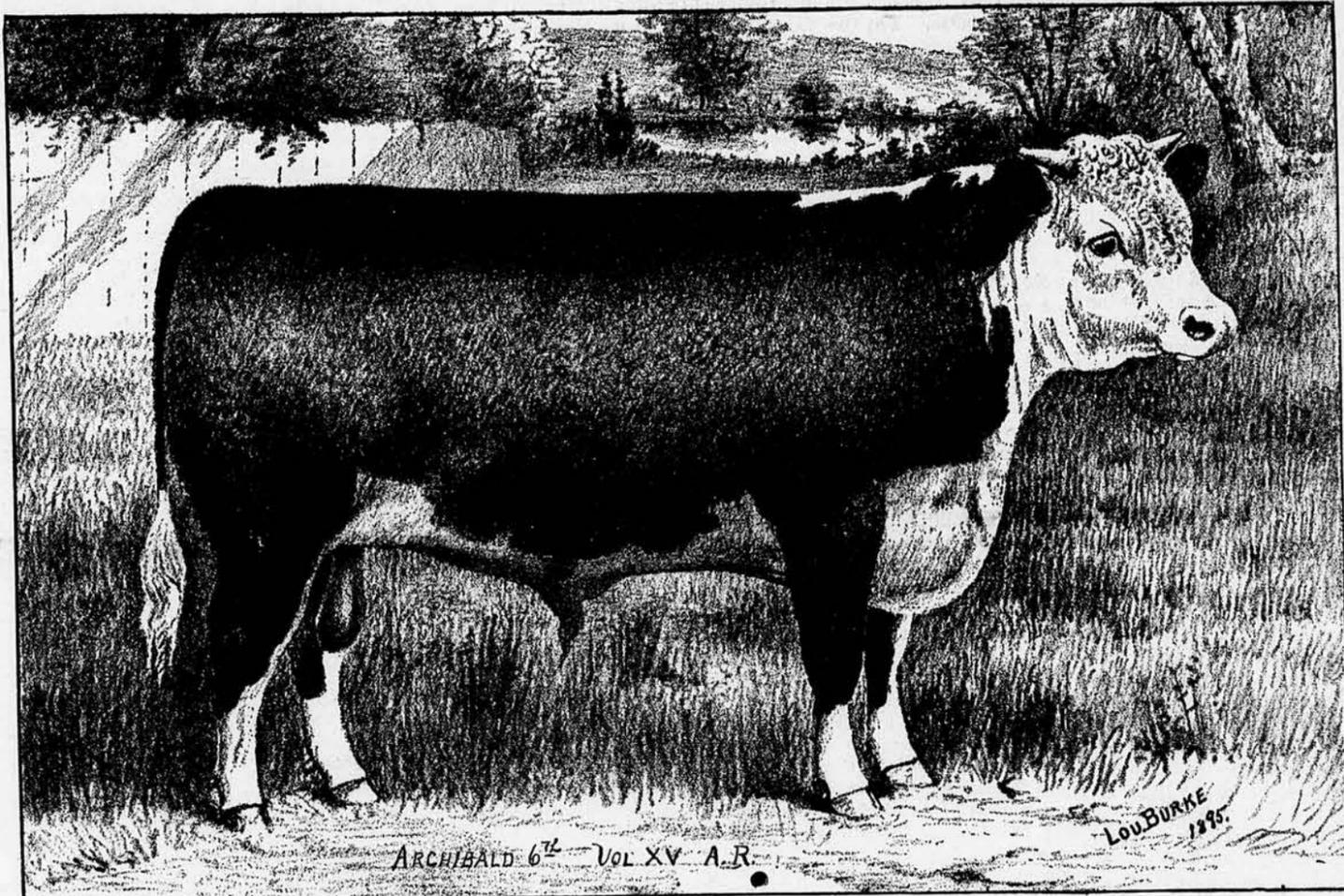


KANSAS FARMER

ESTABLISHED IN 1863.
VOL. XXXIV. NO. 4.

TOPEKA, KANSAS, THURSDAY, JANUARY 23, 1896.

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ARCHIBALD VI, THE YOUNG SWEEPSTAKES HEREFORD BULL. PROPERTY OF SUNNY SLOPE FARM, EMPORIA, KAS.

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Agricultural Matters.

PROTECTION FOR FARM PRODUCTS.

EDITOR KANSAS FARMER:—In your issue of October 9 Mr. C. Wood Davis, assuming to voice the wishes of Kansas farmers, decried the export bounty proposition, basing his opposition on premises that seemed to me wholly untenable, viz., that an unprecedented succession of favorable crop years are alone responsible for the unsatisfactory condition of the farmers at present, and that when nature returned to normal conditions a revolution would result that would make the farmer master of the situation.

Without stopping to notice the unprecedented succession of the same class of calculations (since Mr. D. objects to "prophecy and predictions" in this connection) extending over many years, while the incidents of commerce have worn the quicksand from under his stupendous piles of figures, and the farmers' prosperity, also, until both are floundering in hopeless confusion, I gave some reasons, in your issue of October 30, for believing that Mr. Davis was wrong and that the conditions that he seemed to deplore would go from bad to worse until something besides a policy of wait was adopted. In the FARMER of November 20 Mr. Davis denied my contention, viz., that the increased production of grain in recent years was the result of better farming, that the limit had not been reached, and under the stimulus of greater need the increase might be expected to continue indefinitely. (I want to correct an error into which Mr. D. and the FARMER'S editor both seem to have fallen. No experiment station, so far as I can learn, ever approximated the results attained by private enterprise stimulated by the hope of a money reward, and that without irrigation, except in wheat. These yields were, approximately, corn 255 bushels, wheat 88 bushels, potatoes 1,000 bushels per acre.) He then led us through a labyrinth of figures reaching to the ends of the earth, and proved that some countries are capable of producing more than others, that all countries show better results if favorable climatic conditions co-operate with intelligently applied labor than otherwise, but not being conversant with Malthusian philosophy (it was not a text-book in our little red school house), I am unable to see what bearing all this has upon either the incidental question of production as it has been considered or the main question of giving to farming such legislative support as would correspond with that heretofore extended to other industries at the farmer's expense. In fact, I am unable to comprehend Mr. D.'s object in assuming the position that he so stubbornly, not to say dogmatically, maintains, unless it is, as appears on its face, a desire to lead farmers away from the consideration of matters pertaining to their interest, provided their interest is not in line with others which are guarded by corporate concentration.

We may expect evasion, equivocation, and even worse, from parasitic interests, but that farmers, whose all depends on maintaining the base upon which our social, political and ethical superstructure rests, should be so ready to surrender their rights and even echo the stale platitudes of paid representatives of conflicting interests, might be explained by a Malthusian postulate, but is a curious commentary on the farmers' allegiance to our common country and humanity.

But is there an element of right in this export bounty proposition? By the present system of forced contributions for the benefit of other interests, are we not incidentally opening a way to such remuneration for our labor as to eliminate the disparity which is so apparent? If some apologist for the present regime will point to a transaction in which reciprocity or a patriotic desire to aid anything American, either in buying, selling or employing, it will then be time enough to question the farmer's right to demand a law that will give him an equal start in the race for life.

Again, "other interests would com-

bine against the Lubin proposition." Has any Kansan become so recreant to the traditions and unwritten law of our cherished State that he hastens to disarm because of a probable hostile demonstration?

But "Congress would be slow to act on a proposition that was primarily in the interest of farmers." Mr. Davis has here laid down a proposition for which reasons are so apparent that no controversy can result. From time immemorial the farmers have stood apologetically, hat in hand, ready to condone Congressional shortcomings of this character, while other interests never sheath the scalping-knife while a Congressman wears his hair who escaped the enthrallment of the third house and dared to mete out equal justice to all comers. It is of less importance at whose door this criminal folly should be laid than whether the same practice shall continue to the end. Scarcely a publication not devoted exclusively to farm interests is disposed to unfetter itself from corporate chariot wheels, and even the title page of that class of papers is no evidence that it is not the mouthpiece of some parasite. Yet the farmer sleeps in fancied security because he has commissioned a lawyer or other professional man to wake him when a crisis arrives that makes his presence in the arena desirable, which ordinarily occurs only during the early days of November. J. M. FOY.
Brainerd, Kas., December 20, 1895.

Strychnine the Gophers.

EDITOR KANSAS FARMER:—I am tempted to give my experience in ridding alfalfa fields of gophers, in the hope that it may help some of your readers who are troubled that way, as any one who raises alfalfa is almost sure to be. I think, as several of your correspondents have said, that the quickest and surest way is by putting poisoned Irish or sweet potatoes (preferably the latter) in the runs of the gophers, but the principal difficulty, with novices, at least, is to find the runs. This, however, becomes a comparatively easy matter when one is acquainted with the habits of the animal.

As a rule, the run-ways are from six inches to a foot below the surface and large enough to admit a man's arm. The piles of dirt on the surface of the field are usually over the mouth of a side burrow or offshoot from the main run, and as a rule these side chambers are filled with loose earth back to where they join the main run-way. It is generally possible, by noting the relative positions of the piles, to determine on which side of any particular pile the run-way is located. Now, dig down on that side of the mound, and, with a sharpened stick, probe around in the sides of the hole thus made till the side chamber is discovered. This is not hard to do, as the earth in the run is more loose than that around it and of a peculiar granular texture. Having ascertained with the sharpened stick in which direction the chamber runs, dig down in that direction with the spade, stopping occasionally to locate the chamber and make sure that it continues in the original direction, and usually the main run-way will be found not more than a foot or two from the mouth of the side chamber. When you have found the main run, clean out the loose earth, place the bait inside the run, and stop up the hole in the side with a few large clods to prevent the loose earth from falling in and stopping the run. I have seen this method tried on several fields which were badly infested, and it has always proved effective.

In preparing the bait, cut the potatoes into pieces about an inch square, then make an incision in the side of each piece and introduce a little strychnine. Only the least bit is necessary, and if you have the crystallized form, pulverize it before using, as an ordinary crystal contains enough to kill a dozen or more gophers. Don't buy some patent gopher exterminator, which probably contains one-tenth strychnine or some weaker poison and nine-tenths powdered turnip, but get strychnine, and preferably the crystal-

ized form, as there is less chance of adulteration. F. C. SEARS.
State Agricultural College, Manhattan, Kas.

A Way to Fight Chinch Bugs.

EDITOR KANSAS FARMER:—With your leave, I wish to have a little talk with my brother farmers concerning the chinch bug pest, which, I think it will be safe to say, is the most disastrous pest with which we have to contend, and I think our efforts to accomplish their destruction or prevent their ravages on our crops have been perhaps the least satisfactory of those directed against any of these pests.

It was thought for a time that Professor Snow had found the remedy that would relieve us of their ravages, but the last season proved, in this part of the country (Cherokee county), that it had been near or quite a failure, for the damage sustained was greater than for many years.

Now, I believe we have it in our power to keep them down so that the loss by them will be at least nominal, when compared with what it now is, but we can accomplish nothing except through a concert of action. In the first place, it is well to learn their habits. We observe that, in the early part of the season, the wheat field, of all others, is the place they seek to obtain food and to deposit their eggs for a new crop or brood, which comes on about harvest time, and as soon as the wheat is cut, or has dried up so they can no longer feed upon it, they start out in every direction in quest of food, and if an oat, corn, millet, sorghum or broomcorn field be in their reach, we in a few days find our hopes of a crop nearly or quite blasted. To me their habits suggest a possible remedy, which is this: That every one of us who puts out wheat leave a margin of, say three or four rods in width, all round the plat sown to wheat, and in the spring sow a strip all round next the wheat to oats or millet, say two rods wide, and then outside of that plant a few rows of corn. Then when the wheat is out the bugs will go into the strip of oats and will be held there until they are about all out of the wheat field, then take the mower and cut down the oats or millet, and the bugs will very soon go onto the strip of corn; then throw the dried straw over into the corn rows and, in the heat of the day, when it will burn well, set fire to it, and we will have destroyed the most of them. This will diminish the late crop of bugs materially. Remember, it is this crop or brood that makes the worst ravages on our late crops, such as corn, sorghum and broomcorn.

It would be necessary to avoid sowing large fields of wheat in one body, for in that case the bugs could not be held until they would all be out of the field. No field should be more than twenty rods in width, so where one wishes to sow large fields there should be a strip at least six rods in width left through the field, once in about twenty rods, to allow for the margin, as before mentioned. I am aware we wheat-growers will not all consent to this, though, in justice to our neighbor, who depends on corn or other crops which the bugs will destroy, we ought to do this, or cease sowing wheat.

But as too many of us manifest a repugnance to putting ourselves to any trouble in our neighbor's behalf, I suggest that the Legislature be requested to pass a law compelling those who sow wheat to comply with these conditions. Now, brother farmers, I put out these ideas to provoke thought on this subject, and I ask for the opinion of others. Criticize severely as you please, but let us search and see if there is not some way by which we can save to ourselves the millions that are annually destroyed by these little pests. We had better quit sowing wheat entirely than to continue the present practice at such cost. I am not sure that the entire wheat crop of an ordinary season would pay the damage done to other crops. Let us examine this matter. C. W. WILLEY.
Tehama, Kas.

Get up a club for the FARMER.

"Saved My Life"

A VETERAN'S STORY.

"Several years ago, while in Fort Snelling, Minn., I caught a severe cold, attended with a terrible cough, that allowed me no rest day or night. The doctors after exhausting their remedies, pronounced my case hopeless, saying they could do no more for me. At this time a bottle of



AYER'S

Cherry Pectoral was sent to me by a friend who urged me to take it, which I did, and soon after I was greatly relieved, and in a short time was completely cured. I have never had much of a cough since that time, and I firmly believe Ayer's Cherry Pectoral saved my life."—W. H. WARD, 8 Quimby Av., Lowell, Mass.

AYER'S

Cherry Pectoral

Highest Awards at World's Fair.

AYER'S PILLS cure Indigestion and Headache

Rag-Weed in Alfalfa.

EDITOR KANSAS FARMER:—I have a field planted to alfalfa in spring of 1895. The ground is infested with rag-weed, which has killed out all the alfalfa wherever it (the rag-weed) grows. In fact, nothing will grow on ground infested by the rag-weed pest. Is it possible to cripple or kill out this weed in one season, except by frequent cultivating, which I cannot afford? Possibly some of your readers have had experience with rag-weed and will kindly give quickest and most effective remedy. SUBSCRIBER.

Wichita, Kas.

If the hair is falling out or turning gray, requiring a stimulant with nourishing and coloring food, Hall's Vegetable Sicilian Hair Renewer is just the specific.

Try Silver King, Mr. Farmer.

With oats at 209 bushels, corn 240 bushels, teosinte 100 tons, potatoes 1,200 bushels and Silver King barley 116 bushels per acre, where will yields stop? We'll tell you this: The John A. Salzer Seed Co. are creating new cereals. Above yields are facts to-day and they say in ten years their new varieties, now in progress, will surely increase above yield 50 per cent. If Salzer says so, it's so. That Silver King barley is marvelous!

If you will cut this out and send it with 10 cents, postage, to the John A. Salzer Seed Co., La Crosse, Wis., you will receive their mammoth catalogue and ten packages of grains and grasses, including Silver King Barley.

A Splendid Business Offer.

The FARMER takes pleasure in calling the attention of its readers to Perine's subsoil plows. That subsoiling is no longer an experiment has been satisfactorily proven and demonstrated. Mr. A. B. Perine, of this city, is the inventor, manufacturer and patentee of the original Perine's subsoil plow. No higher compliment could be attributed to the popularity of the plow, than the fact that other plow companies are trying to profit from its success, by attempting to imitate Mr. Perine's invention. During the months of February, March and April, 1895, Mr. Perine was not nearly able to supply the demand for his plows, and present indications are that he will experience another rush this season. He has enlarged his plant and secured additional machinery. But as a special inducement for early orders he will include a year's subscription to either the KANSAS FARMER or Topeka Advocate to those who will purchase a plow before February 15, 1896.

The prices of the genuine Perine subsoil plows are as follows:

No. 1 plow, for four horses.....	\$12.00
Extra points.....	2.25
No. 2 plow, for three horses.....	11.00
Extra points.....	2.00

Address all communications and make remittances payable to

PERINE'S PLOW WORKS,
Topeka, Kas.

The Stock Interest.

GIVE THE MULE A CHANCE.

By D. A. Williams, of Silver Lake, Kas., read before the Improved Stock Breeders' meeting, Topeka, Kas., January 7-8, 1896.

In taking up this subject, a short history of the first jacks imported to this country will not be amiss. Of the jacks imported at an early day into America as a present to General Washington, Mr. Custis has written as follows: "Royal Gift and Knight of Malta were sent to General Washington about the year 1787; the Gift with a jennet, a present from the King of Spain, and said to have been selected from the royal stud. The Knight, I believe, was from the Marquis de Lafayette, and was shipped from Marseilles. The Gift was a huge, ill-shaped jack, and near sixteen hands high, very large head, clumsy limbs, and to all appearance little calculated for active service; he was of a gray color, probably not young when imported, and died at Mt. Vernon but little valued, for his mules were unwieldy and dull. The Knight was of moderate size, clean-limbed, great activity, the fire and ferocity of a tiger, of a dark brown, nearly black color, white belly and muzzle, and could only be managed by one groom and that always at considerable risk. He lived to a great age and was so infirm toward the last as to require lifting. He died on my estate at New Kent, Va., about 1803. His mules were all active, high-spirited, servicable and attained considerable size." General Washington bred mules from the best of his coach mares. The best jacks now are of Spanish origin, they are large, strong-boned, long-bodied and have, of course, long ears.

The jack, whatever the breed, is sensitive to cold, and to the influence of storms, and if not warmly housed in winter soon becomes useless from rheumatism and other affections.

In selecting a mare for the purpose of raising mules, I would choose those large, well-muscled or even blocky mares, rather than small or tall, slender ones. It has been the practice of a great many farmers to breed their best mares to the horse, and their poor and inferior ones to the jack. This is a mistake, for the value of the mule will be found to be in a just proportion to the value of the dam.

In hardiness the mule is superior to the horse. It was a common saying during the civil war that a mule never died a natural death, and I am not sure that one ever died an unnatural death; but leaving life and death a question, they will stand extreme heat better, and cold equally as well as the horse. It is perhaps a mistake that he will subsist on less grain in proportion to his size than the horse, but he will subsist on less grain than the horse in proportion to work performed. He will draw a heavier load than the horse of same weight, for he is better muscled, closer knit, is more steady and seldom frets or scares.

A great many are prejudiced against the mule on account of his supposed natural vicious disposition. This, however, is a mistake. He is resentful, and does not easily forget an injury, and if constantly abused will become vicious and sullen, but I have never known, under any circumstances, of a man being kicked by a mule while standing in front of him. After all, there is no animal more susceptible to kindness, and under a firm, kind master is easily managed and will exert himself most strenuously.

As a source of profit to the farmer, he is far in advance of the horse. If you have a herd of mules they will all sell at some price, and this should be taken into consideration when, to-day, the same cannot be said of the horse.

After the great slump in the market in 1890, I sold eleven head of mules, none of which ever had a halter on, ranging in age from 2 to 3 years, for \$77 a head. If I had had the same number of horse colts from the same dams I could not have got a bid on them. I have contended for years past that if the great horse breeders would turn their attention to the breeding of mules, the raising of horses would, in a few years, assume some-

thing like its former profit, for as ten years is considered the average life of a mare, as far as breeding is concerned, and as the mule has no hope of posterity, a few years of such breeding would so reduce the supply of horses as to bring around something like the desired result. But instead of being considered as a money-maker, he has been considered too much as a butt for odd jokes; he has been maligned from time immemorial, until to-day he is ashamed to stand in a position to look a man in the face.

Crummer Replies to Allardyce.

