size and cost. The chapter on feeding treats the subject from a scientific as well as practical standpoint. Blanketing, grooming, clipping and stable management generally are carefully considered. How to drive and ride a horse are very clearly set forth. The chapter on the horse's foot should be in the hands of every horse-owner and farrier. It is worth five times its price to every lover of the horse, even though he does not own one. It is handsomely illustrated, well printed, and attractively bound. Cloth, 12mo. Price, post-paid, \$1. Orange Judd Co., 751 Broadway, New York.

## Horticulture.

### The Nation's Forests.

The first step in the effort to provide for the conservation of the forests on the national domain should be the withdrawal from sale of all forest lands belonging to the nation. It will not be necessary to preserve and maintain all these forests permanently, but the extent of forest territory which will be required by a practical plan of forest preservation and management for our Western mountain regions cannot be at once precisely determined. A thorough examination of these regions, and of the agricultural country depending upon them for its water supply, will be necessary, in order to show what forests must be retained, and what tracts of timber can be put upon the market without injury to the important interests involved. Until such an examination has been made, none of the forest lands now belonging to the United States should be sold.

The second step should be to commit to the United States army the care and guardianship of the forests belonging to the nation. There is in time of peace no other work of national defense or protection so important as this which the army can perform, and it is plain that under existing conditions the forests on the national domain will not be—indeed cannot be—adequately guarded and protected by any other means. The measures which have been tried, including those now in operation, or nominally in operation, have proved almost entirely ineffective. The forests on the public lands are pillaged by settlers and by the employes of railroad and mining companies, without scruple or limit. Other instruments will have to be employed if the forests are to be preserved. Their complete and final destruction, with that of the soil which sustains them, is, under the present system, or want of system, only a question of time, and of a very short time.

The officers of the United States army are educated by the nation for its service, and they constitute a body of men not equaled by any other in our country in their equipment for guarding and protecting the great forest regions belonging to the nation. They possess every kind of fitness for this work in greater degree than any other class of men, and if authorized by law to undertake this service they would have the power and the means necessary for its performance, while everybody else is at present inevitably powerless and incapable. As there is likely to be very little work for the army hereafter in the care of the Indians, it will be available for this service of guarding the national forests. The work can be done well by the army, and it would cost nothing, or very little, while any other plan would necessarily be both ineffective and costly. This guardianship and defense of the nation's forests by the army of the nation should be continued and maintained until a sufficient number of adequately trained and equipped foresters has been provided by the national government for the administration of a complete and permanent system and policy for the management of the forests on the public domain.

This brings us to consider the third step. This should be the appointment, by the President, of a commission to make a thorough examination of the condition of the forests belonging to the nation, and of their relation to the agricultural interests of the regions through which the streams flow which have their sources in these forests, and to report, with the facts observed, a comprehensive plan for the preservation

and management of the public forests, including a system for the training, by the government, of a sufficient number of foresters for the national forest service.

The commission should determine what portions of the existing forests on the public domain should be permanently preserved, and in what manner the remainder should be disposed of. The national forests can be so managed that they will be perpetually reproduced, and will yield forever an abundant supply of timber for the inhabitants of the adjacent country, and a revenue which will more than sustain the cost of the forest service. A national school of forestry should be established at a suitable place in one of the great mountain forests on the public lands, and its equipment should be as thorough and adequate for its purpose as is that of the National Military Academy at West Point.—*Garden and Forest.*

### Horticulture in the Public Schools.

Prof. Budd, of the Iowa Agricultural college, says, in *Farm, Field and Stockman*:

We have, in Iowa, many earnest, thoughtful, German horticulturists, who never lose an opportunity for saying a good word for the German system of teaching the elements of horticulture in the public schools. As "the twig is bent the tree is inclined."

