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The Stock Interest.

STOCK BREEDING.

The Iowa *Homestead* offers the following excellent suggestions:

How to utilize the laws of inheritance so as to secure the best results is the problem constantly in the minds of the breeders of live stock. Especially is this true with the higher forms, such as horses and cattle. Here the amount involved is financially large, the problem a tedious one, and mistakes serious. Large amounts of property and great reputations are at stake, and correct thinking and the practical application of the laws of inheritance lead to something better than a gold mine. The man who can utilize inheritance in trotting horses so as to produce something better than Axtell or Sunol may wear diamonds for sleeve buttons. It is agreed among all breeders that like begets like, or, rather, similar, that the qualities, good or bad, that may be either inherited or acquired, may be transmitted to posterity; that this transmitted inheritance may be modified by food, climate and training; that the inherited traits of one parent may be modified by that of the other; that some lines blend harmoniously or, in breeders' parlance, "nick well," and that others are discordant and throw up ancestral traits which have been dormant for generations, and that how to breed so as to secure the best results is a work not merely of science, but the highest art.

Our present aim is not to discuss the principles underlying the law of heredity, but to familiarize our readers with the meaning of certain terms and phrases, and the methods of breeding which they express. There are, speaking in a general way, about four distinct methods of applying the law of heredity, in-and-in breeding, breeding by selection, line breeding and cross breeding, and each of these is followed more or less closely by great numbers of breeders. In-and-in breeding is the mating of closely-related animals, such for instance of sire and daughter, brother and sister, sire and dam. Having procured a sire of great individual merit in some particular feature in-and-in breeders use him on his own get, or on his dam, or on the get of his sire or dam, the object being to intensify the power in the progeny to transmit this peculiarity to other stock. This is the method practiced at first by nearly all the great breeders of improved stock. In this way nearly all breeds were formed. How far it is safe to follow it after a breed is formed is another and much more difficult question.

The early improvers of the breeds had the native stock of the country to start with. It was purely the creature of environment, therefore hardy and vigorous, throwing up from time to time individuals of great merit. By carefully selecting these and in-and-in breeding the pioneers in stock breeding were able to intensify these exceptional features in a few sires, and by using these on a large number of females lift the breed at once into prominence. The old breeders all understand the value of special environment, or what in modern terms is known as the "corn-crib cross," and hence these inbred animals were taken to a great extent out of the natural conditions and the effects of in-and-in breeding in connection with special food and forcing, especially with cattle, was to impair the natural vigor, to induce barrenness, and lay the foundation of disease. In other words, when in-and-in breeding has gone a certain length nature says: "Stop!" This we think has been the experience of all modern in-and-in breeders. The results have been worse than with the early breeders, for the reason that they begin of necessity with stock more closely re-

lated and besides kept in more artificial conditions. While we think there are times when in-and-in breeding is justifiable and wise, yet it is only at rare times and should never be undertaken except by a man who has had long experience and can afford to take great risks. The ordinary farmer had better not attempt it. He cannot afford to take the risks even if he had the experience.

Line breeding is breeding within the limits of certain families, that is, using only such animals as are descended from certain celebrated females. For example, a breeder of cattle who has excluded from his herd all families except those finally selected by Mr. Bates, and uses only bulls belonging to the same families, would be a line breeder and his cattle would be pure Bates cattle. A breeder who would use only Cruickshank bulls or cows descended from Mr. Cruickshank's herd would be a line breeder and his cattle would be Cruickshank cattle. The individuals might not be closely related, in fact only remotely so, but still they would be limited to a certain line of blood, hence line-bred.

The advantages of line breeding are these: That it fixes a type, and inevitably, if the environment is the same, produces great uniformity of type. This is always desirable, not merely in the minor features of color and style, but in the more valuable points, such as early maturity, the development of the most valuable parts of the carcass, milk production, etc. There is no way by which uniformity of type can be secured so easily and certainly as by line breeding. Every breeder is familiar with the Bates type of cattle and can distinguish it at once from the Cruickshank type. It is comparatively easy, therefore, for him to procure that which suits his fancy. The disadvantages of line breeding are these: No type of animal yet produced is perfect, and the imperfections are just as deeply imbedded in the breed as the better qualities. They are therefore just as certainly perpetuated. To avoid this result a few line breeders are adopting the method of in-and-in breeding stock strictly line-bred. For example, a breeder in Cruickshank lines might ingraft milking qualities of a high order on the breed by selecting cows of that strain that are good milkers and breeding them to a bull the produce of the best individual. So a Bates breeder might improve the rib or foreshoulder, or any other feature in exactly the same way. This would be a combination of line and in-and-in breeding.

The third method of breeding is that of selection, keeping strictly, however, within the limits of the breed. The aim of this class of breeders is to secure the very best individuals, regardless of fashion, color or family. They decide on a certain type which constitutes their ideal of perfection, and then select with a view of securing that type. They cross Cruickshank on the Bates, or Booth on Bates, or Bates on either Cruickshank or Booth. Some of these breeders draw the line at what are known as unfashionable crosses, and hence confine their selections to animals that are, as they say, clear-bred and Healy proof. This is the rule adopted by most Short-horn breeders. Others, again, confine their selection to "clear-bred" animals (so-called) that are red in color. The advantage in this method of breeding by selection is that it gives a very wide range of choice, and as the sole aim is individual merit it enables them to select, within the limits of the breed, whatever exceptional merit may be thrown up to the surface. The disadvantages are that, so widely differentiated as the older breeds have become, there is danger of making crosses more or less violent. This advantage is all the greater because the first results of this blending of different

types are nearly always animals of supreme excellence, which excellence is liable to disappear when the female produce of this cross is used for breeding purposes. Another disadvantage is the destruction, so far as the animals used are concerned, of these different types.

This leads us to speak of the fourth method of breeding, namely, cross breeding, or crossing distinct breeds. This was the method followed by the early breeders, before the days of Booth, Bothwell, Bates or the Collings, and the method followed to some extent by the early Kentucky breeders. In all cases it has proved deceptive and disastrous; deceptive because the first cross nearly always proves superior to either of the parents, and disastrous because the later crosses throw up the peculiarities of the old native stock that lie at the foundation of both breeds. The deceptive nature of this method has led hosts of farmers to adopt it, and the results may be seen on thousands of farms. Nature holds up a warning against this method that all men should read and heed as well. The cross between the ass and the horse is barren. She interposes her verdict and says: "Stop!" just as she says to the in-and-in breeder: "You may go so far and no further." Years of skill have developed certain types which we call breeds. Crossing of these in a few generations destroys these types, and the result is the reappearance of the old original stock, and in time the development, in the hands of a skillful breeder, of a new composite type having some of the features of both.

The farmer is almost sure, after the first cross, to get the disadvantage, and has neither the time to wait nor the skill to secure the benefits that in time might follow. And yet the wise man secures benefits from cross-breeding. If he is breeding solely for the meat market, he can cross breeds with advantage, but should limit himself to the first cross and sell females as well as males. In doing this he should select for his dams the very best milkers. For instance, a farmer can use a Berkshire male on Poland-China females, or a Hereford, Polled Angus or Galloway males on Short-horn cows with the confidence that the produce will be equal to and superior to either breed for meat production. Then he should stop.

We have thus, as clearly and distinctly as possible for us, outlined the various systems of breeding. Our readers must choose for themselves what is best for them to follow.

The Management of the Mutton Breeds.

The high price for sheep during the last year has awakened interest in the English breeds to a degree never before witnessed in this country. Our people are gradually becoming acquainted with the tenderness and flavor of well-fed mutton, and we may look for no retrograde movement, but rather a rapidly-increasing demand in the future. Heretofore with our flock-masters wool production was the primary and mutton a secondary consideration; now many are beginning to see that for the older sections of the country, and especially in the vicinity of our large cities, the production of choice mutton and lambs opens up an industry the possibilities of which are as yet little realized. In taking up the mutton breeds of sheep one of the first requisites is to dislodge from our minds as soon as possible many of the preconceived notions in regard to successful management, for in this country our knowledge of sheep husbandry comes almost entirely through handling descendants of Spanish flocks, and such sheep are very different in qualities and requirements from the English breeds.

The first and greatest difference is seen in the marked ability of the Spanish sheep to be crowded into large flocks,

in which particular they have no equal. In most cases our sheep descended from the Spanish have been maintained upon a very limited variety of food during the winter months. The mutton breeds will bear no such crowding into large flocks, and will not thrive upon a diet restricted as to variety. These differences are easily comprehended when we reflect upon the great differences of management in the past history of the breeds. With the mutton breeds those conditions which have brought them into their present form and favor in England must surround them here if we hope to hold them to a high standard. The basis of English sheep husbandry is the turnip. In Canada, where these breeds have succeeded admirably, the climate and crops are quite different from those of the Mississippi valley. Intimately connected with the British Isles by descent and agricultural methods the Canadian farmer has always been partial to the root crop, and to this we may ascribe in a large measure his success in maintaining the high standing of English breeds on Canadian soil. It may be possible that in bringing these sheep to the United States we can cut loose from all traditions relating to their management, but such seems unreasonable, and a thoughtful person will scarcely dare make the venture. They have a large frame-work, which is covered with deep, juicy, tender flesh; to produce such a carcass will call for high art in feeding and management.

Can our American flock-owners hold English breeds up to the English standard? The main difficulty seems to lie in the lack of succulent feed during our long winters. We have never taken to root culture; the American farmer utters a groan at the mention of the root crop. To him there are just three crops: corn, oats and hay, with the oats for horses only, and unfortunately is the animal that calls for any "side dishes." Corn and hay alone will never suffice for winter feeding of the sheep in question. There must be something succulent. Much as we pride ourselves on our agriculture we have lessons to learn from our foreign neighbors to ignore which will be to court failure. We are led to these reflections by the case of a farmer who recently embarked in this line, and last winter was complaining that his first crop of winter lambs, nearly one hundred in number, were not thriving. Investigation discovered that they were costive, and no wonder; they and their dams were kept upon hay, corn fodder, and dry grain. The owner had started into this new industry without a thought of providing succulent feed for winter, and severe losses were the result. If winter lambs are to be raised roots are a prime requisite; they should not be neglected, even though lambing time is delayed until spring. It is quite probable that corn silage will take the place of roots where sheep have sufficient age to properly masticate it, but we can hardly expect it to be suitable for lambs in winter. From numerous reports it certainly has proved well for older animals.

Another point of importance is that smaller flocks of the mutton breeds must be carried than of Merinos. While a large number may be gathered together for a single winter's feeding few farmers can maintain large flocks of these breeds for any length of time with profit. Our ideas of the size of flocks are made up from Spanish antecedents; let the beginner shut his eyes to this condition and accept English experience and English practices instead. Because large profits are possible with twenty or forty head of ewes the enthusiast figures corresponding returns for twenty or forty times that number. Nothing is more delusive than this sort of mathematics. It is the hidden rock in the sea of activities which wrecks many of our calculations. A little learning is a dangerous thing, and many in starting with the new breeds had better ignore preconceived notions on the subject entirely and form their ideas and practices from our British and Canadian friends whose success is beyond question. These heavy-weight, rapidly-maturing breeds cannot be successfully managed on the basis of average American Merino experience.—*Breeder's Gazette.*

After all, the best way to know the real merit of Hood's Sarsaparilla, is to try it yourself. Be sure to get Hood's.

In the Dairy.

RICH CHEESE OF GOOD FLAVOR.

In cheese-making, the principal points necessary to secure a good product, says J. H. Monrad, in his "A. B. C. in cheese-making," are quality and uniformity of milk, skill in handling and, what in the market is found most needful, uniformity in product. The milk must not be allowed to stand long enough to let the butter globules rise—for a fine product these must be evenly distributed. The cheese-maker must separate the caseine and butter fats from other components of the milk, and according as this is done are the various cheeses found upon the market made. The first step, therefore, is to coagulate the caseine with rennet, which is extracted from the fourth stomach of the calf, the best being taken three or four days after birth, when its food is solely its mother's milk. After curdling, the next step is to break its solidity to allow the whey to escape. To further this operation, it is heated to 100° and a certain degree of acidity is allowed to develop. To check this at the right point the curd is then salted and finally put in the press.

These are the main stages of manufacture, but in each case guess work is not allowable. Have a reliable thermometer, weigh the milk, measure the rennet extract and color, weigh the salt and weigh the cheese when taken from the press and when sold. This is the secret of a uniform article, and on it depends more than on anything else a steady market for the cheese, for in any business a uniform product through the year will bring a higher price than one of several grades, which, while it may average higher, yet is subject to fluctuations in quality. The evening's milk should be carefully strained into deep, narrow cans and cooled at least to 70° to leave over night. In the morning thoroughly mix with the morning's milk and heat it to 80° or 84°. The best way of heating it is in a can placed within a kettle of boiling water. If the water be about 150° the milk must be stirred constantly. If the milk be heated a little higher than 84° and allowed to cool, it will ripen and be nearer the right condition for adding the rennet.

To know just when to put in the rennet is one of the nice points in cheese-making, which experience only can decide. Before using the rennet, the coloring must be carefully stirred in. With an extract of uniform strength, many things must decide the exact quantity to use. D. M. McPherson, the great cheese-maker of Ontario, Canada, uses three to three and one-half ounces of Hansen's extract to 1,000 pounds of milk, while Prof. Robertson, another Canadian expert, advises the use of as much as eight ounces. I believe the rule, "much rennet—quick ripe and early decayed," holds good. The balancing of the work of acid and rennet is another fine point in cheese-making. Coagulation begins in about one-third of the time it takes to be ready for cutting. Thus if coagulation begins in twenty minutes it will be ready in sixty minutes. The whey separates readily if the curd be cut. A long knife of wood or metal is needed. This is thrust into the vat of coagulated milk, cutting it crosswise into six or seven squares and it is then left for five minutes covered. Next a tin skimmer is inserted and carefully raised, allowing the curd to break apart by its own weight. When the entire mass is reduced to cubes of two or three inches, it is again left for five to ten minutes. The next tool to be used consists of three pieces of wood joined together by ten brass rods, each ten inches long and one-eighth of an inch thick. The central strip of wood is extended into a handle. With this the curd is gently stirred until it is broken up in cubes of half an inch or less. If the cheese be inclined to be too dry do not cut so finely, and if too moist cut fine. Scalding the curd is a misleading term. The object is to heat it gradually to a point favorable for expelling moisture. This is done by dipping off some whey, heating it to 140° and pouring it again into the vat. When the curd is fine it is left to settle and then part of the whey is dipped off. To get the whey without a mixture of curd, a large hair sieve or cloth strainer laid in the vat in which the dipping is done will secure the object sought. If the whey be long in heating, the curd must be stirred up gently to keep it from matting. There is

less damage done by gently stirring than when it is allowed to mat, and new surfaces are opened on the particles of curd through which the butter fat can escape. When the whey is heated to 140°, enough is poured into the vat to raise the temperature of the whole mass 2°, stirring meantime and for five minutes afterward, to secure a uniform temperature. Then more whey is added to raise it 2° higher with five minutes of stirring, and so on with five minutes devoted to mixing the mass after each addition of whey until the whole is 96° to 102°. This point in cheese-making must be definitely attended to.

The heating of the curd promotes acidity. Acidity favors the separation of whey, and as a standard cheese should have to be 30 per cent. of water, we must by experience learn how to combine the effect of coarse or fine cutting with low or high "cooking" or "scalding" to obtain the desired result. During the "scalding" the whey is reduced so as to just cover the curd. The curd is afterward stirred until it feels "shotty" or hard enough to rub between the fingers without having one piece stick to another. The exact condition will be learned only by experience. When it has been brought to this point, the whey is drawn off by sloping the vat, or a small hole may be bored at the bottom in which to insert a plug. This will save the trouble of dipping the whey. The whey should be removed before any perceptible acid has been developed and the curd left to drain, being kept covered that the temperature may not fall too much. When the curd is ripe it is pulled by hand into pieces the size of hickory nuts.

When filling the hoop, a piece of cheese cloth is carefully placed in it, making the folds as smooth as possible, before putting in the curd. When taken from the press, the cheese is but half made and can hardly be called cheese, as it is but a compressed lump of curd. It is cased in cloth as tightly as possible, and should be stood on smoothly planed shelves in a room well ventilated, but without draft. The temperature should be 65° to 70° and as uniform as possible, the air not being too damp nor too dry. The cheese should be turned every day during the first month, and twice a week during the second. Later on one turning per week will do. Whenever it is needed, grease should be rubbed over the cheese.

Illinois Dairy Association.

EDITOR KANSAS FARMER:—At a meeting of the Board of Directors of the Illinois State Dairymen's Association it was determined to call a national dairymen's meeting, to be held in Chicago, at the Sherman House, on the third Wednesday in July, 1890, at 10 a. m. The said meeting to be composed of three or more delegates appointed by each of the several State dairy associations and breeders' associations representing dairy cattle.

The object of the meeting is to consider and take action on the best means of representing the allied interests of the dairy industry of the country in connection with the World's Columbian Exposition of 1893 and to take definite action with reference thereto.

Your association is respectfully urged and requested to take immediate measures for the appointment of three or more delegates to represent your body at said meeting.

It is very important that a large attendance be secured and decisive action be had at an early day. The actual needs of the dairy industry of the country must be made known and attended to without delay. LOVEJOY JOHNSON, President.

R. LESPINASSE, Secretary.

"Hunger is the Best Sauce."

As a rule, a person who has a good appetite has good health. But how many there are who enjoy nothing they eat, and sit down to meals only as an unpleasant duty. Nature's antidotes for this condition are so happily combined in Hood's Sarsaparilla that it soon restores good digestion, creates an appetite, and renovates and vitalizes the blood so that the beneficial effect of good food is imparted to the whole body. Truly hunger is the best sauce, and Hood's Sarsaparilla induces hunger.

The Kansas City Star.

Weekly edition, 25 cents a year, payable in advance. Ask your postmaster or write for a sample copy. Of special interest to farmers. The cheapest and best newspaper in America.

Agricultural Matters.

ROADS AND FIRE-BELTS.

Extracts from an address delivered by Prof. Lewis McLouth, before the South Dakota Wool-Growers' Association.

The people of Dakota have had need to spend very little money, time or labor in road-making. Our prairies are grooved all over with roads about as good as art could make them. The only bad roads we have, indeed, are the made ones. Our roads sweep over the long rolls of our prairies with curves almost as regular as planetary orbits, and grades as easy as the old Appian way of Rome, and as smooth and hard as the asphaltum pavements of Washington. An occasional culvert, rarely a bridge, and the absence of barbed-wire fence are all the cost and condition of the finest roads imaginable. All the expense incurred by first settlers in the more eastern and wooded countries, who were obliged to chop down trees and dig out stumps and build corduroy and turnpikes, and cut ditches and grade hills, and bridge frequent streams, has been saved to our people. Our farmers without cost for roads are able to draw 40 per cent. heavier loads to market than they can in the older countries which have been settled and improved for half a century. Do any of you know of the discomforts of teaming through the swamps and forests of Ohio thirty years after it had become a State? Immigrants who came through to Indiana and Michigan have told me that they sometimes staid three successive nights at the same tavern and traveled all the time. Twenty bushels of wheat was a heavy load on those roads when the wagon had to be dragged hub-deep in clay mud, or wrenched over stump roots or jolted over log corduroys. I can remember as a child when my father started to church with his family of a Sunday morning; he always put his sharp ax in the wagon, so that if he should break the wagon tongue, as sometimes happened, he could cut down a sapling and make a new one. The cost of making those roads as good as they are to-day has, first and last, been as great as that of the fine houses and barns that now line their sides.