EDITOR KANSAS FARMER:—In the FARMER of January 2, I notice the article from A. Allardyce, of Chicago, in which he severely criticises my article on hog cholera, in issue of 11th ult., and besides stating that I neither use good sense nor scientific principles, little truth, etc., he relegates me to the last century. Now, this last imputation is what I wish to protest against. I think it is hardly fair to knock a man clear out at one fell swoop and land him so far away from the ring. It makes me feel like a veritable Rip Van Winkle. One would naturally infer from the manner in which Mr. Allardyce comes at me that he was engaged in placing some cholera nostrum on the unsuspecting public or that in some way I had tramped on his toes. At any rate, he seems to be quite an accomplished theorist, who has had very little experience with hog cholera, and if he lives long enough he will learn that one accomplished fact is worth several theories.

He makes the announcement that farmers lose their hogs from lack of sanitary conditions around their premises, and that filth originates the cholera germ, and if premises are kept absolutely free from filth they would not lose their hogs from cholera. All this sounds nice, but the fact is, thousands of our most practical hogmen have disinfected their hog yards constantly when cholera was in their vicinity, only to have their hogs contract the disease, and in the most virulent form frequently. Another thing, hogs running out on pasture, away entirely from filthy pens, contract the disease more readily than hogs confined in filthy pens, when cholera is in the neighborhood. This is probably because the germ gains access to a large enclosure many times when it would not happen to get into a small yard. If you want your hogs to contract cholera when it is in the vicinity, let them all run together in a large pasture. If you wish to avoid it, put them in a number of small yards or pens. As to filth originating cholera, there is nothing to show that it does; but where the germ already exists in an attenuated form, or gains entrance to a yard, filth favors its development, because it prevents the sun and wind from renovating and cleansing the ground, and when cholera actually exists the filth itself becomes a hot-bed of infection. I do not wish to be understood as underrating the importance of good sanitary conditions and thorough disinfection constantly while disease is under progress, but it will not do to anchor all your hopes to sanitary regulations.

Mr. Allardyce not only jumps onto me and stamps me into the ground with both feet, but he at the same time sweeps away all the hopes of gentlemen who are experimenting with inoculation as a protection against cholera, for the theory of inoculation is to give the swine the disease in a mild form, which brings the desired immunity.

The difficulty so far encountered in inoculation seems to be the tendency with some individuals of a herd, whose disease-repelling powers are somewhat weak, to develop the cholera, and they in turn give it to the rest before they have become immune by full recovery. It is well known that a hog exposed to cholera for four or five weeks, becomes immune from attack, even when he does not go off his feed, but he must have a slight run of the disease and recover either through his own constitutional vigor or by the assistance of a germicide administered internally, which either destroys or partially destroys the virulence of the germs that gain access

to the digestive tract and the blood. Otherwise he is still subject to the disease. Disinfection outside is highly important and necessary, but it is only the first step in the treatment of hog cholera, and one every one outside of Chicago understands.

The more germs that are left in a yard undestroyed by disinfection, the more virulent the attack, as a rule. It has also been demonstrated by the Bureau of Animal Industry, at Washington, that they can increase or decrease the malignant character of the disease produced by injecting the artificial culture, by increasing or decreasing the amount of the culture medium used. This corresponds to the experience of stockmen in most cases where the disease develops in the natural way, but it is a difficult matter to be thorough in the disinfection of premises reeking with cholera germs, especially in large herds. The use of food calculated to keep hogs healthy is good enough, so far as it goes, but if Mr. Allardyce depends on this alone, in connection with disinfection, to protect his hogs in a cholera-infected district, he is very likely to get left. The cholera germ is so horribly infectious that in spite of all such precautions it will make its way into herds kept under the best sanitary conditions often, and when it does it usually goes from pen to pen, yard to yard. About the time a man thinks he has it stamped out it shows up in another pen, until it has finally got the whole herd.

Not being even a veterinarian, but simply a stockman, I do really hope my Chicago friend will overlook my failure in the article referred to to couch my language in the vernacular of the profession, and I will try to give myself time to recover from the shock produced on my nervous system by his onslaught. Besides, if I really conclude that I belong to a back century, I may conclude to lay over a while. In the meantime, there would be a good chance for Mr. Allardyce to go over to Iowa with his squirt-gun and disinfectants and annihilate the cholera in some of those infected herds.

E. M. CRUMMER.

Belleville, Kas.

Stalk Fields and Cattle.

EDITOR KANSAS FARMER:—I have been reading your good paper for the past six months, and have been much pleased with its perusal. The many opinions I see by your correspondents on the "corn stalk disease" are responsible for this article.

The first article I noticed stated that nitrate of potash forms on the stalks in the form of a white powder, and when eaten in too large quantity by the cattle, acts as a poison. The next writer says the trouble arises by leaving the rotten or moldy corn in the field, and by simply gathering this out and destroying it will entirely prevent the trouble. In your last issue, J. T. Shump, of Herington, Kas., says there is no such thing as corn stalk disease, but that the trouble arises by allowing the cattle to gorge themselves too full at first, and the remedy is simply to not leave them in more than ten minutes at a time until they get used to a change of feed. The wise man says, "in a multitude of counsel there is safety." Now, Mr. Editor, in this instance where does the safety come in, or is this the exception?

I have had experience with pasturing cattle in corn stalks for the past ten years. Losing two head at two different times, and by the way they both died, I am persuaded there is a corn stalk disease. They were both thrifty yearlings coming two, and had always been perfectly healthy up to the time of turning them into the stalks. They both died by a lingering disease, as if by slow poison—lived a number of days after they were not able to get on their feet, and seemed to die, as we say, by the inch. Now I believe it is a fact, where cattle die with bloat, their death is sudden. From all I can learn, I am of the opinion that death may result from both of these causes. My neighbor lost an animal by the stomach being gorged too full, so that digestion could not take place. This was shown by a post-mortem examination. A like examination was made in a case where

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Hood's Sarsaparilla

The One True Blood Purifier. \$1; 6 for \$5.

Hood's Pills act harmoniously with Hood's Sarsaparilla 25c.

they died like mine, by a lingering death, and in the latter case no such impactment of the stomach was found—in fact, the alimentary canal seemed to be open and in a normal condition throughout. The trouble is a serious one, as thousands of cattle die annually from these causes. Whether any one can suggest a complete remedy except to keep the cattle out of the stalks I have my doubts. My rule is to turn the cattle into the stalks in the afternoon, when their stomachs are full of other feed, and I have never had any trouble with bloat. J. A. BAXTER.

Waveland, Kas.

Illinois Sheep Breeders.

The annual meeting of the Illinois Sheep Breeders' Association, held at Springfield, January 7, was attended by about forty who are interested in this industry. President R. M. Bell, in a brief address, presented the present and prospective outlook of the sheep industry in the State, holding that more helps for the sheep breeder were now in sight than have usually or ever before been presented after a great depression.

Hon. A. M. Garland, Chicago, read an excellent paper on "Progressive Merino Sheep Husbandry," that contained valuable thoughts for study by those who are seeking a way out of the difficulties that events have forced upon them.

Mr. F. D. Nunes, Chatham, presented an interesting and instructive paper on the "Care of the Flock." The experiences of a practical shepherd thus told are useful to those who heard or will have the opportunity of reading it. Mr. Nunes also favored the association with "The Shepherd's Dream," an amusing dream-like vision of the trials of the sheep under "free wool."

Hon. E. B. David, member of the Illinois State Board of Agriculture, presented some thoughts of great value on the "Sheep in the Show Ring." Mr. David's connection with the Illinois State fair, as its superintendent of sheep, has placed him in a position where the good and the bad of the sheep exhibited as well as of those who exhibit them, is certain to be seen, makes him well qualified to offer suggestions on this subject, and his treatment of it was in excellent taste but of a forceful character.

The report of the Secretary, Jno. G. Springer, Springfield, indicated that the association is doing what it can for the advancement of the interests it represents, but that it is limited in its work because those interested in this industry do not take sufficient thought as to the work the association can do for the sheepmen in the State.

The following officers were elected for the ensuing year: President, R. M. Bell, Decatur; Vice President, R. J. Stone, Stonington; Secretary and Treasurer, Jno. G. Springer, Springfield.

Hog Pasture for Southeast Kansas.

EDITOR KANSAS FARMER:—I wish to sow field to mixed grasses and clovers for hog pasture. Please inform me which varieties are best and give the proportions. Would English blue grass and clover be good? Would orchard grass added be better?

F. B. CAMPBELL, Altamont, Labette Co., Kas.

Irrigation.

SALVATION OF WESTERN KANSAS.

A financial journal, *American Investments*, publishes an interview with Hon. Jas. S. Sherman, of Utica, who had just returned from a trip through western Kansas, in the interest of his clients. Mr. Sherman has for a number of years represented the Oneida (N. Y.) county district in Congress, and is well known as a prominent man in the State of New York. In response to questions, Mr. Sherman said:

"He had driven over Finney, Gray, Ford and Edwards counties, in western Kansas.

"I covered from 200 to 300 miles of that territory in a wagon, besides traveling by rail," he said, "and examined the situation with care. Eastern Kansas is in a prosperous condition, and will continue so. It is a rich farming section, and is competent to yield good returns to the tillers of the soil. But western Kansas is not so fortunately situated. The soil is rich and productive when the rainfall is sufficient; but the natural precipitation is only about eighteen inches during the year, and this rainfall often comes at a time when it can do the crops no good.

"It is conceded by practically all the settlers with whom I conversed on the subject, that agriculture without the aid of artificial irrigation cannot be successfully carried on in western Kansas. This is demonstrated by the depopulation of that section. The recent census shows that every county in western Kansas has largely decreased in population. One town that only five years ago was prominent in the contest for the location of the county seat, with a population at that time of 400, now has but one family in its borders. In a drive through Gray county, I did not pass more than five or six habitations. I remember in one drive of fourteen miles of passing but one occupied dwelling, although there were numberless remains of sod houses, all tenantless now.

"The conditions are all favorable to plant growth, and the soil is exceedingly productive, the only requisite being a sufficient supply of water at the proper time, when this country would be the finest agricultural country in the world. The climate is mild, and the native grasses are very nutritious, and I was much impressed with the adaptability of these prairies for growing cattle. In my travels I saw large numbers of cattle feeding on the prairie grasses, and all were in splendid condition and apparently fit for market.

"The method of irrigation employed is somewhat novel. Instead of taking the water from rivers and large reservoirs, and distributing through long canals, the new way is simply pumping the water up from an underground stratum of water-bearing sand. On the river bottom land this sand-water stratum is found at a depth of from six to ten feet, and here irrigation is most successful and most cheaply prosecuted. An important feature of this method of irrigation is the comparatively small expense required to install a complete working plant. Under the canal system several hundred thousand dollars might be required to be expended before any results could be had, and before the scheme could be demonstrated to be a success. And then high-water in the river might wash out the dams and flood-gates, and prevent any successful cultivation for that season. The individual pump plant is always under the control of the owner, and affords the most certain results. The supply of water is inexhaustible, and always at command. Undoubtedly a very large proportion of this western section of Kansas is underlaid with this water-bearing sand stratum. But outside of the valleys the greater depth to the water increases the expense, and it is only the river bottom lands that are now being irrigated in this manner.

"The alfalfa plant is peculiarly adapted to this Western country. It is perennial, and when once it gets root no expense of cultivation, or further expense in seeding is required. The company has only the expense of harvesting, and this may be done away

with, as the alfalfa is often found growing in the fields the cattle doing the harvesting. I am told by a Kansas man, who has spent several years in Arizona as the manager of a cattle company, that cattle fed on growing alfalfa will gain an average of four pounds a day. The gain of flesh of cattle being fed by corn meal is not more than five pounds per day. The great expense in feeding corn, and the light expense in feeding alfalfa, must show a very large profit from the growing of alfalfa used in this manner."

Irrigation in Lincoln County.

George Stites, a practical and successful farmer who has lived about twenty years on his farm three miles south of Lincoln, will sub-irrigate a quarter of an acre garden the coming season and is putting in his plant this week. His method is very original, and on account of its simplicity and cheapness should be carefully watched by every one interested. He marked off the land in rows eight feet apart and running one way only. These rows pitch a little down hill. The first excavating was done with a double-shovel plow; this was followed by a single-shovel cultivator run exactly in the middle of the furrow. Both together loosened the earth (besides removing much of it) to a depth of over a foot, leaving only a few inches to be dug out with the spade. The ditches are eighteen inches deep, the entire soilage being identical with the surface soil, which is rich, natural loam, nearly black. (This soil is from six to eight to an unknown number of feet in depth at this spot, as it is over all of Mr. Stites' farm.) In the bottom of the ditches Mr. Stites puts a layer of red sandstone broken into lumps from one to three inches in diameter. Of course these stones are in a continuous or unbroken line. On top of these stones he lays flat sandstones, to keep the dirt from above filling up the interstices between the spawls. Mr. Stites is satisfied that his contrivance will be as effective in operation as tiling, and quite likely it will be.—*Lincoln Beacon.*

Publishers' Paragraphs.

The "Planet Jr." garden tools, manufactured by S. L. Allen & Co., Philadelphia, are enumerated in a beautiful illustrated catalogue, which is sent free on application. It is worth the request and more.

BUCKBEE'S CATALOGUE.—The annual seed catalogue of H. W. Buckbee, Rockford, Ill., is one of the household treasures in that line for 1896. It will show how to beautify the home for a trifling cost. Don't fail to get one.

SUFFERN'S SPRING CATALOGUE.—J. C. Suffern, of Voorhies, Ill., has for many years made a specialty of seed corn and has always enjoyed a large trade in Kansas. It will pay our readers to have his catalogue and receive his price lists regularly. They will be sent free on request to those who mention this paper.

IOWA SEED COMPANY—Des Moines, Iowa, have out their twenty-sixth annual catalogue, that in itself is a big advertisement of Western resources. In seed corn alone, they have a list of twenty-three standard varieties, besides two or three curiosities in the corn line. This catalogue should be preserved for reference by progressive farmers.

A prominent Kansas fruit-grower, in giving to a friend a list of nurserymen who can be depended upon to send trees true to name, began his list with J. F. Cecil, of North Topeka, and included several other well-known and reliable tree-growers. Any one who has dealt with Mr. Cecil knows that an honest deal is to be depended upon. His stock is worked and handled under his personal supervision, is grown on Kansas upland and is adapted to Kansas wants. Correspond with Cecil.

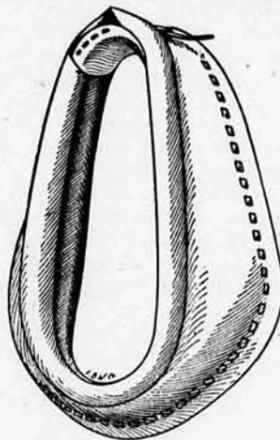
THE SUCCESSFUL "SUCCESSFUL."—The Successful incubator, manufactured by the Des Moines Incubator Co., of Des Moines, Iowa, in competition with some of the leading incubators of the country at Kansas City show, recently won first honors. This is, indeed, a very great victory for the Successful incubator, and it looks very much as if some pretty close competition for honors will be the result of the exhibits at the shows which are to be held at other places. The Des Moines Incubator Co. have recently issued their annual book—a complete treatise on poultry—which will be sent to any one for 10 cents in stamps.

The Lee family, of Virginia, is the subject of a series of profusely illustrated articles which will constitute a leading feature in *Frank Leslie's Popular Monthly*

during the current year. The February number of this magazine, just out, contains the initial article of the series, entitled "The Ancestors of General Robert E. Lee, and the Times in Which They Lived," written by Mrs. Roger A. Pryor, embodying many rare portraits, coats-of-arms, etc. This same February number of *Frank Leslie's* also contains beautifully illustrated articles upon "A Roman Festa," by Theo. Tracy; "Sardinia," by Charles Edwardes; "The Social Settlement in America," by Rufus R. Wilson; "West Point," by Carl J. Becker; "Art Students in Paris;" and stories, sketches and poems by Howard Paul, George Edgar Montgomery, and other popular contributors.

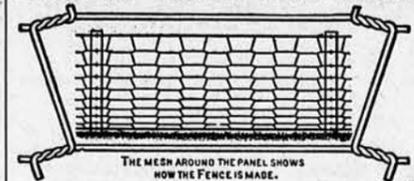
A CONTINUAL GRIND.—Mr. E. B. Winger, "the windmill man," of Chicago, and manufacturer of the only feed-grinder that can be attached to any make of pumping windmill, has recently added some important features or improvements to his grinder that makes it as perfect as possible. It is a little wonder and fully deserves the name Mr. Winger has applied to it—"Titan." It grinds away industriously day and night and requires but occasional attention. Mr. Winger told our Chicago representative that his sales of this mill were averaging at the rate of 10,000 a year at present and would probably exceed that number in 1896, for whenever a grinder gets into a neighborhood it becomes only a question of time when every farmer who has a pumping windmill in that neighborhood decides on getting a Titan. Mr. Winger will be glad to send you a catalogue of his grinder, windmill, etc., free on application. No. 532 Kenwood Terrace. His advertisement will be found in another column of this paper.

IN THE NAME OF HUMANITY.—It has ever been the aim of the KANSAS FARMER to give its readers that which was newest and best in the lines of their various pursuits, and many of the modern agricultural appliances



were first introduced to the public through our columns. We therefore wish to call the attention of our readers to the Cork-Faced Horse Collar, manufactured by a firm of that name, at Lincoln, Ill. Cork possesses many valuable qualities that are not found combined in any other substance. It is light, elastic and impervious to moisture; does not become heated or chilled at ordinary temperatures, and being proof against atmospheric influences, it lasts, unaltered, for an indefinite period. These many qualities have brought cork into quite general use, but it remained for the Cork-Faced Collar Co. to adapt it to the manufacture of horse collars, which they have done with much success to themselves and the relief of much suffering on the part of our dumb friend. We wear cork soles in our shoes because we would always have dry feet, and for the same reason it is a desirable substance for the horse's collar. These collars cannot absorb moisture, and being cool in warmest weather, their use avoids and even cures galled shoulders and other sores arising from the use of imperfectly-made or fitting collars. As the accompanying cut shows, the collar is faced to a thickness of one inch or more with

KEYSTONE WOVEN WIRE FENCE



Wherever used takes the lead, and holds it. The safest fence for stock. Prices right. Catalogue free.

KEYSTONE WOVEN WIRE FENCE CO., PEORIA, ILL.

A Full Supply of All Kinds of Nursery Stock in

Pear, Peach, Apricot

Apple, Cherry, Plum, Grape Vines, Small Fruits, Evergreens, Roses, Shrubs, etc. Send for descriptive list and prices. Address J. F. CECIL, Nurseryman, North Topeka, Kas.

MILLET AND CANE SEEDS!

T. LEE ADAMS. Clover, Timothy, Garden Seeds, POULTRY supplies, Blue Grass Seed, Onion Sets.

421 WALNUT ST., KANSAS CITY, MO.

POTATOES \$1.50 a Bbl.

Largest growers of POTATOES for Seed in America. The "Rural New Yorker" gives Salzer's Early Wisconsin a yield of 758 bushels per acre. Prices dirt cheap. Our great Seed Book, 148 pages and ample 14-Day Radish for 6c postage. JOHN A. SALZER SEED CO., Latrosse, Wis.

ALLIANCE Seed House GOVE CITY, KAS. is acknowledged by all to be the cheapest reliable Seed House on earth. Pkts. 2 to 3 cents each; other seed cheap in proportion. Sample pkt. sent FREE. Catalogue free to all. Give us a trial.

EARLY KANSAS SEED POTATOES

437 bu. SEED POTATOES per acre. An enormous yielder, a great keeper and a splendid table potato. Endorsed by all who have tried it. KANSAS FARMER one year and one bushel. \$1.75 Rural New Yorker " " " " 1.85 Practical Farmer (Ohio) " " " " 1.85 Practical Farmer (Pa.) " " " " 1.75 Journal of Agriculture (Mo.) " " " " 1.85 CLARENCE J. NORTON, Morantown, Kas.

