

# KANSAS FARMER

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Sketch from life by F. D. Tomson, of Lord Mayor 112727 and two of his get, Miss Phyllis 3d and 2d Nell of Valley Grove, of the Valley Grove herd of Short-horns, Dover, Kas., owned by T. P. Babst.

## BREEDERS' DIRECTORY.

Cards will be inserted in the Breeder's Directory as follows: Four line card one year, \$16.00; six lines, \$23.00; ten lines, \$30.00; each additional line \$3.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

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**CENTRAL KANSAS HERD OF THOROUGH-BRED** Poland-China hogs. C. S. Snodgrass, Galt, Rice county, Kansas, breeds the best. Stock for sale now. Come or write.

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Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER.  
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Composed of the BEST POLAND-CHINA Blood Known.

The present offering consists of August, September and October pigs—10 boars and 20 sows—very choice. The stock by or bred to Kievers' Model, What's Wanted Jr., Hidestretcher, Wilkes' Model, Waterloo Chief, etc. For further information address,  
W. H. WREN, Marion, Kas.

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**BOURBON COUNTY HERD BERKSHIRES.**

J. S. MAGERS, Proprietor, Arcadia, Kas. Correspondence invited. Satisfaction guaranteed.

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CHEROKEE, KAS. **DUROC-JERSEY SWINE.**  
Bait Pig Teeth Clippers, 35 cents by mail.

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Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. Stonebraker, Panola, Ill.

**T. A. HUBBARD,**  
Rome, Kansas,  
Breeder of  
**POLAND-CHINAS and LARGE ENGLISH BERKSHIRES.** Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

**Mound Farm Herd of Poland-Chinas.**

100 head. Foundation stock, Tecumseh. Boars in service, Tecumseh Joe 1344 S., Chief 13840 S., Butler Wilkes 17764 S., U. S. Tecumseh 17850 S., 15 fall gilts, 30 spring pigs, 30 summer pigs. Inspection and correspondence invited.  
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**"HIGHLAND POLAND-CHINAS."**

Twenty-five very fancy fall boars, some of which will do to head any herd or to go in any show ring. Sired by Knox-All Wilkes 13179 S. and Highland Chief 18334 S., by Chief Tecumseh 2d 9115. No better sires in any herd. Our prices very low if taken at once. One hundred fine spring pigs by same sires.  
Plymouth Rock Eggs.

DIETRICH & SPAULDING, Richmond, Kas.

## Agricultural Matters.

### A PIT SILO.

A few weeks ago, while staying for a short time in western Iowa, we learned that Mr. George Lyon, of Woodbury county, that State, had a silo that was "dug in the ground entirely," says a writer in Hoard's Dairyman. We therefore paid Mr. Lyon a visit, and this is what we learned: The silo was made last year. It is a pit in the ground, circular in form, twenty feet deep, by fourteen feet in diameter. It is cemented with Portland cement, or water lime, both sides and bottom. A platform is laid over the top in which there is a trap door. The silo is at one end of his cow barn, and is covered with a shed. The ensilage is drawn out with a geared windlass. A box is used that will hold enough for one feed for his twenty cows. On the bottom of the box are runners made of 2x4 pieces. When the silage is drawn up, a horse can be hitched to the box and it can be hauled before the cows, where each one's feed is shoveled out to her.

It would be a good arrangement to have trucks under this box, and a track to run on.

Mr. Lyon is so well pleased with his silo that he talks of making two more of the same size this summer. He is well pleased with it, although his silage did not keep perfectly; but he now knows the cause, is sure he has learned something, and can prevent having damaged silage in the future.

His mistake was, he had no one in the silo to distribute the silage and tramp it around the side, when filling, until near the top. The consequence was, the ears and butts of stalks—the heavy portions—all went to the side farthest from the cutter, while the leaves and all the light portion were on the other side. This will cause much of the silage to be damaged, as every one who has had experience with silage knows. Next time he fills he says he will have a man in it to mix the silage and keep the outside the highest; this will insure its hugging close to the wall.

This silo will hold about sixty tons, and Mr. Lyon says it cost him \$20 to dig it and move the dirt away. The man who helped to dig it has offered to dig as many more silos as he wants, fourteen feet in diameter, for \$1 for each foot of depth down to twenty-five feet. He took four barrels of cement, at \$3 a barrel, to cement it. Then the cover and shed were added, and the whole cost did not exceed \$50, or less than \$1 a ton capacity.

Mr. Lyon enumerates the advantages of his silo in this way: "It will not blow down, as my neighbor's (Mr. Strong) did last summer (and he says that silo blowing down is what decided him to dig one); the walls will not spring out; it will not rot or freeze, and is cheap." One disadvantage is, that it costs more to elevate the silage out of the silo—one feed at a time—than it does to elevate it into a silage above ground.

One other thing we must mention: We have somewhere read that a pit silo has been known to have carbonic acid gas in it, making it dangerous to go into. Mr. Lyon experienced nothing of the kind, and possibly the danger is very remote.

It is only in certain parts of the country where the soil is right for it that deep-pit silos are possible. Where Mr. Lyon's silo is, there is no water coming in from the ground. There is no stone, sand, gravel or clay, but just soil all the way down that can be easily spaded out perfectly smooth, and there is no danger of caving in. When there is ground like that, it is cheap and practicable to make a pit silo.

The same journal also says: "A far Western reader asks if, in filling a silo, there is anything done except just to cut the corn and put it in the pit—that is, any cooking, salting, or mixing with some other food. This is not so simple or foolish a question as it may appear to many, for it is almost inconceivable, to one who has never had practicable experience with a silo, that it is possible to have green feed, fresh and wholesome, all through the winter and spring, without resort to something besides mere storage. And there are not a few people who have used silage for years who cannot explain why silage does not spoil. The whole secret of preserving silage rests upon the fact that fermentation cannot proceed except in the presence of oxygen, and, in nature, this is supplied by the air. Hence, we build our silos impervious to the air, cut our corn or other material into it, and provide that it shall be distributed so as to settle evenly. To this end, we keep the sides somewhat the highest, so as

to overcome the friction. Of course there is now more or less air all through the mass, and, in consequence, fermentation commences very soon, as is evidenced by the rise in temperature; but, fortunately, in this process of fermentation, carbonic gas is evolved, and this, being heavier than the air, forces the latter up and out of the silage, just as pouring water into a jug or cask displaces and dispels the air. This expulsion of the air, and the air-tight sides which prevent the outflow of the carbonic gas, arrests further decay (fermentation), and, so long as this condition is maintained, the silage remains in statu quo. We do not need to cover the top of the silo, because the carbonic gas will not escape that way any more than water would, but there will be more or less decay just at the surface, where the air can come in contact with the silage. In the canning of fruits and vegetables, the housewife expels the air by heat, before fermentation sets in, and seals the can, in one way or another, to prevent the entrance of air when the contents shrink from cooling."

### June Notes.

Cut clover before the blossoms fall. Cut timothy when in fullest bloom. Cut alfalfa while in the early bloom. Do not cure the clover too long in the swath.

Do not be in too much of a hurry to lay by the corn.

The first of this month is a good time to sow fodder crops.

Plan and work to get the hay up with out being rained upon.

A supply of hay caps will materially lessen the risk of loss.

Better to hire a little extra help before harvest than during it.

When the cultivation is finished leave the soil level, fine and mellow.

Have the cultivated crops in good condition before the harvest begins.

As the weather gets warmer more care is necessary in watering the horses.

A better growth will be secured if the hogs are fed grain once a day at least.

Rush the winter pigs so they can be marketed before hot, dry weather sets in.

Fresh, pure water, clean grass with some grain, are what the cows want now.

Generally it is best to mulch all the newly-set trees by the middle of this month.

It is only in exceptional cases that it is best to hatch out chickens after this month.

As soon as the hatching season is over all the roosters on the place should be marketed.

This is a good time to plant cucumbers for pickles and the winter squashes for late keeping.

Quite a large number of weeds may be readily killed out if they can be effectually prevented from maturing seed.

If the most is to be made out of the geese and ducks, their feathers should be picked regularly during the summer.

With corn and cane it is better to thin now than to allow the plants to grow to maturity badly crowded in the hill.

If when finishing the cultivation of potatoes the soil is left fine and mellow, the plants will suffer less in dry weather.

Use slug shot for potato bugs, cabbage moths and this class of pests by applying when the dew is on and repeating after every hard rain.

Sweet corn may be planted this month for late roasting-ears, and what is not eaten or dried will be good feed for the dairy cows in the fall and winter.

Eldon, Mo. N. J. SHEPHERD.

### The Price of Wheat.

From the Agricultural Cable, London, England.

Wheat is increasing in value every day. We believe that it will continue to do so. Many farmers have been heard to remark lately that they should hold their stocks until 60s. a quarter (eight bushels) was reached. Although the price at the moment of writing is 3s. or 4s. below that figure, it is quite possible that by the time these lines are read, 60s. will have been reached. The truth is, that there is no reason why the price should fall—at least for a considerable time. People who say that this sudden rise is the direct result of the war are, to a certain extent, wrong. War or no war, the price of wheat must have risen. The only thing that the war has done is to accentuate the rise. For two years the world's supply of wheat has been unusually small. This was especially the case all over the continent of Europe. In the south of Europe bread riots have already commenced. If the price of wheat continues to rise, it is not impossible that

the same deplorable state of things will take place here. France seems to have been providing against the evil day for some time. So long ago as last autumn French buyers came over to the markets in our eastern counties, and it is computed that 1,000,000 quarters of English wheat changed hands at that time. What would not the East Anglian farmers give to have those million quarters back again? It is, of course, the well-to-do farmer who will make money out of the sudden rise. He has been able to keep his wheat in the stack yard. The small farmer, who has had a struggle to make both ends meet, has long ago sold out. To him the rise in the price of wheat will not be very welcome, because the price of feeding stuffs is bound to rise, too. However, with plenty of grass—and the recent rains have made an extraordinary difference in the pastures—and a hardening of the prices for meat, he may be able to get along till next harvest pretty comfortably. As an instance of how short the supply of wheat is on the Continent, it is only necessary to refer to the fact that France has withdrawn her import duty of 12s. 6d. per quarter. The reports as to the new harvests are as yet very unreliable, but it is stated that Californian wheat, which is largely bought on the Continent, has a very bad outlook. The present position of wheat emphasizes very strongly the extreme uncertainty of all mundane affairs. Who would have thought, two or three years ago, when wheat was fetching 20s., or less, a quarter, that within a comparatively short period it would nearly treble its value? Then everybody was talking about overproduction, and the townsman, thinking that his cheap loaf was to be an everlasting possession, refused to recognize the danger of allowing the wheat lands of Great Britain to go out of cultivation. To-day the townsman, finding that his household bills are increased by about a shilling a day, acknowledges that there is more in the agricultural question than he thought. Indeed, he is at last beginning to get a little alarmed when he hears that there is never in this country more wheat than for fourteen weeks' consumption, and that for the six months after the end of March, our reserve is only for six weeks.

### College Employment Bureau.

The employment bureau of which there has been so much talk among Y. M. C. A. boys for the last few months has at last been established, and it is to be hoped that it may be productive of good results.

The plan is as follows: A secretary is employed to put in whatever time may be wise, in securing information in regard to the places where work can be secured, the wages paid, etc., and to convey this information to students who are worthy and competent to fill the places. It is believed that by this means, those wishing to have work done and those that desire to do the work may be brought together.

Even in times of depression when, to use a common expression, "there are ten men for every job," employers are frequently on the lookout for really good men upon whom dependence may be placed. For example, farmers often let work go undone simply because they are unable to hire men that can be depended upon.

At the close of every term there are young men who quit college for the purpose of earning money with which to continue their course; young men who have been raised on the farm and who are compelled to hunt a long time before finding a job. We believe that if the farmers of the State become aware of this fact they will when in need of a good hand write to our employment bureau, and if there is a suitable man in college who wants the place, we can assist both parties. There are often young men from our shops who need not be hunting work if the men that need their services knew of them.

In this connection we wish to state that the bureau will make an effort to recommend no young man for a position that he is not competent to fill properly. The service of the bureau is free to both employer and employee.

All communications should be addressed to the Y. M. C. A. Employment Bureau, Manhattan, Kas.—Students' Herald.

THE MOST SIMPLE AND SAFE REMEDY for a Cough or Throat Trouble is "Brown's Bronchial Troches." They possess real merit.

Grain should not be permitted to grow close up to a fruit tree.

Rock Salt for Stock.—Use Kansas Rock Salt for stock. Best and cheapest way of salting your stock.

## A Good Investment.



The average business man thinks he has made a good investment when he has placed a loan that will yield 6 per cent. interest per annum. The man who buys and uses a

**SHARPLES SEPARATOR,**

either **LITTLE GIANT** or **SAFETY HAND**, makes an investment that will yield a larger and surer return than the loaning of money at 20 per cent. This is their testimony at least.

**P. M. SHARPLES,**  
West Chester, Pa.  
BRANCHES:  
Elgin, Ill.  
Omaha, Neb.  
Dubuque, Iowa.

### Experiment Station Work--IV.

The fourth number of Experiment Station Work prepared under the direction of the Director of the Office of Experiment Stations will soon be issued by the United States Department of Agriculture as Farmers' Bulletin No. 73.

The first matter considered in this bulletin is "Pure Water on the Farm," and the fact is pointed out that it is not the farmer alone who is interested in a pure water supply on the farm, but that the health of the large communities who draw their food supply from the country is in a measure dependent on the health of the farming community.

The next subjects dealt with are "Loss of Fertility in Drainage Water" and "Availability of Fertilizers."

The question of seed selection is discussed, and for a general crop the choice of pure seed having a high degree of vitality is recommended.

Thinning fruit is advocated and the results of several experiments are given showing the yield on thinned and unthinned trees. From these experiments it appears that thinning increases the size of the orchard fruit, gives it more color and a better flavor. It diminishes the amount of worthless fruit and wind-falls, lessens the amount of rot, and tends to keep injurious insects in check, as care is taken to remove the infested fruit.

The bulletin also contains reports of experiments on various means of utilizing low-grade apples; losses in cooking of vegetables; the comparative value of steer and heifer beef and "swells" in canned vegetables.

Kaffir corn for dry regions, Jerusalem artichokes and special and condimental feeding stuffs are other subjects discussed in the bulletin.

The bulletin is for free distribution by the department and copies may also be obtained from Senators, Representatives, and Delegates in Congress.

### Beets for Feed.

Editor Kansas Farmer:—As to raising "beets" (mangels) for stock feed, I raise them as I would cabbage. Drill the seed and when plants are fair size set them as I do cabbage. By this method they are much larger and no weeding is necessary, and they may be cultivated by horse power. My horses will not eat them. I have sowed some cow peas this spring. Will report.

SUBSCRIBER.

Junction City, Kas.

### Farmers Break the Buggy Monopoly.

It is claimed that for years buggy manufacturers have secured exorbitant prices for their goods, but recently through the combined assistance of the farmers of Iowa, Illinois and other States, SEARS, ROEBUCK & Co., of Chicago, have got the price of open buggies down to \$10.50; Top Buggies, \$22.75; Top Surries, \$43.75 and upwards, and they are shipping them in immense numbers direct to farmers in every State. They send an immense buggy catalogue free, postpaid, to anyone who asks for it. This certainly is a big victory for the farmer, but a severe blow to the carriage manufacturers and dealers.

Send Kansas Farmer Co. \$1.20 and get one year's subscription to your State agricultural paper and Rand, McNally & Co.'s "War Atlas," containing sixteen pages of colored maps—Cuba and Havana harbor, Philippine islands and China, West Indies, Spain and Portugal, North America, United States, Europe, and one page showing flags of all nations.

The ground in which fruit trees are planted should be as well prepared as it is for any crop.

DEAD SHOT for HOG CHOLERA is guaranteed to cure and prevent cholera in hogs or fowls. Never fails. 25 and 50 cents per bottle, by all dealers, or the Cannon Chemical Co., St. Louis, Mo., wholesale agents.

## The Stock Interest.

### FEEDING EXPERIMENTS WITH COW PEAS.

By J. F. Duggar, Agriculturist Alabama Experiment Station.

#### COW PEA PASTURAGE FOR SHOATS.

September 8, 1897, six Essex shoats, all of the same litter and averaging 50.1 pounds each, were divided into two lots, one lot weighing 152.7 pounds, the other 148.2. Lot I, which was slightly the heavier, was confined to a dry lot and fed as much shelled corn as the shoats would eat. Lot II was confined by hurdles to a field of cow peas of the variety Wonderful or Unknown.

The soil of this field was sandy upland of a better grade than the ordinary upland soils of this locality. The stand of cow peas was thin and the rows were about four feet apart. Nevertheless, the yield of dry peas on the portion of the field from which peas were picked was at the rate of 13.2 bushels per acre, which is considerably above the ordinary yield.

When the pigs were placed in the field the leaves were all green and only about one-half of the peas had taken on the color of maturity. The other pods were all green, but most of them had attained full size. As long as the leaflets continued succulent and green, they were readily eaten. In the latter half of the experiment only the seed was eaten.

Before the beginning of the experiment proper, the usual preliminary period of a week was allowed for the pigs to get accustomed to their rations. Both lots received hard-wood ashes and salt regularly.

During the six weeks covered by this portion of the experiment, the results were as follows:

	Gain.	Lbs. corn eaten.	Lbs. corn pr. lb. gain.
Lot I.—Corn alone.....	45.2	263.8	5.86
Lot II.—Cow pea pasture and corn.....	122.0	374.0	3.07

When corn was fed alone it took nearly twice as much corn to make a pound of growth as when the pigs had access to both corn and cow peas. The pigs on pasture had a better appetite, ate more corn, made nearly three times as much growth as the pigs on an exclusive corn diet, and made that gain at less cost per pound.

Assuming that the whole field was similar to the area on which the peas were weighed, yielding at the rate of 13.2 bushels per acre, the area of 7,280 square feet on which the pigs were pastured during six weeks, yielded 132 pounds of shelled cow peas. This is equal to 1.1 pounds of cow peas, together with 3.07 pounds of corn, for every pound of growth made by the pigs. Thus we have 4.17 pounds as the total amount of mixed grain required to produce one pound of growth, against 5.86 pounds of corn, when corn was fed alone. The better effects of the mixed ration may be due to one or all of the following causes:

- (1) To the undetermined amount of leaflets eaten.
- (2) To the more nitrogenous character (or better quality) of the mixed ration.
- (3) To the better appetites of the pigs on a mixed diet, resulting in the consumption of a larger quantity of corn and in more rapid fattening than occurred with the lot on an exclusive corn diet. It is a well established principle that rapid fattening of pigs is effected with less food per pound of growth than is slow fattening.

The financial statement for Lot II. is as follows—based on pork at 3 cents per pound and corn at 40 cents per bushel:

	Dr.	Cr.
By 122 lbs. of live pork at 3c per lb.....		\$3.66
To 263.8 lbs. of corn at 40c per bu.....	\$1.88	
To balance: Value of 7,280 sq. ft. in cow peas.....	1.73	
		\$3.66

This is at the rate of \$10.65 per acre. This is certainly not a large return for an acre, but to this value of pork produced by an acre of cow peas should be added the fertilizer value of the vines, which is considerable, as every farmer knows. There is reason to believe that vines and excrement on a field where pigs have grazed are worth practically as much for fertilizing purposes as the vines on a similar area not grazed.

A return of \$10.65 per acre, a figure which was obtained from an acre capable of yielding 13.2 bushels of peas, is not to be expected from land poorer than that used in this experiment.

It was planned to duplicate the experiment just detailed, using two Essex sows and their litters, both of the same age and breeding. A few days after farrowing, one sow and her litter were placed in hurdles on the cow pea field referred to above; as much shelled corn was fed as this lot would eat. The other

sow, with her litter, received only corn. The experiment was brought to a premature close by the sudden death (from hog cholera and swine plague) of the sow receiving only corn. During three weeks, when both sows were in health, the sow and six pigs on cow pea pasture and supplied with corn made a total gain of 29.9 pounds. The other lot, a sow and seven pigs, receiving only corn, lost during this period 9 pounds. As usual just after farrowing, both sows lost weight—the one on corn alone 42 pounds, the other 9.1 pounds. The seven pigs suckling the corn-fed sow gained 33 pounds; the other lot gained 39 pounds.

#### GROUND COW PEAS AND CORN VS. GROUND CORN ALONE.

At the conclusion of the grazing experiment just noted, the same pigs were used in another experiment closely related in aim to the preceding.

Lot I. was continued on an exclusive corn ration. Lot II. received equal weights of corn and shelled cow peas. The food for both lots was ground, and both lots were kept in covered pens, with small yards adjoining.

After the usual preliminary period of one week, the experiment proper was begun November 4, 1897, and continued until January 3, 1898.

