

# KANSAS FARMER

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G. W. GLICK, ATCHISON, KAS. Breeds and has for sale Bates and Bates-topped SHORT-HORNS, Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls, Winsome Duke 11th 115137 and Grand Duke of North Oaks 11th 115735 at head of the herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

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## PATENTS.

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## Agricultural Matters.

### HOW TO DEAL WITH RUSSIAN THISTLE.

From Prof. Shaw's "Weeds and How to Eradicate Them."

The Russian thistle (*Salsola kali var. tragus*) is one of the most aggressive and formidable weed pests that has ever come to the prairies of the West. It is frequently called the Russian cactus, but strictly speaking it is neither a thistle nor a cactus. It belongs to the saltwort family.

This plant, it is claimed, first obtained a foothold in the United States in Bon Homme county, South Dakota, about the year 1873. It is supposed to have been brought in flaxseed from the plains of Russia, where it has been growing increasingly formidable for at least two centuries. So rapidly has the Russian thistle spread in the United States that it is now a serious menace to successful agriculture in several of the prairie States bordering on the Mississippi and Missouri rivers, and it has also made its appearance in States farther to the East. In 1894 an unsuccessful appeal was made to the Congress of the United States to enact such legislation as would be likely to insure its complete eradication within the borders of the Republic.

The Russian thistle is an annual. The early leaves of the young plants are smooth and slender, about two inches long, and each is tipped with a spine. Above the early leaves branches grow out which produce many spines, and the number and length of the branches vary much with the attendant conditions of growth. The spines grow in clusters of three, and as the plants near maturity they become so rigid that the legs of horses require protection when they have to travel among the mature weeds. When near maturity the plant appears to be almost leafless. Specimens of the plant have been found with a diameter of not less than five feet.

The Russian thistle does not begin to grow very early in the season, hence if grain crops are given an early start in the spring the thistle which infests them will be so far kept in check that it may not seriously injure the crops. It frequently continues to grow and mature seeds until the frosts become severe enough to destroy its vitality. The earlier plants mature much of the seed in the latter part of August and in September, hence all plants cut off or pulled up after that time should be burned. It is claimed that an average sized plant is capable of maturing from 20,000 to 30,000 seeds.

This weed is especially troublesome in grain crops, the later the crops and the more weakly they are the greater will be the injury done. It grows with sufficient vigor under some conditions to prevent the harvesting of the grain by the ordinary binder. It infests all kinds of crops that are being tilled, but is easily destroyed in such as are cultivated. This weed grows to some extent on the native prairie, but not so much where grasses are well established in the soil, as where prairie fires and also the industrious little gophers have prepared a seed-bed for it.

The Russian thistle is propagated solely by means of its seed and its marvelous power of propagation is attributable to the ease with which the winds send it tumbling over the prairie for miles in succession, the number of seeds which it produces, and the readiness with which the seeds germinate under favorable conditions. Railways are largely responsible for the conveyance of the seed to new centers; and it has also been carried in flaxseed and in the seed of cereals.

#### MODES OF ERADICATION.

The Russian thistle is not difficult of eradication. Its great weakness lies in the inability of the seeds to maintain vitality under normal conditions for a longer period than two years. Under a good system of farming, therefore, it may be eradicated without great difficulty. Any system of farming that will prevent the plants from maturing their seeds for two successive years will accomplish this end.

The following are the modes of eradication which have been found most successful in dealing with the Russian thistle:

1. *Modifying the rotation.*—Cereal crops and other crops which favor the maturing of the seeds, may be omitted for two successive years, and other crops grown in their stead, such as hoed crops or the cultivated grasses.

2. *Spudding.*—When the weed plants are not numerous they may be destroyed by cutting them off with the spud below the crown any time before the seeds are matured; but the work will be much more easily done at an early rather than at a late stage of growth. Along fence borders and in by-places they may also be thus destroyed.

3. *Growing two hoed crops.*—If two hoed crops are grown in succession on the same land, and if at the same time proper cultivation is given to them, the weeds will be all destroyed.

4. *Growing forage crops and pasturing them with sheep.*—The Russian thistle may be easily destroyed by growing certain forage crops and pasturing them with sheep for two years in succession. Winter rye should be given a prominent place among these crops where it can be successfully grown. The rye may be followed about the end of May with corn, sorghum, millet or rape. Sheep seem to relish the thistles when young and tender.

5. *Autumn cultivation.*—Autumn cultivation will be found very helpful in destroying the Russian thistle, and also in preventing its further increase. It is efficacious in proportion to the early date at which the plowing is done.

6. *Legislative enactments.*—When vacant lands have become infested, stringent legislation will probably be found necessary to properly keep the weeds in check.

*Observations.*—From what has been said it will be apparent that in waging war against the Russian thistle, preventive measures are even more important than those which relate to eradication. Prominent among the former are the following: 1. To plant wind-breaks of such quick growing trees as the white willow. 2. To erect high wire fences around the farm. 3. In the absence of fences to plant several rows of sunflowers around the borders of the fields on the entire farm. The plants should be near to each other in the line of the row. The seed of the sunflowers will go far to defray the cost of the work. 4. Sow only pure seed. 5. In the work of eradication seek the co-operation of the entire neighborhood, of the State and of the whole realm.

#### Kerosene on Seed Corn.

The two following communications came by the same mail:

EDITOR KANSAS FARMER:—I, too, tried Mr. Norton's scheme of soaking seed corn in coal oil. About one-fourth of it came up. I would like to know whether that plan was evolved from theory or practice, or did the printer make a mistake? O. E. SIMMERS.

Abilene, Kas.

EDITOR KANSAS FARMER:—William Kurtenbach gives his experience with soaking seed corn in coal oil.

I planted some on clover sod, soaked forty-eight (48) hours, and it came up all right, also some twelve and some six hours. There was no difference in germinating. Squirrels and mice let it alone, but the cut-worms destroyed it badly. Thousands of hills had the appearance of having been shrunk up or shriveled, as leather does by fire, and after a close inspection I came to the conclusion that the cut-worm had tried his teeth on those particular hills, and after tasting the coal oil let them alone and they recovered, but had a disfigured appearance.

I wish some more reports would appear. Ground moles let peanuts alone when soaked twelve hours in coal oil, and they came up all right.

C. J. NORTON.

Byron used a great deal of hair-dressing, but was very particular to have only the best to be found in the market. If Ayer's Hair Vigor had been obtainable then, doubtless he would have tested its merits, as so many distinguished and fashionable people are doing now-a-days.

#### Millet Among Potatoes--The New Varieties.

EDITOR KANSAS FARMER:—I sowed a half bushel per acre of German millet in my potatoes, on June 3, and followed with the Planet Jr. twelve-tooth cultivator and pulverizer, setting the latter as low as possible and narrowing it up by taking off two fingers. My potato ground has all been subsoiled and I do not see why I should not raise a good crop of millet, as the soil is rich.

It has been very interesting watching the growth of the tops of the different varieties. Some men prefer potatoes that have spreading tops that completely cover the soil. Of the many different kinds that I have, the "Kansas Farmer," my new late seedling, has the most spreading tops. They are not so very tall, but have a habit of spreading out. Next to this seedling comes the new seedling, the "Coburn No. 1." It does one good to see this variety grow, coming to full bloom in thirty-eight to forty days, and the top has four to six stalks in a hill, when cut to two eyes, and three to four, when cut to one eye. As a contrast, the Rural New Yorker No. 2 does not shade a spot larger than a teacup, and the Carman No. 3, Peerless Jr. and Livingston's Banner are almost like it. The Carman No. 1 and Early Kansas are very much alike, except in color of bloom, and their tops cannot be called bushy or spare—a sort of a cross between the two kinds. The Coburn No. 2 and Kansas Rose have tops much like the Ohios, except they bloom sparsely, while the Ohios never bloom out here.

Many eastern Kansas men are wholly ignorant of how very near the entire potato crop has been to destruction by blight.

If, when the tops are nearly grown, the temperature is below a daily mean of 72° and the humidity is great, blight is sure to follow; but should the temperature rise to 77°, it is checked. From the 13th of May to the 23d, there was only two days that the temperature was above 70°, and the sun did not shine at all during that time, and on seven different days it rained. On the 23d, blight struck the Ohios and the Uncle Sam, while the others were not yet affected, but fortunately on the 24th the sun shone all day and the daily mean was 77.5°, and the blight was checked. I succeeded in cultivating my Ohios early in the morning of the 24th, and this stirring of the top soil and the high temperature is all that saved them. The first four days of June were below 72°, but there was no rainfall and the crop escaped, as by the "skin of the teeth." It is simply wonderful to what a little thing we owe our successes or failures, and we should be thankful to the power that controls the weather, that we have escaped the blight, which will entirely annihilate whole fields in a single night, when the conditions are favorable. We are not likely to have such low temperature now, and are not likely to have the blight.

Clover-cutting is in progress here now, and considerable was put up last week. Prairie grass will do to cut now and is full sixty days ahead of usual time.

C. NORTON.

#### Influence of Barnyard Manure on Soil Moisture.

Prof. F. H. King, of the Wisconsin Experiment Station, has reported some valuable experiments on the above subject. The *Experiment Station Record* gives the following summary of them:

"The general facts brought out by three years' study of the influence of barnyard manure on the moisture of bare soils are stated to be as follows:

"(1) When a coarse manure is plowed in, its first effect is to allow the soil which lies above it to dry out more rapidly than if the manure were not present. This is because the manure, at first, does not rapidly transmit the capillary water in the soil below to the surface layer above.

"(2) It follows from this fact that coarse manures, when plowed under during a dry time, may retard the early growth of crops by depriving them of

## The Only One To Stand the Test.

Rev. William Copp, whose father was a physician for over fifty years, in New Jersey, and who himself spent many years preparing for the practice of medicine, but subsequently entered the ministry of the M. E. Church, writes: "I am glad

to testify that I have had analyzed all the sarsaparilla preparations known in the trade, but

### AYER'S

is the only one of them that I could recommend as a blood-purifier. I have

given away hundreds of bottles of it, as I consider it the safest as well as the best to be had."—Wm. COPP, Pastor M. E. Church, Jackson, Minn.

# AYER'S

THE ONLY WORLD'S FAIR  
Sarsaparilla

When in doubt, ask for Ayer's Pills

the deeper soil moisture which would be available at once were the manure not there.

"(3) Barnyard manure has a general tendency to leave the upper three feet of soil more moist than they would be without it, and the drier the season and more thorough the manuring the more marked will be its influence. The mean observed difference in the water content of the upper three feet of soil, as indicated by seven determinations during three years, shows that the surface foot of manured fallow ground may contain 18.75 tons more water than similar unmanured ground will, the second foot 9.28 tons more per acre, and the third foot 6.38 tons more, making an aggregate of 34.41 tons of water per acre in soil which is treated with barnyard manure more than will be found in similar soil not manured.

"(4) [A soil] which was manured lost, by surface evaporation, at the rate of 4.98 pounds per square foot more than the unmanured surface did during 105 days, which is at the rate of 108.5 tons per acre. \* \* \* In another experiment it was found that wetting the surface of a sand with the liquid which leaches from barnyard manure decreased the height to which water was lifted sixteen inches and the rate of evaporation from the surface 49.64 per cent. \* \* \*

"(5) The results appear also to indicate that in some manner the barnyard manure tends not only to maintain in the upper three feet of field soil a larger amount of water than it would otherwise have, but at the same time to decrease that which the succeeding three feet may retain. Some of my observations on the comparative influence of deep and shallow cultivation appear also to indicate that here too the cause which leaves the surface soil more moist tends to leave the deeper soil drier. \* \* \*

"Although much larger yields of dry matter of corn per acre were produced on the manured ground than on that unmanured, the amount of water in the soil at the end of the growing season was almost as great upon the manured soil as it was upon the other; and yet the differences in yield were so great as to demand either that it takes less water to produce a pound of dry matter on manured than on unmanured ground, or else the manured soil has the power of supplying water to the corn which the unmanured soil has not."

COUGHS AND HOARSENESS. The irritation that induces coughing is immediately relieved by using "Brown's Bronchial Troches." A simple and safe remedy.

Kalamazoo, Mich., is famous for celery—also as the home of Thos. Slater, whose advertisement appears on page 15.



## The Stock Interest.

### THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

SEPTEMBER 17—W. H. Wren, Poland-Chinas, St. Joseph, Mo.  
OCTOBER 1—E. E. Axline, Poland-Chinas, Oak Grove, Jackson Co., Mo.  
OCTOBER 30—J. R. Killough & Sons, Poland-Chinas, Richmond, Kas.

### Experience in Cattle Feeding.

To those farmers who have lost heavily by feeding cattle the past winter we would fain give a word of advice. In the first place, do not again rush into the business in the hope of regaining what has been lost. There is yet no certainty that fat cattle will make any rapid advance in values, and stockers and feeders are too dear to purchase for the feed lot. To make a profit on cattle there must be a substantial growth on a cheaper food than grain, even at its present low price. To the farmer who is in debt, struggling to pay for his home and rear a family at the same time, we would say that if you are to purchase cattle at all buy them young—calves, if possible. By purchasing calves the amount of capital necessary is small in comparison with the amount required when purchasing older and heavier cattle. If grass and fodder can be produced on the farm growth can be made at a far less cost than in feeding grain, and there is no risk of loss whatever. True, it may require longer time, but the chances are all in favor of a good profit at last, and as young, light-weight cattle are now coming more and more to the front and commanding better prices than heavy-weights there is no necessity for holding till the age of three or four years has been reached. To buy calves at weaning time it would not be necessary to hold over two years at longest, and with good pasture in summer and coarse fodder in winter, all grown on the farm, the only outlay would be the first cost. When milk is abundant on the farm it is often profitable to feed it to the calves in preference to selling butter at the low prices often prevailing during the summer, and in towns and cities calves a day or two old can often be secured at a low price.

We have known a number of farms to be paid for in this manner, and can confidently urge those who desire to embark in the cattle business, or to regain what has been lost of late, to try buying calves and care for them in a proper manner, assured that in the end there will be far more profit than in buying older cattle.—*Western Farm Journal.*

### The Outlook for Horses.

Mr. J. M. Harshberger, Abingdon, Ill., a popular auctioneer, who is among the breeders and farmers much of his time, says: "The prospect for common or small horses is extremely unpromising. My business as an auctioneer for many years past and my contact with breeders from different States has afforded me opportunity for investigation which leads me to the conclusion that there are but two classes of horses that it will pay to raise. The reckless breeding of anything, from a Texas broncho up, whatever there may be at hand, has given us the class of cheap stuff, such as we have, inferior in size, without quality, and having nothing to commend them to buyers, being simply horse. The improvement in the art of locomotion in the past ten years has done away with this class of horses forever. The class of horses which I think will pay are the very best of high-class drafters and the gentleman's driving horse. At all my sales when I strike either of these, I find plenty of buyers at remunerative prices. In breeding for these two kinds we will get plenty of common stock. For the first, a draft horse, select a stallion, the breed to suit your fancy, that will weigh 2,000 pounds and 2,250 is better, with good feet, a flat bone in leg, short in the coupling and ribbed up close, with shoulders well set on and small ear, a large, clear eye and a good countenance. Then select the best mares and fillies that, in your judgment will nick with him, the higher the grade the better,

and breed and feed for draft and draft alone. With such mares and fillies, weighing from 1,200 to 1,500 pounds, well mated, with such stallions, the produce should sell at paying prices. The difference in the cost of producing a good and poor article of horse-flesh will not pay for the experiment. With the same care and judgment used in the selection of the second class—gentleman's drivers—as in the first, the breeder will receive remunerative returns."—*Western Agriculturist.*

### The Age to Select Breeders.

The queries, in the *American Swineherd*, as to "what age are Poland-China pigs sufficiently well developed to enable the experienced breeder to pick out those suitable for breeders from the culls? Is the result of mating youngsters together as satisfactory as when one of the pair is aged?" are well answered by W. M. McFadden, West Liberty, Iowa, who says:

"Referring to the first of the above questions, will say that no rule can be laid down which will cover all cases nor a certain age fixed at which a pig is sufficiently well developed to show to the experienced breeder what he will make. To a certain extent a selection of an animal that is undeveloped is an experiment or a guess. We have a few experienced breeders who can select a pig with great certainty at three and one-half to four months old; then again we have other breeders who have had long experience in breeding hogs that cannot select a pig at six or eight months old with any fair idea of what it will make as a yearling or two-year-old. I will answer the question by saying, about five or six months of age, if the pig has been well cared for, but no man can be certain what a hog at one year old will be when he is two years old, and the difficulty of telling what a six-month-old pig will make is very much greater than with the yearling.

"At the same time some of the most successful exhibitors we have are those who select their show animals when quite young. The manner in which they are able to select pigs that will make winners would seem to indicate that we might select at six or seven months of age with every assurance that we could tell what the outcome would be, but this faculty of selection is a natural gift and marks the man who is the most fitted for raising hogs. As a rule these men pay great attention to the characteristics of blood lines and are well posted as to the probable effects of crossing certain families. While they keep these things in mind, yet they never select for blood alone, but keep first in mind the form and general characteristics of the pig. The selections that the best posted hog breeders make are often quite a surprise to those who are new in the business. They rarely select the well-matured, most attractive looking pig. Some of the greatest hogs we have had, in fact, a large proportion of them, are to the casual observer very ordinary looking animals. I am inclined to the opinion, however, that the care bestowed upon them and judgment in feeding was the most important factor in causing them to make what they were, rather than the inherent qualities which would not have developed in the hands of other persons and under different care.

"As to the second question, I am of the opinion that the best results are obtained from the crossing of animals of nearly the same age. I think it decidedly objectionable to have the sire older than the dam. It is generally conceded, I believe, that the best results are obtained from yearlings and two-year-olds. I believe that after three years of age a sow will never produce as well as before that time. Many well-posted breeders have made lists of prominent hogs which were produced from young and seemingly immature ancestry. If a sow has proven herself a thoroughly reliable breeder, I would not discard her after she became three years of age, but unless she had been an extra good one I should much rather try some of her daughters than to make further experiments with her."

### Feeding for Fat and for Lean.

The theory has been advanced that the relative production of fat and lean meat can be largely influenced by feeding. Experiments bearing on this question have been mainly with pigs, but two are reported with cattle. At the Missouri Agricultural college, Professor Sanborn fed calves on a ration containing different proportions of protein (nitrogenous material). The nutritive ratio (ratio of protein to carbohydrates and fat) of the food of one lot was 1 to 2.4 (narrow) and of the other lot 1 to 5.5. Both lots gained practically the same amount in weight, but the character of the growth was quite different. There was nearly one-fourth more of fat on the intestinal and vital organs of the lot on the wider ration (1 to 5.5) than in the case of the other lot. "The meat of lot 1 (ratio 1 to 2.4) was distinctly more fibrous in character and showed a denser fiber without the light streaking of fat."

The New York State station compared rations with a wide nutritive ratio (carbonaceous) and a narrow ratio (nitrogenous), the difference in proportion of protein being brought about by substituting a part of the corn meal in the carbonaceous rations with cottonseed meal, linseed meal, or gluten meal. "In general appearance the lot fed the nitrogenous ration was much the better, having a cleaner, brighter coat of hair. The photographs of the meat show little, if any, difference in the proportion of fat and lean." The meat of animals fed on the carbonaceous rations (corn meal largely) was thought to be "much the tenderer and sweeter."

Recent experiments in feeding steers at the Kansas station have shown the value and the effect of a nitrogenous ration for this purpose as compared with one composed largely of corn. The meat from the lot fed the more nitrogenous ration brought a higher price.

Experiments by Professor Sanborn at the Missouri Agricultural college in 1884, 1885 and 1886 strongly indicated that the character of the food influenced the character of the pork produced, and that such nitrogenous foods as shorts, middlings, and dried blood, as compared with corn meal fed alone, tended to increase the proportion of lean pork to fat. The matter was taken up by Professor Henry, of Wisconsin, in 1886, and by several others later. His experiments all corroborate Professor Sanborn's work. Pigs fed shorts, bran, skim-milk or dried blood produced a larger proportion of lean pork than those fed corn alone.

In discussing his four years' experiment, Professor Henry says:

"We feel warranted in maintaining that the kind of food supplied to young growing pigs has a very marked effect upon the animal carcass; the foods rich in protein tend to build up strong muscular frames and large individuals, with ample blood and fully developed internal organs; that excessive corn feeding of pigs, even after they have obtained a good start, tends to dwarf the animal in size and prematurely fatten it; that, owing to the larger amount of ash contained, and perhaps for other causes, pigs receiving the usual nitrogenous foods have stronger bones than those fed on corn; and that the bones of pigs fed on corn contain the least mineral matter. \* \* \* After the pigs have reached the age of seven or eight months there is far less necessity for nitrogenous foods, and the cheapest gains can be made with corn."

