

Agricultural Matters.

KAFFIR CORN.

(Andropogon sorghum vulgaris.)

From Farmers' Bulletin No. 57, United States Department of Agriculture, by Prof. C. C. Georgeson.
(Continued from last week.)

COMPOSITION OF KAFFIR CORN.

The chemical composition of Kaffir corn has not been very thoroughly studied. No analyses with reference to fertilizing constituents are available. Analyses with reference to food constituents are collected in the following table, which also includes, for comparative purposes, similar data for Indian corn.

These analyses show that Kaffir corn compares favorably with corn in the amount of nutriment it contains, although slightly poorer, as a rule, in the more valuable food constituents—protein and fat.

Here, again, the Kaffir corn fell much behind the corn when both were fed alone, but when mixed with a highly nutritious substance, like soja bean meal, the growth obtained was but slightly behind that of a similar mixture with corn as a basis. It should be stated that in this case the pigs were even smaller than in the former trial. They averaged only sixty-three pounds each at the beginning of the experiment.

The same station has also made an experiment with Kaffir corn as feed for cattle. Three pure-bred Aberdeen-Angus heifers, which were to be fed for the butcher, were tied up in the stable and fed, one on Kaffir corn meal and cut corn stover and two on corn meal and cut corn stover. The gains of both lots were small, from the fact that they were almost fat when tied up.

During the first six weeks 1 pound of live weight was gained on 15.46 pounds Kaffir corn meal and 1.65 pounds corn

meal report that they have grown and fed Kaffir corn with gratifying success. The experiments thus far made, however do not justify the statement sometimes made that the grain is equal to corn as a food. It should be ground before it is fed. For hogs it is best to make the meal into a slop, but it should be fed dry to horses and cattle. The fodder has not yet been experimentally studied, but cattle, horses and sheep eat it with relish and do well on it.

The grain has been recommended as an article of human food and several mills in Kansas have put in special machinery for grinding it. Those who have tried the flour assert that good bread and excellent cakes can be made from it. The analysis in the table indicates that this product is similar to corn meal in composition but is somewhat deficient in protein.

Ingalls on Blue Grass.

Hon. John J. Ingalls' poetic tribute to blue grass—now one of the most celebrated passages in our agricultural literature—first appeared in a communication written a great many years ago to the old *Kansas Magazine*. The oft-quoted paragraphs are as follows:

"Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine among the buttercups and dandelions of May, scarcely higher in intelligence than those minute tenants of that mimic wilderness, our earliest recollections are of grass, and when the fitful fever is ended, and the foolish wrangle of the market and the forum is closed, grass heals over the scar which our descent into the bosom of the earth has made, and the carpet of the infant becomes the blanket of the dead.

"Grass is the forgiveness of nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass and carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter it withdraws into the impregnable fortress of its subterranean vitality and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outlines of the world. It evades the solitude of deserts, climbs the inaccessible slopes and pinnacles of mountains, and modifies the history, character and destiny of nations. Unobtrusive and patient it has immortal vigor and aggression. Banished from the thoroughfare and field it bides its time to return, and when vigilance is relaxed or the dynasty has perished it silently resumes the throne from which it has been expelled but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, yet should its harvest fail for a single year famine would depopulate the world."

Cutting a Heavy Hedge.

EDITOR KANSAS FARMER.—When cutting a hedge for me, recently, Mr. Fouts, a hedger, used a method which I think worth giving to your readers. The hedge was about ten years old and had never been cut before. His method is to fasten the end of a one and one-fourth inch rope, sixty to one hundred feet long, to a hedge bush, say fifty to eighty-five feet from the end of the hedge, then pass it down side and around end of hedge, hitch a quiet team to it, letting them pull on the side opposite and at such angle as found desirable. It should pass around end bush at about half its height. As the team pulls and bends bushes they are easily cut with an axe, and the fine brush is kept out of the way by the rope, while the cut bushes roll up like a large sheaf, making a pile nearly large enough for burning. If the piles are too small to burn drag two or three

Well Satisfied with Ayer's Hair Vigor.

"Nearly forty years ago, after some weeks of sickness, my hair turned gray. I began using Ayer's Hair Vigor, and was so well satisfied with the results that I have never tried any other kind of dressing. It requires only an occasional application of



AYER'S

Hair Vigor to keep my hair of good color, to remove dandruff, to heal itching humors, and prevent the hair from falling out. I never hesitate to recommend Ayer's medicines to my friends."—Mrs. H. M. HAIGHT, Avoca, Nebr.

AYER'S Hair Vigor

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

Take Ayer's Sarsaparilla for the Complexion.

together with the team. They will be found to be compact and in good shape for burning.

The common method is to brush one side so as to get up to hedge to cut, then after cutting the brush must be piled, so that the above plan is much speedier.

JAMES SHEARER.

Sorghum for Cattle.

In the report of the agricultural convention, held at Phoenix, Ariz., last fall, just issued in Bulletin 18 of the experiment station, at Tucson, Prof. Gulley says: "In cropping we should not follow sorghum with grain. Alfalfa takes more from the ground than sorghum but leaves the ground in better condition. Sorghum absorbs all the food material immediately available. The rotation might be alfalfa, grain, sorghum, then alfalfa. There are a number of different kinds of sorghum, both sweet and non-saccharine. The sweet variety seems to be preferred by stock. The seed has practically the same composition as wheat, and one can grow about as much seed per acre as he can corn. It may be sown broadcast or in drills. Sometimes the stalks are too large when grown in drills, but even when the stem becomes dry cattle are fond of it and will chew it all up, probably for the sugar it contains, rejecting the leaves until after they have chewed the stalk.

"Harvesting machinery is made which will reduce the cost of harvesting to a minimum, and when shocked it will not sour as corn does. If it costs too much to harvest, cattle may be turned in the standing sorghum for a time each day."

A healthy appetite, with perfect digestion and assimilation, may be secured by the use of Ayer's Pills. They cleanse and strengthen the whole alimentary canal and remove all obstructions to the natural functions of either sex, without any unpleasant effects.

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

\$8.50 to Cleveland and Return \$8.50.

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

FOOD CONSTITUENTS IN KAFFIR CORN AND INDIAN CORN.

	In fresh or air-dry material.						Authority.
	Water.	Ash.	Protein.	Fiber.	Nitrogen-free extract.	Fat.	
Kaffir corn (whole plant, green).	76.13	1.75	3.22	6.16	11.96	0.78	Pennsylvania station. New York Cornell station.
do.....	76.05	1.44	2.34	8.36	11.41	0.40	
Average.....	76.09	1.60	2.78	7.26	11.69	0.59	
Corn (whole plant green).	79.30	1.20	1.80	5.00	12.20	0.50	North Carolina station.
Kaffir corn fodder (whole plant).	10.94	5.48	3.31	30.37	47.40	2.50	
Corn fodder (whole plant).	*11.00	4.16	6.93	22.02	53.43	2.46	Kansas station.
Kaffir corn fodder (without heads).	8.67	7.14	4.89	28.02	49.75	1.53	
Corn stover (without ears).	*9.00	5.20	5.81	30.12	48.19	1.68	North Carolina station.
Kaffir corn (mature head).	16.23	2.02	6.92	6.79	65.18	2.86	
Corn ears (corn and cob meal).	15.10	1.50	8.50	6.60	64.80	3.50	Kansas station.
Kaffir corn seed.	9.31	1.53	9.92	1.35	74.92	2.97	
Corn kernels.....	10.90	1.50	10.50	2.10	69.60	5.40	North Carolina station.
Kaffir corn flour.	16.75	2.18	6.62	1.16	69.47	3.82	
Corn meal.....	15.00	1.40	9.20	1.90	68.70	3.80	

*Assumed: Field-cured corn fodder contains on an average 42.2 per cent. of water.
*Assumed: Field-cured corn stover contains on an average 40.5 per cent. of water.