During this period of seventy days the results were as follows:

	Lbs. gain.	Lbs. of food eaten.	Lbs. food per lb. of gain.	*Nutritive ratio of food.
Lot I.—Ground corn alone	68.0	548.2	8.06	1 to 9.7
Lot II.—½ corn, ½ cow peas (ground).....	108.0	569.9	5.28	1 to 6.2

\*The nutritive ratio of a food is the ratio of the digestible nitrogenous matter contained in it to the sum of the digestible fats, sugars, starch and other non-nitrogenous organic matter. The digestibility of cow peas was assumed to be the same as that of Canada field peas.

The above table shows that the gain made was much greater with the mixed ration of corn and cow peas than with corn alone. It required to make one pound of growth more than 8 pounds of ground corn fed alone; less than 5½ pounds of the mixed grain produced the same result.

#### Poland-China Premiums.

At a meeting of the directors, held at office of association, May 14, 1898, they decided to offer \$300 in cash premiums to members and patrons of the Standard Poland-China Record Association, classified as follows:

	First premium.	Second premium.
Best boar under 6 months old.....	\$15.00	\$10.00
Best boar 6 months old and under 1 year.....	15.00	10.00
Best boar 1 year old and under 1½ years.....	15.00	10.00
Best sow under 6 months old.....	15.00	10.00
Best sow 6 months old and under 1 year.....	15.00	10.00
Best sow 1 year old and over.....	15.00	10.00

#### HERD PREMIUMS.

Best boar and 3 sows under 1 year old.....	\$50.00
Best boar and 3 sows 1 year old and over.....	50.00

#### SWEETSTAKES.

Best boar any age.....	\$25.00
Best sow any age.....	25.00

To be shown on grounds of the Trans-Mississippi exposition at Omaha, Nebraska, 1898. The exhibitor must be the breeder of or have owned the animals shown six months prior to date of exhibit. Rules and regulations of the Trans-Mississippi Association as per printed premium list to apply, so far as this exhibit goes in regard to entries and ages.

Non-stockholders must have been patrons prior to June 1, 1898.

GEO. F. WOODWORTH,  
Maryville, Mo. Secretary.

#### Hog Millet.

Editor Kansas Farmer:—This plant has been raised here three years. The stalks and blades are like other millets, but the heads are more like cane or broomcorn. It will yield thirty to forty bushels of seed per acre. In 1896 eight acres yielded 440 bushels. It was sown May 15 and cut July 15. That year a man sowed nine bushels and it yielded 913 bushels. This was cut in fifty-six days from date sown. It yielded two to two and a half tons of hay per acre. Last year it did not do quite so well—too wet. It does best in a dry, hot season. It is sown here in May and June. I sow broadcast, twenty pounds of seed per acre. Last year I sowed this and the common millet the same day, side by side; the land was level and all alike. When this headed out it was a foot the highest, and when it was ripe the other was just headed out. When the heads begin to turn yellow, cut with binder, and make small sheaves. Set up in narrow shocks to cure. Stack same as

wheat and thresh same as common millet. When ripe enough to cut for seed, the blades and stalks are green yet, and so it makes good hay. I have farmed for fifty years and fed many kinds of hay, but never fed any that stood liked better, or did better on, than this millet. I have bright alfalfa, but they eat this millet just as well. It grows as rank on upland as on the bottom. It is no harder on land than other millets. It leaves the ground mellow. The seed is good hog feed. It should be ground first. I never found anything better for poultry. I have no seed to sell. Some of my neighbors have. If any of your readers want seed, I will get it and put it on cars here for them. I have farmed here in southwestern Nebraska the past sixteen years. W. C. Red Willow county, Neb.

## Sheep Department.

Conducted by J. CLARENCE NORTON, Moran, Kas., to whom all letters should be addressed.

### Dipping.

Editor Kansas Farmer:—Sheep shearing time is here; some are all done, others are not. There are a great many flockmasters who never think of dipping their flocks in some kind of a preparation to kill ticks or lice. Dipping the sheep immediately or very soon after they are sheared is a very important part of the shepherd's work. I believe that a flock of sheep is never entirely free from some of the many pests that sheep are subject to. By dipping we destroy all scab, lice and ticks; it gives a clean skin, and then we can expect to grow a good fleece of wool, whereas if our sheep are not clear of these pests they will show it by the poor quality and quantity of wool.

To dip sheep we should have a vat or tank. I use a tank 7 feet 9 inches long on top, 3 feet long on bottom, 2½ feet wide and 3 feet high. I place this tank at the end of a chute where I load hogs into a wagon. Here they can be driven into the dip, and after being allowed to stand in the dip one minute or so they are then allowed to walk out on the opposite side. It is usually best to force the head under the liquid once at least, so that all ticks or lice that may be on the head or ears will be killed.

As to the kind of dip to use, there are several good dips on the market. I prefer Cooper's. It is very poisonous and must be used with great care and used just as the directions say. Allow the sheep to go into a lot where there is no straw or litter of any kind, else the drippings will fall on this litter, the sheep will eat it, and death will surely follow. One man near here dipped a ram that he had just purchased at a long price. He allowed it to go into a grove where there were leaves on the ground; the liquid dropped on the leaves, and the sheep, being hungry, ate them and died.

If we would have the most and best success with our flock we should dip them at least once a year, and some flockmasters recommend dipping again in the fall.

ASA MARKEL.  
Lafayette, Ind.

### Shoddy—How it Has Increased.

Harry Fulton, of Flagstaff, Arizona, has published an article in the Coccino Sun, of that city, on the subject of shoddy wool manufacturers, in which he says:

"There is an alarming evil of great and growing proportions confronting the wool-growing industry, which must be checked as soon as it is possible to do so. For our national government to enact certain requirements of the manufacturers of shoddy goods should create as much talk from the wool-growers (and from the people for their own protection) as the tariff ever did. The census returns between the years 1880 and 1890 show the increase in sheep to be 9 per cent.; in wool produced about 27 per cent.; while the increase in shoddy manufactured for the same period was 54 per cent. Such a state of affairs is to be greatly deplored, and any legitimate steps taken to rectify present conditions, which seem to be almost firmly rooted, should be encouraged and hastened in its endeavor to at least check the onward march of the manufacture of shoddy.

"I will venture the assertion that there are a good many who would not buy shoddy if they knew it, and they should be protected in the purchase of the garment or cloth as the consumer is in the purchase of butter. In 1886 our national government wisely enacted a law compelling all manufacturers of oleomargarine and other substitutes for butter

## FACTS ABOUT HEALTH

It is Easy to Keep Well if We Know How—Some of the Conditions Necessary to Perfect Health.

The importance of maintaining good health is easily understood, and it is really a simple matter if we take a correct view of the conditions required. In perfect health the stomach promptly digests food. The blood is employed to carry nourishment to the organs, nerves, muscles and tissues which need it. The first great essential for good health, therefore, is pure, rich blood. No medicine has such a record of cures as Hood's Sarsaparilla and it is because it is the one true blood purifier. Hundreds of people are alive and well today who would have been in their graves had they not taken Hood's Sarsaparilla. It is depended upon as a family medicine by thousands.

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

to so label it that the consumers would know just what they were buying. In view of these facts, we can rightfully call upon our government to protect the wearer of woolen goods by requiring the manufacturer to so label his goods that the consumer will know beyond all possible doubt that the garment, article or cloth contains so much straight fleece wool.

"Desiring to impress the reader with the imposition practiced upon the American public by the manufacturers of shoddy goods, and the great wrong imposed upon the wool-grower by their existence, and hoping the necessary efforts will soon be put in action, I find this an admirable place to close."

The same reasons which properly justify the oleomargarine to be labeled as such, when put on the market, justify a law to require shoddy woolen manufactures to be stamped to indicate their character. This is simple justice to all consumers, and to wool-growers. Some of the shoddy wool manufacturers will oppose it, and thus far the wool manufacturers have secured in legislation all they have asked.

Wool consumers and wool-growers have some rights which Congress ought to respect. The Department of Agriculture would render a good service if its Secretary would exert his great influence in favor of the needed legislation.

Will Congress legislate for the protection of consumers of woolen goods and wool-growers as fully as for makers and consumers of butter? The law should require all imported woolen goods, as well as domestic, to be stamped to indicate their character.

WILLIAM LAWRENCE,  
President National Wool Growers' Association.

Some of the experiment stations say that there are worse enemies to fruit than the San Jose scale.

DIP YOUR SHEEP with Cannon's Sheep Dip (liquid and non-poisonous), easiest to use, cheapest and best made. Cures scab, kills ticks, lice, fleas and maggots. Used by the largest and best breeders. Satisfaction guaranteed. Write to the Cannon Chemical Co., St. Louis, Mo., wholesale agents, for circulars and prices.

### RATES TO OMAHA.

Railroads More Liberal Than to the World's Fair at Chicago.

Rates and arrangements on account of the Omaha exposition have been completed by the Western Passenger Association lines. The rates are more liberal than those made for the Chicago exposition.

Summer tourist tickets will be sold at 80 per cent. of double locals to Omaha from all sections of the country, with final return limit to November 15.

From all association points east of Colorado a rate of one fare and a third for the round trip will be made from June 1 until October 30, with a thirty-day return limit, provided, however, that in no case the rate from the following points to Omaha shall be less than \$20 from Chicago, \$17 from Peoria, \$17 from St. Louis, \$25 from Colorado common points and \$15.75 from St. Paul and Minneapolis.

For the opening ceremonies a rate of 1 cent a mile will be made from all points within 150 miles of Omaha. From points beyond the 150 mile limit the rate will be one fare for the round trip. All tickets of every character through Omaha, in either direction, will be made good for stop-over at Omaha not to exceed five days. The minimum rate for any round trip ticket is to be 50 cents.

## WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending May 30, 1898, prepared by T. B. Jennings, Section Director:

## GENERAL CONDITIONS.

The weather has been cooler in the western counties and warmer in the eastern than the preceding week. Light rains have fallen in the southeastern and eastern counties, and in the central from Sedgwick to Washington, with heavier rains in the northeastern. Heavy rains have fallen in the western half of the State, with very heavy rains in the western division. Hail occurred in Morton, Greeley, Wallace, Ness, Trego, Phillips, Osborne, Pratt, Sedgwick, Butler and Riley.

## RESULTS.

## EASTERN DIVISION.

Good growing weather; a better week for work, and much has been done in planting, replanting and cultivation of corn. Wheat blooming in the south and heading north. Clover and alfalfa are beginning to bloom in the central counties. Reports generally state apples are dropping, but Morris reports cherries falling, while Chase reports no fruit falling.

Allen county.—A good week for crops and farm work; corn nearly all planted; alfalfa in bloom and ready to cut.

Anderson.—Corn, where stand is good, being cultivated, but most of crop being replanted; ground hard; grass and small grain good.

Atchison.—Ninety per cent. corn yet to plant (including that to replant); fruit falling some; wheat heading, large crop indicated; grass and oats doing fairly; ground works hard and is getting weedy.

Bourbon.—Farm work rushed, good

Greenwood.—Favorable for corn and grass; wheat very fine; first cultivation of corn well along; stock doing very well; canker and web worms disappeared.

Jefferson.—A growing week; wheat, oats and grass O. K.; much corn planted, but much more yet to plant, not one-fourth planted yet in northern part; apples falling.

Johnson.—Fine growing weather; wheat, oats, flax, gardens, fruit and grass growing finely; much corn to plant and replant; corn needing work.

Labette.—A growing week; wheat in full bloom; oats beginning to head; corn not all planted yet, a great deal being replanted; gardens doing well; pastures in fine condition; strawberries a short crop; apples and peaches still dropping.

Leavenworth.—Much corn planted now, and replanting begun; wheat and oats doing well; potatoes good; clover blooming; strawberries ripening; pastures fair.

Lyon.—Much needed work given the corn this week; apple orchards wormy; wheat is in excellent condition.

Marshall.—Good growing weather, excellent for corn; corn planting in north part, but too rainy in south; corn coming up with a fine stand in north part, much washed out in southern; wheat, oats and grass doing well.

Montgomery.—Weather favorable for rapid growth and cultivation; corn not coming up well, and much replanting has been done; weather favorable for filling wheat.

Morris.—All crops have done finely; corn growing rapidly, but very weedy; cherries falling badly, but other fruit holding well; oats and wheat beginning to head.

Neosho.—A growing week; corn is now planted and much is being culti-

Cloud.—Favorable conditions for all crops.

Cowley.—Fine growing weather; all crops doing well, but some wheat rusting badly.

Dickinson.—Wheat heading and promises a heavy yield; corn not doing well, too weedy; ground too wet for cultivation.

Edwards.—Too wet to work; wheat, oats, barley and grass making rank growth; corn getting weedy, but a fine stand; alfalfa ready to cut, but too wet for haying.

Ellis.—Wheat heading; weather favorable.

Harvey.—Favorable week; wheat rank; oats and grass fine; corn has made decided improvement; early potatoes in blossom; corn cultivation being pushed.

Marion.—Fine growing week; wheat and oats heading; corn planting and replanting about done; chinch bugs becoming numerous.

McPherson.—Splendid growing weather; wheat finely headed; oats will not amount to much; corn gaining, much was replanted, some still going in; alfalfa ready to cut, a fine crop; fruit will be scarce.

Mitchell.—Ground thoroughly soaked. Osborne.—Crops progressing finely; hail greatly injured crops in southwest part of county.

Ottawa.—Too dry in central part for wheat; everything, except wheat in some localities, doing well; not enough rain in central part this spring to start the dry creeks.

Pawnee.—Very wet; everything growing finely; early wheat heading; late wheat and thin wheat improving much.

Phillips.—A fine growing week; slight damage by hail in north part.

Pratt.—Early wheat in blossom; barley and oats commencing to head; corn fine, some replanting being done; some damage by hail.

Reno.—Corn cultivation pushed first of week, last part too wet, many fields a poor stand; wheat excellent and promises a large yield; home strawberries on market; blackberries in full bloom.

Republic.—Fine growing week; wheat heading; oats doing well; corn cultivation begun, but stopped by rain.

Rush.—Wet weather is restricting corn planting and causing thin wheat to get weedy; wheat beginning to head; grass promising.

Russell.—Wheat is perfect and is heading; corn coming up nicely; corn planting completed; rye headed; potatoes, gardens and pastures fine.

Saline.—Wheat heading nicely; corn growing well; western part needing rain.

Sedgwick.—Wheat headed and in fine shape; corn that survived the rains looks well; prairie promises well; first cutting of alfalfa is on the market; pastures excellent; some damage by hail in northwestern part.

Stafford.—Fine wheat weather; too wet to cultivate corn; gardens are fine.

Washington.—Good growing week; corn nearly all planted; early wheat in bloom, heavy growth of straw; some corn being worked; much fruit, in southern part, knocked off by hail, slight damage to crops.

## WESTERN DIVISION.

The heavy rains washed out corn in some places and covered it up in others. Wheat and barley are growing well; early wheat and rye are heading in Thomas. Alfalfa is fine; it is coming into bloom along the Arkansas river, and in Clark alfalfa cutting has begun. The range grass is in the best condition ever known at this season of the year. Hail damaged crops some in Morton, Greeley, Wallace, Ness and Trego.

Clark.—Plenty of rain; everything growing; alfalfa cutting just begun.

Decatur.—Very favorable for small grain; corn coming up all right; weak fall wheat improving rapidly; spring wheat never better.

Finney.—These heavy rains have put the ground in the best condition for several years; range grass in fine condition, and cattle doing well; all crops growing rapidly; alfalfa coming in bloom.

Ford.—Wheat and range were never better; barley and oats first-class; very little fruit.

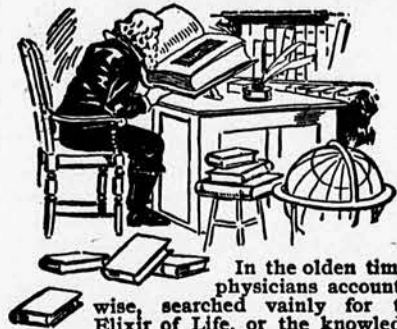
Gove.—A very wet week; rather cool for corn; everything else all right.

Graham.—Plenty of rain; no damage; crops all looking well.

Grant.—The heavy rain has caused some replanting; wheat and barley doing well, other crops doing finely.

Gray.—Wheat prospects better than ever before, just beginning to head; alfalfa has begun to blossom, ready to cut in ten days, growth never more rank; range fine and cattle in best of condition.

Greeley.—Farmers busy listing corn,



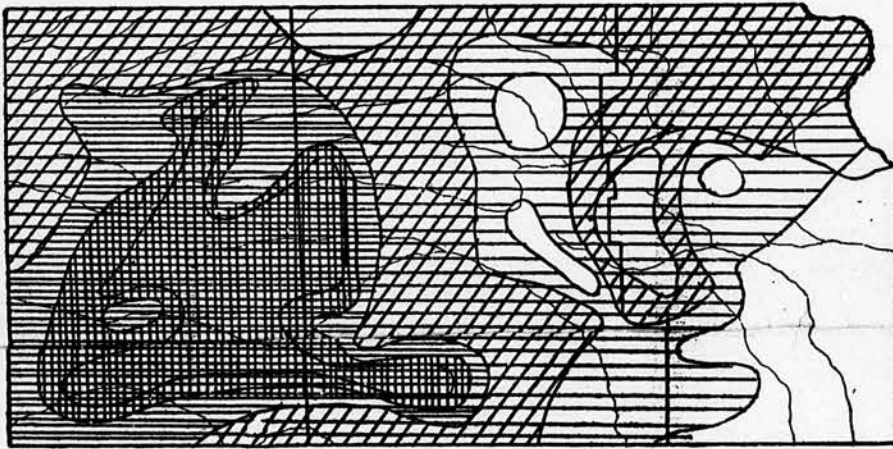
In the olden times, physicians accounted wise, searched vainly for the Elixir of Life, or the knowledge whereby life might be prolonged. We now know that there is no such thing as an Elixir of Life. But we have learned that life may be prolonged by those who take the right measures.

Any man or woman who will take care of health and take the right remedies for ill health, may live to a ripe old age. When a man feels out of sorts, when he gets up in the morning tired out after a restless night, and goes home in the evening completely knocked out with his day's work, without appetite or ambition, he is a sick man. If he does not take the right remedy he will soon be in the grasp of consumption, nervous prostration, malaria, or some other serious malady.

A man in this condition should at once resort to Dr. Pierce's Golden Medical Discovery. It is the best of all medicines for hard-working men and women. It makes the appetite keen and hearty. It gives sound and refreshing sleep. It tones and strengthens the whole system. It invigorates the heart and nerves. It makes digestion perfect, the liver active and the blood pure. It cures 98 per cent. of all cases of consumption. It strengthens weak lungs, and cures bronchitis, spitting of blood and obstinate coughs. It is the great blood-maker and flesh-builder. It does not make flabby flesh like cod liver oil, but firm, healthy, muscular tissue. It does not make corpulent people more corpulent. Thousands have testified to its marvelous merits. Sold by all medicine dealers.

You know what you want. It is not a dealer's business to tell you.

Send to Dr. R. V. Pierce, Buffalo, N. Y., for a free copy of the "People's Common Sense Medical Adviser. For paper-covered copy enclose 21 one-cent stamps to cover mailing only. Cloth-bound 31 stamps.



Scale less in inches. ACTUAL RAINFALL FOR WEEK ENDING MAY 28, 1898.

week; wheat fine; grass excellent; rye splendid; oats promise a large crop; flax not doing well.

Brown.—Good week; much corn to plant yet, first planted is generally a good stand.

Chase.—Growing week; wheat rank and heading; alfalfa rank and blooming; corn in many fields a poor stand, some yet to replant; fruit is doing well, none falling.

Chautauqua.—Fine growing weather; good week for farm work, which is being pushed; home-grown potatoes on market.

Cherokee.—Corn growing very fast, but only half to two-thirds stand, and generally weedy; wheat promising well; fruit poor.

Coffey.—A splendid growing and working week; a great deal of corn planted and cultivated; some plowing for corn yet to be done; wheat oats, grass and flax doing well; fruit falling badly in southeastern part.

Crawford.—Splendid growing week; wheat in southeast part of county good, in northwest part poor; oats fine and heading; flax looks well; corn all planted and much of it plowed over; pastures luxuriant; chinch bugs plentiful.

Doniphan.—Winter wheat heading and doing well, except rust is appearing in some fields; apples are falling some; peaches in very good order; corn that is up is very weedy.

Douglas.—Fine growing week and for work; corn not water-killed is doing finely; much corn planted except on low ground; wheat growing too rank and falling down; fruit falling badly.

Elk.—Everything growing rapidly; Thursday's rain made ground too wet to work.

Franklin.—Corn now fully one-half planted, much on low ground was replanted; wheat, oats, flax and grass progressing nicely.

vated; wheat prospects far ahead of anticipations; chinch bugs in some fields.