In the summer of 1882, I had a fine opportunity for observing the working of this system in Austria and Prussia. Every school-yard had its flower beds, and its specimens of neatly-trained fruit trees, ornamental trees and shrubs. And a majority of them had a little nursery where the students were given object lessons in budding, grafting and even inarching. In the way of inarching, very many of the school-yards had a cherry tree with a very low-trained head. Each spring the students had a little holiday for gathering specimen seedlings of the native wild cherry from the hedge row or the hills. These were planted by the students, under the direction of the teacher, in a circle on the boundary of the outer limbs of the cherry tree. At the proper season for inarching, students are detailed, in the presence of the class, to bend down twigs of the overhanging cherry, and inarch them on the stems of the plants below, and to properly cover the wounds. At the proper time the class is again assembled to cut the connections with the parent tree and to remove the plants to the little nursery, to make room for another crop. In the lessons the elementary principles, and the modes and methods are given for all the simpler operations of the fruit, vegetable and flower garden. To those lacking experience all this might seem a great hindrance to advancement in the ordinary school studies. But those who have some experience in teaching these elementary principles in the kindergarten schools and in our agricultural colleges know that such variations are aids rather than hindrances to general advancement.

It has been said that our Yankee school children would destroy the flower beds and climb the young trees and shrubs.

With twelve years experience, with from 200 to 300 students among the flower beds, the shrubby plantations, and the orchards, I have never as yet known any of this American tendency to vandalism where the students were taught the uses of such things, and that "the value of all horticultural operations was as the thought put in them."

At the great Horticultural college in North Silesia I met over one hundred of the public school teachers who were

taking lessons with a view to more perfect fitness for their work, and was assured that the students took too much interest in their pet flowers, trees, etc., to injure them.

In this country our few kindergarten teachers will, I think, give the same assurance.

At our Iowa institutes the question has been asked, "How shall we manage to keep our boys and girls on the farm?"

My experience leads to the belief that they should be interested at school and at home in the reasons for all the modes and methods which tend to make home beautiful and pleasant. The boy who acts as a machine at school, and in his home duties, will naturally be attracted by the sights, bustle and activity of the mining camp or the city.

### Mice in Hot-Beds.

Several years ago I planted a hot-bed with peppers, tomatoes, cabbage and a few pieces of inverted sod with melons, cucumbers and lima beans. They all came up nicely and were doing finely when one morning I went out to the bed after it had been kept closed two days on account of the weather, and to my surprise, the plants were scratched out and the seeds all gone. Mice holes were to be seen, and I knew what had done the mischief. I replanted the bed and got two or three sauce dishes, filled them with corn meal sprinkled with arsenic, and placed the dishes in each end of the hot-bed. The mice ate the meal and died before they got out of the bed, and I had no further trouble with them. Since then I put the dishes filled with the poisoned meal in the bed when I plant the seed and have never been troubled with either mice or rats. I plant melons, cucumbers and beans on inverted pieces of sod and place them in the hot-bed because I can have them two or three weeks earlier than if I waited until I could plant them in the open ground.

I think if G. W. B. will adopt my plan, he will have no further trouble with mice in his hot-beds. My object in using meal instead of cheese or bread is, that where the bed is left open, there is danger of cats or dogs getting the poison if on either bread or cheese. There is no danger with the meal.—*Rosa Autumn, in Country Gentleman.*

Hall's Hair Renewer is free from alcohol and dyes that injure the skin. It is scientifically prepared, and will restore gray hair to its original color and vigor.

To keep grapes well it is necessary to have well grown and well ripened fruit from well pruned and cultivated vines. The fruit keeps well in shallow boxes placed one above the other. A constant temperature of 32 Fah. will keep well ripened fruit a long time.

When Macbeth ironically asked, "Canst thou minister to a mind diseased?" he little knew that mankind would one day be blessed with Ayer's Sarsaparilla. In purifying the blood, this powerful alterative gives tone and strength to every function and faculty of the system.

Plum stones should be planted as soon as gathered, before they have any chance to become dried out. They are best sown like peas, in broad drills, about an inch and a half deep. The effect of the moisture and the freezing of winter is to crack the stones, and usually a large number will start to grow the following spring.—*Germantown Telegraph.*

### Can a Man Swallow a Cannon-ball?

Well, "that depends." He can if his throat is large enough and the cannon-ball not too large. The question really seems worthy of some consideration in view of the size of some of the pills that are prescribed for suffering humanity. Why not throw them "to the dogs," and take Dr. Pierce's Pleasant Purgative Pellets? Small, sugar-coated, purely vegetable, perfectly harmless, in glass, and always fresh.