Taken in connection with the testimony of butchers and pork packers, that the demand for fat beef and fat pork is decreasing, these facts are of considerable importance to feeders.

### Poisonous Cackle-burs.

EDITOR KANSAS FARMER:—Mr. J. J. Johnson tells us that cackle-burs will poison hogs. My neighbor gave an armful to a sow and her eleven pigs, when he came by her pen to go to dinner, and when he went back after dinner they were every one dead.

I think my sheep eat them and suffer no inconvenience from them.

Another one of my neighbors says that the reason that second-growth sorghum kills cattle is because of mil-

# More

Medical value in a bottle of Hood's Sarsaparilla than in any other preparation.  
**More** skill, more care, more expense in manufacture. It costs proprietor and dealer **More** but it costs the consumer less, as he gets more doses for his money.  
**More** curative power is secured by its peculiar combination, proportion and process.  
**More** wonderful cures effected, more testimonials, more sales and more increase. Many more reasons why you should take

## Hood's Sarsaparilla

The One True Blood Purifier. All druggists. \$1.

Hood's Pills are the only pills to take with Hood's Sarsaparilla.

lions of minute lice upon it. I give this for what it is worth, and suggest some examinations on this line.

C. NORTON.

### Southdown Breeders.

EDITOR KANSAS FARMER:—The annual meeting of the American Southdown Breeders' Association was held in Springfield, Ill., May 27, Mr. J. H. Pickrell presiding as President *pro tem* in the absence of President John Hobart Warren, of New York.

The financial and other reports of the Treasurer and Secretary show the association in good condition, and that Southdown breeders have reason to expect that this breed will be in great demand because of their superiority of mutton, and of their ability to impress their good qualities upon other breeds, thus making the sort of sheep that our mutton markets now require.

The report of the committee awarding Mr. Geo. McKerrow, Sussex, Wis., the fifty-dollar gold medal for making the largest score in exhibition at fairs in 1895, was approved.

A committee was appointed to formulate the offering of a gold medal for exhibitions in 1896, and for special premiums at the Tennessee Centennial in 1897.

The selection of two rams from the flock of Mr. Geo. McKerrow, Sussex, Wis., for use in a test between Southdowns and Dorsets as to earliness and quick maturing of lambs for market, to be made by Mr. G. M. Wilber, Marysville, Ohio, was approved.

Mr. C. H. Nimson, Cranberry, N. C., presented a valuable paper on the "Characteristics of Southdown Sheep."

The following officers were elected: President, L. S. Rupert, Bloomington, Ill.; Secretary, John G. Springer, Springfield, Ill.; Treasurer, D. W. Smith, Springfield, Ill.; Directors—Geo. McKerrow, Sussex, Wis.; L. M. Crothers, Crothers, Penn.; F. W. Barret, Wadsworth, N. Y. J. G. S.

IMPOVERISHED BLOOD causes that tired feeling. Hood's Sarsaparilla purifies, enriches and vitalizes the blood, giving new life and increased vigor and vitality.

HOOD'S PILLS are easy to take, easy to operate. Cure indigestion, biliousness, headache.

### Christian Endeavor Excursions to Washington.

Low rate tickets will be sold July 4, 5, 6 and 7, via Vandalia-Pennsylvania Short Lines, from St. Louis. Historic Johnstown, famous Horseshoe Curve and the highest point on the Allegheny mountains are on this direct route to the national capital. Ask W. F. Brunner, A. G. P. Agt., St. Louis, for details.

### Reduced Rates to Washington.

The Young People's Society of Christian Endeavor will hold their Annual Meeting in Washon, D. C., July 7 to 13.

For this occasion the B. & O. R. R. Co. will sell tickets, from all points on its lines, west of the Ohio river, to Washington, at one single fare for the round trip, July 4 to 7, inclusive; valid for return passage until July 15, inclusive, with the privilege of an additional extension until July 31 by depositing tickets with Joint Agent at Washington.

Tickets will also be on sale at stations of all connecting lines.

Delegates should not lose sight of the fact that all B. & O. trains run via Washington.



### Irrigation.

#### HOW LARGE SHOULD THE IRRIGATED FARM BE?

"The number of acres which the average irrigated farm should comprise must, of course, depend upon a variety of conditions," says the *Irrigation Age*. "While there is no doubt that farming operations may be carried on profitably on large areas of irrigated land by single owners, yet it is with the small holding that most men are specially concerned. In fact, the small farm is the key to highest success in a broad sense, when considered as affecting communities, large districts or even States. Local conditions must largely determine the acreage in the irrigated farm. In many cases individual caprice will alone rule in this connection, but in well regulated colonial settlements the matter may be largely controlled by the management of the original subdivisions of the land. Perhaps wisdom would suggest only the outside limit of the amount to be sold to any one purchaser. Subdivision into five-acre lots is often convenient, and the limit of original purchase may be fixed at some multiple of that amount not exceeding, say, forty acres.

"The object generally to be attained by compact colonial settlements should be kept steadily in view, and the land so peopled as to render it most valuable, not only to the purchaser but to the colony. For it must be remembered that the entire community gains or loses by every accession to its ranks. Every industrious, honest, thrifty and progressive colonist who is content to make a comfortable home on a ten-acre lot is worth far more to a settlement than the man who indifferently manages the poor cultivation of eighty acres and will not be satisfied with a small holding. If the settlement be mainly devoted to fruit culture the acreage in the farms may generally be smaller, perhaps, than if the land be devoted to dairying or some other pursuit.

"The best possible results to flow from colonial settlements upon irrigated lands within the arid belt will be found to come from the cultivation of the land by the owner and his family, or by them with the aid at harvest time of a little outside help. The limit of the holding, therefore, should generally be fixed by a full consideration of this fact in connection with local conditions of climate, products and markets. In districts where orcharding is a recognized specialty it has often been found that ten acres, intensively cultivated and intelligently managed, have proved entirely adequate to the support of a family, and also to give a tidy surplus at the end of the year. But good crops and good prices are not always certainties, even in the irrigated regions, and perhaps a greater diversity of production should be undertaken in most places within the new regions developing upon the arid domain.

"A ten-acre orange or lemon grove, in good bearing, should ordinarily give satisfactory results to almost any modest family, but insect pests, frosts and other calamities sometimes cut short the profits, and thus bring discomfort, if not great inconvenience, to the orchardist. Ordinarily, and in most settlements, it will be found better to undertake a somewhat diversified husbandry, even on the small holdings appropriate to such localities. The more self-supporting a family can be the better. To be brief, everything should be produced that can be produced with less cost or greater convenience and profit than outside purchases of such commodities would entail. The butter, eggs, meat, vegetables, milk, honey, jellies, sauces, oil, wine, etc., required by a family should, if possible, be produced on the home acres, though reserving enough space to produce the surplus crop deemed most valuable for the locality and surrounding conditions.

"Every foot of land should be made to yield some profitable crop. The barbarism of waste everywhere seen about the large farm should have no

place on the snug little irrigated farm of the colonial settlement. If the season will justify, two or more crops of vegetables should be produced on the same ground each year, and the land should thereby become better for the extra cultivation and fertilization. Every scrap of fertilizing material should be carefully preserved and applied to the land in due season. Ashes and meat scraps should be utilized in making soap wherewith to wash fruit trees, and leached ashes should never be thrown into the street, but applied to the land. A compost vat should be a prominent feature of the small farm, into which all material available for plant food should go, to be prepared to nourish the growing crops. In short, the little irrigated farm should be the owner's laboratory, wherein he should transmute the air, the water, the earth and the sunshine into gold.

"It will be readily seen that the intensive farmer here contemplated must be not only intelligent but educated and industrious. Backwoods methods will not win on such a farm, and the man who knows too much to learn anything about his business from books and papers should betake himself to the desolate cattle or wheat ranch, for he could not succeed on the small, neat, well-ordered farm of ten or twenty acres. The ablest lawyers are they who know most of precedents long established, and the physician ignorant of the best work of others in his profession would be justly set aside for a man of the times. It is the same with the farmer. He who depends upon his own knowledge and experience alone is too often trying to do a large business on a very small capital. To read, to study, to experiment, to think and to reason are absolutely essential to success on the small irrigated farm, and he who is above or below this plane would better betake himself to other fields of endeavor."

#### Nebraska Irrigation Fair.

W. L. Park, President of the Nebraska irrigation fair, to be held at North Platte, October 12-16, has written the following for publication. He says:

"There is great interest being manifested in this method of agriculture (irrigation), not only throughout the Western States but in the more densely populated portions of the East, and the people seem to be eager to learn as much as possible about its methods, practices and results. There is also a desire on the part of would-be irrigators to have an opportunity to investigate the merits of the appliances for operating and building ditches, and for pumping water for irrigation purposes, both by windmill and steam power, and to see the practical results of all systems of irrigation.

"The object of the irrigation fair is to concentrate as much information at some central point as possible. A large number of counties in the State of Nebraska where irrigation is practiced have combined together for this purpose and selected North Platte as the most suitable place. It is located at the confluence of the Platte rivers, surrounded by a large irrigation district, having over 250 miles of irrigation canals in successful operation in its immediate vicinity, many of which are the oldest in the State, and along which the farmers are prosperous and wealthy and can give much information from long and practical experience.

"That such interest is keen in this State, it is only necessary to call attention to the fact that three years ago Nebraska canals could be numbered on one's fingers, while to-day it has more miles of canals than any other State in the Union, and the movement has just commenced. Several millions of dollars already expended, with the possibilities of irrigation almost unlimited, both by means of gravity ditches, windmills and steam power. Much interest is being manifested in the latter method, and for this reason it will be one of the most important features of the coming fair to show what the respective windmills and pumps will do.

"The facilities at North Platte for this are well-nigh perfect. There is an abundant supply of water only ten feet from the surface. A lake or reser-

voir five acres in extent is being constructed which they will supply or pump from.

"This fair, located on the eastern edge of the irrigation districts, but surrounded by irrigated farms, will be easily and cheaply accessible to the people of the densely populated portions of the United States already curious and anxious to investigate so certain a method of farming. At such events a little recreation is looked for and needed and this will be no small feature of the fair. Among the attractions and amusements will be Buffalo Bill's wild west show (Mr. Cody lives at North Platte and has a large canal running by and through the fair grounds), the district reunion of the G. A. R., a bicycle tournament, horse racing and many others of importance. Applications are pouring in for space and there is no question but that it will be necessary to enlarge the ground beyond the first expectation. It is the biggest thing in the irrigation line yet held in the United States."

#### A Great Fruit Region.

The following statement showing the number of acres in apple and peach orchards, and estimated production of fruit for the year 1896, in the great fruit district of south Missouri, on the line of the Kansas City, Fort Scott & Memphis railroad, Springfield to Thayer, inclusive, is most interesting and instructive:

| County.      | Acres in apple trees. | Acres in peach trees. | Acres in bearing apple trees. | Acres in bearing peach trees. | Estimated peach crop, Bushels. | Estimated apple crop, Barrels. |
|--------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Greene.....  | 8,000                 | 500                   | 4,000                         | 500                           | 25,000                         | 40,000                         |
| Webster..... | 10,000                | 800                   | 2,850                         | 300                           | 15,000                         | 15,500                         |
| Wright.....  | 10,500                | 4,000                 | 5,700                         | 2,350                         | 60,000                         | 35,000                         |
| Texas.....   | 7,500                 | 1,000                 | 1,900                         | 2,550                         | 100,000                        | 35,000                         |
| Howell.....  | 7,300                 | 5,175                 | 3,450                         | 2,300                         | 183,800                        | 29,750                         |
| Oregon.....  | 3,700                 | 1,400                 | 3,200                         | 200                           | 12,000                         | 1,500                          |
| Total.....   | 43,420                | 12,675                | 18,160                        | 6,380                         | 305,800                        | 120,100                        |

#### The Wheat Head Army Worm.

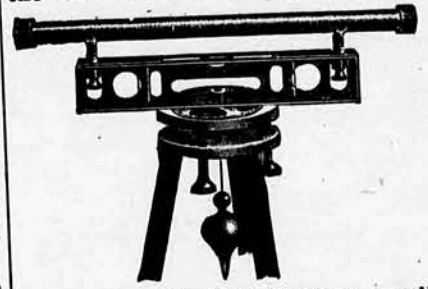
The following letter, lately received by Mr. Jno. E. Frost, Land Commissioner of the A., T. & S. F. railway, from Prof. F. H. Snow, Chancellor of the State University, at Lawrence, concerning the ravages of the wheat head army worm, is of interest to the farmers of Kansas:

"Your letter, accompanied by a package containing specimens of worm, has been received. I have received probably as many as twenty letters from central and western Kansas in reference to the ravages of this insect. It is the wheat head army worm (*leucania albilinea*). Appeared in injurious numbers in the central part of the State in 1876, and in central and western Kansas in 1891, but has not otherwise been reported to me previous to the present year. It is practically impossible to do anything to protect the wheat fields after the worms have begun to feed upon the young grain in the wheat heads. Fortunately there are at least three insect parasites which destroy the insect and keep it from becoming generally and dangerously destructive.

"Late fall plowing and harrowing will destroy the chrysalids or pupae and prevent moths from appearing in the spring to lay eggs for a new brood of worms. Burning the wheat stubble will destroy the pupae, at least those which are near enough to the surface of the ground to be affected by the heat. I do not anticipate a dangerous invasion of these insects for several years to come. The present invasion is about at an end, as the worms have now mostly entered the ground to enter the chrysalid condition."

#### Leveling Instrument.

In laying off land for irrigation, a matter of first importance is to determine the levels. The KANSAS FARMER has desired to offer its patrons a reliable, low-priced instrument for this purpose, and has finally secured the one herewith illustrated. It is



manufactured by L. S. Starrett, a well-known and reliable manufacturer of fine mechanical tools at Athol, Mass., who warrants it to be true in every respect.

The price of the instrument is \$12.50 at the factory. By a special arrangement we are able to furnish it to subscribers, together with a year's subscription to the KANSAS FARMER, delivered at any express office in Kansas, charges prepaid, at the manufacturer's price. Send orders with money to KANSAS FARMER Co., Topeka, Kas.

#### Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to Geo. T. Nicholson, G. P. A., Chicago, Ill., or W. J. Black, A. G. P. A., Topeka, Kas.

#### To St. Paul and Minneapolis via "Burlington Route."

Two splendid through trains each day from Missouri River points to the north via the old established "Burlington Route" and Sioux City Line. Day Train has handsome observation vestibule Sleepers, free Chair Cars and Dining Cars (north of Council Bluffs). Night Train has handsome Sleepers to Omaha, Council Bluffs and Sioux City, and Parlor Cars Sioux City north. Consult ticket agent.

L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

#### \$8.50 to Cleveland and Return \$8.50.

For the meeting of the Imperial Council of the Mystic Shrine, at Cleveland, O., June 23 and 24, the Nickel Plate road will sell tickets June 21 and 22, Chicago to Cleveland and return, at \$8.50 for the round trip, which is \$1.50 less than via other lines. Tickets available on all trains, returning until June 25. Further information cheerfully given on application to J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 107

#### "Among the Ozarks."

The Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of South Missouri scenery, including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address,

J. E. LOCKWOOD, Kansas City, Mo.

#### Seekers for Homes,

Who wish to start over again in some locality where good land is plentiful and climate is favorable, should post themselves relative to the irrigated districts of Kansas, New Mexico and Arizona, the dirt-cheap farms of Oklahoma, and the fruit tracts in southern Texas.

To find out the facts address G. T. Nicholson, G. P. A., Monadnock building, Chicago, or J. E. Frost, Land Commissioner, Topeka, Kas.

And the Santa Fe is the best line to almost every part of the Great Southwest.

#### Low Excursion Rates to the East, via "Burlington Route."

HALF RATES.

N. E. A. Meeting, Buffalo, N. Y., July 7 to 11.

Christian Endeavor Meeting, Washington, July 7 to 13.

Baptist Young People's Union of America, Milwaukee, July 16 to 19.

National Republican League, Milwaukee, August 25 to 27.

Democratic Convention, Chicago, July 7. Ask ticket agents for tickets via Vestibuled "Eli" to Chicago, and via Vestibuled Limited to St. Louis.

Both trains supplied with the most modern equipment. L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.



## The Apiary.

Conducted by A. H. Duff, Larned, Kas., to whom inquiries relating to this department should be addressed.

### Use of Surplus Combs.

EDITOR KANSAS FARMER:—I have just come into possession of fifteen stands of bees, with considerable amount of supplies, including frames of empty comb. Some of this comb is very dark, colored to the full depth; some frames of combs are dark only in the lower portion, and still others are rather soggy and moldy. I have had no experience in bee-keeping and would ask your advice as to the best use to put this comb to. Would you recommend using it in the upper story of hive when running for extracted honey? (2) When is the proper time to put on upper stories or supers after a new swarm has been hived.

J. M. SMITH.

Globe, Kas., June 6, 1896.

All frames of comb that have not been cut up and mutilated by mice, moths or otherwise, may be used for any purpose that combs are used for, except to produce marketable comb honey. They may be used in the brood chamber, or supers for extracting, or storing comb honey for the use of the bees. Combs always become dark if brood is raised in them; this always colors them, but does not injure them. There is scarcely a limit to the time of usefulness of frames of comb, if they are taken care of. I have had them in constant use for fifteen years.

Moldy combs and combs filled with dead bees are not injured, but if we undertake to clean such combs of ourselves we very soon injure them, and many valuable combs have thus been destroyed. To clean such combs place them in the hive, or in an upper story of a strong colony of bees, and they will complete the work perfectly in a very short time. I very well remember at a time in my early bee-keeping, during a severe winter, I lost nearly all my bees, and as a result the frames of comb were filled with dead bees, and I undertook the job of cleaning them. I spent several days at it, and besides almost ruining my combs, when the bees would have done the work perfectly in less than one hour. Had I got such a hint as above it would have saved me many dollars.

The proper time to place upper stories or supers on the hives is at the beginning of the honey flow, and when the colony is strong or the hive full of bees, and some five or six frames of brood in the same. A large swarm, just hived, if furnished with comb or foundation, is ready for the super at once.

Rev. L. L. Langstroth.

Rev. L. L. Langstroth, the inventor of the movable-frame hive, died at his home in Dayton, Ohio, on the 6th of October, 1895, in his eighty-second year. In 1851 he invented his hive, which has revolutionized the bee-keeping world, and is almost in exclusive use to-day by leading bee-keepers everywhere. A short time before his death, on September 4, he attended the North American Bee-keepers' Assn. at Brantford, Ontario, Canada, and in his talk there he gave the following history of the introduction of the Italian bee into this country:

"Perhaps you would be interested and amused to learn some of the history of the introduction of the Italian bees into this country, by Mr. S. B. Parsons, of Flushing. Mr. Parsons was intending to travel in Europe with his wife, and the Commissioner of Patents gave him a sort of roving commission, to see after any new plan he thought would be useful to introduce, but particularly to get possession of the Italian bees. Mr. Parsons knew nothing about bees. He was a great florist and had a large nursery, and is a man of taste and genius, and a good and honored man in every way. He got to Europe and he fell into the hands of Mr. Hermann, with whom he made arrangements to get possession of these Italian bees. He first bought eight or ten colonies in that district where they were said to be the most pure. He had them transported on the backs of mules over the mountain

passes, and they were carried safely to Genoa, where he intended to depart for this country. They were in old log hives and the mouths of the hives were covered with strong canvas to confine the bees. Well, they had borne the mule-riding, they bore the transportation by sea, and they got safely to New York city. Now, what do you think he did? He had them carried in rough carts over the rough stones in New York city, and a great many of the combs broke down. When he got them he did not know what to do with them. Some one told him if he had an empty greenhouse to put them in it, and so he put them there. The floor was soon strewn with dead bees and he found this would not work. Then he was advised to place them in an old bee-shed, which he did, and inclosed the same with mosquito netting to keep the bees from running away. It was a beautiful April day that I reached his place by request, and found, I think, eight of those hives of bees. Upon examination I found them all dead except a few in one hive, about as many as would cover my two hands; but I saw some eggs, and that inspired the hope that there was a queen, and at last I saw a beautiful Italian queen. We received information that a steamer was coming, bringing more bees, and he expected Hermann, the German of whom he bought the bees, but Hermann did not come, but Bodden, an Austrian, had charge of the bees, and he says: "My bees have had a hard time Here is Bonne et Belle Regina" (the most beautiful queen), and he put them into my hands, and I got as quick as I could to Mr. Parsons' apiary. There came three different packages of these Italian bees, one for the patent office, one for a Mr. Hehann, a skillful bee-keeper, and one for Mr. Parsons. On opening I found them all dead except the last named. Then came a man from California, who had the promise of bees sold to him. I saw him offer \$500 in gold for one of those queens. Mr. Parsons would not accept it. He said: "I have only two left. I cannot afford to sell these queens."