Osage.—A growing week; much corn has been replanted; corn being cultivated and is doing fairly well; potatoes injured some by wet weather; strawberries appearing, not a full crop.

Riley.—Too wet for corn in southern part; corn doing well in central and northern part; wheat heading, in fine condition; fruits hurt by hail in central part.

Shawnee.—Hardly one-third of corn planted yet; weather too wet for crops to do their best; some work done first half of week, but too wet last half.

Wabunsee.—Some early corn replanted, some needs cultivating, about one-fifth yet to be planted; wheat and gardens look well; fruit fine.

Wilson.—Good working week; replanting being done; harvest coming in sight; corn generally a good stand; flax looking well, pastures improving.

Wyandotte.—Fine week for work; corn mostly planted; wheat nearly all headed; pastures never better; clover and alfalfa beginning to bloom.

## MIDDLE DIVISION.

Early wheat has headed, and is now in bloom north to Washington. Corn is growing well, and is being cultivated except in the western counties, where it is too wet. Barley and oats are heading in the southern counties. Some damage by hail in Phillips, Pratt and Sedgwick, and considerable damage in Osborne.

Barber.—Fine growing week; corn doing nicely; wheat, rye and alfalfa never better; fruit scarce; corn and Kaffir to be replanted where washed by late rain.

Barton.—Everything in excellent condition; wheat headed and promises a large crop; corn has a good stand, but starting slow—too cool.

Butler.—Good week for farming; replanting done and cultivation under way; replanted corn coming up.

seed starting slowly; grass excellent; stock doing finely.

Kearny.—Ground thoroughly saturated; everything growing finely; corn is six inches high.

Logan.—Cool and cloudy; wheat about a foot high and fine; oats and barley looking well but growing slowly; corn planting not finished; gardens and potatoes doing well; much ensilage being sown; the late frosts seem to have killed all grasshoppers.

Morton.—Forage crops coming up well; grass in abundance; severe hail, no damage reported except thinning fruit and cutting gardens.

Ness.—Crops badly washed out in places; hail damaged small grain in southern part; otherwise it has been a fine growing week; gardens fine; range grass superior and stock greatly improved; rye headed, with promise of good crop.

Scott.—Ground has not been so thoroughly soaked for years; all crops are making a vigorous growth and are in splendid condition.

Sheridan.—Rains washed out and covered much corn, some being replanted; small grain doing finely, pastures good and stock looking well; fruit prospects never better.

Sherman.—Wheat, corn, oats and barley in fine condition; range grass the best in the history of the county; cattle in excellent condition; corn a fair stand, all planted; gardens fine.

Trego.—General rains have improved the already good wheat crop; barley prime; corn backward; range grass good; streaks of hail injured some fields in eastern part.

Thomas.—Never was the ground so thoroughly soaked in May; wheat, oats, barley and grass doing finely; rye and early wheat heading; some hail; stock doing well; too cool for corn.

Wallace.—Hail damaged alfalfa and other crops along the Smoky Hill river; rains stopped corn planting; wheat and other small grains looking fine; range grass never finer at this season of year.

Cheap Rates to Denver Col., in June via the Missouri Pacific.

Account of annual meeting American Medical Association, June 7 to 12, at Denver, the Missouri Pacific will sell tickets from all Kansas points at rate of one fare for the round trip, plus \$2. Tickets will be on sale June 5 and 6, and limited to return until July 6. See nearest agent for information regarding diverse routes for returning and side trips from Denver to Colorado points, or write H. C. Townsend, G. P. & T. A., St. Louis, Mo. F. E. NIPPS, Agent, Topeka, Kas.

### Gossip About Stock.

The Deer Park farm sale of Jerseys on May 31, was declared off after selling about one-fourth of the offering, owing to the small attendance of buyers.

The annual meeting of the American Southdown Association has been postponed until June 29, 1898, to be held at the office of the Secretary, Springfield, Ill.

Col. Sawyer reports that the Poland-China sale on May 30, held at Wamego, Kas., was a fairly good sale, and the stock all sold at fair prices, considering the lateness of the season.

J. T. Lawton, breeder of Chester White swine, Burrton, Kas., reports that hogs are doing well and spring litters are unusually large. Five litters aggregate fifty-eight pigs. The herd sire, Klondike, is certainly a great success in this herd. He is now 13 months old and in breeding condition weighs over 500 pounds.

G. W. Bell, formerly of Leavenworth county, is now located on the Wellhouse farm, at Wakarusa, Shawnee county, where he has a flock of Cotswold and Shropshire sheep and horses. He is also starting a herd of Short-horns. He has a grand place and would like a partner with small capital to join him in his enterprise.

The Lyons Republican has quite an article in its last issue regarding the horse sales made in Kansas City at the time of the May blue ribbon sales, in which W. W. Miller, of Lyons, alone sold \$2,300 worth of horses, one team bringing him \$790 at public sale, and af-

any industrious man to own horses, cattle, sheep, hogs and hens and get rich. Hundreds of homes to be had in sight of daily trains on Great Northern railway. Good markets and shipping facilities. Water rights still to be had in the river and plenty of chances in the tributary streams. Extensive live stock ranges border the valley. Grass sun-cures on the ground into standing hay. Precious metals and timber in the immediate vicinity. Montana is the richest State per capita in the Union. For further information and printed matter address Moses Folsom, Immigration Agent Great Northern Railway, St. Paul, Minn.

### Publishers' Paragraphs.

A. J. Child & Son, wholesale supplies, St. Louis, Mo., have in this issue an advertisement of binder twine, and parties interested in buying it will be interested in receiving their special twine letter for the information regarding the conditions of the markets, etc.

We have received from the propagator, Henry Wallis, of Wellston, Mo., a fine view of the new grape which he has named the "Irl R. Hicks" in honor of the St. Louis weather prophet. If we get from this vine as fine grapes as are shown in the colored pictures it will become necessary to tell the readers of the Kansas Farmer about them.

A New Coating for Cheese.—Cheese makers and cheese dealers are very much interested in the new air-tight covering for cheese known as Excelsior Cheese Coating. Its use has been followed by excellent results in preserving the cheese, retaining its flavor and

by Frank P. McKibben to the New England Magazine for June, was prepared by the author from items which appeared in old newspapers and from interviews with persons more or less acquainted with the incidents. His article is therefore valuable, and is of special interest in the present war time. One of the vessels bought for use with the stone fleet was found to be in such sound condition that it was saved for a better fate. In 1871 this vessel helped to rescue the crews of abandoned whalers ice-bound off the coast of Alaska. Following the account of the stone fleet Mr. McKibben tells of this "Whaling Disaster of 1871," when thirty-four whaling vessels were destroyed and not a single human life was sacrificed. Both these articles are illustrated with reproductions from old prints. Warren F. Kellogg, 5 Park Square, Boston, Mass.

### A Great Help to the Feeder.

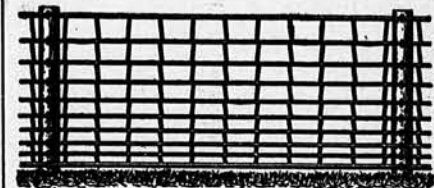
"Feeds and Feeding," a handbook for the student and stockman, by Prof. W. A. Henry (the author, Madison, Wis., U. S. A.), is no ordinary work. In more senses than one it is a volume of an exceptional character. Bulky in size, extending to about 650 pages, it is comprehensive in scope, unusually minute and definite in detail, and singularly free from ambiguous padding. The first thing, perhaps, which strikes the reader, is the agreeable clearness with which the abundant facts are made to stand out in eye-catching fashion, instead of being hidden away in endless pages of needless verbiage, as it unfortunately is a common fault in many of the works upon this subject. Professor Henry has wisely

profits than all that have preceded it. The man who is keeping only a team of horses, a few cows and a few pigs will find it worth to him many times its price.

"Feeds and Feeding" is sold at \$2 per copy. By special arrangement "Feeds and Feeding" and the Kansas Farmer for one year, both for \$2.35.

### Selling Direct to the Farmer.

In the past, and before the system of the department of mails had attained anything like its present completeness, the farmer was a somewhat isolated being. He did not know, and really had very little means of knowing, what was going on in the outer world. He could not and did not often undertake the long journeys necessary to bring him in touch with the source of supply for such things as he needed on the farm and in the home. Under these conditions there sprang up a system of peddling, the first introduction of the "middleman," who carried the goods to the farmer's door and carried his produce away. This system with its necessary variations exists to-day, and the "middleman" is still handing the farm and household sup-



plies from the manufacturer to the farmer, and charging the farmer a good round price for the service. In the last few years some manufacturers have conceived the idea of doing business direct with the farmer through the medium of the mails. The plan has been a pronounced success. The manufacturer sells for cash, which saves all the expense of keeping an elaborate and extended set of books and accounts. All this expense, and that of the "middleman's" salary and profit, is deducted from the price the farmer has to pay, and he accordingly gets the same article at a greatly reduced price. Among those concerns who have adopted this plan, and who have used our columns to assist them in carrying it out, is the Advance Fence Co., 18 Old St., Peoria, Ill. They are making a very good woven wire fence, and are selling it direct to the farmer. Instead of dividing profits with a "middleman" they divide with the farmer. Write them for circulars, prices, etc. Please tell them that you saw this in our paper.

### A Born Warrior.

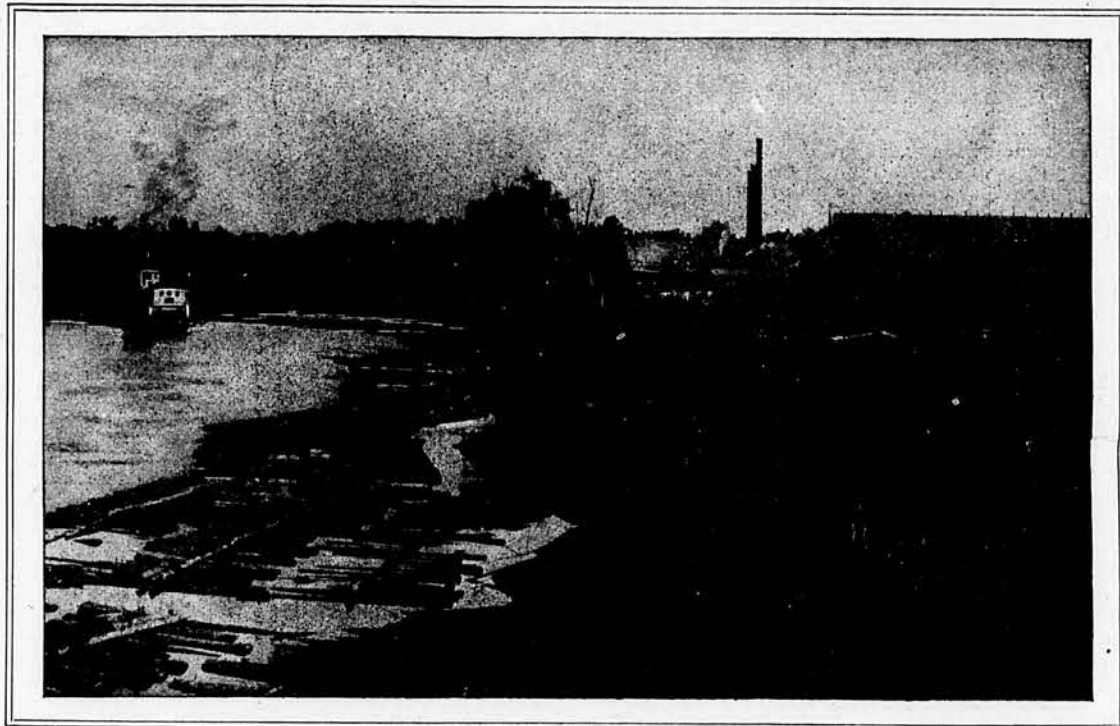
Old Cale lives on Beaubien street, and is never happier than when telling plantation experiences before the war. He manages in one way and another to get all the news of these stirring times, and when he was told the other day that a certain Virginia gentleman had received a commission from the President, Cale went into an ecstasy.

"I knowed it, sah," he shouted, as he clapped his knotted hands, "I knowed it. Anybody dat eber seed de majah on a fox hunt knowed dat de gov'ment would 'sist dat he lead de cab'ry in Cuba. Eben aftah de wah, sah, when de majah didn' hab no tho-bred hoss an' wasn' ent'ainin' like he did afo' de wah, he hunted de fox jes' de same as eber. Yes, sah. 'Bout fo' in de mawnin' de majah would blow dat ole tin dinnah ho'n to call de houn's an' de boys. Fo' de Lawd, he use' to wake half de people in Va'ginny. Den, when ole Bing gib tongue and de majah knowed one dem dar grinnin' red foxes was makin' a straight run, he let out a yell dat make dat dinnah ho'n soun' like a tin whistle, an' he jest humps heself in de saddle an' he goes.

"Yes, sah; an' you oughta' see de majah take a fence wid dat ole roan he hab aftah de wah. First he gib a wah whoop to get heh 'tention. Den he makes a dig wif dem spu's dat would punch holes in a i'on clad. Dat roan couldn' make no high jumps, but she would chawge; dey would be a crash an' de aih would be full of splintehs an' de fenc wah took. De majah would ride plum fro' dem Spaniel breas'wo'ks, he would. Dey can't git 'long widout him, nchow, an' I knowed it."—Detroit Free Press.

One fare for the round trip to Ottawa via the Missouri Pacific railway for the Chautauqua, June 13 to 24. Train leaves Topeka at 8 a. m.

People who offer to give away seeds and plants are too generous to be trusted.



SCENE ON BLACK RIVER, ARKANSAS.

From a photographic view taken along the line of the Missouri Pacific Railway. Loaned by H. C. Townsend, general passenger agent, St. Louis, Mo.

terwards was sold at private sale for \$1,250 to Omaha parties.

The Kings and Queens of the Range is a handsome illustrated monthly journal published at Kansas City, Mo., and is devoted to stockmen and their families. Becky Sharp, the talented lady journalist, has been engaged to prepare a special Kansas edition for the October issue, which will be distributed largely at the Omaha exposition during the live stock shows. The Kansas Farmer and this publication, both one year, for only \$1.25.

The breeders of Kansas will regret to learn of the recent death of Peter Sim, of Wakarusa. He had succeeded in breeding up an unusually fine herd of Short-horns, headed by that grand show bull and sire, Royal Bates 123675 by Winsome Duke 11th 115137, out of 2d Lady Bates of Shannon Hill (Governor Glick's breeding). Mr. Sims's sons will continue the breeding of Short-horns. They have two fine young bulls and a few heifers by Royal Bates for present sale and service.

### Milk River Valley of Montana.

A longstretch of fertile valleyland producing all the staple grain and root crops. Eight co-operative farmer ditches already in operation between Havre, Chinoek and Harlem. Room for more colonies of farmers who can easily build their own ditches on free homesteads at a cost of from \$3 to \$4 in labor and cash per acre. Irrigation is the use of water for crops when and where it is needed. It means crops every year. In connection with stock growing it is a sure avenue to wealth. Good openings for poultry and dairying. Chances for

weight, and keeping out all the enemies that attack good cheese. The coating is odorless, tasteless and air tight. It is inexpensive, and it is claimed to add materially to the profits of cheese making. A free sample of Excelsior Cheese Coating with particulars concerning its nature and use will be sent to any one who writes to the Specialty Department of the Standard Oil Co., 408 West Fourteenth street, New York.

President McKinley is to be given the unique distinction of having a number of a woman's magazine named for him and prepared in his honor. The July issue of the Ladies' Home Journal is to be called "The President's Number." It will show the President on horseback on the cover, with the President's new "fighting flag" flying over him; a new march by Victor Herbert is called "The President's March;" the State department has allowed the magazine to make a direct photograph of the original parchment of the Declaration of Independence, while the President's own friends and intimates have combined to tell some twenty new and unpublished stories and anecdotes about him which will show him in a manner not before done. The cover will be printed in the national colors.

During the Civil war an attempt was made by the federal government to blockade the Southern ports, especially Charleston and Savannah, by sinking old vessels loaded with stone in the channels leading to the ports. So great was the secrecy under which the fleet was organized for this purpose that no official records remain. The account of "The Stone Fleet of 1861," contributed

dispensed to the utmost possible extent, consistent with reasonable explanation of the facts and figures produced, with generalities and commonplace repetitions, and as a result the reader has not long to search, and seldom to search in vain, for the specific information he desires. The volume, as we have indicated, is brimful of solid facts, relating in their astonishing diversity to all conceivable departments and phases of the stock breeder's calling. The leading aim of the author has been to produce a standard work on live stock breeding and management, and in order to realize his lofty ideal he has spared no reasonable effort, nor allowed himself to be restricted by any narrow prejudice from legitimately utilizing the best European sources of information in supporting or elaborating the conclusions taught at the American experiment stations. From all possible sources, irrespective of nation or locality, the author has endeavored to select data important in establishing principles, and helpful in directing rational practice, while he has also had resource to all available sources for the experiences and observations of practical stockmen. The result, in the shape of this extremely valuable volume, fully justifies the means adopted in its compilation. The reader, whether student or practical farmer—and it matters little whether he be British or American—will find the book a most instructive, trustworthy and convenient companion, forcibly written, admirably arranged and indexed, and abounding in facts.—The Field, London, England.

This book will do more to help the feeder to so manage as to make good

## The Home Circle.

### HAUNTED HOUSES.

All houses wherein men have lived and died  
Are haunted houses. Through the open doors  
The harmless phantoms on their errands glide  
With feet that make no sound upon the floors.  
We meet them at the doorway, on the stairs,  
Along the passages they come and go,  
Impalpable impressions on the air,  
A sense of something moving to and fro.

There are more guests at the table than the hosts  
Invited; the illuminated hall  
Is thronged with quiet, inoffensive ghosts,  
As silent as the pictures on the wall.  
The stranger at my fireside cannot see  
The forms I see, nor hear the sounds I hear;  
He but perceives what is, while unto me  
All that has been is visible and clear.

We have no title-deeds to house or lands;  
Owners and occupants of earlier dates  
From graves forgotten stretch their dusty hands,  
And hold in mortmain still their old estates.  
The spirit world around this world of sense  
Floats like an atmosphere, and everywhere  
Wafts through these earthly mists and vapors dense  
A vital breath of more ethereal air.

Our little lives are kept in equipoise  
By opposite attractions and desires;  
The struggle of the instinct that enjoys,  
And the more noble instinct that aspires.  
These perturbations, this perpetual jar  
Of earthly wants and aspirations high,  
Come from the influence of an unseen star,  
An undiscovered planet in our sky.

And as the moon from some dark gate of cloud  
Throws o'er the sea a floating bridge of light,  
Across whose trembling planks our fancies crowd  
Into the realm of mystery and night—  
So from the world of spirits there descends  
A bridge of light, connecting it with this,  
O'er whose unsteady floor, that sways and bends,  
Wander our thoughts above the dark abyss.  
—Henry W. Longfellow.

### THE FARMER'S BOY—BY ONE OF THEM.

By Joseph S. Longshore, Pauline, Kas., read before the Berryton Farmers' Institute.

I believe that, as farmer's boys, we do not appreciate our advantages, but are continually endeavoring to find new flaws and defects in our environments. Of course this naturally tends to create discontent and dissatisfaction. A great many country boys envy the boys whose lot has been cast in the city. The only reason they can offer for this is that the city boy has more time for pleasure and he can wear better clothes about his work, if he does or will work, and that he has more educational facilities than the farmer's boy. Of course, to the boy who has never lived in the city this looks like a rapid road to wealth and affluence, and perhaps he will go, no doubt telling his friends he has husked his last nubbins of corn and pitched his last forkful of hay. But in nine out of ten cases he will find to his regret that he has built his castle upon the sands, and that the ceaseless waves of progression are rapidly crumbling them into dust. As a rule the farmer boy is better capacitated physically to battle with the problems of life than his city cousin, and there is no reason why he should not be intellectually. We point with pride to such men as Lincoln, and a number of others. The life of Lincoln is as good a model of the self-made man as history affords, embodying in his nature an iron will and a keen intellect before which the mightiest crisis through which this country has ever passed vanished—not only making his name a household word, but making the name of his country glorious in the eyes of her friends and a terror to her foes.

One of the greatest advantages the farmer boy enjoys is his unlimited facilities for studying the habits, characteristics, management and feeding of all kinds of domestic animals. The farm also affords the best possible place for the study of entomology, botany, soil physics, and a number of other special branches of science. As a rule the country boy is freer from the temptations which are strewn all along the paths of his city cousin. We seldom hear of one of the country boys being drunk and having to be hauled home from one of our public gatherings, or of his being fined for gambling or some other equally degrading breach of morality. Then we have our Grange meetings and lyceums, where all of the current questions of the day are discussed and in which he has the privilege of participating. This in itself is a good means of gaining an education, as well as making a place to go for social amusement. It also diffuses nobler thoughts into the mind than being champion whittler at the

corner grocery or the exponent of some character in the latest detective story.