You are saved all this; but instead of it there is another work that is incumbent upon you to do, and a work that will pay better than almost anything else. I refer to the watchfulness, care and labor necessary to protect yourselves from prairie fires. The pitiful burning of whole flocks of sheep by prairie fires, the blazing of the wool upon their backs, as they huddle together for security, is sufficient reason for presenting this matter to this convention. Now I suppose the semi-annual talk of the newspapers and their admonitions about fire-breaks have come to be somewhat monotonous and stale, and possibly my words will be as much so. But permit me to remind you that the coming of the fires is fully as regular and monotonous and a good deal more disastrous. It is probable that the pecuniary loss to the people of South Dakota from prairie fires annually is at least half as much as all the taxes paid; and during the wind storm of the first three days of April, 1889, the loss by fire was equal to all our taxes for the year. In any one of several counties the loss was estimated at \$300,000. The fires swept faster than a horse could run from farm to farm and from village to village, consuming haystacks, tree claims, barns, sheds, stock and dwellings, not to mention human life. The air was filled and the light of the sun obscured by masses of dust and smoke. The flames raced forward with a velocity and a violence that mocked at roads, fire-breaks and all efforts to resist them. In estimating the losses little account was taken of the destruction of groves and tree plantations, for their value is difficult of estimation; and yet the loss of these was among the greatest. Indeed the prairie fires have been among the chief causes that have prevented many hundreds of farms from being already provided with an abundance of fuel, and their orchards, pastures and homes from being protected against the hot blasts of summer and the blizzards of winter. Few have an adequate comprehension of the annual loss by prairie fires to the people of the Dakotas. It has been a monstrous tax upon our prosperity, levied upon the poor mostly, and altogether upon the farmers. I believe there is an annual loss from this cause within sight of the towers of the Agricultural college

buildings enough to well defray all the current expenses of that institution. Hundreds of tons of hay, a dozen buildings, many grain stacks and several tree claims are within a radius of ten or fifteen miles annually sacrificed. Brookings county could certainly afford to maintain the Agricultural college in exchange for protection against the devastations of prairie fires.

Now much of this immense loss can be saved to the farmers of South Dakota by an expenditure of forethought and labor equal to what is required in the East in road-making, and of which, as I have said, we are mostly relieved. A fire-break of two or three furrows around a haystack in the middle of a prairie or around a house and barn is of very little use against a running fire. If, however, a couple of furrows are plowed at intervals of two or three rods, and so repeated two or three times, and then the strips of grass carefully burned out on still days, you will get a fire-break that would be absolutely effective, at least against all ordinary danger from fire. When large tracts of unoccupied prairies lie contiguous to settlements, or even scattered inhabited claims, these belts of alternate furrows and burned strips should be drawn along the boundaries; and if the prairie itself is divided up by these fire-belts the security will be all the greater.

A man and a team could make a half mile of such fire-belts in a day, and they would be absolutely effective against running fires; and the more the whole country is checkered over with such belts the less would be the liability to great and sweeping fires. Officers of adjoining towns should plan their work together so that it would be continuous and effective through wide stretches of country. It will not do to depend upon volunteers or "bees," but there must be legal authority, vested in proper officers, to call out all voters to work out their fire tax just as their road tax is worked, or else assess it against the property. It would be a tax, and like all taxes onerous, but it would be a provident and saving one, and the work should be required at the proper time and no delays permitted. If this can be done the expenditure of one dollar will save five. Of course as the State grows older and the prairies are more thickly settled and divided up by plowed fields the danger from fires will gradually diminish and the cost of protection against them become correspondingly less. It is one of the needed economies, and if additional legislation is required steps should be taken at once to secure it. The older prairie States have suffered in the earlier days of their settlement as you are suffering, and as you are going to suffer, unless you take active, intelligent steps for your own protection.

Climate for Consumptives.

The several climates of Florida, Colorado and California have each been much prescribed for sufferers from lung disease, yet thousands of the natives in those States die of this fatal malady. A far more reliable remedy is to be had in every drug store in the land, and one that can be used at home; a remedy which is sold, by druggists, under the manufacturers' positive guarantee that, if taken in time and given a fair trial, it will effect a cure, or money paid for it will be promptly returned. We refer to that world-famed remedy for consumption (or lung-scurf) known as Dr. Pierce's Golden Medical Discovery. It is the only remedy for this terrible disease possessed of such superior curative properties as to warrant its manufacturers in selling it under a guarantee.

Don't hawk, and blow, and spit, but use Dr. Sage's Catarrh Remedy. Of druggists.

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.,

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We have special arrangements with the publishers of the Weekly Capital, the official State paper, a large 12-page weekly newspaper with full dispatches and State news, price \$1. We can supply both the Capital and the KANSAS FARMER one year for only \$1.50. Send in your orders at once.

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Officers or members will favor us and our readers by forwarding reports of proceedings early, before they get old.

SPECIAL.

We want some members of every farmers' organization—Grange, Alliance or F. M. B. A.—to regularly represent the KANSAS FARMER and help extend its fast-growing circulation and usefulness. Please send name and address at once.

ALLIANCE PLATFORM.

The following seven demands were adopted at the St. Louis convention, December, 1889, as the platform of the National Farmers' Alliance and Industrial Union:

- 1. We demand the abolition of national banks and the substitution of legal tender Treasury notes in lieu of national bank notes, issued in sufficient volume to do the business of the country on a cash system, regulating the amount needed on a per capita basis as the business interests of the country expand; and that all money issued by the government shall be legal tender in payment of all debts, both public and private. 2. We demand the free and unlimited coinage of silver. 3. We demand that Congress shall pass such laws as shall effectually prevent the dealing in futures in all agricultural and mechanical productions, preserving such a stringent system of procedure in trials as shall secure prompt conviction and imposing such penalties as shall secure the most perfect compliance with the law. 4. We demand the passage of laws prohibiting alien ownership of land, and that Congress take early steps to devise some plan to obtain all lands now owned by aliens and foreign syndicates; and that all lands now held by railroads and other corporations in excess of such as are actually used and needed by them, be reclaimed by the government and held for actual settlers only. 5. Believing in the doctrine of "equal rights to all and special privileges to none," we demand that taxation, national or State, shall not be used to build up one interest or class at the expense of another. We believe that the money of the country should be kept as much as possible in the hands of the people, and hence we demand that all revenues, national, State or county, shall be limited to the necessary expenses of the government economically and honestly administered. 6. We demand that Congress provide for the issue of a sufficient amount of fractional paper currency to facilitate exchange through the medium of the United States mail. 7. We demand that the means of communication and transportation shall be owned by and operated in the interest of the people, as is the United States postal system. The Kansas F. A. and I. U. add to the above these: 8. We demand such legislation as shall effectually prevent the extortion of usurious interest by any form of evasion of statutory provisions. 9. We demand such legislation as will provide for a reasonable stay of execution in all cases of foreclosure of mortgages on real estate, and a reasonable extension of time before the confirmation of Sheriff's sales. 10. We demand such legislation as will effectually prevent the organization or maintenance of trusts and combines for purposes of speculation in any of the products of labor or necessities of life, or the transportation of the same. 11. We demand the adjustment of salaries of public officials to correspond with existing financial conditions, the wages paid to other forms of labor, and the prevailing prices of the products of labor. 12. We demand the adoption of the Australian system of voting and the Crawford system of primaries.

Johnson County.

D. C. Zercher, Secretary Citizens' Alliance, No. 1, Olathe, writes us that he organized twenty-three Citizens' Alliances last week, and that he had at time of writing twenty-five more letters before him. We urge all persons residing in towns and cities who indorse the St. Louis platform and State demands to take immediate action towards forming a Citizens' Alliance. Inclose stamp and at once send

to Mr. Zercher for circulars, containing information in regard to this worthy and timely auxiliary to the great reform movement.

How to Checkmate the Money Power.

EDITOR KANSAS FARMER:—While staying at these springs for a while with my wife, who is a little run down and requires rest and a good bracing-up generally, I have plenty of leisure to read and do some thinking. Of course, being a farmer, my reading is just now principally directed to that section of practical politics that practically affects the interests of the farmers of the West, and my thinking results from that reading. I don't suppose there is a sensible man living, who has given any attention to the matter, who will deny that the farmers, the great producing and wealth-making class of America, are the people who pay the bulk of the taxes, of which about one-third go into the national treasury and two-thirds into the pockets of the money kings and manufacturers of the East. Deny it or not, it is a fact that could be easily demonstrated, if it were worth while to demonstrate a proposition that is as clear as that Mr. Ingalls has a nose, and a very ugly one at that, on his face. When I was a boy my father, who had migrated from England, showed me a set of old caricature cartoons, drawn by one of the satiric English artists of the earlier part of the century, showing what each class in the community did for all. There was the King in his royal robes and glittering crown, saying, "I govern all;" and the Minister of State, surrounded by bowing lackeys, saying, "I think for all;" and the judge, in wig and gown, crying, "I give law to all;" and the soldier, in grand regimentals, beplumed, besworded, and belaced to the limits of magnificence, shouting, "I fight for all;" and then, after a long series of such brilliant exhibitions of that noble kind of patriotism which required equally noble pay, there came at the last a picture of the poor, hard-working farmer, shabby in clothing, bowed down by care, struggling to find another coin in a lank purse, and he, humbly sighing, was saying, "And I pay for all."

Now, Mr. FARMER, it seems to me that some such a system of caricatures, dropping the King and substituting, say an Eastern money monarch, would about represent the present condition of the farmers of all the United States, but particularly of those States that, like Kansas, are almost exclusively agricultural. Moreover, until some radical change in our political systems be made, the impoverishment of the Western farmer for the enrichment of the Eastern money dealer will continue. There is no way that can be devised to prevent the ultimate incidence of all taxation from falling upon the land. This is unavoidable, because everything that goes to make wealth of every sort comes from the land. But there surely should be some way open to prevent those who make the land productive from becoming the mere serfs of those whom the accidents of birth or fortune or superior cunning have placed in control of the money-bags of a few Eastern cities. The vast mass of the farmers to-day are as completely bound in a financial serfdom as ever ancient Saxon or recent Russian was in a territorial one. Of all that he earns, after deducting barely sufficient for the commonest necessities of mere existence, every dollar goes into the coffers of the rich and luxurious whose constant cry, no matter how much they get, is like that of the horseleach's daughters, ever "More, more!" And this condition will continue until the time comes when the Western farmers will send real representatives to Congress. It will never cease while those they elect—for it must not be forgotten that in the Western States the farmers do nearly all the electing—I say it will never cease while those they elect regard the ties of mere party allegiance as superior to the interests of their constituents.

I have for years been a Republican on principle and have always acted with that party. But recent events have convinced me, not that Republican principles, except as to protection, are wrong, or that Democratic principles, except as to freedom of trade, are right, but that neither Republican nor Democrat can be trusted to give paramount place to the interests of his constituents when he is subject to the control of party leaders and surrenders himself, his conscience and his electors' wishes to the absolute control of King Caucus. The catechism should run about in this

fashion: Who elects Congress? The people, mostly farmers. Whom do they elect? The nominees of party politicians. Who controls Congress? King Caucus. Who is he? A degenerate body of shrewd and selfish politicians whose policies are dictated by the comparatively few owners of the realized wealth that has been made by the labor of the people. See what a nice little circle these few questions and answers make. The logical talk of a "vicious circle." Was there ever any more vicious than this? Was there ever any statement of our present political situation more true?

Now, Mr. FARMER, it has been the history of our country that, when great evils have grown up from corruptions that have fastened upon existing political parties, the people have created new party machinery to meet their wants and to sweep away the evils. We need look no further back than the creation of the Republican party to see a complete illustration of what I mean. The present seems to me just the time for such an operation. Kansas, the great representative agricultural State, has the power and the opportunity to take the lead in the reform, and right to her hand, in the Farmers' Alliance, is the instrument to use. If the farmers of Kansas will only unite and act harmoniously for their common interests they can create a new party which will break their fetters and restore to them their birthright to control their own affairs and eat the bread of their own earnings, instead of seeing the fruits of their labor swallowed up in the insatiable maw of grain-gambling, money-lending, railroad-owning rings of the East. But how to do this?

The answer seems to me a simple one. Let the farmers of Kansas, through their Alliance organization, agree to elect no one to Congress who will not pledge himself to hold aloof from the caucus of either party, and to elect no one to the State Legislature who will not pledge himself to vote for no man for United States Senator who will not give a similar undertaking. Then, when the next Congress assembles, Kansas will be there in a solid delegation of independent, real representatives of her interests. They will be numerous enough, in any reasonable view of the future numerical strength of parties, to hold the balance of power on all important questions. Pledged to independence of either party, they will have nothing to think of but the welfare of their constituents and, through them, the welfare of the farmers of the entire West. Kansas can do in the 90's for agricultural emancipation what Illinois did for negro emancipation in the 50's, and surely there will be as much honor in leading a crusade for the enfranchisement of white farmers as there was for black slaves. The movement once started, with the whole intellectual and moral force of the State of Kansas to back it, other States will speedily follow. Illinois and Iowa, Wisconsin and Michigan, Nebraska and Minnesota, indeed, all the vast empire of the West and Southwest, will take up the line of March, and thus the farmer may have his fair share in dictating the policy of the government by the time the next Presidential election takes place. There will be an end then to such scenes as we have witnessed of late in Congress, when, for instance, the tariff and the silver bills were up, and when we saw Western Republican members of the House voting in obedience to party dictates, voting in diametrical opposition to the interests of their constituents.

I believe, Mr. FARMER, that by following some such plan as I have suggested, the farmers of Kansas can checkmate the gold-bugs and Shylocks of the East, can rid themselves of a tyranny which is as costly as it is heartless, and can place their State in the front rank of political power and honor. More than this, they can compel the adoption of such measures by Congress as will enable them to apply their earnings to the improved comfort, education and well-being of their families, instead of being fleeced to maintain the festering luxury of corrupt money-changers in the East. If they like to make the attempt they should lose no time in organizing. From now till November every school house in Kansas should have its Saturday evening meeting, and in every voting precinct the farmers should organize clubs pledged to work in harmony with and for the interest of the whole body. K. F. Excelsior Springs, Mo.

Jewell County.

County Alliance will meet at Mankato, July 10, at which officers for the ensuing year will be elected, and other important business pertaining to the order transacted. Sub-Alliances will be represented at the rate of one delegate for every ten members. It is desired that every sub in the county be fully represented. Hillsdale Alliance elected its officers June 17; President, G. R. Kreamer; Secretary, Henry Boaz. Also elected ten delegates to attend the county meeting.

H. L. Cobb, Jewell City, writes that he noticed in the Kansas City Star of June 26, that Hon. Phil Kelly declares the Alliance a Democratic organization and comments as follows: We presume that Mr. Kelly knows all about it (?)—fully as much, at least, as any partisan wire-puller, many of whom are now circulating rumors of all sorts to mislead the farmers who have heretofore allowed such men to do their thinking and acting, and also lead them about by the nose, making promises which were never fulfilled. The Starsays it is Mr. Kelly's observations that the Alliance is a Democratic organization, with a few Republicans mixed in to disguise it. The intent of such a declaration is quite obvious. The tricksters of the g. o. p. desire very much to return Mr. J. J. Ingalls to Congress, and as the Alliance is declaring so vociferously against it, the old wire-pullers are becoming alarmed and seek through misleading statements to allure the farmers from their path of duty, and thus defeat the object of the Alliance. Now Mr. Kelly's observation is a delusion, as the following facts will substantiate: There is in this county nearly 2,800 members of the Alliance, a county which has heretofore carried a large Republican majority, and in a number of other Republican counties the Alliance obtains its chief support from the ranks of that party, and look the State over and you will find it the same, two or more ex-Republicans to one Democrat, and in nearly every State in the Union it is the same. The farmers and all members of the order must not heed such baneful Jacobins, but stand firm on the line which leads to "liberty," and bear in mind that "eternal vigilance" is the price thereof. All intelligent farmers now realize the necessity of standing together and casting aside all party prejudices if their object is ever realized. It is the imperative duty of all farmers to unite in this common cause, and choose men from their own ranks to represent them in the Legislature and Congress, or else they will soon be in the same condition that the farmers of Ireland are to-day. So let us not heed the subtle whisperings of those who are at variance with us, and only seek to advance their own interests, regardless of who it impoverishes.

Franklin County.

Never in the history of this county has there been such a number of people together within its borders as came to Ottawa on the Fourth of July to assist in the celebration gotten up by the F. M. B. A. and Alliance organizations of the county.

Justly fearing the new party movement, the Ottawa Republican ignored the fact that the struggling farmers were trying to get up a celebration in honor of our national independence, and the Ottawa Tribune made fun of the idea that the farmers could make a success of anything. Picnics were gotten up in various parts of the county by the old party ringsters and pretty generally attended by our Republican county officials for the purpose of belittling the central celebration, and yet from 6 a. m. till noon it was almost a continuous procession of teams and loaded wagons on every road that led into town. The main procession from the north, coming in about 9 a. m., was over a mile in length, while that from the south, headed by the Williamsburg band of twenty-two pieces—one of the very best in the State—was over three miles long. Banners neatly painted and with appropriate mottoes fluttered in the breeze, and Wykoff lodge had a big hay frame with all the grain products neatly arranged upon it, while Williamsburg lodge contributed a banner with the motto, "On the Prosperity of the Farmer Depends the Welfare of the Nation."

At noon it was estimated that there were fully 12,000 people assembled at the park. Miss Jennie Rymus, a very interesting

girl in her teens, recited the Declaration of Independence in a manner and with comments in such a happy contrast to the usual dry reading of that wonderful document as to impart a new meaning to it to many who had heard it droned out at celebrations before.

A happy address was delivered by Hon. J. P. Stelle, National Lecturer F. M. B. A., that was attentively listened to and frequently applauded by the vast audience.

After dinner Mrs. Lease, of Wichita, delivered an address of three hours duration and held her audience to the end. During it she asserted that the tariff question, and liquor question, and Southern question were all subordinate to the great financial question, that embodied in its solution the question of saving to American people their homes, and she boldly declared and was backed by the hearty cheers of her vast audience, that it was folly to hunt the brush any more, that the farmers were fairly launched in the organization of a new party, and only needed to stick together to win.

Altogether it was the most remarkable meeting this county ever had, and the F. M. B. A. and Alliance and all friends of reform are jubilant over its success.

Topeka Clerks to the Farmers.

TOPEKA, KAS., June 25, 1890.

EDITOR KANSAS FARMER:—Through the journal which you so ably edit, this association desires to call the attention of the farmers to the "early closing movement" inaugurated by the clerks and salesmen of Topeka, hoping that the rural patrons of Topeka merchants will assist us in reducing the hours of labor.

The farmers have a strong organization. If it is once understood that this organization endorses the early closing hour and will patronize those merchants who recognize the wishes of their patrons, it will greatly assist us in making popular and a fact the "shortening of the hours of labor." Reciprocity and doing to others as you would like others to do to you, is a principle well founded. We therefore ask your readers to assist us by dealing with those who close their places of business at the early hour.

Any further information that you desire in order to edify your reader will be gladly furnished either to you direct or to any of your patrons.

A. A. PETERS, Secretary.

This movement on the part of Topeka salesmen is worthy of general support. Nobody ought to be expected or required to do more than a reasonable amount of labor in one day. Business must be regulated on a just basis, and sooner or later the workmen will be raised to a plane equal with that of his employer. The sooner that time is reached the better.—EDITOR.

Nemaha County.

Tuesday, July 1, was a gala day for the farmers in this county. The convention of the County Alliance brought hundreds of people to Seneca. By 10 o'clock the streets were a solid stream of busy humanity. Over 200 delegates from the various sub-Alliances were present, and after a thorough expression, decided to put up a ticket composed of men who stand firmly upon the Alliance platform and promise allegiance to the cause.

Smith County.