### Bee Notes.

Bees are the only farm stock that are self-supporting. They give a valuable product, and yet cost nothing beyond providing shelter. What they eat comes from a source that would be otherwise useless, did they not gather it. They work for us for nothing and board themselves. It is true that beekeepers often purchase food for bees, but it is only to replace the honey taken from them with something less expensive. There is scarcely any locality that bees will not prove profitable under any ordinary management.

Bees should not be allowed to fly while there is snow on the ground. They are not liable to attempt it, unless they become affected by long confinement. This may be prevented by shading the hives so the sun will not strike them. In chaff hives the outside atmosphere will not so readily affect them, but in thin hives it will bring them out before the weather is acceptable to them. Snow may be shoveled about the entrance to prevent them from emerging until the atmosphere is well warmed up. The hives may be totally covered with snow without doing any injury. It is a mistake to clear away snow from about bee-hives during winter. Bees will not suffocate by being covered with snow, but it is a protection to them, and in localities where deep snows are prevalent, it has thus been used with good results.

### \$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer one hundred dollars for any case that it fails to cure. Send for list of testimonials.

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

### Gossip About Stock.

J. M. Anderson, who has been supplying the city of Salina for past twenty years with milk and other dairy products, now offers his dairy for sale. See advertisement in another column of this issue.

The FARMER received a call this week from the manager of one of the most extensive cattle ranches in Colorado and the Pan-Handle country, who desires to purchase one hundred young thoroughbred Short-horn bulls for delivery during October. They must be good individuals and all red. Any of our readers having a number of such for sale should send this office particulars and we will see that this purchaser gets the information.

C. M. Irwin, of Elm Beach stock farm, Wichita, Kas., writes: "Our pigs are coming on finely. G. Hornaday shipped us his fine sow, Silver Bar U. S., that he bought at Sunny Slope sale, to be bred, and we have bred her to Sir Charles Corwin; also, the Sedgwick Nursery Co. shipped us their fine gilt, Lady Lincoln, which we have bred to the same great boar. Martha Washington J. H. S. has just farrowed an extra fine litter of pigs from the great boar, Hadley Jr. We will book a line of five sows to be bred to Sir Charles Corwin at \$25 each. Everything is pointing to a most prosperous trade this fall and we surely are in shape to supply the demand with extra choice pigs. We invite all breeders and intending purchasers to make our farm a visit."

Notwithstanding the low prices of fat hogs at this time, Mr. B. R. Adamson, proprietor of the very excellent herd known as the Tower Hill herd, at Fort Scott, Kas., reports herd in excellent condition and late sales as follows: One Free Trade boar pig to F. F. Bracken, Barnard, Kas.; one Black Stop and one U. S. Butler gilt went to recruit the Clover Leaf herd, near Fort Scott; a Wilkes gilt and a Free Trade gilt was selected in person by Mr. Still, of the breeding firm, Still & McFadden, Paris, Tex. Mr. Adamson says that he can spare a few more choice boars that are ready for service; also a nice lot of unbred gilts are yet on the farm from which extra top selections can be made. The spring pig crop of about 140 head, are coming on in fine condition under the immediate supervision of the herd manager, Mr. J. T. Gilmer.

### ONE HONEST MAN.

DEAR EDITOR:—Please inform your readers that if written to confidentially, I will mail in a sealed letter the plan pursued by which I was permanently restored to health and manly vigor, after years of suffering from Nervous Weakness, Loss of Manhood, Lack of Confidence, etc. I have no scheme to extort money from any one whomsoever. I was robbed and swindled by quacks until I nearly lost faith in mankind, but thank heaven, I am now well, vigorous and strong, and anxious to make this certain means of cure known to all. Having nothing to sell or send C. O. D. I want no money. Address  
JAS. A. HARRIS, Box 807, Delray, Mich.

Vandalia-Pennsylvania Short Lines from St. Louis. Excursion tickets on sale June 6, 7 and 8. Solid trains from St. Louis Union Station to Pittsburgh Union Station. For particulars address W. F. Brunner, A. G. P. Agent, St. Louis.

### You Will Save \$1.50

If you patronize the Nickel Plate road Chicago to Cleveland and return on occasion of the meeting of the Imperial Council, June 23 and 24, at Cleveland, O., for which tickets will be on sale at \$3.50 for the round trip, June 21 and 23, available on all trains and returning until June 25. Why not travel over the Nickel Plate road? Perfect service; luxurious sleepers; unexcelled dining cars. For further information as to trains, etc., write J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 109

The Hermit Remedy Co., 183 Dearborn St., Chicago, Ill., guarantee their remedy to cure any case of piles. They offer to any of our readers to guarantee an absolute cure and no pay until the cure is accomplished. They propose that any one so afflicted may deposit the \$10 with this paper to be paid over as soon as cure is effected. This is certainly a very fair proposition and there is no chance for a misunderstanding in regard to it. We think they are willing and capable to do what they propose or we would have nothing to do with the matter. Write to them for further information.

### To Chicago, St. Louis and the East via Burlington Route.

The traveling public is sure to find the best fast vestibuled trains from the Missouri river to the East via the "Burlington Route." Elaborate compartment sleepers (same rate as standard sleepers); free chair cars of luxurious pattern to St. Louis; standard sleepers, free chair cars, and dining cars to Chicago.

Ask ticket agent for tickets via Vestibuled Eli to Chicago, and via the Vestibuled Limited to St. Louis.  
L. W. WAKELY, Gen. Pass. Agt.,  
St. Louis, Mo.

## Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!  
SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with the order. Stamps taken.

MEADOW BROOK HERD OF SHORT-HORNS.—Registered bulls at reasonable prices. F. C. Kingsley, Dover, Kas.

NOTE—Secured by mortgage on Kansas farm, to trade for good jack, sheep or Jersey cattle. Box 5, West Point, Okla. T.

FOR SALE—A new, solid rubber tire bicycle, for only \$15. Good for service anywhere. No fear of puncture. A bargain for some farmer boy. Call and see it at KANSAS FARMER office.

FOR SALE, CHEAP—A Buckeye incubator and brooder. 1812 Clay St., Topeka.

WRITERS WANTED—To work at home. Send stamp. S. M. Bohanna, Wellington, Kas.

JERSEY HEIFER FOR SALE—Solid fawn with black points. Breeding the best. Address Professor Georgeson, Manhattan, Kas.

FOR SALE—Three well-bred Jersey bull calves; three, six and twenty months old. Price \$10, \$15 and \$20, respectively. N. P. Wiley, Hutchinson, Kas.

THE BEST VARIETY OF FIELD BEANS—Is the Wisconsin Tree. Now is the time to plant them. You might just as well raise what you use and have some to sell. Half bushel, \$1.25; one bushel, \$2.25; two bushels, \$4.25. Henry E. Peers, Marion, Kas.

SEELING'S POULTRY COMPOUND.—Every farmer who keeps poultry should use Seeling's Poultry Compound. It will keep the birds free from lice and mites and prevent cholera. Price 50 cents per pound package. For sale by leading grocers or sent by mail by the manufacturer. Agents wanted everywhere. Address W. L. Seeling, Paxico, Kas.

SHORT-HORN BULLS FOR SALE—Cruickshanks S and Bates breeding. Sired by Valley Champion 110477. Address C. Chambers, Mont Ida, Anderson 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.

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

WANTED—Buyers for Large English Berkshires and improved types of Poland-Chinas, from prize-winners, at farmers' prices. Riverside Stock Farm, North Topeka, Kas.

WANTED—On a small farm, before July 1, a farm-bred woman, healthy, neat and industrious, as working housekeeper. Address "X. Y. Z.," care this paper.

FOR SALE—A hedge-trimmer which can be attached to a McCormick mower. Will be sold at a bargain if taken quick. Inquire at KANSAS FARMER office.

900,000 TEN BEST KINDS SWEET POTATO plants for sale during May and June at low prices. Inquire of N. H. Pixley, Wanego, Kas.

AUBURN POULTRY YARD.—Eggs for sale from prize-winning B. Langshans and S. S. Hamburgs. B. Langshan pen headed by first premium cock at the State poultry show at Topeka, 1896; first on Hamburg breeding pen. A few cockerels left for sale. Write for prices. Address W. E. McCarter & Son, Auburn, Kas.

WANTED—Buyers for Large English Berkshire gilts, bred or ready to breed to son of imported boar. Bargains! O. P. Updegraff, North Topeka, Kas.

FARMERS, SETTLERS, HEALTH-SEEKERS IN Florida. Write us for information and low prices on homes, orange groves, grape vine, pineapple, fruit, vegetable and farming lands. State requirements. Staplyton & Co., Leesburg, Lake Co., Florida.

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

STRAWBERRY PLANTS FOR SALE.—Mitchell's Early, Crescent, Sharpless, Kentucky, Warfield, \$2.25 per 1,000. Remit with order. Address John E. Hardin, Foreman Eglantine Orchards, Koshkonong, Mo.

WANTED—Readers of the KANSAS FARMER to try our "Special Want Column." It is full of bargains and does the business. For less than one dollar, 2-cent postage stamps are acceptable.

EGGS FOR HATCHING.—See advertisement elsewhere. Belmont Stock Farm.

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

SHORT-HORN BULLS—Cruickshank-topped, for sale. Choice animals of splendid breeding. Address Peter Sim, Wakarusa, Shawnee Co., Kas.

PURE SORGHUM SEED—Three varieties, heavy crops of cane and seed; rich in sugar and best winter keepers. One dollar (\$1) per bushel. Mary Best, Medicine Lodge, Kas.

BERRY BOXES AND POULTRY SUPPLIES—B Millet, cane, buckwheat and shipping baskets. T. Lee Adams, 418 Walnut St., Kansas City, Mo.

ALFALFA—Crop of 1895. Pure seed for sale. Address W. P. Haywood & Co., Lakin, Kas.

LADIES To sell toilet soaps, etc. Outfit free. Send two references from business men. The Minceaux Soap Co., Cincinnati, Ohio.

### Salesmen Wanted!

\$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address with stamp, King Mfg. Co., F. 29, Chicago, Ill.

## FOR SALE!

Dairy of thirty choice cows, with well established route in city, fine farm, with large apiary and stock of pure-bred poultry. Horses, hogs, etc., if desired.

J. M. Anderson, Box 246, Salina, Kas.

FREE Cut this out and send to-day for free catalogue. \$2.75 buys natural finish Baby Carriage with plated steel wheels, axle, springs, one piece best handle, 3 years guarantee. Carriages sent on 10 days FREE TRIAL. BUY FROM FACTORY & SAVE DISCOUNT. OXFORD BROS. CO., 840 Wabash Ave., CHICAGO. When you write mention Kansas Farmer.



## The Home Circle.

### OVER THE RIVER OF DROOPING EYES.

Over the River of Drooping Eyes  
Is the wonderful land of dreams,  
Where lilies grow as white as snow,  
And fields of green and warm winds blow,  
And the tall reeds quiver, all in a row—  
And no one ever cries;  
For its a beautiful place for girls and boys,  
And there's no scolding and lots of noise,  
And no lost balls or broken toys—  
Over the River of Drooping Eyes  
In the beautiful land of dreams.

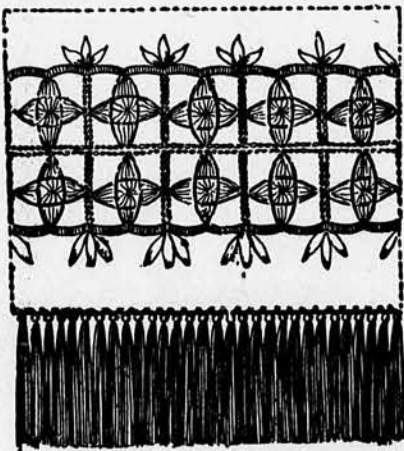
Over the River of Drooping Eyes  
In the wonderful land of dreams,  
There are horns to blow and drums to beat,  
And plenty of candy and cakes to eat,  
And no one ever cleans his feet,  
And no one ever tires!  
There are plenty of grassy places for play,  
And birds and bees they throng all day,  
Oh, wouldn't you like to go and stay  
Over the River of Drooping Eyes  
In the beautiful land of dreams.  
—Chicago Interior.

### SIDEBOARD SCARF.

A Crochet Novelty Which Closely Resembles Drawn Work.

A very dainty novelty in crochet work is shown. At first sight one can hardly believe that it is crochet work, so closely does it resemble the drawn work patterns from which it is copied. The patterns can be utilized for coarser work than that for which they are designed. They may be adapted for bureau scarfs, tablecloths, tidies, cushions, etc., in combinations with linen, scrim or silk, but reproduced in their greatest perfection they should be of fairy-like texture.

A pattern for the ends of a sideboard scarf may be made any desired width or length. Make a ring of 6 ch; work 4 groups of 5 tre with 2 ch between;



DAINTY SIDEBOARD SCARF.

join; this forms a square; work 5 d tre drawn off together at the top on each side of the square with 13 ch between; work 5 ch to form the first d tre. Break off, make another center as before, but catch the first point to point in first square, 6 ch, join to 7 ch in first square, 6 ch, make another point and repeat with 13 ch between.

The following squares have to be joined on two sides: When the required length is made work on each side 6 d c into each space, 1 d c into each point and 1 d c where the ch join. For knotted fringes pierce holes in the linen close to the edge (which should be doubled as far as the insertion) by means of a sewing machine, with the needle not threaded; set the stitch large. Work into the holes dc with loops of ch between; into these loops knot the fringe made of the same thread used for working.

### ODOR OF FEATHERS.

It Is Due to Their Being Improperly or Hastily Cured.

Properly cured feathers have no odor. When there is a close, disagreeable odor present, it is due to their being improperly cured. There is no remedy which we are aware of for this. Airing the feathers will do no special good. The smaller the stem of the feather the less danger of trouble. The odor comes from the decay of the animal matter in the pith of the feather, and the larger the stem the greater the proportion of this matter and the more likely to be trouble. Where feathers have been subjected to the proper degree of heat at the beginning before decay takes place all the pith is thoroughly dried out and cannot become odorous. Where the pith has once been left to decay and infect the feathers with its foul odor, a harm has been done that cannot be completely undone. It is waste of time to attempt to disinfect such feathers. All feathers should

be "done over" at least once in six or seven years. They are improved by hanging them out occasionally in the rain and sun, to enable the ticks to become thoroughly aired and cleaned. Modern invention has introduced a little modern ventilator in the side of the new pillows which pumps air among the feathers, and, it is said, makes the pillow lighter. It always pays to buy the best feathers, because they are so much lighter, that bulk for bulk the best are no dearer than the poorest. It is generally cheap feathers with coarse quills that become odorous.—N. Y. Tribune.

### COLORED GLASS WINDOWS.

How a Fine Effect May Be Produced from Old Bottles.

If the artistic and thrifty housewife will save the colored glass bottles that find their way into her house and put them to use in the following manner, she will have something that will be a delight: Break the bottles into comparatively small pieces and then, if a certain regularity is desired, cut the pieces into shape with a diamond-pointed glass cutter.

Arrange these on a pane of plain white glass the desired size, using a little transparent cement to hold them in place, and a mixture of white cement and putty to imitate the lead that is used in expensive stained glass work. The dull, rich olive of the claret bottle, the deep amber of the sherry, the delicious sea-water green which is used for ginger ale and the various shades of red and blue that one gets from the apothecary and the wine merchant are revelations when cleansed of their contents and held in single thickness against the light.

When the cement is dry the window can be put in place, and as the sunlight strikes it she whose fingers have done the work will feel that it was well worth the trouble.

### NEAT CENTER PIECE.

One of the Prettiest Designs Illustrated for a Long Time.

Pillow-case linen or a heavier quality may be used for this, and the design is to be worked with Ulster rope linen floss, either in outline or long and short stitch. It will develop beautifully in two shades of blue—Nos. 51 and 52—or in yellow; Nos. 2 and 4.

Work the outlines of scroll in outline stitch. This will be effective and sat-



isfactory of itself, but if heavier work is desired, work in long and short stitch, running the stitches from the outside towards the center of scroll and keeping the general inclination and curve of the scroll. The corners may be filled with drawn work or not, as preferred; but the work will be much handsomer with it. Any pretty, all-over pattern may be selected and the edges of the corners, hem-stitch, hem and so forth finished in long and short buttonhole stitch with one of the shades of blue linen floss.—Ida B. Bennett, in Western Rural.

### Paste That Will Keep a Year.

Dissolve a teaspoonful of alum in a quart of warm water. When cold, stir in flour enough to give it the consistence of thick cream, being careful to beat up all the lumps. Throw in half a dozen cloves and stir in as much powdered resin as will stand on a penny. Pour the mixture into a teacupful of boiling water, stirring well all the time. Let it remain on the stove a few minutes and it will be of the consistence of mush. Pour it into an earthen or china vessel; let it cool; cover it and put in a cool place. When needed for use soften a portion with warm water. It will last a year, and is better than gum, as it does not gloss the paper and can be written upon.

### PRETTY SPONGE BAG.

How to Make One of These Useful Bathroom Accessories.

Procure some thin waterproof sheeting. Cut a piece nine inches wide by half a yard long. Make this into a bag by folding it in half and stitching it around the edges with liquid india rubber, sold for this purpose at any mackintosh shop. Take a piece of linen, white or colored. Cut off a piece nine inches wide by one yard. Trace or iron off a transfer spray on one side, and on the other, with a pencil, write in a bold hand the words: "Sponge Bag." Work this all on in flourishing thread. Now make a narrow hem at each end, fold



the material in half and fasten up the sides to the depth of ten inches. Turn right side out and tack with firm stitches the top of the mackintosh bag to the narrow hems of the linen bag. When the former is pushed down into place in the latter you will have a four-inch frill standing up above the mackintosh. This must be turned in at the ends and sewed up, leaving half an inch open for a drawing string. Make a casing by putting a running from side to side at each of these openings and insert two pieces of cord, one coming out of each side, so as to form a double drawing.—Chicago Chronicle.

### HOUSEHOLD HINTS.

MATTING is one of the most satisfactory coverings for the floor, especially in summer. Get a fair quality and it will stand much service.

HALF an ounce of gum arabic, dissolved in a little boiling water and thickened with plaster paris, makes an excellent cement for broken china.

THE invalid who begins to tire of a diet of beef tea will find it greatly improved by the use of different flavors, such as a bay leaf, a clove or a bit of mace.

A SHOVEL of hot coals held over varnished surfaces that have become spotted, will remove the spots. Care must be taken, however, not to blister the surface.

SARDINES are excellent mixed with the chopped pulp and grated yellow peel of lemon, seasoned with salt and pepper, and spread on hot toast or crackers. Two lemons are used for one small can of fish.

SPANISH onion chopped fine and mixed with twice the quantity of canned salmon is said to be an appetizing filling for a sandwich to be eaten at bedtime. The mixture should be seasoned with salt, pepper and a very little vinegar.—Womankind.

### SHOWING OFF CHILDREN.

Praising the Little Ones for Smart Speeches is a Mistake.

Otherwise judicious mothers find it hard to resist the temptation of "showing off" their children. While this pastime may be delightful to the fond parent and interesting to beholders, its effect upon the child himself cannot fail to be injurious. It is but sowing seeds of trouble for the child which will bear a harvest of humiliation and mortification in years to come. We constantly hear fond fathers and mothers say that "when Johnnie goes to school or college he will have his freshness taken out of him."

But who is to blame for Johnnie's freshness, and his exalted opinion of himself? The mischief was done when the little chap was hardly more than a baby, and was brought into the parlor to repeat to Mrs. So-and-so the droll remark that he had made that morning, or the clever reproof he had administered last night to his dotting papa. And later on, when the boy learned to

read, was he not called upon to regale his relatives by telling them of this event in history or that occurrence in mythology? And they all listened as if they thought him an infant phenomenon, and were glad to sit at the feet of such wisdom. And so it went on until one day his family awoke to the consciousness that Johnnie was no longer a baby and "cute" and "cunning." Now he is unbearably pert and disgustingly conceited—on the whole a detestable prig. He must be sent away to school. Home is not the place for him. He is simply unmanageable, and requires outside snubbing to teach him his place. This he undoubtedly receives at boarding-school, where teachers and comrades unite to undo the mischief done through years of home training. And the boy, at first bewildered, then resentful, loses a part of his self-importance, and at last mends his manners.