PRACTICAL FEEDING TESTS.

The feeding value of Kaffir corn has not been fully worked out. So far as the writer is aware, the Kansas station is the only one which has as yet undertaken feeding experiments with this crop, and these have been confined to the grain of the red variety. The results are summarized below.

During the winter of 1894-95 three lots of hogs, which averaged at the beginning of the experiment about 150 pounds a head, were fed (1) Kaffir corn meal, (2) corn meal, and (3) ground wheat, with a view to compare the value of these three feeds. [Kansas Station Bulletin 53.] All feeds were stirred in enough water to make a thick slop. The experiment continued for seventy-seven days. At the end of that time the Kaffir corn lot had eaten an average of 545 pounds per head and gained 106 pounds per head. This means a consumption of 5.15 pounds of feed for each pound of gain made. The corn meal lot had eaten 573 pounds of feed per head, on which each had made a gain of 131 pounds; or, it had taken 4.38 pounds of feed to produce a pound of gain. The ground wheat lot had eaten 564 pounds of feed per head and gained 137 pounds, which is equal to a consumption of 4.11 pounds of feed for each pound of gain. In other words, 100 pounds of corn produced as much gain as 117.64 pounds of Kaffir corn. This is not a flattering showing for the Kaffir corn.

This station has just closed another experiment in the same line, with the following results: Four lots of three pigs each were fed for the same period as above, seventy-seven days, on (1) Kaffir corn meal, (2) a mixture of one-third soja bean meal and two-thirds Kaffir corn meal, (3) corn meal, and (4) a mixture of one-third soja bean meal and two-thirds corn meal, with gains as shown in the following table:

fodder for the heifer fed this ration; and 1 pound of gain was made on 18.47 pounds of corn meal and 2.4 pounds of corn fodder, this being the average of the two in the corn meal lot. Here the Kaffir corn made decidedly the best gain. It was apparent, however, that they could not be fattened satisfactorily on these rations. The corn fodder was, therefore, changed to alfalfa, and oil meal was added to the grain ration in the same proportion for both lots, and with this change the experiment went on for six weeks longer. The results for the whole period of twelve weeks stand as follows: The heifer on Kaffir corn had eaten during this time 11 pounds of Kaffir corn meal, 0.54 pound of oil meal, 0.68 pound of corn fodder, and 1.21 pounds of alfalfa for each pound of gain she made, or a total of 13.43 pounds of food for each pound of gain. The average amount eaten by the two on corn meal ration for each pound of gain was 9.77 pounds of corn meal, 0.63 pound of oil meal, 0.65 pound of corn fodder, and 1.26 pounds of alfalfa, a total of 12.31 pounds of food for a pound of gain. It should be noticed that this lot ate 0.09 pound of oil meal and 0.05 pound of alfalfa for each pound of gain more than the Kaffir corn lot. The total amount of Kaffir corn meal eaten was 1,199.28 pounds. The gain was 109 pounds. The average amount of corn meal eaten per head was 1,422.35 pounds, the average gain being 145.5 pounds.

As to the value of Kaffir corn as feed for horses and mules, Capt. H. L. Scott, of Fort Sill, writes under date of March 17, 1896, that two six-mule teams (one young mules and the other old) used continually for freighting on the road, and twelve horses, six in each of two cavalry troops, were fed exclusively on black-hulled white Kaffir corn and hay for one month with "excellent results."

Many farmers in Kansas and Okla-

GAINS BY HOGS FED KAFFIR CORN, IN COMPARISON WITH OTHER FOODS.

	Lot 1, Kaffir corn meal.	Lot 2, Kaffir corn meal and soja bean meal.	Lot 3, corn meal.	Lot 4, corn meal and soja bean meal.
Gain of lot, seventy-seven days.....	Pounds. 110.50	Pounds. 380.00	Pounds. 184.00	Pounds. 384.50
Daily gain per pig.....	0.47	1.64	0.79	1.03
Food eaten per pound of gain.....	6.48	3.51	4.88	3.23

The Stock Interest.

THOROUGHbred STOCK SALES.

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

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

THE FARM HORSE.

"There is a well-known difference of opinion as to the size of the horse needed on the farm, says D. A. Kent, in *Rural Life*. "Different localities and different counties employ larger or smaller horses, according to custom.

"The ancient horse was a small horse, but he was used for purposes other than agricultural. The ox treaded out the corn and pumped the water; but as the system of agriculture developed with all its development of machinery, the horse superseded the ox, and it was found that a heavier one was needed. But the farmer has no need for the heavy cart horse that is used by the large breweries in transporting their products and in advertising their business. Fancy has had a little to do with the great elephantine specimen of horses that are employed in our large cities. This fancy sometimes runs to color, when size can be easily sacrificed to gratifying the whim of color. There are limits to the size of the farmer's horse which mark the lines of value for general farm work. If the horse is so light that his weight will not steady the heavier farm implements, then he lags with his load. If he is so heavy that his own weight is burdensome under the heat of the sun, lagging also follows in full performance of labor. The maximum or minimum weight depends upon form and constitution, considering individuals. There are many cases in which a 1,600-pound horse cannot perform as much labor as one weighing 1,200. There are many 1,200-pound horses that will stand a longer drive than one weighing 950.

"Within certain limits a proposition may be given, that the same weight of horse-flesh requires the same amount of food for support and will perform the same labor. That is to say, one horse weighing 1,800 pounds will draw as heavy load and require as much feed as two horses weighing 900 each; or two horses weighing 3,600 will perform the same labor and consume the same feed that would be realized in the case of three horses whose aggregate weight was 3,600.

"But, taking the all-around affairs of the farm, a horse weighing 1,800 pounds is too cumbersome. His weight is useless in plowing corn, pulling the mowing machine or hay rake. It is also useless in drawing a load of hay or grain to the stack-yard or in drawing the load at husking time. The plow, harrow and reaper, each are geared for three or four horses; but the aggregate weight of three or four horses whose individual weight is 1,800 pounds is superfluous in the draft of a three-horse plow or harrow.

"I am using twenty head of work horses this season whose individual weights range from 900 to 1,600. I find that three horses weighing 900 each will plow or harrow more land per day than two horses weighing 1,600 pounds each, and that they will consume less feed. This does not verify the above proposition and I think that the variance will hold in the case of animals at heavy work while the proposition will hold in the case of light work.

"The horses whose weight ranges from 1,200 to 1,600 are the horses for the Iowa farms, and if we could get these weights from progeny that trace back to the desert horse instead of to the soft Flanders mare we would have the ideal horse. The Percheron excels all the European large horses because he has more work blood in him. The ancient horse is harder than the modern horse because of his environments and because of the severity in his selection for time immemorial. Modern civilization would hardly tolerate the crucial tests that many tribes applied in the selection of horses. The American mind is waking up in the contem-

plation of a better horse and by and by somebody will set out to build for the animal. If some of our rich fellows could find pleasure in this direction instead of spending their money on English widows, their existence would be tolerable. Or, if some of our experiment stations would devote some of their skill and money to this work instead of 'fiddling' around with little patches and weed spots, much real progress could be made. The difficulty is, that those who can won't for the lack of taste, and those who would can't for the lack of money."