FERRY'S SEEDS

Perfect seeds grow paying crops. Perfect seeds are not grown by chance. Nothing is ever left to chance in growing Ferry's Seeds. Dealers sell them everywhere. Write for FERRY'S SEED ANNUAL for 1896. Brimful of valuable information about best and newest seeds. Free by mail. D. M. FERRY & CO., Detroit, Mich.

DRAIN TILE

W. S. DICKEY CLAY MFG. CO., 20th and Main Sts., Kansas City, Mo.

IRRIGATION.

SPRAY WITH THE EMPIRE KING. Our catalogue will tell you why it is the best. Send 2c. for postage and the catalogue is free. FIELD FORCE PUMP CO., 75 Market St., LOCKPORT, N. Y.

BURPEE'S FARM ANNUAL for '96 "The Leading American Seed Catalogue." A BOOK of 184 pages, more complete than ever before;—hundreds of illustrations, pictures painted from nature.—It tells all about the BEST SEEDS that grow, and rare Novelties that cannot be had elsewhere. Price 10c. (less than cost), but mailed FREE to all who intend to purchase SEEDS. W. ATLEE BURPEE & CO., PHILADELPHIA, PA.

IRRIGATION MACHINERY. If you want the most practical, efficient and cheapest irrigation pumping machinery, write for catalogue of Centrifugal and Triplex Pumps, Engines, Boilers, Gasoline Engines, etc., to IRVIN VAN WIE, 717-726 W. Fayette St., SYRACUSE, N. Y.

clean, live, granulated cork. The collars are backed with selected and especially-prepared rye straw, the whole combining a collar that is light, strong, elastic and at the same time a non-conductor of heat and moisture. The cork-faced collar is all hand-stuffed, has a perfect hame-hold, sole leather pressed pads, and combines the best material and workmanship known to the trade. The manufacturers guarantee the absence of metal seams in the construction of their collar. If you have experienced trouble from sore shoulders on your horses, as most persons have, try the cork-faced. If you are unable to secure them of your harness dealer write the Cork-Faced Collar Co., Lincoln, Ill., who will send information of much value.

AGENTS WANTED—To represent and sell stock in The Western Exporting and Importing Co., to farmers and producers of farm products, whereby farmers and producers, by becoming stockholders, can become their own shippers, with their own agent and warehouse in Europe, and obtain the full benefit of the \$523,000,000 worth of farm products now being sent annually to Europe. Market quotations average for December, 1895, after deducting all freight and other charges, in such large towns in England as Birmingham, Leeds, Manchester, Sheffield and Derby, and producers could have obtained in eastern Kansas, 30 cents for corn, 32 cents for oats, 40 cents for barley, \$9 per ton hay, \$3 to \$4 per barrel for apples, \$5.30 per dozen poultry, 16 cents per pound for turkeys, 27 cents per dozen eggs, 26 per pound butter, milk cows \$65 to \$110 each, horses \$175 to \$200, fat steers \$90 per head, sheep (fat) 10 to 12 cents per pound, ewes 89 to \$12 per head. The preceding six months prices show equal margins with unlimited demand. Corn is being shipped to England at the rate of some 3,000,000 bushels per week, hay 4,000 tons, cattle 10,000 head, sheep 50,000 head, barley 500,000 bushels, oats 454,000 bushels, apples 10,000 barrels, onions 200,000 bushels per week. Apply, enclosing reference and stamp, to the Western Exporting and Importing Co., 5 Office Block, Topeka, Kas. Agents, when appointed, will be kept fully informed as to markets and give the necessary information to stockholders, and will have to see to all shipping in their respective townships.

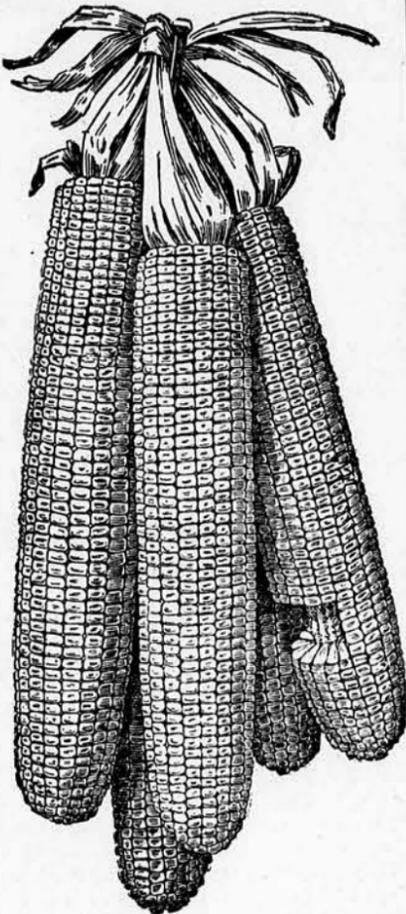
SWEET POTATOES WITHOUT VINES.—The objectionable feature of growing sweet potatoes has always been the vines. Why no one has never given this nuisance more attention has long been a mystery. As the vines soon cover the ground so that it is almost impossible to cultivate them, and unless they are carefully gone over and the vines kept pulled loose from the ridges, where they take root at the joints, the nourishment that should go to producing potatoes goes into the vines and your whole season's work almost lost. Neither is this all, as when it comes to digging them there are the vines again, and must be got rid of in some way before the potatoes can be dug, but it is useless to go into detail on this, as every one who has grown sweet potatoes knows the labor and annoyance there is attached to cutting and clearing away the vines in a sweet potato field. A new era is dawning upon us. Where this expensive and objectionable feature is done away with, as the well-known and reliable Huntington Seed Co., of this city, who are always progressive and on the alert for something that will be of great benefit and add to the welfare of the farmers and gardeners of this country, have a new sweet potato, the "Vineless Gold Coin Prolific," which they are introducing this season, that is absolutely vineless. The potatoes have been thoroughly tested and found to be of most excellent quality. In appearance they resemble the Yellow Jerseys. Having been grown side by side the old standard sorts they have proven themselves to be the greatest sweet potato now in existence, being the easiest cultivated, the earliest to mature, the heaviest croppers, the greatest drought-resister, and can be grown and harvested with less than half the expense of any other variety, which is due to their having no vines to bother. They are also excellent keepers and the plants are exceptionally hardy, which will enable every one to get a start of them at very small expense. On account of having no runners they can be grown much closer together than other sweet potatoes, and are the greatest novelty in the way of a vegetable ever discovered and worthy of extensive trial. Having unlimited faith as to their merits, they are heartily recommended and will prove a public benefactor. The above-mentioned firm will gladly give any further information desired, and it will certainly pay our readers to write them, as all will be benefited by the new introduction.—*Indiana Farmer.*

Hand in hand with the unparalleled growth of the mining interests of Colorado goes the development of the agricultural resources of our neighbor to the west. "Handsome, but good for nothing," was the pert verdict of a London *Field* correspondent, who, in 1876, traveled over the Centennial State as the guest of the Santa Fe road. Twenty years have since elapsed

and behold the metamorphosis! The mountains and canons, then grand and solemn in their solitude, have since become the scene of busy industries. Leadville, Creede, Aspen, Cripple Creek, and many other great mining camps, have sprung into existence and attracted the attention of the world. The yearly output of precious metals has grown in value from \$6,041,907, in 1876, to \$50,855,000, in 1895, not to mention the constantly increasing product of copper, lead, iron, coal and oil. Yet the search in this great treasure vault, some 40,000 square miles in extent, has been but superficial! Farming was scarcely thought of in Colorado twenty years ago, and to-day 4,000,000 acres of valley and plain are under irrigation from 12,000 miles of ditches, costing \$50,000,000 for construction. Truly, if the *Field* correspondent were to travel up the Arkansas valley to-day, from the Kansas line to the city of Pueblo, and thence to penetrate the mountains in any direction, through orchards, grain fields and alfalfa meadows, where twenty years ago he found no indication of farming, he would find Colorado as "handsome" as ever and "good" for much in the bargain. Few other States can boast of such a combination of resources as Colorado. It has all the resources of Pennsylvania, with those of California added. It has a healthful and healing climate, a wealth of mineral waters, never-falling streams fed by the mountain snows and quickening to fruitfulness the soil of the valleys and plains. Pueblo, the metropolis of southern Colorado, the natural gateway to the richest mining sections of the Rocky mountains, had scarcely 5,000 inhabitants twenty years ago; to-day it has 35,000 inhabitants and is justly called the Pittsburgh of the West, thanks to its great montane industries. It is fast becoming an agricultural center, also, thanks to the Bessemer irrigating ditch which furnishes ample water from the upper Arkansas river to irrigate 20,000 acres of the finest garden and fruit land immediately adjoining the city. Already the settlements on the St. Charles mesa and of Vineland teem with market gardens, orchards, vineyards and alfalfa meadows, whose products find a ready and profitable market at home and in the neighboring camps. The Suburban Land and Investment Company, of Pueblo, owns most of the agricultural lands in the vicinity of Pueblo, and sells them in tracts to suit the purchasers, from five acres upward, with perpetual water right. The business is in the hands of Mr. C. B. Schmidt, who has been a Kansan for many years, and, as Commissioner of Immigration of the A. T. & S. F. railroad, has brought thousands of settlers to our own State, who are to-day among the most prosperous. Mr. Schmidt has the reputation of being conscientious in his representations, and those who want correct information to guide them in the selection of a home in Colorado, cannot do better than to apply to him for it.

Iowa Silver Mine Corn.

This latest novelty in corn, which we illustrate below, cannot fail to interest our readers, for it has many strong claims as



the best field corn in existence. For eight years one of the best seed corn experts in America has been selecting and improving it until its ideal shape, size and characteristics have been established. Last spring it was offered to the Iowa Seed Co., of Des Moines, who are very prominent in the seed corn business, and after a full ex-

amination they purchased the stock for \$1,000. Samples were sent to about twenty-five prominent corn-growers, and they unite in pronouncing it the best corn ever offered. Stalks are of medium height; every one bearing one or two large-sized ears. The ears are uniform in size with very deep grain and small cob, and it matured last year in ninety-five days. Twenty ears of it won \$95 in premiums at one fair, including sweepstakes over all other varieties of any color. It produces immense crops, and \$500 in prizes are offered this year for the largest crop grown on one acre. Competition is open to all and some of our readers should secure the prize. Drop a postal to the Iowa Seed Co., of Des Moines, Iowa, asking for full particulars and a copy of their large, illustrated catalogue, which will be mailed to you free provided you mention KANSAS FARMER.

Mower Bros., Lost Springs, Kas., said: "The Berkshires we got of you last year did so well we want some more." Result, more sales to them. Don't you want some? Will sell cheap and guarantee satisfaction. Write O. P. UPDEGRAFF, Topeka, Kas.

Dr. Scott's Electric Plaster

CURES
Colds, Coughs and Chest Pains, Nervous, Muscular and Neuralgic Pains, Stomach, Kidney and Liver Trouble, Dyspepsia, Malaria, Rheumatism, Gout and Inflammation. Price, 25 cents each; 5 sent for \$1.00. At all Druggists.

GIVEN AWAY.

Dr. Scott's Electric Insoles. For a limited period we will give to every one who sends us \$1 for four of our Plasters, a pair of Dr. Scott's Celebrated Electric Insoles (Price, 50c.) which will positively keep the feet warm and dry. Send for our circular, giving information concerning all our goods. This offer is made for a short time only; do not delay; send at once; you may never have the chance again. Agents wanted. Room 10, Pall Mall Electric Ass'n, 844 B'dway, N.Y.

Garnahan's Tree Wash and Insect Destroyer

Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas.

Litson & Nursery.

Fruit trees, Berry plants, Evergreens and Ornamental shrubbery at wholesale to the planter. Write for free price list. W. H. LITSON, JR., Nevada, Mo.

The Arched Hedge Trimmer

Any one who has a Mowing Machine can attach our Trimmer to it and thus save the expense of special driving gear. Three years' use in Labette county has established its reputation as a perfect trimmer. Cheap, strong, durable and very effective. It is guaranteed to please even the most critical disposition. E. C. GORDON & SONS, Sole Mfrs., Chetopa, Kas.

IMPROVED SUBSOILER ATTACHMENT.

After many years experience, I have perfected a practical subsoiler attachment which can be attached to either Riding or Walking Plow. It cuts from one to six inches wide and from one to eight inches deep, by the addition of one horse. This attachment saves an extra man and team. It is very simple and durable, costing only \$8. Local Agents wanted everywhere. Address T. WOODARD, GARLAND, KANSAS.

IRRIGATED LANDS IN COLORADO

Under the Bessemer Irrigating Ditch. A rare opportunity to acquire attractive and profitable Suburban Homes, in tracts of from five acres upward, with perpetual water right and suitable for Market Gardening, Fruit Culture, Dairying, Hog and Poultry Raising, Grain and Alfalfa Farming. Location two to eight miles from Union Depot at the City of PUEBLO, the growing manufacturing center of Colorado, with 35,000 inhabitants and five great railroads. Profitable home market; absolutely sure crops; delightful climate and all social advantages. Write for information to C. B. SCHMIDT, General Agent, The Suburban Land and Investment Co., PUEBLO, COLO.

600 BUSHELS PER ACRE EASY SWEET POTATOS
WITH OUR GOLD COIN VINELESS PROLIFIC
IMMENSE YIELDERS. QUALITY SUPERB. Earliest Sweet Potato on earth. Easiest cultivated. Highest endorsement by best agriculturists in America. Thoroughly tested. Millions will want them. If you are after a MONEY MAKER; you must have them. POTATOS. Not vines are what pay. Save ground, save time in digging. BETTER KEEPERS and just what has been wanted for the LAST FIFTY YEARS. Have MORE MERIT than any novelty ever offered. Don't wait, but send two-cent stamp at once for catalogue that tells all about them; also our "BEN HUR" Irish Potato. Entire stock of both owned exclusively by ourselves. Own Seed Catalogue this year is A WONDER, so many GOOD THINGS and prices low. It is sure to interest you. Address: HUNTINGTON SEED CO. INDIANAPOLIS, IND.

When you write mention Kansas Farmer.

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My New Seed Book tells all about the best varieties of Peas and Everything of interest in the Seed Line; how to grow them for profit, etc. FREE if you send a postal to-day, mention this paper. H. W. BUCKBEE, Rockford Seed Farms, ROCKFORD, ILLS. P. O. Box 528. 12 PACKAGES—Tested, pure, fresh SEEDS, postpaid, 12c. E. N. Thomas, Shenandoah, Iowa.

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.

THE LODGER IN THE ATTIC.

Addressed to an owl who had taken shelter from a blizzard:

Bird of Pallas, bird of Pallas,
With thy crooked aeres and callops,
Sitting in a trance ecstatic,
Mid the lumber of this attic,
Tell us, guest anstere and hoary,
If thou wilt, thy centary story!
Fangs nor claws shall come to fright thee,
Nor the sunbeams, to belight thee,
Shall thy dim asylum enter.

Supposed reply of his owlship:

Curious human, why disturb me,
And with smooth words seek to curb me?
In the ages without number,
I was born of Night and Slumber.
I was stolen from my aerie,
By young Hermes, dext and wary—
Brought to Pallas (chief of spinners,
When the gods were mortal's winners,
It was long ere mortal's coming)
While her wheel flew shrilly humming,
I, above the spindle seated,
Word for word her song repeated.
Conning precepts, taught by sages,
In their schools in after ages,
Thus she span the fleece of heaven,
That to airy heights was given.
When the labor was completed,
At her bidding, I retreated
Hung with ehield and falchion splendid,
Where her helmet huge suspended—
Then of every care I rid me,
In the hollow metal hid me,
Where I slept for hours together,
Never stirring lightest feather.
I, the warder at s'leep's portal,
Greet and speed thee, curious mortal!
—Ladies' Home Journal.

THERE MUST NOT BE WAR.

There must not be war, there shall not be war. Will not all the English women living in Kansas—aye, and in the United States, rise up as one body, and if need be protest against it? And will not the United States women join us in trying to prevent so ghastly and costly and iniquitous a proceeding from darkening the last years of the enlightened nineteenth century? If the men are so ready and almost eager for war, surely the women (who will have to stay at home and bear the suspense and bitter consequences) may use their rights to try to avert the horror of almost civil war as much as they have already done in putting down the drink demon.

Let England, if need be, withdraw her claim to the paltry little bit of territory, and the States, also, if need be, forego their talk about the "Monroe doctrine."

Let each nation learn a lesson of forbearance for the future from the other. Let each of the two greatest Christian peoples in the world realize that each may go a little too far in their respective claims and rights.

To quote from a communication lately sent me from an influential Christian woman in England: "How sad these disturbing times are! But I am sure all the Christians in America and England will join heartily in Mr. Milburn's beautiful prayer in the Senate. What a lovely spirit he must have! Thank God for such peace-makers! We, women in both lands, I fully believe, would rise up and protest with all our power against any breach between our two great lands, which together in friendly union, can do so much for the good of the great world."

[We will say to "Englishwoman," and all others interested, that there will be no war between the United States and Great Britain—"no, not this time."—EDITOR.]

The Housekeeper's Best Friend.

Turpentine is the best friend housekeepers have, and a supply should always be kept on hand. It is good for burns, excellent for corns, good for rheumatism and sore throat and a quick remedy for fits and convulsions. It is a sure preventive against moths, a few drops rendering garments safe from such invasions during the summer. It drives away ants and bugs from store-rooms and corners by putting a few drops on the shelves. It effectually destroys bugs and injures neither furniture nor clothing. For cleaning paint add a spoonful to a pail of warm water. A little in the suds on washday makes washing easier.

Can Wear Men's Clothes.

Rose Bonheur began to work seriously at painting when she was about 15 and donned male attire so that she could go about to fairs and slaughter. She wore it so naturally that no one ever suspected her of being a girl, and found it so comfortable that she has worn it ever since to work in. She and Mme. Dieulafoy, the wife of the explorer, are the only two women in France who are legally authorized to appear in public in men's clothes.

CHEAP CONSERVATORIES.

Winter Window Transformed Into a Veritable Fairyland.

There Is No Reason Why Every Home Should Not Have Flowers—How to Make an Invalid's Room Cheery and Attractive.

Her house, she says, is no bigger than a minute, with a dining-room window opening on a series of clean but ugly backyards, where neighbors will hang out their Monday wash, so she consulted a nice florist around the corner. The suggestion was to put off the disagreeable view by an arrangement of plants, and the bill must needs be extremely modest.

This is what the florist did for the small consideration of \$8: He took out the lower sash of the window entirely and fastened outside the sill a deep zinc box, measuring 2½ feet on all sides. It was supported by iron brackets on the outside wall beneath the window and then with four squares of skylight glass, the sort that is near an inch thick and a cloudy pale green in tint, he put a slanting roof and sides over the zinc box, reaching from its outer edges to the bottom of the window's upper sash. This done, the box was filled with earth and planted with cheap hardy ferns, bedded down with lycopodium and given color and fragrance by adding a few mignonette and cyclamen plants.

It was when finished an ideal little conservatory, that she framed in by drawing the shade down to a level with the lower end of the top sash and looping back her white lace curtains. Through the heavy glass the autumn sun shines with just sufficient energy to keep the plants in good health and the proper temperature. Its proud owner satisfies her horticultural tastes by spraying the leaves once every 24 hours from a florist's bulb. All day the cool green nook and the heavy glass shut off the back yards effectually and at night the drawn shade shelters the sensitive plants from artificial light.

There is no reason on the whole why every city or country house in winter, she thinks, should not have one such window box to every living room. The chief expense is their building, for the zinc box and glass are the costly items, but a clever brother or husband can put them together in the proper shape, and



FOR AN INVALID'S ROOM.

the hardy ferns, lycopodium, etc., cost very little at any florist's; a dollar and a half well laid out will plant the box fully, not to reckon on the inestimable value such a corner of growing flowers is to any room in the winter. It changes the whole aspect of things, and so widely has she recommended her plan that the little florist round the corner has more orders for winter boxes than he can fill.