If a mother thinks—as most mothers do—that her child is a prodigy, let her exercise enough self-restraint to keep the conviction to herself.—Harper's Bazar.

### Vienna Ice Cream.

Set on a moderate fire in a clean kettle two quarts of milk, yolks of 12 eggs, one-half of a vanilla bean, one and three-fourths pounds of sugar, stirring slowly but steadily with beater. As soon as it is near boiling, take off, cool a little, and add one quart of double cream; strain through a fine sieve and freeze.—Good Housekeeping.

Thin or gray hair and bald heads, so displeasing to many people as marks of age, may be averted for a long time by using Hall's Hair Renewer.

Enclose a stamp to any agent of the Nickel Plate road for an elaborately illustrated art souvenir, entitled "Summer Outings." Address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 110

### Ice Cream Now Made in a Minute.

I have an ice cream freezer that will freeze cream perfectly in one minute; as it is such a wonder a crowd will always be around so any one can make from \$5 to \$6 a day selling cream, and from \$10 to \$20 a day selling freezers, as people will always buy an article when it is demonstrated that they can make money by so doing. The cream is frozen instantly and is smooth and free from lumps. I have done so well myself and have friends succeeding so well that I felt it my duty to let others know of this opportunity, as I feel confident that any person in any locality can make money, as any person can sell cream and the freezer sells itself. W. H. Baird & Co., 140 South Highland Avenue, Station A, Pittsburgh, Pa., will mail you complete instructions and will employ you on salary if you can give them your whole time.

**FREE** trial in your home. Cut this out and send for catalogue. Prices to suit you. Oxford Sewing Machines awarded World's Fair Medal. DOES WHAT ANY WILL DO. FULL SET OF ATTACHMENTS. TEN YEAR GUARANTEE. FREIGHT PAID. ADDRESS: OXFORD MUSE CO., 340 Wabash Ave., CHICAGO.

**FORTY FOR \$1.00.**  
For the next 60 days we make this extraordinary offer on our **HIGH-ARM SINGER MACHINES**. On receipt of \$1 we will send our No. 3 High Arm on 30 days' trial (price \$12.25), or our No. 1 (price \$16.75). Our machines are the best made; our No. 1 beats the world; 10 years' guarantee with each. Deal with a reliable house; buy at factory prices. H.R. Eagle & Co., 70 Wabash, Chicago.

Of course it's imitated—anything good always is—that's endorsement, not a pleasant kind, but still endorsement. HIRE'S Root-beer is imitated.

Made only by The Charles E. Hires Co., Philadelphia. A 25c. package makes 5 gallons. Sold everywhere.

**DISEASES**  
of the Liver, Kidneys  
and Bladder are quickly  
relieved and permanent-  
ly cured by using  
**Dr. J. H. McLEAN'S**  
**LIVER AND KIDNEY**  
**BALM**

For sale at Druggists. Price, \$1.00 per bottle

THE DR. J. H. McLEAN MEDICINE CO.  
ST. LOUIS, MO.



# The Young Folks.

## PROPHECY.

Upon his wooden hobby horse  
He galloped to the fray,  
The sunlight in his ruffled curls,  
His laughter ringing gay.  
And she who watched that reckless ride  
Across the nursery floor,  
And smiled upon the paper hat  
And the wooden sword he wore—  
Yet saw, through mist or sudden tears,  
A vision strange and new—  
Her little lad a soldier grown,  
The prophecy come true!

Years after, when the play was real,  
And through the crowded square  
Brave men to battle marched away  
Amid the trumpets' blare,  
One watched with all a mother's pride  
Their captain strong and tall;  
Yet as she looked with loving eyes,  
The pageant faded all!  
She only saw a fair-haired child  
Who galloped to the war,  
Upon his wooden hobby horse,  
Across the nursery floor.  
—Good Housekeeping.

## PRETTY MRS. YANG YU.

### A Chat About the Chinese Minister's Wife and His Family.

The Chinese legation at Washington is in a great brown-stone on one of the most popular thoroughfares of the city, and on sunny afternoons members of this picturesque household may be seen on the wide verandas or lawns, wearing their little black skull caps and their rich robes of gray and blue silk, beneath which peep white leggins and cork-soled, untanned kid boots. Mrs. Yang Yu and the children and their maids are often on the south porch catching glimpses of life which must strike her as the strangest thing in the world.

Mrs. Yang Yu has a singularly intelligent face. She has enjoyed marvelous privileges for one of her sex and nationality, an American can hardly



MRS. Y. AND HER LITTLE ONES.

conceive how great. She has been permitted to be a spectator in all the official functions of the capital; to make visits and to receive guests, and, lastly, to give a high tea. High teas are select affairs elsewhere, but in Washington they are promiscuous crushes, in which half the guests are uninvited, and the crush was at its worst when the Chinese legation was thrown open, for suddenly some of the privileged holders of invitations brought out families as large as those of the Mormons or the Turks.

There is a great prejudice among the Chinese against having photographs taken. They think a photograph brings bad luck. The superstition does not seem to trouble the present minister, however, as he and the whole legation have been photographed, and recently Mrs. Yu and the children.

The difficulties of communication with the Chinese made it impossible to get the names of the three children shown in the pictures. The reporter was told the names were "unpronounceable in English." The boy who stands alone is six years old, and the two girls, who appear with their mother, are four and two years old.

The Chinese minister is now in South America. He is also minister to Peru, and divides his time between the two countries. His staff at the Chinese legation consists of two secretaries, 11 attaches and three translators. Only two of the staff are permitted to communicate with Mrs. Yu during the absence of her husband.

The Chinese legation's house is not closed during the hot season, as are so many of the diplomatic stations. The Chinese do not seem to mind hot weather. They go from one place to another as the fancy strikes them, and make short excursions to the best-known resorts, but there are always

enough men at the legation to keep the house open. The younger men of the legation take to the bicycle with ease. On their wheels they wear a costume half way between the bloomer of the new woman and the outing suit of the man of fashion.—N. Y. Sun.

## AMONG THE SWALLOWS.

### Social Habits of the Birds, as Observed by L. E. Chittenden.

Mr. L. E. Chittenden, in his "Personal Reminiscences," gives an interesting description of the social habits of swallows. He was encamped one night on a small island in Lake Champlain.

As the sun approached the horizon a few swallows came and alighted in the branches of the cedar trees with which the island was covered; then more came, and still more, until flocks of many hundreds coming from every point of the compass, were converging upon the island.

"My supper," says Mr. Chittenden, "was prepared and served to the accompaniment of innumerable angry but musical voices. After some time the disputes appeared to be adjusted, and there was a profound quiet, only broken here and there by some individual apparently talking in his sleep or disturbed by the nightmare.

"Making as little noise as possible, I forced myself under the branches, well into the grove, disturbing many sleepers in my progress. On raising my hand to a branch, I discovered that the swallows were literally packed along it side by side. The light of a match showed that every branch in view was laden in the same manner.

"The light awakened them, but they fell asleep as soon as it was extinguished. I could have captured scores within reach of my hand.

"As the gray dawn was creeping over the eastern mountains there was a clear note from one of the tallest cedars in the grove. It was the reveille. There was an answering call, then another, then many, and in a minute the grove was alive with voices. Soon a swallow shot out from the grove and made one circuit, sounding its call. Others followed until a small flock was collected, which moved westward over ten miles of water to the shore. Others followed, collecting in separate flocks and taking flight in different directions.

"Within five minutes the last swallow had departed, and solitude reigned in the grove."—Youth's Companion.

## CARNIVOROUS PLANTS.

### One Is a Good Fisherman and the Other a First-Class Trapper.

Something new about the bladder wort has been learned recently, according to the Fishing Gazette. The bladder wort is a small floating weed found in the fresh waters of the British islands, and until recently was regarded as an innocent bunch of vegetation; but now it is known that it is destructive to game fishes. "This subtle poacher is armed with almost microscopic jaws along its little branches," and the incautious little fish that rubs up against these gets grasped, and before long dies and is devoured by the plant.

A good many plants are known to subsist on flesh, and one of these, at least, lures its prey into a trap. Every visitor to the Adirondacks knows the hunter's pitcher; some remember it with pain. The pitcher is open at the top, and the rain keeps it half full of water. The thirsty insects see the water, and they go down into it and drink. Having had their fill, the flies try to climb out again, but no trap is surer than the hunter's pitcher. The inside of the pitcher is lined with short, stiff filaments, and the sharp points all incline down. The insect's feet catch in these, and after awhile it gets into the water and drowns.

The Adirondack woodsman likes a joke, and that is why the memory of these pitchers brings pain to the tenderfoot. The woodsman, acting as guide, goes tramping into the woods, leading the tenderfoot to some fishing waters. The trail, if on a hot day, is dry as a bone, and at each step the tenderfoot gets dryer and dryer, and begins to want to know how far it is to the next spring. They come to a swamp, and the tenderfoot feels sure there must be water thereabout, but the woodsman says there is not a bit. Then he picks up one of the numerous pitch-

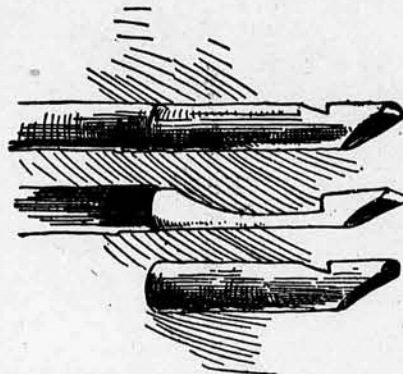
ers, puts it to his lips a moment, then throws it to the ground. Water flies out and the thirsty one sees it. He breaks one off and without examination takes a couple of big swallows. The woodsman shrieks: "Fly soup," and rolls over the moss bed of the swamp. The victim shrieks, too. And for years after the mention of hunter's pitchers makes him gag—it is two or three days before he cares for fish or food.

## WHISTLES FOR THE BOYS.

### How Noise-Producers May Be Made from a Willow Twig.

This is the season when every boy may have a whistle, and one that will make noise enough to suit the most exacting youngster. The whistles may be made from a short slip cut from a willow tree or twig when the sap is working upward from the roots between the bark and wood of the tree. The season ends when the trees are in full leaf. In that period of a few weeks millions upon millions of whistles are made by the boys who live on farms and in villages from one end of the country to the other. In the New England states the favorite wood for whistles is the alder. This bush lines the banks of every brook and pond, its wood is soft, its bark is smooth and free from knots and it draws a profusion of sap from the wet ground where it usually grows, which causes the bark to slip easily from the wood. In the middle and western states the willow and poplar are the favorite woods for whistles.

Whistles are made the same way everywhere. A smooth limb or sucker



HOW THE WHISTLE IS CUT.

is selected and cut off. The mouth end is trimmed right, a notch is cut in the top for the escape of the breath, a ring is cut in the bark at the right distance from the end, and then the bark is moistened with saliva and the whistle is laid on the knee and pounded with the knife handle to loosen the bark from the wood. A twist of the bark pulls it off the wood and then a deep notch is cut out of the wood, the bark is put on and the whistle is finished.

Many a man's most pleasant memories are of the happy days he spent in boyhood in the creek bottoms making willow whistles.

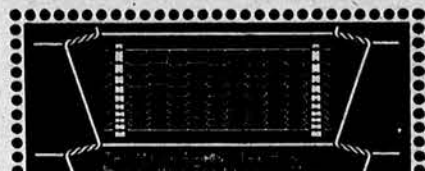
## Cherry Stone Curiosities.

There is a cherry stone at the Salem (Mass.) museum, which contains one dozen silver spoons. The stone itself is of the ordinary size, but the spoons are so small that their shape and finish can only be well distinguished by the microscope. Dr. Oliver gives an account of a cherry stone on which were carved 124 heads, so distinctly that the naked eye could distinguish those belonging to popes and kings by their mitres and crowns. It was bought in Prussia for \$15,000, and thence conveyed to England, where it was considered an object of so much value that its possession was disputed and it became the object of a suit in chancery.

Some people are constantly troubled with pimples and boils, especially about the face and neck. The best remedy is a thorough course of Ayer's Sarsaparilla, which expels all humors through the proper channels, and so makes the skin become soft, healthy and fair.

## Ottawa Ohantauqua.

Tickets will be sold by the Missouri Pacific, June 13 to 26, from Topeka at rate of \$1.59 for the round trip, limited for return trip to June 30. From all other stations in Kansas at rate of one fare for the round trip. Train leaves Topeka 8 a. m.



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## An Experiment That Failed.

A bee is a busy little creature, and as wise as he is busy. It can gather about a grain of honey a day, which seems very small, but as there are 10,000 bees in a hive, the aggregate is very large. Years ago a speculator sent swarms of bees to the West Indies, hoping to have honey in plenty, but he was disappointed. The wise little insects soon learned that there was no use piling up honey for winter, because the flowers were in blossom all the year round, so they only made as much as they could eat, and the experiment failed.

## For the Meeting of the Nobles of the Mystic Shrine, at Cleveland, June 23 and 24,

the Nickel Plate road will sell tickets available on trains June 21 and 22, from Chicago to Cleveland and return, at \$8.50 for the round trip, good returning until June 25. This is a saving of \$1.50 on the round trip, as compared with other lines, and our passenger service includes fast trains, drawing room sleeping cars, and an unexcelled dining service. For further particulars address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 108

## Low Rates to Cleveland.

The Nobles of the Mystic Shrine will meet at Cleveland, June 23 and 24.

For this occasion the B. & O. R. R. Co. will sell tickets at reduced rates from all points on its lines west of the Ohio river, for all trains of June 21 and 22, valid for return passage until June 25. The fare from Chicago will be \$8.50 and correspondingly low rates from all other points. Tickets will also be on sale at all points throughout the West.

The B. & O. is the only line running Pullman sleeping cars between Chicago and Cleveland.

For full information write to L. S. Allen, A. G. P. A., Grand Central Passenger Station, Chicago, Ill.

## Important to Teachers.

Low rate over the Great Rock Island Route to Buffalo and return to attend the convention, July 3-10, 1896.

Next month, in Buffalo, N. Y., the teachers from all over our land will meet in annual session.

They are perhaps the most truly representative body of any citizen gathering in our Union.

They are the instructors of the youth who belong to all classes and sects. The Great Rock Island Route realizes this and expects to transport with its elegant equipment thousands of these educators.

For tickets and sleeping car reservations, maps and time tables, call on nearest ticket agent and ask to be routed over the C. R. I. & P. Ry.

A beautiful souvenir, called the "Tourist Dictionary," has been issued and will be sent postpaid. Address John Sebastian, General Passenger Agent, Chicago.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Estab. lished in 1884. Calls and correspondence invited.

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# KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Thursday by the

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An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

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Electrotype 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.**

 KANSAS FARMER and Semi-Weekly *World* (N. Y.), you can have for \$1.65 one year.

In southeastern Kansas considerable areas of drowned-out corn are being plowed up and planted again.

The nineteenth semi-annual meeting of Kansas State Horticultural Society was held at Iola, on June 11 and 12.

Henry Clews intimates that American obligations held in foreign countries amount to about \$1,500,000,000.

 If you want KANSAS FARMER and Semi-Weekly *Capital*, send us \$1.50. Or, KANSAS FARMER and *Topeka Advocate*, send \$1.50.

The volume of business transacted in the United States shows a reduction of about 15 per cent. compared with this time last year and about 37 per cent. compared with the same date in 1892.

The great potato harvest of the Kaw valley is in progress. It began with some of the earlier sorts early last week. The crop is unusually free from weeds and appearances promise a great yield.

Farmers in the southern part of Kansas are now busy with their harvest. Indeed, in the extreme southern counties harvest commenced two weeks ago. Next week will see the great central wheat belt engaged in the harvest and a week later will bring harvest to the northern line.

In another column will be found a letter from Chancellor Snow, of the State University, to Land Commissioner Frost, of the Santa Fe railroad, relative to the "wheat head army worm." The suggestion to burn the wheat stubble is a most excellent one, not only on account of the destruction of the army worm, but also for its effect on chinch bugs and other insects injurious to crops.

The sugar produced by the Parkinson Sugar Co., of Fort Scott, in 1895, was inspected last week to determine its amount and whether its purity was such as to entitle it to bounty. Only about 46,000 pounds were made for the season. This, the first factory to manufacture sorghum sugar under the diffusion process and the last to yield to the inevitable result of low and lower prices, will not attempt to make another season's run.

Last Saturday's St. Louis quotations for alfalfa hay were: "Old, choice, \$9.25; new, \$9.50 to \$10." The freight on alfalfa hay from the great alfalfa fields of Kansas and Colorado to St. Louis is \$5 per ton. After commissions, etc., are paid, present prices should leave the grower not far from \$4 per ton for choice baled alfalfa. If this price can be assured the alfalfa lands of Kansas will be good for fair returns on a valuation of \$50 to \$100 per acre.

**WHAT OF THE TIMES?**

 In a review of markets for woolsens and for wool, the *American Wool and Cotton Reporter* of June 11, says: "Speaking of prices, it is the general opinion that there will be little or no delay in establishing them, for so many of the active factors are out of the consideration this year, but that prices will be at a low level seems to be a foregone conclusion. The wool market is low, wools are selling at almost any price, and mill hands are willing to accept low wages."

 The fact has been frequently remarked, by persons who have inclined to hold that the complaints of the times have been without cause, that, while prices for all commodities have been coming down, wages have remained substantially unchanged. Economists have dilated upon the assertion that the laborer's wages will now buy more of the comforts and luxuries of life than ever before. These "economists" have neglected to mention the constant and ever growing increase in the army of the unemployed, and that for every prospective vacant position there are scores anxious to secure it. The contention has often been fierce between the employer and the employed, as to rate of wages, and by firmly insisting, the employed has, in many cases, thus far been able to prevent serious reduction. It has been realized that the desperate condition of those who would be glad to take laborers' places, at two-thirds or half of the wages they are receiving, has grown more and more intolerable, as days out of work have grown into weeks, weeks into months, months into years, and yet no prospect—only politicians' promises—of improvement. And with each new shut-down, with each new reduction of force, has come renewed anxiety on the part of those having jobs, lest the next turn will add them to the great army of the unemployed. Indeed, each new reduction has added its hundreds or its thousands to this standing army. When there were prospects of improvement; when there was plausibility in the statement that the storm was passing and would soon be over, then, indeed, could the men who had employment maintain a bold front and demand and secure unimpaired wages. While the mill hands of the East could be led to believe that the trouble was only local, only temporary; and while the laborers of the West could be persuaded that only the newly-settled portions of the country, where improvements were yet to be made and to be paid for, and while the farmers of the West could be convinced that only they, on account of lack of capital and having to borrow, were cramped, there lingered hope and the determination to stem the tide. Labor organizations believed that by their combined efforts they could maintain wages. But now comes the *Wool and Cotton Reporter*, of Boston, and in the last sentence above quoted, says, "mill hands are willing to accept low wages." This means not in Kansas, "on account of the reign of cranks;" not in some far away and obscure mining region, where everything is under some peculiar local cloud, but it means in Massachusetts, in all New England, in all the civilized world. It means that the necessities of the unemployed, and the straightened circumstances of the partially employed; it means that the reduced earnings of the half-time system and the uncertainties of any work have begun to break the spirit of the labor organizations and is to be feared as the precursor of yet harder times for the laborer.

While politicians have, in every platform and from every stump and rostrum, prated about their care for the interests of labor, the steady increase of the army of the unemployed, and the now inevitable decline of wages, have given to party declarations a hollow sound.

The fact that the wages of those having employment have been maintained, while the returns for farm products—indeed, the returns for any kind of marketable productions, have declined to below cost, has led to the decline of independent effort, to the abandonment of individual operations by many who have added their numbers to those

contending for wage or salaried positions. The voice of the KANSAS FARMER reaches chiefly those who have to meet the conditions, the vicissitudes of farm life. If we were asked by the most discouraged farmer to point out an avenue in life presenting brighter prospects than his, we should have to advise him that such is not within the range of our vision. Let it not be thought that the trouble is local, or national. It is in the East as well as in the West, it is in England and in Europe, as well as in America. It is to be hoped that it is only temporary, but it is not safe to presume that it will terminate in a season, or after election, or in a year. Possibly we shall all have to continue to win our living with conditions growing harder instead of easier. In any case, he who has the means of getting a livelihood, whether it be on the farm, in the shop or factory or mine, should hold to it until he has a certainty of something better.