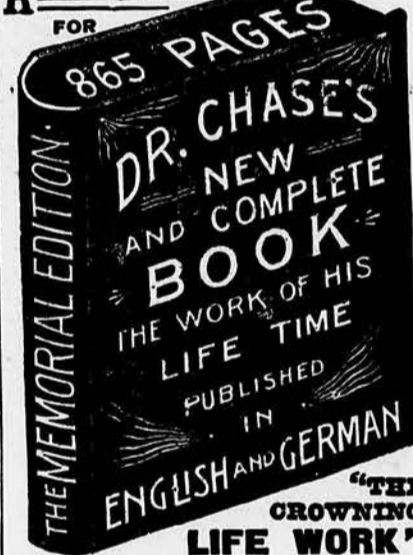
### The President's Message.

The inaugural address of the Great "Rock Island Route," Chicago, Kansas & Nebraska railway, is to announce that two through vestibule trains run each way between Chicago and Denver, Colorado Springs and Pueblo, via Kansas City and St. Joseph, without change of cars, making close connections west-bound with all trains for Salt Lake, Los Angeles, San Francisco, Portland and other Pacific coast points, and at St. Joseph and Kansas City, east-bound, with all trains for Chicago, St. Louis, and points east, north and south. These royal trains, consisting of Pullman sleeping cars, restful and handsomely-appointed reclining chair cars, and magnificently furnished day coaches, were built expressly for this service by the Pullman Palace Car Co., and are unquestionably the finest ever turned out by this famous establishment. The reclining chair cars are models of elegance and comfort, and are free to all holders of first-class tickets, and a courteous attendant with every car will see to the wants of our patrons. Ask your nearest ticket agent for a ticket via the Great "Rock Island Route," or write to JOHN SEBASTIAN, Gen'l Ticket and Pass. Agent, Topeka, Kas.

### Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple 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 fellows. 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.

### AGENTS WANTED



of the good "Old Doctor" CHASE, his "NEW and COMPLETE RECIPE BOOK and HOUSEHOLD PHYSICIAN," containing nearly 900 pages, and published in both ENGLISH and GERMAN. The most useful, valuable, and best selling book in America. Big terms to agents. Mention this paper. F. B. DICKERSON & CO., Detroit, Mich.

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Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenders. Possess this great work. It contains 300 pages, royal 8vo. Beautiful binding, embossed, full gilt. Price, only \$1.00 by mail, post-paid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association, for the PRIZE ESSAY ON NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

### The Poultry Yard.

#### What are Best Breeds?

EDITOR KANSAS FARMER:—Pick up any poultry publication and you will find cuts of nearly all the fowls bred today, all of which have their strong advocates, each ready to declare that a certain breed (which happens to be his favorite) is the breed, and embodies more good qualities than all others combined. We find this to be notably the case in some of our more modern breeds which are boomed and extolled to the skies—go up like a rocket and come down like a stick—make money for the time being by the shrewd managers who have raised public expectation to the highest degree, in order that they may make money out of their credulity. To all who are going into the poultry business, I say be careful of whom you buy and what you buy. Study carefully the characteristics of each variety; find out which will be the most suitable to your requirements and facilities for keeping; and then, above all things, buy good stock. It will cost you considerable to begin with, but in the long run you will find yourself away ahead, financially, and without the bitter disappointment of knowing you have bought stock which would be dear at any price. Remember that no one breed combines all desirable qualities, although many possess more good points than others. Should you desire eggs principally, in my estimation the Leghorns, Hamburgs and Games stand above all others. Should great size be the desired object, of course the Asiatics must be awarded the palm.

Farmers and practical poultrymen, however, desire both size and eggs. To them I say, select from the medium-sized breeds. Wyandottes, Plymouth Rocks and Games certainly should be able to satisfy all reasonable requirements. In this country a good medium-sized, yellow-skinned and yellow-legged fowl brings the most money when dressed for market. Why yellow legs and skin should be considered a necessary qualification for the make-up of a good table fowl passes my comprehension, for after years of experience, I consider the Game as far ahead of all other fowls for the table, as a Leghorn is ahead of a Cochon for eggs. One great objection to the Game, by the farmer, is the apparent lack of size. I say apparent, because there is no fowl which looks to be the same size of the Game, that will weigh within one-third as much. This is owing to the short, hard plumage and wonderful breast development of the bird, while all the large breeds have very loose plumage, making them appear much heavier when alongside of their trim-built brothers. Another objection is the fighting qualities. It must be expected that a Game will be the "boss," but after that occurs I find them less quarrelsome than most of the other varieties.