The prettiest little conservatory built in a long time was made for a semi-invalid who is very fond of flowers and tried to experiment with orchids and palms. One long window of her bedroom she had cleared of sash and blinds and a circular shelf or bow window built out from the sill on brackets about three feet long and three wide. Then in a wooden frame she had the open window inclosed like a bay, glazed with regular window glass.

The materials and carpenter's work cost her \$15, and when it was finished she began to buy any orchids, large or small, that could thrive indoors. Her

Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder ABSOLUTELY PURE

purchases ran chiefly to cattleyas and the yellow butterfly variety, that as healthy plants in boxes cost her from 75 cents to twice that sum. These she hung by cords of varying length from the roof of her conservatory, and for \$2 apiece she bought a half dozen small rubber plants and thriving little palms. You can scarcely picture the brilliant beauty of that recess when the orchids began to bloom. Then hung a cloud of the loveliest lavender and yellow over the greenery below like a glimpse into fairyland through the lace curtains.

This conservatory is large enough for one person to stand in. It cost, the plants included, about \$25, and is a sight like Katishaw's elbow—a lovely sight that her friends came miles to see. She wisely chose the orchids because, when healthy plants, they require less care than any others, bloom more readily, their flowers last longer, and if their boxes are wisely enriched at intervals will last without other notice from season to season.

"On the whole," said the little florist convincingly, "I see no reason why every woman should not have at least a window box in her home for the winter, for if she is not lucky at flowers, any florist will send a skillful man to put her plants in order every four weeks, charging her 50 cents for the professional visit, not a big price to pay for something more ornamental in the long run than the costliest bric-a-brac."—St. Louis Republic.

A Delicious Mexican Dish.

A Mexican dish of sweetbreads and oysters which is delicious is made as follows: Soak and blanch your sweetbreads, cut them into equal sizes and remove the skins and little pipes. Take about three dozen fine oysters, strain off the liquor. Put the sweetbreads into a stewpan and cover with the oyster liquor; add three large spoonfuls of gravy of roast veal and a quarter of a pound of fresh butter cut into bits and rolled in flour. When the sweetbreads are done put in the oysters and let them cook five minutes. Add two wineglasses of sweet cream, stir up well for a few minutes, and serve in a hot dish.

Lack of Care Ruins Clothes.

It is not wear, but lack of care, that makes a bedraggled mass of one's best gown in a couple of months, and often it suffers most when not being worn. The way shopkeepers care for ready-made garments is an excellent object lesson. Coat-hangers are cheap, but half a barrel-hoop, linen-wound, with a loop in the middle, is even cheaper, and answers the purpose as well. These are for the heavy skirts, waists and jackets. Thin garments should not be hung at all, as they grow stringy. These should be folded with light paper stuffed in sleeves and bows.

Baked Liver and Bacon.

Have the liver sliced thin, pour boiling water over it, let stand a few minutes, then drain. Lay a layer of liver in a bake pan, then flour it well, pepper and salt, then a layer of thinly-cut bacon, and so on till all the liver is in, put a layer of bacon on top, pour a cup of boiling water over, and bake.

Crescent-Shaped Bonnets.

An odd little bonnet looks much like a velvet crescent resing upon the hair. It is trimmed with two small curly tips. Very wide ribbons are fastened at the back of the crescent, one at each side. They are supposed to encircle the English bun coiffure and tie beneath it in a huge bow.

Onions as a Perfume.

In Tartary onions, leeks and garlic are regarded as perfumes. A Tartary lady will make herself agreeable by rubbing a piece of fresh-cut onion on her hands and over her countenance.

LOVELY CRACKER JAR.

A Beautiful Bit of Decoration in Clovers and Grasses.

The decoration of clovers and grasses is well suited for a cracker jar or marmalade dish. Wash in a soft background of greens and blues before beginning to paint it. Use grass green, deep blue



DECORATED CRACKER JAR.

green and a bit of yellow here and there, with a touch of dark green in the shadows. For the clovers use carmine, No. 1 black and here and there deep purple in very limited quantities. A very faint wash of ultramarine will give you the soft purplish shadow found in a clover. Use yellow brown, dark green, black and a touch of violet of iron in the soft grasses. Keep the tone of the leaves cool, using grass green, deep blue green, dark green and black in painting them. Gild the handles and knob on the lid.—Orange Judd Farmer.

IRRITATION OF THE THROAT AND HOARSENESS are immediately relieved by Brown's Bronchial Troches." Have them always ready.



READ MY STORY.

FREE TO SUFFERING WOMEN.

I suffered for years with uterine troubles, painful periods, leucorrhoea, displacements, and other irregularities, and finally found a simple, safe home treatment, that cured me without the aid of medical attendance. This is no quack doctor's medicine; but nature's own remedy for women. It costs nothing to convince yourself of its merits, for I send it free with full instructions to every suffering woman. Address, MRS. L. HUDNUT, South Bend, Ind.

A friend advised me to try Ely's Cream Balm and after using it six weeks I believe myself cured of catarrh. It is a most valuable remedy.—Joseph Stewart, No. 624 Grand Ave., Brooklyn, N. Y.



CATARRH

ELY'S CREAM BALM opens and cleanses the Nasal Passages, Allays Pain and Inflammation. Heals the Sores, Protects the Membrane from colds, Restores the Senses of Taste and Smell. The Balm is quickly absorbed and gives relief at once.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 56 Warren Street, New York.



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The Young Folks.

UNSPOKEN WORDS.

The kindly words that rise within the heart,
And thrill it with their sympathetic tone,
But die ere spoken, fall to play their part,
And claim a merit that is not their own.
The kindly word unspoken is a sin—
A sin that wraps itself in purest guise,
And tells the heart that doubting looks within,
That not in speech, but thought, the virtue lies.

But 'tis not so; another heart may thirst
For that kind word, as Hagar in the wild—
Poor banished Hagar!—prayed a well might
burst
From out the sand to save her parching child.
And loving eyes that cannot see the mind
Will watch the expected movement of the lip;
Ah! can ye let its cutting silence wind
Around that heart and scathe it like a whip?

Then hide it not, the music of the soul.
Dear sympathy, expressed with kindly voice,
But let it like a shining river roll
To deserts dry—to hearts that would rejoice
Oh! let the symphony of kindly words
Sound for the poor, the friendless and the weak;
And he will bless you—he who struck these chords
Will strike another when in turn you seek.
—John Boyle O'Reilly.

BUILDING A SLED.

How Any Bright Boy Can Make a Small Double Runner.

Every real boy likes coasting. It is a very healthy and exciting amusement, and if proper care is taken it is not dangerous.

A double-runner should be at least five feet long, and strong enough to carry two or three boys comfortably. Any boy who has a few simple tools and a fair amount of common-sense can make one if he follows these directions. Well-seasoned pine will do very well, but some harder wood, as oak or black walnut, would make a somewhat

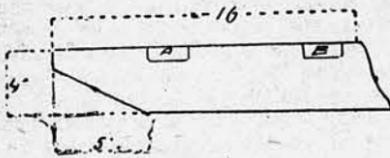


FIG. 1.

stronger frame. The argument against hard-wood is that it is much more difficult to "work" than pine. All the lumber should be about one inch thick.

The first thing to be done is to make the sleds. Fig. 1 shows the size and dimensions of the side of a sled. A B are the end views of the braces, which, as can be seen in the figure, are to be fitted into the side.

In Fig. 2 is shown the top view of a sled before the top board is put on. Make the two sleds as shown above; the dimensions are given in Fig. 1, except the width of the sleds, which is ten inches. Be sure that the braces are strong and fit tightly. Screw the top

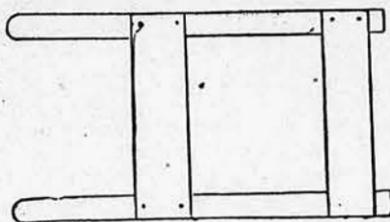


FIG. 2.

boards—which are to cover the braces and the spaces between them to the sleds, and across the front end of the front sled fasten a strong wooden bar long enough to project four or five inches on either side. This is the steering bar, and the person sitting on the front part of the double-runner can thus steer comfortably with his feet, but he also should have in his hands a rope attached to the front sleds of the runners. Paint the sleds as soon as they are made, to prevent warping.

Now we are ready for the turning gear. The general plan can be seen in Fig. 3. C is a sectional view of the long

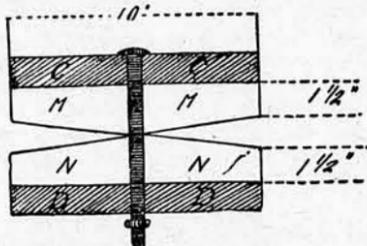


FIG. 3.

top board of the double-runner and D is a sectional view of the top board

of the front sled. A stout bolt acts as a pivot, around which the two pieces M and N, which are screwed to C and D, turn. The dimensions are given in the figure.

The back sled now remains to be fastened in place. Fig. 4 shows a very ingenious device. It is a side view. At H there is a hinge which allows the front part of the sled to tie up when the double-runner is going over a hilltop. The bar marked K is firmly screwed to the long seat board P. The

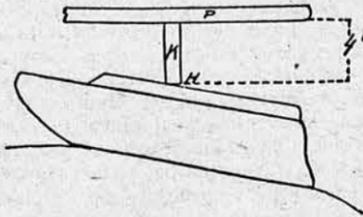


FIG. 4.

breadth of K is, of course, equal to that of the sled, viz., ten inches. The top board P is five feet long.

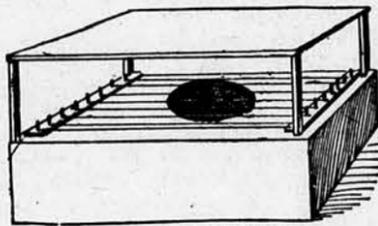
Having fastened the back sled to the top board as described above, the double-runner is finished, except that it needs some steel runners and a coat of paint. Therefore go to a blacksmith who likes boys, and get him to make runners to fit the sleds. Fasten them on, and paint the whole double-runner, top and bottom. You will then have a sled fit for a king.

AEOLIAN WIND HARP.

Anybody Can Make One of These Charming Musical Instruments.

Aeolus, the god of the winds, claimed the wind harp as his own, but since he never obtained a patent on his instrument there is no law against appropriating his invention. Its construction is very simple, and with a little care an instrument can be produced whose music is far more sweet than the door harps now so common.

To make a wind harp procure a box made of thin, well-seasoned wood—pine preferred—about four inches high and six inches wide. Cut a circular hole in the top and sandpaper the rough edges. This is your sounding board.



THE WIND HARP.

Across each end of the box and on top fasten a slat of oak or some other very hard wood, a quarter of an inch wide. In one of these slats drive seven flat-headed tacks equidistant from each other, and in the other slat fix the same number of twisting screws, such as are used on banjos. From these stretch your strings, which should be all of the same size and of catgut. The "G" guitar string will be found the best for this purpose. Now tune all the strings in unison, and the harp is completed. It is, however, well to add a reflector to throw out the sound. This is easily accomplished by placing a thin board above the box, supporting it on sticks fitting into rests, which are glued in the corners of the box. The reflector also answers as a shield to prevent injury to the harp.

Place the harp in a current of air, as upon the sill of a half open window. The sound produced by the wind passing over the strings as it rises and falls is of a drowsy, lulling character and extremely melodious.—N. Y. Recorder.

Good Eyesight.

While Mrs. McFadden was working for Mrs. Dixon she came frequently to her saying she could not find things. On one occasion she could not find the poker, high or low. Mrs. Dixon joined in the search.

"Why, here it is, Mrs. McFadden," called Mrs. Dixon, "right on top of the stove."

"Shure an' I didn't see it there, ma'am," replied Mrs. McFadden.

"I'll tell you what it is," said Mrs. Dixon, "you are near-sighted, Mrs. McFadden."

"Indade and I'm not, ma'am; I can see as far as I can look," was the reply.

AN ANIMAL ROMANCE.

Friendships and Quarrels of a Rabbit, a Cat and a Dog.

Last summer Orrin Whiting, who lives near Woodsville, N. J., caught a rabbit in a box trap, took it home and made a pet of it. Whiting had a cat and a dog, and after a few preliminaries the three animals became warmly attached to one another.

As the weeks went by it was noticed that the rabbit had taken a great fancy to the cat. The two were together nearly all the time. Before the rabbit appeared at the Whiting home the cat and dog had been close companions, and the dog evidently didn't enjoy having the affections of the cat alienated, for he took occasion frequently to pick the rabbit up by the back and give it a lively shaking up. Eventually it came to the point where the cat refused to have anything to do with the dog. She devoted her whole time to the rabbit. The dog grew moody and kept away from his former companions as much as possible, until one day he came across the cat and the rabbit enjoying a gambol out in the lot back of the house. His temper got the best of him, and he sailed into the rabbit as if he intended to wind up its existence then and there. He had not gone far with the job when the cat leaped in. She jumped on the back of her old friend and began to claw out hair at a rate that at once engaged the dog's attention. There was a short battle between the two, which resulted in a badly torn skin for the dog, and, with his tail between his legs, he finally left the field.

That night the cat and the rabbit disappeared. A thorough search of the yard was made for them, but they could not be found, and Whiting came to the conclusion that it was a case of elopement, pure and simple. The dog became very despondent, and for several days refused to eat, but eventually his spirits improved and he was himself again, but he never could be induced to sleep in the bed out in the woodshed where he and the cat had rested together for many months.

One morning when Whiting went to the woodshed to get kindling he was amazed to find the place swarming with rabbits. The rabbit law was off, and each one of the animals had a market value of 15 cents. He quickly closed the woodshed door, and, picking up a stick of wood, started in to slaughter the rabbits, which had huddled together in a corner of the room. He raised the club and was about to crack a rabbit on the head, when, to his astonishment, the cat that had disappeared weeks before sprang at him from the shadow and made a show of fight.

Whiting looked the animals over and discovered among them the old rabbit that had run away with the cat. The cat did her best to make up her quarrel with the dog, but he wouldn't have it. He spurned all advances and kept as far as possible from her. Two days after the return of the cat Whiting killed all the rabbits and sold them. There were 17 of them, including the original pet. With the old rabbit out of the way there was nothing to prevent the cat and dog from renewing their friendship. This they did, and they are now as warm friends as ever.—N. Y. Sun.

Little Betty Remembered.

The simplicity of childhood is one of the sweetest things in the world, but sometimes it is impossible not to smile at its manifestations.

Little Betty was at her first evening entertainment, where everybody was strange to her. She grew homesick, and with tears in her eyes begged her hostess to send her home.

As she was starting, a smile shone through her tears and she said:

"Good-by, Mrs. Smif. Mamma told me to be sure and tell you I had a nice time.—Philadelphia Times.

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Dr. Miles' Nervine Cures.



Mrs. Chas. A. Myers, 201 Hanna St., Fort Wayne, Ind., writes Oct. 7, 1894: "I suffered terribly with severe headaches, dizziness, backache and nervousness, gradually growing worse until my life was despaired of, and try what we would, I found no relief until I commenced using Dr. Miles' Nervine. I have taken five bottles and believe I am a well woman, and I have taken great comfort in recommending all of my friends to use Nervine. You may publish this letter if you wish, and I hope it may be the means of saving some other sick mother's life, as it did mine."

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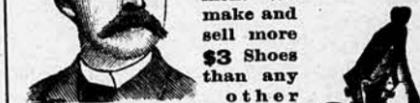
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Electros must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders—
KANSAS FARMER CO., Topeka, Kas.

Breeders of white turkeys will accommodate inquirers by having their business represented in our advertising columns.

Any subscriber who wishes to club with other papers can save money by sending his list to the KANSAS FARMER. We have dealers' rates with almost every publication and are willing to give our subscribers the benefit, whether the journals they want are in our published clubbing lists or not.

The twenty-fifth annual live stock report of the Kansas City Stock Yards Company for 1895 is a valuable contribution to Western resources. During 1895 they received 103,368 cars of live stock, as follows: Cattle, 1,613,454 head; calves, 76,198; hogs, 2,457,697; sheep, 864,713; horses and mules, 52,607. The total number of head of live stock for 1895 was 5,064,669, valued at \$93,200,329. The aggregate receipts for 1895 were the largest in the history of this great market.

"The Capital Almanac and Kansas Year Book for 1896" is a compilation of information which every Kansan, who desires to have at hand the facts, should possess. It is a brief history of 1895. To say that it is an impartial history would be to do injustice to both the publishers and the public. It is a history of events through the strong spectacles of the Topeka Daily Capital. To get this book, see clubbing offer of KANSAS FARMER and the Semi-Weekly Capital.

The thirtieth annual live stock report of the Union Stock Yards and Transit Co., of Chicago, is at hand. The grand total valuation of live stock received during thirty years aggregates the neat sum of \$4,379,532,511. For the year 1895 the value of stock was over \$200,000,000. The total receipts of live stock for the year 1895 were, cattle 2,588,558, calves 168,740, hogs 7,885,283, sheep 3,406,739, and horses 113,193. The sheep and horse receipts were the largest ever made, and with the exception of 1891, the hog receipts were the largest.

The new KANSAS FARMER binder is made expressly for the convenience of those subscribers who desire to keep their KANSAS FARMERS for reference. It takes but a few seconds to put the paper in it when received. The binder holds fifty-two numbers, and keeps the papers in as nice shape as if they were a book. The price is 25 cents, post-paid, or \$1.10 for the binder and the FARMER one year. Send your own renewal for one year and a new yearly subscriber, with \$2 for both, and we will send two binders, one for yourself and one for the new subscriber.

You can have the KANSAS FARMER and the Leavenworth Daily Times, both for one year, for \$3, if the amount is sent to this office before the first of March.

WHEN TO SELL STOCK.

The "Red Book" of the Kansas City Daily Drovers' Telegram, just issued, contains most valuable memoranda for every producer and every shipper of live stock or other farm staples. One of the most important of all questions is when to sell. A farmer remembers facts and dates better than any other business man, owing to the fact that he depends on his memory more and on records less than any other member of community, and therefore trains his memory. But while he will probably remember at what date last year cattle brought the best price, and may possibly have the dates right for two years, he is a rare exception who can remember accurately the best dates for five years. Students of markets, and operators who make their money out of market changes, find that the safest guide is the average of many years. The "Red Book" above mentioned enables one to study the Kansas City markets for sixteen years and those at Chicago for eighteen years. Thus, a table is given, from which it appears that hogs reached the highest prices of the year as follows:

HIGHEST PRICES FOR HOGS AT KANSAS CITY FOR SIXTEEN YEARS.

1880, \$5.25 in September.
1881, \$6.00 in September.
1882, \$8.80 in August.
1883, \$7.65 in March and April.
1884, \$7.30 in February.
1885, \$5.00 in February.
1886, \$5.05 in September.
1887, \$5.80 in March.
1888, \$6.50 in September.
1889, \$5.20 in January.
1890, \$4.55 in September.
1891, \$5.55 in July.
1892, \$6.70 in December.
1893, \$8.30 in February.
1894, \$6.30 in September.
1895, \$5.17 in July.

Summarizing the above, we find that the best months in which to sell hogs at Kansas City during the last sixteen years has been: September, six times; February, three times; March, two times; July, two times; August, one time; January, one time; December, one time.

The one time to the credit of August (1882), was only 5 cents better than September the same year and was a part of the same rise. It is easy to group the rises into two periods, viz., the early fall rise and the winter rise. The former usually culminates in September and the latter in February. On the average, then, it will be well, if it can be done to advantage, to have a crop of fat hogs to turn off in September. If another crop is ready so that it may be let go in December, but may, if December prices do not suit, be made to grow for a month or two, the chances for good prices are favorable.