**CASTING THE CAMPAIGN.**

From its independent position, the KANSAS FARMER takes this (Tuesday) morning a glimpse at the national political situation.

The Republican convention for the selection of a Presidential candidate and for the declarations of the principles of the party, is just assembling at St. Louis. The selection of delegates from the several States seems to have left no doubt of the choice of Wm. McKinley, of Ohio, as the Republican candidate. Mr. McKinley is best known on account of the tariff law which bears his name and for which the succeeding Congress substituted the present law. The McKinley law was an ultra protective tariff measure.

But, while there has been an effort to make the tariff the leading issue, the greatest contention of the preliminary proceedings at St. Louis is over the financial issue. Eastern delegates contend for an unequivocal gold standard platform. Ohio and the middle Western States want some favorable mention of silver, while several States of the far West, led by Colorado, want a declaration for free coinage of silver. Threats of bolting have been unusually numerous from both the far East and from the far West. The news this morning indicates that a compromise platform is likely to be adopted, but one which will be more satisfactory to the gold than to the silver men. It is said that it will declare against the free and unlimited coinage of silver, except by international agreement, which is favored.

The Democratic national convention, which is to assemble soon in Chicago, contrasts to the Republican convention in that there is little development as to the candidate, and also in that, while the financial question will be the leading issue, the selection of delegates has already shown that, in the convention, the silver element will have a strong majority. But while in the Democratic convention the majority can make the platform, by a peculiar tradition it requires two-thirds of the convention to nominate the candidate. On this account the Democratic convention of 1860 broke in two and two candidates were nominated, making the election of Lincoln possible. Some have predicted a like fate for the coming Chicago convention, and the nomination of a strong free silver man by the majority faction and an equally strong gold standard man by the Eastern faction. Speculation on this contingency has suggested that in such case the ultra gold standard candidate would receive Wall street support, on account of dissatisfaction with the proposed compromise platform of the Republicans, while the ultra silver candidate would receive the support of the silver States, possibly combining the Populists and dissatisfied Western Republicans. The contingency of the election being thrown into the House of Representatives is even suggested.

It seems at least probable that the leading issue of the campaign will be the silver issue, and whether there will be much of a reformation of party lines, as some careful observers predict, can scarcely be determined at this date.

**THE HEREFORD PROTEST EXPLAINED.**

INDEPENDENCE, MO., June 15, 1896.

EDITOR KANSAS FARMER:—In your issue of the 11th inst., I notice an article headed "A Kansas Hereford Protest," and since reading this article I have received letters from J. T. Dorsey, Assistant Secretary Kansas State Fair, Wichita, Kas., and H. A. Heath, Secretary Kansas Improved Stock Breeders' Association, Topeka, Kas., calling my attention to the same.

With regard to this matter of special premiums, will say, at our annual meeting, held in Chicago, last November, \$500 was voted to be given as special premiums to Hereford cattle exhibited at leading fairs west of the Mississippi river this year, and a committee, composed of two residents of Kansas and one of Missouri, was appointed to name the fairs at which these premiums should be offered. No States at all were named in which premiums should be given, but this was left entirely in the hands of the committee. I agree with you that the exhibitors get the benefit of every dollar of this money and not the fair associations, but I do not think your State should claim she has been discriminated against. We have breeders of Herefords in every State west of the Mississippi, and as most of these States have never received a dollar in the way of an appropriation, they, too, might claim they have been discriminated against. I would be glad to see this money placed where it would do Herefords the most good, but for me to dictate to the committee would be assuming too much. It may be that Kansas will yet receive a portion of this \$500, but should the committee see proper to place the amount at some other than the Kansas fair, I cannot do otherwise than offer the amount as it may dictate.

I have just written to the chairman of this committee, calling his attention to the article, the letters I have received, etc., and expect a final report soon. Trusting that this report, whatever it may be, will be for the best interests of the "white faces," I am,

C. R. THOMAS,

Secretary American Hereford Cattle Breeders' Association.

NOTE.—It is passing strange that out of an apportioning committee of three, with two from Kansas, that this State should be left out. The committee of Kansas breeders are evidently not loyal to Kansas or are generous to a fault to the other States. It is evident that it is high time that Kansas breeders should get together and cease flocking apart.—EDITOR.

**Review of the Hay Market.**

From our special correspondent at Kansas City:

"The Kansas City hay market is not materially changed since last report. Some new hay has arrived and sold at \$5 to \$6.50, the \$5 hay being slightly warm. Now that new hay is moving, it is imperative that great care be used in baling and loading. Care should be exercised in ventilating car. "Considerable low grade hay on the market with no demand. Last week's quotations are unchanged. As to crop outlook, it has never been so good for an immense crop of prairie, and farmers report an extraordinarily clean growth, free from weeds and stemmy grass. Timothy hay is being badly injured by the army worm in eastern Kansas, northern Missouri and southern Iowa, which may leave some effect later in the season on the prairie hay markets. Blue grass is also being greatly injured from same cause. One of our large seed houses, that sends out every season a large force of men to gather blue grass seed, are not going to send out their force this season, as they say it is of no use and crop would not pay for gathering. Clover hay is exempt from the worm, which it never bothers until a last resource. Alfalfa is reported a rank growth and extra large acreage in Kansas. No doubt there will be a large increase in shipments of alfalfa to this market this season."

Congress adjourned last Thursday, June 11.



Anti-Option Laws Abroad--Foreign Crops.

EDITOR KANSAS FARMER:--As you will see by the enclosed clipping from the last issue of the London Standard, which has reached me, Austria will shortly, in all probability, make option dealing, or, as they term it, gambling in grain, a penal offense. Germany has already set the seal of condemnation upon these transactions, the German statute suppressing them taking effect next month. The gamblers of the Chicago and New York exchanges are felicitating themselves upon securing the trade of the German gamblers in wheat options, although only three and four years ago they went before the committees of our Senate and House of Representatives and argued that the passage of our proposed "anti-option" bill would drive all this lucrative trade (lucrative for whom?) from America to Hamburg and Berlin, and we should transfer, by the passage of such a law, the control of the prices of our farm products from America to continental Europe, with dire distress to our farmers, as--these astute men said--no European government would be so lost to a right appreciation of modern and improved methods as ever to pass an act laying the least restraint upon such transactions.

It seems that these sages were slightly mistaken, and that the "effete monarchies" are more disposed to protect their subjects than Congress is to protect the citizens of America. But, then, there is not the same necessity for campaign funds as in America, especially when a Presidential election is pending (and they are always pending, or preparations being made for them) and no need to defer needed legislation to a more convenient season that the bankers, stock brokers and grain gamblers may not be prevented from making their usual contributions to the party campaign fund. In this connection, I may be permitted to say that when in Washington, in 1892, I was remonstrated with and told by the private secretary of the Secretary of State--the private secretary of the successor of James G. Blaine--that all our people (the Cabinet of Republicans) deemed it a most inopportune time to press a matter of the character of the "anti-option" bill, as it would tend to reduce greatly the contributions to the campaign fund, and that I, being a good Republican, should remit my efforts in this direction until after election. It seems that such considerations have less weight, or campaign funds are derived from an entirely different source with the monarchies of central Europe, as the agitation for this reform was there commenced less than two years ago, yet it has resulted in penal enactments, while the legislators of America are waiting until neither the Democratic party of Grover Cleveland and Dave Hill, nor the Republican party, with which I have always acted on national matters, shall require contributions from the gambling fraternity to the party's campaign fund. Will there ever come a time when they will not require and seek such contributions?

And, by the way, so greatly do the operators upon the exchanges resent the statement that their operations are in the nature of gambling transactions that, when the Hatch-Washburn bill was pending in Congress and a member of the Chicago Board of Trade was about to accompany upon the floor of that exchange one of his personal friends who had so characterized the operations of the "short seller," he was notified by officers of the exchange that they could not be responsible for the safety of his friend if he was seen upon the floor. And yet, it is not a week since a Chicago Judge discharged a great number of bucket-shop men with the statement that their operations were identically the same in character as those carried on upon the board of trade, the only difference being that (as the Judge stated it) the bucket-shop men were gamblers at retail while the board of trade men gambled at wholesale only. Will this Judge's limbs and life be endangered by such statement should he venture upon the floor where are made and from whence issue so many contribu-

tions to the campaign funds of both the parties? And in this respect are not the repeated refusals of Congress to grant the needed relief by suppressing the gamblers of the grain, cotton and provision pits--as well as those of the bucket-shops--in disgraceful contrast with the prompt action of the imperial governments of Germany and Austria?

The following clippings from foreign journals show how near an entire failure are the crops of Spain, Portugal and Tunis:

THE CROPS IN SPAIN. MADRID, April 23.--Heavy rain which fell several hours last night will do an immense amount of good to vines and pasturage. Cattle have been sold at a great sacrifice lately through scarcity of food. Whatever corn there is remaining in a healthy state will be saved now, but the greater part of the grain crops over the country, north and south, has already been almost irreparably lost.

From Spain very serious reports regarding the effects of the prolonged drought have been received. Heavy rains have fallen in the last few days, but these have come too late to save the greater part of the crops.

From Portugal it is also stated that the crops will be almost a failure from the same cause, viz., drought.

In Tunis very cold weather has been experienced, which has greatly retarded the crops. The yield of the grain crop in the Regency cannot be anything but very short, but at one time it was expected that there would be an absolute failure.

LONDON, May 2.--Even the drought in Spain is daily more serious. Large numbers of the inhabitants of the outlying villages where water is scarcest are flocking to the towns. Special services are being held in all important towns, and thousands of prayers are being offered soliciting divine intervention. Many houses of business are closed on the days when religious processions are formed, in order to give greater solemnity to the proceedings. In some districts prayers for the speedy termination of the war with Cuba are coupled with those for rain. The price of bread has greatly increased.

Telegrams from Russia state that 12,000,000 hectolitres of wheat have been shipped to Spain. Ten million are stored already in Spanish warehouses, and 50,000,000 more are needed.

C. WOOD DAVIS.

Peotone, Kas., June 9, 1896.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending June 15, 1896, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

The average temperature for the week is above the normal in the western third of the State, but below normal over the rest of the State. Good rains have fallen in the northwest and over the counties south of the Smoky Hill and Kaw rivers east of Ness and Ford, with little or no rain elsewhere.

RESULTS.

EASTERN DIVISION.

Conditions have been quite favorable this week and the cultivators have been cleaning the corn, which is in very good condition. Early corn is silking in the extreme south and has begun to tassel as far north as Coffey. Wheat harvest is about completed in the south and is just beginning in the northern tier. Oats and flax are excellent. Grass fine.

Allen county.--Everything doing well; oats and flax ripening; corn being rapidly laid by.

Brown.--Wheat harvest begun; corn growing rapidly; oats headed and fine; timothy and clover in thrifty condition; pastures good.

Cherokee.--Wheat harvest well along; too wet first of week for farm work.

Douglas.--Corn, oats and flax looking fine; potatoes damaged some by wet weather; grass fine.

Johnson.--Week has been favorable for corn; ground in fine condition; wheat harvest next week.

Labette.--Wheat harvest about completed and stacking begun; crop light; well worked corn growing all right; oats ripening; blight on apple and pear trees bad.

Leavenworth.--Corn looks well and weather is favorable; wheat nearly ripe; raspberries ripe; fine growing weather.

Marshall.--All crops fine; wheat harvest will commence this week.

Miami.--Favorable week for working corn, much of the crop has been replanted, some the second time; flax good; oats never promised better.

Montgomery.--Cool, dry week, and all crops have done well; well culti-

vated corn looks fine and is growing nicely; wheat harvest completed and threshing commenced.

Osage.--Favorable week for all crops; everything looking well; haying begun in localities, with prospect for big crop.

Pottawatomie.--Good week for plowing corn, also for wheat harvest, which is nearly done and much of it in the stack; first crop alfalfa is in; early potatoes plentiful; blackberries and late cherries light crop.

Riley.--Corn growing nicely, but wheat harvest demanding attention; young bugs numerous.

Woodson.--Splendid week for growing crops; oats, flax and corn giving fine promise.

MIDDLE DIVISION.

Corn has done well this week and is being cleaned. Wheat and oats have improved, the cool weather favoring the filling of the heads, while retarding the ripening process. Harvest is progressing in the central and southern counties and about beginning farther north.

Barber.--Growing crops of all kinds doing well.

Barton.--The damp weather has retarded cultivation, but corn looks splendid; wheat, barley and oats not much improved; wheat harvest will begin this week; pastures improving and cattle doing splendidly.

Butler.--An excellent week on crops, all kinds of which are doing well; first alfalfa crop and early wheat harvested; wheat fair; oats coming out well; too wet to work corn and it is getting weedy.

Clay.--Farmers cultivating corn,

blast next week; prospects good for fair wheat crop; farmers busy in corn fields.

Sedgwick.--Fair to good crop of wheat being harvested; prospect never better at this season for a big corn crop.

Sumner.--Harvest in full blast; wheat fine in north part of county, short in south part; corn looking well.

Washington.--Good week for crops and work; corn fine; prospects for good crop of wheat but decreased acreage; oats fine and very rank.

WESTERN DIVISION.

In Rawlins and the northern halves of Decatur and Norton and eastern half of Thomas the conditions were quite favorable, but south of Thomas the week has been unfavorable.

Decatur.--Not a good week on crops, though the rain of the 11th helped very much; corn doing finely.

Ford.--Wheat past redemption, though corn looks well.

Grant.--Conditions of crop uninterrupted save by a local shower in northwest part of county.

Greeley.--Small grains in bad condition; buffalo grass good and plenty of time yet for forage crops.

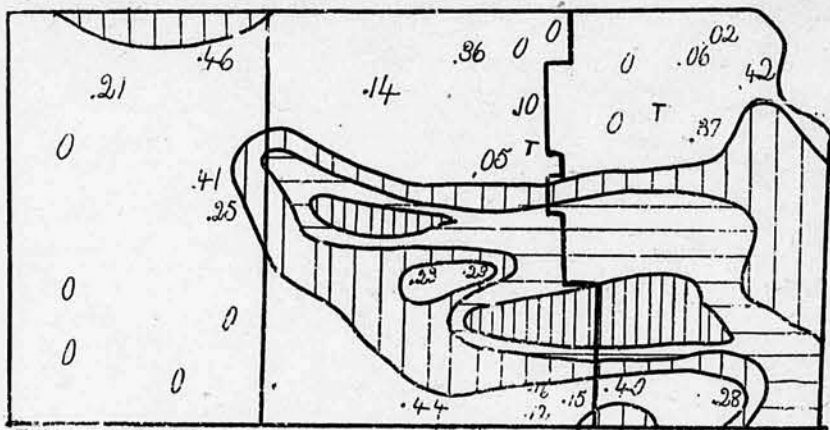
Kearney.--Dry weather becoming serious and all crops suffering; alfalfa seed crop needs rain to perfect it.

Meade.--No rain for past thirty days; wheat, oats and barley dried up; poorest prospect for crops in the history of the county.

Norton.--Corn fine; small grain suffering.

Rawlins.--Fine growing weather; grasshoppers are hurting gardens.

Thomas.--Small grains in west half of county suffering badly for rain, pros-



ACTUAL RAINFALL FOR WEEK ENDING JUNE 13, 1896.

early-planted doing well; wheat promises an extra crop and oats have made good improvement, with the sunshine.

Cloud.--Everything in fine condition except oats in central part of county, where they are turning yellow.

Dickinson.--An ideal week for filling and ripening wheat; harvest begins next week; we expect a large yield of fine grain; oats, corn and potatoes never promised better.

Harper.--Cool, pleasant week, with good rain on 11th over most of the county; corn growing well; pastures improved.

Harvey.--Fine growing week; wheat-cutting in full progress and a good crop; oats improving; wheat stacking begun; early apples in market.

Marion.--Wheat and oats improved; corn growing well; alfalfa all cut; wheat harvest begins next week.

Mitchell.--All crops doing well except potatoes and tomatoes, bugs working on them.

Pawnee.--The rain helped corn and feed but too late to help small grains; bugs working on potatoes, and grasshoppers on garden truck.

Pratt.--Corn, Kaffir corn and cane doing well; corn generally well worked; wheat harvesting still continues but many fields will not pay expenses; peaches and apricots promising.

Reno.--Very good growing weather, but little wind.

Rice.--Fine growing weather; harvesting commenced.

Rush.--Wheat ripening; harvest next week; potatoes about made; everything growing well.

Stafford.--The rain has benefited the corn and grass.

Saline.--The cool weather helped wheat to fill finely; harvest in full

pects good in east half where a big rain fell; corn looking fine.

Trego.--Wheat not coming up to expectations; barley looks well; late corn clean and growing nicely; range grass in abundance; rain was heavier east of here.

Wallace.--Too dry, small grains drying up; range grass dry; irrigated crops good; grasshoppers damaging gardens.

Thos. Slater has a message for every man on page 15.

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.

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People who wish to go to Buffalo to attend the N. E. A. convention, who want fast time, the most excellent train service and superior accommodations, will do well to consider the Nickel Plate Road before purchasing tickets. A fare of \$12 for the round trip will apply with \$2 added for membership fee. Tickets will be on sale July 5 and 6 with liberal return limit and with privilege of stop-over at Chautauqua Lake. Additional information cheerfully given on application to J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 95



## Horticulture.

### B. F. Smith's Fruit Farm.

EDITOR KANSAS FARMER:—While in Lawrence, some days ago, I had a few hours at my disposal and concluded I could in no way more profitably improve them than by visiting the fruit farm of Mr. B. F. Smith, located about one mile south of Lawrence.

Mr. Smith, I had been informed, was one of the largest and most successful small fruit growers in Kansas, and as I had never before visited his farm, it was a great treat to me, indeed, to be driven over the farm and to learn how such a business is conducted by an expert in that line.

Mr. Smith has been in the business of growing small fruit over thirty years, sixteen years of that time in Kansas.

His farm, south of Lawrence, consists of forty acres. Of this, twenty-seven acres are devoted to strawberry culture, the balance to other small fruits—raspberries, blackberries, etc. A considerable area, however, is planted to apple, peach and pear, and in the blank space between the rows small fruit is successfully grown—strawberries, raspberries, blackberries. The berries, Mr. Smith informed me, do as well among the trees as in the open field and do not interfere in the least with the growth and fruitage of the trees. Pears are much more profitable than apples or peaches, Mr. Smith says. Accordingly he has planted a large pear orchard on the north side of the river, which, along with small fruit grown between the rows, he regards the most profitable orchard for any one who has the requisite soil and climatic conditions.

I found Mr. Smith in the midst of strawberry harvest. He had over thirty pickers at work and marketed from sixty to seventy-five crates of berries each day. The crop was only fair—throughout the country below the average. He could not fill all the orders he received. His reputation for honesty and integrity as a fruit man, established by many years of business, makes it comparatively easy for him to get sale for all the fruit he grows at fair prices.

Mr. Smith, however, is not only a fruit-grower. He also does a large business in growing and selling small fruit plants. He tests by actual experiment every new variety of fruit before he offers it for sale. Some new varieties which cost him \$3 per dozen were found by experiment to be absolutely worthless in this section. He showed me a new variety of strawberry, named the "Henry Ward Beecher;" another named "Jay Gould." The character of the plant and the fruit it bore in either case fairly illustrates the folly of expecting great qualities to be imparted through a name to anything or to anybody. Mr. Smith, himself, introduced a new variety of strawberry called the "Robinson," which has taken rank among the best grown. It is a strong grower, a very good bearer and the size and quality of its fruit is unsurpassed. As it becomes known demand for it increases.

In conclusion, let me say to all, irrigate. Irrigate at least two acres—one for garden vegetables, including potatoes; one for pear, peach and apple, with small fruit between the rows. In this is a guaranteed living each year for average family. M. MOHLER.

### Unfermented Wine.

The season of the year is approaching when a great many of our readers manufacture wine for domestic use and sacramental purposes, and the following method of making it, which we find in our exchanges uncredited, may be found of service:

"Pick the grapes from the stems and mash them. Strain the juice into a kettle, boil it, remove the scum, strain it into bottles or jars, and seal it as you would canned fruit. Bottles are better, we suppose, than jars; they should be tightly corked and have sealing-wax above the cork. If only a small quantity of wine is to be used at one time, small bottles will be more convenient than larger ones. But the wine will keep sweet several days after being

opened in ordinary weather. Lay the bottles on their sides in a cool, dark place. It will do no harm to strain the wine when the bottles are opened. Don't use sugar, it is unnecessary, and there is some danger of making grape jelly instead of wine. Thus made it will keep for years."