As to a college education for the farmer boy, it may be a good thing, but if he is going to follow farming for a livelihood, I do not think he needs a college course to fit him for it. A good common school education such as most boys enjoy nowadays is sufficient. A course in political economy and oratory in my mind is not conducive of successful agriculture, as they lead the mind of the boy from the every-day duties on the farm and he soon gets to thinking that he is above the rough work of the farm, and he soon allows his good opinion of himself to get away with his common sense.

Every farmer here knows that eternal vigilance is the price of success, and if the farmer boys will take an interest in our agricultural meetings and farmers' institutes, and read carefully the works of our Board of Agriculture and its allied institutions, a very fair agricultural education can be gained in this way. I am sorry to say too many of the farmers are prejudiced against agricultural literature, and if the boy is inclined to read these books and papers they constantly ridicule him and tell him they never read such stuff as that when they were boys, and endeavor in other ways to prevent him doing so. This is one of the chief disadvantages of the farmer's boy. If the boy has a fad it should be cultivated, providing it relates to some part of the farm.

Some men seem to think that the boys should stay at home and work from twelve to fourteen hours a day, until they are of age, without any recompense whatever. Few boys with any ambition will tamely submit to this, and consequently they turn to the city to seek employment, taking with them an in-born prejudice against the farm and solemnly vowing that they will never go back. This has done more toward breaking up many a farmer's home than anything else. The farmer, instead of continually tyrannizing over his boy, should encourage him to read, allow him to have a mind of his own, give him an interest in the farm and keep him constantly interested in the work. Give the boy a chance, and the farms which have made Kansas great in the past will make her grand in the future.

### Passing of the Horse Cars.

The revenues from horse cars have been for a number of years very much on the decline in New York State, and they now compare most unfavorably with the receipts from electric and cable companies. Oddly enough, New York city is almost the only largeness of the State which still adheres at all to the old-fashioned surface cars. In 1896, according to the report of the Railroad Commissioners, the total receipts of horse car lines in the various cities of the State amounted collectively to \$4,746,200, against \$24,400,000 from street railroads operated by traction. The total earnings of the elevated railroads in that year were, approximately, \$12,000,000. Last year, as appears from the report of the Railroad Commissioners, the earnings of the elevated railroads were substantially the same as they had been the year before, while the trolley and cable lines increased about 10 per cent. over the year before, but the horse car receipts still further decreased, amounting in all, according to the report, to \$3,180,000, an insignificant figure when compared with the totals of the other companies.

The popularity of trolley and cable lines is to be ascribed to the increased volume of business which they can handle, the better speed which they attain and the natural obstacles which they overcome. This last does not apply to any great extent to the city of New York, but in most of the large cities of New York State, built usually on the line of the rivers, there are hills, and access to these hills has always been difficult by the former method of horse car lines, whereas no such difficulties impede or embarrass the trolley lines now general throughout the State, and to be found, in fact, in nearly every city.

Another consideration which has probably had much to do with the change in motive power is the reduction of expense following the abandonment of horse cars. As shown by the Railroad Commissioners' report, the operating expenses of the elevated railroads of the State amounted to about 65 per cent. of the receipts, leaving a large margin of profit. The operating expenses of the trolley and cable lines were about 55 per cent. of the receipts, leaving 45 per cent. of the earnings as profit from operation. The expenditures of the horse cars are nearly 80 per cent. of the receipts, forage being an item of importance, the renewal of horses another, and stable expenses a third. One of the



**A Woman's Wish**

for dishes that can be thrown away after every meal, to avoid the tiresome task of dish-washing, cannot be granted. Would she have the next best thing? Let her wash the dishes—so easily it's almost a pleasure—with

**GOLD DUST Washing Powder.**

It cuts the grease, and a good rinsing will leave the dishes delightfully clean.

**THE N. K. FAIRBANK COMPANY,**  
Chicago. St. Louis. New York. Boston.  
Philadelphia.

New York street car lines, for instance, which took in last year \$570,000 from fares, expended \$52,000 for fodder, \$8,500 for horseshoeing, \$12,000 for the renewal of horses, \$34,000 for stable expenses and \$3,000 for harness, a total of \$110,000 for these items alone.—New York Sun.

### Comparing Notes.

"Why can't women be natural?" growled Bumpy. "They make me think of a lot of blue jays with their clatter and their pluming and their efforts to improve on nature. They can think out more crazy plans and develop more unmitigated nonsense than so many inspired imps. Look at your hair, Mrs. Bumpy, plaited and twisted and fluted and banged till it looks no more like what it does in its normal state than a junk pile looks like any of its original elements. And those sleeves and those three-story heels and that stiff-necked collar. Honestly, if men compelled you to rig up in that barbarous fashion you'd inveigh against them as brutal savages." "Oh, I don't know," said Mrs. Bumpy, who is very matter of fact; "contemplate your own hair. Looks as though it were laundered down on top and molded over puff combs on the side. The shoulders of your coat are built up as though you were trying to palm yourself off for a prize-fighter, and the way that your mustache is twisted up at the ends makes me think of a French dancing master on a reception night."

Then Bumpy grew very distant in his manner, arranged to go down town at once, told his wife not to sit up for him, and said that if she had one fault above another it lay in her irrepressible disposition to grow personal whenever she entered into debate.—Detroit Free Press.

### Lessons From Flowers.

Every lesson in life is taught by the flowers; every message to the human heart is carried in them. The first flowers of the world carried hope to Adam's heart in that first garden of the world. God creates a plant, but man must cultivate it. God creates the human being, but the seed of character must be developed by man. The envelope which incases the Easter lily is black, the only bed it knows is the blackest clay, and yet what potentiality of infinite purity is in the blossom. Sunshine and shadow are alike needed for the highest perfection of the flowers; so success and failure, happiness and misfortune, are alike requisite for the highest perfection of the development of a human being. The elements which will bring one flower to perfection will hinder another from reaching its perfection. I had a Japanese lily once, and with mistaken zeal kept it in a sunny room, which was heated artificially. The lily grew rapidly, flaunting forth a brave show of leaves, long and straggling. But never a flower appeared. All the beauty and fragrance that "might have been" were hindered by too much luxury. So with ourselves. It is not always propitious surroundings which are best to bring out the flowers of our nature, the strongest elements of our character. And character is to mortals what fragrance is to the flower. Some flowers grow best in shady places. They bloom away bravely and their fragrance is the only sign of their existence. Other flowers require the sunniest corners. We cannot all go singing through the world in the sparkling sunlight. But because the shade is deemed best for some of us, it does not follow that our characters when developed will be less strong, less beautiful, than those which have had the glow of the sun. The roots of flowers are made in the dark, and it is not until

those roots are transplanted, sometimes to another scene and clime, that they bloom, in blossom and flower.

Nothing teaches us so much in this world as flowers if we will only watch them, understand the messages they ex-hale, and profit by them. I wish everybody on this earth might love flowers. Flowers can do so much for a man or a woman. No one can raise flowers, live among them, love them, and not be better for their influence. By their birth they show us how, out of things hard, out of disappointment and failure, by the overcoming of obstacles, and the bending to difficult tasks, creep forth the most beautiful results. By their cultivation they show how different natures need different treatments. By the manner in which they refuse to thrive near weeds they teach the clearest lesson of human association, and show that sin is an intrusion in this world. We learn the great lesson that, while the most gorgeous flowers appeal to our admiration, we love the fragrant ones the best. Every lesson, every pleasure, we can learn and derive from these silent messengers of the earth. The flowers speak a universal language; they adapt themselves to grave or gay. A flower is never misunderstood. We associate flowers with all the joyous seasons of our lives as well. Flowers often speak to us when our words seem powerless to express what we really mean. They are the daintiest bits of God's handiwork. They call to us to care for them, to love them, rewarding us with prodigality when we respond to their beckoning. Their message is divine.—Ladies' Home Journal.

### Paint Talks--VI.

#### COMPARATIVE COST OF PAINTS.

Figures have been published claiming to show a saving of nearly 50 per cent. in the cost of painting done with pure white lead as compared with ready-mixed paints.

Mr. Oliver D. Goodell, now of Baltimore, who is an authority respected by all paint manufacturers, made in 1896 a series of experiments to test these figures. He found that a pure lead paint mixed according to the published formula would require four coats to cover instead of two, as claimed, and therefore the cost of the lead paint was quoted over 50 per cent. too low. He also found that a mixture of equal parts of lead and zinc showed a saving, for the same work, of over 10 per cent., while with pure zinc white the saving in cost for the same work equally well covered was about 50 per cent.

The practical demonstration from these experiments is that combination paints are more economical than pure lead, as I have already asserted in these articles. That they are more convenient every one knows; that they are more durable is guaranteed, under forfeit, by several manufacturers of them; and that zinc paints are innocuous has been fully demonstrated. Why, then, do painters continue dictating pure lead? I will allow Mr. Goodell to answer this question:

"We have heard one old honest painter give the kernel of truth in this matter. Let us quote his words: 'I know white lead does not last as long as the mixed paint; but when it goes it goes all over alike and leaves a fair surface to paint over. Then, again, houses painted with white lead need painting oftener, and as long as people think it is best I let them think so, as it makes better business for us.'"

STANTON DUDLEY.

It is said that the Georgia fruit crop this year will be worth \$2,000,000.

## The Young Folks.

### THE ANGEL OF DISCONTENT.

When the world was formed and the morning stars  
Upon their paths were sent,  
The loftiest-browed of the angels was made—  
The Angel of Discontent.

And he dwelt with man in the caves of the hills,  
Where the crested serpent stings  
And the tiger tears and the she-wolf howls—  
And he told of better things.

And he led man forth to the towered town,  
And forth to the fields of corn;  
And told of the ampler work ahead  
For which his race was born.

And he whispers to men of those hills he sees  
In the blush of the misty west,  
And they look to the heights of his lifted eye—  
And they hate the name of rest.

In the light of that eye does the slave behold  
A hope that is high and brave;  
And the madness of war comes into his blood—  
For he knows himself a slave.

The serfs of wrong by the light of that eye  
March with victorious songs;  
For the strength of the right comes into their hearts  
When they behold their wrongs.

'Tis by the light of that lifted eye  
That Error's mists are rent—  
A guide to the tablelands of Truth  
Is the Angel of Discontent.

And still he looks with his lifted eye,  
And his glance is far away  
On a light that shines on the glimmering hills  
Of a diviner day.  
—Sam Walter Foss, in New England Magazine.

Written for Kansas Farmer.

### YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 25.

#### CHARLOTTENBURG.

An occasional royal palace or two may be of interest to those who do not see them every day or so, and the supply in Germany of this kind of material is practically inexhaustible. German folks are usually noted for economy, but when it comes to the matter of furnishing their Kings dwelling houses it seems that each one required an especial residence, which remains as a monument to that particular monarch long after he has joined the common throng in its line of march to "the undiscovered country from whose bourn no traveler returns."

Charlottenburg is practically a part of Berlin. Formerly it was a separate city west of Berlin, but as both cities grew toward each other the line which marks the one from the other is not discernible and the average street car traveler will not know when Berlin has been left and Charlottenburg entered.

Starting from Brandenburg Thor by bicycle, over the beautiful boulevard Berlinerstrasse, through the Thiergarten, one may enjoy a delightful ride of five miles to the Charlottenburg palace and the world-renowned mausoleum.

The little city when first built around the new palace was named in honor of Sophia Charlotte, second wife of Frederick III., elector of Brandenburg and first King of Prussia (the grandfather and grandmother of Frederick the Great).

King Frederick I. was physically deformed and known as the hunchback; his queen, Sophia Charlotte, was a most clever and exceedingly good woman, also very philosophical and a firm friend of the Hanovrian philosopher, Leibnitz. She and her husband were not congenial, but the King built a magnificent palace in 1701 and named it Charlottenburg. Here the Queen lived, though the King is said to have spent lots of his time "down town with the boys."

The palace is built on three sides of a square, the fourth side being an open space devoted to beautiful walks, fountains and the main entrance. This open space is separated from the rest of the world by a heavy iron fence with golden points. The most beautiful feature of the palace is the massive dome in the center, gilded, shining in the sun like a huge mass of gold. On the top of the dome is a golden figure and on the sides are four large clocks that "strike" every quarter hour.

The palace as a whole is not very impressive and is not kept in good repair. The present Emperor is much criticized because he never has the outsides of any of the palaces retouched, as he respects their age; but whenever he can find an opportunity he has all the towers, pinnacles and points regilded, and naturally this brings out the dinginess of the building by contrast. It is said he spends hundreds of thousands of marks

a year in regilding, but not a pfennig for other outside repairs.

The beauty of the Charlottenburg palace is by no means centered in the structure itself, but in the beautifully-kept park and grounds around it, and the mausoleum near by.

Only a few of the many rooms of the palace are exhibited to the public, and these are in the right wing and center, and only those on the first floor. The first rooms we were shown were in the right wing, and had very little in them of interest except some ancient paintings of the Kurfuersts of Brandenburg and their wives. In the third room we were shown the billiard table of Frederick the Great, and on the table was Frederick's cue which Napoleon took with him to Paris, and when the Germans conquered the French, General Bluecher brought it back to Charlottenburg, so it remained in the hands of conquerors always. I hope some of our generals will take the cue from Frederick and Napoleon and retain it permanently from the Spanish.

From the billiard-room we came to the breakfast-room (frühstück-zimmer), from the door of which we had the pretty view of fourteen rooms right through the center portion of the palace. In the breakfast-room we were asked to put on the immense felt slippers which are found in all the palaces for common visitors to wear, so as to save the parqueted floors from being marred by rough-shod plebeians. All of these fourteen rooms have beautifully polished floors which are worthy the protection provided.

From the frühstück-zimmer we came to the dining-room; here are six immense mirrors on the walls which upon closer inspection prove to be secret panel doors. From each of the fourteen rooms a fine view of the park may be had. Besides the two mentioned, the rest of the fourteen rooms are called parade-rooms and have very little furniture in them. The beauty of the rooms, besides the handsome floors, consists in the exquisite gobelins and paintings on the walls. Each room is decorated with some special kind of gobelin. These are worth many thousands of marks. The eighth room is called the "garten saal" or cupola-room. The floor is of marble and large glass doors on all sides lead into the garden and park.

In the center of the "saal" is a beautiful marble of Queen Louise's oldest daughter, who became the wife of Nicholas I. of Russia (Nicolai Paulovitch).

The fourteenth room contains the magnificent porcelains which were the pride of Sophia Charlotte nearly 200 years ago. The room is most tastefully and attractively decorated with thousands of pieces of porcelain in all shapes and sizes, from the top of the ceiling to the floor, and large, odd-looking vases are placed around the room on the floor; the greater portion of this porcelain was presented to the Queen by English merchants.

Passing from the porcelain-room we came to the palace chapel. This is an interesting and quaint room, quite small, with the royal box at the back and a few seats on the side for the servants. A few of the Hohenzollerns have been married in this chapel. Prince Henry of Prussia (the only brother of the Kaiser), who is now in China, was the last one married here; that was in 1888, when Emperor Frederick I. (King Frederick III.), his father, lived in Charlottenburg palace, and ten weeks before that Emperor died. This was the last occasion this chapel was used.

We passed out of this chapel by a side door, through the orangery (filled with beautiful trees and plants) into the palace garden in which is located the magnificent "mausoleum." This garden is very beautiful, indeed, and was laid out by the eminent French landscape gardener, LaNotre, in 1694, and it now is a favorite promenade for Berliners and Charlottenburgers. Turning to the left as we leave the orangery, we pass down a long avenue bordered with twelve life-size busts (on pedestals six feet high) of prominent Roman orators. Then following an avenue of pines to the right we reach the mausoleum. This was erected by Geutz in Doric style in 1810, but not entirely finished until 1890. I will not describe the exterior, as a picture of it was printed in Kansas Farmer, April 7.

At the entrance we are met by the guard, who politely asks for our entrance cards. A glance told him we were Americans, and he was very anxious to show us everything about the tomb, which is open to the public. It is known to all the guards and attendants at royal show places that Americans will give fees three times as large as people of other nationalities, and they always are obsequious in proportion. These fees in royal places of in-

terest are "strictly forbidden" but always expected.

The interior is all of marble, and upon entering one sees four immense marble pillars, all in one piece of marble brought from Bombay. On either side of these pillars are a few steps leading into the sarcophagi-room. Here in the center is the "guardian angel of the grave," about eighteen feet in height including pedestal, in white marble with large curved sword of golden color to represent the "sword of flame," in imitation of the original which used to be located at the entrance to the garden of Eden.

The ceiling or roof of this ante-room is of a peculiar dark blue, purplish glass and reflects a most weird light, but it is of a very solemn beauty, giving one the feeling that it is a sacred presence where solemnity overshadows all.

Passing between four more marble columns similar to those in front of the guardian angel, we enter the sarcophagi-room. This is a square room except the apse at the back. It contains the four recumbent figures, in marble, representing Queen Louise and her husband, Frederick William III., Emperor William I. and his Empress, Augusta.

In the first left and right-hand corners are two beautiful candelabra; the one on the left symbolizing the "Hours," by Tieck (Christian Frederick), and the one on the right, the "Three Fates," by Rauch. The marble of Queen Louise, done in 1812 at Carrara and Rome by Rauch's masterly hand, is far beyond my power of description. It seems as though one can see her breathe. The marble of Empress Augusta is good, but cannot compare with that of Queen Louise. Empress Augusta has the widow's veil from the head to the feet; on the head is a marriage wreath symbolical of her fiftieth anniversary of married bliss. In her hand is a small cross representing the "Red Cross Society" which she founded.

The marble of the grand old Emperor shows him as noble as in life. It was done by Bucke in 1894. He is represented in officer's uniform, star of royalty on left breast, with sword and laurel wreath symbolical of victory in his folded hands, and a robe edged with ermine thrown partially over him. In the small dome of the apse is a painting by Pfanneschmidt representing the Lord blessing Louise and Frederick William with their crowns.

The heart of Frederick I. (father of the present Emperor) is said to lie at the feet of his parents, but it must be underneath in the vault where the bodies are encoffined, as the casket cannot be seen.

The body of Frederick was entombed at Potsdam near that of Frederick II. (the Great). In arranging to have his heart deposited at another place than where his body was sepulchered, he was only following the example of many European sovereigns before him. Richard of the Lion Heart (Richard I. of England) directed his heart to be taken to Jerusalem to be placed in the supposed sepulcher of our Lord; but the scattering of one's self all over creation is a practice not to be heartily commended.

No one ever enters the vault underneath the mausoleum except royalty, and there is where the Kaiser goes on anniversaries to pray and have service read.

Giving a last general look and passing the guardian angel and through the purple light, we are again in the bright sunshine.

#### Where the Day Begins.

Seeing that as one moves westward the time gets earlier and earlier, so that when it is Monday noon in London it is some time on Monday morning in America, it follows that, if this principle were continued without limit all the way round the world, at the same moment that it was Monday noon in London it would be also twenty-four hours later—i. e., Tuesday noon in London. As this is a reductio ad absurdum, we have to look for the limit, which does, in fact, exist to the principle that as one moves westward the time gets earlier, and as one moves eastward gets later.

Before the circumnavigation of the globe there was no difficulty. When on a Monday the sun stood over London, it was Monday noon in London. As the sun moved (to use a popular phrase) westward, and stood a little later over Dublin it became Monday noon in Dublin, and so on until he reached the western limit of the known world. When the sun passed over that limit that was the end of noon for that Monday, and nobody knew what the sun was doing until he reappeared on the eastern limit of the known world, bringing with him Tuesday morning. It is evident, there-

fore, that while the sun was in the unknown abyss between west and east, he dropped the attribute of making the time at all places directly under his rays Monday noon and took to himself the attribute of making it Tuesday noon.

As the confines of the world were pushed further eastward and westward, respectively, the unknown abyss where this change of attribute had to be made got narrower and narrower, until, when the globe was circumnavigated, the place of change became simply a line. This line exists and is the place where the days begin. As the sun crosses this remarkable spot the time jumps twenty-four hours onward—from noon on one day to noon the next day. The situation of the line has been located quite fortuitously—namely, by the circumstance whether any given place was first reached by civilized man journeying from the East or from the West. The discoverer brought with him the almanac from whence he came, and if he came from the West the time in the new country would be later, and if he came from the East it would be earlier than the time in the country that he came from.

America was reached by civilized man voyaging westward, and China by man traveling eastward, and the result is that the line which marks where the days begin lies between these two, in the Pacific ocean, and instead of being a straight line, zig-zags about, dividing islands which happened to be discovered from the East from those which happened to be discovered from the West. There must still be many islands in that ocean where it is not yet decided to which side of the line they belong, and where if one were put down one would not know whether it were to-day, to-morrow, or yesterday. There must also be many islands there which, never having been permanently occupied by civilized people, change their day from time to time, so that a ship calling there coming from China might arrive on Tuesday, while another ship calling at the same time from America would arrive on Monday. There must also be people living so near this line that by going a few miles they can leave to-day and get into to-morrow, or by going back can find yesterday. How convenient for troublesome appointments!