The table for prices of beef steers shows highest points for each year as follows:

HIGHEST PRICES FOR FAT CATTLE AT KANSAS CITY FOR SIXTEEN YEARS.

1880, \$5.60 in December.
1881, \$6.00 in December.
1882, \$7.40 in June.
1883, \$7.00 in March.
1884, \$6.70 in June.
1885, \$6.00 in December.
1886, \$5.65 in April.
1887, \$5.50 in December.
1888, \$6.09 in June.
1889, \$5.60 in December.
1890, \$5.50 in January.
1891, \$6.25 in April.
1892, \$6.10 in December.
1893, \$6.00 in December.
1894, \$5.25 in September.
1895, \$6.50 in March and April.

Summarizing, we find highest points reached in December, seven times; June, three times; April, three times; March, two times; September, one time; January, one time.

On the average December is the best time to sell prime beef steers. Next to December comes the spring rise of March and April.

It is difficult to summarize the prices of wheat and corn by months, from the fact that speculative gambling in these sometimes causes extreme quotations for a day. These are no guide to what the producer got for his grain, but show only what one set of gamblers compelled another set of gamblers to bid to get out of a "corner." Thus, in 1888, Chicago prices of wheat ranged usually and for most of the year below \$1 per bushel, but on one day in September that year the top quotation is \$2. The tables may, however, be studied with profit.

Looting the Santa Fe.

The veteran editor, Sol Miller, in his paper, the Kansas Chief, gives expression to a just indignation against a

common form of robbery under judicial sanction, in which he says:

"The papers are decidedly outspoken relative to the manner in which the proceeds of the sale of the Santa Fe road were confiscated by the lawyers. Whoever the money belonged to was simply robbed for the benefit of a few lawyers, by permission of a United States judge who was lately being boomed for President because of his honesty and fairness. George R. Peck got \$80,000; J. B. Johnson, who believes that enough is enough, got \$33,000, with a continued hold, by which he will get more. A firm of three lawyers got about \$15,000 apiece. Another firm of lawyers got as much. Altogether the rake-off amounts to about \$150,000. This money belongs to somebody, who was looted out of it. A howl is everlastingly going up about exorbitant railroad charges. How can railroads keep up without exorbitant charges, when they are permitted by the courts to be robbed in this way? The people must pay for it, after all. It appears to have become the practice of courts to permit lawyers to rob their clients under the guise of fees. Is it any wonder that courts are falling into disrepute?"

ENGLISH FOOD SUPPLIES.

In a recent number of the *Cable*, one of the best agricultural papers in England, is a communication from Charles W. Smith, of Ravenhurst, Cheltenham, England, author of "Commercial Gambling," in which he points out a serious aspect to his country of the situation in case of such a calamity as war with the United States. He says in part:

"Now, while the European holders of American securities are selling at any price, causing a financial loss to America [more properly to holders of American securities wherever they may reside] of tens of millions, let us look, as an example, how the American gamblers in 'food products' can retaliate, on the other hand, under the 'international' system of 'options and futures' in wheat, corn and flour. Remember what is applicable to American operators is equally so to English and continental.

"They have only to send orders to their Liverpool and London agents to buy five to ten million quarters [forty to fifty million bushels] of the above in the shape of futures, say, for delivery between next January and June, and demand delivery of same, and refuse to sell at any price, and starvation stares us in the face.

"Such a state of things, under the present 'international' option and 'future' system of importation is absolutely possible, because an enormous profit on such a transaction would be a certainty. Such a step would insure a 'corner' in our breadstuffs, taking into consideration the fact that all imports, whether from America, Argentina, Russia, India, etc., are (more or less) 'hedged' by futures sold short, representing 'fictitious' wheat. Hence with the combination of a 'corner' in futures, bears buying back, and bulls buying for a rise, the advance from to-day's price might easily be from 100 to 150 per cent. in a very short period.

"To show you, sir, what the elevator kings in Chicago, etc., will do when they mean mischief, and intend to make money at any price, [this is always their intention], I may mention that this summer, after having forced prices down to 'panic' values in the previous autumn and winter, they 'sealed up their warehouses,' which held some fully 50,000,000 bushels of wheat, the bulk of which was suitable for 'tendering' against option sales, and starved the American millers out of grain, thus causing an 'artificial' scarcity and a rise in 'futures' in a few months of nearly 50 per cent. This rise was re-echoed all over Europe, just as the previous panic had been. When they had made their 'pile' and cornered the bears, they 'opened their warehouses,' threw the actual stuff on the 'future' market, and down went prices 25 per cent.

"Such is our position under these 'international' gambling systems; and knowing from personal experience the determination of the American operators for thirty years, when they can see

such a certainty of making money, I think it is my absolute duty to put the case before you, sir, of what may happen in case of war. In plain English, whilst America might be starved of 'gold,' Great Britain under these systems might be starved of 'food.'

"Surely, sir, with such a position possible, the best form of 'protection' required is protection against such an 'artificial' and highly dangerous system of business which enables 'international' capitalists and gamblers first to ruin the producer, and secondly, to starve the consumer and the masses, should they see that by so doing gigantic profits in 'futures' are to be made.

"Considering the fact that we are almost totally dependent upon foreign food for our actual existence, I think it only right to put the position before your agricultural readers who have not yet grasped the inner mechanism and working of the option, future and settlement system of gambling in 'fictitious' wheat and other produce, whether it be for an 'artificial' decline or rise in values, and how the latter may seriously affect the bread question in case of war with any country."

THE WRETCHED LOT OF THE CAPITALIST.

Pity the poor capitalist, who has to depend on the interest on his money for a living! The Daily *Financial Times*, of London, Eng., puts up the following wail for this much-abused individual:

"If 1894 was a dolorous year for the capitalist, what shall be said of 1895? From start to finish there has not been a movement in the bank rate, which has remained throughout at the nominal figure of 2 per cent.—and we are now within a couple of months of completing two full years at that absurdly low rate, which was instituted on February 22, 1894. In the whole history of the Bank of England there is nothing approaching a precedent to this. Lombard street has been overwhelmed with supplies, and 1½ per cent. has been considered an extravagant rate for discounting three-month bank bills, while the average rate has been well under 1 per cent. Call loans have been simply going a-begging, the quotation of ½ to ¾ per cent. per annum having been absolutely monotonous."

Let Experience Answer.

EDITOR KANSAS FARMER:—Please find enclosed \$1 for my subscription. Please let me know, through the columns of the FARMER, relative value of sorghum, Kaffir corn and millet hay as feed for milch cows. There seems to be a notion among some farmers that sorghum causes cows to dry up. Let us hear the question discussed.
Industry, Kas. W. M. RISDON.

How Restore the Prairie Grass?

EDITOR KANSAS FARMER:—Most of the farmers in this locality are of the opinion that they have broken out too much of their farms. They have not been generally successful in growing the tame grasses, and find themselves short of meadow and grazing lands. If some of your correspondents will write something practical on "The restoration of the wild grasses to plowed fields," it will be read with interest all over the West.
Clyde, Kas. C. F. ARMSTRONG.

Weight of a Bushel of Kaffir Corn, Etc.

EDITOR KANSAS FARMER:—Please publish the weight per bushel of cane seed and Kaffir corn? We are having quite a controversy here over the subject at present.
Jamestown, Kas. E. M. HEDGES.

The Kansas statutes of 1889, chapter 116, section 7201, fixes the weight per bushel for sorghum seed and rice corn at fifty-six pounds. No mention is made of Kaffir corn, this grain having come into prominence since that date. The probability is that when its weight is fixed by statutory enactment, it will be fifty-six pounds per bushel, like the varieties above named closely related to it.

You can club any publication, no matter where published, with the KANSAS FARMER and save money. If you don't find what you want in our offers, send us your list and get figures.

RED CLOVER AND ALFALFA IN THE ORCHARD.

EDITOR KANSAS FARMER:—I have been trying to cultivate my orchard for several years, but have failed to realize anything from it. It is extremely foul. I have concluded to seed it to something permanently for hay and pasture. Would you advise this course? Would it be advisable to use alfalfa in such a case? If not, will you please suggest, etc. Has orchard grass or perennial rye grass been used successfully in Kansas? In sowing either of the above would you advise oats as a nurse crop, or alone?
S.
Junction City, Kas.

This letter was referred for answer to Prof. S. C. Mason, of Kansas State Agricultural college, who replies as follows:

PROF. MASON'S REPLY.

"Replying to the above inquiry, I will say that I regard red clover as the best seed for an orchard. The ground should be considered as doing enough when it supports the apple trees, and the object in seeding should be only to hold the surface of the ground from washing. Were it not for this, I believe that in our climate a loose soil surface would be the best of all. Of course, this cannot be kept up as the trees become broad and spreading, for we do not dare expose the trunks to sun-scald by heading high enough to allow a horse to work up near them. Red clover roots penetrate and loosen the subsoil and store nitrogen for the benefit of the trees. If one will sow grass, probably orchard grass is the best, as it grows in stools instead of making a compact sod.

"Pasturing an orchard should be done, if at all, with much care and judgment. A few calves may be allowed in with little injury. Larger stock are apt to damage the trees, and any heavy pasturing makes the ground too hard and close to allow the rain that does fall to penetrate freely.

"If farmers would abandon the notion of getting any crop out of the orchard other than apples and be willing to pay something for these in the way of a liberal dressing of manure every few years, I believe many of our orchards would be longer-lived and more profitable. The plan adopted by Judge Wellhouse, of having a long, slender log roller, fitted with steel knives, after the plan of a stalk-cutter, for cutting the weeds and trash in an orchard, seems to me a good one. The end of the roller will reach under the branches well up to the trunk. The trash is left to decay on the ground and helps to keep up the fertility.

"I have never seen alfalfa tried in an orchard, but should prefer red clover. Never sow oats or other small grain among trees. They rob them of too much moisture."

The consideration of the proper treatment of the bearing orchard has received attention from Prof. F. L. Watrous, of Colorado Experiment Station, who has written of the subject as follows:

PROF. WATROUS ON ALFALFA IN THE ORCHARD.

"Ten years ago it was the thoroughly accepted belief among orchardists that alfalfa was detrimental to fruit trees—in fact, that its continued growth in an orchard meant nothing less than sure death to the trees. Even to this day the belief is held by great numbers of orchardists in the Western States. In California the successful orchardist cultivates between his trees almost incessantly, keeping land free from weeds and 'blanketing' his under soil for the purpose of preserving moisture, but leaving the surface of the ground uncovered, to be dried and baked by the hot sun, the top soil thus being unfitted for producing the best results. The above plan or some modification of it is generally followed in Colorado, but many unthrifty orchardists allow weeds to grow unmolested, and in the fall lump their skinny, wormy fruits in a jungle. In the central and Eastern States orchards are in grass much of the time, but the same prejudice exists in these sections against clover among fruit trees as against alfalfa in the West.

"Whatever may have been believed or imagined as to the incongeniality of trees and alfalfa (or clover), the theory is destined to an early downfall. The evidence is at hand now to show that

not only is alfalfa not a detriment when grown among fruit trees, but in many ways it is a positive benefit, lending itself and its properties to the advantage of the trees. It is now becoming an established fact that orchards under irrigation are usually given too much water, especially when small fruits or other crops are grown between the rows; and whether this practice does or does not produce a tendency to blight, the bulk of evidence goes to prove that orchards so situated as to maintain health and growth without the artificial application of water or with its very limited use—providing soil moisture is not in excess from some unfavorable condition—become the thriftiest, hardest and most productive. On this sort of land, where moisture can be found at from six to ten feet from the surface, the prominent congeniality of the alfalfa plant and the apple tree becomes apparent. Both need plenty of surface water the first year, a little less the second, and very little or none thereafter.

"The main features of the plan are that after trees become old enough to bear and need all the land between them, and that fertilized and renovated, alfalfa may be used as a food gatherer and distributor. It pushes down into the lower strata, bringing up mineral elements to the surface, capturing nitrogen from the air through its root processes and bringing all together on the surface of the ground to be absorbed in the upper crust, thus giving to the trees the food they need to fill up and mature fruit. Nor is this all. The alfalfa falling on the ground makes a soft covering upon which windfalls may drop with little bruising; it so occupies the soil as to allow no foul growth to creep in; it does away with the work of weeding or cultivating and keeps the surface cool and porous, furnishing excellent pasture for hogs if the trees are protected. It would be possible, of course, on this system of co-operation between fruit tree and alfalfa plant, to secure a crop of hay or seed during the off years for fruit, but whether this would prove profitable may be questioned. Orchards growing under the above conditions have the past year produced magnificent crops of fruit which, for size, quality and coloring, is seldom equaled."

Kansas Weather Review for December.

Weather Bulletin for December, 1895, T. B. Jennings, Observer Weather Bureau, Director:

December, 1895, has been nearly an average December over the larger part of the State, and that means a pleasant month, the mean temperature being but slightly below the normal, while in the string of counties from Gray to Kingman it was slightly above normal, also in the block of counties including Chase, Lyon, Pottawatomie, Riley and intervening counties. In the western and middle divisions the precipitation was slightly below normal, but in the eastern it was considerably above, the line of normal precipitation entering the State in Harper county, passing north into Ellsworth, then east into Morris, then northeast, passing out through Brown; east of this line the excess increases until it reaches Labette, where the precipitation for the month is nine inches above normal, nearly all of it falling during the storms of the 16th to the 24th, and causing great floods and much damage in the southeastern counties.

During the storm of the 17th, a large part of the eastern division and some of the extreme northern and southern counties of the middle division were treated to the unusual occurrence of a December thunder storm, which continued through the 18th, in the southeastern counties and in Cherokee on the 19th, during which some damage was done by lightning in Cherokee.

An excess of precipitation (as snow) fell in Greeley, Wallace and Graham.

TEMPERATURE.

Monthly mean, 33.4°; departure from the normal, 1.5°. Highest monthly mean, 38° at Wellington; lowest mean, 28.8° at Coolidge. Maximum, 75° at Meade on the 13th; minimum, 7° below zero at Coolidge on the 20th. Range for the State, 82°; greatest local range,

72° at Coolidge; least local monthly range, 53° at Independence.

PRECIPITATION.

Average for the State, 1.78 inches; departure from the normal, plus 0.61; greatest, 12.45, at Oswego; least, trace, at Macksville and Phillipsburg.

Prevailing direction of wind from north.

Thunder storms on 15, 16, 17, 18, 19.

Fogs on 16, 23, 24.

Sleet on 1, 17, 18, 19, 24.

Solar halos on 28.

Lunar halos on 28.

No auroras were reported.

Canaigne—Information Wanted.

EDITOR KANSAS FARMER:—I was much interested in your article on canaigne, in a late number of the "Old Reliable," as I have had it in my mind for some time, and would like to ask a few questions in regard to seed, culture, etc. How is it started—from seed or roots, and where secured, and at what price? What special preparation of land is required? Should it be planted in hills, drills, or broadcast? How long after planting before roots are ready to dig? What would be the probable value of the roots to the farmer?

If it is to be a good crop to grow and manufacture, why not form a stock company with Kansas capital, and buy the Medicine Lodge sugar factory, if its to be sold at such a small fraction of its cost, so as to keep the profits with our own people? We were in debt to England for our forefathers, but consider that debt paid long ago, so see no need of giving them all the "snaps" in this country, but keep some for ourselves. I am a Kansan of less than four years' standing, but still am for Kansas first, last and all the time. I think another article from you, as outlined above, with any other information you may have on the subject, would be welcome to many readers in southern Kansas.

I wish to congratulate you on your article in issue of January 9, entitled, "Economic Questions." You struck the key-note of success for an agricultural paper. Half the force of an article on "How to Make the Farm Pay," "Subsoiling," "Alfalfa for Hogs," etc., is lost, if followed by another on "The Undone Condition of the Poor Farmer," or some other equally inspiring(?) that so many of us love to read. We prefer our political, religious and farming news in separate papers, as we do our food on separate dishes at the table.

C. M. C. ANDRUS.

Wichita, Kas., January 17, 1896.

P. S.—Will you give the correct pronunciation of the word "canaigre?"

Canaigne—(pronounced ca-ne-ger; ca, a as in partake; ne, e as in they (accent on this syllable); ger, e as in moment)—is native in Texas, New Mexico and



CANAIGNE

Arizona. It is a species of dock. The buds or eyes are near the upper end of the root. This upper end is planted and reproduces the other portion and a lot of little roots the first season. The little roots grow to maturity the second season. The "seed" is to be obtained

A RENOWNED CHEMIST

Analyzed a Popular Family Medicine and Tells its Secrets.

Prof. W. H. Morse, of Westfield, New Jersey, made an examination of the composition and medicinal value of the well-known catarrh remedy, Pe-ru-na. He says of Pe-ru-na that this remedy "has commended itself to medical men and their patients as a specific for the grippe and its sequela. It fully approves itself for this purpose, and is remedial for all bronchial troubles. Its action is both local and constitutional, and it is entirely harmless. The distinction accorded to it belongs to no other remedy of which we know."

Catarrh of head, nose, ears and throat, bronchial tubes, lungs, stomach, liver, kidneys, bladder and other pelvic organs can be cured by a course of Pe-ru-na. Dr. Hartman has used this catarrh remedy for nearly forty years with great success.

A book of sixty-four pages, instructively illustrated with cuts of the organs affected by chronic catarrh, sent free of charge by The Pe-ru-na Drug Manufacturing Company, of Columbus, Ohio.

only from the countries in which it is native, but will doubtless be furnished by seedsmen as soon as there is a demand for it. The writer is not informed as to the address of any dealer in the seed, nor as to the price at which it sells. Ground is prepared as for potatoes, and the seed is planted in rows or drills. The value of the crop to the farmer will depend upon the quality and yield, both of which are untested in Kansas. Our correspondent's suggestion as to a stock company is good.

Farmers' Institutes.

Farmers' institutes have been appointed for the following places and dates, and will be attended by the representatives of the Agricultural college named:

Peabody—January 30-31, Profs. Mayo and Lantz.

Randolph—January 30-31, Profs. Georgeon, Winchup and Will.

Hutchinson—February 6-7, Profs. Pope and Mason.

Overbrook—February 13-14, Profs. Pope and Olin. Mrs. Nanny Badsky, Secretary.

Russell—February 20-21, Profs. Hood and Mayo. H. M. Lang, Secretary.

Cherryvale—February 20-21, Profs. Graham and Mason. B. F. Moore, Secretary.

Concordia—February 27 and 28, Profs. Georgeon and Will. W. S. James, President.

Pleasanton—January 30-31, Prof. Hitchcock. Hon. C. E. Morse, Secretary.

Burpee's Farm Annual for 1896.

Larger and more complete than ever before, this is now a handsome book of 184 pages, with elegant colored plates and hundreds of illustrations from nature. While the price is 10 cents (less than actual cost in quarter-million editions), it is mailed free to all planters who intend to purchase. Beautifully bound, the cover, painted in ten colors, appropriately shows on front the new Dwarf Sweet Pea, Cupid, the floral wonder of the age, which grows only five inches high, completely covered with bloom. The back pictures a portion of Fordhook farm, above which is displayed the well-known motto: "Burpee's Seeds Grow." Within is presented a feast of good things—spread over 184 pages, all well worth reading. An interesting account of Fordhook—the model seed farm of America—is followed by a review of useful books on garden and farm topics, free as premiums. Then come the choicest vegetables, including rare novelties of unusual merit; improved farm seeds and finest flower seeds, including many novelties of rich beauty; the celebrated Scott roses and other selected plants, such as cannot be had of the local florist, but which can be sent safely by mail, and summer-flowering bulbs. As advertised elsewhere, the publishers, Messrs. W. Atlee Burpee & Co., Philadelphia, will be pleased to send a copy free to any of our readers who name this paper when writing for it.

Unequaled Service

Denver to Chicago via Kansas City is given via the UNION PACIFIC and Chicago & Alton railways.