Another method is as follows:

"Pick and wash the grapes, add sufficient water to start them in cooking, boil until the pulp is tender, and strain as for jelly, add a small amount of sugar, sufficient to make it palatable, bring to a boil and can in Mason jars."

The following very simple recipe is credited to a Cincinnati lady, and is said to make "a lovely" wine:

"Fill the jars as full as possible with perfect berries. Be sure the grapes are dry, then fill with granulated sugar. This will find its way to the bottom of the jar and fill all the spaces. Screw on the lid and set away in a cool, dark place until the sugar has drawn the juice from the grapes."

It will, of course, be understood that these recipes are all for the preservation of the unfermented grape juice, and none of them are in the least degree alcoholic.

### Saving Vegetable Seed.

Vegetable seeds cannot be gathered at random and in a haphazard way and expect good results the next year.

In saving seeds only the earliest, fairest and most perfect specimens of each kind should be saved. This will give vegetables two or three weeks earlier and of the finest quality. It is best to take precautions in this matter early in the season, and then one can justly expect good returns the next spring.

Each kind of vegetable should be allowed to mature before gathering. Melons should be allowed to ripen thoroughly before taken from the vine, then the seeds may be taken directly from the fruit. Place the seeds in water a day or two and the pulp will easily wash off. Dry the seeds before storing them.

Squashes should be gathered before they are nipped by frost, but the seeds should not be removed for several weeks after taken from the vine. Rats and mice are very fond of melon and squash seeds; if the seeds are not kept in a rat-proof receptacle, place a piece of camphor gum in with the seeds.

Leave the tomatoes and cucumbers on the vines until they are well ripened; then gather and place in the sun a day or two; then mash them into a pulp and put into an earthen dish of water. After two or three days the pulp will all rise to the top, leaving the seeds at the bottom. Remove the seeds and spread on a cloth in the sun to dry.

Save the best pods of beans and peas which mature first and you will have vigorous, prolific plants next year. A row of beans seventy feet long will supply an average sized family, and it will require about one pint of seed for this amount of space. One pint of peas will sow a row sixty feet long. For family use, two rows each sixty feet long, an early and a late variety, are about the right amount.

When saving the seeds of beets, cabbage, turnips, etc., preserve only those which grow on the leading stem.

Seeds from vines are good for four or five years if kept in a warm, dry place. If allowed to freeze they are worthless. Carrot and beet seeds are good only one year after growth; radishes two or three years. Onion seeds will germinate when two years old but the plants are inferior.

After you have gathered your seeds much depends on keeping them from moisture and drying air. Corn should be kept in a dry, cool place, where the temperature is uniform. Most garden seeds keep best in a dry, warm place; a cupboard near a chimney is a suitable place. Do not attempt to keep seeds in the garret over the kitchen. The continued warmth from the stove below will destroy the germinative power of the seeds. The best receptacle for keeping seeds in are well corked bottles, having thick paper pasted around them to exclude the light and air.—Dola Fay, in American Horticulturist.

### Blackberries.

By L. H. Bailey, in New York Cornell Station Bulletin 99.

A deep, mellow clay loam is advised as best blackberry land, gravelly soils being considered too deficient in water. Deep, careful plowing before setting the plants is urged to guard against the effects of drought. It is advised that the blackberries be set out in the spring, yearling plants being used, either from suckers or root cuttings. The plants may be set two or three feet apart, in eight-foot rows, furrows six or seven inches deep having first been plowed. If the land is thin, barnyard manure may be scattered in the furrows. For a year or two some hoed crop, such as strawberries or potatoes, may be grown between the rows.

The plantation will come into full bearing in about two years. It is recommended that three or four canes be allowed to each plant, removing the old canes as soon as the fruit is off and heading in the growing canes at the height of two and a half to three feet. Many of the varieties will require no support, but with some of the taller varieties training to single or two-wire trellises will be found advantageous. It is believed that blackberries will normally be hardy in western New York, though if a severe winter is apprehended they may be bent over and covered with earth, care being taken to raise them in the spring before the buds become soft and white. Careful tillage is urged and cultivation each week is recommended. Barnyard manure is considered one of the best fertilizing agents. With good attention on fair land a yield of two hundred bushels per acre is not considered excessive, and a plantation should bear for twenty years if proper care be given it.

Frost is the most serious drawback to the blackberry crop in New York, although the red rust or yellows, root gall, anthracnose and cane knot sometimes attack the plant. For the first two, cutting out diseased canes is believed to be the only remedy, while for the latter two spraying with Bordeaux mixture is stated to be efficient.

Five types of blackberries are recognized: The long cluster blackberries (*Rubus villosus*), comprising Taylor, Early Cluster and Ancient Briton; short cluster blackberries (*R. villosus* var. *sativus*), comprising New Rochelle, Kittatinny, Snyder, Agawam, Erie, Minnewaski and Mersereau; leafy cluster blackberries (*R. villosus* var. *frondosus*), comprising Early Harvest and Brunton Early; loose cluster blackberries (*R. villosus* x *R. canadensis*), comprising Wilson Early, Wilson Junior, Sterling Thornless, Rathbun and Thompson Early Mammoth; and sand blackberries (*R. cuneifolius*), comprising the Tree Blackberry and Topsy.

### A General Insecticide.

"For some years," says T. Greiner, "I have been using and recommending tobacco dust as an all-round insect destroyer. I use it in the greenhouse for lice (aphis), in the open ground for the cucumber beetle, plant lice and for worms of all kinds, and sometimes in the hen-house for lice, etc. It is surely one of the swiftest of all insecticides we can apply, almost or fully equaling buhach, which has given us so very satisfactory results for years. If sifted or scattered over currant bushes the currant worms curl up and die, and the bushes will be free from the pest within an hour or less, and fall from them for some time. If blown into the heart of cabbage plants it means the end of the green worm. Applied in the same way to the nests of the caterpillars (and the trees all around us at this time are full of them) especially in the morning or evening, when the worms are all at home, it will clear them out for good in less than an hour. In short, I hardly know what worm or other soft-bodied insect the contact with tobacco dust would not speedily kill. I believe it will even put an end to the potato slug. It is distasteful to many hard-shell beetles also, as may be seen by the fact that with heavy applications we can drive

## It Is So Foolish To Scrape

along through your harvest on the old Binders or Mowers with friction-bearings when you might

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away the cucumber beetle (and perhaps the squash bug). The flea beetle, unfortunately, is not so easily conquered, even if it does not like tobacco smell. Surely, tobacco dust must be considered a most excellent insecticide, and as it is not expensive (in some cases, perhaps, the sweepings of cigar factories, etc., will do and can be had for the hauling). I think every soil-tiller should keep it on hand.

"I have usually applied tobacco dust with the bare hands, scattering it rather freely over the bushes and plants, and around cucumbers, melon and squash vines, even inch deep on the ground. The stuff is worth nearly the full price asked for it (\$3 per barrel, or so,) as a fertilizer, and I have not felt the necessity of using it in a particularly economical manner. For cabbage and caterpillar nests, however, hand-bellows of some kind are almost necessary, as we want to blow the dust well among the leaves or the webs. The ordinary cheap hand-bellows, as offered for sale by seedmen and hardware stores, will do very well for cabbage; but for the caterpillars that dwell in the tents on trees we need something that will reach further and render the application more convenient. There are larger bellows, like the Leggett "powder-gun" and others, which will do the work to perfection. With means so sure and cheap and easily applied, we should let no worm, on tree or bush, escape to bring on more trouble for the future."

KANSAS HOME NURSERY now offers choice Berries and orchard fruits of all kinds in their season. Fresh shipments daily by express. Prices to applicants. A. H. Griess, Box J, Lawrence, Kas.

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## In the Dairy.

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

### KANSAS CHEESE.

By C. B. Merry, Nortonville, Kas., read at annual Dairy meeting, Newton, Kas., in November, 1895.

Secretary Coburn says: "It is in practice well-nigh impossible to secure statistics in reference to the dairy interests that are at all satisfactory." From the best information available we find reported for the year ending March 31, 1895:

|   |                 |
|---|-----------------|
| Amount of cheese made in factories..... | Pounds. 332,534 |
| Amount of cheese made in families.....  | 306,900         |

Total.....739,434

I have tried to find out how much cheese was imported into the State during the same time, but could get no information, yet it is known it comes in by car-loads.

There is evidently plenty of room for more Kansas cheese. After making this statement I hesitate when I think of the quotations that are given in the papers for Kansas cheese. I am glad to state, however, that these quotations are not the basis for the sale of well-made cheese.

My company has been able to compare favorably with the prices of Wisconsin or any other cheese. There are some peculiarities of our climate, such as too dry atmosphere for properly curing cheese and the rapid souring of milk in hot weather, that need special attention in the manufacture and care of cheese. But these can be overcome to a very great extent. The Minneapolis experimental station has done some work that might be of use to us. By building curing-rooms partly below the surface of the ground they have been able to control the moisture and temperature much better. They also suggest lining rooms with brick, to receive or give out moisture as the conditions require. One very important question to bring out is, will it pay? By comparing figures with one of the best creameries in eastern Kansas I find that we paid a few cents more per hundred in 1894 for milk of the same quality than they did, but as whey is not worth as much as skim-milk for feed our actual returns to the farmers would be very nearly the same.

In making cheese we are making an article that is wanted at home and can be sold to the consumer without adding more than the first cost of the goods in freight and commission; thus increasing the consumption of dairy products without sending the cash out of the State to get them.

Permit me to digress long enough to state an axiom: The prosperity of any community is increased by manufacturing as largely as possible the commodities needed in the community, provided they can be manufactured as cheaply and as well in the community as out of it. Now to you who sometimes get block-headed in your butter market work, make some of your surplus milk into good cheese and see if you have to go so far to find a market.

#### DISCUSSION.

Mr. —:—I would like to ask Mr. Merry where he gets the curing-room and how he controls the temperature.

Mr. Merry:—That is one of the questions that I am not prepared to answer. I do as well as I can by keeping the room dark during the day, then airing the room in the evening and morning or in the cooler part of the day. I am not able to control my room satisfactorily. The Minnesota station has given us an example that might help us.

Mr. Osburn:—I would like to ask the gentleman how he compares the heat, or rather, whether he varies the raise in April beyond that he does in August. I want to learn whether he makes the cheese on a lower heat in August or July than he does in April.

Mr. Merry:—Some years I have done that and some years I have not. I cannot find very much difference in cheese whether I heat it to a high temperature or not. Some seasons when it is working very fast I have not cooked higher than 98° or 92°. I use every way that I know of. I use the iron test for an absolute test, and my best senses and every way that I know of. If the

milk is working evenly I may not use the iron test more than once a week. If there are very many variations I use the hot iron test. I can usually tell very closely by pressing between my hands, or biting with my teeth.

Prof. Georgeson:—I would like to ask a question from the patron's standpoint. Can Mr. Merry afford to pay as much or more for milk than the creameryman can, to make it into butter? What is the reason we have so few cheese factories in Kansas? Creameries are numerous; there are a great many more than there are cheese factories. Is it because as much cannot be made out of the milk as when made into butter, or is it because of a lack of cheese-makers? Or is it because the farmers cannot sell their milk to the cheese factory? There must be some reason.

Mr. Osburn:—I am not a scientist or anything of the kind but my idea is, that there is not so much speculation in the cheese market as there is in the butter market. You can fit out a cheese factory and handle a good many thousand pounds of milk for a thousand dollars, but we cannot do that.

Mr. Monrad:—Is this not another reason that the Kansas farmer wants to raise calves?

Mr. Merry:—As near as I can estimate it two creameries running under the same plan would not pay the farmer near so much. Another point, I think we lack skilled cheese-makers. Butter-makers may, some of them, object to this statement, but I have authority from some much older and more experienced than myself that it requires more skill to make cheese than it does to make butter. And it is my impression that many of those who have come into the State to make cheese, while they may have been skilled, did not take into account the difference in the climate. Pardon me for overlooking Mr. Monrad's question.

My patrons raise calves but they keep the new milk until the calves are three or four weeks old and get them along very well. Some have gotten sweet whey from the factory and mixed a little food with that and did very well with it.

One reason for the lack of cheese factories is that the farmers have not attempted it. In this community some people built a factory themselves and opened it up for a cheese factory. They came, many of them, from a cheese manufacturing company in central Illinois. They made cheese and still have a cheese factory. They have been running for seven and one-half years and are likely to run that much longer.

Mr. Osburn:—I raised a lot of calves on whey and just sold some three-months-old calves for \$10. Milk may bring calves worth a little more but I think not enough more.

Mr. Fuller:—What is the proportion of the amount of cheese made from 100 pounds of milk to 100 pounds of butter?

Mr. Merry:—It is usually estimated about two and one-half pounds of cheese to one pound of butter.

Mr. Monrad:—It seems to me that we cannot pass this discussion on Kansas cheese without paying a tribute to our President, who has succeeded in making as fine a cheese as you will find in this market or any of the foreign markets. I have never, this side of the Atlantic, tasted as good cheese as that from Mr. Eyth's cheese factory.

Mr. Jones:—I would like to know if there is a patent on that Fromage De Brie cheese—if it is a secret.

Mr. President:—None at all, just knowing how.

Mr. Monrad:—I understand that the President is going to take a patent on his "Brie" and "Limburger." The President don't know anything and wants to hear from the boy who makes it.

Mr. Jones:—I think we had better find the boy.

Mr. President:—A son of mine has been making cheese for about two weeks. I was fortunate enough in getting a man who had been working in a factory in the State of New York. He had also been in a manufacturing concern in the old country that made cheese. He has been with me for about three years, but lately started out in business for himself, and I must

say that we had very good success in experimenting. We had no curing-room, we had no room at all that was fit for curing cheese. I had to go to considerable expense in preparing the floor, etc. I think I have fairly well succeeded and can hold the temperature during the hottest day of the summer. If I had had more time I do not doubt but that I could have worked up a larger trade on this fancy cheese business, but other business interfered. Those who have tasted of this cheese always cry for more.

Mr. O'Neil:—I wish to take the standpoint of the creamerymen. I see one question has not been brought out and that is, what per cent. of butter fat is utilized in cheese proper? Now, I know in that territory where I was operating a creamery that milk that went 4½ to 5 per cent. could not be manufactured into cheese at a profit. There is a profit in making cheese with good, rich milk. We will take, for instance, 100 pounds of milk containing 3 per cent. of fat and another 100 pounds containing 5 per cent. of fat. Will the 100 pounds of 5 per cent. milk make enough more cheese to be profitable than the 3 per cent.?

Mr. Monrad:—It will make enough more cheese and better cheese. The increase in the quantity will not be sufficient, but increase in the quantity combined with the increase in the quality will pay for it.

Mr. Heiber:—You have touched the right point. Now, if I had cows which gave three buckets of milk, it would pay me to sell to the creamery; if I had cows to give 5 per cent. milk it would pay me to sell to the cheese factory. A cow which gives 3 per cent. milk gives a bucket or pail full of milk. That will be about twenty-five pounds of milk, a little over. The Jersey cow gives perhaps ten pounds of milk. Now I want some fellows to figure out what that will be. I am a poor figurer sometimes. I said yesterday that I did not know very much and I think I struck the nail on the head. I hope some of the farmers here know more than I do.

Mr. O'Neil:—Our cheese factories of Wisconsin, along about this time—I don't mean to say all of them, but quite a per cent. of them—skim the milk. The standard in Wisconsin was 3 per cent. fat for full cream cheese. A great many of those factories are skimming.

Mr. Monrad:—I suppose that you are not aware that the Governor has had a change of heart. But he has too much sense to lose his head in scientific expense. Experiments have been made by New York experiment stations and it has been proven that it is just as fair to pay by the test for cheese. I have sampled cheese from the experiments. Mr. Chairman, there are very few cheese-makers here and I would suggest that we stop on the cheese question.

#### DR. HARTMAN'S

Hand-Book of Female Diseases--A Complete Guide for Women.

The month of June is peculiarly the month of nervous diseases, especially nervous prostration and other depressed states of the nervous system. People who are at all inclined to be nervous or suffer from weak nerves find this month especially trying. Sultry heat and electrical disturbances of the atmosphere are probably the cause of this. Invalids of all sorts, more especially females suffering from some female disorder, Change of Life, or rapid child-bearing, need to be particularly careful during the month of June.

There are scores of women who are not actually sick abed, but who are tired morning, noon and night, never seeming to be able to get rested. Men are apt to suffer from the more acute forms of nervous prostration, from overwork, study or dissipation. All of these people, male and female, find in Pe-ru-na a nerve tonic exactly suited to the urgency of the case. Pe-ru-na relieves tired nerves, soothes overworked brains, and strengthens flagging powers. Those wishing further advice should write Dr. Hartman a letter, explaining full details of their troubles, and a confidential letter will be promptly dictated by the Doctor, containing all the necessary advice.

Those desiring a book on female diseases should address the Pe-ru-na Drug Manufacturing Company, Columbus, Ohio, who will send Dr. Hartman's free book.

Every man should read the advertisement of Thos. Slater on page 15 of this paper.

**Make Cheese at Home** with such simple apparatus as every farmer now has. Send one dollar to C. E. KITTINGER, Powell, S. Dak., who will mail to you ten rennets, with such plain printed instructions as will enable you to make a perfect cheese the first time. Money refunded to all who fail.

### Stack Covers Cheap!

Also Awnings, Tents and everything made of cotton duck. Every farmer should have a stack cover. Address best house in the country for these goods. C. J. Baker, 104 W. Third St., Kansas City, Mo.

### Wanted, an Idea.

Who can think of some simple thing to patent? Protect your ideas; they may bring you wealth. Write John Wedderburn & Co. Patent Attorneys, Washington, D. C. for their \$1,800 prize offer and list of 200 inventions wanted.

### CORRUGATED STEEL IRON ROOFING

\$1.75 PER SQUARE.  
The above, partly from World's Fair Buildings, we guarantee good as new. We have only a limited amount on hand and would advise forwarding orders at once. CHICAGO HOUSE-WRECKING CO., Largest Second-hand Depot in the World. 3025 S. Halstead street, Chicago, Ill.

## FARMERS

DO YOU WANT TO BETTER YOUR CONDITION? If you do, call on or address: The Pacific Northwest Immigration Board, Portland, Oregon.

#### "JONES HE PAYS THE FREIGHT."

### Farm and Wagon SCALES.

United States Standard. All Sizes and All Kinds. Not made by a trust or controlled by a combination. For Free Book and Price List, address JONES OF BINGHAMTON, Binghamton, N. Y., U. S. A. When you write mention Kansas Farmer.

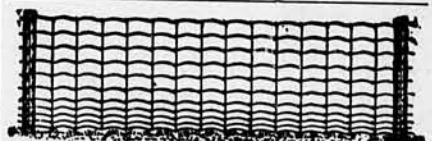
### VICTOR COW CLIP.

Holds cow's tail to her leg and keeps it out of the milk and milker's face. Carried in the pocket. 30c. SINGLE; FOUR, \$1. If dealer hasn't it, sent postpaid on receipt of price by manufacturers. VICTOR NOVELTY WORKS 974 Warren Av., Chicago.

### RUSSELL'S STAPLE PULLER

AND WIRE SPLICER  
Drives and pulls staples, cuts and splices wire. Its special use is in building and repairing wire fences, but may be used for many different purposes about a farm. Saves its cost in one day's work. You can't afford to be without it. Price \$1.25. Ask your hardware merchant for it.

Russell Hardware & Implement Manuf'g Co., Kansas City, Mo.



### "OVER THE FENCE IS OUT"

This rule was unquestioned in the days when "two old cat" was the favorite ball game. Applying the same rule to farm stock, we raised the standard height to five feet. Through the fence is as bad as over. So with abundant ELASTICITY and double strength wire, we "shut them out" (or in) and rule the world on fence.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

### Make Cows Pay.

Twenty cows and one SAFETY HAND CREAM SEPARATOR will make more butter than twenty-five cows and no separator. Sell five cows; the money will buy a separator and you save cost of their keep, while the butter you make sells for two cents more per pound. Send for circulars. Please mention this paper.

P. M. SHARPLES, Rutland, Vt. West Chester, Pa., Omaha, Neb., Elgin, Ill. When you write mention Kansas Farmer.



**TOUGH ON FLIES**  
Instantly and positively prevents flies, gnats and insects of every description from annoying horses and cattle. It improves the appearance of the coat, dispensing with fly-nets. Applied to cows it will give them perfect rest, thereby increasing the quantity of milk. It is also a positive insecticide for plants. We guarantee it pure, harmless and effective. Recommended by thousands using it. One gallon lasts four head an entire season. Price, including brush, quart cans, \$1.00; half-gallon, \$1.75, and one gallon, \$2.50. Beware of imitations. Made only by The Crescent Manufacturing Co., 2109 Indiana Avenue, Philadelphia.