Solomon Valley Lodge, 1264, Gaylord, Kas.:

WHEREAS, The Gaylord Herald has announced its opposition to the farmers' candidate for Congress, our noble brother, S. Baker, and

WHEREAS, We denounce said paper in the position it takes towards our worthy friend, the Hon. Judge Pepper, and

WHEREAS, We consider the recent cowardly attack upon our esteemed brother and County Lecturer, J. W. Amls, to be a personal insult to every member of the order, and

WHEREAS, We assume said paper expects more boodle out of their campaign for its nefarious work than that of receiving the Gaylord postoffice, therefore, in self defense to protect "wife and babies," be it

Resolved, That we withdraw our support from said paper and request our friends to do likewise.

Adopted unanimously. W. M. MARSHALL, Secretary.

Coffey County.

As it has been the policy of both the Democratic and Republican parties to legislate in the interest of the few to the detriment of the mass of people, and as we cannot expect reform from parties whom we hold responsible for existing evils, Liberty Alliance, 2557, resolved that

they will not affiliate with either old party in the coming campaign, but are in favor of a union ticket upon which all labor organizations may unite, and that they will not support any old party candidate unless first nominated by our labor organizations.

Fourth at Moon's Grove.

The Alliance celebration at Moon's grove on the Fourth was well attended and a success. At 10:30 a. m. President J. W. Stewart, of Dover Alliance, called the assembly to order, followed by music by the band and prayer by Hon. J. B. McAfee. Mrs. Jennie Douglass, of Willard Alliance, read the Declaration of Independence. The Dover glee club, led by G. D. Wright, sang some very appropriate national selections.

After dinner the glee club and band rendered more music, followed by reading of the declaration of purposes of the Alliance, by Mrs. Burbach, of Pleasant Grove Alliance. President Stewart then in a neat speech introduced W. P. Brush, a National Organizer, as orator of the day.

Mr. Brush, during his two hours speech, discussed the objects and aims of government, the relation of the individual thereto, and what the Alliance movement aimed to do in order to perpetuate the principles of government as handed down by our forefathers. Insisted that agriculture have an equal chance in the race, and in order to do so farmers and laborers must unite and secure representation as a class in the halls of legislation.

The glee club then sang a song entitled "Good-bye, My Party, Good-bye."

A. C. Reed, of Alliance, then spoke of the situation confronting the producing classes. The remedy was organize, educate and co-operate in all things necessary for the welfare of all.

His speech was followed by the most enthusiastic part of the program for the day, a song entitled "When Election Day Comes 'Round We'll be There."

Official Notice.

Owing to press of business and inadequate means of transacting it, I am compelled to move my office to Hutchinson, Kas. All having business with me are hereby notified that on and after the 10th day of July, 1890, my address will be Hutchinson, Kas. I will be found at the same office as State Secretary French.

B. H. CLOVER,

Pres. F. A. & I. U. of Kansas.

June 20, 1890.

Organization Notes.

Remember the Congressional convention at Ottawa, July 16.

Riley County Alliance held its county convention at Leonardville, Tuesday, July 2, and nominated a full county ticket.

The difference in the price of binder twine this year and what it was last year makes a saving to the farmer of about \$3,000,000; brought about by and through the Farmers' Movement.

Saline County Alliance held their annual election of officers in Salina, July 5. There are thirty-three sub-Alliances in the county of over 2,000 members, all in good working order.

"The Way Out" is rapidly extending in circulation and influence. Orders for this remarkable little book from the Eastern States are steadily increasing. For the benefit of our new readers we will say that this work is furnished as follows: Single copy, 10 cents; twelve copies, 75 cents; twenty or more, 5 cents per copy.

J. C. Lohnes, Francis, Kas., in writing us, says: One thing in our organizations I am exceedingly sorry for, and that is that so many of our people will still read the monopoly sheets only, and have no money to spend for a good journal like the KANSAS FARMER. The People's Movement is in the right direction, and may success crown our efforts. Wheat, he says, is all harvested, and ranges from one-half to very good crop.

Hon. R. B. Welch, County Attorney of Shawnee county, and President of the Board of Education of the city of Topeka, says of Mr. P. V. C. Pool, who is mentioned as the People's candidate for Congress in the Seventh district: "I have known Mr. Pool ever since I was a boy. He was at one time proprietor and principal of an academy near Farmer City, Ill., at which I prepared for college. He is a strong, vigorous man of both brains and integrity. He would make an able member of Congress."

Alliance Lectures.

In order that a place and date may be fixed, brethren desiring either open or closed lectures should write me, Topeka, Kas. It were better that several sub-Alliances join, say three to five, and bring out all the unconverted possible.

Call for a State Convention.

In pursuance of a resolution adopted by the convention assembled at the State House in Topeka, on Thursday, the 12th day of June, 1890, which convention was composed of delegates from the Farmers' Alliance and Industrial Union, the Farmers' Mutual Benefit Association, the Patrons of Husbandry, the Knights of Labor and Single Tax clubs, we hereby issue this call for a people's convention to be held in the city of Topeka on

WEDNESDAY, THE 13TH DAY OF AUGUST, 1890, to place in nomination candidates for State offices and to transact any and all business that may be legitimately brought before the convention.

The following is the apportionment of delegates:

Table listing delegates from various counties including Allen, Anderson, Atchison, Barber, Barton, Bourbon, Brown, Butler, Chase, Chautauqua, Cherokee, Cheyenne, Clay, Clark, Cloud, Coffey, Comanche, Cowley, Crawford, Davis, Decatur, Dickinson, Doniphan, Douglas, Edwards, Elk, Ellis, Ellsworth, Ford, Franklin, Finney, Garfield, Gove, Graham, Grant, Gray, Greenwood, Greeley, Hamilton, Harper, Harvey, Haskell, Hodgeman, Jackson, Jefferson, Jewell, Johnson, Kearney, Kingman, Kiowa, Labette, Lane, Leavenworth, Lincoln, Linn, Logan, Lyon, Marion, Marshall, McPherson, Miami, Mitchell, Montgomery, Morris, Morton, Meade, Nemaha, Neosho, Ness, Norton, Osborne, Ottawa, Pawnee, Phillips, Pottawatomie, Pratt, Rawlins, Reno, Republic, Rice, Riley, Rooks, Rush, Russell, Saline, Scott, Sedgwick, Seward, Shawnee, Sheridan, Sherman, Smith, Stafford, Stanton, Stevens, Sumner, Thomas, Trego, Wallace, Wabawsee, Washington, Wichita, Wilson, Woodson, Wyandotte.

J. F. WILLITS, Chairman. S. W. CHASE, Secretary.

Seventh District Congressional Convention.

STERLING, KAS., June 25, 1890. In pursuance to a resolution adopted by the convention assembled at the State House in Topeka, on Thursday, the 12th day of June, 1890, which convention was composed of delegates from the Farmers' Alliance and Industrial Union, the Farmers' Mutual Benefit Association, the Patrons of Husbandry, the Knights of Labor and the Single Tax clubs, we hereby issue this call for a people's delegate convention, to place in nomination a candidate for Congress, in this, the Seventh Congressional district of Kansas, and to transact such business as may properly come before the convention, to be held in the city of Great Bend, on Tuesday, July 22, 1890.

The following is the apportionment of delegates:

Table listing delegates from various counties including Barber, Barton, Clark, Comanche, Edwards, Ford, Finney, Garfield, Grant, Gray, Greeley, Hamilton, Harper, Haskell, Hodgeman, Kearney, Kingman, Kiowa, Lane, McPherson, Morton, Meade, Ness, Pawnee, Pratt, Reno, Rice, Rush, Scott, Sedgwick, Seward, Stafford, Stanton, Stevens, Sumner, Wichita.

By order of the committee. EDGAR M. BLACK, Chairman. S. H. SNIDER, Secretary.

Appointments for Assistant Lecturer Van B. Prather.

Gove City, Gove county, July 4; Colby, Thomas county, July 7; Sherman county, July 8 to 12; Hoxie, Sheridan county, July 14; Hill City, Graham county, July 16; Stockton, Rooks county, July 18; Alton, Osborne county, July 19; Downs, Osborne county, July 21; Beloit, Mitchell county, July 23; Minneapolis, Ottawa county, July 25.

Public Speaking Appointments

The demand for public addresses by the editor of the KANSAS FARMER has become so great as to make it important to publish appointments ahead, so that people in making new appointments, may know what days are already engaged. Dates now named in advance are:

- July 10, Great Bend, Barton county.
July 12, Halstead, Harvey county.
July 17, Overbrook, Osage county.
July 18, Goodland, Sherman county.
July 23, Jewell county.
July 24, Jewell county.
July 25, Jewell county.
July 30, Andale, Sedgwick county.
August 2, Burlingame, Osage county.
August 6, Haddam, Washington county.
August 8, Cheney, Sedgwick county.
August 13, Allamead, Lincoln county.
August 20, Whitehall, Brown county.
August 28, Garnett, Anderson county. (Alliance and F. M. B. A. day at county fair.)
August 30, Fall River, Greenwood county.
September 3, Hope, Dickinson county. (Alliance day at Central Kansas fair.)

The places of speaking in Jewell will be named and published soon. There is no charge made for these visits except for necessary expenses, and this may be made up largely, if not wholly, by subscriptions to the KANSAS FARMER, when the people are so disposed.

Ben. Terrell's Appointments.

National Lecturer Ben. Terrell will speak at the following places in Kansas on the dates given: Larned, July 12, at 1 p. m.; Anthony, July 14; Marion, July 15; Ottawa, July 16; La Cygne, July 17; Girard, July 19. S. M. Scott, Lecturer for the Seventh Congressional District, will be with Mr. Terrell at Larned and Anthony.

Build the Hog Sanitarium now and save those nice shoats. See advertisement.

Pond's Business College, Topeka, Kansas, is the only school of this kind in the State taught by a successful business man of experience. Fall term begins September 22. Send for circular.

Home-Seekers' Excursions via the Chicago, St. Paul & Kansas City Railway.

On Tuesdays, May 20, September 9 and 23 and October 14, 1890, agents of the Chicago, St. Paul & Kansas City Railway will sell Home-Seekers' Excursion Tickets to principal points in the West, Northwest, South and Southwest at rate of one fare for the round trip, tickets good returning thirty days from date of sale. For full particulars call on or address agents of the Chicago, St. Paul & Kansas City Railway.

R. E. HIGGS & CO., Receivers and Shippers of Grain, 324 Exchange Building, KANSAS CITY, MO. Consignments solicited and liberal advances made.

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WM. M. PRICE, Pres't. W. R. MITCHELL, Vice Pres't. R. E. MITCHELL, Sec. & Treas. SHIP YOUR WOOL, GRAIN, SEED, CASTOR BEANS, FLAXSEED, BROOMCORN, ETC., TO W. M. Price Commission Co. Saint Louis - Mo.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday 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.

Hope.

Alas, all my years I have lived in a fancy
That some day would come unto me
An angel who'd brush off the shadows and sorrows,
And whisper "Now! live and be free!"

And so I have waited and laughed the time over,
And lived for the sweet coming day,
And looked for the dawning with heart tuned to gladness,
When shadows should all fade away.

I fancied a future when others should love me,
And carry my burdens along,
When loving should fill all the hours with gladness,
And sighing be hushed with a song.

Alas, tho' I see that the pleasures of hoping
Are born of a fanciful brain,
I see that the waiting and longing lend rapture
Of pleasures we never can gain.

And O, I am sorry my heart has been waken'd
From out of the dreaming to be,
I would that my sorrow were only the waiting
For dawning to hasten to me.

For hope is like dew on the blossom of morning,
The blush of the fair western sky,
The perfume of roses, the mist on the mountain,
The beauties whose life is to die.

—Atlanta Constitution

Him who thou dost once enamour,
Thou, beloved, never leavest;
In life's discord, strife and clamor,
Still he feels thy spell of glamour;
Him of hope thou ne'er bereavest.
—Epimetheus.

COLOUR IN PHOTOGRAPHY.

Reproduction of the Beautiful Shades of Nature.

Orthochromatic or correct color photography is the nearest approach which photographers have yet made toward producing the beautiful and various color shades of nature in the camera. We can photograph the color values in almost a true relation, but as yet the problem to photograph exactly the colors themselves remains unsolved.

Perhaps no other branch of photography has received so much attention as this. No other is so interesting or so full of promise. It has been the dream of photographers to reproduce with their cameras the beautiful colors of nature as accurately as they are able to depict its form and lights and shadows ever since Daguerre, the ambitious young scenic painter of Paris, exclaimed, on successfully completing his first wonderful photographic experiments: "Why cannot I retain these inimitable wonders which the sun's rays draw to the focus of my lens? Why cannot I fix the image, engrave it forever?"

Experiments have been numerous and continuous in this direction ever since the birth of photography, fifty-one years ago. Often it has been announced that at last the great secret was discovered, but always to result only in disappointment, for as yet there has been found no way by which the colors themselves can be photographed.

Much has been accomplished, however, even if the natural colors themselves cannot, as yet, be exactly reproduced by lens and dry plate. We can photograph yellow, green and red so that they can easily be distinguished in the finished picture, whereas, formerly, no difference whatever could be seen between these colors in the photograph. In like manner, blue, violet and indigo may now be photographed so that a difference is shown in color values, instead of reproducing them all perfectly white, which was formerly the case.

A bright yellow color on the old ordinary plate was always photographed a dull black, and very dark and dull blues would appear clear whites, though in the natural subject they were much darker than the yellow, which appeared quite black in the photograph. This unique result was obtained on the old plate because yellow, like green and red, are non-actinic, or photographically inactive colors, while blue and the colors at the other end of the spectrum are very powerful in actinic rays.

It therefore happened that the non-actinic colors, whether bright or dull, impressed the sensitive plate but feebly and in the same degree, because so little photographic light was transmitted from these colors; while the blue, the violet and the indigo shades, no matter how dull they might appear in nature, being very active

photographically, impressed the sensitive plate to a great degree and came out in the photograph much brighter than the yellows and reds, which were in reality more brilliant colors.

So it was that the beautiful tints of autumn foliage or the glorious colors of an October sunset could not at all be accurately depicted by the camera. For the same reason a painting could not be truthfully copied; and a great defect was apparent in a process otherwise quite perfect.

The problem was to prepare a sensitive surface so that the different colors, while not impressing their exact shades on the plate, would at least impress themselves differently, and in a way that they could be distinguished one from another. This has at last actually been accomplished.

There are several methods by which the correct values of nature's beautiful coloring may be preserved in a photograph, but perhaps the most effective as well as the simplest process is the one perfected by Prof. Charles Ehrmann, of the Chautauqua School of Photography, and associate editor of the *Photographic Times*. By his method any plate may be rendered orthochromatic, or color sensitive, by simply bathing it in certain solutions and exposing it in the camera, with a color screen interposed between it and the lens. The process originated in Germany, but was greatly improved by Prof. Ehrmann.

Two solutions are required—one, a preliminary bath, consisting of one drachm of ammonia to seven drachms of water; and the other, the "color" bath, which contains one and a half drachms of erythrosine—a dye, two drachms of ammonia and five and a half ounces of water.

The plate is first immersed in the preliminary bath and allowed to remain therein for about three minutes. It is then removed from this solution and allowed to drain. Without washing it is then plunged in the coloring bath, where it is allowed to remain not longer than seventy-five seconds. The plate is then set up in a dark, dry place until ready for use.

It may be exposed in the camera while still wet, if necessary, and will be found to be more sensitive while in that condition; but as a general thing it is safer to wait until the plate has become perfectly dry before exposing it in the camera.

Plates thus rendered color sensitive are developed in the usual manner and fixed and washed in the ordinary way; but being extremely sensitive to red, orange and yellow—the colors which ordinarily do not impress the photographic surface—great precaution must be taken in preparing and developing these plates, to have the light very much subdued and of a dark brown color rather than a red. A light suitable for working orthochromatic plates is easily made by covering a ruby lantern with several thicknesses of dark brown tissue paper.

The color-sensitive plates will photograph very accurately all yellow shades, greens and reds; but for subjects in which the blues, violets and indigos predominate, a yellow color screen must be interposed between the plate and the lens. The length of exposure is then increased from three to six times that required for an ordinary plate. By this means not only may beautifully-colored landscapes be photographed so that the shades appear true and harmonious in the finished picture, but brilliantly-colored pictures may be accurately reproduced.

A friend may be photographed so that the color of hair, eyes and clothing appear natural in the portrait, and this, after all, is the achievement which has been most desired by photographers, both professional and amateur, for so long a time.—*W. J. Adams, in Boston Globe.*

How to Cure a Headache.

Dyspeptic or bilious headache is very common, and it seems to me it is the headache which is most easily traceable to its cause and most readily avoided without medicine. If you wish to know my advice as to curing bilious headache, I say: Eat such food as agrees with you; be temperate in all things and be as regular as clock-work about your habits. In the case of young people this headache can always be traced to some error in diet—as rich food in immoderate quantity, eating at unreasonable or unusual hours, etc.—and it readily gives way to an emetic and sleep.

Almost any emetic will do—ipecac or sulphate of zinc. In the case of elderly persons, however, the headaches, although

less acute, are apt to be more tedious and more exhausting. Rest in bed, cold applications to the head and some purgative medicine taken so as to operate in the morning, will usually effect a cure.—*Dr. MacHenry, in Ladies' Home Journal.*

Dr. O. W. Holmes on Heart Love.

I never saw a garment too fine for a man or a maid; there never was a chair too good for a cobbler or a cooper or a king to sit in; never a house too fine to shelter the human head. These elements about us—the glorious sun, the imperial moon—are not too good for the human race. Elegance fits man; but do we not value these tools a little more than they are worth, and sometimes mortgage a house for the mahogany we bring into it? I would rather eat my dinner off the head of a barrel, or dress after the fashion of John the Baptist in the wilderness, or sit on a block all my life than consume all on myself before I got a home, and take so much pains with the outside when the inside was as hollow as an empty nut. Beauty is a great thing; but beauty of garment, house and furniture are tawdry ornaments compared with domestic love. All the elegance in the world will not make a home; and I would give more for a spoonful of real heart love than for whole ship-loads of furniture and all the gorgeousness all the upholsterers in the world can gather.

A True Wife.

It is not to sweep the house, make the beds, darn the socks and cook the meals chiefly that a man wants a wife. If this is all he needs, a servant can do it cheaper than a wife. If this is all, when a young man calls to see a lady, send him into the pantry to taste the bread and cake she has made; send him to inspect the needlework and bed-making; or put a broom in his hand and send him to witness its use. Such things are important, and the wise young man will quickly look after them. But what the true young man wants with a wife is her companionship, sympathy and love. The way of life has many dreary places in it, and a man needs a wife to go with him. A man is sometimes overtaken by misfortunes; he meets with failures and defeat; trials and temptations beset him, and he needs one to stand by him and sympathize. He has some hard battles to fight with poverty, enemies and sin, and he needs a woman that, when he puts his arm around her, he feels he has something to fight for; she will help him to fight; she will put her lips to his ear and whisper words of counsel, and her hand to his heart and impart inspiration. All through life, through storm and through sunshine, conflict and victory, through adverse and through favoring winds, man needs a woman's love.—*The Lady.*

The Girl Wife in India.

On the day of her marriage, the East Indian girl is put into a palanquin, shut up tight, and carried to her husband's house. Hitherto she has been the spoiled pet of her mother; now she is to be the little slave of her mother-in-law, upon whom she is to wait, whose commands she is implicitly to obey, and who teaches her what she is to do to please her husband—what dishes he likes the best and how to cook them.

If the mother-in-law is kind, she will let the girl go home occasionally to visit her mother. Of her husband she sees little or nothing. She is of no more account to him than a little cat or dog would be. There is seldom or never any love between them, and, no matter how cruelly she may be treated, she can never complain to her husband of anything his mother may do, for he would never take his wife's part.

Her husband sends to her daily the portion of food that is to be cooked for her, himself and the children. When it is prepared she places it on one large brass platter, and it is sent to her husband's room. He eats what he wishes and then the platter is sent back with what is left for her and her children. They sit together on the ground and eat the remainder, having neither knives, forks nor spoons.