Farmers, as a rule, desire but one kind of fowls, as they cannot give them the time nor expense to build a number of yards and houses. Where one variety can be given the unlimited range of a farm, undoubtedly more money can be made, when eggs and birds are sold on the market, than where a number of varieties are kept. A breed, therefore, must be selected, which must be a good layer, setter and mother, of good size and one which will mature early and bring a good market price. What fowl

combines these good qualities in a more marked degree than the farmers' old stand-by, the Plymouth Rock, and its new rival, the Wyandottes. There are many good breeders of these birds from whom first-class stock and eggs can always be obtained at reasonable prices. By reasonable, I do not mean so cheap in price as to cast a doubt upon the purity of the stock, for no breeder can sell eggs from strictly first-class stock at from 50 cents to \$1 per setting. When we take into consideration the good round prices we are obliged to pay for No. 1 birds to responsible breeders, and the expense of introducing fresh blood to keep stock up where it should be kept, the above-mentioned figures cannot be reached without loss. Nor do I, on the other hand, mean extravagant figures.

Where a breeder is confined to a small cramped place, on a city lot, for instance, fowls which will bear confinement well should be selected. But where one has a good range, such rustlers as the Leghorns, Games, Wyandottes and Plymouth Rocks will make a large share of their own living, keep the garden well freed from insect pests and give a larger return of eggs and flesh for food consumed than most other breeds.

H. A. WATTLES.

Bayneville, Sedgwick Co., Kas.

Eggs should be served abundantly on the farmer's table and in such a variety as not to make them tiresome.

For the cure of colds, coughs, and all derangements of the respiratory organs, no other medicine is so reliable as Ayer's Cherry Pectoral. It relieves the asthmatic and consumptive, even in advanced stages of disease, and has saved innumerable lives.

In sending poultry to market it is well to bear one rule in mind, as given in a poultry dealer's circular: "Care should be taken that lots shipped for the special occasions should arrive in sufficient time before the event to meet the best sale. The poultry that arrives too late always meets a poor market." The rule is a good one for any kind of produce.

The Michigan Poultry Breeder says: The Leghorns are very popular with those who do not desire to raise chicks, they being non-sitters and good layers. The two most popular varieties are the whites and browns. The first grows to a larger size than the other, but the browns commence laying a little earlier. They are hardy, beautiful and very profitable, but the most serious objection to them is their size. This can be overcome in the white variety by using white Minorca males.



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(Mamma)—No, dear; only tired; been shopping all day.  
(Little Pet)—O, I know; you're what they call "shopworn."

Few women can long stand the exertion of continuous shopping, while saleswomen, seamstresses, teachers, and overworked women generally, break down by thousands each year and are forced to quit work on account of nervous prostration, sick headache, weak back, female weakness, and other kindred derangements. It is fortunate, however, that Dr. Pierce has given to suffering women his "Favorite Prescription," the result of many years' practice in diseases of females, and the only remedy which is warranted to give satisfaction, or money refunded. The certificate of guarantee has been printed on the bottle-wrapper and faithfully carried out for many years.

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The Busy Bee.

Carniolan Bees.

EDITOR KANSAS FARMER:—Carniolan bees are a race or strain of bees found in the province of Carniola, in southwestern Austria, just south of Vienna, nearly bordering Italy on the northeast, the Adriatic intervening. A continuation of the Alpine mountain range runs through the province, and hence the hardihood of this strain of bees from this mountainous region. This accounts for their being able to withstand the cool mornings and evenings, by their commencing to work from one to three hours earlier in the morning and the same in the latter part of the day. This affords them a chance of securing so much more than the Italians or other strains that require the temperature to be several degrees warmer. This is one decided advantage in favor of the Carniolans in preference to other strains, as it gives the bee-keeper this much extra to build up his colonies with or as a surplus.