Mule-Raising in the West.

Mr. W. L. Dillelow, Cedar Rapids, Iowa, in a recent *Farm, Stock and Home*, says: "The present outlook for mule-raising appears very cheerful. Many farmers of this section have been seriously debating the question of raising mules as a means of continuing the income from the many mares they have on hand, and which they are unable to dispose of. Horse-raising is no longer profitable. Good, fair mules, 3 years old, are selling readily at from \$100 to \$140 each for Southern shipment.

"There are six Southern States which have been largely vacated and almost unthought of since the war, that have for the past two years been rapidly increasing in population from the immense immigration which has been, and is, pouring into the South from the Central, Western and New England States, and which is causing a growing demand for mules, which demand is sure to continue for years to come. Horses are of but little use in these States, owing to the intense heat during the summer months, consequently mules are a necessity there. Missouri and Kentucky, the great mule-growing States, began to discontinue this business six years ago, because mules were at that time low, and saddle, trotting and thoroughbred horse raising was much more profitable. Now they have not the mares to produce mules from, and their capital and attention is engaged in other business.

"These States are hardly raising mules enough for their own use. With this state of affairs existing, and with the farmers here being so overstocked with good mares perfectly suited to mule-breeding, they have only to get a few good jacks to be in position to reap the same or even greater income as when horses were commanding \$150 to \$200 each.

"In raising horses only about one in five arrives to the age required for market, sound and free from wire marks, and having individual merit to command a good, remunerative price, while with mules it is very different. They grow up more nearly alike, never become unsound or wire-marked, are ready to market at 3 years old, unbroken, two years earlier than a horse. They are all marketable at about the same price, and even if horses were now selling the same as mules, there would be \$2 in raising mules to \$1 in raising horses, and at present price it is about six to one in favor of mules.

"What ruined the horse-raising business was the millions of horses that were raised on the Western ranges. It seems as if they have been shipped into nearly every country in the States, you find branded horses everywhere. These horses are raised by turning stallions loose on the range, which cannot be done with jacks, consequently mules can only be raised from domestic mares. With only three or four States to raise mules the business cannot be overdone. The Northwest ought to become one of the greatest mule-producing regions, for it has the finest and best bred mares for this purpose."

Recent Horse Sales.

Recent dispatches from Oswego, Kas., state that within the past few months A. Piper & Son, of Labette, have shipped south 1,760 horses and mules. Joseph Levi, of Galveston, has also bought and shipped several car-loads from Oswego, while Erwin, Grant & Co. have shipped from Humboldt, Kas., between September 1, 1895, and April 1, 1896, 150 car-loads of horses and mules, or over \$200,000 worth; in these shipments were several car-loads

of small mules for Central America, also ten fine teams of matched carriage horses that sold on an average of \$240 per span, for the same country.

Proper Age for Mating Swine.

A breeder, at the third annual meeting of the Missouri Swine Breeders' Association, had the following to say in reference to the above subject:

"The proper age to mate and breed is something that is never thought of by a great many farmers, and they are that class who produce the hogs. A great many never know when their pigs mate or when to expect their pigs. They just simply let the pigs and shoats, as they call them, male and female, run together until they are about six months old, then they take the boys and dogs and run them all into the barnyard or some lot and knife all the young males except a choice-looking fellow that they say they will let run for a boar, and often he is hardly fit for the feed lot, and in fact they had just as well have made a barrow of him, for the breeding has already been done. I know men who do not live more than five miles from this town that follow the above rule, and they raise a great many things they call hogs. Some of them count their acres by the thousands and own bank stocks and bonds, and you had just as well try to climb that wall without a ladder as to sell them a pig for \$10. You can't do it.

"I think it is pretty well settled among all good breeders that breeding too early always stunts the growth and prevents proper development of the frame.

"Another fact too often overlooked is that early breeding, before the animal is well matured, is such a drain upon the system as to tend to materially lessen the vitality of the animal, so as to make them appear rough and sluggish, and they seldom, if ever, recover. I think generally a boar should be at least six months old, and eight is better, before permitting any service at all, and only then when proper pains and care have been taken to secure a steady and continued growth from birth.

"An animal that has made a slow growth and development will make a much better breeding animal, if kept quiet and permitted no service until about eight or nine months old, than if used younger, and even then good care must be taken for at least three or four months not to permit too often or too much service. I think the best plan is not to permit of but one service; always keeping the boar in a good roomy grass lot, at least during service or breeding season; turning the sows in with him and then separating as soon as the service is complete; never allowing more than three or four, at the most, per week. A boar may be used in this way after he is seven or eight months old without any material injury.

"Now, as to the sows, I think it almost an exceptional case when it will do to breed a young sow to farrow before she is twelve months, and only then when she is to farrow in the spring, say about May, after the grass is good. If she is to farrow in the fall of the year I think she should be fifteen months old at farrowing. If she has been fed so as to make a good, vigorous, thrifty growth, and is in good condition, she may be bred to farrow at twelve months old, if in the spring, about May, and do well.

"It is often the case that when pigs have been bought at long prices for breeding animals the purchaser is anxious to begin to get his money back as soon as possible, by too early breeding. But at the same time it cannot be considered as a wise plan or a good idea, and not much economy to take the chances of ruining a fine individual or a good breeding animal, or even stunting the growth and development, simply to have the pigs come a month or two earlier.

"Always feed so as to keep both sire and dam in good, thrifty, vigorous condition when they are to be bred, and after the service is completed take the sow away to a quiet, secluded place where there is nothing to worry her. Always wait until both sire and dam

Woman's Work

Is never done, and it is especially wearing and wearisome to those whose blood is impure and unfit properly to tone, sustain and renew the wasting of nerve, muscle and tissue. The only remedy for tired, weak, nervous women is in building up by taking a good nerve tonic, blood purifier and vitalizer like Hood's Sarsaparilla. For troubles Peculiar to Women at change of season, climate or life, great cures are made by

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The One True Blood Purifier. All druggists. \$1. Prepared only by C. T. Hood & Co., Lowell, Mass.

Hood's Pills do not cause pain or gripe. All druggists. 25c.

are fairly well developed in every particular.

"The proper plan is to breed for individual merit, and not for large numbers. If we had 50 per cent. less hogs on the market to-day, and the quality 50 per cent. better, we would not have such a cry about low prices."

ARE YOU ONE of those unhappy people suffering with weak nerves? Remember that the nerves may be made strong by Hood's Sarsaparilla, which feeds them upon pure blood.

HOOD'S PILLS are the best after-dinner pill; assist digestion, prevent constipation. 25c.

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

TOPEKA, JUNE 15. MONDAY.....

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TWO PERFORMANCES ONLY, 2 & 8 p. m.
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Water-proof Tents. Seating Capacity 15,000.

ADMISSION TO ALL, 50 CENTS.

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Branch Ticket Office at Rowley Bros' Drug Store, Cor. Sixth and Kansas Ave.