Through Pullman Sleepers, Pullman Dining Cars and Free Reclining Chair Cars leave Denver Daily. The Union Pacific is the great through car line of the West. Ask your nearest ticket agent for tickets via this line.

E. L. LOMAX,
Gen. Pass. and Ticket Agent,
Omaha, Neb.

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Remember that we furnish the *Breeder's Gazette* and the *KANSAS FARMER*, both papers, for the price of one, for a year for only \$2. A splendid business investment.

Horticulture.

MARKETING VEGETABLES AND FRUITS.

EDITOR KANSAS FARMER:—In past years, the average Kansas farmer raised nothing but corn to feed more hogs, etc., but of late years more diversified farming is being followed, and we have large orchards, vineyards and gardens, and the amount of root crops now raised vastly exceeds what it used to. With this change of farming comes the need of new machinery particularly adapted to special crops, and most especially there is a need for a first-class farm paper like the KANSAS FARMER, that will enable one to keep up with the times.

Press writers must study foreign ways and improvements, and write it up for local papers. Thus I became familiar with the Carman No. 1 and No. 3 potatoes through the Eastern press, and after trying them and writing up results to the FARMER, I am asked on all sides about them. These potatoes are entirely too high for distribution before another year, say \$15 to \$25 per bushel.

Eastern farmers have practiced diversified farming for some time and we first learn of valuable implements from them. From them I got the idea of using crates to handle vegetables in, and sent for 100 of them, costing me \$12.50 laid down here in the flat. It is of these I wish to speak. There are many styles of crates, all of which are good for the intended purpose, but mine are the all-slatted bushel crates, made of basswood slats, making a box twelve and one-half inches deep, thirteen and one-half inches wide and sixteen inches long, and when handled empty one can be set on one end in another and a third inverted over it, thus occupying only two-thirds of the space of loaded ones, and thus in bundles of three they are much easier handled than singly. In handling light early vegetables, a home-made crate of board ends and lath sides and bottom is the cheapest, but for tomatoes, potatoes and apples the one above referred to is much the best.

It is a constant fight for supremacy among growers of vegetables, and the one who can market his produce in the nicest shape with the least trouble to store-keeper and self is the one who will succeed. The first qualification in the vegetable man is absolute honesty, which must never be deviated from, no matter what the cost. Then, with the improved manner of manuring and plowing, with the best of seeds of the best varieties, followed by the very best manner of marketing the goods, most any one can raise vegetables, but to successfully market them requires talent that must be deeply studied in these days of close competition.

About the first crop to be marketed is radishes. These are pulled, washed, selected, six put in a bunch, and tied with twine, packed in a crate and crate and all left at the store with the correct number of bunches, date, price on a tag on each crate, also grower's name, which in all cases should be a guaranty and a help to the store-keeper in selling the goods. Such a reputation is only secured by a close study of all the little details and thoroughly lived up to, and is worth a large sum to any producer. Three times a week fresh ones are taken to town and left in the crate at the store, the full amount being credited, and all the old ones taken back credited, so the store-keeper is at no loss at all, and by fully guaranteeing everything a trade is soon established that no other man can undermine.

After radishes come peas, beets, turnips, early potatoes and a host of other things that keep one busy and are in good demand. Nearly all these things must be handled with care, and proper crates are indispensable. Suppose we have a couple of acres of Improved Early Ohio potatoes that were planted about March 15, and were ready to dig June 1. One must dig them on a pleasant day, when the ground is not wet. They must be put into the crates with great care, just as one would eggs, the crates placed in a wagon and taken

to a cool cellar, and one is then ready to market them on a few minutes' notice, at, for instance, a muddy time when all must eat but no one can dig potatoes. These crates must be left in the store and the merchant generally delivers the potatoes in them, and thus they are handled but once.

If one can manage to sell one's vegetables, the money made from such garden stuff is enormous. I always sort all garden stuff, and never, under any circumstances, allow any small or inferior article to go to market. For marketing apples and peaches there is nothing to compare with crates. In displaying vegetables, such as onions, potatoes, cabbage, melons, etc., at the local fair, a well-made crate is half of it. I make small ones, holding a peck each, out of planed laths, for potatoes and fruit, and a whole load can be taken to the fair and not in the least injured. CLARENCE J. NORTON. Morantown, Kas.

Prevention of Blight—Planting the Orchard.

EDITOR KANSAS FARMER:—I will now endeavor to comply with your request in regard to my experience with apple blight, etc. I had hardly expected to give my experience to the world until I had given it another trial, but as you think it worthy, I will give it as I have it to date.

In the spring of 1887, I planted a small orchard. On the south side I planted the ground to blackberries. In the spring of 1891 I noticed traces of blight on the first row of apple trees next the blackberries. The row was principally Northern Spy. My first conclusion was that this particular variety was not suited to this climate. One of my neighbors, an extensive apple-grower for this country, shared the same belief with me, and was very much exercised for fear the disease, which his Bible ("Downing's Fruit and Fruit Trees of America") said was a fungous disease, would spread to his orchard also. After a careful study of the subject from Downing's standpoint, my neighbor concluded he could guard against the disease by withholding water late in the fall, as Downing claims that blight originates from frozen sap. Up to this time my neighbor had no blight in his orchard. He has plenty of it now, and it has no respect for varieties, thriving on the Ben Davis and Missouri Pippin equally as well as on the Northern Spy and Minkler.

During the time from 1887 to 1894, the strip of ground planted to blackberries was cultivated and irrigated up to time of ripening fruit, after which it was allowed to take care of itself and usually got very dry late in the fall, and during that time that row of trees adjoining continued to blight until I had almost despaired and threatened to use the ax and remove them. In August, 1894, I concluded I would clean up the blackberry patch and sow it to turnips. I did so, and being a little late, I watered very heavily and continued to water until freezing weather. In 1895 there was no sign of blight on that row. In 1894 I dug a root cellar near another apple tree, and from fear of caving it in when I was irrigating late in the fall, I was very careful not to allow very much water to run down around this tree. That was the only tree that showed any blight for me in 1895.

For myself, I am thoroughly convinced that this suggestion is worth following up, as I have practiced irrigation on the balance of my small orchard each season and have had no blight except where neglected the fall previous.

I know of a young orchard a short distance from my place that is planted on a south hillside, and while I am not thoroughly informed as to his manner of watering, I do know that he has been depending on the ditches for his supply of water, and as the water is usually shut out of the ditches rather early in the fall, it is natural to suppose that the trees have usually gone into winter quarters very dry, and this last season as I was passing by, it seemed to me that four out of five, and perhaps more, of the trees were blighted very badly.

As to the preparation of land, plant-

ing and cultivating an orchard under irrigation anywhere here in the valley or on similar soil, I would thoroughly stir to a depth of ten inches, mark off and plant trees thirty feet apart each way, planting the space between the rows in some cultivated crop until trees come into good bearing. After that I would simply keep clean and irrigate at least ten months out of the twelve, spray for codling moth, irrigate for borers and blight, and wrap with straw or stalks for rabbits.

A. S. PARSON.

Garden City, Kas.

Protection of Fruit Trees From Mice and Rabbits.

Purdue University Agricultural Experiment Station Newspaper Bulletin No. 17, James Troop, Horticulturist:

"Young fruit trees are very apt to be injured during the winter by mice and rabbits gnawing the bark. This is especially true if the orchard has been neglected during the summer season. A heavy growth of grass or weeds about the trees make excellent nests for mice during the winter, and where rubbish heaps have been allowed to accumulate in the orchard, especially if it is near a forest, rabbits will almost invariably congregate. Under these conditions the young trees will almost certainly suffer from the ravages of one or both of these pests. It is important, therefore, that this matter be attended to at once.

"There are various remedies recommended for these evils, the first and most successful of which is clean cultivation. If this has not been followed then remove all loose mulch, dead grass and rubbish of various kinds from the immediate vicinity of the base of the trees. This will destroy the nesting places of mice and will go far towards protecting the trees from injury. Then in addition to the above, make a smooth, compact mound of earth, a foot high, about the base of the trees, just before the ground freezes. These two precautions will be all that is necessary to insure protection against mice.

"Rabbits are not so liable to injure trees where there are other small plants, such as young grape vines or nursery stock in the immediate vicinity of the orchard, as they seem to delight in cutting off the young tender branches in preference to gnawing the bark of older trees. It is always safe, however, to protect the trees, and a favorite method is to wrap the trunks with closely woven wire screen, such as is used for screen doors. This may be cut into strips eighteen inches to two feet in length and wide enough to completely encase the body of the tree. These may be tacked on or the edges woven together, and if they do not fit too closely, may be left on for several years. Instead of the wire screen, ordinary roofing tin is sometimes used. Sheathing paper is also used with good effect, placed on the tree in a similar manner. If one is located near a slaughter house, a very convenient as well as effectual method is to wash the trunks of the trees with blood or rancid grease. This, however, is liable to be washed off by rains, and would need renewal several times during the winter. These and doubtless other remedies, will prove effectual if properly applied. By giving this matter immediate attention, much damage to our young orchards may be prevented."

Cure for Inebriety.

Let any victim of the liquor habit eat tomatoes, sprinkled with salt, consuming as much each day as possible. Let the eating of tomatoes and salt to excess be continued for several days, and the tomato-eater will find liquor offensive, undrinkable, ungrateful to the stomach, so much so that it will be thrown up. This is the cheapest cure yet heard of and is said to be effective. This from an exchange recalls to mind the opinion of an eminent physician that the desire for liquor is, comparatively speaking, unknown to those who live largely on sub-acid fruit, and that one of the mildest and speediest cures for the liquor appetite is an habitual fruit diet.—Exchange.

There is no better proof of the excellence of Dr. Bull's Cough Syrup than that it is recommended by leading physicians.



Disease is an effect, not a cause. Its origin is within; its manifestations without. Hence, to cure the disease the cause must be removed, and in no other way can a cure ever be effected. Warner's SAFE Cure is established on just this principle. It realizes that 95 PER CENT.

of all diseases arise from deranged Kidneys and Liver, and it strikes at once at the root of the difficulty. The elements of which it is composed act directly upon these great organs, both as a food and restorer, and, by placing them in a healthy condition, drive disease and pain from the system.

For the innumerable troubles caused by unhealthy Kidneys, Liver and Urinary Organs; for the distressing Disorders of Women; for all Nervous Affections, and physical derangements generally, this great remedy has no equal. Its past record is a guarantee of continued performance. WARNER'S SAFE CURE CO., London, Rochester, Melbourne, Frankfort, Toronto, Paris.

Black Rice Corn.

The introducer of this says: "This novelty among the non-saccharine sorghums is a cross between the white millo maize and the Jerusalem corn, and combines the good points of the two. From the Jerusalem corn it has the large yield of grain and from the



millo maize the best yield of fodder. It produces the most fodder and yields the most grain of all the different kinds of non-saccharine sorghum now being grown here in the Western States. It grows five to six feet high, has a stocky stem with many side leaves. The heads grow on a goose-neck stem and weigh from one-half to one pound each. Seed is white and not as flat as the seed of the Jerusalem corn. It will withstand drought as well as any of the other non-saccharine sorghums, and does not shell out as easily in the field as the others do."

Ayer's hair vigor is certainly a remarkable preparation and nothing like it has ever been produced. No matter how wiry and unmanageable the hair may be, under the influence of this incomparable dressing it becomes soft, silky and pliable to the comb and brush.

THE BEST SEED CORN

Send five 1c. stamps for book and sample packages. J. B. ARMSTRONG, Shenandoah, Iowa.

A. H. GRIEBA, Prop'r Kansas Home Nurseries, Lawrence, Kas., grows trees for commercial and family orchards—the Kansas Raspberry, Blackberries, standard and new Strawberries—also shade and evergreen trees adapted to the West.

10 NOVELTIES FOR 25c.

Our collection of Ten Grand Novelties contains: Cabbage, Worldbeater; Cucumber, Cool and Crisp; Lettuce, New Iceberg; Musk Melon, The Banquet; Water Melon, Cole's Early; Onion, Prizetaker; Radish, New Cincinnati Market; Tomato, New Imperial; Squash, Faxon; Turnip, Early White Milan. One trial pkt. of each, only 25c. in stamps or silver. Handsome Garden Annual FREE. COLE'S SEED STORE, PELLA, IOWA.

In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

The Dairy Division.

The appointment of J. H. Monrad as a dairy expert by the United States Department of Agriculture, mentioned a short time ago, was but a link in the chain, or one cog in the wheel of the Dairy division of the United States Department of Agriculture.

The chief of the division is Major Alvord, formerly of the Oklahoma Experiment Station. His principal assistant is R. A. Pearson, a graduate of Cornell University, who has for some years been engaged in practical creamery work and high-class milk business in Philadelphia.

Two general clerical assistants have been transferred to the division from other offices of the department.

Besides Mr. Monrad, whose headquarters are in Chicago, the following gentlemen have been appointed experts: Mr. Levi Chubbuck, Secretary of the Missouri State Dairymen's Association, for that State, Kansas and vicinity, and Mr. B. D. Gilbert, for several years Secretary of the New York State Dairymen's Association, and also President of the Utica Dairy Board of Trade, who is to make a special report on the cheese market and cheese trade in that State and city of New York.

With these experts in the various localities, which take in the best dairy districts of the country, the information that the dairy division will be able to furnish the people through its various bulletins will be of great value, and will help extend knowledge of the importance and value of the dairy industry.

Annual Meeting National Butter and Cheesemakers' Association.

The fourth annual meeting of the National Butter and Cheesemakers' Association will be held at Cedar Rapids, Iowa, during the whole of the last week of February, 1896. A working creamery using 5,000 pounds of milk daily will be in operation, and the chance of a lifetime afforded to witness in operation all of the different and latest patterns of butter and cheese-making machinery, as well as refrigerating and other kinds of apparatus allied to the trade. This will be under the supervision of a first-class creameryman. Processes will be described and illustrated lectures given. Every section of the dairy-producing districts will be represented. Such an opportunity has never before been offered, and it is hoped that the men interested will avail themselves of the grand educational opportunity offered. In addition, liberal prizes will be given for the best exhibits of butter and cheese. A grand prize, an original design of a butter-maker at work, cast in pure silver and valued at \$500, will be given for the best package of butter. Competition open to the world and the trophy emblematical of the championship. A valuable silver cup will be given to the highest score in the State making the largest exhibit, providing such score does not win the grand prize; then, and in that event, the cup will go to the person making the highest score in the State making the second highest exhibit. To the makers of the best package of separator butter, the best package of gathered cream butter and the best cheese, handsome gold medals. To the makers of the second best packages in these classes, beautiful silver medals. To all makers scoring 90 and above who do not win any of the above prizes, handsome bronze medals. To all makers exhibiting, an elegantly engraved diploma, giving score and class. Friday evening the members of the association will have a banquet, first-class in every respect, and followed by a grand ball for all members of the association and their guests, the ladies of Cedar Rapids. The grand prize, cup and medals will be awarded at the banquet, and the meeting will close with the Saturday morning session. Every maker of creamery butter and factory cheese in the United States is invited to become

a member. Membership \$1, annual dues 50 cents. For further information address the Secretary, E. I. Burridge, 79 Fifth avenue, Chicago, Ill.

We Lose by Fraud.

In 1880 the United States exported cheese to the value of \$12,170,000. In 1894 the United States exported cheese to the value of \$7,180,000—a decrease in exports in fourteen years of 40 per cent.

In 1880 Canada exported cheese to the value of \$3,900,000. In 1894 Canada exported cheese to the value of \$15,500,000—an increase in fourteen years of nearly 400 per cent.

In Canada the manufacture of filled and skimmed cheese is prohibited by law, backed up by strong public sentiment. From the humblest cheese-maker to the highest government officials the energies of the people have been bent toward honest, wholesome cheese and world-wide markets.

In this country, in marked contrast with Canada, many people have been working to produce cheaper cheese and not better cheese. Within our own State trade has been greatly injured in past years by skimmed cheese and more recently by filled cheese. This has now been stopped by law. Illinois manufactures enormous quantities of filled cheese each winter, branding much of it as Wisconsin goods, thus stealing what should be a good name and breaking down our markets with a fraud product.

New York and Wisconsin are the great cheese exporting States. Wisconsin is by nature the greatest cheese State in the Union, made so by the natural adaptation of the soil to nutritious grasses, the pure water and the cool nights in summer time. Our commonwealth has lost millions of dollars because of the laxness of our own people in the matter of high quality and honest goods, and now that reformation has come all our good acts will count for little, so long as other States make fraud cheese and brand them Wisconsin-made.

We need a United States law which shall place filled cheese in the same category with oleomargarine, licensing the manufacturers producing it, placing a small tax on each pound manufactured, and holding up its identity until it reaches the consumer.—W. A. Henry, University of Wisconsin.

Dairy Notes.

Have your cow stables warm yet well ventilated.

A popular feed for the cow this winter should be ground oats.

To be a good dairyman requires intelligence rather than large capital.

The secret of success in the dairy is to reduce the cost of making good goods.

Have your cows gentle by kind treatment if you want big returns in milk and butter.

No business requires to be kept more emphatically under one's thumb than does successful dairying.

If much corn stover is fed during the winter add bran, corn meal, and either oil meal or cottonseed meal if a good flow of milk is desired.

Nearly all the large dealers in oleo in the principal cities of Pennsylvania have agreed to stop the sale of the goods. They will hereafter keep the real thing.

The Dairy and Food Commissioner of Minnesota has seized a car-load of butterine at Duluth, amounting to 25,000 pounds and belonging to the Armour Packing Co., of Chicago. The Minnesota law requires that the stuff shall be colored pink, and Armour did not so color it.

City Chemist Kennicott, of Chicago, reports that there is very little poor milk being sold in the city at the present time, owing to the vigorous crusade waged against the milk dealers the past three months. Out of 100 samples recently tested he did not find one below grade. This shows that the farmers are furnishing a large part of the milk.

Salvation Oil should always be kept in the kitchen. For the ready cure of scalds and burns it has no equal. 25 cents.

Extracts From the Berkshire Year Book.

Prominent among the good qualities that make Berkshires highly esteemed may be mentioned these:

First—Great muscular power and vitality, which render them less liable to accident and disease than any others.

Second—Activity, combined with strong digestive and assimilating powers, hence returning a maximum quantity of flesh and fat for food consumed.

Third—The sows are unsurpassed for prolificacy and as careful nurses and good sucklers.

Fourth—Their pigs are strong and active and vigorous at birth, and consequently less liable to the mishaps so common to them when very young.

Fifth—They can be fattened for market at any age, and yet, if desirable, fed to any reasonable weight, from 600 to in some instances more than 1,000 pounds.

Sixth—Their flesh is of the highest quality of pork and quite as marbled as that of any other breed, and much more so than that of several others.

Seventh—Power of the boar to transmit the valuable qualities of the breed to his progeny when crossed with others.—F. D. Coburn, *Columbian Exposition Report.*

Read Ayer's Almanac, which your druggist will gladly hand you, and note the wonderful cures of rheumatism, catarrh, scrofula, dyspepsia, eczema, debility, humors and sores by the use of Ayer's Sarsaparilla, the only sarsaparilla admitted at the World's Fair.

Waterproof:

Vacuum Leather Oil, if freely applied. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swob, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to VACUUM OIL COMPANY, Rochester, N. Y.

By return mail. Full description. **FREE** MOODY'S New Ready Cut Waist Linings. Also latest skirt and sleeve pattern and new complete directions for cutting, basting, boning, stitching, trimming, making and finishing entire dress. K. C. LINNICO CO., 1065 Main St., Kansas City, Mo.