I find them very prolific and their workers more gentle to handle than other strains of bees, rarely ever needing any smoke while manipulating them. They are found to be excellent comb-builders, and their combs are of a snowy whiteness, which gives the bee-keeper great pleasure in taking a choice article to market. They cannot be equalled as honey-gatherers, as they go longer distances to find honey, and will work earlier and later in the season than any of the other strains of bees. They will enter the surplus cases or sections and commence work much sooner than any of the other strains. They show very little disposition in gathering propolis or bee-glue to daub upon the sections or glue fast the frames; this is something to be desired when taking off surplus cases of honey.

The writer introduced some of these Carniolan bees into his apiary, three years ago, and every season has found him more and more in love with them, and would advise all bee-keepers to introduce some of them to improve their bee-yards and at the same time secure the more surplus for their family use or market purposes.

I have kept the pure Italians for the past ten years, obtaining my queens of this strain from most of the noted breeders in the United States, and in the absence of the Carniolan bees, thought there was none that could excel the Italians; but I find it very much different since introducing the Carniolans, as the past season demonstrates, having obtained some sixty pounds of surplus in one-pound sections, besides filling up the brood chamber or main part of hive, thus having a great plenty for wintering; while my pure Italians, of same strength of colony, only gave me thirty pounds of surplus in one-pound sections and the brood chamber filled same as the Carniolan.

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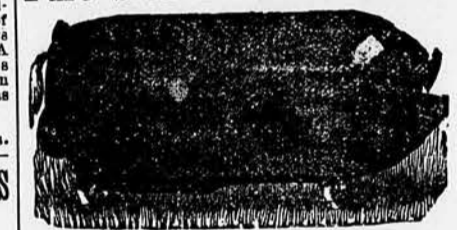
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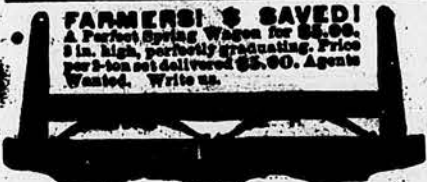
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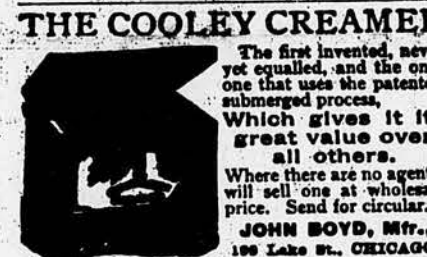
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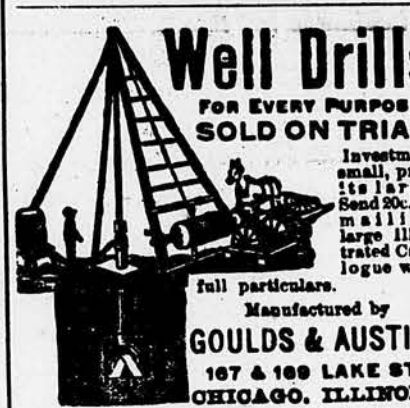


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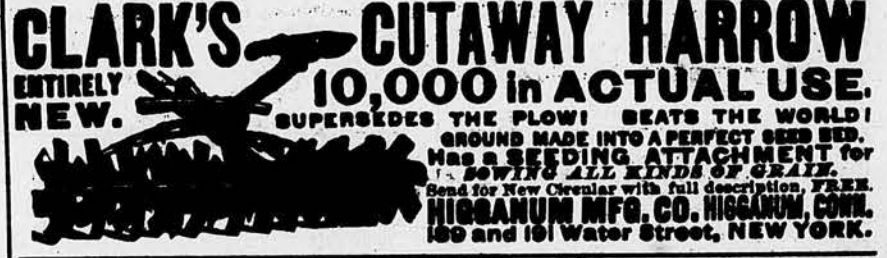
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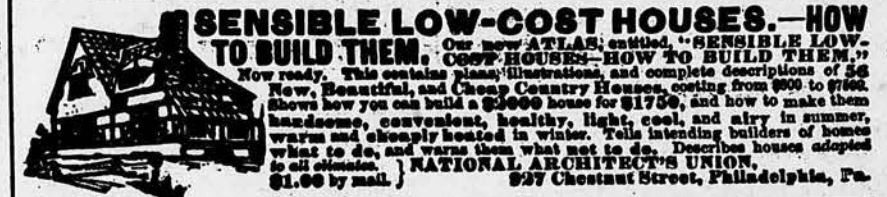
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