TOPEKA, JUNE 15. MONDAY..... ONE DAY ONLY.

Irrigation.

THE GREAT FLOODING SYSTEM OF THE SAN JOAQUIN VALLEY, CALIFORNIA.

By T. S. Van Dyke, in *Irrigation Age*.

The immense scale on which water is handled in the great central valley of California is worthy of a special study, because there is no other place in the United States, and probably not in the world, where water is so intelligently used in such vast quantities on so large an area. At the same time the methods cannot be recommended in all respects for the small farmer, though for extensive work with plenty of water at command they are hard to improve upon.

Kern river, draining the lofty country south of Mount Whitney, rolls out upon the great plains of Kern county over 2,000 cubic feet average flow for the dry season, or over 100,000 miner's inches. This is generally much increased when the snow is melting, making the summer supply very large and reliable. This, with the winter flood-water, once made about a quarter of a million acres of shallow lake and swamp covered with reeds and tule and willow-bordered sloughs, exhalant all summer long a malaria almost as deadly as that of Panama. Bordering this on the east side of the valley were half a million acres of fine granite soil drifted in the course of ages from the hills and lying on a slope of about fifteen feet to the mile, though looking level as a floor. No finer soil for all-around purposes is to be found in America, but twenty years ago it was the most hopeless of all deserts, for the average rainfall was a trifle over four inches, the Coast Range on the west and the continuation of the lofty Sierra Nevada to a junction with the Coast Range on the south, cutting off most of the winter rains.

The same stroke that would turn the waters of the river upon this arid land would reclaim all the swamp, which was the richest soil imaginable. But it was a job no State would undertake, and it was absurd to expect private capital to build canals in such a country and wait for settlers. The few jaundiced hog-and-hominy settlers that lived by fiddling and fighting along the river and claimed all its waters could not even handle the river so as to take out enough for themselves.

Messrs. Haggin, Carr and Tevis had the desert land act passed, it is said, so that they could grab this land. If so they deserve the thanks of California, for it has added a rich county that would otherwise have raised little but scenery, dust and malaria. They spent twelve millions of dollars in building canals of which there are now twenty-seven. The diversion of the water brought on the great riparian suit with Miller & Lux, who were very wealthy and were attempting to drain out the swamp below so as to take that under the swamp and overflowed land reclamation act. It is said that litigation cost each party nearly a million dollars. The total cost to both parties could not have been far short of that. The outcome was a compromise by which Buena Vista lake, a shallow lake covering over a township, was turned into a reservoir. By this the entire flood flow of the river is stopped, the canals taking all the ordinary flow. It now covers twenty-seven square miles to an average depth of ten feet, making a store of water which hardly shows the great draught for Miller & Lux's immense farms below. Thus was added to the State more water than was then held by all its other reservoirs combined. As I hunted ducks over these immense properties last winter I remarked to a friend that there were two sides to the monopoly question.

Miller & Lux have under this water over one hundred thousand acres, mostly reclaimed swamp, of which over twenty thousand are now in a solid block of alfalfa. The Kern County Land Co., composed of Tevis, Haggin & Co., have under the ditches on the dry side some four hundred thousand acres, with one patch of about thirty-five thousand acres of alfalfa.

The difference between this re-

claimed swamp and the land that was once desert must be kept in mind on account of the different ways of irrigating hereafter mentioned. On the reclaimed swamp, which is a black muck of tule roots running into peat in many places, the level of the water below is from eight to ten feet. On most of the upland reclaimed by the ditches it is from sixty to almost as much more as you wish.

The method of preparing the land is the same in both cases. The slope is so nearly uniform that on the greater part there is no leveling. Where it dips into swales or old dry slough beds it is terraced roughly with scrapers to very nearly a level, the shape and size of the terraces varying continually with the contour and dip of the land. No rule is followed except the uniform method of having one check enough below another to permit the rapid emptying of the upper one into the lower one if the water is to go there at all. They vary from half or quarter of an acre up to five acres or even more, and though they look like a set of plates running through all shapes, from the crescent to a square, they are really terraces.

LAYING OUT THE CHECKS.

On the land having a very even slope the checks are almost invariably made on contour lines laid out with an engineer's level. Starting at the upper side of the field the level is swept around and stakes set every few yards on a line about a foot below the instrument. If the slope is uniform the line of stakes will be a crescent and will vary from this in all manner of wavy curves, according to the change from a regular slope. The level is then moved down to the line of stakes and another line of stakes set below that, care being taken not to leave ends or horns on the crescents in which the depth of water could be too slight. Rather than do this the shape is changed and a square or other figure thrown in between true contour lines.

As thus run, some of these check lines are nearly a mile long. The checks thus formed run from about twenty acres up to two hundred, with an average as near as I can judge, of about forty acres. Near Pozo, in Kern county, are several thousand acres laid out by the eye by a Chinaman who was an experienced irrigator. I saw it under water and it was well enough done, so well done that I am certain that with a carpenter's level fitted with rifle sights and a common tripod any one with sense enough to take the height of the instrument on a rod marked plainly into feet and tenths of a foot, and with enough arithmetic in his head to add or subtract the readings from the height of the instrument, could lay out any ground well enough for good flooding.

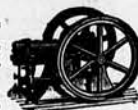
The embankments made on these lines vary in height from fifteen inches to twenty or even twenty-four inches, the average being nearly eighteen for the central part of a whole line so as to allow a foot of water behind it with no danger of its being breached by wind or defects. At the lowest point the water is often deeper than a foot and at the shallowest points much less, but the general aim is to have it everywhere as near a foot in depth as possible, though it by no means follows that that amount of water will be run into it at every irrigation.

At the bottom these check lines are often as much as eighteen feet in width though twelve to fifteen feet are more common widths for the high parts. They are round upon the top, with both sides on such a slope that any kind of machinery can be run over them and cut anything that grows upon them as well as if it were on the level. The alfalfa, grain, or whatever is in the field, is planted upon them the same as in the bottom of the check and, as far as can be seen, grows as well. At the lower part of some of the checks is a large gate in the embankment large enough to discharge the water quickly into the next check below. But in most cases the reliance is on cutting with a hoe. It is conceded by the superintendents that the gate is much the better and in the long run probably more economical, though more expensive at first.

These embankments are made with a

POWER FROM GASOLINE? YES.

Its Very Economical, Simple, Safe and Reliable, and Weber Gasoline Engines require no engineer. His salary goes in your pocket. For information address Weber Gas & Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.



buck scraper or a Fresno scraper and are too large to make with a common plow in any case. With a movable mold-board about ten feet long a common plow may be used to make them if they are not too large. But this makes a heavy drag and for some of the largest checks takes ten horses in heavy soil. In place of the mold-board five or six revolving discs, like those on the disc cultivator, are set on an axle eight or ten feet long, inclined according to the slope, and the whole fitted to a well-braced frame of a Stockton gang-plow. One of these was being tested the day I was there and I saw four horses do the work of eight with it in throwing up a ridge, the whole difference being in the friction of the solid mold-board, the discs turning over instead of resisting. A slip scraper or any kind that bounces will be too slow to do such large work economically. Even the machine above described must have broad wheel braces rolling against the face and bottom of the cut to relieve the extra friction, or more horse-flesh will be needed at once. All this would be too expensive for a small farmer, but for flooding on a large scale it would pay any one to begin checking in that way.