While she is young she is never allowed to go anywhere. The little girls are married as young as 3 years of age; and, should the boy to whom such a child is married die the next day, she is called a widow, and is from henceforth doomed to perpetual widowhood; she can never marry again. As a widow she must never wear

any jewelry, never dress her hair, never sleep on a bed—nothing but a piece of matting spread on the hard brick floor, and sometimes, in fact, not even that between her and the cold bricks; and, no matter how cold the night might be, she must have no other covering than the thin garment she has worn in the day.

She must eat but one meal a day, and that of the coarsest kind of food, and once in two weeks she must fast twenty-four hours; then not a bit of food nor a drop of water or medicine must pass her lips, not even if she were dying. She must never sit down nor speak in the presence of her mother-in-law, unless commanded to do so. Her food must be cooked and eaten apart from the other women's. She is a disgraced and degraded woman. She may never even look on at any of the marriage ceremonies or festivals. It would be an evil omen for her to do so.

She may have been a high caste Brahminic woman, but on her becoming a widow, any, even the lowest servants, may order her to do what they do not like to do. No woman in the house must ever speak one word of love or pity to her, for it is supposed that if a woman shows the slightest commiseration to a widow she will immediately become a widow herself.—*New York Ledger.*

The Physiology of Taste.

The localization of the different forms of taste sensations is a subject which is usually cursorily passed over in textbooks, with the statements that the posterior third, the tip and sides of the tongue only are sensitive; that sweet substances are best perceived by the tip, bitter ones at the back, and so on. In a German medical journal is an abstract of interesting observations by Oehrwall, who, by the aid of a lens, stimulated the individual papillae by means of a fine brush dipped in solutions of sugar, quinine, acetic acid, and salt. He found that, as had before been observed, the circumvallate papillae were particularly sensitive, but that on the sides and tip the fungiform papillae only were sensitive. He estimated that in the whole tongue there were 350 to 400 of these papillae, of which he found 125 only to respond to stimuli.

Many of them appeared to be excited by all four of the substances employed, but in other cases papillae were found to respond to one form of stimulus, but not to another. Thus 19 per cent. responded to acetic acid, but not to sugar; 24 per cent. which were sensitive to acid were unaffected by quinine, while 15 per cent. which recognized sugar did not respond at all to the application of quinine. All of the papillae were sensitive to touch, pain, heat and cold. When stimulated by a mild, faradic current, an acid taste only was excited. He confirmed the observations of older authors, that most of the anterior two-thirds of the dorsum of the tongue was devoid of gustatory papillae.—*Science.*

Dyspepsia

Makes many lives miserable, and often leads to self destruction. Distress after eating, sick headache, heartburn, sour stomach, mental depression, etc., are caused by this very common and increasing disease. Hood's Sarsaparilla tones the stomach, creates an appetite, promotes healthy digestion, relieves sick headache, clears the mind, and cures the most obstinate cases of dyspepsia. Read the following:

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Habitual Costiveness

causes derangement of the entire system, and begets diseases that are hazardous to life. Persons of costive habit are subject to Headache, Defective Memory, Giddy Forehead, Irritability, Nervousness, Fever, Protrusion, Irritable Temper and other symptoms, which unite the sufferer for business or agreeable associations. Regular habit of body alone can correct these evils, and nothing succeeds so well in achieving this condition as Tatt's Pills. By their use not only is the system renovated, but in consequence of the harmonious change thus created, there pervades a feeling of satisfaction; the mental faculties perform their functions with vivacity, and there is an exhilaration of mind and body, and perfect heart's ease that bespeaks the full enjoyment of health.

Tatt's Liver Pills
REGULATE THE BOWELS.

The Young Folks.

The Lay of the Last Chicken.

I'm a poor boycotted chicken
That the rest are always pickin';
For at me they always seem to be amused.
And I think about my life,
With its trials and its strife,
And feel I have been very much abused.

My owner's wife's a sharp one;
She was constantly a-barring;
"Let us raise some broilers, broilers, broilers,
Sam."
She called the old hens lazy,
And she made the old man crazy,
So he bought the things that made me what
I am.

Hatched by heartless incubator,
Fed on onion and potato,
And crowded till we couldn't even sneeze,
I and fifty little brothers
Lay and sweltered, lay and smothered,
Tho' we begged for air upon our bended knees.

But the crowd was quickly lessened,
As you no doubt can guess, and
Soon our numbers were reduced to three:
Then a rat took one dear brother,
And a board fell on the other,
Which left that fatal brooder all to me.

And now when night is falling,
And I hear the mothers' calling
To their chicks that seem as happy as a king,
I crawl beneath my cover,
But it will not, cannot hover,
And I cannot tuck my head beneath its wing.

So, uneasy and forsaken,
I lie 'twixt sleep and wakin',
And sadly dream about the night have been—
How, beloved by many dozens
Of admiring aunts and cousins,
I might have been, if hatched by mother hen.

So that box I call my master
Makes me feel my need the greater,
Makes me long to join the loved ones gone be-
fore.
And it need not take a wizard
To show that, soul and gizzard,
I shall happier be upon that thronged shore.
—C. S. Valentine, in American Rural Home.

All things have something more than barren
use;

There is a scent upon the brier,
A tremulous splendor in the autumn dews,
Cold morns are fringed with fire.

The clouded earth goes up in sweet-breathed
flowers.

In music dies poor human speech;
And into beauty blows these hearts of ours,
When love is born in each.
—Alexander Smith.

SOMETHING ABOUT DOGS--ST. BERNARDS.

We see a great deal in the farming papers in condemnation of the dog, and the attention of the reader is constantly called to the damage they do the farmer. Now I am a farmer in the strictest sense of the word, and no one more thoroughly hates, dislikes and condemns the worthless cur or mongrel called dog than I do, but as a breeder of thoroughbred dogs I wish to earnestly protest against such stock being classed or rated with these treacherous curs. A thoroughbred dog of strong pedigree possesses traits of character that are never found in the mongrel. The mongrel or ordinary dog that is found in every neighborhood is not to be trusted, and nine out of ten dogs in this country are of that class. They are treacherous, cunning, deceptive, cross and ugly and totally worthless. These are the dogs that kill your chickens and poultry at every opportunity they get, they run wild in streets, snapping and barking at every team or person that comes along, they run off in pairs out into the farmer's pasture to kill a lot of sheep, they bother your neighbors and every one else, for whom no one has a spark of love or regard except the selfish owners who, to the discomfort of all, persist in keeping the vile cur for his own gratification, and he is the only one that thinks Fido is all right. I have bred thoroughbred St. Bernards for many years, and I have carefully noted all the peculiarities, habits and deportment, as there is between the educated, refined and intelligent man and the coarse, ignorant brute or prize-fighter. In the first place they are distinctly a home dog, and although my kennels of dogs have their full liberty to run about as they choose, with no chains or fences or restrictions whatever, yet I have never known one to leave the farm night or day, unless to accompany some one of the family or when sent on errands. They possess intelligence and reasoning power that is almost human and a simple command or request is obeyed at once. There is no sneaking off out of your reach, no skulking or whining. They simply do as they are taught or told to do, and continue this good behavior when one's back is turned. Possessing as they do the wonderful intelligence which is only produced by the long and careful breeding they have had, one or two lessons is all a young pup requires to teach him what is expected of him. My St. Bernards run around among my chickens and

hens, and rather than jump at one or touch it in any way they will leave a dish of nice feed for the hens to devour when they come up to eat at their dish. A young pup that is just allowed his liberty will at first try to play with the hens, but one good whipping or correction is enough, and he will forever let them alone. They will follow my team through the village, and no matter how many curs may run after them, they keep right along about their business. If some dog takes a notion to become too familiar, they simply knock them over and continue their journey. They will not run after or chase livestock of any kind unless taught to do so. Their usefulness is in their being a careful and devoted watch-dog for the farm, family and children. By being a watch-dog, I do not mean they are in any way vicious or ugly. In fact, I think it would be hard work to make them bite a person. At night they keep a careful watch, and if any one should attempt to prowl around your building they would simply arouse the family and by their manner let them know some one was around that had no business there. If it was necessary for them to use force, or you told them to, they would simply jump on a man, and spite of all he could do knock him down and then stand over him. But few prowlers or sneak thieves would, however, wait for this. They are exceedingly devoted to their owners or friends, but are very shy to make new acquaintances. While they will obey all the family, still they really know but one master, and his commands are law to them. They can be taught to do anything with but little effort, and always obey. I have been particular to give the character of pedigree well-bred dogs, or the other side of the story, believing that it is not right to condemn such for the mischief and annoyance occasioned by the worthless curs that the country is overrun with.—Geo. Q. Dow, in Review.

The Size of Kansas.

Much has been said and written of the size of Kansas, and much more might be said before a true idea of its vastness is generally obtained. Eighty-two thousand square miles is a vast extent of territory, but just how large we can hardly comprehend. Suppose we could combine the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Delaware, Maryland and the District of Columbia into one State; Kansas would contain them all, and still have room enough for another Rhode Island. Kansas is larger than any Southern State except Texas, and exceeds in size both the Virginias. It is almost as large as the combined areas of North and South Carolina, and is larger than Ohio and Indiana together.

If size alone were significant, Kansas could take its place among the first-class powers of earth. England and Scotland together are smaller than Kansas, while Wales, Ireland, Switzerland, the Netherlands and Belgium added together will not equal it in size. Or we might add Denmark, Andorra, Portugal, San Marino and Greece together and still not have enough territory to make a Kansas. Turkey in Europe is not as large as this State, and Roumania, Servia and Montenegro combined do not equal it. It exceeds in size the great islands of Celebes, Java or the Moluccas, and would make more than a dozen Polynesias if cut up into little islands and sowed broadcast in the ocean.

Butler county alone is larger than Rhode Island or the whole of the French possessions in the West Indies, and Atchison county equals the whole of the Dutch possessions there.—Secretary Graham.

Trees and Climate.

The effect of trees on climate has formed the subject of an article in Petermann's by an able Russian observer, M. Wockoff. He maintains that the diminution of evaporation effected by forests is not due to the lower temperature known to exist under their shadow, but that the most important factor is the resistance to the winds by the trees. This causes the air of the forest to be changed more slowly, and thus the saturated air is not so largely replaced by dry air, and the moisture is less rapidly carried away.

The vicinity of a forest increases the summer rainfall considerably, but has less effect in winter. The storage of rain water in the moss, fallen leaves and herbage of the woods affords a supply of vege-

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tation during dry seasons. A striking illustration of this is afforded by a forest on the western shore of the Caspian, where the vegetation is very luxuriant, although it never rains except in autumn and winter. M. Wockoff has observed that forests lower the temperature of the country around them. In Bosnia the summer is 5° or 6° cooler than in Herzegovina. This difference is attributed to the woods.

A Superstition of Sailors.

Col. Nicholas Pike tells the Brooklyn Standard Union an interesting story which illustrates the superstition of sailors regarding the killing of the albatross: "When I was en route to Port Lewis, Island of Mauritius, as American Consul," he says, "the albatross and petrel were always around our vessel, the United States steamer Monocacy, and the sailors tried for a long time to get one of the former for me, but were unsuccessful. But at last one was caught and after great resistance was drawn on board, but not before his strength and skill were taxed to the uttermost. In about half an hour another one was taken and we let them go about the deck together. They were fine birds, but looked very droll waddling along the deck together.

"I was instructed to procure one for the Long Island Historical Society, and was anxious to get it without injuring its plumage, and so gave one of these birds a dose of cyanide of potassium, and in a second he lay over on his side without a struggle. Following this incident we had continued squalls, when I found to my utter astonishment that to me was attributed a good deal of the contrariety of the elements. The sailors averred that it was all owing to my having killed the albatross. When the storm was at its height they entreated me not to kill any more of these birds, as they are considered to be the spirits of seamen lost in the ocean."

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A rich gold mine is reported recently discovered in Colorado.

June just passed was the hottest June in twenty-three years, except that of 1881, and the difference was very slight.

It is reported that there is danger of collision between the British and United States ships of war in Behring sea. It is a question of boundary line.

The Citizens' Alliance, first organized at Olathe, Johnson county, is a good beginning. It opens the way for an effective union with the Farmers' Alliance and Industrial Union.

The Louisiana Legislature passed the proposed "lottery amendment" and the Governor vetoed it, but it will be passed over his veto and place a lasting disgrace upon the State.

Mr. Baker, the Alliance candidate for Congress in the Sixth district, is making a good impression. He is a farmer and nothing else—not even a preacher, though he is a Christian.

The President signed the bill for the admission of Idaho as a State on the 3d day of July. We now have forty-three States. Idaho is a little larger than Kansas, having 84,800 square miles of territory, while Kansas has 82,080.

We are in receipt of many friendly letters, which encourage us greatly. It is practically impossible to answer all of them personally. We are profoundly thankful for these accumulating evidences of good will, and will prove it by continued faithfulness.

The late change in the management of the Santa Fe railway company has not worked satisfactorily to the employes. The wages of some have been reduced and the labor of others increased. We suppose the salaries of officers and the big men have not been changed.

A national election law passed the House some days ago and is now pending in the Senate. The country needs a law specially devised for the election of Congressmen, but it ought to be a general law, applicable in all parts of the country alike, not depending on the action of a few citizens in particular localities. This bill is not intended to operate any place unless a small number of citizens ask for it. Such a law is not general.

The Wilson County (Kas.) Citizen says: "Peffer's Tariff Manual is no longer advertised in the KANSAS FARMER; the author has flopped." Is it worse to "flop," John, than it is to lie? The Manual is regularly advertised in the KANSAS FARMER; it is used as a text-book in Alliances, and the edition of 5,000 copies is nearly exhausted. The author has not "flopped," dear Citizen, he has simply re-

DOCTRINES OF THE ALLIANCE.

So many and varied arguments are presented by politicians to Alliance people to induce them to abandon their own principles and espouse doctrines made for them by other persons, that it may be well, just now, to review the principles of the Alliance platform, so that both sides to the discussion may be reminded of their merits. Concerning national matters, there are seven demands in the platform. The first is—

1. We demand the abolition of national banks and the substitution of legal tender treasury notes in lieu of national bank notes, issued in sufficient volume to do the business of the country on a cash system, regulating the amount needed on a per capita basis as the business interests of the country expand; and that all money issued by the government shall be legal tender in payment of all debts, both public and private.

Finance being regarded as the great matter, it is put first. It is unanimously agreed among Alliance people that our financial legislation and advantages flowing from it to a comparatively few individuals, are largely if not wholly responsible for the universal depression in agriculture. It is believed that our national banking law entrusts a dangerous power to banking corporations. It is known that while the act was passed to "provide a national currency," the banks are retiring that currency at the rate of about \$32,500,000 a year, and that no provision has been made or proposed by our law-makers to restore that amount or any part of it to the circulation of the country. It is known that in 1883, after the national bank act was renewed for twenty years, and after bonds began to rise above par, the banks began to take up their bonds and sell them for money already in circulation, at the same time withdrawing from circulation lawful money in amount equal to the face of the notes which had been floated on the bonds taken up; that the amount of bank notes out on the 30th day of June, 1882, was upward of \$358,000,000, that the amount out October 1, 1889, was only \$131,000,000, showing an actual withdrawal of \$227,000,000 in bank notes during the last seven years. And the Treasury report shows that while this withdrawal of "national currency" has been going on at the rate of \$32,500,000 a year, the number of national banks has steadily increased—the rate of increase being 159 banks per year. This shows—the bankers themselves being the judges—that more money, not less money, was needed. They withdrew their circulation but increased the number of banks. This record is sufficient evidence upon which to condemn the banking law, and hence the Farmers' Alliance demand its repeal. They ask that national banks be abolished, and that all paper money be issued by the government directly to the people.

But the principle on which our national banking system is based is utterly wrong and is indefensible now upon any tenable grounds. It is conceded that the system was the best that a majority of our legislators at that time could be persuaded to adopt; and it may even be conceded that, according to the light of that time, the enactment of the national banking law was a wise proceeding; but a study of its provisions in the light of to-day with the open record of twenty-six years before us, shows the principle to be bad, wholly bad, for it establishes the most dangerous monopoly of the time and throws the protection of the law around it. A moment's reflection will satisfy any person on this point. The people owe—say \$100,000,000 as a public debt in the form of bonds drawing say 5 per cent. interest payable semi-annually; they pay this interest regularly, the amount being \$5,000,000 a year. These bonds are owned by men who propose to use them for banking purposes; they deposit them in the treasury and receive \$90,000,000 in notes to lend to the people who are now paying interest on the bonds. The interest charged on the notes is 10 to 24 per cent., according to the necessity of the borrower. Allowing for all reserves which the law requires, the banks do actually receive exorbitant rates of interest—interest on bonds, interest on notes based on the bonds, and do have and exercise the power to take from the people not only usurious interest, but to contract the volume of circulation, thus making money scarcer and higher. Briefly, the banks have used their privileges to the public injury, destroying values and impoverishing the people; they are doing it now, and they do not intimate that they have any intention to change this vicious policy. The general welfare requires that national banks

be abolished, and that is the reason why the Alliance says so.

The Republican party in Kansas in 1878 believed just as the Alliance does now, in this matter. There were then three Congressional districts in the State, and the conventions in every one of them adopted an anti-national bank resolution, and the State convention, held in Topeka, adopted one of the same tenor. The resolutions demanded the retirement of bank notes and the substitution of full legal tender treasury notes in their place, and in volume sufficient for all the needs of business.

The second plank in the Alliance platform is—

2. We demand the free and unlimited coinage of silver.

This is so wholly in accord with Western and Southern public opinion among producers that it needs no argument to support it. There is another consideration, however, which is important. In Kansas there is no organized opposition to free silver coinage, and to that extent there is now no difference among the parties in this State. But coinage is a national matter, and it has been made plain to the people many times within the last twenty years that both of the great parties, as parties, are opposed to free coinage. President Hayes vetoed the Bland silver bill in 1878; it was passed by a two-thirds vote over his veto; the law was not enforced beyond its minimum during his administration; Mr. Cleveland opposed its enforcement, so did his Secretary of the Treasury; and now we find a studied maneuvering in Congress to defeat a free coinage bill. It is perfectly plain to all eyes that, as parties now stand, they will not give us free coinage. The only way to secure it—the only way which now seems safe and certain is through united action of its friends.

But why do we want free coinage? That the people may have more good money with which to pay their debts; that business may be revived and property values raised; that the value of gold may be lessened and the purchasing power of farm products increased; that, to that extent at least, farmers and producers generally may be raised to an equality with men who use money as merchandise.

The third plank is—

3. We demand that Congress shall pass such laws as shall effectually prevent the dealing in futures in all agricultural and mechanical productions, preserving such a stringent system of procedure in trials as shall secure prompt conviction, and imposing such penalties as shall secure the most perfect compliance with the law.

That means protection to producers against gamblers. It means tearing up by the roots one of the most vicious customs of the age. It means prohibition—not licensing—of option dealers; the utter suppression of, not petting and playing with thieves that grow rich on stolen millions; it means legitimate trade among the people free from the interference of robbers on the way or at either end of the line. Is there any better way to secure such legislation than through the force of numbers in council and at the ballot box?

The fourth plank—

4. We demand the passage of laws prohibiting alien ownership of land, and that Congress take early steps to devise some plan to obtain all lands now owned by aliens and foreign syndicates; and that all lands now held by railroads and other corporations in excess of such as are actually used and needed by them, be reclaimed by the government and held for actual settlers only.

Alien means foreign in this case. A naturalized citizen is not an alien; foreign born citizens are not, therefore, included in this declaration. What is wanted, and all that is meant, in this demand, is that our lands shall be saved for the use of our own citizens including all persons who become citizens, no matter where born. All parties are in accord on this proposition.