Many other curious considerations occur to one, but I have said enough, I think, to show—what every one does not, perhaps, realize—that there is a place in the world where the days begin. —St. James' Gazette.

#### Take the Union Pacific

to Denver and attend the American Medical Association meeting, June 7-12, 1898. Low excursion rates for the round trip.

Special excursions arranged from Denver to mountain resorts; also to Salt Lake City points west.

For sleeping car reservations, rates, etc., call on F. A. Lewis, City Ticket Agent. J. C. Fulton, Depot Agent.

#### Ottawa Chautauqua Assembly,

Forest Park, Ottawa, Kas., June 13 to 24, 1898. Tickets on sale June 11 to 24, inclusive, at one fare, \$1.59, for round trip, good for return until June 27, 1898. If proximity of station to grounds and perfect train service are inducements, your ticket will read over the Santa Fe. Ask W. C. Garvey, Agent, A. T. & S. F. Ry., about St. W. J. Black, G. P. A.

Low Farms for sale. \$2 per acre cash, balance crop until paid. J. Mulhall, Sioux City, Ia.

## 1898 BICYCLE \$3.00

Yes, \$3.00 takes our up-to-date, guaranteed bicycle on our great co-operative offer. You do a little work in your spare time. Write soon. COOK CYCLE CO., Office, 67 4th Ave.; Factory, 16-18 Franklin St., Chicago.

## HOUSE PAINTS

Victory Implement and Wagon Paints, Nonpareil Carriage Paints. Home-made and the best made for all purposes. Window and Picture Glass, Hot-bed and Greenhouse Glass. If your dealer does not carry these goods send direct to CUTLER & NEILSON PAINT AND COLOR CO., Manufacturers and Jobbers, N. W. Cor. 11th and Mulberry Sts., Kansas City, Mo.

#### Mothers! Mothers!! Mothers!!!

Mrs. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEETHING, with PERFECT SUCCESS. It SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHEA. Sold by Druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

# KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the  
**KANSAS FARMER COMPANY.**OFFICE:  
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.  
Address **KANSAS FARMER CO., Topeka, Kansas.**

## ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of *KANSAS FARMER* free.

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.**

The "Statistical Annual of the Cincinnati Price Current," a compilation of food production and distribution, has again been placed on file in the Kansas Farmer office. There are not many statisticians who are able to place statistical information in so usable a form. Mr. Charles B. Murray, the veteran editor of the Price Current, is widely quoted as an authority on crop statistics. His forecasts have probably a more pronounced influence on Chicago speculative prices than those of any other compiler.

Prof. O. P. Hood, who is just completing his twelfth year of efficient and faithful service at the Kansas State Agricultural College, has been elected professor of mechanical engineering at the Michigan School of Mines. Prof. Hood took the mechanical department of our college at Manhattan when it was little more than a common carpenter shop and developed it into a school of science and its application to practical work. He is an exceptionally fine teacher, a careful and energetic manager and an original and painstaking investigator. His conscientiousness is of that fine and exacting quality which compels the rigid honesty upon which scientific investigation rests quite as much as upon genius. Ready with expedients and a diligent student, he finds a way to do what would baffle most men. The Michigan school is to be congratulated upon being in a position to offer Prof. Hood \$400 per year more than he is now receiving, with a promise of a raise of \$100 each year for five years. It seems a pity that our institutions must permit themselves to be robbed in this way.

## Kansas Premiums on Fine Stock and Poultry.

To the breeders of fine stock in the State of Kansas:

The Kansas commission of the Omaha exposition, being desirous of doing all it possibly can for the live stock interests of Kansas, have set apart \$1,500 of the small fund at its disposal to be used to aid the breeders of fine stock and poultry in making an exhibit at the Trans-Mississippi and International exposition at Omaha, Neb. The Board of Kansas commissioners will duplicate all premiums awarded to Kansas owners of fine stock and poultry by the board of managers and judges of the said Omaha exposition, provided said premiums do not exceed the sum of \$1,500.

If any part of said \$1,500 is undisposed of after paying premiums as above proposed, it will be divided equitably among exhibitors; or if the exhibitors of fine stock and poultry decide by a majority vote to make an exhibition of the different breeds among themselves, the Board of Kansas Commissioners may in their discretion order such exhibition and friendly contest to be held in such manner as it may determine.

H. A. Heath, of the Kansas Farmer, is appointed as superintendent of the Kansas fine stock interests and will look after the welfare of the breeders and exhibitors and see that their interests are fully guarded and protected.

G. W. GLICK, President.  
J. E. FROST, Vice President.  
A. H. GREEF, Secretary,  
A. W. SMITH,  
A. C. LAMBE.

## GRASSHOPPERS.

Editor Kansas Farmer:—Please inform me through the columns of the "Old Reliable" as to the best remedy for keeping grasshoppers from destroying fruit trees, also forest trees.

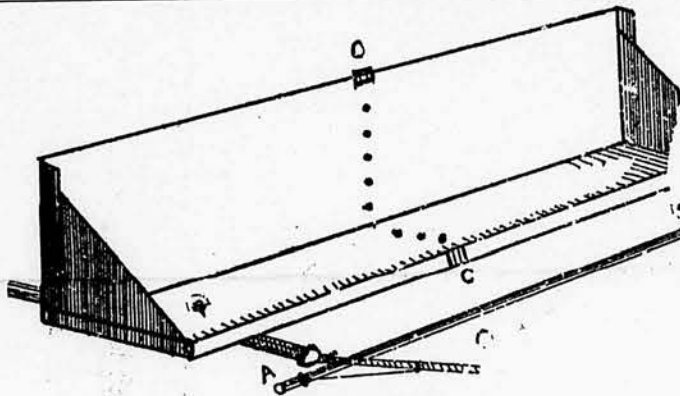
Natoma, Kas.

J. W. A.

The only known way to prevent the destruction of trees and crops where grasshoppers are abundant is to destroy the grasshoppers. It is now too late in the season to say that our correspondent should have destroyed the eggs of the 'hoppers before they were hatched. But should another crop of eggs be deposited next fall the ground selected by the mother 'hoppers should be thoroughly plowed at some time between the laying of the eggs and the warm weather of spring. If the breeding ground happens to be in alfalfa, thorough harrowing during the fall or early spring will destroy millions of prospective 'hoppers and do no injury to the alfalfa. Some even use the disc harrow and report no bad effects on the alfalfa, but great destruction of grasshoppers.

But what to do now is the important question for this season. Several machines have been used for killing grasshoppers. These cannot reach the pests in the trees. It is, therefore, necessary to drive them out of the trees before using the machines. The "hopper dozer" described many years ago by Prof. C. V. Riley, is used more than any other engine of death to grasshoppers. Its construction is shown in the accompanying illustration. It has been illustrated and described several times in the Kansas Farmer, but the description is here repeated for the benefit of new subscribers.

A sheet of ordinary sheet-iron, such as is used in making stove-pipes, is turned up one and one-half inches around the edges and riveted at the corners. This makes a shallow pan



A "HOPPER-DOZER."

about eight feet long, two feet broad and one and one-half inches deep. To the bottom of this are riveted six small strips which can be fastened to the three runners on which the pan rests. To the rear side of the pan is screwed a light wooden frame, as long as the pan and one and one-half feet high. Over this frame a canvas is stretched. This sail serves the important purpose of throwing back those grasshoppers that otherwise would jump over the pan and throw them into the kerosene in the pan. The runners on which the pan is carried may be made of boards, but should be so low as to bring the pan close to the ground. The front ends of the runners are fastened to a cross-piece which is fastened to two ropes, one at either end. These ropes are fastened to a single-tree. In the pan is laid a piece of cloth which is thoroughly saturated with water. About a pint of kerosene is then thrown in and the upright sheet is saturated with kerosene. The machine is then drawn over the pasture or meadow infested with grasshoppers. A touch of kerosene from either the sail or the pan means death to the grasshopper. It spreads over his body, and while he may not die immediately, he soon suffers from paralysis and presently dies.

Grasshoppers are very fond of green alfalfa. If a windrow of young alfalfa be made along the leeward side of the orchard and thoroughly sprayed with some of the arsenic poisons, such as London purple or Paris green, the grasshoppers may be driven into it by a small brigade of boys armed with bushes. The grasshoppers will soon eat enough of the poisoned alfalfa to kill them. It will be safest to keep all farm stock away from the poisoned alfalfa until it can be burned.

It has been suggested that the trees or crops to be protected from the grasshoppers may be sprayed with poison so strong as to kill the grasshoppers before they can damage the trees. This plan can be made effective only by spraying

the other plants on which the grasshoppers feed, for there are usually on the trees, at any one time, but a small percentage of those actually in the orchard. When trees or growing alfalfa are sprayed properly there need be no apprehension of poisoning farm stock, especially if kept from the sprayed vegetation until after a rain.

## SOIL MOISTURE STUDIES.

The study of the soil, with a view to bringing scientific methods into the investigation of the fundamental problems of agriculture, has been entered upon by a division of the United States Department of Agriculture which has been especially charged with this work. The primary object is stated by the chief of the division to be to study the relation of the climatic conditions of moisture and temperature under the surface of the ground to the local distribution of crops. It is recognized that for a continuous growth of vegetation there must be a certain definite relation, constant within fixed limits, between the temperature of the air, the relative humidity, and the soil moisture. In studying this relation the Division of Soils has found it necessary to begin very near the beginning of ascertainable facts as to soil moisture. Records of air temperature have long been kept, as have also records of relative humidity, but, while every farmer has known that the growth of crops depends very largely upon the moisture in the soil, very few, and these few inaccurate, observations have, until recently, been recorded of the moisture in the soil.

In entering upon this branch of the investigation the Division of Soils found it necessary to devise instruments for the determination of soil moisture. In this the ever useful electrical current has been brought into requisition, and an apparatus has been made with which

The route through the leaves of plants is the only one that does the farmer any good. In passing from the soil and into the roots and upward through the plants the moisture carries with it the elements of growth—the food for the plants. In the broad belt of the West in which the rainfall amounts to eighteen to thirty inches per year there is ample moisture deposited upon the soil to produce fine crops. The question in soil physics of greatest importance to agriculture is the prevention of undue waste of this moisture. Where the rainfall amounts to but eighteen or twenty inches per year there is little loss by percolation. If the surface soil is kept in such condition that no water runs from the surface it enters the soil, and, if lost, it is taken away on the wings of the wind and the rays of the sun. Investigation of methods of preventing, or at least reducing, evaporation from the surface of the soil have been but fairly begun. Its importance may be realized when it is considered that the amount of moisture now in the soil in much of the West—and which would remain there subject to the draft of plants upon it but for surface evaporation—is sufficient to produce fair crops, even if no additions were made to it during the season of growth.

There can, therefore, be no more important study than that of methods for the retention of this moisture against evaporation. It has been observed by careful farmers that cultivation may be made serviceable for the retention of moisture. These observations are possible only in a general way. Closer investigations with moisture tests are needed to determine several points. Who knows just how soon after a rain cultivation should be begun to secure the best results? Who knows what kind of cultivator will enable the farmer to retain the most moisture? Who knows how much moisture can be saved by cultivation? Theoretical considerations may help to a degree in determining the probabilities in the case. Thus a crust on the soil is known to furnish conditions favorable for bringing moisture to the surface and giving it to the air. Hard ridges extending to the surface or nearly to the surface are theoretically bad because moisture is likely to rise in them and be lost. Investigations thus far made indicate that more of the moisture than was formerly believed is evaporated during the first day or two after a summer shower. Some soils will not bear cultivation soon after a rain, but the sooner the soil can be brought to a crumbly condition at and near the surface the more effectively will the moisture be conserved.

There is reason for congratulation in the fact that the Division of Soils of the Department of Agriculture and many of the State experiment stations are actively engaged in the accurate determination of these questions of vital importance. Perhaps we shall at no distant day see farming reduced still more than now to a science, and witness the disappearance of many of the uncertainties of results which have been the cause of so many anxieties as to the outcome of the season's investment and labor.

## COUNTY BOARDS MAY ACT.

Attorney General Boyle has rendered an opinion which will enable the Commissioners of the various counties to advance money to the State commission for the purpose of making a display at the Omaha exposition. He said that while there was no law to authorize such a loan, there was none to prohibit it, and probably no one would object to any county advancing its quota when it was reasonably certain that the Legislature at its session next winter would pay the money back. It is a matter in which the people are greatly interested, said the Attorney General, and the county boards can act as a law unto themselves.

## Shawnee County Horticultural Society.

Editor Kansas Farmer:—The next meeting of this society will be held at the residence of L. R. Taylor, near Grantville, on Thursday, June 2. A sociable time will be had before noon. Bring well-filled baskets, and bring flowers to embellish and enliven the surroundings. The following is the program for the day, to begin promptly at 2 p. m.: "How Can a Planter Distinguish Good Trees From Bad," by A. L. Brooke. "Mistakes in Planting," by Maj. William Sims. "Flowers in June," by Mrs. J. R. Sims. Be prompt; come early; enjoy the whole meeting, or come not at all.

A. B. SMITH, Secretary.  
President.

## THE HOSTS ARE VANISHING!

[By Dr. Henry W. Roby, read at the Memorial day exercises, Topeka, Kas., May 30, 1898.]

The hosts are vanishing to-day,  
And all along the lines  
The ranks are thinning as they die  
Amid the storm-swept pines  
Where Grant and Lee met face to face  
Amid the Wilderness,  
And Sherman's legions fronted Bragg,  
Mid scenes of ghastliness.  
Turn back, oh, loving friends, and view  
Each horror-haunted field,  
Where foemen raged, and carnage reigned,  
And closing legions reeled.  
Call back the vanished years and see  
The fleets at anchor ride,  
Where Vickburg's frowning bastions met  
The Mississippi's tide;  
Where Farragut, lashed to the mast,  
In Mobile's guarded bay,  
Turned loose the iron hurricane  
And swept the foe away;  
Where Shiloh shook the solid earth;  
Where Hooker, fronting Bragg,  
Swept like a whirlwind up the steep  
To Lookout's lofty crag;  
Where Grant hurled over Mission Ridge  
War's missionaries wild,  
And Sherman charged the blazing slopes  
With dead and dying piled;  
Go, view the field of Gettysburg,  
With Titans struggling there  
When North and South turned loose the  
storm  
That gloomed the gleaming air;  
See, Spottsylvania, grim with death,  
And girt by walls of steel,  
While thunder-crashing battlements  
Made old Virginia reel.

The hosts are vanishing to-day!  
But not amid the notes  
Of fife and drum and bugle blast  
And powder-blackened throats.  
In those dark days the crashing steel  
And guns reverberant  
Flung notes adown beleaguered heights,  
Wild, dread, and dissonant.  
The notes the minnie-singers pealed  
Along the guarded lines;  
The notes the cannons thundered forth  
Amid complaining pines;  
The notes the storming regiments  
Hurled back with flaming lips;  
The notes that smote the quaking shore  
From thunder-burdened ships,  
All joined to make a song sublime  
No civic host could sing,  
When Freedom called her minstrels out  
And bade her anthem ring.

The hosts are vanishing to-day,  
And one by one they go  
Down to their last encounter with  
Life's unrelenting foe.  
All silently they go, who clanged  
The brazen notes of strife,  
And press along with noiseless tread  
Across the plains of life.  
Their camps are on immortal hills,  
Their sun is going down;  
Their lights grow dim, to flame again,  
Rekindled to a crown.  
Gray hairs along the shattered lines,  
And beards in moonlight dipped,  
Are waving signal messages  
To comrades, pallid-lipped,  
While faltering steps in broken time  
And hands that clasp no more,  
Proclaim them passing up the heights  
To comrades gone before.

## Wall Street's View of the War.

In his Review of May 28, Henry Clews says:

"Since the above was written [April 23] the advance in many of the active securities dealt in at the exchange has been at least 25 per cent.; thus showing that the anticipation of bad news is what scares people and not the realization of it. These foreshadowings have been more than realized in the actual course of the stock market. Anticipation went far beyond a rational discount of the worst possible effects of actual war; and the subsequent course of prices and the present strength of the market are but the adjustment of effects arising from an over-timid pessimism. The marshaling of our military and naval power, the successes we have already won, and the certainty of others immediately impending, are but revelations of the power of the nation and its ability to command the respect of the world; and it is natural that such demonstrations should have the effect of inspiring confidence in our finance as well as in our power. The successes of the war, the prospect war has opened of an expansion of our commerce and the elevation of our rank among the leading nations have suddenly opened the eyes of our people to a truer conception of the greatness and destiny of the United States; and Wall street is not slow to catch the inspiration of these unexpected revelations. No one now stops to take serious account of the costs of hostilities, although it is conceded that they may turn out considerably larger than was at first anticipated; for, having had a new opportunity of measuring ourselves by other great nations, we begin to see that a few hundred millions, more or less, counts for relatively little in a nation conceded to be the wealthiest in the world. In our timid reckonings previous to the war, we measured our ability to bear military burdens mainly by the standard of our civil struggle; further inquiry has taught us that while, since that period, our population has more than doubled, our wealth has more than quadrupled. It is therefore seen that this arousing of the dormant energies of the nation may easily prove to be worth far more than it costs, viewed as a means of stimulating our people in the struggle of international competition which is be-

coming so acute in all parts of the world. It begins to be foreseen that this controversy with Spain will prove to be the occasion of a great national awakening, that will result in the extension of our influence and commerce throughout the world. Such elements as these become in many ways a reinforcement of public confidence, and instead of arresting the operations of finance, tend to quicken and broaden them.

"The Spanish war is thus consigned to a secondary place as a factor in the stock market. No one now has any misgivings as to the outcome of the struggle; and hence other influences predominate, such as the unprecedentedly favorable condition of our foreign trade, the prosperity of the railroads as indicated by their continued large earnings, the extremely favorable crop outlook, and last, but not least, the superabundance of money and the constantly lower rates prevailing, the competition now being with loaners and not with borrowers.

"The present position of finance in this country is a most extraordinary one. In the midst of war, the condition of the foreign exchanges is such as to place the money centers of Europe virtually at our mercy. We are permitting balances due to this country, to the amount of probably close upon \$100,000,000, to remain on temporary loan, and yet are buying extraordinarily large amounts of our securities held in England, Germany and Holland. Within a year we have drawn from Europe fully \$100,000,000 of gold and are in a position to draw about an equal amount more, if our convenience should so require. Our stock of the yellow metal has reached the highest total in our experience and for the first time exceeds the holdings of any other nation. In the face of a heavy military taxation and in prospect of large government borrowings, Wall street is buoyant and the prices of securities are steadily advancing. Such a concurrence of conditions indicative of financial strength in the presence of an important war has hitherto hardly ever befallen a nation."

## The Apiary.

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

## To Prevent Swarming.

When the apiary is located out of sight of a residence there is always more or less danger of the bees swarming and going away unseen by the owner, and for this reason the apiary should be located in as plain sight of a dwelling as possible, so that when the bees swarm they may readily be seen. This has always been a troublesome matter with the bee-keeper, and different methods have been used to prevent this loss. The method now adopted by extensive apiarists is clipping the wings of queens. This always prevents swarms from flying away, as the swarm will not leave unless the queen accompanies it. But this does not relieve all the trouble in connection with swarming by any means, for it will not prevent the swarms from issuing from the hive. The swarm simply comes out of the hive in its natural way, but as the queen does not take wing with them, they will, on missing her, return to the hive. The trouble with this method is that the queen thus issuing from the hive frequently becomes lost, or if she is fortunate enough to get back to the hive, everything being in the same condition as before, they will repeat the swarming, and may keep it up daily, and the result is the queen generally becomes lost. In this case the bees will not again attempt to issue until the young queens begin to hatch out in the hive, when they will again swarm, and as the young queens are not clipped they of course fly with the swarm, and the colony is in the same condition as it would be if the first queen had not been clipped. It certainly is not in as good condition, for the old queen was an important factor.

I much prefer to prevent swarming by keeping the queen cells cut out of the hive. If this is done regularly the colony will not swarm, or at least the exception to this rule is so small that it is not worth considering. Once a week will answer to examine for queen cells, although they may be looked after more frequently, and all queen cells hunted up and removed. It is also very important when colonies become very strong that they be accommodated with plenty of surplus storage room. This of itself will go a long way in the prevention of swarming. If we have but one colony and wish to increase the number of colonies and at the same time do not

want them to swarm, we can divide the colony, and this will prevent swarming.