It must be remembered that there is plenty of water here and some things are done that might be inexpedient elsewhere. If you are sure to have the water to fill them it is best to have the checks high enough, provided your soil or crops will stand a considerable depth of water. But if you have not the water or have it in heads too small then your high checking is useless expense. The depth of water you may put in a check will depend not only on the soil and the crop, but greatly on the length of time you hold the water in the check. This you should determine in advance by experiments on a small scale if your neighbors' places will not show what it will do. Under the hot sun of the San Joaquin summer, alfalfa will often scald in less than three hours, and if the irrigating water is very warm two hours are none too safe on some spots. Hence the water must be put in and let off quickly. But unless the soil is porous enough, too great a depth of water will puddle it and retard the soaking instead of hastening it, and if porous enough to be wet more quickly by greater depth of water then you must have a considerable depth so as to leave water to run into the next check. For on this big scale laterals cost money and it is strict economy to make one check feed the next one for a pretty long series.

Checks thus made will last practically forever, the alfalfa or grain preventing their washing. They become in time as hard as any canal bank, and the only weak spot is the place where they are cut. This is purposely left weak to avoid the labor of cutting every time, which is considerable where they are of full strength.

TURNING IN THE WATER.

When all is ready to turn in the water, eight or ten men, armed with hoes, take a line of checks, and a head of about thirty cubic feet a second or 1,500 miner's inches is turned into the upper one. If a large one, there is considerable waiting to do, but if a small one it is not long before it is time to cut the lower bank to let the water into the next one. In a small check one cut is generally enough, but in a long one, two or three, and even four cuts, may be necessary to empty it fast enough. These cuts are quite large and let a great volume of water through. Ten men can handle this head of water and irrigate 200 acres a day with it on an average. Generally seven can do it, unless there are a great many small checks to fill and empty. Where they are very large two or three men can do it, and there are places where one can do it. There a single man on the line of bank between two checks of 200 acres each reminds one of the old hymn—

"Lo, on a narrow neck of land,
Twixt two unbounded seas I stand."

I tried to get a picture of one of

these, but it is too large for a common camera to bring out well.

At the rate of one man a day to twenty acres this is very cheap flooding, and it can hardly be done on the scale requisite for good orchard work, to be followed by cultivation. For the only safe way to do that well is to make the checks small and have the water shallow in them. For handling these with a head of two cubic feet to ten acres, two and generally three men are necessary for very good work. A piece of land so flat that ten acres can be managed by one man on a small scale is not likely to be well enough drained to be good orchard land.

Sometimes enough water is at once let into the upper check to feed the whole line of which that is the first, and sometimes more water is allowed to run through it to add to the first installment. This depends on what is in it and how it will stand the run of water; old alfalfa standing a good deal if there is no danger of scalding. The whole is so arranged that any surplus at the lower end has a waste ditch to receive it.

When these checks are emptied plenty of wet spots remain, with water an inch or two and often three or four inches deep. These are depressions which it was not thought worth while to fill by leveling off the tract. Probably the results would not, for low grade crops, justify the expense where land is so plenty and water so cheap. But this will not do for the small farmer to imitate, and the effects of it can be quickly seen, even in winter, when the sun is not hot enough to scald the plants or to bake the ground much. Of barley, wheat and young alfalfa about one-third of the stand is destroyed by a depression of about two inches, and about two-thirds by three or four inches. In some places where the water has been so deep that it was impossible to make an estimate, it was practically all destroyed. That is, if the whole field were in that shape it would be too thin to be worth cutting. Old alfalfa seemed uninjured. There was no grain old enough to show the effect on old grain, but it would not have been as bad as with the young grain, though anything but good. In hot weather the effect would have been much worse. It is due principally to the water standing too long and deep. On account of the pressure it would take the water that remained in the depression much longer to soak away than if that were all that had been put in there in the first place.

Smaller checks, and especially square or rectangular ones, for lands lying like these and bearing such crops, on so large a scale, would merely increase the cost without any corresponding advantage. The larger they can be made the greater area a given number of men can handle, and the only limitation on the size is the depth of water in them and the facilities for getting it quickly in and out again when it has done its work.

There seems no doubt that all this work is profitable. Miller & Lux are not offering any land for sale, yet they are constantly increasing the area in crops and making new canals, and laterals by the league, that in most countries would be respectable canals. They have 200 men in constant employ, and have a thousand or more during most of the summer, with many more in harvest. The whole is in charge of Mr. Miller, who is one of the best business men of America. In forty years the firm has risen from poverty to the largest land owners and cattle owners on the coast, if not in the world, their present holdings being estimated at 200,000 head of cattle, with sheep beyond the knowledge of even themselves, and 2,000,000 acres of land. The business has all been built up by Mr. Miller, whose principle has always been to make everything pay. It is therefore safe to assume that this handling of the water and land is profitable on a large scale, though it might ruin a small farmer. Even at the present low

price of wheat, the superintendents say there is still a profit in it on this land, and there were some 8,000 acres already seeded when I was there, with more going in.

On the lands of the Kern County Land Company 800 men are employed the year round, with an increase of thousands during haying and harvest. Though their land is for sale in small tracts, the gigantic scale on which they are farming the rest shows that the owners, who are also shrewd business men, know what they are about. They have also been at it long enough to find out, and are certainly not working eight or ten townships to make a show to sell out on. And the fact that thousands of acres of their lands are rented out to grain farmers whose long strings of teams and plows dotted the great plain for leagues, renters who are no tenderfeet at the business, makes it pretty safe to say that there is here a fair profit in raising wheat by irrigation, even at the present price. About the profits of the alfalfa, even at the low price of beef, there is no possible question, one acre carrying an animal the year round and in summer fattening five, while the constant trampling of the herds seems to have no effect upon the stand of alfalfa, which would be quickly injured if water were scarce or stingily used.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending June 8, 1896, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

The first of the week was cool for the season, but the 4th, 5th, 6th and 7th were very warm. An excess of rain fell generally over the northern half of the State, with floods in Dickinson and contiguous portions of surrounding counties, thence northeastward to the Nebraska line. But little rain fell in the southern half of the State or the extreme western counties.

RESULTS.

EASTERN DIVISION.

A good week for farming, advantage of which has been taken with the cultivators. Early corn is being laid by in the central and southern counties, and is tasseling in the southern. In Chautauqua a web-worm is at work on the corn. Much corn in washed-out districts has been replanted. Wheat harvest progresses in the south, but crop is below expectation in Labette. Alfalfa haying finished in the south, retarded by rains in the north. Fruits generally abundant. Pastures and meadows fine.

Allen county.—Good week for farming; wheat harvest in progress; flax and oats headed out; early potatoes ripe; corn being laid by; early clover cut; timothy ready to cut; much wild grass being cut, as the yield is equal to the average in August; blackberries promise an abundance.

Chautauqua.—Corn tasseling, doing fine, though a small web-worm is damaging it some, and some upland fields are full of bugs; wheat harvest progressing nicely.

Cherokee.—Harvest is progressing, and cultivators are at work.

Douglas.—Flax, oats and corn doing well; wheat rusting in places; grass fine.

Elk.—Good week for corn, which is further advanced than usual for the season; oats a failure; beginning to need rain.

Greenwood.—Corn cultivation in progress; ground in fine condition and crops doing well; grass superior; apple crop scant.