The fifth demand is—

5. Believing in the doctrine of "equal rights to all and special privileges to none," we demand that taxation, national or State, shall not be used to build up one interest or class at the expense of another. We believe that the money of the country should be kept as much as possible in the hands of the people, and hence we demand that all revenues, national, State and county, shall be limited to the necessary expenses of the government economically and honestly administered.

That is a very important demand; it is based on the simple, plain doctrine of "equal and exact justice to all men," and it has been adopted several times by both of the great political parties. It also states a basic truth in asserting that "the money of the country ought to be kept as much as possible in the hands of the people"—that is just where money ought to be, not in the hands of a few persons who charge the rest toll for its use. Ever since the beginning of our government the rule has

been to limit revenues to necessary expenses. What other or safer rule can be adopted? This includes all honest obligations of the government—debt, interest, pensions, public buildings, river and harbor improvements, and every other act which the general welfare requires. By way of showing that this is not a new doctrine, we herewith reproduce one plank from each of three great parties—

Whig in 1844.—A tariff for revenue to defray the necessary expenses of the government, and discriminating with special reference to the protection of the domestic labor of the country.

Republican in 1876.—The revenue necessary for current expenditures, and the obligations of the public debt, must be largely derived from duties upon importations, which so far as possible, should be adjusted to promote the interests of American labor, and advance the prosperity of the whole country.

Democrat in 1888.—And a tariff for revenue upon foreign imports, and such equal taxation under the internal revenue laws, as will afford incidental protection to domestic manufactures, and as will, without impairing the revenue, impose the least burden upon, and best promote and encourage the great industrial interests of the country.

The Alliance people are asking only for justice in this matter. They want protection equalized, so that its benefits may be distributed fairly among all interests or else wiped out entirely. They do not understand why raw wool should be put off with 30 per cent. duty, while manufactured wool gets 67 per cent. They do not see any good reason for allowing 35 per cent. on leather and shoes while hides are admitted free. Nor do they understand why the duties on any class of manufactured goods should now be increased from present high rates while farm products have been getting along at an average of 20 per cent. It is an evening up on the line of justice that farmers want, and they do not know of any class of citizens who are as competent to state what is wanted as they themselves.

The sixth demand—

6. We demand that Congress provide for the issue of a sufficient amount of fractional paper currency to facilitate exchange through the medium of the United States mail.

This is a simple request, one that can be easily granted, and it asks for something which is very much needed by all classes of working people. The little paper notes would save many dollars to the people every year. The expense of obtaining bank drafts, money orders and postal notes, or express orders, is very great in the aggregate. A great many small orders are now sent by mail—a few cents at a time, and fractional paper currency would save all expense on the business except postage.

The seventh demand is—

7. We demand that the means of communication and transportation shall be owned by and operated in the interest of the people, as is the United States postal system.

Transportation is part of the productive forces of the country and it must be under government surveillance. It cannot be long safely permitted to remain in private hands, subject to all the influences which control in the management of private affairs. The whole people are interested in transportation, hence it is a public matter, railway managers are public agents subject to public regulation, and experience has taught us that their private interests are not always nor usually in accord with the interest of the people at large. The only safe rule is that laid down in this demand, and the sooner the people come to that the better it will be for all concerned. Agriculture and manufactures, indeed all departments of trade need steadiness and certainty in transportation rates quite as much as they need cheapness. Neither of the great parties has gone this far, and they are not likely to do so under present management.

We have referred thus briefly to Alliance doctrines relating to national questions so that our readers may see them in a body interspersed with suggestions in the way of argument. There is now a studied effort on the part of politicians to divert attention of Alliance people from their own faith. These efforts must be checkmated by arguments based on our not their doctrines. Let us do our work in our own way and we at the least will be suited.

Hereafter we will take up the State Alliance demands and treat them in like manner. Alliance doctrine is the best doctrine yet published; let us preach it, and practice it fearlessly.

Our good old friend, Thomas A. Hubbard, of Sumner county, is proposed as a candidate for Congress in his district. He is a farmer, a first-class man every way, and is too industrious and too honest to be either lazy or indifferent in Congress. Thomas has the KANSAS FARMER'S best wishes.

FREE SILVER COINAGE DEFEATED.

The Conference committee on the silver bill was appointed in the interest of the anti-silver men—four against two for free coinage, and the result is an agreement on the line of the House bill, which will give us less silver coinage than we have now, and to that extent will strengthen and lengthen the rule of the money power. The agreement, as telegraphed to the country is, that the Secretary of the Treasury shall purchase from time to time silver bullion to the aggregate amount of 4,500,000 ounces, or so much thereof as may be offered in each month, at the market price thereof, not exceeding one dollar for 371 25-100 grains of pure silver. The treasury notes issued in payment for the bullion shall be redeemable in coin, and be a legal tender in payment of all debts, public and private, except where otherwise expressly stipulated in the contract, and shall be receivable for customs, taxes and all public dues. Upon demand of the holder of the treasury notes, the Secretary of the Treasury shall, under such regulations as he may prescribe, redeem such notes in gold or silver coin at his discretion, it being the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law. The Secretary of the Treasury shall each month coin 2,000,000 ounces of the silver bullion purchased under the provisions of the act, into silver dollars, until the 1st day of July, 1891, and after that time he shall coin of the silver bullion purchased under the provisions of the act as much as may be necessary to provide for the redemption of the treasury notes. The present law is repealed.

It will be seen, in the first place, that the quantity of bullion to be purchased is not 4,500,000 ounces, but *so much thereof as may be offered* in each month. In the next place, the notes issued in payment for bullion may be redeemed in gold or silver coin, at the pleasure of the Secretary, he to be governed by the clause—"it being the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law." Please read that quoted clause again. Do you see the foot-prints of the monometalists there? The law is made to pledge the people to a debasement of silver coin. All our government bonds are made payable in coin, and the object of this bill, as well as of all other financial bills which have been passed since the war, is to make the bond-holder safe in his demand for gold. The "coin" that this bill intends the Secretary shall pay in redemption of the notes is silver coin, and that means simply that there will be no redemption, and therefore no more silver coin to interfere with the pledge to pay the bonds in gold and to maintain the gold standard. If this conference report is adopted, as it seems likely to be, the fight for free coinage will be all the harder in the future. It will be observed that all we get for a repeal of the present law is the coinage of two million ounces a month for one year. Under the act of 1878, at least two million dollars worth of bullion must be coined, and that every year. Now we are to abandon that after one year and place ourselves completely under the power of the very men who are fast bringing ruin upon us. Away with such legislation.

THE FEATHERSTONE BILL.

Some weeks ago we called attention to a bill introduced in the House of Representatives by Mr. Featherstone, of Arkansas, providing for the lending of money by the government on real estate security. It provides that owners of farms, one-half of which are in cultivation, may borrow from the government one-half their value for five to ten years at 2 per cent. annual interest. The work is to be done under direction of a "Bureau of Loans," and a loan agency shall be established in every Congressional district, and the applications are to be made there.

The make-up of this bill is similar to the plan suggested in "The Way Out," but this bill proposes to raise the necessary funds by issuing "certificates or United States notes of full legal tender value to an amount necessary to provide for the payment of all loan contracts that may come under this act * * * said certificates and notes shall be similar in all re-

spects to the United States certificates and notes now in use."

This is a bill of great merit—only an outline, of course, but laying the foundation for a superstructure on which lasting good may be builded. The bill is framed on the principle (though the author of it does not yet see it) that money is made for a public use, for the people's use, and not for speculation by a few persons. The KANSAS FARMER wishes Mr. Featherstone would push his bill persistently and vigorously until public attention is attracted to it. It is the plan of "The Way Out," as above suggested, and our readers know what we think of that. Nothing but some such plan will save the people's homes. With one-third to one-half American farms mortgaged, and with the relentless hand of the money-changer on the nation's throat, there is no hope for the people but through some way that will reduce interest rates to what people can afford to pay and keep their homes.

FALSEHOOD AS AN ARGUMENT.

Nothing better demonstrates the need of a general uprising of the rank and file against party leadership than the tactics of politicians. The Farmers' Alliance and Industrial Union, in a decent, orderly way, have sent out a few plain statements of what they want, and their speakers and writers argue on those lines; but, instead of considering these matters, party speakers and writers treat the Alliance movement as a conspiracy to destroy the dominant party. They pay no attention to our doctrines or our arguments, but attempt to destroy the reputation of our men. They do not regard the truth; indeed, they do not want to know the truth, for it is not that which will help them. Just now they are trying to counteract the good influences following the work done by the editor of this paper in his public addresses before the people. They do not review his arguments or attempt to break their force by counter argument; they simply make faces at him and say mean things about him. A conspicuous instance of this character of tactics we find in the *Beloit Courier*, edited by W. H. Caldwell, lately appointed to a lucrative position in the land office at Kirwin. We quote from the issue of July 3d inst.:

Ingalls? Peck? Peffer? There they are. Which will you choose? These are the three from whom one will be chosen by the Legislature of Kansas, this winter, as the successor to John James Ingalls, United States Senator. There can be no reasonable doubt about the trio, as we have them arranged. Ingalls represents the Republican party. Peck is a Republican representing the Santa Fe railroad. He is the general solicitor for that great political transportation corporation. Peffer is—well, he is Peffer; editor, we believe, of the KANSAS FARMER, who, during the last Presidential campaign, kept our postoffice box crammed with protective tariff literature, with the polite request neatly printed at the head of each article—"Please publish for the good of our party and the country!"

The point to which we desire to direct attention is the statement concerning "protective tariff literature." The only matter of that class which the editor of the KANSAS FARMER ever sent to the editor of the *Beloit Courier* was a slip containing the "Principles of the American Protective Tariff League," a non-partisan organization intended to unite the laboring people of the country in a movement to protect themselves against unfair foreign competition. The "slip" was forwarded to nearly all the papers of the State at the same time and was contained in an ordinary letter envelope. That is all there is to build this "cramming" story on.

It is not the "literature" feature of the *Courier's* charges, however, that we are particular about; it is the unnecessary falsehood in the statement. The editor of the KANSAS FARMER has long been and is now a protectionist—a protectionist of the old school, a believer in protection which builds up national industries, treating all classes alike, operating justly on all the people, a protection which helps the poor as well as the rich, the farmer as well as the manufacturer—but he does not care to be put in a false position before the people. He is not asking for office, he is not abusing anybody, he is not trying to tear down any man or party; he is trying to organize an opposition to existing financial methods and to assist farmers and other producers in securing remedial legislation, and men will discover some day that his work will not be neutralized by getting up false and irrelevant issues.

A man named Walker was appointed a member of the National Board of Railroad Commissioners. After he had served some

with its rules of proceeding, he resigned and entered the employ of a Western railway association and now represents railroad interests before the Commissioners.

THE ALLIANCE AND OLD SOLDIERS.

We are in receipt of a letter from an old soldier who neither signed his name nor gave his postoffice address. The only way we can locate him is by the postmark on the envelope—Syracuse. The letter is entitled to respect, for evidently the writer is on the wrong track, and it is not at all difficult to determine how he was deceived. He fears the Alliance is a rebel institution, gotten up specially to Southernize the country and cheat the old soldiers out of their just dues.

Dear comrade, the writer of this has an honorable discharge from a three years' service under the stars and stripes; he assures you that a very large number of old soldiers are members of the Farmers' Alliance and Industrial Union, and every one of them favors a reasonable service pension in addition to pensioning for every disability. The KANSAS FARMER favors payment to every Union soldier of the difference between the paper value and the gold value of the money he received for his services while in the army. Among the first things Congress did after the war was to put our "currency" into bonds; then, in '69, to declare the nation's purpose to pay all its obligations in coin, and in 1870 to fund the debt in long bonds payable in coin. What we insist upon is, that soldiers who offered themselves on the altar of the country and received small pay in depreciated money are entitled to at least equal consideration with men who bought bonds at 60 cents on the dollar and then had them put up to par payable in coin.

As to pensioning rebel soldiers, that is nonsense. They staked their all on the dismemberment of the Union and failed. It required the marshalling of the largest army ever collected on earth to subdue them. They deserve nothing from the government except its protection while they obey the laws, and they will receive nothing else. They are entitled to our good will, and that they have in full measure; but as to pensioning enemies—that is unreasonable and nobody expects it or favors it. If we ever have another war and they serve the country well, they will then be entitled to enrollment in the pension office, but not before.

We will add, for our friend's encouragement, that the delegate meeting of Alliance men at Topeka, June 12, which decided to put an independent ticket out on the Alliance platform, adopted the following resolution concerning pensions:

Resolved, That we demand that all honorably discharged soldiers, their widows and orphans be pensioned, and that all pledges made to them by the government be complied with as fully as in the case of the bondholder.

FARMERS INDORSE SENATOR PLUMB.

At a meeting of the Saline County Alliance, July 5, representing thirty-three sub-alliances and a membership of 2,000, unanimously adopted the following resolutions:

Resolved, That we recognize the valuable services rendered to the country by our Senator, Preston B. Plumb, in his able advocacy of the free coinage of silver in the Senate of the United States, and we hope he will see his way to champion in a like able manner other measures to secure a more adequate volume of currency for the country.

Resolved, That these resolutions be published and a copy forwarded to Senator Plumb.

We acknowledge the receipt of a copy of "Animal Parasites of Sheep," issued by the Bureau of Animal Industry, Washington, D. C. The book is well illustrated. Just such a book as every sheep-breeder should have. A more complete notice may be found under the head of stock notes.

The crop outlook is fair. Wheat has been saved in good condition, but the yield is far below that of last year—probably not exceeding 24,000,000 bushels. Oats is very short in many places. Corn is growing, in some localities it is in excellent condition, but generally it needs rain. The excessive heat the last ten days has been hard on it. The writer has seen a great deal of curled corn.

The census enumerators have now about completed their farm-to-farm visit, and all the many figures concerning the farm, its live stock, and the products of its fields and orchards are being concentrated at the central office in Washington, D. C.

which the product of each farm will be added to that of all the farms in the county, and then of the State, and finally of the entire nation. Then comparisons will be made with the figures on the same subject as taken ten years ago, and we shall know what progress has been made, and how well this important industry has kept pace with others. The final count will be looked for with interest. The figures for each county and State will be accurate just in the proportion that farmers themselves have helped to make them correct.

DISCRIMINATION IN RAILROAD CHARGES.

We are in receipt of a letter from a friend at Omaha, Neb., in which he makes some pertinent suggestions. We have often asked the same questions, but have not received answers. He writes:

"If the Western railroads can, as they do, transport for the Missouri river packers, packing house product (and along with it tons of ice free of charge) at 12 cents per hundred weight, why should the freightage on corn be kept at 20 cents? Packing house product is worth \$5 per hundred pounds, whilst corn is worth less than 20 cents per hundred. Why should there be a greater freightage on a commodity of less value than on one of greater value? When the Western railroads were asked last winter to make the same rate on hard and soft coal, the officials replied that such a request was unreasonable, for the reason that hard coal being a commodity of greater value, it should bear a greater freightage. If Western railroads can, as they do, transport packing house product, worth ten times as much as corn, for the packers for 12 cents, why should they not be compelled to carry for the farmer his corn for 12 cents? If a rate of 12 cents on a commodity worth \$5 per hundred pounds is remunerative to railroads, why tax a commodity worth only 40 cents with 20 cents freightage?"

Kansas Crops.

Mr. Secretary Mohler says that 90 per cent. of the area sown to wheat in the fall of 1889, was harvested this year, making a total acreage of winter wheat harvested of 1,605,230 acres, and the average product of winter wheat per acre is estimated at 14 bushels, which makes the total winter wheat product of Kansas this year 22,473,220 bushels. In thirty counties in eastern Kansas the average yield per acre ranges from 17 to 22 bushels. The low average in the central and western counties of the State brings the general average down to 14 bushels. The total area of spring wheat in Kansas this year is estimated by correspondents at 114,839 acres, and the average yield per acre at 11 bushels, making a total spring wheat product of 1,263,229 bushels, and the aggregate product of winter and spring wheat, according to this estimate, is 23,736,449 bushels. The quality of the wheat is reported excellent, and with but few exceptions will grade No. 2.

Oats about half a crop. Corn needs rain. Barley, broomcorn, flax, tame grasses, millet and potatoes are reported ranging from 75 to 90, on a basis of 100.

Live Stock Husbandry.

The *Breeders' Gazette* comes out with a new head, the old pictures being replaced with the words—"A Weekly Journal of Live Stock Husbandry." The change is an improvement. We quite agree with the editor that the word husbandry is an expressive one. It is a good old Anglo-Saxon word that smacks of the soil; and in the connection used it serves to indicate in the most comprehensive manner possible the broad field in which the *Gazette* toils. The work of a journal like that is a great one. The *Gazette*, speaking for itself, properly says: "Our work is not limited to mere technical points of interest only to the professional breeder. It is our earnest wish that every phase of the business of live stock production may find in the course of each year intelligent discussion in these columns. The mere study of pedigree and the mating of animals is, by no means the beginning and end of our work. The problems of soils, forage crop cultivation, drainage, treatment of pastures and meadows, manipulation of food stuffs, animal nutrition, marketing, and a hundred kindred subjects claiming some share of the attention of every stock-owner, all fall within the legitimate purview of the live stock husbandman, and in this view of the case our readers will readily appreciate the peculiar value of

Horticulture.

MISSOURI VALLEY HORTICULTURAL SOCIETY, AT MERRIAM PARK.

June Meeting.

EDITOR KANSAS FARMER:—This beautiful park is the creation of the Fort Scott & Memphis railroad, is located eight miles from Kansas City, and is under the control of Prof. Geo. E. Kessler, one of the best landscape gardeners. The grounds cover some sixty acres and are romantically situated and beautifully kept. Of all the parks surrounding Kansas City there is none so attractive as Merriam.

The society usually spends one day each year in picnic on these grounds with Prof. Kessler, who is a valued member. The usual number of members were present and a splendid collection of fruits and flowers decorated the tables.

A bountiful dinner was prepared and enjoyed, after which Col. J. C. Evans, the President, called the meeting to order. Col. Evans has been President of this society for some ten years. He is President of the Missouri State Society also, and in all things pertaining to horticulture he stands among the first. His home is near Harlem, Mo., and it was the good fortune of your correspondent to visit his grounds a week since. He cultivates everything that grows in this latitude and lives in regal style, if it is possible for an American horticulturist to so live.

ORCHARDS.

D. G. Campbell had to report that, owing to a large crop of apples last year, this year would be light with him. Ben Davis was full last year, also the present; Jeffries are an annual bearer; Winesap half crop. Has his hogs running in his orchard and attributes his success largely to this fact, as they destroy many insects injurious to fruit.

Col. Evans said we have reason to be thankful for the condition of orchards, after the terrible ordeal through which they passed during the late winter and early spring. His apples promise splendidly, all varieties being loaded, with few codling moth showing as yet.

STONE FRUIT.

H. G. Hughes: The peaches are a light crop, cherries are quite full. Has a number of varieties—one he calls "Jerusalem," for want of a better name, that comes before Early Richmond, a large Morello with large pit, very showy, but hard to keep from the birds. He thinks it a valuable sort.

Maj. Holsinger: Where did you get this variety?

Mr. Hughes: Mr. Saur imported some forty varieties from Germany when I worked for him. The names were lost. This was of the number. I asked Mr. Saur about it. He said "call it Jerusalem." I have done so ever since.

Mr. Goodman said he called the attention of Mr. —, a very successful German horticulturist, to this variety, and was informed by him that he knew the variety well in Germany, that it was the "Black Morello." Society concluded to know it as the "Black Morello."

Mr. Goodman, Secretary Missouri State Horticultural Society, called attention to English Morello and Osthime, and said the more he saw of it the more he was convinced that it was one and the same.

Mr. Hughes took issue on this point, showing many points of difference.