Dividing a colony of bees is simply cutting the colony in two. Prepare a new hive and take out about half the number of frames in the old colony and place them in the new hive and fill up the remaining space in each hive with empty frames; or, better still, if you have frames of empty comb, place foundation comb in them. In thus removing take half of the brood for the new hive. The brood selected for the new hive should be at least the larger portion of that which is the oldest and just hatching out. Place the brood combs together in the center of the hive and the empty ones at the sides. Combs containing honey should also accompany the brood. In thus dividing we get about half of the bees in the new hive, as all the bees adhering to the combs should go with them. It does not matter materially which part contains the old queen, but we prefer her to remain on the old stand. Before closing the hives we should take one or two combs from the old and shake them off in the new hive, so that we may have equal strength. It always occurs in dividing that most of the old or working force of bees will go back to the old stand and the new colony will thus have chiefly young bees left in it, unless we take more than half of the bees from the old one, on account of so many going back. The queenless part will rear a queen of their own, but if we have a queen ready to introduce to them, they will do much better and become much stronger in a very short time.

Another way to divide is to take a frame or two from the colony that contains young brood of the proper age to produce a queen. With this small colony or nucleus set out to itself they will in due time produce a queen, after which it may be strengthened by adding a frame of brood to it from other colonies. This is perhaps the best plan of dividing, as the queen—the most important factor—is first produced and the colony built up afterwards.

## Ants, Green Flies, Etc.

Editor Apiary:—Our hives are infested with green flies and ants. They seem to be as busy as the bees in passing in and out of the hives. Do they do any damage? If so, what is the remedy?

BEE-KEEPER.

Fowler, Kas., May 23, 1898.

There can be no harm done by the flies and ants, providing your bees are in good condition and fairly strong. Otherwise, the ants will work on the combs and honey and become much of an annoyance to the bees. The flies also will thus annoy them and eat their honey. Flies are frequently seen about the entrances of hives in this climate, attracted by the odor from the bees, but are seldom seen about hives that are strong in bees. When the flies are thus very numerous it is evidence that the colonies are not in good condition. They are much worse about colonies that have been or are being robbed. They are more troublesome also about weak colonies.

The proper thing to do is to examine your bees and ascertain if they have a queen, and have young brood in the combs, and that they have plenty of honey to live on. If the queens are all right it will pay well to feed them a little sirup made from granulated sugar to the amount of a gill or half a pint a day, owing to the strength of the colony. This will start them to breeding rapidly, and if continued they will soon become strong, which is the remedy for all bee ills. If they are gathering honey it is not necessary to feed them, but if not, it is of much importance.

If it is the large ants—those that make the ant-hills—I should judge they were very annoying to the bees, and I would destroy their nesting place. You can readily "bottle them up." Make a hole in the center of the ant-hill, and as deep as your bottle is long, or a little deeper, so when the bottle is set in the hole the mouth of it will be about an inch below the surface of the ground. Arrange the earth around the mouth of the bottle funnel shape, and the ants will do the rest. They will all go into the bottle, and the inmates of an ordinary ant-hill may be thus bottled in about half an hour.

Shipments of wheat and flour reckoned as wheat from the United States to foreign countries for the week ending Saturday, May 28, were reported to have been 4,309,000 bushels. This is 2,278,000 more than reported for the corresponding week last year. Shipments for four weeks were 14,978,000 bushels, against 8,679,000 bushels for the corresponding period last year.

## We Will Send You



Every week from now to January 1, 1899—the balance of this year—on receipt of only 25 cents (stamps or silver). The regular subscription price is \$2.50 per year.

## A WEEKLY MAGAZINE

Founded A. D. 1728 by Benjamin Franklin. 16 pages without an uninteresting paragraph. Equal in literary merit to the best of the monthly magazines, with strong short stories as a special feature.

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The Curtis Publishing Company  
PHILADELPHIA

## Commencement at Manhattan.

The following is the program for commencement week at the Kansas State Agricultural College, 1898:

Sunday, June 5.—Baccalaureate sermon, by President Will, at 4 p. m.

Monday, June 6.—Address before the literary societies, at 8 p. m., "The Romance of a Masterpiece," by Dr. C. B. McAfee, of Parkville, Mo.

Tuesday, June 7.—Examinations from 9 a. m. to 3:35 p. m.

Wednesday, June 8.—Examinations from 9 a. m. to 3:35 p. m. Class day exercises for invited guests of class of '98 at 8 p. m.

Thursday, June 9, Commencement day.—Annual address by Prof. George D. Herron, of Grinnell, Iowa, at 10 a. m. Presentation of diplomas. Military drill at 2:45 p. m.

Public conveyance to and from college in connection with all exercises. Dinner on Thursday served in Armory hall, by the ladies of the Christian church of Manhattan.

A recent sale of pure-bred Holstein-Friesian cattle was held by Smith & Powell, of Syracuse, N. Y., and sixty-two head averaged \$102. Twenty bulls averaged \$76.50 and forty-two females averaged \$114.40.

## Horticulture.

### BLIGHT OF APPLE AND PEAR TREES.

By C. S. Crandall, Colorado Experiment Station.  
(Continued from last week.)

#### EPIDEMIC NATURE OF THE DISEASE.

Like all diseases which have been traced to an origin in low forms of life, pear blight is epidemic in its character. During certain seasons it is very destructive; this extreme virulence may last two, three, or four years, then the disease will decrease, or possibly pass away entirely, to appear again after a long interval.

Charles Downing says, in speaking of his locality: "Pear blight has appeared at intervals of about twenty years, and the duration of each has been from three to five years. I have passed through three of these periods, and, with each additional visit the attack is very much lighter; and like many other diseases, it may run itself out in time." Mr. Downing's statement was made before the true cause of the disease was known. There does seem to be a periodicity connected with the disease, and while we are likely to have intervals of immunity, I have no faith in its finally running out.

#### MEANS OF DISSEMINATION.

How does the disease get into the tree, and how is it carried from one tree to another? First as to its dissemination. Whether the germs of the disease are carried in the air or not has not yet been satisfactorily demonstrated, but it is well known that insects carry the disease, and that in them we have the chief means of its dissemination. The gummy exudation already alluded to, which is commonly present in cases of attack upon the trunk or larger branches, is shown by examination to consist of myriads of the living organisms, held together by the viscid secretion which seems so characteristic of their work. This exudation is most abundant in the spring after the tree has started into full activity. It is attractive to insects, and they by their frequent visits disseminate the organisms rapidly at a period when the opportunities for their easy access to healthy plants are best.

#### HOW THE GERMS GET INTO THE TREE.

Now as to the method of gaining access to the tree. The virus of the disease spread upon healthy bark will not communicate the disease; this has often been proved by experiment. The microbe is incapable of penetrating healthy bark; but prick the bark with a fine needle smeared with the virus and you can produce the disease. The puncture or wound, no matter how small, is large enough to afford access to the germs which at once find themselves under conditions that will promote their growth. Wounds in the bark, then, afford one means of access to the disease. Most cases of blight on the body of the tree originate in this way; certainly all those that show only isolated diseased areas, and in many of these cases the fact that the disease has spread from a central point of infection is very apparent. Last season portions of the trunks of several trees, ranging from one and one-half inches to two and one-half inches in diameter, were sent us from an orchard near Canon City. Each piece bore from one to four elliptical areas of bark dead from blight, and in each case it was very plain that the disease had spread from a center; the center being a point where a starting shoot had been rubbed off. This would point to a need for some application following the removal of adventitious shoots to prevent the access of the blight organisms.

During the winter season fully formed bark envelops the whole tree, forming an impervious protective against the disease, so at this season the only means of access would be by wounds. But as the buds push in spring we have presented other vulnerable points. The young shoots are soft and succulent, they have no covering capable of resisting attack, as has been often demonstrated. When the flowers expand we find in the flower cup parts that are even less protected than are the youngest shoots. The stigma and nectaries offer conditions most favorable to the development of the organism.

Insects are no doubt responsible for the first infection, and in their busy flight from one flower to another during the whole period of flowering they disseminate the disease from one tree to another, and from orchard to orchard. It has always been observed of the disease that the twig blight form was most common shortly after the blooming period, and the reason seems apparent.

The points of access are, then, three

in number—the flower, the young and growing shoots, and wounds in the bark. CONDITIONS WHICH AGGRAVATE THE DISEASE.

It remains for us to consider briefly the conditions which may aggravate the disease and what may be done to check or prevent it. It is a matter of common observation that the disease varies greatly in different localities and in different seasons. It may progress slowly or with great rapidity. Knowing, as we do now, the cause of the disease, and the conditions under which the organism most rapidly propagates, we can account for this variation by the different conditions prevailing. The old theory that rich soils and moisture were the cause of the disease was a favorite one, and undoubtedly arose from the observation that on rich soil and in moist seasons the disease was most virulent and destructive. Rich soils with accompanying moisture is conducive to rank, rapid growth. The tissues formed are gorged with sap, and are very succulent. In this condition of things we find all that is necessary for a rapid growth of our microbe. On a soil of only moderate fertility the growth is slow, less succulent tissue is produced, and if the supply of moisture is small we have conditions not advantageous to the organism, and its development is slow. In this matter of growth we find a reason for the various opinions regarding clean culture, or grass in the orchard. One man has no blight and attributes his escape to clean culture. Another has no blight and thinks it is because his orchard is in grass. Both may be right, though the reasons they give for the immunity are wrong. An orchard on rich soil may receive just the necessary check in growth to prevent too great succulency by having grass in the orchard. An orchard on poor soil may need the clean culture to keep it in healthy growth. Anything, then, whether in the choice of soil or manner of treatment, that gives the trees a slow growth which will thoroughly ripen and harden, will render them less liable to attack from blight. Close planting is objectionable, because the ground being too much shaded, moisture is retained, and moisture favors blight.

In irrigating, care should be taken not to apply an excessive amount of water. I believe the general tendency is toward the use of too much water. But by this means that succulent growth so readily attacked by blight is induced. Water should only be applied when needed, and the need is easily discovered by careful examination of trees and soil.

#### TREATMENT.

From the nature of the disease, it is evident that when it has once gained access to the tree, preventive applications are useless.

The organism is secure in the cell tissue beneath the outer bark; you cannot reach it with any germicide yet known. There is, therefore, but one remedy, and that is to cut and burn the infested portion of the tree. If trees are closely watched and diseased portions removed as soon as discovered, the difficulty may be checked without serious injury to the tree, but if allowed to spread until the amputation of large limbs becomes necessary, the tree will be deformed if not entirely ruined. In years when the disease is extremely virulent, this work of cutting out is discouraging, and this has led some to object to the practice. Objections have also arisen from those who were unsuccessful because of careless and imperfect work. There is, however, abundant testimony from many sources that it pays to follow the practice closely and persistently. There is no other way of holding the disease in check after it has once started.

In cutting out twigs blight it is hardly practicable to protect the cut surfaces; but where branches one-half inch and upward in diameter are removed, and particularly where the bark is cut away from blighted areas on the trunk and larger limbs, the cut surfaces should be at once covered with some protective coat. Lead and oil paint, shellac wash, and various forms of grafting wax, have all been used. I prefer the paint because it is cheaper, and less liable to crack and fall away under the drying action of the sun.

In cutting out blighted portions there is one precaution that should always be observed, and that is the sterilization of the knife after each cut; if this is not done, germs may be left upon the cut surface of the branch and the disease will continue to spread.

The sterilization of the knife may be effected either by passing through a flame or by immersion in carbolic acid or other germicidal solution. In cutting, it should, of course, be the aim to

cut safely below the diseased part. The limit of the disease is not the well-marked line of dead tissue. It is not in the dead tissue that we find active work going on. The very fact that the tissue is dead and discolored is evidence that the organism has sapped it of all nutriment and is through with it. The work of destruction goes on outside of this line of dead tissue, and extends a variable distance, from only three or four to twelve or fifteen inches. So in cutting be sure and make the cut sufficiently low to remove all the infested tissue. If the tree becomes very badly affected before receiving attention, it is best to grub it out and burn the entire tree.

#### VARIETAL DIFFERENCES.

There appear to be no varieties that are entirely free from attack, but, according to reports, there are wide differences in susceptibility and in resisting power. The testimony concerning pears, gathered from many sources, indicates that Anjou, Angouleme and Seckel resist attack better than do Bartlett, Clapp or Flemish Beauty, and when attacked the disease progresses less rapidly in the first three than it does in the last three.

Among apples, the varieties of crabs seem everywhere more susceptible than do standard apples, but even here occasional exceptions are met with. A case illustrating this came under my notice at Eaton.

A three-acre garden was surrounded by a row of crabs, Martha and Whitney alternating. The Whitney trees were all either dead or dying of the disease, while not a Martha had been attacked. The difference between the two varieties was here so marked as to suggest security from attack on the part of the Martha, but in other localities the variety has succumbed. Reports concerning the standard varieties of apples vary greatly from different localities. Varieties apparently immune in one locality are badly attacked in another, and I am inclined to the belief that the differences in behavior toward the disease, with both pears and standard apples, are due more to varying local conditions than to varietal differences.

The crabs are so universally attacked that it seems undesirable to plant them at all. In choosing varieties of standard pears and apples, be governed by the best local experience, and by the fruit list as recommended by the Board of Horticulture. Then by rational treatment bring about those conditions of growth that make the trees least liable to attack. If trees are attacked follow the course outlined in the preceding pages, and by persistence eradicate the disease, or at least hold it in check.

Of remedial preparations offered for sale I have nothing to say. Having stated the cause of the disease, and outlined its manner of work, I leave the probability of cure to the judgment of the intelligent reader.

#### What to Do With the Old Strawberry Bed.

Energetic measures must now be taken with the old strawberry bed. The whole country seems infested with leaf rollers and fungi, as well as other insects and parasites; and if they are allowed to breed unmolested, serious results must follow. True, these insects have their enemies, and come and go, but we can make a wholesale destruction of them if we begin right now.

Just as soon as the last berry is picked, mow off the tops of the leaves, taking care to leave as many stems as possible to hold straw up and protect the crowns. Stir up the mulching, so it will quickly and thoroughly dry. If straw has been used liberally for mulch the mowing need not be done. Put considerable straw directly on the plants. The leaf stalks will protect the crowns, so there will be no danger of heating them. Then wait for a high wind and set fire. If there are small shrubbery or buildings on the windward side, we can protect them by back-firing, and then set on the side toward the wind, so it will pass over the ground rapidly. If there is no wind blowing, it will burn slowly and often heat the crowns so as to injure or kill them. I have burned in this way for many years and have never had plants injured in the least. I have heard of their being injured, but inquiry always showed that the burning was done while the air was still.

It is important that the cultivating should be done on the same day, especially if it is very dry. The ground has been trodden down hard by the berry pickers and capillary action is perfect, so the water draws up to the surface and is rapidly carried off by the sun and wind, so the ground dries out below the roots and the plants perish. I apprehend the reported losses by burning

arise out of neglect to cultivate oftener than by fire.

Narrow the row just as closely as you can and leave a plant every ten or fifteen inches, taking care not to go deep enough to disturb the roots of those remaining. Fine the surface not over half an inch deep around the plants to conserve all moisture, and stir the surface after each rain. In a few days the bright green leaves will appear, and by the middle of July the runners will start. Cultivate the same way every time, so as to throw the runners around and establish a row of even width. As soon as one plant is formed cut the runners off beyond it, when the new plant will root quickly and be very stalky.

This is done in a wholesale way by attaching an adjustable rolling cutter to the side of the cultivator. The runners have a strong disposition to run straight out into the row, so they may establish the new plant in clear sunlight very effectively. The work can be done rapidly by a sharp hoe. Under no circumstances must plants be allowed to form so closely that the crowns will be shaded by other plants, eight or ten inches being close enough.

As to whether a second or third crop will pay depends largely upon the first crop. If they are exhausted by producing an excessive crop, and are full of grass and weeds not killed by the burning, it will not pay; but, in any case, they should be burned over or plowed under at once. It is the greatest mistake to let an old bed lie several weeks until insects pupate and spores of fungi mature and fill the ground, thus endangering new plantations. This is especially true as to the leaf roller. They make two and sometimes three broods during the summer, and if the first brood is killed by the burning or plowing under, they can be held in check. Spraying for them is not effective, because they are thoroughly protected by their web and leaf.—R. M. Kellogg, Three Rivers, Mich.

A good garden helps the wife to get a satisfactory meal for tired men.

#### Deafness Cannot Be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure Deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars, free. F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c.

## INSECTS

Will not touch trees treated with VITA-NOVA. One dollar's worth treats twenty-five trees; lasts four years. J. WILLIAMS BROS., Danville, Pa.

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Send your name and receive a sample. Test it yourself. Learn how it will preserve the quality of cheese, retain the flavor, maintain the weight. Odorless, tasteless, impervious to all the enemies of good cheese. A simple and inexpensive method of adding to the profits of cheese making. Knowledge will do you no harm. This advertisement will not appear again, so write now for all particulars and sample.

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## In the Dairy.

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

### Fancy Butter for Dewey.

A dispatch from Washington, D. C., contained the following: "One of the largest merchant firms of Washington to-day shipped 10,000 pounds of the best butter obtainable to Rear Admiral Dewey at the Philippine islands. It goes by fast freight to San Francisco in a refrigerator car, thence to the Philippines by a fast steamer."

### The Standing of Renovated Butter.

The Pennsylvania Department of Agriculture has agreed upon the following decisions relative to the manufacture and sale of "renovated butter":

Butter placed upon the market that is produced by taking original packing stock and other butter and melting the same, so that the butter oil can be drawn off, mixed with skim-milk and re-churned, or if by any similar process there is produced what is commonly known as "boiled" or "process" butter, the same before being offered or exposed for sale shall be plainly labeled "renovated butter."

If sold in prints or rolls, this label shall be plainly printed in conspicuous letter on the wrappers. If packed in tubs, the brand shall be printed in one-inch letters on the top and sides of the package.

If exposed for sale, uncovered, a placard containing the label shall be attached to the mass in a manner making it prominent and plain to the purchaser.

### Milk as Food.

"Milk as Food" is the title of Farmers' Bulletin No. 74 now in press and soon to be issued by the United States Department of Agriculture. This bulletin treats of the nutritive value of milk and suggests several ways in which it may be combined with other food materials to improve the diet and cheapen its cost.

It states that the chief bulk of milk is, of course, water, and that the solid matter is made up of protein, fats, carbohydrates and mineral matter. The amount of nutriment contained in milk as compared with beef, bread and other food materials is shown, and its characteristics and properties, causes of variations and digestibility are considered.

Skim-milk, cream and buttermilk, the use of milk with other foods and the cost of nutrients also receive attention.

A number of daily menus containing milk are given, followed by a discussion of their merits and ending with the statement that in planning a well-balanced diet the use of any considerable amount of fat meat or starchy food should be offset by the use of some material rich in protein.

This bulletin is for free distribution by the department, and copies may also be obtained from Senators, Representatives and Delegates in Congress.

### Oleo Law is Held Invalid.

On May 23 the United States Supreme court decided convictions under the oleomargarine laws of Pennsylvania and New Hampshire to be invalid, thus holding the laws unconstitutional.

Justice Peckham announced the opinion of the court in these cases. Three of the cases were from the State of Pennsylvania and one from New Hampshire. In Pennsylvania George Schallinger, George E. Paul and J. Otis Paul were prosecuted in the State courts on the charge of violating the law prohibiting the introduction of oleomargarine into the State. The trial court held the law to be invalid under the federal constitution on the ground it infringed the provision in regard to interstate commerce. The State Supreme court re-

versed this decision, holding the law to be constitutional. The opinion rendered by Justice Peckham reverses the State Supreme court and sustains the trial court, holding the convictions to be invalid under the law because the law is in contravention of the federal constitution.

Justices Harlan and Gray dissented in this case, as they did in the New Hampshire case. In this latter case the same question was involved, the law of this State being practically the same as that of Pennsylvania. In the New Hampshire case the law provides that when the oleomargarine is colored pink there shall be no prohibition. Justice Peckham said that this was a mere evasion and reversed the decision of the State Supreme court, which had been in support of the law. In this case there was but one prosecution, and this was directed against Clarence E. Collins.

### Dairy Notes.

Give some grain even in flush of feed. Do not make a sudden change from dry feed to pasture.

The cows should be milked both clean and quickly, and at the same hour every day.

Pastures should not be grazed too early; give them a chance to get a good start.

If given some feed in the stable at night the cows will always be found at the gate.

Be sure that your cows are treated kindly and not hurried to and from the pasture.

At Rockford, Ill., \$50,000 will be spent in the erection of a factory to make sugar from milk.

You can afford to pay a good price for a good bull. A poor one is a reckless extravagance as a gift.

Give the regular feed at the barn until the cows become accustomed to the grass and have plenty of it.

It pays to grain the cattle in summer if you are doing any business. Lighter through June, but some even then.