Johnson.—Favorable for all crops; wheat ripening in good condition and corn growing finely.

Labette.—Wheat harvest about half through, but the crop not near so good as expected, the rust, fly and bugs having injured it very much; oats and fruit doing well; a large acreage of corn in bad condition.

Lyon.—Oats good; corn growing rapidly.

Marshall.—Much corn washed out and covered with mud by heavy rain of 31st, and fruit damaged and blown off by the wind; wheat and oats making great growth but getting some rust.

Neosho.—Ground is being rapidly cleaned; fair growing week; crops are needing rain and week ends in rain.

Osage.—Good week for all crops and cultivation going on; corn doing well and growing fast; early-planted corn being laid by; pastures and gardens excellent.

Pottawatomie.—Alfalfa harvest re-

tarded by rains; corn injured by hail and heavy rains being replanted; potatoes in bloom; wheat harvest begun in south part.

Riley.—Wet weather retarding growth of corn and letting weeds get ahead; wheat about ready for harvest; early potatoes in market.

Shawnee.—A fine growing week; everything in excellent condition.

Wilson.—Fine week for farm work; early corn laid by; harvesting, wheat good; first crop alfalfa cut; cherries in market; blackberries plentiful; gardens fine; fruit will be abundant.

Woodson.—Much replanting of corn has been done, in some cases whole fields have been replanted; some oats and flax have been plowed up, otherwise crops are doing well enough; will begin haying next week.

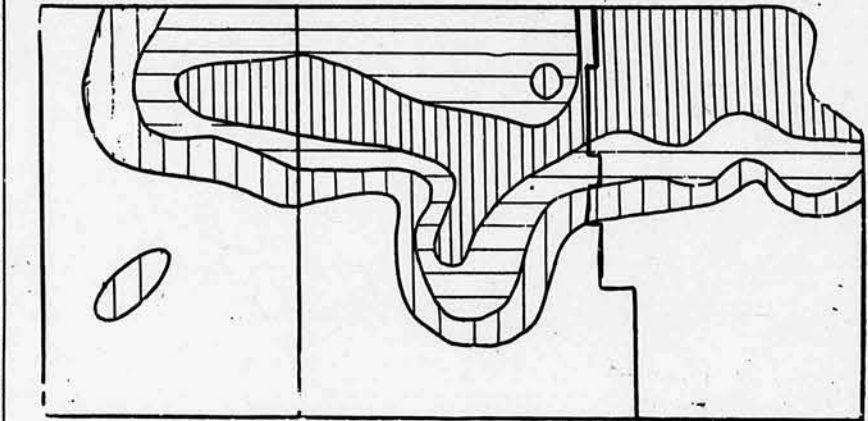
MIDDLE DIVISION.

Crop conditions are much more favorable in the northern counties than in the southern. Hot winds prevailed in many counties on the 4th. The army worm and the young grasshoppers are injuring some wheat. Wheat harvest is progressing in the central and southern counties and generally showing a fine crop, though in western part of Stafford all small grain is gone and there will be no harvest.

Barber.—Hot winds on the 4th; corn, cane and Kaffir doing well; wheat not worth harvesting in central townships but is slightly better in the southern.

Barton.—Wheat badly damaged, many farmers cutting it for hay; barley and oats will make nothing; potatoes and garden truck are suffering badly; first alfalfa crop is stacked; rain badly needed.

Butler.—Rain of 31st revived grain very much; wheat usually much better in south than north half of county; all corn good; oats looking much better; pasture, the best; alfalfa first-class.



Scale of shades less than 1/2 inch, 1/2 to 1 inch, 1 to 2 inches, over 2 inches, Trace
ACTUAL RAINFALL FOR WEEK ENDING JUNE 6, 1896.

Clay.—Much replanted corn has again been replanted, owing to the wash-outs of 31st ult.; wheat doing well but rusting some; corn doing well; oats and grass fine.

Cloud.—All crops in excellent condition; wheat nearly ready to cut; pastures and meadows fine.

Cowley.—Hot, dry week; corn and Kaffir growing nicely; wheat not yielding as good as expected; rain would help the late wheat and corn.

Dickinson.—Much wheat and corn washed out; much damage by hail; all crops progressing finely.

Harper.—No rain during week; pastures need rain; corn holding its own.

Harvey.—Last few days ruinous to oats and ripened wheat too fast; the heavy rain last night will change matters.

Marion.—Wheat and oats improved; corn growing well; fruit fair; pastures good.

McPherson.—Good growing week; corn and oats doing fine; May wheat will be cut next week.

Mitchell.—A good growing week; all crops progressing favorably.

Osborne.—Farmers in good spirits and hard at work; corn and oats doing well; wheat and rye heading and in fine condition; hail hurt fruit in localities.

Ottawa.—Some washing out by Sunday's rain; army worms have disappeared but result of their labors has not; grasshoppers are damaging wheat and gardens some; hot winds on the 4th.

Pawnee.—Hot, dry week; small grain a total failure, corn on same road; pastures and meadows brown and much fear of scarcity of feed; hot winds on 4th killed trees, with thermometer 114° in shade.

Phillips.—Fine growing week; all crops looking fine; alfalfa nearly all cut; gardens and fruit splendid; everything trying to catch up.

Pratt.—Hot winds on 4th, no particular damage; corn and Kaffir doing well; wheat harvesting begun.

Reno.—High hot winds 4th and 6th threshed off much fruit and damaged all crops; much wheat a failure; oats may revive since last night's soaking rain.

Rice.—Hot winds on 4th checked by a light rain.

Rush.—Early wheat filling well, late wheat all headed; rain needed badly; grasshoppers and worms injuring wheat heads; corn growing well; sorghum and millet coming up nicely; new potatoes being marketed.

Russell.—Fair crop of wheat promised, though worms bothering in some sections.

Saline.—Hail storm of 2d destroyed all crops around Bridgeport; army worms and young grasshoppers entering the wheat heads; crops of all kinds badly injured on low lands.

Sedgwick.—All crops well advanced; new hay on market.

Stafford.—Wheat, oats and barley all dried up, will be no harvest; corn commenced to suffer; hot winds blowing; farmers waiting for rain.

Sumner.—Need rain; corn looking well; harvesting soft wheat, which is turning out fine in north part of county, not so well in south part; hard wheat looking fine; oats nearly ripe but not so good.

Washington.—Excellent growing weather and good conditions for work.

WESTERN DIVISION.

In the northern counties crops are in good condition, but in the southern are losing ground every day without rain.

Decatur.—Good growing week; gardens and pastures very good.

Ford.—Wheat past all help; much of it not worth harvesting; corn and oats need rain badly; pastures getting short; high winds the past four days have injured all crops.

Graham.—Hail and flood damaged

some grain but outside of hail district crops doing nicely.

Grant.—Hot winds on the 3d; all crops at a standstill; prairie grass dry enough to burn; will practically be no small grain; stock doing well.

Hamilton.—High and hot winds; nothing growing except under irrigation.

Kearney.—Weather very bad on crops this week; need rain.

Meade.—Crops in very bad condition; hot winds; temperature 106.

Morton.—Hot, dry weather begins to injure pasture.

Ness.—Rain needed badly.

Rawlins.—Fine growing week and everything growing well.

Sheridan.—Good growing weather for all kinds of crops; alfalfa being cut; gardens good generally; potatoes not very promising.