Mr. Holsinger thought Osthime was not so hardy a tree as English Morello.

SMALL FRUITS.

A. Key propagates only three varieties, all of which do well—Hopkins, Gregg and Mammoth Cluster. Has had them sixteen years on same ground and never failed to produce a crop; not so good this year as formerly. Strawberries have been quite unsatisfactory, prices very low.

Mr. Espenlaub has not been satisfied with new sorts; all have objections. Would give one hundred dollars for a plant having the color of Crescent and firmness of Capt. Jack. These are the requisites of a good berry—color and firmness. "And flavor," ejaculated a member. I don't care for flavor, said Mr. E. It is color, size and a disposition to stand up in the crate that cause them to sell.

Mr. Holsinger said he thought the blackberry would rule low, on account of the overplanting. That was the difficulty with the strawberry. Everybody planted

same would be the result in case of blackberries.

VINEYARDS.

Mr. Espenlaub: There never was a finer crop prospect than the present. Concord stands first as yet. There are many new sorts promising well. Moore's is good but inclines to rot.

ORNITHOLOGY.

Maj. Holsinger said, never to his knowledge did he see so many birds destructive to the cherry. The "wax-wing" came in droves, bringing all their relatives. Shooting was the only remedy, and a continual fusillade had to be kept up to insure a crop. Mr. Espenlaub said they killed from fifty to one hundred a day, and yet they did much damage. Many other birds did much damage, among the number the oriole.

Mr. Fisher thought they ought not to be killed, as they were on the lookout for worms.

FLOWERS.

L. A. Goodman said that by cutting back the annual bloomers (roses) another crop of bloom can be had. LaFrance he placed at the head of the list of roses.

ENTOMOLOGY.

Maj. Holsinger: As to the crop of codling moths not being sufficiently numerous to cause alarm, he thought an error. Until yesterday he was of same opinion, but found many Early Harvest affected. It is too early to determine their injury to late varieties, as they are double-brooded and have ample time to do immense damage. "An ounce of preventive is worth a pound of cure," is a well-known maxim. To destroy the larvae of this moth should be the aim of all fruit-growers. Last spring, in shipping blackberry plants, I had occasion to use a barrel that had apples stored in it. On removing the upper hoop, I found more than twenty larvae of this insect. Upon investigating, I found fully a hundred in this barrel. This is the way they are distributed from one section of the country to another. All barrels in which apples have been stored should be destroyed.

An excellent paper by Mrs. J. A. Durkus, of Weston, Mo., was read by Mrs. Holsinger, subject "My Greenhouse Plants."

Fruits and flowers on table were disposed of at auction, and realized a nice sum—sufficient to meet the premiums on same.

Next meeting will be held at the home of Maj. Frank Holsinger, in Rosedale, Kas., July 19, prox. All horticulturists are invited. Efforts will be made to make this an attractive meeting. A. G.

NOTES ON CONIFERS FOR KANSAS PLANTERS.

The following paragraphs are copied from Bulletin No. 10 of the Kansas Experiment Station, prepared by Prof. E. A. Popenoe, with the assistance of Profs. S. C. Mason and F. A. Marlatt:

SUGGESTIONS TO PLANTERS.

In handling evergreens the requirements are those of successful handling of trees of any kind, with due regard to two points of difference. The foliage of most conifers being persistent, there is always to be regarded the greater danger with these trees of their drying out on exposure to the air when the roots have been separated from their vital connection with the soil, whatever the season. They are further unlike many deciduous trees, in that their roots once dry are hardly to be revived. They must be protected, then, by some close packing material, kept well dampened while in transit, though but for a few rods only; and success is more certain if the tops of the trees also are covered or shaded while the roots are out of the ground, as well as after the tree is set, if the season be dry and the sun warm. We have suffered more loss in moving trees of this class after the shoots have begun to push in the spring, than at any other season. The shoots are at first like elongated buds, and inexperienced planters are less likely to notice this unfavorable stage of growth than if the trees were deciduous, and were expanding their buds on the naked wood into leafy branches. As a rule we prefer to move evergreens, as indeed we do all trees, in the spring, just before the buds open and the shoots push. At this period the conditions are most favorable, because the tree is exposed for the shortest possible time to injury by loss of moisture from the leaves, as it is now pushing new roots and the spring rains may be expected at this time to assist its

precautions have been taken to preserve a large ball of frozen earth about the roots, and to avoid the bruising of the branches of the tree, an injury from which they do not easily recover. Protection to the branches is best afforded by drawing them carefully toward the tree, and wrapping and cording to place the whole lower part, exposed to danger in handling, in burlaps, old carpets, or similar material. So guarded, the tree may be loaded by tackle upon a sled or stone-boat, and moved with the minimum of danger. In this method of planting it is of course essential that, on resetting, the crevices about the frozen ball of earth be compactly filled, lest on thawing, the earth fall away from the roots and expose them to dry air.

AS TO PRUNING.

It is by no means true, as some think, that the conifers in general are not susceptible to improvement in form by the proper use of the pruning knife. Most people know that the red cedar, the juniper, and the arbor vitae may be pruned without danger, yet few seem willing to risk placing their spruces and pines under the same treatment. If the work be done with judgment and with regard for the more definite growth of the latter, they are quite as readily pruned as other trees. We have often found it necessary in the spring to reduce the foliage of lately transplanted trees in order to offset the imperfect connection of their roots with the soil, and prevent their drying out before this condition could be made good. We have accomplished this object to the manifest advantage of the tree by the simple process of shortening-in the new growth while the shoots were yet tender and brittle, having due regard at the same time to the improvement of the form of the tree where possible. It is easy in this manner to go over large trees, cutting off the terminal half of the shoot where it is desired to lessen growth in that direction, or to thicken the foliage at that point, and leaving intact those shoots that it is desired to encourage in length. The improvement is not visible until the year following the pruning, because it comes through the pushing of several lateral buds that have been forced into growth by the removal of the terminal bud of that branch. It is not best, as a rule, to cut back the leader or shoot at the tip of the central trunk, in this manner, as with many trees the loss of this leading bud will result in dividing the central growth into several branches. In most of the spire-shaped trees, however, this injury is likely to be overcome by the supremacy of one of these branches over the others, and so a new leader is provided. But with the lateral branches this division of the apical growth into several branches is often a great improvement, and we have seen trees almost worthless by reason of their open, ragged growth, reformed by several years of such pruning, into quite acceptable specimens.

THE RED CEDAR.

Juniperus Virginiana, native to the river bluffs from the middle of the State, southward and eastward. It is selected not specially on account of its beauty, though many trees are less handsome in spring and summer than a thrifty young red cedar, but because of its general hardiness throughout the State wherever conifers will at all survive. The species is too familiar to require description, but it should be stated here that it is deserving of more care in handling than is sometimes its fortune to receive. This tree is, like other evergreens, susceptible to injury when it is exposed to dry air with its roots lifted from the soil, and most of the failures to transplant it are due to a neglect of the general principles noted in the foregoing pages.

Next to the native red cedar, the conifers most certain to succeed in this locality are the Scotch and the Austrian pine; and when we come to choose the hardiest and on all accounts the best tree, we find it difficult to decide between these. As they are practically equally hardy, the choice may, perhaps, be made on the ground of form and special fitness for the situation to be planted, and their differences in this regard are sufficiently conspicuous.

THE AUSTRIAN PINE.

Pinus Austriaca, is of compact growth, its form in younger specimens a cone with broad base, the perfect tree sometimes nearly as broad at the ground-line as the trunk is high. Some nurserymen designate two varieties of this pine by the names "black" and "common" but we

have never been able to find the difference necessary to establish these varieties, nor are they so distinguished in the textbooks, so far as we can learn. The leaves, two in a sheath, are semi-cylindrical, slightly channeled within, with rough edges, and are commonly somewhat flexuous or twisted. They are dark green, in average length nearly six inches, and persist on the growth of several years back. The cones ripen at the end of the second season's growth, and those of the present are found on the branches with those of last summer's origin; the former, at the ends of the present year's shoots, are now beautiful little oval purple bodies nearly one-half an inch long, while the latter, still green in color, nearly full-sized, two to three and one-half inches long, in pairs or threes, stand horizontally out at the point marking the beginning of the present season's growth. Not infrequently the empty cones of two seasons' age yet persist, but these are usually shed before the ripening of their successors. The tree is of formal habit, the branches are equal and well distributed, and an ill-shaped tree is exceptional. They are soon thinned in growth if too much shaded, and need room for perfect development. They handle safely in all sizes if taken at the right time. Most of the larger trees on the college grounds at present were moved in winter from the upper farm, a mile and a half away, with a ball of frozen earth about their roots, and were, at the time of moving, from five to ten feet high, with corresponding spread. Careless handling in a few cases resulted in bruised limbs below, these remaining imperfect; but most of the trees began and continued growth the spring following as though they had not been transplanted. At the time of the building of the greenhouses, seven years since, a single tree, twelve feet high, of fine shape and condition, was standing upon the proposed building site. With the wish to save this tree it was removed several rods, with as large a ball of earth as would hang about the roots, to a new site. Although it was in July, and the season was no more favorable than usual, the tree suffered not the slightest apparent injury, and is now a perfect specimen twenty feet high.

The most important losses in transplanting trees of this species have occurred to us in moving small trees in the dry, hot, windy fortnight that is a regular feature of our spring weather preceding the opening rain-storms, and coming at the time when the buds are ready to push. But this season is most unfavorable for transplanting all the evergreens, as it exposes their foliage to a great loss of moisture while the roots are disconnected with the

sell; conditions bringing uncertainty with even the hardest trees. The chief objection to the Austrian pine is that it is too heavy and formal for most small grounds, its foliage in the winter assuming a hue the darkest of any ever-green excepting the red cedar. In this respect, if in any, it is that—

THE SCOTCH PINE,

Pinus sylvestris, finds its recommendation over the other. This tree is of a more open and spreading growth, the foliage-covered branches are much less heavy and thick, while the leaves are more twisted and of a lighter green; a combination of features that produces a markedly different aspect. The Scotch pine is of very rapid growth, the terminal shoots on young trees often extending the trunk each year by two feet, and this extent accordingly marks the distance between the whorls of branches along the trunk. The shoots are relatively slender, and are less densely clothed with leaves than in the Austrian pine. The leaves are two in each sheath, two or three inches long, slender, twisted, in form a flattened semi-cylinder, the flat face distinctly hollowed, and, under the lens, are many-lined, with a decided glaucous that gives a pleasing lightness in appearance to the tree in growth. As in the Austrian pine, the cones require the growth of two seasons to mature, and there are at any time two years' cones on the tree, those of this and those of last season's growth, occasionally accompanied by the empty cones of the preceding. These empty cones, however, do not long remain attached after they have shed their seed. The full-grown cones, occurring either singly or in pairs, are nearly two inches in length, rather narrowly conical in form, of relatively few, blunt-pointed scales, and bent down or backward along the branch. This pine seems to handle with as little loss as the Austrian.

The Poultry Yard.

Poultry Notes by a Correspondent.

Never use a knotty board in your poultry house when a smooth, sound board is obtainable. You will have to fasten up the holes before winter that appear when the bad wood drops out. This forethought means labor saved.

A GOOD FEED.—Have you ever fed oil meal and charcoal to fowls? Try it and see what glossy feathers it will make. It is also good for the bowels and blood. Once a week is often enough to feed it; mixed with soft feed is the way to feed it.

There are more incubators and less hens hatching chickens than ever before. Even the farmer, the last man to take to an incubator, sees the value of artificial hatching over the old hen. There are comparatively simple and inexpensive incubators now made and sold, from which most excellent results can be counted on reasonably, but we would warn expectant purchasers against buying incubators merely because they are cheap.

LEGHORN MATING.—In mating Leghorns too little attention is paid to the combs of the female. If but five points only in the comb of the male is desired, it is absurd to use females as breeders having seven or eight, and weak at the base, perhaps, to boot. Let this appendage in the female be raised to a standing position. If approaching the form we wish in the male, she may be expected to produce progeny with correct head-gear.

MOULTING.—A hen seldom lays while moulting. Her vigor is all concentrated upon feather-getting, a very painful and weakening ordeal to pass through. She will not eat what she did when enjoying health or as she did in her usual condition, nor touch the oyster shell or egg-stimulating materials. About next month you will find many passing through this renovating process. Feed mild, easily-digested food. A comfortable, shady coop away from noise is preferable.

The young of peafowls need much more care than ordinary chickens. It is, therefore, best to hatch the eggs under a peahen herself. The latter keeps her brood round her; rarely covers her brood beyond six weeks or so. As regards feeding, the pea chicks are cared for much in the same way as turkeys, but more animal food is required. If worms and insects are not forthcoming, it is well to cut up raw meat

small, mixing with soft food. The chicks require abundance of fresh air. They should, therefore, be permitted outside as much as possible. It takes from three to four weeks to hatch their eggs. If you have never kept peafowls you should try them. A few adds variety to a farm flock. They are very pretty in plumage, a perfect picture for a painter.

A Black Wyandotte is a very handsome bird and not difficult to breed. They have been bred from both Silver and White Wyandottes, some few with yellow legs, but the majority a dark color. Yellow legs seems to be the worst stumbling block to many breeders. The Black Wyandotte is the same in all respects save color to the other varieties. Be sure you have no white feathers in any that you breed. White is not black, nor vice versa. Remember this and you will be successful.

HARD WORK.—The secret of successful poultry breeding depends considerably upon hard work. There is no such word as luck; something is back of success or else it would never come. Don't base your hope of successful poultry-keeping on luck; you do not want to face disappointment, which is certain if you do. Many farmers find their poultry unprofitable, and forget that they did not attend to their wants as they did to their crop of wheat or corn. It always means work throughout the year to be successful. If you see wherein you can do more towards the comfort of your flock, do it now and keep at it. Success is sure in the future.

EGGS CONSUMED IN THE UNITED STATES DAILY.—Who would believe that 40,000,000 eggs are consumed every day in the United States? This is estimated to be the number consumed. Some farmers are doing a great deal to supply this demand; what about yourself? Eggs are salable any season of the year, but the profits are larger in winter when eggs are scarce, and it takes a shrewd breeder to see and know how to cater them to good markets. Eggs sell now at 12 cents. If you have enough of them there is a profit. Some put them down in lime water, or salt, to sell in winter at 25 cents, and there is money made at it.

On some farms the poultry house is cleaned but once a year, the manure being left to pack down and mat on the floor of the house until needed on the farm. This makes it very difficult to break up fine enough to use, and even then it is necessary to add fine dry earth or sand, for if applied to plants pure or unadulterated is usually too strong and will burn up the young plant growth. The better plan is to give a good sprinkling of dry earth or sand once or twice per week during the season, which will insure the place a freedom from dampness and supply the needed adulteration, making it easy to store, remove and apply the manure. Where fowls are kept in confinement, if you would avoid ailments of different kinds amongst your fowls, remove all droppings once a week. Do be cleanly.

Is Farming a Failure?

Man is so constituted that, in his contests with the forces of nature, he can put forth but a limited amount of effective effort; he can only do about so much work. This may increase somewhat with advancing years and increasing experience. It may be increased by the adoption of improved methods and new machinery, or it may be decreased by their rejection; and while this increase or decrease will be comparatively slight, in the individual it will be important because it will mean just the difference between success and failure. Upon such small pivots do our destinies hang.

It is accepted as axiomatic that he who is not doing his best is failing; and it is perhaps true that in no place in life are these facts so conspicuous as in that of the Western farmer. With broad areas of new and rich soil, his success has been easy in the production of the coarse products of beef and grain. But that time has passed. The range cattle have followed the buffalo and the broncho, and though it is due to each of them to say that the Kansas of to-day would have been impossible without them, we can exclaim "good riddance," and still wish their days of usefulness in the subduing of other wild territory to the demands of modern agriculture.

Closely after them came the pioneer farmer who farmed by the mile instead of the acre, and who wanted a certain

calf pasture, whose line fence, if he had any, was a rod-wide strip of sunflowers, and whose barn was the wide, wide world; who raised wheat after wheat and corn after corn, and burned all but the grain; who stored his \$300 reaper in the wheat field, and his dog in the dining-room; who watered his cattle in the slough in summer and "let 'em lick snow" in winter; whose wife barely made money enough from the sale of her butter and eggs to pay for the quinine and tobacco, let alone paying taxes to support a school teacher who wanted \$2.25 a month for teaching his children such rot as grammar and the like; who owned a \$75 shot-gun and a \$3 cook-stove; who didn't believe in "figgerin' and farmin'," and who didn't do it; who not only knew that farming is a failure, but proved it.

The pioneer in his turn has been obliged to step down and out before the progressive farmer, as the buffalo has vanished before the Short-horn or the broncho before the Percheron, and who is rapidly being succeeded by the active, intelligent man, who believes that farming does pay, and proves it; who wants the best of modes and machines; who believes in deep farming rather than broad, in increased productivity per acre rather than increased acreage; who believes in that sheet-anchor of all good farming—the rotation of crops, and who meets a constantly lowering market by a constantly cheapened cost of production; who, instead of wasting half his crops in the field, puts the whole of them into his cribs, mows and silos; and who, above all, believes that a boy is better than a mule, and that an education is as necessary for him as are oats for the mule.—Secretary Graham, in *Industrialist*.

DUPLEX WALKING CULTIVATOR—the very best. David Bradley M'fg. Co., Chicago, Ill.

The war strength of six of the European powers aggregates over 10,000,000 men. On a war footing Germany's army numbers 2,250,000; France, 2,440,000; Russia, 2,495,000; Italy, 1,010,000; Austria, 1,145,000; Turkey, 620,000.

In some places in southern California holes are blasted for planting trees. A blast, well put in, creates a pocket for rock mixed with top soil, which furnishes a basin to hold moisture, as well as a deeper and cooler hold for the roots.

Notice.

The Frisco Line is the best and only through car route from Southern and Western Kansas to St. Louis and the East. For particulars address D. Wishart, General Passenger Agent, St. Louis Mo.

National Encampment, G. A. R., for 1890

The veterans meet this year at Boston, during the second week in August. The Chicago, St. Paul & Kansas City Railway will sell tickets for the excursion at exceedingly low rates, and offers superior facilities for carrying delegations and their friends. For information concerning rates, etc., apply to agents of the company, or to W. R. Busenbark, General Passenger and Ticket Agent, Chicago, Ill.

New Mexico for Home-Seekers.

Over 50,000,000 acres of government land is yet vacant in New Mexico, subject to entry under pre-emption, homestead, timber-culture and desert land laws. Much of this is productive agricultural land, capable of cultivation without irrigation. The market for farm products is good. Prices for some are 50 to 75 per cent. higher than in States east of the Rockies. For successful and profitable fruit-growing, the irrigated valleys of New Mexico cannot be surpassed. The climate is invigorating and free from malaria. Extremes of heat and cold are not severe. New Mexico is reached directly via Santa Fe Route.

For information relative to public or private lands, call on or address Edward Haren, Special Immigration Agent, A. T. & S. F. R. R. Co., No. 1050 Union Ave., Kansas City, Mo.; Geo. T. Nicholson, G. P. & T. A., Topeka, Kas., or Jno. J. Byrne, A. G. P. & T. A., Chicago, Ill.

This Summer is the Time to Visit the Famous Shenandoah Valley, Va.

This valley is not only full of historical reminiscences, but is one of the finest agricultural, fruit-growing and dairying countries in the world. Here is the place for the farmer, the manufacturer, the dairyman and the stock-raiser. The hills are full of high-grade iron ore and coal, and the valleys abundantly productive. The climate is a golden mean, pleasant in summer and delightful in winter. The water is abundant in quantity and pure in quality. Lands are cheap, contiguous to market and can be secured by home-seekers on the most favorable terms. Come and look over this region, so favored by nature, while the growing crops and grass demonstrate the fertility of the soil and the geniality of the climate. If you wish to make an investment that you will never think of except with unalloyed pleasure, or to secure a home which will be the delight of yourself and family, don't let this opportunity pass unimproved. This is not the veritable Garden of Eden, but it is one of the best regions to be found in the best country in the world. For further and more definite information, call on or address M. V. RICHARDS, Land and Immigration Agent, B. & O. R. R.