If you want the largest yield and consequently the greatest profit, you must strive to have perfect harmony and love existing between you and your cattle.

So long as the troops are fed on oleomargarine the war will not affect the price of butter except adversely. It is likely to cut off our exports and not increase the home consumption.

Sunlight and fresh air and hot water are the cardinal factors in cleanliness. One of the standard doctrines of modern dairy practice is that disinfectants can never take the place of simple old-fashioned cleanliness.

Let the young heifers come up with the cows and take their places in the stable. Handle their udders and pet them. It will make them gentle, and when they take their places in the dairy there will be no breaking, for they will be already gentled.

The creamery industry is expected to make a big start in Oklahoma this year, says the Patriot, of Perry. Many towns are now in a condition to offer sufficient inducements to such an enterprise that has not been their fortune heretofore. All farmers are interested in this matter.

The materials to form the milk are found in the udder untransformed to milk before milking. But by a sort of harmony existing between the milker and the cow, and by the stimulus excited upon the glands by the milker, the milk is largely caused to form. If the cow is roughly treated this will no longer be transformed into milk, hence finding no demand for her exertions, nature causes the cow to dry up, at least to a large extent.

It is a poor and dangerous practice to allow the bull to run with the cows.



**ALPHA "BABY"**  
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**CREAM SEPARATORS**

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**FIRST—BEST—LATEST.**  
New and Improved May, 1898, Machines.

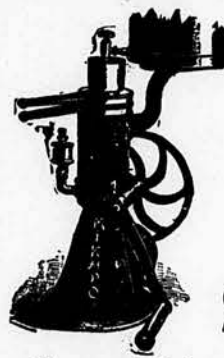
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If he is young he is liable to injure himself. If old he will injure the cows, and is liable to attack any persons attending them or passing through the pastures. Give him a good pen and yard attached where he can exercise. Select a cool, shady place, away from flies as much as possible. If he has plenty of water and good food he will live in his little haven as quiet and comfortable as a lamb.

Don't run any risks about health. Avoid coughs, colds, fevers, pneumonia, and all other similar ailments by keeping your blood rich and pure with Hood's Sarsaparilla.

Hood's Pills are purely vegetable and do not purge, pain or gripe. All druggists.



The  
Empire  
Cream  
Separators.

The average dairyman can hardly judge the merits of a Cream Separator by its mechanical construction, but he can always safely judge of its work.

We would like to show you one of our Empire Cream Separators at work before you buy. Then you will know why they are superior to all others in closeness of skimming and ease of running.

All sizes for hand and power use at prices that will interest you. Agents wanted in territory where not represented. Write to-day for our 1898 catalogue.

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**CREAM SEPARATOR**  
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Over 12,000 tons of export and import freight now being handled over its docks per month.

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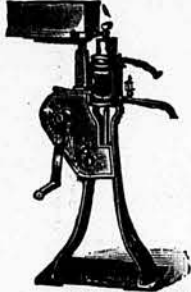
One hundred thousand dollars' worth of property sold in March.

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FLAT ROCK, O., January 19, 1898.  
When I bought your make of cream separator, the improved U. S., I felt sure I was getting the most simple and at the same time the most effective machine for the work. After over a year's use I am confirmed in this conviction. I am very glad I learned to know the U. S. before purchasing a machine.

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A Safe Speedy and Positive Cure  
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

## The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed direct to our Veterinary Editor, Dr. Paul Fischer, Professor of Veterinary Science, Kansas State Agricultural College, Manhattan, Kas.

**AILING HORSE.**—I have a horse, about 13 years old, which was very sick one morning when I went to get him from the pasture. He would try to roll, and at times would try to lie on his back. Then he would get up and run to some other place and then lie down and roll. At times he appeared nearly unconscious. About noon his right leg became stiff, he was unable to move it forward, could hardly walk. About 4 o'clock of same day his right leg was all right again. The horse has been sick before similarly, but not so bad. He was not treated to any medicine. He was worked the day before, but not hard. One of my neighbors said the horse was foundered. C. S. Wonderly, Kas.

Answer.—If your animal is again affected this way, give him a pill made of one ounce of Barbadoes aloes, one drachm of calomel, about two drachms of powdered althaea root, and enough water to make a stiff pill mass. Have a druggist compound the prescription for you. Your animal will probably continue to be attacked in this manner until some day when he will have his last attack and be relieved of earthly suffering forever. You can, however, materially reduce the chances of an attack by observing the strictest regularity in regard to feeding, watering and working. Never change suddenly from rest to hard work, nor from hard work to long-continued inactivity. Feed easily digestible food in moderate quantities, and if constipation sets in at any time, remedy it as soon as possible by giving laxative food (green, succulent herbage), or, if you think it necessary, give half the above pill dose. In this way you may be able to ward off these attacks.

**WORMS.**—Though I failed to get an answer in the Kansas Farmer to a letter I wrote you about a month ago, describing a sick horse, I will try again. I wondered a great deal why I did not see anything in the Farmer, but possibly you did not know I was a subscriber. I wrote that I had a four-year-old horse, kind of sorrel-roan color, sire gray Norman, dam sorrel, about two months ago had an attack of some internal pain. He would strike his hind foot up against his belly. He laid down but did not roll. This took place immediately after unhitching. Had driven late, but not out of a walk—no load. In traveling met that hard cold wind we had in March. A party gave him a chunk of iodine the size of a bean or two. He said it was bots. About 12 o'clock he was eating hay. Lately he has struck against his belly again, but only at intervals, and I would not pay any further attention to him but for the reason that he jerks his head or nose around about the way horses do when they are bothered with bot flies around the lips. Sometimes he rubs his lips or the side of his mouth against something handy. At first it came on by spells; now it seems to worry him more continually. I have a dark brown mare, 10 years old, with foal, that has shown the same symptoms for more than two years, but did not write you before, as I had hardly noticed them; but lately they have increased. She has them more by spells. She seems to belch up something sometimes as she acts like she had something to chew. I noticed one worm from the horse and some mucous around the anus once. Both are in fair condition. I work them every day, but not very hard. Some matter has come from the horse's nose once or twice. Seems to worry more when

at work. The horse wants to hold his head toward the mare when pulling. I am feeding International Stock Food now. The horses sometimes break out into what I would call something between a cough and a snort. J. V. N. Jerome, Kas.

Answer.—Your inquiry of some weeks ago to which you refer was received and answered by letter, and ten days later it was returned, stamped "Uncalled for." I think your horses have worms; just what kind, however, I could only guess, hence will have to guess at the treatment. Inject into the horse's rectum, by means of a syringe with a long, smooth nozzle or pipe, one pint of raw linseed oil. If the rectum is full of feces, remove these by hand before injecting the oil. Repeat the injection daily for four days. This is a remedy for so-called pin worms, which is probably the species with which your horse is affected. See to it that the animal's bowels are regular. If your animal does not improve after this treatment, write again.

## T. P. Babst's Lord Mayor 112727.

Our first-page illustration this week exemplifies two significant facts for Kansas, representing one of the best Short-horn sires in the West, with a sample of his get; also the work of the talented live stock artist, Mr. F. D. Tomson.

The Valley Grove herd of Short-horns, owned by Mr. T. P. Babst, of Dover, Shawnee county, Kansas, numbers about one hundred head of choicely-bred females of Cruickshank and Bates families, also a number of the good old families. The herd is headed by that remarkable sire, Lord Mayor 112727, bred by Colonel Harris out of the imported Lady of the Meadow by Chancellor (49568). The sire of Lord Mayor is Baron Lavender 2d 72610. This famous herd bull has more good bulls and heifers to his credit than most any beef sire in the West. His sons head the herds of N. H. Gentry, Sedalia, Mo., and Martin Flynn, Des Moines, Iowa. There is also one in use in the herd of T. S. Moberly. His heifers are the grandest uniform lot the writer ever saw, notwithstanding the great variety of dams.

Mr. Babst recently purchased of V. R. Ellis, Gardner, Kas., the fine young bull, Laird of Linwood 127149, calved May 9, 1896, out of 11th Linwood Golden Drops by Viking 110525, the dam also closely related to Craven Knight and Baron Victor. The sire of Laird of Linwood is Galahad 103259 by imported Master of the Rolls and out of Galanthus by Barbarosa and tracing closely to imported Gladiolus. This new herd bull, judging from his breeding and splendid conformation, will make a judicious cross on Lord Mayor's heifers, for which purpose he was selected.

Mr. Babst's breeding farm of 900 acres is one of nature's model establishments and is a veritable wealth of native grasses, alfalfa, 100 acres of timbered pasture, a splendid creek, numerous springs, etc., besides considerable corn

## ALL HORSE OWNERS



should make the acquaintance of that reliable remedy  
**Quinn's Ointment.**

Used in the best stables and studs of the country. Sold by all druggists or sent direct for \$1.50 per package. Smaller size, 50 cents. W. B. EDDY & CO., Whitehall, N. Y.

BLACKWELL'S  
CELEBRATED  
FISTULA CURE

For Horses. The only medicine in the world that will CURE YOUR HORSE WHILE IT WORKS. One box will cure the worst case. Price, \$1 a box. Manufactured, Sold and Guaranteed by  
**E. T. BLACKWELL, M. D.,**  
PRESTON, KANSAS



## Chloro-Naptholeum

PUTS MICROBES TO SLEEP so they will never wake up. Will heal sores and bruises quickly. We have direct branches in the principal cities of the U. S. from whence goods are shipped. We will send you a sample gallon, freight prepaid, \$1.50. Agency is worth having. Write for full particulars. WEST DISINFECTING CO., 205½ E. 7th St., New York.

It's worth your while to send for a FREE sample of

Tuttle's  
Elixir.

It cures curbs, colic, sprains, lameness, etc., in a horse.

Tuttle's Family Elixir cures rheumatism, bruises, etc. Send three 2-cent stamps for postage only.

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

land. The lover of Short-horns will be well repaid by a visit to Valley Grove herd and may be able also to secure some of the Short-horn "plums" from this herd.

Stiff clay soil is not good for floriculture. Soil should be light and friable.

## 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 order. Stamps taken.

**HEREFORD BULLS FOR SALE.**—Three full blood Hereford bulls for sale. Sired by Stanley 42941. Dams representing the blood of Anxiety, Grove 3d, Lord Wilton and other top strains. Prices right. Ira D. Bronger, Great Bend, Kas.

**GOOD EYES.**—By my system of usage glasses are useless. Treatment at home without cost. Send 25c. A. E. Jones, Topeka, Kas.

**BEE SUPPLIES** by the car-load, with factory prices, at Topeka. Send for catalogue. Bees for sale. J. B. Kline, Manager, 1615 West Sixth street, Topeka, Kas.

**ANY PERSON** knowing the present address of Jack Long, who lived near Protection, Kas., in '92-'93, will confer a favor by sending present address to E. H. Boyer, Meade, Meade county, Kas.

**FOR SALE.**—One registered Hereford bull, calved in August, 1894; perfectly marked, kind disposition; will weigh about 1,800 pounds, and is an excellent individual. John Drennan, Blue Rapids, Kas.

**MEADOW BROOK HERD OF SHORT-HORNS.**—Registered bulls for sale. F. C. Kingsley, Dover, Kas.

**CABBAGE PLANTS.**—Flat Dutch, Danish, Bald-head, 20 cents per 100—\$1.50 per 1,000. J. H. Shaw, market gardener, Florence, Kas.

**SHORT-HORNS FOR SALE.**—Choice lot of yearling bulls, mostly reds, by Glendon 113371. Young Marys, Rose and Rose of Sharon. Cedar Grove Farm, Theodore Saxon, St. Marys, Pottawatomie Co., Kas.

**BERKSHIRES.**—Choice bred sows by Imported Lord Comely, and boars ready for service. Wm. B. Sutton & Son, Russell, Kas.

**ABERDEEN-ANGUS BULLS.**—Three individuals of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

**EGGS.**—Barrd Plymouth Rocks 75 cents and \$1 per 15. D. Trott, Abilene, Kas.

**PURE-BRED BOARS FOR SALE.**—8 Poland-Chinas and 4 Chester-Whites, old enough for service; also a few gilts. Address at once for a bargain. A. E. Staley, Ottawa, Kas.

**FOR SALE.**—Five first-class registered Clydesdale stallions. H. W. McAfee, Topeka, Kas.

**FOR SALE OR EXCHANGE.**—One registered Holstein-Friesian bull, 3 years old, and one yearling, subject to register. Correspondence solicited. G. J. Coleman, Mound Valley, Kas.

**MACLEAN FARMERS' SUPPLY CO.,** Kansas City, Mo. (Between Union Depot and Stock Yards.) Sell machinery and other supplies to farmers direct, saving the consumer middlemen's profits. Send now for 1896 Spring Price List.

**FARM BEE-KEEPING.**—Sample free. Busy Bee, St. Joseph, Mo.

**DAIRY WAGON FOR SALE.**—Good two-horse covered dairy wagon, custom made. A. E. Jones, Topeka, Kas.

**WE BUY** Cane, Millet, Kafir Corn seed. Send samples. Hubbard's Seed Store, 520 Kansas Ave., Topeka, Kas.

**PASTURE** for 300 head of steers can be furnished at the rate of 25c per head per month by Conrad Krueger, Pfeiffer, Ellis county, Kas. The same party will also sell ranches and farm lands at reasonable prices.

**CANNON'S LIQUID FRUIT PROTECTOR.**—A fast and effective wash for trees, vineyards, etc., destroying insects, and will keep off rabbits, mice and borers. It is used by successful horticulturists everywhere. For sale by druggists or the Cannon Chemical Co., 11 N. Main St., St. Louis, Mo.

**ARTICHOKES.**—Cheapest and best of all hog feed. Often yield 1,000 bushels per acre. Price, single bushel, \$1. Cash with order. Write for prices and freight rates to all points. H. E. Shuler & Co., 280 East Fifteenth St., Wichita, Kas., or H. E. Shuler & Co., Box 227, Topeka, Kas.

**FOR SALE.**—Mammoth White Kafir, black hulled; greatly superior to common varieties; \$1 per bushel. M. Madison, Topeka, Kas.

**CLOSING-OUT SALE.**—Of Light and Dark Brahmas, Buff and Partridge Cochins, and a few B. F. Rocks and S. C. B. Leghorn cockerels at \$1 each until gone. Some of these are show birds. Stamp for written reply. Address Sunny Side Poultry Yards, Walton, Harvey Co., Kas.

**WE MAKE A GOOD FARMER'S SPRING WAGON.**—on two lasty-backs and let-down end-gate, for \$55. Warranted. We will ship on approval to responsible parties. Kinley & Lannan, 424-426 Jackson street, Topeka, Kas.

**FOR SALE OR EXCHANGE.**—Two Galloway bulls. Address W. Guy McCandless, Cottonwood Falls, Kas.

**640 ACRES ARKANSAS LAND.**—Two miles from station, to trade on Kansas farm. Will pay balance or assume incumbrance. E. W. Melville, Eudora, Kas.

**WRITE TO ALEX RICHTER.**—Hollyrood, Kas., how to sub-irrigate a garden, etc., and cost of same. Send him the size or dimensions of your garden, and he will give full information.

**WANTED.**—NOW—Agents to sell Sash Locks and Door Holders. Sample Sash Lock free for 2-cent stamp. Immense; better than weights; burglar proof; \$10 a day. Write quick. Address BROHARD & CO., Dept. 108, Philadelphia, Pa.

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

**FOR SALE.**—A Wilcox & White organ for \$35, at 1338 Mulvane St., Topeka.

**FOR SALE.**—A few October pigs of 1897 farrow, and some bred sows to Kansas Boy and Success I know. Also B. P. Rock eggs, \$1 per setting. H. Davison & Son, Waverly, Kas.

**REGISTERED TROTTER OR PACING HORSES.**—Will trade for Registered Short-horn cattle. L. F. Parsons, Salina, Kas.

**BLOSSOM HOUSE.**—Opposite Union depot, Kansas City, Mo., is the best place for the money, for meals or clean and comfortable lodging, when in Kansas City. We always stop at the Blossom and get our money's worth.

**FOR SALE.**—Thirteen fine Poland-China boars. Call on address H. W. McAfee, Topeka, Kas. (Farm three miles west of Kansas avenue.)

**BARRD PLYMOUTH ROCKS** exclusively. Eggs, \$1.50 per 15. David Enoch, Salina, Kas.

**FOR SALE.**—A LARGE SPANISH JACK, FOUR years old; price \$350. Also a thoroughbred Holstein bull just about two years old. Elm Beach Farm, Wichita, Kas.

**FOR SALE.**—About 300 one-year-old wethers, medium size for the breed, \$2.00 per head; 100 dry ewes, \$2.50 per head; 100 ewes with lambs, \$4.00 for ewe and lamb. These sheep are grade Merino, good ones, no broken mouths, no culls, no scabs; must be sold at once; need not be delivered for ninety days if preferred. Either lot sold separate. A neighbor will duplicate either lot at same price. Other wethers for sale here. E. H. Boyer, Meade, Meade Co., Kas.

**YEARLING SHORT-HORN AND GALLOWAY BULLS.**—Registered and high grades, of Bates and Cruickshank stock, at bedrock prices, either by carload or singly, time or cash. J. W. Troutman, Comiskey, Kas. (Northern Lyon county, Mo. Pacific R. R.)

**FARM FOR SALE.**—\$500 buys an eighty-acre farm in Edwards county, two miles north of Kinsley, Kas. A living stream of water runs over the farm. The buyer will get a clear deed of it and all tax receipts paid in full. A. L. Brundage, 30 West Twenty-fourth St., Chicago, Ill.

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PASTEUR VACCINE CO., 52 Fifth Avenue, CHICAGO.



Special prices.  
Kansas City Hay Press Co., 125 W. 11th St., Kansas City, Mo.

## MARKET REPORTS.

## Kansas City Live Stock.

KANSAS CITY, May 28.—Cattle—Receipts, 88; calves, 8; shipped yesterday, 1,825 cattle; 5 calves. The market was nominally steady. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave. Price.	No.	Ave. Price.
1.....	1.430 \$4.80		

## NATIVE HEIFERS.

2.....	835 8.80		
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## TEXAS AND INDIAN COWS.

19.....	630 \$2.40		
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## NATIVE COWS.

2.....	1,130 \$3.75	1.....	1,270 \$3.65
1.....	930 8.10		

## NATIVE FEEDERS.

22.....	1,025 \$4.55		
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## NATIVE STOCKERS.

3.....	633 \$4.75		
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Hogs—Receipts, 6,500; shipped yesterday, 1,029. The market was strong to 5c lower than the extreme close yesterday on good and 5 to 10c lower on light. The following are representative sales:

61...265 \$4.27½	63...246 \$4.25	62...281 \$4.25
76...245 4.25	58...286 4.25	73...253 4.25
68...260 4.20	85...213 4.20	79...228 4.20
63...272 4.20	64...277 4.20	72...269 4.20
67...295 4.20	74...255 4.17½	68...204 4.17½
77...223 4.15	57...232 4.15	76...217 4.15
56...240 4.15	72...212 4.15	69...239 4.15
64...284 4.10	75...237 4.10	76...189 4.10
67...294 4.05	82...198 4.05	70...233 4.05
77...215 4.05	2...390 4.00	64...200 4.00
50...202 \$3.97½	72...199 3.95	91...186 3.95
74...203 3.95	62...216 3.95	97...212 3.90
73...176 3.85	76...173 3.80	1...440 3.75
87...162 3.75	3...440 3.70	108...172 3.65
16...149 3.60	19...133 3.60	12...135 3.50
18...136 3.50	26...132 3.45	7...125 3.45
90...124 3.35	28...117 3.35	21...124 3.35
24...121 3.25	2...200 3.00	18...157 2.27

Sheep—Receipts, 480; shipped yesterday, 204. The market was strong to 10c higher. The following are representative sales:

19 spg. lms... 52 \$6.00	1 spg. lm... 52 \$6.00
1,039 N.M.lms 81 5.80	579 op N.M.lms 85 5.00
21 N. alp... 83 4.65	142 op N.M.sh 83 4.60
266 op N.M.sh 82 4.60	30 N. sh... 117 4.25

Horses and Mules—Receipts of common horses and mules rather light. Horses sold mostly at private sale and are quoted fully steady. The mule market was strong and active on "wheel" and "swing" stock above 15½ hands. Small stock sells slowly and nominally steady.

## St. Louis Live Stock.

ST. LOUIS, May 28.—Cattle—Receipts, 100; market steady; native shipping steers, \$4.35@4.55; light and dressed beef and butcher steers, \$3.85@4.90; stockers and feeders, \$3.85@4.75; cows and heifers, \$2.25@4.70; Texas and Indian steers, \$3.40@4.25; cows and heifers, \$3.00@3.95.

Hogs—Receipts, 1,500; market 5 to 10c lower; yorkers, \$3.90@4.00; packers, \$4.00@4.25; butchers, \$4.25@4.35.