Thomas.—Some wheat damaged by hail; rain needed in west and north-west townships; corn is doing well.

Trego.—Hail destroyed some fields of grain in eastern part of county, where the wheat is in poor condition, while prospects for barley, oats, wheat and rye are more flattering in south-west part.

Wallace.—First alfalfa cutting about done; strong dry winds damaging crops; wheat gone, early barley and oats won't make anything, but with rain soon the late sowing will make a little.

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

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to

Geo. T. Nicholson, W. J. Black, G. P. A., A. G. P. A., Chicago, Ill. Topeka, Kas.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with the order. Stamps taken.

WANTED.—A Scotch collie pup. C. P. Bronceilus, Wayne, Kas.

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

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

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

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

BETTER THAN A GOLD MINE.—A fortune for potato men. Earliest, best and most prolific potato on earth, ready for shipping in six weeks from planting. Produces three crops per year in the South. By mail, postpaid, 30 cents per pound or four pounds \$1. By freight, \$1 per bushel. Order now and raise seed for next crop. With each order large free catalogue of fifty new varieties of seed, including my new home-grown Coffee and Early Vineless Bunch Yam sweet potato. C. E. Cole, Seedsman, Buckner, Mo.

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

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

EGGS.—From choice S. L. Wyandottes, Light Brahmas and Black Langshans, \$1 per fifteen, \$1.75 per thirty. Wm. Plummer, Ossage City, Kas.

FOR SALE.—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$5 per acre. J. B. McAfee, Topeka, Kas.

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

FOR SALE.—Three hundred head of A 1 breeding ewes, 2 and 3 years old. F. Lohr, Meade, Kas.

FOR SALE.—Eighty, 120 or 200 acres good land, well improved, well watered, fruit, etc. Three miles from Linwood, Leavenworth county, Kansas. Samuel Boaz, Linwood, Kas.

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

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

FOR SALE.—Forty or eighty acres of fruit farm. The best varied collection of bearing fruit in the county if not in the State. No pains or expense has been spared to make an ideal fruit farm. Fifty acres in bearing, twenty of which are in vineyard. Fifteen varieties of grafted oriental plums loaded with fruit. The best of Kaw valley land. Reason for selling, the encroachments of age. A. L. Entminger, Silver Lake, Kas.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Salesmen Wanted!

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

The Home Circle.

THE STORM CLOUD.

Mightiest of the mighty, rolling giants of the sky,
Sweeping on resistless, shutting out the heavens high;

Heralding thy coming with a voice's mighty roar,
As the ocean's booming waves beat the caverns of the shore.

Black and brooding, angry nature's forces thine,
O'er thy grim visage streams of fire in brightness shine.

Earth's dumb creatures cowering, with expectant, silent, fear,
Wait in meek submission, thine awful presence near.

And man, with trembling limb and features pale,
Turns on thee a frightened gaze. Naught can avail.

All nature, from giant oak to grasses' drooping spear,
Bear witness to thy mastery, in voices low and drear.

Sweep on, sweep on, oh mighty power, king of nature's mysticism;
The world awaits with bated breath, thy mighty cataclysm.
Dentonville, Kas. FRANK W. ELLIOTT.

CHILD'S WILL POWER.

Remarkable Manifestation in a Three-Year-Old Youngster.

Baby Rae had always been very nervous, so nervous that on several occasions, while he was getting his teeth, he frightened his parents by going into convulsions, and frequently when crying lost his breath so far as to lose consciousness altogether. Consequently we were obliged to humor him more or less to prevent his crying.

At a very early age he found his thumb, and until the day of which I write his chief comfort lay in sucking that unoffending member. He could not go to sleep at night without having his thumb in his mouth. As he grew older we tried to break him of the habit, but it made him so very unhappy that we could not bear to insist. By the age of three Rae had lost all signs of spasms. He had always been "mother's darling," although he was my fifth boy. At the time I write of the arrival of a wee sister had awakened some sense of jealousy, and also, I suppose, made him feel an increase of dignity, as he was no longer the baby of the family.

One morning the "big carpenter" was in the nursery repairing the hinge of a shutter. Rae stood with a handkerchief carefully wrapped around his second finger, sucking his thumb as usual, and looking with wistful eyes at the tempting display of hammer, awl and screwdriver that lay on a cloth near the window. For a moment the thumb was taken from his mouth, and the baby boy said very distinctly, as he always spoke: "I want to be a carpenter," and instantly the thumb was replaced in its accustomed receptacle. "Carpenters don't suck their thumbs," remarked the big man.

For a moment Rae looked at him, then he slowly put his two little hands behind his back and held them tight. His grandmother noticed the action, and, taking advantage of the occasion, promised to give Rae a tool chest all his own if he would never suck his thumb again. The child was very quiet and thoughtful all day. Occasionally he would jerk his thumb out of his mouth and hold his right hand tight with his left, as if determined not to forget again that he was to be a carpenter. At bed time he carefully put his hands under his pillow. He was very restless; he could not go to sleep; he was fretful, too, and his nurse sat near his crib singing to him. Presently a little hand came between the bars, and a baby voice said: "You hold it, Eliza; I can't remember." It was midnight before he went to sleep that night and the next; but he never put his thumb into his mouth again. He earned his little chest of tools if ever a reward was won, and a happier little boy was never seen.

Rae is eight years old now, a fine, manly boy, always most thoughtful of others. He is full of life and spirits. His nervousness has almost entirely disappeared. He often shows the same earnestness of purpose that he displayed so young. We feel strongly the responsibility of leading this remarkable will in the right direction.—A Mother, in Babyhood.

DRAWING-ROOM SCREEN.

Although Rather Elaborate, One Can Be Made at Moderate Expense.

There is no minor article of furniture perhaps that is more useful in a house than a pretty screen. Every drawing-room should possess one, for it contributes largely to its coziness, especially in the winter months. To purchase a really nice screen, ready-made, a good round sum must be expended, and even then the article purchased may not prove satisfactory. I am giving, therefore, a practical suggestion for a home-made screen, which, if properly carried out, will result in a charming and useful addition to the drawing-room.

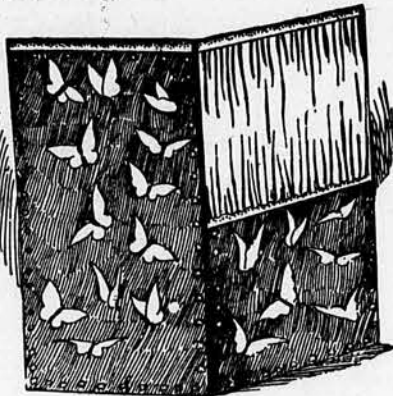
For the framework of my screen, an ordinary two-leaf clothes-horse will answer admirably; but if a particular size and width be desired, a working carpenter will knock you up what you require for a trifle.

Having your framework ready, cover it with a strong unbleached calico. This will be best done by using small black brads, and covering each leaf separately. The calico should be strained very tightly from side to side, and plenty of brads used in the nailing. When these preliminaries are accomplished the frame is ready for its ornamental covering.

The materials required will be as follows: Fine olive-green cloth to cover the screen quite plainly on the outside, a yard of lemon-colored velveteen, and sufficient eau-de-Nil pongee silk to line the inside of the screen, and to cover half of the front. I am unable to give quantities of material in this instance, as I have not suggested any particular size for the screen, which may vary with the tastes of the reader, and the actual making is what I wish to make clear to you.