**Hay Crop Short in the East.**

In a recent letter from the *Hay Trade Journal*, Mr. W. Byron Abeling, associate editor, says: "The East will harvest this season (and when I say the East, I mean New York, Pennsylvania and New England) but a very light crop, probably one of the lightest that has been harvested in the past six or eight years; practically the crop will be a failure. We do not wish it to be inferred, however, that these States will not have considerable hay to place upon the markets; because, as a usual thing, farmers have taken extra precautions to raise considerable other feed stuffs for home consumption and will let the most of what hay they raise go to market. We do wish to refer to this fact, however, that the vast majority of the hay consumed in the principal Eastern markets this season will have to come from the Great West." This gentleman is evidently in a position to get a fair idea of the Eastern crop, and such information, coming from such a source, bears the stamp of genuineness. This is somewhat of a surprise to Western dealers, as it has been generally conceded that the East would have a large crop this year. One fact will probably interfere with a free and unlimited business with the East, and that is the great amount of Canadian hay that will have to be competed with, and, taking the difference in rates from Canada and the West, we stand a very small show of getting more than a limited amount of that trade. The Eastern demand will, however, relieve markets further this way of the surplus, and thus give more life than has heretofore been predicted, to the hay trade.

**Pounds of Water to Produce a Pound of Dry Matter.**

Prof. King reports a continuation of experiments "to learn how much water is required to produce a pound of dry matter by some of our leading crops." "Barley, oats, and clover have each been tested in duplicate during two years, corn during three years, and field peas one year." The results are summarized in the following table:

|              | Relation of                             |                                      |                               |
|--------------|---|--------------------------------------|-------------------------------|
|              | Water required for 1 lb. of dry matter. | The Water used to season's rainfall. | The yield to the field yield. |
|              | Pounds.                                 |                                      |                               |
| Barley.....  | 392.98                                  | 2.7 times                            | 2.6 times                     |
| Oats.....    | 505.7                                   | 2.8 times                            | 1.4 times                     |
| Clover.....  | 452.86                                  | 1.9 times                            | 2.4 times                     |
| Dent corn..  | 309.84                                  | 1.8 times                            | 2.8 times                     |
| Flint corn.. | 233.9                                   | 2.2 times                            | 2.7 times                     |
| Average..... |   | 2.28 times                           | 2.34 times                    |

"From this table it is seen that under the conditions of the several trials the crops experimented with were able to utilize, on the average, 2.28 times the water which fell as rain during the growing season, and that, in having it to use, yields averaging 2.34 times what are called large field yields were produced.

"It does not, of course, follow from these experiments that well-tilled fields, if irrigated properly, will produce such yields as those recorded here; neither does it follow necessarily, that these large yields owe their excess over normal crops simply to the extra supply of water added at the proper times. I believe, however, it does follow from these experiments that, were our water supply under better control and larger at certain times, our field yields would be much increased if not actually doubled. It does follow, also, that well-drained lands in our State are not supplied naturally with as much water as most crops on them are capable of utilizing, and hence that all methods of tillage which are wasteful of soil moisture detract so much from the yields per acre. What we call good average yields per acre are determined in a large measure by the amount of water which is available to the crop during its growing season, and what we call good yields would be much larger under a larger supply of moisture applied at just the right times."

Young men or old should not fail to read Thos. Slater's advertisement on page 15.

**O. E. AT WASHINGTON.**

Rates Low--Dates, July 4, 5, 6, 7--Route, V.-P.

Best route from St. Louis through Pittsburgh and over the Allegheny mountains. Famous Horseshoe Curve and Blue Juniata river. Address W. F. Brunner, A. G. P. Agt., St. Louis, for details.

The method pursued by the Nickel Plate Road, by which its agents figure rates as low as the lowest, seems to meet the requirements of the traveling public. No one should think of purchasing a ticket to Buffalo N. E. A. convention, during July, until they first inquire what the rate is over the Nickel Plate Road. For particulars, write J. Y. Calahan, Gen'l. Agent, 111 Adams street, Chicago, Ill.

**Millions of Gold**

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to Geo. T. Nicholson, W. J. Black, G. P. A., A. G. P. A., Chicago, Ill. Topeka, Kas.

**Homes for the Homeless.**

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uncompahgre reservations are reached by the only direct route the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

**For the N. E. A. Meeting**

at Buffalo, N. Y., July 7 to 11, it will be of interest to teachers and their friends to know that arrangements have been successfully accomplished by the Nickel Plate Road providing for the sale of excursion tickets at \$12 for the round trip with \$3 added for membership fee. Tickets will be on sale July 5 and 6 and liberal return limits will be granted. For further information as to stop-overs, routes, time of trains, etc., address J. Y. Calahan, Gen'l. Agent, 111 Adams street, Chicago, Ill. 93

**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.

**A Look Through South Missouri for Four Cents.**

The Kansas City, Fort Scott & Memphis Railroad Company has just issued a magnificent book of sixty or more photo-engraved views of varied scenery in south Missouri. From these views an accurate knowledge can be obtained as to the productions and general topography of that highly-favored section that is now attracting the attention of home-seekers and investors the country over.

The title of the book is "Snap Shots in South Missouri." It will be mailed upon receipt of postage, 4 cents. Address J. E. Lockwood, Kansas City, Mo

**Ho! for Cripple Creek.**

Remember that the Chicago, Rock Island & Pacific is the only line running directly from the East to Colorado Springs, the natural gateway for the Cripple Creek district. Colorado Springs lies at the foot of Pike's Peak at its eastern base, and Cripple Creek is part way down the southwest slope of Pike's Peak and near its western base.

Two all rail routes from Colorado Springs are offered you. One by the Midland railway up Ute Pass, via Summit, to Cripple Creek. Another over the Denver & Rio Grande, via Pueblo and Florence, to Cripple Creek. Take the Great Rock Island Route to this wonderful gold mining camp. Maps, folders and rates on application. Address JNO. SEBASTIAN, Gen'l. Pass. Ag't, Chicago.

**Low Rates to Pittsburgh.**

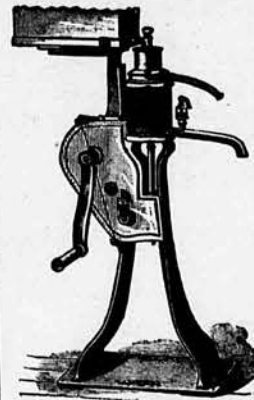
The North American Sangerbund will meet in Pittsburgh June 8 to 12. Tickets will be sold at all B. & O. ticket offices on its lines west of the Ohio river for all trains of June 6, 7 and 8, good for return passage until June 13. The rate from Chicago will be \$11, and correspondingly low rates from other points.

Tickets will also be sold at all coupon stations throughout the West and Northwest.

A through double daily service of fast vestibuled express trains run between Chicago and Pittsburgh.

For further information address L. A. Allen, Ass't Gen'l Pass. Agent, B. & O., Chicago, Ill.

**Test of Separators.**



"Herewith find report of the test of Separators held at my place in Hubbardton, April 22, 1896. The committee of 3 chosen from the 50 dairymen present decided that on the three points of amount per hour, general durability and ease of running, the Improved United States Separator was much superior. The test of the skim-milk was left to be decided by the Vermont Experiment Station. Eight tests of each were made at the station, the average of the tests of each Separator being as follows:

No. 5 Imp. U. S., 0.11 of 1 per cent. of fat left in the skim-milk.  
Sharples, 0.23 " " " " "  
De Laval "Baby," 0.30 " " " " "

So that in all points the Improved United States Separator was decided to be superior."

Hubbardton, Vt., May 20, 1896. C. A. ST. JOHN.

Would you know more of this Separator and of this test? Write for catalogue and prices.

We WANT AGENTS IN ALL unoccupied territory.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

**WITHOUT A PEER**

STANDS

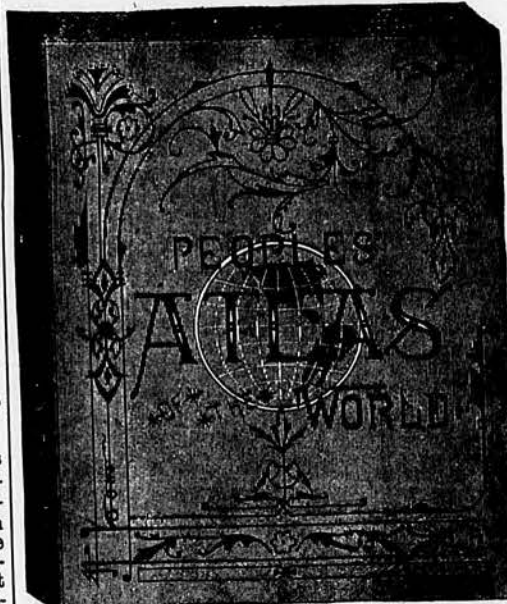
**The People's Atlas OF THE World**

MORE THAN

100,000 Copies Of the 1894 Edition having been sold; and during the past summer the Atlas has been revised and greatly improved, making it

An Up-to-date, Absolutely Accurate, Beautifully Illustrated

**Atlas**



Miniature Cut of Atlas. Actual Size, Open, 14 by 22 inches.

Nearly 70 Comprehensive Maps, Many of them Double Page.

140 New and Superb Illustrations.

A Whole Library in Itself, of vital and absorbing interest to every member of the household.

Population of each State and Territory, of all Counties of the United States, and of American Cities with over 5,000 inhabitants, by latest Census.

The handsomely engraved maps of all the states and territories in the Union are large, full page, with a number of double-page maps to represent the most important states. All countries on the face of the earth are shown. Rivers and lakes are accurately located. All the large cities of the world, the important towns and most of the villages of the United States are given on these maps.

Over 200 Magnificent Illustrations and Maps embellish nearly every page of the Atlas and faithfully depict scenes in almost every part of the world.

THIS ATLAS contains a vast amount of historical, physical, political, educational and statistical matter, so comprehensively arranged and indexed that information on any subject can be found in a moment's time.

**GENERAL DESCRIPTION OF THE WORLD,**

Giving its physical features, form, density, temperature, motion, winds and currents; distribution of land and water; races of people, their religions and numbers; also the most complete list of nations ever published, giving their geographical location, area, population, forms of government, etc.

**ITS SPECIAL FEATURES RELATING TO THE UNITED STATES ARE:**

The Popular and Electoral Votes for President in 1884, 1888 and 1892, by States. List of All the Presidents. Agricultural Productions. Mineral Products. Homestead Laws and Civil Service Rules. Statistics of Immigration, 1820 to 1891. Public Debt for the Past 100 Years. Gold and Silver Statistics. Number and Value of Farm Animals. Cultivable Area as Compared with Increase of Population. Postal Information, with Domestic and Foreign Rates, and Other Information that should be in every Home, Store, Office and School-room.

**A \$1.00 BOOK FREE.**

To every one who will send to this office \$2 to pay for two years' subscription to KANSAS FARMER. The two dollars can be applied for subscriptions one year each for two different addresses if desired. Or, send \$1.20 for one year's subscription to KANSAS FARMER and the Atlas. Address KANSAS FARMER CO., Topeka, Kas.



MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, June 15.—Cattle—Receipts since Saturday, 4,970; calves, 540; shipped Saturday, 740 cattle, 6 calves. The market was steady to a shade higher on the light fancy cattle and extremely slow on heavy cattle. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various cattle and sheep categories.

TEXAS AND INDIAN STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Texas and Indian steers.

COWS AND HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include cows and heifers.

STOCKERS AND FEEDERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include stockers and feeders.

Hogs—Receipts since Saturday, 5,980; shipped Saturday, 794. The market was generally 5c lower. Following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various hogs.

Sheep—Receipts since Saturday, 4,003; shipped Saturday, 491. Texas sheep were 10 to 25c lower and natives barely steady. Following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various sheep.

Horses—Receipts since Saturday, 39; shipped Saturday, 1. The market was quiet and there is little prospect for an improvement before the middle of August. The receipts are the lightest of the year.

Chicago Live Stock.

CHICAGO, June 15.—Cattle—Receipts, 16,000; market steady, to strong; fair to best beefs, \$3.40@3.45; stockers and feeders, \$2.40@3.80; mixed cows and bulls, \$1.35@3.75; Texas, \$2.50@3.75.

Hogs—Receipts, 43,000; market generally 5c lower; light, \$3.00@3.42 1/2; rough packing, \$2.80@2.90; heavy packing and shipping, \$2.93@3.20; pigs, \$2.50@3.40.

Sheep—Receipts, 16,000; market steady; native, \$2.00@4.00; Texas, \$2.50@3.25; lambs, \$2.00@5.00; spring lambs, \$2.50@4.00.

St. Louis Live Stock.

ST. LOUIS, June 15.—Cattle—Receipts, 4,000; market slow; native beef steers, \$3.40@4.25; stockers and feeders, \$2.25@3.50; Texas steers, \$2.40@3.60; Texas cows, \$2.00.

Hogs—Receipts, 4,000; market 5c lower; light, \$3.20@3.25; mixed, \$2.80@3.10; heavy, \$2.90@3.24.

Sheep—Receipts, 4,000; market slow.

Chicago Grain and Provision.

Table with columns: June 15, Opened, High'st, Low'st, Closing. Rows include Wheat, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain.

KANSAS CITY, June 15.—Soft wheat was firmly held to-day, but hard wheat was somewhat lower. Prices were affected largely by billing. Some new wheat, both soft and hard, was on sale. There were bids of 48c for new No. 2 hard to arrive, and 15,000 bushels sold for export, delivered at New Orleans, at a lower price than that.

Receipts of wheat to-day, 10 cars; a year ago, 26 cars.

Sales were as follows on track: Hard, No. 2, 1 car poor billing, 48c; No. 3, nominally 38c@43c; No. 4, nominally 34c@30c, rejected, nominally 30c. Soft, No. 2 red, 2 cars fancy, 62 lb. old, 54c, new, 51c bid; No. 3 red, 1 car fancy, old, 52c, 1 car new, 48c; No. 4 red, nominally 40c@46c; rejected, nominally 35c@40c. Spring, No. 2, 1 car 50 1/2c; No. 3, nominally 46c@18c; rejected, nominally 40c@44c; white, nominally 35c@48c.

Corn met with fair demand. White corn was a little higher, mixed steady. Future sales were: September, 13,000 bushels, 23 1/2c; July white, 5,000 bushels, 23 1/2c. June, white, 5,000 bushels, 23 1/2c.

Receipts of corn to-day, 28 cars; a year ago, 38 cars.

Sales by sample on track: No. 2 mixed, 3 cars 22 1/2c, 3 cars 21 1/2c; No. 3 mixed, 2 cars 21 1/2c, 2 cars 21 1/2c; No. 4 mixed, nominally 20 1/2c no grade, nominally 18 1/2c; white No. 2, 4 cars 22 1/2c, 1 car 23 1/2c; No. 3, 1 car 22 1/2c, 1 car 23c; No. 4, nominally 21 1/2c.

There was no change in the oats market. Receipts were rather large.

Receipts of oats to-day, 16 cars; a year ago, 11 cars.

Sales by sample on track: No. 2 mixed, 1 car 16c, 1 car 1 1/2c; 1 car 15c; No. 3, nominally 14c; No. 4, nominally 13c; no grade, nominally 10c@11c; No. 2 white, 2 cars 18 1/2c, 2 cars 18c; No. 3 white, 2 cars 17 1/2c.

Hay—Receipts, 39 cars; all but good hay sells very slowly. Timothy, choice, \$11.00@12.00; No. 1, \$9.50@10.50; No. 2, \$7.50@9.00; No. 3, \$5.50@7.00; choice prairie, \$3.50@7.50; No. 1, \$5.00@6.00; No. 2, \$4.00@4.50; No. 3, \$3.00@4.00; No. 4, \$2.50@3.50; straw, \$3.50@4.50.

St. Louis Grain.

ST. LOUIS, June 15.—Wheat—Cash, 59c; July, 54c; August, 54 1/2c; September, 54 1/2c. Corn—Cash, 25 1/2c; July, 25 1/2c; August, 27c. Oats—Cash, 17 1/2c; July, 17 1/2c@17 1/2c. September, 17c.

Kansas City Produce.

KANSAS CITY, June 15.—Butter—Creamery, extra fancy separator, 13c; firsts, 12c; dairy, fancy, 12c; fair, 10c; store packed, fresh, 7c, 8c; packing stock, 7c.

Eggs—Strictly candled stock, 7 1/2c per doz; southern, 6c.

Poultry—Hens, 5c; roosters, 15c each; springs, 10c per lb.; turkeys, hens, 6c; gobblers, 5c; old, 4 1/2c; ducks, 7c; spring ducks, 12c; spring geese, 12c; geese, not wanted, pigeons, 90c@1.00 per doz.

Berries—Home grown, \$1.00 in round lots, \$1.75 in a small way. Shipped stock, \$1.50; red stock scarce, \$3.00@3.25. Dewberries, \$1.25@1.50. Blackberries—Bulk of sales at \$1.25@1.50 and a few fancy crates at \$1.65; soft stock, \$1.14 per crate. Huckleberries, \$2.00 per crate. Gooseberries, domestic, fancy, \$1.7c@2.00; wild, \$1.00 per crate. Currants, \$3.00@3.25.

Potatoes—Home grown, 30c@40c; Oklahoma, 35c, in round lots; old home grown, 2c; Colorado fancy, 50c in small lots, 40c in car lots; Minnesota burbanks, old, 25c. Sweet potatoes, 50c@75c per bushel in a small way.

Tomatoes—Florida, plentiful; fancy \$3.00 per 6-basket crate; seconds, \$2.50; culls, \$2.00; Texas, inferior stock selling at \$1.00 per 6-basket crate. trays, choice, \$1.25; peck bas kets, 3c; Mississippi, supply abundant, \$1.00@1.12; per 4-basket crate. culls, 7c.

THE STRAY LIST.

FOR WEEK ENDING JUNE 4, 1896.

Allen county—James Wakefield, clerk. PONY—Taken up by Newman Crowell, in Elm tp., (P. O. Iola), April 28, 1896, one dark bay gelding pony, about 10 years old, shod on front feet, harness marks; valued at \$17. FILLY—By same, one dark brown filly, fourteen and a half hands high, about 3 years old, white spot in forehead, slender built, had halter on.

Cherokee county—T. W. Thomason, clerk.

MARE—Taken up by R. P. Hall, in Pleasant View tp., May 2, 1896, one bay mare, scar on left front foot, lump on left hind leg, star in forehead, 4 or 5 years old; valued at \$15. FILLY—Taken up by De Dorsey, in Pleasant View tp., May 8, 1896, one sorrel filly, fourteen hands high, star in forehead; valued at \$15.

Sumner county—Chas. Sadler, clerk.

MULE—Taken up by John F. Gift, in Seventy-six tp., (P. O. Wellington), April 3, 1896, one black mare mule, branded O on left shoulder, collar marks; valued at \$20. MULE—By same, one light brown horse mule, branded O on left shoulder; valued at \$20.

FOR WEEK ENDING JUNE 11, 1896.

Douglas county—Harry Dick, clerk.

MARE—Taken up by R. L. Patton, in Kanwaka tp., May 18, 1896, one light bay mare, about fifteen hands high, about 4 years old, white feet and some white in face, no marks or brands; valued at \$15. HORSE—Taken up by C. A. Lyeria, in Shawnee tp., one bay horse, fifteen hands high, 7 years old, black mane and tail, star in forehead, left hind foot white, scar on right front foot, shod all round, spavin on both hind legs; valued at \$10. MARE—Taken up by G. W. Russell, in Shawnee tp., one gray mare, fifteen hands high, branded K on left thigh.

Cherokee county—T. W. Thomason, clerk.

MARE—Taken up by E. D. Bray, one sorrel mare, fifteen hands high, fifteen years old, slightly sway-backed, branded L. M. on right hip; valued at \$10. HORSE—Taken up by E. A. Ellis, in Shawnee tp., (P. O. Crestline), one dark brown horse, fourteen hands high, 14 years old, brand on left shoulder. HORSE—By same, one light brown horse, fourteen hands high, 12 years old, left hip down. HORSE—Taken up by E. Barnes, in Crawford tp., May 26, 1896, one black horse, star in forehead, about 10 years old, weight about 1,000 pounds, shod all round.