J.I.C. DRIVING BIT **Still King** THE BIT OF BITS. Will control the most vicious horse. Sales Greater Than Ever. Sample mailed XC for \$1.00 Nickel, \$1.50. Stallion Bits 50 cts. extra. **RACINE MALLEABLE IRON CO., RACINE, WIS.**

FORD'S 1896 BOOK OF CHOICE TESTED GARDEN FLOWER & FIELD SEEDS Largest yielding corn, oats & potatoes. Fruits, plants and trees. Accurate descriptions. Money-saving prices. Write today it's free. If you plant a tree or sow a seed you need it. If you are a market gardener, let us know it. Mention this paper. Frank Ford & Son, Ravenscroft, O.

Hosts of people go to work in the wrong way to cure a **SPRAIN,** when St. Jacobs Oil would cure it in the right way, right off.

First Prize and Grand Sweepstakes

At the Granite State Dairymen's Convention, at Lancaster, N. H., Dec. 26 and 27, 1895, awarded to butter from cream separated by the

Improved United States Cream Separator,

The award going to Samuel T. Noyes, Colebrook, N. H. Send for circulars of the Separator that makes premium butter.

PRICES, \$75.00 AND UP.

Made under patents owned exclusively by us. Beware of imitating and infringing machines.

The U. S. stands on its Own Bottom.

Agents Wanted in every Town and County where we have none. Everything for the Creamery and Dairy.

VERMONT FARM MACHINE CO., - - - Bellows Falls, Vermont.

SALZER'S NORTHERN GROWN HURRAH, FARMERS! **GRASS AND CLOVER SEEDS.** Sheat and slug. The millennium is coming. Fine, luxuriant pastures, rich meadows, producing tremendous yields, are now made possible on every soil and in every state by sowing Salzer's Extra Grass Mixtures. Grasses and Farm Seeds have long been our hobby, and today we rejoice in having the largest **FARM SEED TRADE IN THE WORLD.** In addition to this we are the only seedsmen growing Grasses and Clovers for seed in America. Already a dozen seedsmen are imitating our illustrations, our descriptions, our grass and clover seed mixtures. To get the genuine, fresh, full of life and vigor, buy of Salzer. **YOU WON'T NEED TO WAIT A LIFETIME** for a good stand of grass, for we have grasses and clovers, which, if sown in April, return bountiful yields in July; others yielding well the first, but better the second and third years. Salzer's Giant Spurry and Giant Incarnate Clover, so also Sand-Vetch, Teosinte, Sacaline and Lathyrus are the most wonderful fodder plants of the century! Catalogue tells you. **\$400 IN GOLD PRIZES.** That is what we pay on oats, barley and corn. Salzer's new oat wonder—Silvermine (Nameless Beauty) cropped 209 bushels in 1895. You can beat that in 1896 sure! Barley 116 bushels. Corn—well we won't say it is too astonishing—but it will revolutionize corn growing! **EARLIEST POTATOES.** Always pay—dozens of farmers had Salzer's Earliest Potato in market and sold at \$1.50 a bushel inside of 42 days! That pays. The editor of the "Rural-New Yorker" tested Salzer's Early Wisconsin, and gives it a yield of 726 bushels per acre, and we have heavier cropping sorts too. Lots and lots of them! **CHOICE VEGETABLES.** A splendid stock of fine vegetables. Our \$5 pkgs. Earliest Vegetable Seed for \$1, postpaid, will give you rare vegetables two weeks ahead of your neighbors. If you garden for market and want to make money, send 2 cents for Wholesale Market Gardener's List. **OUR MAMMOTH SEED BOOK, 148 pages together with 10 packages Grain and Grasses, including above Prize Corn, Oats, and Barley, free upon receipt of 10c. postage.** **JOHN A. SALZER SEED CO. LA CROSSE WIS**

Gossip About Stock.

Adam Rankin, of Olathe, Kas., writes to continue his poultry advertisement and says: "It pays, and poultry doing well, and I have sent out twenty-five birds since I sent in my 'ad.,' and still have as many more first-class birds."

Fairview stock farm of Short-horn cattle, owned by E. H. Littlefield, of Newkirk, Okla., is one of our new customers. The stock and the owner are well known as the right sort, and our readers who need good stock need not hesitate to send him their orders.

Attention is directed to the new breeder's card of our old customer, W. S. Attebury, of Rossville, Kas., who states that his herd is in prime condition and the new crop coming along in good shape. For immediate supply he has fine fall pigs and a number of choice sows due to farrow in March and April.

We made an error in a recent issue of the FARMER in saying that Dr. P. A. Pearson, of Kinsley, Kas., was out of the breeding business. The Dr. writes us that he is not out of or going out of the breeding business, but that owing to his not having time to give it so much personal attention, he will only breed from a few select sows; that he still has a few young ones for sale; that he has added new blood to his herd. Hogs in best of health.

R. Scott Fisher, of Holden, Mo., will close out his entire herd, consisting of about seventy head, on February 13. Mr. Fisher is going to change locations in March and is compelled to close out. Col. Jas. W. Sparks will preside over the beauties. Everybody invited. Lunch at 12 o'clock. Several show pigs are included and there is an opportunity to secure one at your own price. Send for catalogue. Don't fail to attend. Notice change in Mr. Fisher's advertisement.

President Tom Hubbard of the Kansas Improved Stock Breeders' Association and a big breeder of pure-bred swine, at Rome (Kansas), caused consternation amongst the score-card fiends among the swine breeders by stating that he had privately scored a Berkshire and Poland-China before leaving home, and he discovered he had a 123-point pig. Now comes Geo. W. Berry, with this statement: "How did T. A. Hubbard raise the 123-point pig? He bought a boar from the Select herd about four years ago, and from the splendid boar selected last week, he intends to raise the score to 130."

Break Up the Clods.

Every clod of earth on the fields is a nugget of gold, so to speak, which contains within it equivalent elements of value. But as the gold of the nugget is only procured by crushing and separating the rock, so the gold of the clod is only procured by crushing and dissolving it by the rains and air, so that the crop can separate the valuable plant food (the farmer's gold) from it. How to crush these clods and release the rich plant food in them is the question for the farmer. We can tell him how, viz., by using a perfect implement, such as the "Acme" Pulverizing Harrow, Clod Crusher and Leveler, which has been used by thousands of farmers without one case of disappointment or dissatisfaction. It crushes the clods better than a roller; tears them to small particles and forms them into compact yet mellow soil, better than any other, or all other, harrows combined, and does all this at one operation. See advertisement on page 62.

STATE OF OHIO, CITY OF TOLEDO, ss. LUCAS COUNTY.

FRANK J. CHENEY makes oath that he is the senior partner of the firm of F. J. CHENEY & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of HALL'S CATARRH CURE.

FRANK J. CHENEY. Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.

SEAL.

A. W. GLEASON, Notary Public.

Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c.

Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

DO YOU KEEP SHEEP

Read the American Sheep Breeder. Established 14 years. Thirty six pages, devoted to Sheep, Mutton and Wool. Edited by highest authorities. Elegantly illustrated. Veterinary Dept worth ten times subscription price. Send stamp for sample copy and terms to new subscribers. Mention this paper. AMERICAN SHEEP BREEDER. (W. W. BURCH, Manager.) Chicago, Ill.

TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order. Special:—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates, cash with order. It will pay. Try it!

FOR A PRACTICAL BUSINESS EDUCATION address Coon's National Business College, Kansas City. Self-help furnished students of limited means.

ALFALFA CLOVER.—Just received, a car-load choice seed. For prices address Topeka Seed House, 306 Kansas Ave., Topeka, Kas. S. H. Downs, Proprietor.

SWEET PEAS—Thirty varieties, choice sorts, all colors, mixed. Five-cent papers postage paid. Ornament your home with these sure-to-grow, attractive flowers. All other kinds of flower, garden and field seeds. Address Topeka Seed House, 306 Kansas Ave., Topeka, Kas.

DISEASES OF YOUNG AND OLD MEN.—Private and skin diseases a specialty. Wm. H. Richter, Ph. G. M. D., 503 Kansas Ave., Topeka, Kas.

WANT—A situation to keep house for widower's family. Address Box 3, Seabrook, Kas.

HOMES UNDER IRRIGATION!—Fruit lands, dairy farms. Sure crops. No hot winds. Good markets. Elegant climate. Address L. D. Kenison, Fowler, Otero Co., Colorado.

WANTED, TO EXCHANGE—Some choice Part-ridge and Buff Cochins cockerels or pens of either for good pigs, any pure breed. Adam Rankin, Olathe, Kas.

SEE THIS OFFER!—For sale, pure-bred Black Langshans and S. S. Hamburg cockerels, scoring from 90 to 92 points. Eggs from prize-winning birds. Write for prices. W. E. McCarter & Son, Box 150, Topeka, Kas.

WILL GIVE—Eighty acres good land, clear of incumbrance, title perfect, for a registered Jersey bull that suits me, delivered here. D. H. Browne, Lakin, Kas.

FOR SALE—Fifteen thousand pounds Red Kafir corn, 4,000 pounds Honey Dew cane seed. Price 50 cents per 100 pounds. Or will exchange for good young team. J. D. Rauck, Hazelton, Kas.

SORGHUM SEED FOR SALE.—For prices, write S. J. H. Foose, Fort Scott, Kas.

POULTRY BOOKS—"A B C of Poultry Culture," 25 cents; "Poultry House Plans," 25 cents; "500 Questions and Answers," 25 cents; "Uncle Rastus, or Possum Creek Poultry Club," 35 cents; three numbers Poultry Review 10 cents. All \$1. THE REVIEW, Chatham, N. Y.

BOOK FREE.—Every subscriber to the Practical Dairyman, of Chatham, N. Y., at 50 cents a year gets (until March 1) our valuable book on "Cattle and the Dairy" free. Written in Questions and Answers.

FOR SALE—Japanese persimmon trees, grafted on natives. A. W. Hendry, Lexington, Oklahoma.

FOR SALE—Southern Red Rust-proof oats, pure seed. Also Amber cane seed. S. Elk, Wiley, Kas.

FOR SALE—One gray pony, 10 years old; one sorrel pony, bald face, 2 years old, and one bay pony, bald face, coming 3 years old, at my place, four and a half miles north of Dover, Kas. D. G. Sappenfield.

WANT TO SELL—An imported Clyde stallion, or would exchange for another of as good quality. J. C. Evans, Valley Falls, Kas.

WHITE HOLLAND TURKEYS AND CEYLON penafowls for sale by R. E. Trooper, Sylvan Lake Camp and Stock Farm, Frankfort, Kas.

WANTED—Buyers for Large English Berkshires. One hundred pure-bred pigs, farrowed in March and April, are offered for sale at from \$10 to \$15 each. Farm two miles west of city. Riverside Stock Farm, North Topeka, Kas.

FOR EXCHANGE—Well-bred horse stock, all ages, for farm or cheap southwestern Kansas land. W. G. Baker, Ellsworth, Kas.

HEREFORD BULL FOR SALE—Some fine ones, coming yearlings, pure and grades. W. G. Baker, Ellsworth, Kas.

WANTED—Sorghum and alfalfa seed, one M. B. gobbler and one peahen, in exchange for pure-bred Poland-Chinas or Light Brahmas. J. H. Taylor, Pearl, Kas.

SPARAGUS ROOTS.—Ten thousand two-year-old roots for sale at Topeka Seed House, 306 Kansas Ave., Topeka, Kas.

FOR SALE—Thoroughbred Poland-China hogs. Both sexes, bred by Ideal U. S., he by Ideal Black U. S., the \$1,000 hog. Wm. Maguire, Haven, Kas.

DOUGLAS COUNTY NURSERY—Has for spring trade a full line of nursery stock, including half a million one and two-year-old hedge and forest tree seedlings. Send for catalogue. Wm. Flasket & Son, Lawrence, Kas.

FOR SALE—B. P. Rocks, Black and White Langshans, Buff and Partridge Cochins, Light Brahmas and S. C. Brown Leghorns, scoring from 91 to 94 points by wire. Adam Rankin, Box 442, Olathe, Kas.

SWEET POTATOES—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

SEND TO ARLINGTON NURSERY—Arlington, Reno Co., Kas., for surplus price list. On account of old age and failing health, I will sell the whole nursery, either with or without the land, at a great bargain. Write or call on B. P. Hanan, Proprietor.

FOR SALE—My herd boars, Riverside Model and the grand Poland-China upward, by Onward. Cannot use them longer. Will make some one the greatest bargain of their life. Young boars and gilts by them and imported boars at bargains. Satisfaction guaranteed or money refunded. O. P. Updegraff, Topeka, Kas.

HIGH-CLASS REGISTERED BERKSHIRES—For sale. Five gilts sired by Majestic Lad 32201. Imported Western Prince 32202, Onward II, 31186 and Berry's Champion (Vol. XIV). Berry's Champion for sale also. All selected and choice individuals. W. B. Vanhorn, Lawrence, Kas.

WRITE—To Alex. Richter, Hollywood, Kas., for information concerning sub-irrigation. Enclose 2-cent stamp for reply. Manufacturer of galvanized sub-irrigation pipe.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lacy backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

COPELAND MEDICAL INSTITUTE CURES CATARRH and kindred diseases. A free month to those beginning treatment before January 1, 1886. Write for symptom blank and particulars. Address 1024 Walnut St., Kansas City, Mo.

TWO-CENT COLUMN--CONTINUED.

FOR SHORT-HORN BULLS—All ages, extra fine, write F. C. Kingsley, Dover, Kas.

10 EXTRA FALL GILTS AND FIFTY SPRING pigs, the pigs sired by Tecumseh J. Corwin 10744 S. and the great breeding and show boar Riley Medium 12306 S. E. T. Warner, Princeton, Franklin Co., Kas.

FOR SALE—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$8 per acre. J. B. McAfee, Topeka, Kas.

YORKSHIRE HOGS, LEGHORN, LANGSHAN, Plymouth Rock Minorca and Silver Polish fowls bred in their purity. James Burton, Jamestown, Kas.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Matt job printing rooms, 900 North Kansas Ave., North Topeka.

FOR SHORT-HORN BULLS—Calves and yearlings, extra fine, write D. P. Norton, Council Grove, Kas.

SEVEN FIRST-CLASS BLACK JACKS—For sale or trade. Prices reasonable. Sam Weichselbaum, Ogden, Kas.

EMPLOYMENT—For farmers, their sons or daughters. I can give you \$50 per month. Write, enclosing a stamp. John D. Knox, 109 E. Fifth St., Topeka, Kas.

Salesmen Wanted!

\$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address, with stamp, King Mfg. Co., P. 20, Chicago, Ill.

THE STRAY LIST.

FOR WEEK ENDING JANUARY 9, 1896.

Shawnee county—C. T. McCabe, clerk. FILLY—Taken up by Israel Ward, P. O. Watson, one dark brown filly, 3 to 4 years old, right hip down; valued at \$18. GELDING—Taken up by Benjamin Vance, P. O. North Topeka, one bay gelding, 1 year old, small lump on navel; valued at \$8. MARE—By same, one black yearling mare, white strip in face, warts on nose, left hind foot white to pastern joint; valued at \$8. HEIFER—Taken up by Benjamin F. Crossdale, P. O. Topeka, one Holstein heifer, 2 years old past, both ears cropped; valued at \$12. HEIFER—By same, one red heifer, 1 year old past, no marks or brands; valued at \$10. STEER—By same, one spotted steer, 1 year old past, right ear cropped; valued at \$12. MARE—Taken up by William G. Kinnard, in Soldier tp., P. O. Hoyt, one bay mare, 5 or 6 years old; valued at \$8. COLT—By same, one mouse-colored colt; valued at \$2.

Wichita county—W. S. Place, clerk. MARE AND COLT—Taken up by B. F. Morland, in West Edward tp., P. O. Kepple, December 8, 1895, one bay mare, 4 years old, white spot in forehead, black mane and tail; also one black mare colt, 2 years old; valued at \$15.

Chase county—M. K. Harman, clerk. STEER—Taken up by Geo. Drummond, in Diamond Creek tp. (P. O. Elmdale), December 10, 1895, one pale red steer, crop off right ear, under-bit out of left ear, branded on left hip and right side similar to U with diamond at end of one fork of letter; valued at \$15. MULE—Taken up by W. A. Wood, in Diamond Creek tp. (P. O. Elmdale), December 10, 1895, one sorrel mule, fourteen hands high, no marks or brands; valued at \$10.

Lyon county—C. W. Wilhite, clerk. COW—Taken up by G. W. Burtnett, in Agnes City tp., November 2, 1895, one pale red cow, dehorned, no other marks or brands; valued at \$10. STEER—Taken up by Wm. Moore, in Jackson tp., November 1, 1895, one two-year-old steer, red with some white, dehorned, no marks or brands. STEER—By same, in Jackson tp., one two-year-old steer, red with some white, crop off left ear, two slits in right ear, dehorned, no brands.

FOR WEEK ENDING JAN. 16, 1896.

Wilson county—V. L. Polson, clerk. STEER—Taken up by Orval Jeffers, four miles southwest of Fredonia, December 17, 1895, one red steer, 3 years old, branded on right hip with figure 11, under-bit in left ear, end of tail white, small white spot over left eye.

Elk county—S. D. Lewis, clerk. COW—Taken up by Jeff Hurst, in Union Center tp., December 20, 1895, one red cow, branded on left shoulder.

Coffey county—T. N. Bell, clerk. HEIFER—Taken up by Jacob Crothers, in Spring Creek tp., one red heifer, 1 year old past, under-bit in right ear, no other marks or brands. STEER—Taken up by L. G. Metzger, in Spring Creek tp., one light red steer, 1 year old past, bush of tail white, no other marks or brands.

FOR WEEK ENDING JAN. 23, 1896.

Rush county—W. J. Hayes, clerk. MARE—Taken up by John Nidens, in Lone Star tp., January 1, 1896, one gray mare, weight about 900 pounds. MULE—By same, one light-colored mare mule colt, about 3 years old, split in right ear; valued at \$13 each.

Cherokee county—T. W. Thomason, clerk. MARE—Taken up by J. B. Stephens, in Lowell tp., January 6, 1896, one dark roan mare, 2 or 3 years old, no marks; valued at \$15.

Hodgeman county—John L. Wyatt, clerk. TWO COWS AND A CALF—Taken up by J. B. Oldham, in Sawlog tp., December 20, 1895, two cows and a calf—red and white and black, branded 7 V on left hip. H with over top on left side, V on right hip; valued at \$30.

Cheyenne county—G. A. Benkelman, clerk. FILLY—Taken up by E. B. Tressel, in Wano tp., November 25, 1895, one light bay filly, 2 years old, weight 850 pounds, right hind foot white on inside, no marks or brands; valued at \$12. FILLY—By same, one dark bay filly, 2 years old, weight 850 pounds, star in forehead and right hind foot white, no marks or brands. COLT—By same, one bay horse colt, weight 600 pounds, no marks or brands; valued at \$10.

Labette county—J. F. Thompson, clerk. TWO SMALL MULES—Taken up by R. J. Cellars, in Hackberry tp., December 17, 1895, two small male mules, 3 years old, brown, no marks or brands; valued at \$30. MULE—By same, one brown mare mule, 2 years old, medium size, no marks or brands; valued at \$15. MULE—By same, one brown mare mule, 2 years old, small, no marks or brands; valued at \$15.

How to Irrigate.

Practical information for practical farmers and fruit-growers in the January number of The Irrigation Age. Price, 10 cents. No. 34 Clark street, Chicago.

CORK-FACED COLLARS advertisement featuring an image of a collar and text describing its quality and availability.

RHEUMATISM advertisement with text: "We positively guarantee a cure of the NO CURE worst cases of rheumatism by your taking a course of Kidneykura, which is the NO PAY safest and most certain cure and kidney diseases. Sold by druggists or sent by mail. Price \$1. Kidneykura. Try it and be convinced. A positive cure or you certainly don't have to pay for it. Send address for DR. KAY'S Hand Book of Valuable Receipts and a Treatise on Diseases, the most valuable free booklet published. Said to be worth \$5. DR. B. J. KAY MEDICAL CO., (Western office) 620 Sixteenth St., Omaha, Neb."