The Gates, A. B.
Colorado, and is the gateway for Manitou, Cascade, Green Mountain Falls and Pike's Peak. At Pueblo there is another break in the range, the Grand Canon of the Arkansas. Just west of Denver is Clear Creek Cañon, with its pretty towns of Idaho Springs and Georgetown. There are also many charming camping-out places near Pueblo.
The Santa Fe is the only company owning its own lines from Chicago and Kansas City to these four gateway cities—Trinidad, Pueblo, Colorado Springs and Denver. Through vestibule dining cars, vestibule Pullman sleepers, vestibule reclining chair cars, and faster time. Summer tourist tickets now on sale via Santa Fe Route; the rates are open for you.
For further information, address G. T. Nicholson, G. P. & T. A., Topeka, Kas., or Jno. J. Byrne, A. G. P. & T. A., Chicago, Ill.

Vacation in New Mexico.

The approach of warm weather makes you think about a summer vacation. Where shall I go? That is the query.
You cannot select for the summer outing a prettier spot than Las Vegas Hot Springs, New Mexico, where the magnificent Montezuma hotel is located.
Las Vegas Hot Springs is just high enough above sea level; the right distance west and south; situated in a region of pure air and sunshine.
A round-trip excursion ticket to this beautiful mid-continental resort can be bought via Santa Fe Route any day in the year. Ninety days limit, with stop-over privileges. For a small additional sum a ticket may be purchased permitting side ride to Pueblo, Colorado Springs and Denver.
Inquire of local agent for pamphlet, descriptive of the Springs, or address G. T. Nicholson, G. P. & T. A., A. T. & S. F. R. R., Topeka, Kas., or Jno. J. Byrne, A. G. P. & T. A., Chicago, Ill.

St. JACOBS OIL
CURES PERMANENTLY
RHEUMATISM

Suffered for Nearly 30 Years.
187 N. Chester St., Baltimore, Md.
For nearly 30 years I suffered with rheumatism in arm and shoulder; could not hold my arm. Less than two bottles of St. Jacobs Oil cured me.
W. H. HESBORN.
Of Many Years' Standing.
Gadsden, Crockett Co., Tenn.
My case was rheumatism of many years' standing, contracted during the war, tried almost everything without relief. St. Jacobs Oil finally cured me.
FRED. ROGGE.
AT DRUGGISTS AND DEALERS,
THE CHARLES A. VOGELER CO., Baltimore, Md.

CECIL'S FRUIT FARM AND NURSERY.
J. F. CECIL, Prop'r, North Topeka, Kas. Fruit and Ornamental Trees, Vines, Plants and Shrubs. Cherry Trees and Small Fruits a specialty.

1890 is the Year to Plant Trees.

If You Don't Want 1,000 TREES
SEND \$1.00
for 100 Forest Trees by mail, or 100 Strawberries by mail, or 50 Grape Vines by mail, or all three packages for \$2.50. Send for catalogue and prices.
Hart Pioneer Nurseries, Fort Scott, Kas.

The Kansas Home Nursery

Full line of all standard and new fruits, new and rare ornamental trees. Originator of the Kansas Raspberry—the largest, hardest, and most productive black-cap; very early, and rust-proof foliage. Sample berries, when ripe, will be sent by mail on receipt of 10 cents to pay postage. Catalpa Bungei, or Umbrella Catalpa, a new-style ornamental lawn tree. Russian Olive, a silver-leaved tree, with delicious, fragrant flowers; exceedingly hardy.
A. H. GRIESA, Drawer 28, Lawrence, Kas.

1889. 1890.

Mount Hope Nurseries

For the SPRING OF 1890 we offer to our customers, new and old, a superb stock in all its branches, especially of Standard and Dwarf Pear, Cherry and Plum trees. This is Native Stock, and grows twice that of Eastern-grown. Catalogue on application. Corresponding wants. Wholesale trade a specialty.
A. C. GRIESA & BRO., Lawrence, Kas.

MAY FLOWERS--OF SONG

FOR SCHOOLS:
Children's School Songs. (35 cts.; \$3.00 doz.) 8 pages of simple explanations, and 138 new and selected songs for general singing. This little book is being received with much favor.
Kindergarten Chimes. (1.25.) Kate Douglas Wiggin. Good manual and fine collection.
Kindergarten and Primary School Songs. (30 cts.; \$3.00 doz.) Menard.
Songs and Games for Little Ones. (2.00.) Walker and Jenks.
Gems for Little Singers. (30 cts.; \$3.00 doz.) Emerson and Swayne.
Rhymes and Games. (1.00.) Mrs. Orgood.
Motion Songs. (10 cts.; \$1.00 doz.) Mrs. Boardman.
Get them all! They are most delightful books!
Also try the sweet little Cantata:
Kingdom of Mother Goose. (25 cts.; \$2.75 doz.) Mrs. Boardman.
Rainbow Festival. (20 cts.; \$1.80 doz.) Lewis.
Who Killed Cock Robin? (40 cts.; \$3.60 doz.) Ford.
Song Manual! Book 1, Primary, 30c.; \$3.00 doz.; Book 2, Medium, 40c.; \$4.00 doz.; Book 3, High, 50c.; \$5.00 doz.
By Emerson. These are the newest and best books for teaching note reading in schools.
SEND FOR LISTS AND DESCRIPTIONS.
Any book mailed for retail price.
OLIVER DITSON CO., Boston.
C. E. DITSON & CO., 15 N. Dearborn St., Chicago, Ill.

The Veterinarian.

This department of the KANSAS FARMER is in charge of John Ernst, Jr., D. V. S., a graduate of the American Veterinary college, who will answer all inquiries addressed to the KANSAS FARMER concerning diseases or accidents to domestic animals. For this there is no charge. Persons wishing to address him privately by mail on professional business will please enclose one dollar, to insure attention. Address John Ernst, D. V. S., 706 Jackson St., Topeka, Kas.

CHARLES LEO, GREGOLA, KAS.—As the Texas fever scare is high here, I should like to have you tell what was the matter with the cow that died here. She took colic in the head, gathered and broke several times. She has been in a bad plight ever since, very stupid. To-day she died. Cut her open, found the lungs black, and both caps of the heart black, not a drop of water in the bladder, dung dark and dry, pelt very small, liver rotten, blood in blood vessels black and dry—could pull out in strings eight to ten inches long. No blood would run from the flesh, blood very scarce in vessels, and in heart about one ounce, and thick and black. Blood gushed out of the nose after death.

The post-mortem lesions of the cow you speak of appears to be anthracitic. I think I would not be justified in saying it is Texas fever by the description you give of it, but would advise you to be guarded, as it may give rise to something serious.

G. R. P., HIWATHA, KAS.—I have a horse that showed symptoms of poll evil about a year ago. Treated it under the direction of two men, who claimed to be veterinarians, during last summer and fall. Several times it healed, only to break out again in a short time, a small amount of matter only being discharged. About the first of May it healed over completely, the swelling nearly all disappeared, and I thought it was all right. Now it is swelling again. Swelling is hard and extends from between the ears about three inches back. This never assumed a very serious form at any time. There was considerable swelling before it came to a head, but after the first two or three weeks there was only a slight exudation of matter and a constant tendency to heal on the outside. The old opening was about two and one-half or three inches back of the ear and about one inch below the mane, but I think it will come to a head this time almost between the ears. Shows no sign of breaking out at the old place. Think it was started by pulling back on a rope around the neck.

If the swelling has not run its course or not ready to open, presenting a hard and resisting appearance, it should be blistered with a cantharides blister and brought to a head as soon as possible. Then open it freely and wash it with carbolyzed warm water. If there is a fibrous membrane lining the cavity it should be removed. To do this you may saturate some oakum in a solution of sulphate of copper and fill the cavity. This should be removed every twelve hours and the wound thoroughly washed. It may be repeated every twelve hours for two or three times. In a day or two the fibrous membrane will become somewhat detached and must be removed and the wound cleansed. Then use the following preparation: One drachm of iodoform, one ounce of eucalyptus globules, and five ounces of vasoline. The oakum should be made into loose balls, about the size of a thumb, and after placing some of the ointment on each ball the cavity is to be filled. This should be repeated once or twice a day, as the case requires. Allow the wound to heal from the bottom and do not allow the skin to heal until it is all healed below.

The State Line.

As an evidence of the increasing travel to Europe, Messrs. Austin Baldwin & Co., the General Agents of the popular "State Steamship Co.," of New York, send us a handsome sailing list of the steamer "State of Nebraska," which sailed a few days ago with over 225 first cabin passengers, many of whom have made the journey in previous years via this line. This company furnishes first-class passage to all the principal points of Europe, at moderate rates, with comfortable state rooms, well supplied table, and in fact all that tends to make the ocean voyage a long-remembered one. Those who contemplate a trip of this nature, or have friends coming to this country, will do well to apply to the agents of this popular line for full information.

The name "Johnny-cake" is said to be derived from "journey-cake," because emigrants journeying from New England to the West were obliged to bake their Indian meal cakes in the ashes of their camp-fires.

Bryant's Business College, of St. Joseph, Mo., is receiving one hundred pupils upon the condition that each pays but one-half of the tuition until a good position is secured. Details and prospectus of

Gossip About Stock.

The market is fairly active for mutton and stock sheep, with encouraging prospects ahead.

Jno. Lewis, Miami, Mo., claims October 1, 1890, as his annual sale of Short-horn cattle, Poland-China swine and Cotswold sheep, with Col. S. A. Sawyer as auctioneer.

"Hints on Dairying" is meeting with a remarkable sale. Every mail brings us orders for the little work. It is seldom so valuable a book is sold for the money. See advertisement elsewhere in our columns.

Among the usual bargains to be found offered every week by our subscriber advertisers in the "Two-cent Column," is one this week by the well-known Merino sheep breeder, J. H. McCartney, who offers his flock of thoroughbreds for sale.

R. B. Griffith, Kansas City, writes us that he has four yearling Holstein bulls, well bred and nicely marked, that he will sell for \$40 per head, as they must be disposed of within thirty days. Mr. Griffith's address is Tremont House, Kansas City, Mo.

Every sheep-breeder or feeder in Kansas should become a member of the Kansas Sheep Breeders and Wool Growers' Association, which holds its next annual meeting at Topeka, during the State Fair. Send in your name at once to Secretary H. A. Heath, Topeka.

E. D. King, Burlington, Coffey county, breeder of pure Merino sheep, in writing us says that his sheep are doing well, and that Blaine and Logan, the Burwell rams, have got for him the finest lot of lambs he ever saw. He has a fine herd of lambs now and is receiving numerous orders.

Receipts at the Kansas City stock yards for 1890, up to July 5, were 655,629 cattle, 18,892 calves, 1,193,796 hogs, 307,152 sheep, and 19,477 horses and mules; showing a gain of 234,278 cattle, a gain of 17,702 hogs, a gain of 119,441 sheep and a gain of 3,044 horses and mules, compared with 1889.

The fact should be borne in mind that the difficulty in selling range cattle subject to the Texas fever laws is, that if they are not fit to be butchered, and the demand for canning stuff is slack, they must be sacrificed, inasmuch as they cannot be purchased for stockers or feeding steers.

The fact that there is considerable inquiry from range men for pure-bred bulls, indicates future prosperity of the business. For those who will cling to the old methods and use only grades there can be no sympathy should they fail to make a success. Every day the market reports and notes of sales on the range argues that it pays to raise only the best.

The illustrated catalogue issued by the Pioneer Buggy Co., Columbus, O., contains not only full particulars about their buggies, carriages and road carts, but gives much desirable information regarding the horse, how to tell his age, together with a list of all his diseases and what to do to cure them. This valuable book should be in the hands of every farmer and horse owner. Will be sent to any address by sending 6 cents in stamps to the Pioneer Buggy Co., Columbus, O.

As an indication of the faith that feeders and moneyed men have in the future of the cattle business, the *Stock-Grower*, Las Vegas, New Mexico, calls attention to the demand that comes from many sections for young steers to be matured for the markets of the future. These buyers come from sections which furnish the great bulk of the cattle of the United States, the corn-growing States, and realize that the shortage which exists on every hand means a steadily-increasing price for all classes of steer cattle.

The annual public sale of Aberdeen-Angus cattle from the herd of T. W. Harvey, Chicago, was held at Dexter Park, Wednesday, June 18, as advertised, and proved in every respect a most gratifying success. A good number of representative men were present, and as everything over twenty months old was guaranteed to prove a breeder, the bidding was much stimulated, especially in case of all high-bred lots of the bonnie blacks. Yearling heifers made the handsome average of \$345, which, in connection with the good prices made by the young bulls, must serve to encourage all who are engaged in the breeding of gilt-edged young cattle from high-bred sires and dams. Messrs. W. A. McHenry, Evans & Son, Doolittle

are to be congratulated upon the character of their purchases. The presentation of such a richly-fleshed, low-legged lot of young stock as was put forward upon this occasion serves to heighten the fame and goes far toward sustaining the reputation of the breed as a maker of fine beef at an early age. Averages of the sale were: Twenty-four females, \$320.83; eight bulls, \$245; thirty-two animals, \$301.88; fifteen yearlings, \$345.66; six cows, \$360; three heifer calves, \$118.33; two yearling bulls, \$240; five bull calves, \$278.

While passing through Manchester, Iowa, a representative of the KANSAS FARMER visited the farm of that noted breeder of Poland-Chinas, Mr. Luman Sly, and took a look through his herd. Mr. Sly is located one and a half miles east of Manchester, in Delaware county. With an experience of fifteen years as a breeder of Poland-Chinas, Mr. Sly has built up one of the best herds in the State or in the West, some of his breeding stock having been secured at pretty long prices. He has twenty-five brood sows that are hard to excel. At the head of the herd stands the grand yearling show boar Grand Chancellor, Vol. II A. P. C. R., sired by C. J. 11093, dam Lottie K. 37714. Among the sows we find Lady Clever 30486, sire Tecumseh's Chip 10211, dam Ella D. 23320; also Princess 7th 32718, sire Muldane 6311, dam Princess 6th 16992. Thus it may be seen that this herd has plenty of blue blood in it, and purchasers wanting something fine for show purposes can surely be suited here. Read his advertisement in this paper and write for what you want, remembering that Mr. Sly guarantees everything as represented.

F. B. Rix, of the well-known firm of Rix & Goodenough, Topeka, importers and breeders of Cleveland Bay and draft horses, in writing us from Ormskirk, Lancashire, England, says: "I am at present in the noted Fylde district of Lancashire, noted for its production of leading sires and prize-winners, probably the most noted in that respect of any Shire-breeding district in England. I have thus far purchased upwards of twenty-five Shire stallions, which are the first choice out of several hundred horses. I am the first buyer here this season and have had the first pick everywhere. I have secured numerous noted prize-winners in English show yards, and among them the well-known stallion Lincoln's Boast, winner of twelve firsts at leading shows here; Bold Tom, a son of Lincoln's Boast, also a quite noted winner, having won four firsts at leading shows in this district the past season. Prices were never so high here as at present. I have paid extra high for horses thus far purchased, but feel justified when the superiority of horses secured is considered. We never before had so grand a lot, and barring accidents will make an unusually fine exhibit at the coming fall fairs in America. Our first lot of horses will leave Liverpool for Montreal on July 18, per steamer Lake Huron of the Beaver line, and should land in Topeka about August 1. Others will follow later on."

"The Animal Parasites of Sheep," by Dr. Cooper Curtice, is a special report of the Bureau of Animal Industry about to be issued by the United States Department of Agriculture. It is a volume of 214 pages, containing thirty-six plates, and gives an interesting description of all the various species of animal parasites known to affect sheep in this country, with the symptoms of the diseases which they cause and the methods of treatment which have been proposed. The principal subjects covered are, "grub in the head," "ticks," "lice," "scab insects," "tape-worms," "flukes," "stomach worms," "intestinal worms" and "lung worms." The illustrations are a prominent feature of the work, having been drawn and lithographed with great care. They show the parasites in the different stages of growth, and in the most important diseases they illustrate the condition of the affected organs. There are four colored plates showing the condition of the lungs when affected with the hair lung-worm and the thread lung-worm. The article on the nodular disease of the intestines is also of special interest, as it is the first information which has been given to the public in regard to the cause of this disease, extensive investigations of which have been made by the Bureau of Animal Industry. It has been the aim in the

descriptions and illustrations so plain that any one will be able to identify the parasites which he may find in his flocks and apply the appropriate treatment for the prevention and cure of the diseases which they produce.

Kansas Swine-Breeders, Attention.

The next called meeting of the Kansas Swine-Breeders' Association will be held at Abilene, July 29-30, 1890. E. K. Morris and Hon. S. M. Shepherd, of Indianapolis, Ind., have been invited to attend. Dr. Billings, of Chicago, has promised to be present. There will be plenty of subjects for scoring purposes of four or five different breeds. Everything points to a very large attendance at this meeting, and it will undoubtedly be the most interesting by far yet held.

And upon certain conditions, reduced rates have been secured over the following railways: A. T. & S. F., Rock Island, Missouri Pacific, St. Joe & Grand Island, Union Pacific, and M. K. & T. One and one-third fare for the round trip. Conditions, that there must be 100 in attendance from a distance. Full fare will be paid going. When purchasing tickets have the agent give you certificate (or receipt) for the same (signed by the agent). If you must travel over more than one line, it is sometimes necessary to purchase more than one ticket. When such is the case, take a receipt each time a ticket is purchased. And if there be 100 in attendance, as above stated, the Secretary of the association will sign the certificates, and then by presenting them to the agents of the different lines at Abilene you will be returned to your homes at one-third regular rates.

Tickets may be limited or unlimited going, but they will be limited returning. Tickets must not be purchased earlier than the 26th, and will not be honored for return passage later than August 2. Now, brother breeders, the railroads are offering an inducement to attend this meeting, and there ought to be 150 breeders there at least. You owe it to yourselves to be there. Our meetings are harmonious and instructive. Come one, come all.

O. B. STAUFFER, Secretary.
Abilene, Kas., July 4, 1890.

Weather-Crop Bulletin

of the Kansas Weather Service, in cooperation with the United States Signal Service, for the week ending July 4, 1890:

Precipitation.—The larger portion of the State was fairly well watered this week. The Solomon valley was very well watered. In Norton, Phillips, Smith and northern portion of Osborne the rainfall amounts to two inches; in Rawlins, Decatur, Jewell, Mitchell, Ottawa, Rush, Barton and northern part of Stafford it is one inch; while in the Kaw, Marais des Cygnes, Neosho and Verdigris valleys little or no rain fell.

Temperature and Sunshine.—The highest temperatures for June occurred the first days of the week, when it ranged from 90° to 116°; but with the 4th came a cool wave which tempered the sun's rays to the shorn harvest field. The sunshine, with the temperature, has been excessive.

Results.—Corn is doing well, although in the eastern and far west counties it needs rain. The wheat harvest is over in the eastern and middle divisions, and much of the wheat in stack, while in the western division it is still in progress, except in the southern counties, where the wheat, rye and barley are now in the stack. In the eastern division the oat harvest has progressed well towards completion and the flax harvest has begun. In the central division the oat harvest is in full progress. The oat crop is not as uniform as the wheat, ranging from poor in some sections to very good in others. The hay harvest has begun in many counties, but the wild grass is much lighter than last year. Timothy and clover are good. In Woodson new hay is being baled and shipped. Blackberries are ripe south, but the hot dry weather is deleterious to all fruits in the eastern counties.

T. B. JENNINGS,
Signal Corps U. S. A., Ass't Director.

Hints on Dairying.