Pottawatomie county—Frank Davis, clerk.

STEER—Taken up by T. F. Wells, in Shannon tp., May 25, 1896, one black muley steer, 2 years old, smooth crop off right ear; valued at \$24. MARE—By same, one light bay mare, star in forehead, left hind foot white, about 4 years old, weight about 1,000 pounds, shod all round.

Sheridan county—H. W. Percival, clerk.

MARE—Taken up by R. M. Love, in Logan tp., one flea-bitten gray mare, weight 1,000 pounds, 13 years old; valued at \$5. PONY—By same, one white pony, weight about 700 pounds, age unknown; valued at \$5. COLT—By same, one iron-gray colt, 1 year old, had halter on; valued at \$5.

Shawnee county—Chas. T. McCabe, clerk.

THREE COWS—Taken up by D. F. Herring, in Silver Lake tp., (P. O. Swinburn), three cows—one red, shell of right ear broken, branded O on right hip; two spotted cows, dehorned, branded O on right hip. TWO CALVES—By same, two spring male calves, one spotted and one roan; value of five strays \$56.

FOR WEEK ENDING JUNE 18, 1896.

Seligwick county—A. M. Denny, clerk.

MARE—Taken up by C. C. McMurray, in Greeley tp., May 11, 1896, one sorrel mare, 3 years old, white stripe in face, weight about 700 pounds; valued at \$15. Atchison county—Chas. H. Krebs, clerk. HEIFER—Taken up by Ben Torkelson, in Grass-hopper tp., (Invermay P. O.), May 4, 1896, one red heifer, white flanks, 2 years old; valued at \$15. PONY—Taken up by George T. McLennon, in Lancaster tp., (Edinburgh P. O.), May 20, 1896, one bay horse pony, some white on left nostril, small white spot on forehead, white hind feet, about fourteen hands high, about 3 years old; valued at \$15.

Logan county—J. F. Light, clerk.

MARE—Taken up by C. S. Franklin, in Russell Springs tp., (twelve miles southwest of Russell Springs), May 21, 1896, one brown mare, with collar marks, no brands, 12 years old; valued at \$10. MARE—By same, one bay mare, white face, lump on right jaw, right hind foot white, no brands, 6 years old; valued at \$25.

DOGS.

HIGHLAND KENNELS, TOPEKA, KAS.—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

WOOL advertisement. We are now the largest receivers of wool direct from the CROWERS of any house in this market. A few years ago we commenced at the bottom of the list but the year 1896 finds us on top and we are going to stay there. We Make QUICKER SALES and QUICKER RETURNS for wool than any house in this market. THAT'S OUR RECORD and we are going to keep it. Don't Dispose of your Wool until you write us for our report and other valuable information which will be sent you at once free of charge. SACKS FURNISHED FREE. SUMMERS, MORRISON & CO., COMMISSION MERCHANTS, References: Metropolitan Nat'l Bank, Chicago, and this paper. 174 S. Water St., CHICAGO.

WOOL advertisement with circular logo. IF you are looking for a place to which you wish to consign your wool, and want to reach the actual wool center of the West SILBERMAN BROTHERS 122-128 Michigan St., CHICAGO, ILL., is the place. They sell direct to the manufacturers. That means the best prices the market affords. Their circular letter will help keep you informed. Write them.

The Kansas City Stock Yards are the most complete and commodious in the West, and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

Table with columns: Cattle and calves, Hogs, Sheep, Horses and mules, Cows. Rows include Official Receipts for 1895, Slaughtered in Kansas City, Sold to feeders, Sold to shippers, Total Sold in Kansas City, 1895.

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel. NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED. C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST, V. Pres. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintendent. W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

Olander & Isaacson, Live Stock Commission MERCHANTS. Kansas City Stock Yards, Kansas City, Mo.

Consign Cattle, Hogs and Sheep to LONE STAR Commission Company. For best results. A new company. Capital \$100,000. Telephone 1106. Market reports furnished. Write us. KANSAS CITY STOCK YARDS.

HORSES SOLD AT AUCTION on Tuesday, Wednesday and Thursday of each week. Private sales every day at the Kansas City Stock Yards Horse and Mule Department. The largest and finest institution in the United States. Write for free market reports. W. S. TOUGH & SON, Managers, KANSAS CITY, MO.

CONSIGN YOUR SHEEP TO KNOLLIN & BOOTH, Sheep Commission Merchants. Rooms 304-305 Exchange Bldg., KANSAS CITY, MO. Direct all mail to Station A. Market reports furnished free to all sheep feeders or breeders on application. Correspondence solicited and prompt reply guaranteed.

GROWERS OF AND DEALERS IN Cattle, Hogs and Sheep MAKE YOUR CONSIGNMENTS TO Ben. L. Welch & Co. COMMISSION MERCHANTS, STOCK YARDS, KANSAS CITY, MO. And EAST ST. LOUIS, ILL. Stockers and feeders bought on order. Liberal advances to the trade. Write for market reports and special information.

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.

AGENTS To sell cigars to dealers; \$18 weekly, experience not required. Samples free. Reply with 2c stamp. National Consolidated Co., Chicago, Ill.

FREE! A DRESS. Every woman who reads this can get a dress FREE by writing at once to L. N. Cushman & Co., Boston, Mass.

Pete's Coffee House AND LUNCH COUNTER. The popular restaurant. Opposite Kansas - City - Stock - Yards. P. S. RITTER, Proprietor.

Piles Cured for \$25 Without Knife or Ligature. CURE GUARANTEED OR NO PAY. Book on Rectal Diseases, with Testimonials, Free - Sealed. Call or address DR. GIBBS & CO., 10 West Ninth St., Kansas City, Mo.

WINDMILLS Many sizes, all from best material, best workmanship. Stay where you put them. Practically storm proof. Write us. CHALLENGE WINDMILL & FEED MILL CO., No. 47 River Street, BATAVIA, ILL.

The Baldridge Transplanter. Made of steel and iron. Earlier and larger crops. Soil, roots and plants taken up together, preventing stunting or injury. Vegetables, flowers, strawberries, tobacco, small nursery trees, etc., can be moved at all seasons. Invaluable for filling vacancies. Transplanter with blade 2 inches in diameter, \$1.25; same with 3-inch blade, \$1.50. SPECIAL PRICE with KANSAS FARMER: By a special arrangement with the manufacturers we are able to offer the Transplanter and KANSAS FARMER one year for price of Transplanter alone. Send \$1.25 and we will mail KANSAS FARMER to you and send you the Transplanter by express. Or call at FARMER office and get the Transplanter and save 25c. express charges. Address KANSAS FARMER CO., Topeka, Kas.



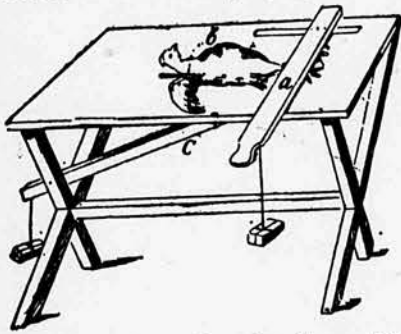
## The Poultry Yard

### CAPONIZING TABLE.

A Subject of Great Interest to Farmers Living Near Cities.

About four years ago, through the influence of an intimate friend, I was persuaded to experiment in a small way with capons. The departure was practically a new thing for me, and it was with some trepidation that I entered into it, but now, after knowing of its merits and its few if any disadvantages, I wonder that caponizing is not better known and more widely practiced than it is. Anyone with a little enterprise can successfully perform the operation, and grow capons to perfection, and once having given it a trial, they will never fail to caponize all their cockerels that are not desirable for breeding purposes, and thus be able to furnish their table with a delicacy which our wealthy epicures of the city prize very highly.

The operation, says a writer in the Orange Judd Farmer, is performed on a table made for the purpose, about 3 feet high and 1 1/2 feet wide by 3 long. The bird is placed upon the table as indicated in the accompanying cut, the



legs being secured under the padded lever (a) at the operator's right, and the wings by the loop of strong cloth (b) attached to the lever (c) at the left and coming up through the hole in the left center of the table, passing around the wings. The weights on the two levers should be in proportion to the size and strength of the bird; then after plucking a few feathers from the side of the cockerel just in front of the thigh, cut a slit between the last two ribs, well up towards the back, and after adjusting the "spreader," the operator can see what remains to be done very plainly. Some cut only one side, but I prefer to work from both sides, as it is much more convenient, and usually takes no longer.

Some care should be exercised in performing the operation lest the large artery following along the backbone is ruptured, since that would cause the immediate death of the chicken; still there is no loss, for he only provides us with a good broiler! Then, too, another thing to expect is from 15 to 25 per cent. "slips"—these are cockerels on which imperfect operations were performed, and as they mature the comb grows, and to all appearances they are roosters. Possibly the most important factor of all in a successful operation is having the cockerel at the proper age. I am better acquainted with the Plymouth Rocks than any other breed, and with them about 3 1/2 months seems to be the proper age. Those breeds which mature much earlier, like the Leghorns, should be operated upon much younger, while a Brahma could possibly be caponized when five or six months old, and not have much danger attending the work.

As soon as caponized the chicken should be given all the ground feed and drink it wishes, for it is hungry, since, in order to facilitate matters, the cockerel should be fasted about 30 hours previous to the operation; in three days' time the wound should be healed over, and in two or three weeks it would be quite difficult to find even a scar.

Now we have a bird that will put on flesh at a surprising rate; the meat is of a delicious flavor and very tender and juicy, and with the same amount of feed, a capon will weigh about a third more at a given age than if left as a rooster. It is well worth the trouble to have the noisy young cockerels transformed into a quiet, lazy bird, even if we were recompensed in no other way, but the price to be obtained for capons is what pleases the grower of them most of all, as the regular quotations range from six to ten cents above the ordinary chicken. I well remember the first year I engaged in this department

of my poultry work, when I sold 20 capons averaging eight pounds at 25 cents per pound, one of which dressed 9 1/2 pounds, and a well-known lawyer paid me \$2.37 for the same. So we see the advantages are threefold—a better price, a larger bird and a quiet bird.

### ABOUT CHICKEN LICE.

Half a Day's Hard Work in the Poultry House Will Kill Them.

The season is now approaching when chicks will be troubled with these pests. The first signs of lice are with the early sitting hens. From their nests a whole house will soon be overrun with them. Chicks show the presence of lice very quickly, and lice are certain death to them, if not protected. The hen should be set in a movable box, which should be thoroughly cleaned and white-washed before she is placed in it. Put two or three coats of whitewash on every interior spot in the building; lice harbor in the crevices of the rough sidings, and on the under side of the perches.

Let the fowls have a dust box, for whitewash and the dust box are the surest preventives of lice. Hot ashes should be mixed with the dust occasionally to dry it. If this has been done before spring laying and sitting begins you will have no trouble with lice. So many farmers neglect their poultry house in the spring, and long before they have thought of lice the pests are busy on their chicks sapping their young lives away. Kerosene and lard when applied is very effective, but they are very dangerous in their effects. A little castor oil on the head and under the wings of sitting hens is also very effective. When the chicks are removed from the nest, each one should be greased on the head and under its wings, even if you do not think it has lice. If possible, have some dust in the coop with the brood hen. If you want your fowls to be free from lice you must keep their habitation clean, and the best way to do this is by changing the contents of the nest and whitewashing the apartments. One-half day spent in cleaning the chicken house will do wonders for the chickens. I am speaking of the average farmer's poultry house, as it is the one neglected. Remove the perches and give the walls a thorough white-washing. Place clean gravel or dry earth on the floor and replace the old perches with new ones and your fowls will not seek some tree or fence for their summer perch, for they will not be troubled with lice in their house.—Ohio Farmer.

### IN THE POULTRY YARD.

Black feathered fowls have a white skin. White skinned fowls usually sell at a less price than yellow-skinned fowls.

Young Guineas do not thrive well if hatched too early. Taking one year with another June is plenty early to have them hatch.

Young ducks drink water every day when eating. They should be supplied with all they can drink in a convenient place while they are eating.

Carbolic acid is a poison, and too much should not be used. Ten or twelve drops in a quart of water is enough. For cholera double this quantity.

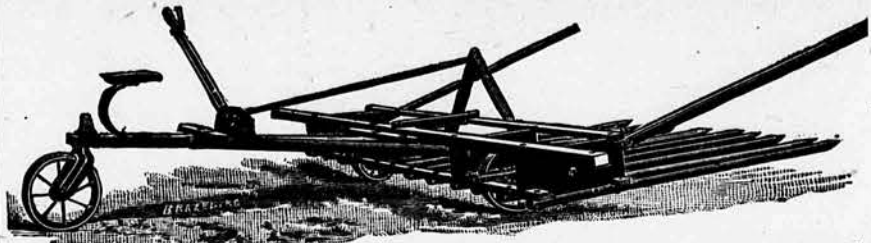
After the turkeys are ten days old they may be turned out every morning after the dew is off and be allowed to stay out all day, unless there are hard showers.

Give the hens as much liberty as possible now. It is natural for them to forage. They will lay more eggs on the food that they pick up than if kept in a yard and fed well.—St. Louis Republic.

## MANLY VIGOR



ONCE MORE in harmony with the world, 2000 completely cured men are singing happy praises for the greatest, grandest and most successful cure for sexual weakness and lost vigor known to medical science. An account of this wonderful discovery, in book form, with references and proofs, will be sent to suffering men (sealed) free. Full manly vigor permanently restored. Failure impossible. ERIE MEDICAL CO., BUFFALO, N.Y.



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Write for Circulars. KANSAS CITY HAY PRESS CO., Kansas City, Mo.



Used and endorsed by Adams Express Co.

## HORSE OWNERS RECOMMEND

This remedy very highly. We have thousands of testimonials. It is the only standard remedy on the market. If your horse is lame you need this remedy, for it will cure more speedily than any other remedy in the world.

## TUTTLE'S ELIXIR

Is a positive, safe and speedy cure for Colic, Curbs, Splints, Contracted and Knotted Cords, Callous of all kinds, etc. Brings speedy relief in case of Spavins, Ring-Bone and Cockle Joints.

Tuttle's Family Elixir is the best for all pains, bruises, ches, Rheumatism, etc., etc.

Samples of either Elixir are sent for three 2-cent stamps to pay postage. 50 cents buys full-sized bottle of either Elixir at any druggist's or it will be sent direct on receipt of price.

DR. S. A. TUTTLE, 27 G. Beverly St., Boston, Mass.



### "QUEEN" ALL Steel Sulky Rake.

Lock-Lever; Continuous Solid Steel Axle; Steel Wheels.

Steel Teeth with Spring Temper. Combination pole and shafts with 8 and 10 ft. rakes. Pole only with 12 ft. rakes.

Large, comfortable Seat.

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Head is of Angle Steel—strongest shape known. Made 8, 10 and 12 feet wide.

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RACINE WIS.

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KILLS AND PREVENTS TICKS, LICE AND SCAB. MAKES WOOL GROW.

Dipping pamphlet free from  
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\$2 packet makes 100 gallons; 50c. packet, 25 gallons. If druggist cannot supply, send \$1.75 for \$2 packet to Evans-Gallagher Co., Kansas City, or J. W. Allen & Co., Atchison, Kas.

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**FOR IRRIGATION OR ANY OTHER USE.**

Wooden and Steel Tanks,  
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535 River St., **PREEPORT, ILL.**

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Atlantic City, Cape May, Asbury Park, Ocean Grove, Long Branch, and resorts along the New Jersey Coast are on the Vandalla-Pennsylvania Lines, which lead from St. Louis to Newport, Narragansett Pier, Martha's Vineyard, Nantucket and popular watering places along the Atlantic from Chesapeake Bay to Maine.

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Cresson, Bedford Springs, Ebensburg, Altoona and other resorts in the Alleghenies are also on the Vandalla-Pennsylvania Route, over which the White Mountains, the Adirondacks, Watkins Glen, Mt. Desert Island, and places of Summer sojourn in Eastern New York, Vermont, New Hampshire and Maine may be conveniently and comfortably reached from St. Louis.

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Goodhue Pump and Power Wind Mills  
Back Geared and Direct Stroke. Galvanized Steel and Wood; 5-ft to 18-ft. New principle in governing; no weights or springs; leads in simplicity, durability, strength and effective work. Most successful power mills for grinders, feed cutters, shellers, etc. \$3000.00 worth of our power mills in daily use in one township. 3 and 4 corner galvanized steel towers. Strongest in use. Never one blown down. Our line of "Hero" and "American" Grinding Mills, Fodder Cutters, Shellers, Wood Saws, etc., the best and most complete, 2 to 8 horse Sweep Powers, 2 and 3 horse Tread Powers; Success One Horse Tread Power for Cream Separators, pumping, etc. Our new 150-page catalogue tells all about machines for preparing feed, pumping water, irrigation, etc. Send for it. **APPLETON MANUFACTURING CO., 19 Fargo St., BATAVIA, ILLS.**

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Now on the market at the price, being a strictly correct narrative of the events in our history, beginning with the first voyage of Columbus; then follow accounts of the explorations of the English, French and Spaniards; the Mound-builders and the American Indians; the Struggle for Independence; the Wars of 1812, 1848 and 1861-5, and the numerous wars with the Indians; the great Political Crises; the great Inventors and their Inventions—the Locomotive, Telegraph, Cotton-gin, Sewing-machine, etc.—and a chapter on the more recent but none the less wonderful inventions.

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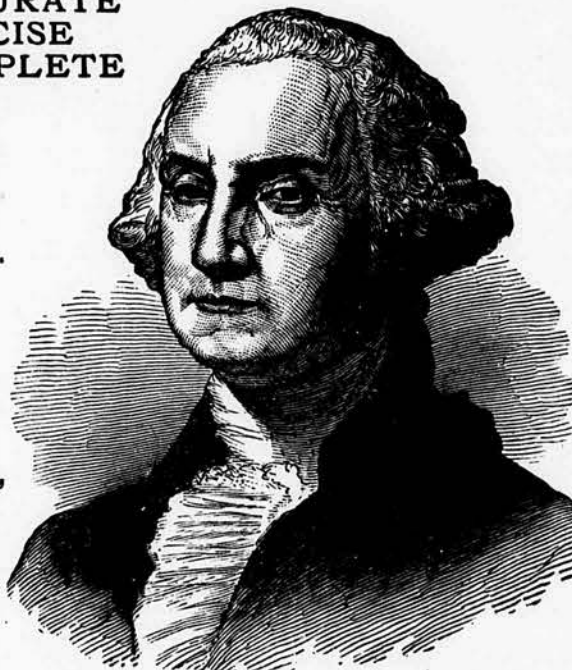
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The Santa Fe Route is the most direct and only through broad-gauge line from Chicago and Kansas City to the celebrated Cripple Creek gold mining district. Luxurious Pullmans, free chair cars, fastest time, and low rates.

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Address G. T. Nicholson, G. P. A., A., T. & S. F. Ry., Monadnock Bldg., Chicago, or W. J. Black, A. G. P. A., Topeka, Kas., and ask for free copy of profusely illustrated book descriptive of Cripple Creek. It is well worth reading.

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SEEDS

WE ARE CONVINCED,

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By Actual Experience that you can KILL THE GERMS with Bannerman's Phenyle And Anglo Hog Food KILLS THE WORMS and Conditions the Hog,

THEREBY

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Read his answer after using the goods: "I have used it on my hogs that had lice on them. Am highly pleased with the result. It fixed the lice in short order. In forty-eight hours after applying it, I could not find a live louse on any of them, but plenty of dead ones. It works equally as well in the hen-house. I keep my hog-houses and yards sprinkled with it, and they smell sweet and clean—not a trace of any bad odor about my hog establishment. With my breed of swine (Small Yorkshires) and Bannerman's Phenyle used in their quarters, I don't expect to have any disease. E. J. SCHOFIELD, Hanover, Wis."

Read what others say, and when through, if not convinced, write the editor of this paper. He has thoroughly investigated this.

Additional testimonials, with names of parties using, sent on application.

A prominent breeder writes, upon sending in an order for another 200-pound barrel of goods: "For two years I have protected my herd from disease with cholera raging around."

Another breeder writes: "I have great faith in your goods. Have got my fourth barrel this season, one of which other parties took. My hogs are in good shape and pens and yards as clean as a parlor and thoroughly disinfected. Hogs have never done better than they are doing now."

A prominent hog breeder writes: "I have my first crop of hogs all right. You can give the credit to your goods." Still another writes: "I used your goods and did not lose a hog. I stopped using it and lost two. Send me some more. I would not be without it, as I believe it to be the only thing that will prevent hog cholera."

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