TO CALIFORNIA in 2 1/2 days advertisement for Santa Fe Route, featuring text: "From KANSAS CITY, over the Santa Fe Route! The California Limited is a new, strictly first-class fast train, vestibuled throughout, lighted by Pintsch gas, and running from Kansas City to Los Angeles and San Diego in two and a half days; to San Francisco, three days. Through compartment and palace sleepers, chair cars and dining cars. The California Limited leaves Kansas City 9:10 a. m., daily. G. T. NICHOLSON, G. P. A., Chicago."

TAKE THEM BOTH! advertisement for Semi-Weekly Capital, featuring text: "Perhaps you will prosper better and be happier and more thoroughly informed when you take both the KANSAS FARMER and the Semi-Weekly Capital. When you can get both for little more than the price of one. The Semi-Weekly Capital is issued twice each week, Tuesday and Friday—eight pages, fifty-six columns of choice reading matter every issue. It contains the full report of the Associated Press and the full run of Kansas news, all while it is fresh and interesting, besides a large amount of bright, spicy and interesting miscellaneous reading matter of every description. The KANSAS FARMER Co. has made arrangements with the publishers whereby it can offer The Semi-Weekly Capital and KANSAS FARMER for the very low price of \$1.50, or with Almanac and Kansas Year Book, \$1.65. Address KANSAS FARMER CO., Topeka, Kas. AGENTS WANTED Everywhere to canvass for our NEW GIFT BOOKS. Two rare beauties. Sell at sight. Liberal terms. Address Historical Publishing Company, Philadelphia, Pa."

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER.

RINGBONE.—I have a colt, 18 months old, that has been lame in the left fore leg for a year.

Answer.—Your colt most likely has a ringbone, and as the prospect for a cure is not very good with the best treatment, the most satisfactory plan will be to have it fired by a veterinarian or some one else who understands it.

PROBABLE GLANDERS.—My mare began to swell in one hind leg, then it extended to the other leg and along the belly, then bunches began to form and break and run, and now she is a mass of sores and discharges bloody matter at the nose and is very poor.

Answer.—The symptoms are of glanders and farcy. Call the State authorities and have the mare examined. Such cases can only be decided safely by a personal examination.

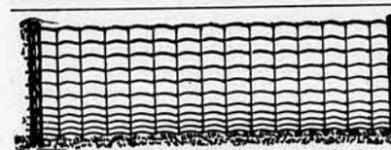


KENDALL'S SPAVIN CURE THE MOST SUCCESSFUL REMEDY FOR MAN OR BEAST. Certain in its effects and never blisters. Read proofs below: KENDALL'S SPAVIN CURE SHELBY, MICH., Dec. 16, '93.



\$12 MACHINE to weave your fence at 25 Cts. per Rod.

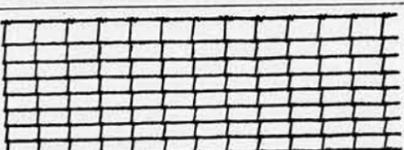
10 No. 10 Gal. wires, Cross wires No. 12. We will sell wire for a 100 rod fence for \$20. Agents Wanted. Catalogue Free. WIRE FENCE MACH. CO. Box 7 Mt. Sterling, O.



A FAIR PROPOSITION.

Six months free! Monthly Paper: Postpaid to anyone interested in the fence question. Under no obligations to buy of us, but use your best judgment.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.



Cabled Field and Hog Fence,

24 to 36 inches high: Steel Web Picket Lawn Fence; Poultry, Garden and Rabbit Fence; Steel Gates. Steel Posts and Steel Rails; Tree, Flower and Tomato Guards; Steel Wire Fence Board, etc. Catalogue free. DeKALB FENCE CO., 23 High St., DeKalb, Ill.

The Lightning Seed Sower!

Guaranteed to Sow from 50 to 80 Acres per Day (either Horse-back or Foot) of Clover, Timothy, Millet, Flax, and all kinds of same nature. Will be sent to any Postoffice on receipt of \$1.50. If not satisfactory money \$1.50 refunded. Circulars Free. Agents wanted. FRANZEN & BUSS, Golden, Illinois.

MEN of all AGES



Quickly, Thoroughly, Forever Cured.

Four out of five who suffer nervousness, mental worry, attacks of "the blues," are but paying the penalty of early excesses. Victims, reclaim your manhood, regain your vigor. Don't despair. Send for book with explanation and proofs. Mailed (sealed) free.

ERIE MEDICAL CO., Buffalo, N. Y.

Horse Owners! Try GOMBAULT'S



Caustic Balsam A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe colic, removes all Bunches or Blisters from Horses' and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossibles to produce scar or blemish. Every bottle sold is warranted to give satisfaction or its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland O.

SUCCESS in any and all of life's undertakings assured. Interesting circulars free. Address PROF. ANDERSON, K. F., Masonic Temple, Chicago.

MARKET REPORTS.

Kansas City Live Stock. KANSAS CITY, Jan. 20.—Cattle—Receipts since Saturday, 5,501; calves, 53; shipped Saturday, 2,200 cattle, no calves. The market was strong on natives and weak on western and Texans. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include SHIPPING AND DRESSED BEEF STEERS, TEXAS AND INDIAN STEERS, SOUTHWESTERN STEERS, ARKANSAS STEERS, TEXAS AND INDIAN STEERS, COWS AND HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include STOCKERS AND FEEDERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Hogs—Receipts since Saturday, 6,083; shipped Saturday, 2,312. The market was 10c higher. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Sheep—Receipts since Saturday, 448 shipped Saturday, none. The market was steady to strong. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Horses—Receipts since Saturday, 725; shipped Saturday, 257. There was a light request for horses and mules to-day. A number of buyers are in the city and a good demand is expected for mules and southern horses.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Chicago Live Stock. CHICAGO, Jan. 20.—Cattle—Receipts, 15,000; market about steady; fair to best beefs, \$3.50@4.50; stockers and feeders, \$2.50@3.85; mixed cows and bulls, \$1.40@3.40; Texas, \$2.90@4.12 1/2.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include St. Louis Live Stock. ST. LOUIS, Jan. 20.—Cattle—Receipts, 4,000; market steady to strong; native steers, \$3.25@4.00; Texas steers, \$2.70@3.75.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Kansas City Produce. KANSAS CITY, Jan. 20.—Butter—Creamery, extra separator, 21c; firsts, 18 1/2@19 1/4c; dairy, fancy, 15c; fair, 13c; store packed, fresh, 10@12c; off grade, 8c; country roll, fancy, 12c; choice, 10c.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include St. Louis Grain. ST. LOUIS, Jan. 20.—Receipts, wheat, 40,955 bu.; last year, 12,240 bu.; corn, 89,000 bu.; last year, 10,150 bu.; oats, 41,800 bu.; last year, 34,100 bu.; shipments, wheat, 22,900 bu.; corn, 32,000 bu.; oats, 15,000 bu. Closing prices: Wheat—Cash, 64c bid; February, 57 1/2c; May, 61 1/2c @ 61 3/4c; July, 57 1/2c bid. Oats—Cash, 18c bid; February, 18 1/2c; May, 20 1/2c.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Kansas City Grain. KANSAS CITY, Jan. 20.—Receipts of wheat here to-day were less than they were Saturday. There was a fair demand for car lots, but buyers were very slow to pay any advance for anything. One car of choice No. 2 hard with special billing, sold at 62c.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Chicago Grain and Provisions. CHICAGO, Jan. 20.—Receipts of wheat to-day, 45 cars; a year ago, 15 cars. Sales were as follows, track, Kansas City: Hard, No. 2, 2 cars 61c, 1 car poor 59c; No. 3, 1 car 58c, 1 car 52 1/2c, 4 cars 50c; No. 4, 1 car 50c, 1 car 48c, 2 cars 47c, 2 cars 45c; rejected, nominally 3 1/2@4c; no grade, nominally 30c. Soft, No. 2 red, 1 car 70c; No. 3 red, 1 car choice 68c; No. 4 red, 4 cars 56c, 1 car 55c, 4 cars 54c, 2 cars 53c; rejected, 2 cars 50c, 1 car 52c. Spring, No. 2, 5 cars 59c, 1 car 60c; No. 3, 2 cars 58c, 3 cars 57c, 1 car 56 1/2c; rejected, nominally 43@50c; white, 1 car 55c.

Table with columns: Jan. 20, Opened, High'st, Low'st, Closing. Rows include Wh't, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain. KANSAS CITY, Jan. 20.—Receipts of wheat here to-day were less than they were Saturday. There was a fair demand for car lots, but buyers were very slow to pay any advance for anything. One car of choice No. 2 hard with special billing, sold at 62c.

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Corn was 1/2c higher. Most of the receipts went to fill contracts, as usual, and spot sales were not large. There was brisk bidding for futures. Sales were: January, 20,000 bushels, 23 1/4c; 10,000 bushels, 23 1/4@23 3/4c; 5,000 bushels, 23 3/4c; 5,000 bushels February, 23c, 35,000 bushels, 24 1/4c.

Receipts of corn to-day, 123 cars; a year ago, 43 cars. Sales by sample on track, Kansas City: No. 2 mixed, 19 cars 23 1/4c, 4 cars 23 3/4c; No. 3 mixed, nominally 22 1/2@23c; No. 4 mixed, nominally 21@22c; white No. 2, 2 cars 23c, 2 cars 23 1/4c.

There was an improved demand for oats and they were firmly held. Receipts of oats to-day, 11 cars; a year ago, 18 cars. Sales by sample on track, Kansas City: No. 2 mixed, 1 car 16 1/2c; No. 3, 2 cars 16c, 1 car red 17c; No. 4, nominally 14 1/2@15c; no grade, nominally 13@14c; No. 2 white, 4 cars 18 1/2c; No. 3 white, 1 car choice 17 1/2c.

Hay—Receipts, 117 cars; market steady. Timothy—Choice, \$11.50@12.50; No. 1, \$10.00@11.00; No. 2, \$7.50@9.00; No. 3, \$5.00@6.50; fancy prairie, \$7.00; choice, \$6.00@6.50; No. 1, \$5.00; No. 2, \$4.50@5.00; packing hay, \$3.00@4.00.

St. Louis Grain. ST. LOUIS, Jan. 20.—Receipts, wheat, 40,955 bu.; last year, 12,240 bu.; corn, 89,000 bu.; last year, 10,150 bu.; oats, 41,800 bu.; last year, 34,100 bu.; shipments, wheat, 22,900 bu.; corn, 32,000 bu.; oats, 15,000 bu. Closing prices: Wheat—Cash, 64c bid; February, 57 1/2c; May, 61 1/2c @ 61 3/4c; July, 57 1/2c bid. Oats—Cash, 18c bid; February, 18 1/2c; May, 20 1/2c.

Kansas City Produce. KANSAS CITY, Jan. 20.—Butter—Creamery, extra separator, 21c; firsts, 18 1/2@19 1/4c; dairy, fancy, 15c; fair, 13c; store packed, fresh, 10@12c; off grade, 8c; country roll, fancy, 12c; choice, 10c.

Eggs—Strictly fresh candled stock, 14c per doz. Poultry—Hens, 5 1/2c; springs, 6 1/2c; roosters, 15c; young, 17 1/2c; turkeys, hens, 7@7 1/2c; gobblers, 7c; ducks, 7 1/2@8c; geese, fat, 5 1/2@6c; pigeons, 60c per doz.

Fruits—Apples, fancy, \$2.25@2.50 per bbl.; choice, \$1.75@2.00; common to good, \$1.00@1.50 per bbl.

DROVERS COMMISSION COMPANY, Kansas City, Mo., Stock Yards.

Obtain best results by shipping your CATTLE, HOGS and SHEEP to

ROBT. C. WHITE & CO. Live Stock Commission Merchants,

Rooms 106, 107 and 108 (formerly occupied by White & Rial), Kansas City Stock Yards. Commitments and correspondence solicited. Market reports free upon application. Telephone 2426.

Wm. A. Rogers. Robt. E. Cox. Fred W. Bishop. Live Stock Commission Merchants.

TRY US. We sell your Poultry, Veals, Fruits and all produce at highest prices. DAILY RETURNS. For standard prices and references, write F. I. SAGE & SONS, 183 Reade St., N. Y.

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GERMAN KALI WORKS, 93 Nassau St., New York. VETERINARY SURGEON. DR. U. B. MCCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

D. N. THOMPSON & CO. GRAIN COMMISSION, NORTH TOPEKA, - - - KANSAS.

Buy grain and hay in car lots on any railroad in Kansas or Oklahoma. Make advances on consignments. Correspondence solicited.

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is published quarterly by the Chicago, Rock Island & Pacific Railway. It tells how to get a farm in the West, and it will be sent to you gratis for one year. Send name and address to "Editor Western Trail, Chicago," and receive it one year free.

JOHN SEBASTIAN, G. P. A.

Kansas Tannery ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me.

M. C. BYRD, Lawrence, Kas.

GUNS

Rifles, Cal. 22, \$1.75 Rifles, Remington System \$3.50. Rifles Cal. 22, \$3.50. Cartridges, Cal. 22, per 1000, \$2.25. Ideal Breech Loading Single Gun, Cal. 12, \$5.00. Forehand Arms Co., Hammerless Cal. 12, Double Barrel Breech Loader, \$27.50. Winchester Loaded Shells, Cal. 12, per 100, \$1.20. Large Catalogue, 4cts., stamps, Schmelzer Arms Co., 541-543 Main St., Kansas City, Mo.

\$3 A DAY SURE.

Send us your address and we will show you how to make \$3 a day; absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work; absolutely sure; write at once.

ROYAL MANUFACTURING CO. BOX A B, DETROIT, MICH.

FREE AS A GENUINE 14 K. GOLD-FILLED WATCH and chain to every reader of this paper. Cut this out and send it to us with your address and we will send you FREE for examination the Best and Only Genuine American watch ever offered at this price. It is 14k. Solid Gold filled, with Genuine American Movement, 20 Year Guarantee, and looks like a Solid Gold Watch sold at \$40. Examine at express office and if you think it a bargain, pay \$7.50 and express charges, otherwise pay nothing. A Handsome Gold Plated Chain, sold in certain stores for \$3 goes free with each watch.

OUR GRAND OFFER. FREE One of these \$7.50 watches and a chain, if you buy or sell SIX WATCHES TO-DAY, as this price holds good for 60 days only. ROYAL MFG CO., 507 Unity Bldg, Chicago, Ill.

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The Poultry Yard

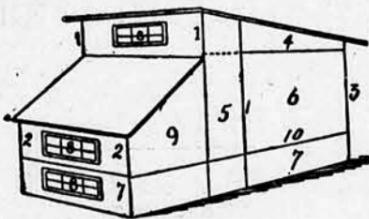
MODEL POULTRY HOUSE.

Suggested by a Pennsylvania Farmer After Considerable Study.

In selecting a plan for constructing a new, or in remodeling your old, poultry house, see that it combines the following essential requisites:

1. A dry, light, warm roosting room.
2. A large, light scratching pen and shelter for stormy and windy days.
3. Arrangement for separating into small flocks.
4. Abundant storage room for litter and absorbents, feed, lime, kerosene, tobacco dust, etc.
5. Immunity from lice.
6. Facilities for easily distributing feed and water, gathering eggs, and removing the droppings.
7. A room or bin for storing manure.
8. Separate apartments for sitting hens and broods of young chickens.
9. Modern sized glass windows in front, which should face to the south or southwest, and doors so arranged as to afford thorough ventilation in hot weather, but closed very tightly in winter.
10. Guard against hiding places for rats. Study to combine these requisites as economically as possible and you will have a model poultry house.

After a long study on how to best accomplish this I will submit my plan. As different individuals will require houses of varying capacity, I would make a long, narrow house, cut into sections. You can make it as extensive as you please by varying the number of sections, and can readily add to it year by year, according to your means and inclination. I have just built a house comprising eight sections. I will figure and describe a single section and leave the reader to imagine it ex-



tended or duplicated as many times as he desires.

The dimensions of this section, ground floor, are 8x16 feet. 1, 1, are chestnut posts, 14 feet high after being set, and should be 2 1/2 feet in ground. 2, 2, posts 8 1/2 feet above ground. 3, posts 12 feet above ground.

One section of a model poultry house, 8x16 feet, to accommodate 25 fowls. To be duplicated and extended to any desired length.

4, loft floor, 8x8 forms nice loft for pigeons or rabbits. Divide from front to rear, making two 4x8 lofts. 5, a 3 foot alley or passage way. 6, roosting room, 8x8 and 6 feet high, to be connected with 7, the basement or scratching pen 8x16 and 4 feet high. 8, 8, 8, windows, 2x4 feet, hung on hinges at top, to open inside for ventilation when desired. 9, sitting and brooding room 5x8, to be divided, making two 4x5 rooms. 10, floor over basement, 4 feet from ground. Now imagine this one section extended eight times, making a house 16x64, or as before remarked, any length desired. All the lumber necessary is hemlock plank, or so-called "boards," 1x12 inches by 16 feet, and scantling 2x4 inches by 16 feet.

This house should face the south, and the extreme north end section should not have the drop, but let both roofs run at equal height, and use this section for storage purposes, and its basement for a manure cellar. The partitions between this and the next section should be boarded tight, thus making the others warmer. All other inside divisions or partitions are made of wire netting. The droppings are gathered often from the roosting rooms, wheeled along the alley and dumped through the floor into the manure basement, thus making an ideal fertilizer factory. An abundant supply of absorbents or litter should be carried in this north end storage room. Chaff, buckwheat, hulls, fine shavings, dried muck, leaf-mold, sifted coal ashes, tobacco dust, etc., are all good, and should be stored whenever obtainable. Make no hollow walls to shield rats. Double plank or board the outside walls, breaking joints, and use tarred building paper between the boards. The best roof is made by boarding tightly, cover with tarred roofing paper, and shingling over it.

The roof is expensive, but we get a great deal under it. Keep kerosene oil and lime wash handy and use them frequently as a safeguard against lice.

If early chickens or broilers are an object, place hot water heater in the basement at the south end, run a single hot water pipe along back of the roosting rooms, cross the storage room, and return five pipes through the brooding rooms, constructing a series of brooders over them. Each roosting room is connected with its basement by a hole in the floor, and an inclined plank on which slats are nailed. The basements are 4 feet high. Each section should have a front yard 8x16 for winter use, and a back yard for summer as extensive as possible, but confinement in winter is desirable.

Place the roosting poles on a level 4 feet from the floor, with an inclined platform underneath sloping to the north, so the droppings are guided to a single line, opposite the door leading from the passageway, from which they are taken every day or two. Nest boxes are placed in the position between alley and roosting room, with feed troughs under them, which the fowls reach through slats. A dry dust box should be kept in this room. Tobacco dust costing about one cent per pound should be mixed in this. Refuse tobacco stems should also be used in nests to guard against lice. Remember that about nine-tenths of your setbacks from success and prosperity are likely to be caused by lice and rats. Study to defeat them.—Farm Journal.

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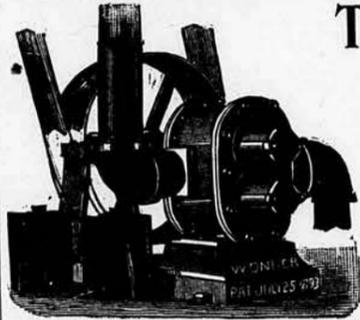
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Table with columns: Cattle and calves, Hogs, Sheep, Horses and mules, Cars. Official Receipts for 1895: 1,689,652; 2,457,697; 864,713; 52,607; 103,368. Slaughtered in Kansas City: 922,167; 2,170,527; 567,013; 1,376; 111,445. Sold to feeders: 392,262; 218,505; 273,969; 69,784. Sold to shippers: 1,533,234; 2,346,202; 748,244; 41,588. Total Sold in Kansas City, 1895: 1,533,234; 2,346,202; 748,244; 41,588.

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