"Hints on Dairying," by T. D. Curtice, the veterinarian authority on dairy matters; regular price 50 cents. The book contains over 110 pages and is nicely bound. It treats fully of the history of dairying, necessary conditions, dairy stock, breeding dairy stock, feeding stock, handling milk, butter-making, cheese-making, acid in cheese-making, rennet, curing rooms, whey, etc. We have on hand a limited number of these valuable books which we will close out at half price—25 cents, or we will send the book free for one new yearly subscriber and \$1. Order early if you wish to secure this rare bargain.

Hot Winds on the Plains.

EDITOR KANSAS FARMER.—The region embraced in western Kansas and eastern Colorado is comprised in the once noted "Great American Desert." It is traversed by that "terrible 100th meridian," of which Major Powell says, "beyond which the possibility of successful agriculture terminates." However, this great desert, as it was once called, is being rapidly transformed into a productive agricultural district, supporting a thrifty people. I have observed during my residence of twelve years in this vicinity, that the greatest drawback to farming is the so-called "hot winds," which appear at intervals from July 10 to about September 15, often destroying the corn crop of nine-tenths of the entire region.

This blighting of the king of cereals is caused entirely by the pollen being dried and killed before it leaves the anther, in many cases the whole tassel being seared, so that there remains no vivifying principle to fructify the pistillate flowers, or "silk," as it is commonly called; so we often see fields with large stalks and heavy foliage, while within the husk there is a long cob but few or no kernels.

My observations have convinced me beyond a reasonable doubt that these hot winds are caused by local influences, and are not, as some say, due to the arid regions of New Mexico and Arizona. I observed that the buffalo grasses ripen in June and July, and their foliage then turns from a pale green to a grayish white. It is well established that the blue or the greenish rays of the sun's light contain very little heat, while the heat reflected from white surfaces is very intense. Our atmosphere at this season of the year is quite rare, and a comparatively small amount of caloric will change the temperature to a greater extent than though the air were more dense. Under these conditions, on a cloudless day when this vast area is devoid of verdure, the heat of the sun's rays is reflected from this white surface as from a mirror, and soon raises the temperature of the lower stratum of our atmosphere to 120° Fahr. This, with the usual south wind at this season, will sear the tops of all tender vegetation if not protected from its blast.

Many remedies have been suggested, but it seems that the only way to avoid the evil is to exterminate the buffalo grass. Some advocate burning the prairies in August, before the seed falls, but this is not only futile but a damaging and dangerous practice. I believe the only safe means of removing the native buffalo grass is to either plow it all up or kill it out by protecting the larger grasses. There are several varieties of these larger grasses commonly known by the general name of "blue-stem." These remain verdant until the autumn frosts, and where a considerable part of these plains is covered with this grass and in a growing condition, hot winds are not severe. This blue-stem is fast spreading over the Western plains, and when once well rooted is very tenacious of life; but it is greatly hindered by man as well as by dumb animals. This is done through selfish motives, ignorance, and by accident. Let us examine into the nature of these grasses and see how this is done.

The buffalo grasses shed their ripened seeds in July, and these sprout and grow after the first autumn rains, so that they are ready to withstand the prairie fires of fall or spring. But the larger grasses ripen their seeds about October, and these cling to the mother stem until it is prostrated by wind, sleet or snow. This seed has a tough hull or shell, and it is usually necessary that it be wet and frozen before it will germinate here. Thus we find it on the plains first growing in buffalo wallows, "draws" and wash-outs, where it has been forced down by sleet and snow or trampled by stock. More of the seed is eaten by cattle and sheep during the winter months, but the great damage is done by prairie dogs, which entirely destroy all the seed that remains on the old plant, and thus hinders the spreading of this much-needed vegetation.

My advice is to provide against prairie fires by all means available.

J. F. MULLANEY.

Webster, Rooks Co., Kas.

One of the most remarkable cases of absent-mindedness occurred not long since in Fond du Lac, Wis. A man started from home for his place of business, and when about half way there stopped to light a

cigar. The wind blowing in his face, he turned around to protect the lighted match from the wind, puffed until his cigar burned brightly, and then jogged along contentedly without noticing the change in direction until he brought up at his own residence.

Preserving Clover in Silos.

Last week's *Breeders' Gazette* contains an interesting article by Prof. Henry, of the Wisconsin Agricultural Experiment Station, on preserving clover in silos. We quote part as follows:

"From correspondence and otherwise I find that quite a number are contemplating putting clover into the silo, many being pushed to this action by the extreme rapid growth of this crop and the unsatisfactory conditions for curing which seems probable. In much of the Northwest the ground is soaked with moisture and the clover is down and rotting below. If the weather should be rainy during haying it will be impossible to make clover hay of even fair quality. We have now had several years' experience with clover for silage, and the most important lesson learned, or that we think we have learned, is that the crop must have a considerable amount of maturity before it is cut for the silo. Our experience for three seasons with second-crop clover for silage was entirely satisfactory. As to our silage from first-crop clover of year before last the *Gazette* can bear testimony that it was first-class. Last year we had much poorer silage from clover than ever before, and for a time we were at a loss to explain it, but putting our own experience with that of others with whom I have corresponded and conversed together it appears now almost certain that in cases of poor silage with clover the crop has been cut a few days too early. This is a most natural error to fall into, as the farmer, anxious to secure the crop from harm, sends the mower into the field earlier when the crop is going into the silo than he would for hay-making. Clover cut too early makes a silage that is somewhat slimy, dark-colored, and has a disagreeable odor. These unfavorable qualities can be wholly avoided, I believe, by allowing the crop to stand until more of the water is given off and more woody fiber formed.

"No one appreciates the amount of water in young clover until he has seen the results of water determinations. For example, one of our chemists secured a sample of clover when the leaves formed a beautiful green carpet over the field about nine inches in height; analyzing this he found it contained 91 per cent. water, so that the vegetation on this field actually contained a greater per cent. of moisture than does average skim-milk. As the plants push forward in growth and blossom stems form and mature, the water decreases and the woody and mineral matter steadily increase. If we wait too long the material becomes unsuitable for feeding purposes. The proper time for cutting seems to be when the plants are yet so green that they will pack closely together in the pit, and yet not so far matured as to be dry and unpalatable for stock. Practically this condition seems to have been attained when one-third of the blossom heads are turned brown; indeed it is at the same period of maturity at which clover will make the best hay with the least handling. Many will feel illy-disposed to delay cutting until so late a period, but to put the mower into the field earlier will, I fear, be at the risk of unsatisfactory silage. If we think the crop a little green at the time of cutting I recommend allowing it to wilt somewhat that it may lose some of its moisture, whereby it should make better silage than if put directly into the pit. If the crop seems woody at time of cutting it should be hurried into the pit with all of the moisture it contains.

"As to putting in clover which is wet with rain or dew much depends, I believe, on the amount of moisture in the plant. We have put in second-crop clover that had rain upon it, and it was raining while one of the loads was being pitched into the silo, yet it made fair silage. No doubt our success with second-crop clover has been in quite a measure due to the fact that such clover at the time of cutting usually contains less water than the first crop."

Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for chronic consumption. By its timely use thousands of lives 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., New York.

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Manufacturer and dealer in all kinds of Machinery. Also manufacture and carry in stock SMALL ENGINES AND BOILERS FOR FARM USES, in five sizes, viz.: Two, four, six, eight and ten horsepower. Also STEAM PUMPS. Write for prices.

CHARLES A. MAXWELL, Four years in General Land Office and twelve years Chief of Law and Land Division, Indian Office. GEORGE S. CHASE, Formerly of Waters, Chase & Tolson, Attorneys, Topeka, Kas. MAXWELL & CHASE, ATTORNEYS, Kellogg Building, WASHINGTON, D. C.

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THE MARKETS.

(JULY 7.)

Table with columns for GRAIN (Wheat, Corn, Beef Cattle, Fat Hogs, Sheep, Horses, Mules) and LIVE STOCK. Includes prices for various grades and quantities.

KANSAS CITY MARKETS.

Live Stock Market.

KANSAS CITY, July 7. Reported by Edwin Snyder, representative of the Kansas Farmers' Alliance, with American Live Stock Commission company: The expected holiday falling off in supplies resulted in a strong market, the falling off being even greater than was expected, and a general rise of about 10 per cent. prevailed. CATTLE—Dressed beef and shipping steers, \$3.50@4.25; cows and heifers, \$1.50@2.65. HOGS—The receipts of hogs was even lighter than expected, and a good strong market prevailed. We quote a rise of from 15c to 17 1/2c per cwt. since last Thursday. \$3.50. SHEEP—Quiet; one sale at \$4.50.

Grain Market.

KANSAS CITY, July 7. Reported by Higgs Commission company: The following are the closing quotations here to-day: WHEAT—No. 2 soft, 81c; No. 3 soft, 78@80c; No. 2 hard, 77c; No. 3 hard, 73@76c. CORN—No. 2, 31c; No. 3, 30 1/2c. OATS—No. 2, 27c.

LEWIS' 98° LYE POWDERED AND PERFUMED. (PATENTED.) The strongest and purest Lye made. Will make the best perfumed Hard Soap in 20 minutes without boiling. It is the best for disinfecting sinks, closets, drains, washing bottles, barrels, paints, etc. PENNA. SALT MFG CO. Gen. Agts., Phila., Pa.

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THE GEO. W. CRANE PUBLISHING Co., Topeka, Kas., publish and sell the Kansas Statutes, Kansas and Iowa Supreme Court Reports, Spalding's Treatise, Taylor's Pleading and Practice, Scott's Probate Guide, Kansas Road Laws, Township Laws, Lien Laws, etc., and a very large stock of Blanks, for Court and other purposes, including Stock Lien Blanks, Conveyancing Blanks, Loan Blanks, etc. For fine printing, book printing, binding, and Records for County, Township, City and School Districts, this is the oldest and most reliable house in the State.

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Make a specialty of all Chronic and Surgical Diseases. We have practiced medicine and surgery here for fifteen years, and during that time have treated successfully hundreds of chronic cases which had resisted the skill of local physicians.

WE CURE ALL FORMS OF CHRONIC DISEASES. Remove tumors, cure cancers without the knife, cure piles without knife or ligature. ALL DISEASES PECULIAR TO WOMEN speedily and successfully treated. We remove tape worm entire in from two to four hours. If you have any chronic or private disease, you will find it to your interest to write us. Correspondence free and confidential. Refer by permission to Bank of Topeka; John D. Knox & Co.; Bankers, Topeka; Citizens' Bank, North Topeka; American Bank, North Topeka. Send for printed list of questions. DRs. MULVANE, MUNK & MULVANE. Mention Kansas Farmer.] 110 W. 6th St., Topeka, Kas.

Sheriff's Sale.

In the District Court, Third Judicial District, Shawnee county, Kansas. D. L. Phillips, plaintiff, vs. Lula Green, Defendant. Case No. 11,240. BY VIRTUE of an order of sale, issued out of the District court, in the above entitled case, to me directed and delivered, I will on Monday, the 14th day of July, 1890, at 10 o'clock a. m. of said day, at the front door of the court house, in the city of Topeka, Shawnee county, Kansas, offer for sale at public auction, and sell to the highest bidder for cash in hand, the following described real estate, to-wit: Lots No. 22 and 24, on Pennsylvania avenue, as shown on plat of Highland Park, in Shawnee county, Kansas. Said real estate is taken as the property of said defendant, Lula Green, and is appraised at the sum of \$225.33 1/2, subject to a mortgage lien of \$300.00, and will be sold to satisfy said order of sale. Given under my hand at my office, in the city of Topeka, Shawnee county, Kansas, this 10th day of June, 1890. J. M. WILKERSON, Sheriff. J. W. DAY, Attorney for Plaintiff.

MUSIC In all Departments. PIANO, ORGAN, VOICE, SOLFEGGIO, etc. Under best Teachers in class and private lessons. Tuition, \$5 to \$10 for 20 lessons; and many Special Classes, Lectures, Concerts, Recitals, Exercises, etc. Elocution and Oratory, Fine Arts, Literature, Languages, Piano and Organ Tuning. BEAUTIFUL HOME for Young Lady Students. Calendar free. Fall Term begins Sept. 11, 1890. NEW ENGLAND CONSERVATORY.

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 Give or Take and other
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 Pigs, both sexes, for sale.

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 Swine, Tony lot of
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 Can furnish pigs
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 Write for particulars. Call and see my stock.

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 Brahma Fowls of the
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 Farm three and a half miles southwest of Osage City.
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A fancy lot of sows bred and
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 sexes for sale. My stock first
 purchased from the most
 noted breeders of Ohio. I
 have endeavored to make
 such crosses as would insure large growth and fine
 finish, by adding new blood from the most noted
 strains of the country. Stock all recorded in Ohio
 F. C. Record. James Mains, Okaloosa, Kas.

HIGHLAND HERD POLAND-CHINAS
 Dietrich & Gentry, Ottawa, Kas.

Lord Corwin 4th 4901 A.
 R., the sweepstakes boar at
 St. Louis and Chicago
 in 1888, at head of herd, as-
 sisted by Victor Chip 4078
 S. R., sired by the noted
 Victor. Also David Finch's
 choice young boar, Butler
 Chief 4083, sired by King
 Butler 5577, dam Queen of
 B.B. Tribe 49088. Some very fine young sows bred for
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 from 1 to 6 years old,
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 specialty of breeding the best. Prices to suit the
 market. Correspondence promptly answered. Write
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 Choice young bulls for sale now. Correspondence
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 Have always on hand a large collection of choice GALLOWAY
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Also the premier Trotting Stallions Scott Chief ("The ghost from Kansas"), record of
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 Give us a call or write us, and we will do you good.
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 I have a choice herd of these justly-cele-
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**Dr. E. P. Miller's Medicine Valley Stock Farm,
 MEDICINE LODGE, KAS.**

Choice Holstein-Friesian bulls and heifers
 for sale. We have at the head of our herd NETHER-
 LAND KANSAS, grandson of Netherland Prince, and
 PETERJE PRINCE, grandson of the great cow Peterje
 8d. The Netherland and Peterje families stand first
 on milk and butter records. Choicest breeding,
 acclimated to the West, and sold at Western prices.
 Breeders also of Hambletonian horses and Poland-
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Choice Holstein-Friesian bulls and heifers
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 is a better one. One of our biggest shippers has
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 recommended it to his friends as a specific. Will let
 you know from time to time what friends it is mak-
 ing.
 Yours, JEBOME & CO.
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 MORGANVILLE, KAS., April 19, 1890.
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TIME TABLE.

Chicago & St. Paul	Local	Through
Limited.	freight.	freight.
NORTH.		
St. Joseph.....	2:00 p. m.	8:30 p. m.
Savannah.....	2:27 p. m.	8:57 p. m.
Rea.....	2:47 p. m.	9:16 p. m.
Cawood.....	2:55 p. m.	9:24 p. m.
Guilford.....	3:03 p. m.	10:11 p. m.
Des Moines.....	8:00 p. m.	5:45 a. m.
SOUTH.		
Des Moines.....	7:25 a. m.	3:30 p. m.
Guilford.....	12:05 p. m.	4:05 a. m.
Cawood.....	12:23 p. m.	4:17 a. m.
Rea.....	12:38 p. m.	4:30 a. m.
Savannah.....	12:58 p. m.	5:02 a. m.
St. Joseph.....	1:25 p. m.	5:45 a. m.

St. Joe & K. C. Local Through
 Limited. freight. freight.
 Des Moines..... 7:25 a. m. 6:30 a. m. 3:30 p. m.
 Guilford..... 12:05 p. m. 4:40 p. m. 4:05 a. m.
 Cawood..... 12:23 p. m. 5:00 p. m. 4:17 a. m.
 Rea..... 12:38 p. m. 5:20 p. m. 4:30 a. m.
 Savannah..... 12:58 p. m. 6:30 p. m. 5:02 a. m.
 St. Joseph..... 1:25 p. m. 7:20 p. m. 5:45 a. m.

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THE STRAY LIST.
FOR WEEK ENDING JUNE 25, 1890.
 Reno county—S. J. Morris, clerk.
 PONY—Taken up by James Holland, in Clay tp., May 22, 1890, one roan mare pony, 7 years old, four white feet, 14½ hands high; valued at \$25.
 COLT—By same, same time and place, one roan mare colt, four white feet, 2 years old, 13½ hands high; valued at \$25.
 MULE—Taken up by John Sutton, in Haven tp., one gray horse mule, about 15 hands high, 20 years old, no marks or brands; valued at \$20.
 Marion county—W. H. Evans, clerk.
 PONY—Taken up by Isaac Blair, in Clear Creek tp., P. O. Antelope, June 2, 1890, one sorrel mare pony, star in forehead; valued at \$25.
 Cherokee county—J. C. Atkinson, clerk.
 HORSE—Taken up by T. Frederick, in Pleasant View tp., P. O. Waco, Mo., May 20, 1890, one dark bay horse, about 15 hands high, saddle marks, rope around neck, 12 years old; valued at \$35.
 Cowley county—Salem Fouts, clerk.
 MARE—Taken up by A. J. Barrus, in Otter tp., P. O. address Cloverdale, Chautauque county, May 23, 1890, one bay mare, weight 800 pounds, branded J C on right shoulder; valued at \$35.
 Bourbon county—J. R. Smith, clerk.
 FILLY—Taken up by Charles Murrow, in Franklin tp., one bay filly, 2 years old, four white feet and a white spot in forehead; valued at \$45.
 MARE—Taken up by Elmer E. Long, in Franklin tp., one light bay mare, 4 years old, black mane and tail, small scar across nose, tip of left ear off; valued at \$30.
FOR WEEK ENDING JULY 2, 1890.
 Johnson county—W. M. Adams, clerk.
 HEIFERS—Taken up by Wm. A. Maham, P. O. Olathe, June 10, 1890, two red heifers, 2 years old, dehorned; valued at \$20.
 STEER—By same, one red steer, 2 years old, slim horns; valued at \$10.
 STEERS—By same, two red steers, 2 years old, dehorned; valued at \$20.
 BULLS—By same, two red bulls, 1 year old, dehorned; valued at \$20.
 Meade county—L. E. Brown, clerk.
 HORSE—Taken up by William Jobling, in Fowler tp., P. O. Fowler, June 21, 1890, one dark bay horse, 15½ hands high, brand similar to Wh on left shoulder; valued at \$40.
 Elk county—W. H. Guy, clerk.
 PONY—Taken up by E. L. Glenn, in Pawpaw tp., P. O. Severy, June 27, 1890, one gray pony, 13½ hands high, 5 years old; valued at \$20.
FOR WEEK ENDING JULY 9, 1890.
 Franklin county—O. M. Wilber, clerk.
 PONY—Taken up by John McCurry, in Ottawa tp., P. O. Ottawa, June 1, 1890, one sorrel mare pony, some white hairs mixed, white face, collar-mark, brand or scar on right hip, white hind feet, shoes on front feet, leather halter on, age unknown; valued at \$20.
 Chase county—J. S. Stanley, clerk.
 MARE—Taken up by F. D. Park, in Diamond Creek tp., P. O. Elmdale, June 16, 1890, one dark brown mare, 3 years old, four white feet and white on forehead; valued at \$50.
 Shawnee county—J. M. Brown, clerk.
 COLT—Taken up by M. Williams, in Topeka tp., P. O. Topeka, June 24, 1890, one roan colt, 2 years old; valued at \$25.
 Morris county—G. E. Irvin, clerk.
 MARE—Taken up by B. F. Hafer, in Garfield tp., May 4, 1890, one roan mare, supposed to be 2 years old, no marks or brands; valued at \$50.
 Marion county—W. H. Evans, clerk.
 HORSE—Taken up by J. E. Gilbert, of Lincolnville, one bay horse, 15½ hands high, white stripe in face, about 3 years old.

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