Sheep—Receipts, 2,200; market steady to strong; native muttons, \$4.00@4.40; lambs, \$4.85@5.00.

## Chicago Live Stock.

CHICAGO, May 28.—Cattle—Receipts, 250; market quiet; beefs, \$3.90@5.05; cows and heifers, \$2.40@4.60; Texas steers, \$3.80@4.30; stockers and feeders, \$3.50@5.00.

Hogs—Receipts, 11,000; market slow, 5c lower than yesterday; light, \$3.70@4.10; mixed, \$3.95@4.27½; heavy, \$3.90@4.37½; rough, \$3.90@4.30.

Sheep—Receipts, 2,000; market quiet; native, \$3.25@4.55; western, \$4.00@4.45; lambs, \$4.00@6.00.

## Chicago Grain and Provisions.

	May 28.	Opened	High'st	Low'st	Closing
Wh't—May....	1 72	1 75	1 72	1 75	
July....	1 05½	1 06	1 01½	1 03½	
Sept....	81½	85	82½	83½	
Dec....	80½	80½	79½	79½	
Corn—May....	33	33½	32½	32½	
July....	33½	33½	32½	32½	
Sept....	34	34½	33½	33½	
Oats—May....	27	27½	26½	26½	
July....	24½	24½	23½	23½	
Sept....	21½	22½	21½	21½	
Pork—May....	11 55	11 55	11 40	11 40	
July....	11 60	11 62½	11 35	11 47½	
Sept....	11 70	11 72½	11 50	11 60	
Lard—May....	6 07½	6 12½	6 07½	6 12½	
July....	6 10	6 12½	6 07½	6 12½	
Sept....	6 17½	6 20	6 15	6 20	
Ribs—May....	5 85	5 85	5 85	5 85	
July....	5 82½	5 85	5 85	5 85	
Sept....	5 92½	5 95	5 87½	5 95	

## Kansas City Grain.

KANSAS CITY, May 28.—Wheat—Receipts here for two days were 182 cars; a week ago, 155 cars; a year ago, 46 cars. Sales by sample on track: Hard, No. 1, nominally \$1.11@1.12; No. 2 hard, \$1.08@1.11; No. 3 hard, \$1.05½@1.08½; No. 4 hard, nominally \$1.03½@1.05; rejected, hard, nominally 99c@1.02. Soft, No. 1 red, nominally \$1.10; No. 2 red, \$1.10; No. 3 red, nominally \$1.04@1.07; No. 4 red, nominally \$1.02@1.04; rejected red, nominally 98c@1.03. Spring, No. 2, \$1.06@1.07½; No. 3 spring, nominally \$1.02@1.05; rejected spring, nominally 96c@1.00.

Corn—Receipts here for two days were 177 cars; a week ago, 98 cars; a year ago, 340 cars. Sales by sample on track: Mixed, No. 2, 29½@30½c; No. 3 mixed, 29½c; No. 4 mixed, 29c; no grade, nominally 28c. White, No. 2, 31½@32½c; No. 3 white, 30½@31½c; No. 4 white, nominally 30c.

Oats—Receipts here for two days were 9 cars; a week ago, 12 cars; a year ago, 37 cars. Sales by sample on track: Mixed, No. 2, 26@27½c; No. 3 mixed, nominally 25@26c; No. 4 mixed, nominally 24@25c. White, No. 2, 30@31c; No. 3 white, nominally 29c; No. 4 white, nominally 28c. Rye—No. 2, nominally 55c; No. 3, nominally 53c; No. 4, nominally 50c.

Hay—Receipts here for two days were 57 cars; a week ago, 22 cars; a year ago, 61 cars. Quotations are: Choice prairie, \$9.50; No. 1, \$8.75@9.00; No. 2, \$8.00; No. 3, \$7.00; choice timothy, \$10.25; No. 1, \$9.00@9.50; No. 2, \$8.00@8.75; clover and timothy, No. 1, \$8.50; No. 2, \$8.00; pure clover, \$8.00; packing, \$5.00@5.50.

## Kansas City Produce.

KANSAS CITY, May 28.—Butter—Extra fancy separator, 14½c; firsts, 12½c; dairy, 10@12c; store packed, 10c; packing stock, 10c.

Eggs—Strictly fresh, 8½c per doz.

Poultry—Hens, 6½c; broilers, 14c per lb.; roasters, 15c each; ducks, 6c; geese, 4c; hen

turkeys, 6c; young toms, 5c; old toms, 5c; pigeons, 75c per dozen.

Berries—Strawberries, Arkansas and Missouri fancy, \$2.50@3.50; fair to choice, \$2.00@2.50; soft, 50c@1.50 per 24-quart crate. Blackberries, Texas fancy, \$4.00 per 24-box crate. Gooseberries, home grown, \$1.75 per crate.

Apples—Choice to fancy Ben Davis, \$3.00@3.25; Winesaps, \$3.50@4.00; Willow Twigs, \$3.50@4.00. In a small way apples are selling at 40@65c per half bu.

Vegetables—Cauliflower, \$1.25 per doz. Asparagus, 10@15c per doz. Tomatoes, \$3.00@3.25 per crate. Cucumbers, 25@35c per doz. Green peas, 90c@1.25 per bu. Wax beans, 40c per ½ bu. Radishes, \$1.00 per bu. Lettuce, 50c@75c per bu. Onions, \$1.25@2.25 per bu. Beets, 25@40c per bu. Parsley, 30@40c per doz bunches. Spinach, 25c per bu.

Potatoes—New, Texas, \$1.25@1.35 per bu.; old northern stock, fancy, sacked, Burbanks, 75@85c; choice to fancy mixed, bulk, 70@75c; Minnesota and Dakota, bulk, 65@70c; Colorado stock, fancy, sacked, 90c@1.00; home grown, sacked, 40@50c. Sweet potatoes, 60@75c.

## THE STRAY LIST.

FOR WEEK ENDING MAY 19, 1898.

Labette County—E. H. Hughes, Clerk.  
TWO MARES—Taken up by C. Y. Davis, in Hackberry tp. (P. O. Bartlett), April 18, 1898; two bay mares, each 14 hands high, some white in face and on feet; valued at \$20.

Cherokee County—S. W. Swinney, Clerk.  
MARE—Taken up by G. W. Howell, in Lowell tp., May 14, 1898, one black mare, 12 years old, branded with letter "S" on both shoulders; valued at \$12.  
MARE—By same, one dun mare, 12 years old, dimly branded; valued at \$12.

Elk County—J. A. Benson, Clerk.  
MARE—Taken up by J. W. Bauder (P. O. Howard), May 16, 1898, one gray mare, no marks or brands; valued at \$10.  
MARE—By same, one bay mare, no marks or brands; valued at \$20.

COLT—By same, one sorrel colt, no marks or brands; valued at \$5.

FOR WEEK ENDING MAY 26, 1898.

Franklin County—J. A. Davenport, Jr., Clerk.  
COW—Taken up by G. M. Broyles, in Hayes tp. (P. O. Norwood), one red cow, dehorned, with white face and branded on left side W. L., under-clip on right ear; valued at \$22.

Bourbon County—H. Frankenburger, Clerk.  
MARE—Taken up by John W. Fairman, in Scott tp., four miles east of Fort Scott, one gray mare, 14½ hands high, about 8 years old; harness marks; valued at \$10.  
HORSE—By same, one sorrel horse, 15 hands high, about 12 years old; white spots on right shoulder and on right leg; valued at \$10.

Montgomery County—D. S. James, Clerk.  
HEIFER—Taken up by B. S. Adams, in Rutland tp., on or about the first day of May, 1898, one black heifer, white line on back, crop and underbit in the left and slit in the right ear.

FOR WEEK ENDING JUNE 2, 1898.

Nemaha County—F. M. Hartman, Clerk.  
MARE—Taken up by W. B. Henry, in Red Vermillion tp. (P. O. Cornling), May 14, 1898, one brown mare, 2 years old, no marks or brands; valued at \$15.  
HORSE—By same, one bay horse, 2 years old, white face, white left hind foot, white spots on right side and neck; valued at \$15.

Cherokee County—S. W. Swinney, Clerk.  
MARE AND COLT—Taken up by F. E. Bennett, in Crawford tp., May 9, 1898, one chestnut sorrel mare, 13 years old, 14 hands high, white stripe in forehead and shod all around. Bay colored suckling colt. Valued at \$20.

Butler County—S. G. Pottle, Clerk.  
COW—Taken up by H. H. Welbe, of Whitewater, on April 29, 1898, one old cow, thin in flesh, yellow color with darker head and belly, dehorned, straight bar across hips, no other marks or brands; valued at \$20.

BEE SUPPLIES.  
I have every thing that is needed in the Apriary.  
Send for CATALOGUE.  
E. W. DUNHAM,  
106½ W. 5th St.,  
Topeka, - Kansas



## LAKE CITY AUTOMATIC HOG WATERER.

PRICE \$3. Sent on trial. To be paid for if found satisfactory. As it costs nothing to try, send for one and test its merits. More pigs die from want of fresh water than from want of food or hog cholera. The Lake City waterers from 50 to 150 hogs daily. Easily attached to tank or barrel. No springs or floats. Now used by all fancy breeders and stock raisers. Agents and dealers wanted in every locality. Agents reordering everywhere. Address  
STOCK FOUNTAIN CO., Lake City, Iowa.  
Send us ten names and we will deduct 50 cents. Please mention this paper.

## PERINE'S IMPROVED SURFACE PLOW

Is the right tool for cultivating corn, potatoes, cabbage, grapes, or for nursery. The share is similar to a lister share, with adjustable extension knives for different widths. It has small moldboards that fit knives and shares also. When knives are drawn out to their extreme length they cut about three feet wide, and when closed in as far as they go, they cut about two feet, and when removed altogether the share cuts sixteen inches. They will do as much cultivating in a day with one horse as a two-horse cultivator and do better work, because it runs shallow and therefore cuts no corn roots. Weeds cannot dodge it. It cuts them in the right place to kill. Address Perine's Plow Works for further particulars, Topeka, Kas.

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W. T. MCINTIRE, Sheep Salesman.

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*That's what we handled last year. That's a business of sufficient size to attract the manufacturer.*

We sell direct to the manufacturer and do not peddle your wool out in small dribs. *We make liberal advances* on consignments and charge only *at the rate of 5 per cent. per annum interest* on the same. We supply sacks free to our patrons. We have had *thirty-one years' experience*. Our circular letter will keep you informed as to the conditions of the wool market. Write us before you consign your wool. *We can make money for you.*

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**LARGE STOCK. NEW GOODS. SPLENDID GRADES AND PRICES LOW.**

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Our Boxes Will Hold Them.

5,000 Boxes Cost \$8.75.  
100 Crates Cost \$6.00.

SPECIAL PRICES IN CAR LOTS. ALL KINDS BASKETS AND BOXES.

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1217-19 Union Ave., KANSAS CITY, MO.

## The Poultry Yard

KANSAS STATE POULTRY ASSOCIATION.  
President, A. M. Story, Manhattan.  
Secretary, J. W. F. Hughes, Topeka.

### CHICKEN.

#### FRIED CHICKEN.

One tender young chicken cut into joints; two eggs beaten light; half cupful of cracker crumbs; sweet lard, dripping, or the best salad oil for frying. Lay the chicken in salt water fifteen minutes; wipe dry, pepper and salt, dip in the egg, then in the cracker crumbs and fry slowly in hot lard or dripping. Drain dry, pile on a hot dish, and lay sprigs of parsley over it.

#### STEAMED CHICKEN.

Rub the chicken on the inside with pepper and half teaspoonful of salt, place in steamer in a kettle as near the water as possible, cover and steam one and a half hours; when done keep hot while dressing is prepared, then cut them up, arrange on the platter and serve with the dressing over them. The dressing is made as follows: Boil one pint of gravy from the kettle without the fat, add Cayenne pepper and half a teaspoonful of salt; stir six teaspoonfuls of flour into a quarter pint of cream until smooth, and add to the gravy. Corn starch may be used instead of the flour, and add some nutmeg or celery salt.

#### SMOTHERED CHICKEN.

Two tender chickens roasting size but not very large; pepper, salt and browned flour for gravy. Clean and wash the chickens and split down the backs as for broiling; lay flat in a baking pan, dash a cupful of boiling water upon them; set in the oven and invert another pan over them, so as to cover tightly; roast at a steady but moderate heat, about half an hour, then lift the cover and baste freely with butter and a little of the water in which the fowls are cooking. In ten minutes more baste again with gravy from the baking-pan; in five more with melted butter and abundantly, going all over the fowl, which should now begin to brown. Increase the heat, still keeping the chickens covered. A few minutes before dishing them test with a fork to ascertain if they are tender. Dish, salt and pepper them; thicken the gravy left in the pan with browned flour.

#### BAKED CHICKEN.

A large, fat fowl, dressed and cut open in the back; sprinkle well with salt and pepper and then let it remain a little while. Now get six large roasting-ears of green corn, grate them in a pan or tray and mash them with a flat wooden pestle; next put your chicken into a deep baking-pan, with about one-half pint of water and a slice of bacon; lay the breast part down, and put a piece of butter or bacon on the inside or side that is up; put it into the oven and bake slowly until it is browned a little; then take out, turn over and baste with butter and pepper; next beat two eggs, mix in one tablespoonful of salt, a half cupful of sweet milk, one tablespoonful of butter, one teaspoonful of pepper and dried sage rubbed fine; stir this into the corn and pour over and around the chicken; return it to the oven and cook slowly, occasionally stirring up the corn and turning over the chicken, so that the particles of corn that stick to it may not parch and become hard. Just as soon as your fowl is done, and all is a light brown, take up on a large dish, with the corn as dressing. Garnish with sprigs of parsley. If you would like gravy with it, put some hot water in your pan and stir in a little butter and flour until of the proper consistency. Dish in your boat with parsley and hard-boiled eggs; pepper and salt, if needed.

#### SCALLOPED CHICKEN.

Mince cold chicken and a little lean ham quite fine, season with pepper and a little salt, if needed, stir all together and some sweet cream—enough to make quite moist; cover with crumbs; put it into scallop shells or a flat dish, put a little butter on top, and brown before the fire or front of a range.

#### BROILED CHICKEN.

Procure two very young spring chickens, pluck and draw them carefully without injuring the skin. Take a very sharp knife and cut each exactly in two, sprinkle with a little pepper and salt, rub a little fresh salad oil over each piece, and thoroughly egg and bread-crumbs them. Rub a little suet on a clean gridiron, place it over a very clear fire, with the four pieces of chicken, broil them very carefully until of a nice brown color; then, having ready a hot dish with four pieces of toasted bread on it, lay half a chicken on each piece

of toast and pour over all the following sauce: Heat half a pint of rich milk or cream in a small saucepan; meanwhile, in another pan place butter the size of an egg; when it melts stir in a tablespoonful of flour; add gradually the hot cream and at the last a teaspoonful of minced parsley. This is a Southern way of preparing broiled chickens. For ourselves, we prefer to broil them without rubbing them with oil or egging them. When they are cooked, which will be in about fifteen minutes, lay on a hot dish, butter lavishly, sprinkle with minced parsley, pepper and salt and the juice of half a lemon.

#### CURRIED CHICKEN.

Lay the pieces of a dressed chicken into a stew-pan with a sliced onion fried brown, a clove of garlic and some good white gravy; simmer till the chicken is tender; add a spoonful of curry powder, flour rubbed smooth with a lump of butter; a quarter of a pint of cream, with a little salt, may be added twenty minutes before serving; squeeze a little lemon into it, and put an edging of rice around the dish.

#### ROAST CHICKEN.

Wash them clean outside and inside; stuff them as directed for turkeys; baste them with butter, lard or drippings, and roast them about an hour. Chickens should be cooked thoroughly. Stew the inwards till tender and till there is but little water; chop them and mix in gravy from the dripping-pan; thicken with brown flour and season with salt, pepper and butter. Cranberry or new-made apple sauce is good with them.

#### BOILED CHICKEN.

Chickens should be plump, or they form a meager dish; they should receive much attention in the boiling; they require less time than a fowl, and are sent to table with white sauce and garnished with tufts of white broccoli.

#### PULLED CHICKEN.

Remove the skin carefully from a cold chicken, then pull the flesh from the bones, preserving it as whole as you can; flour them well; draw them and stew in a good gravy well seasoned; thicken a short time before serving with flour and butter, and add the juice of half a lemon.

#### STEWED CHICKEN.

Cut up the chicken as if to fry, adding the prepared head and feet; soak in weak salt and water—if for dinner, do this immediately after breakfast. An hour and a half before dinner put in a saucepan, covering well with water; let it simmer slowly for one hour; take it out with a fork and lay in a bowl; add a teacupful of milk and half a teaspoonful of black pepper to the liquor; let it boil up and strain on the chicken; rinse the saucepan and return all to the fire; beat one egg with a tablespoonful of flour and one of milk until quite smooth; mince some parsley, thyme and a very little onion and stir all into the saucepan; then put in a tablespoonful of butter; stir around and pour into a dish in which small pieces of toast have been neatly arranged. Garnish with curled parsley.

#### Kick Away the Ventilator.

When a house is very large the poultryman becomes anxious about the ventilation. It seems that ventilation is the first thing they aim for. In fact it should be the last. Mr. James Leonard, of Canton, Ohio, writes us on the subject and says:

"My poultry house is sixty feet long, ten feet wide, seven feet high, and is built thirty feet against the barn, the balance extending from the barn. It has six windows on the south side and one door, with a door on the north side. Now, if you will suggest some way to ventilate it I will be obliged to you."

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What is the use of building a warm poultry house and trying to let the warmth out? A house that is the size of yours (7x60 feet) is as large as the great Chicago fair buildings to the hens. It may be small to a man, but it is too large to keep the ventilation out in winter. Our advice is to open the doors and windows about noon, when the sun is not clouded, for an hour, and then shut the buildings tight. Instead of cutting a hole in the roof (ventilator) nail up every crack and crevice, try and not let the least air come in, and then take a candle, go in the poultry house on a windy night and you will soon find out that your candle flickers. You cannot keep the cold air out.

Don't freeze your hens in winter by trying to ventilate them. Hens get ten times more "fresh air" (i. e., cold draughts) than they desire. Plenty of ventilation in winter means plenty of roup and no eggs.—Poultry Journal.

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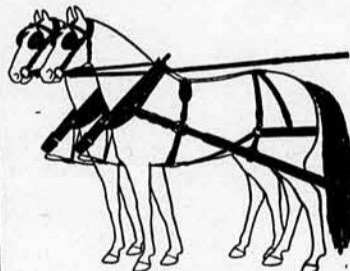
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	Cattle and Calves.	Hogs.	Sheep.	Cars.
Official Receipts for 1897 .....	1,921,962	3,350,796	1,134,236	123,047
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Sold to feeders .....	665,615	341	151,389	
Sold to shippers .....	216,771	263,592	91,576	
Total Sold in Kansas City 1897 .....	1,847,673	3,348,556	1,048,233	

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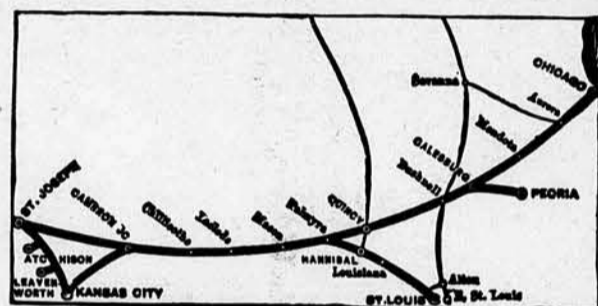
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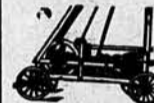
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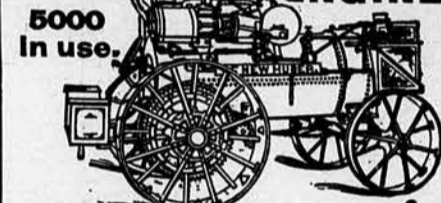
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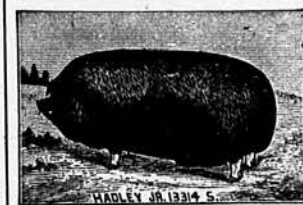
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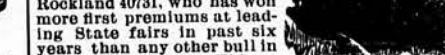
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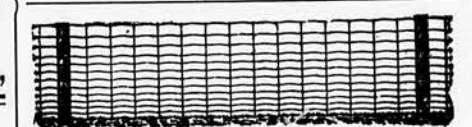
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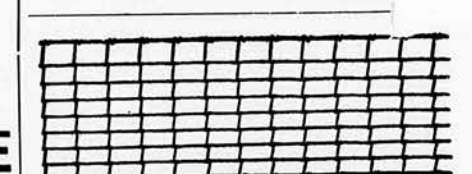
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