It will be seen by the sketch that the ornamentation of the screen consists of a flight of butterflies upon one leaf and the lower half of the second. These are fashioned from the lemon-colored velveteen, and should be cut out from a paper pattern, which may be varied in various positions according to the ingenuity of the worker, and it is a pretty idea to have the butterflies graduating in size from large to very small.

These, when cut out, can be fixed on to the cloth in two or three ways;



THE SCREEN.

if needlework is not cared for the pretty insects can be fastened to the cloth with good and clear liquid glue, gilding the edges of the wings afterwards with a little paint applied with a camel-hair brush. The other method is to applique the butterflies on, using a fine gold thread for the purpose; in both cases the effect will be very pretty.

When this ornamentation is complete, and a glance at the sketch will give an idea of the arrangement, the cloth must be tightly strained over the frame, each leaf separate, using small fancy nails for the purpose of fixing, and being very careful to turn in all edges quite neatly. It will be found best to cut a narrow strip of cloth with which to cover the screen where the two leaves join, and this should be nailed tightly and smoothly as a last item.

Having then covered the screen, the upper half of one leaf should be further adorned by a full gathered piece of the eau-de-Nil silk, as seen by the sketch. We then come to the inside of the screen, and this is lined entirely with the eau-de-Nil silk, slightly gathered from top to bottom. A small light photographic shelf can be, if liked, fixed across the top of each leaf, and a few pretty fancy brass hooks screwed in the spar that goes across

Scott's Emulsion

makes
thin
people
plump.

Plumpness is prosperity, good-nature, happiness. It is not to shiver with every cold breeze; it is defense against coughs, shelter from Neuralgia, shield against nervous prostration; better than all—security from germs of Consumption and an escape from a thousand aches and pains which cling to a poorly nourished body. Scott's Emulsion of Cod-Liver Oil with Hypophosphites will make thin people not over-fat but plump. It smoothes out the wrinkles and brings the dimples back.

50c. and \$1.00 at all Druggists.

the center will be found most useful for hanging the work bag, etc., upon. Your screen is now complete, and all that is required for a finishing touch are a few yards of gold tinsel lace in section with which to edge the screen top and bottom. My design is, perhaps, a little elaborate, but it would not prove expensive.—Madame.

PRETTY CANDLE SHADES.

They Are All the Rage Just Now, as They Really Deserve to Be.

For a pair the materials required would be three-quarters of a yard of white satin, three yards of ribbon two inches wide, four yards of chiffon. I have always found it best in manufacturing any wall lamp or candle shades



CANDLE-SHADE IN WHITE SATIN.

to purchase the cardboard frames already made, if possible, as they are a little troublesome to cut out and fix satisfactorily. If, however, you are not able to find just the right thing get a large sheet of strong drawing paper and trace the shape of the shade upon it in pencil, afterward cutting it out carefully; you will then only have to fasten the sides together with a few stitches, thus forming the frame; then cover them plainly and neatly with the satin. The chiffon will not be difficult to arrange if it is gathered on with a tiny beading upon the outside of the vandykes. The ribbon is arranged as shown in the sketch, and the effect of the shades and center when placed upon the table with appropriate floral decorations is most charming and artistic. I have suggested white and scarlet for the coloring, but of course the designs can be carried out in several shades; pink and ivory, or two shades of yellow would look well.—Madame.

How She Saved Many Wrinkles.

An intelligent and philanthropic woman whose life is full of thought for others has a peculiarly young and unlined face. She herself explains this by saying: "I will work for the unfortunate and think of them; but I will not 'care' for them in our ordinary acceptance of that term. I will not 'care' for myself. By that I mean that I will not brood over any trouble whatever, my own or my friends'. I will try to remove it, but it shall not steal into and corrode my mind with worry. That one solution has saved me many a wrinkle."

Men in Gray Preponderate.

"It has often been said of the veteran soldiers, when they have appeared on parade, as upon Decoration day," said an observer, "why, how many young men there are among them! but that cannot be said many years longer. There are still to be seen in the ranks numbers of men comparatively young in appearance, but I was struck on last Decoration day by the number who have now grown gray."

EDITOR KANSAS FARMER:—Believing that you are ever ready to help along the right thing, I beg to send the following for publication:

At a meeting of delegates of the Women's Home Missionary Union, representing ten of the central counties of Kansas, held at Wabaunsee, May 26, 27 and 28, the following resolution was passed, and certain representative women from each county appointed to see that it be published in the leading State and county newspapers:

Resolved, That we urge upon all Christians of the Central Association and all good citizens to use every effort to arouse and maintain an earnest and aggressive public sentiment in favor of the enforcement of existing laws, and in opposition to the resubmission of the prohibitory law.
June 1, 1896. ENGLISHWOMAN.

With the blood full of humors the heated term is all the more oppressive. Give the system a thorough cleansing with Ayer's Sarsaparilla and a dose or two of Ayer's Pills and you will enjoy summer as never before in your life. Just try this for once and you'll not repent it.

Christian Endeavor Washington Convention.

Excursion tickets for it will be sold July 4, 5, 6 and 7, via Vandalia-Pennsylvania Short Lines from St. Louis. W. F. Brunner, A. G. P. agent, St. Louis, Mo., will furnish tickets and information about the through trains, low rates and return limit upon application. A postal card will do.

Ice Cream Now Made in a Minute.

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

Those we call ancients were really new in everything.—Pascal.



FREE TO SUFFERING WOMEN.

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

The coolness is refreshing; the roots and herbs invigorating; the two together animating. You get the right combination in HIRE'S Rootbeer.

Made only by The Charles E. Hires Co., Philadelphia. A 20c. package makes 5 gallons. Sold everywhere.



BRIGHT'S DISEASE

can be cured by using

Dr. J. H. McLEAN'S LIVER AND KIDNEY BALM

The Peerless Remedy

For Sale at Druggists. Price, \$1.00 Per Bottle

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

The Young Folks.

A LITTLE GOOD-NIGHT SONG.

Good-night to you, dear! You are weary,
And the moon o'er the mountain declines;
The wind blowing westward sighs dreary,
And wanders and walls through the vines.

You have listened so oft to the tender
Sweet story—so tender and true,
What grace to it all could I render
Out here with the roses and you?

Good-night to you, dear; yet I linger
Like one who ear a spot that is best,
And toy with the ring on your finger,
And kiss the red rose on your breast.

And good-night, and good-night, dear, and
never
Good-night! Love has ever his way;
But I love you forever and ever,
And I kiss you good-night and good-day!
—Atlanta Constitution.

HOWARD'S QUAIL TRAP.

How Its Poor Little Captive Froze to
Death in a Snowstorm.

Twenty years ago I was a little boy going to school. I lived in the country and the school house was a small frame building in the edge of the woods, about half a mile distant from my home. During the winter some of the older boys made traps which they set in brushy places for rabbits and quails, for there were a good many of both there at that time. The traps were attended at mornings, during the noon hour and evenings after school. Now and then a rabbit or a quail was caught by some one of the boys, much to the envy of the others.

One Saturday I made a trap, too. I had watched the older ones and knew how. It was what is called a log cabin trap, being made of narrow strips of oak, laid up two and two like a log cabin and drawn to a peak at the top, the whole held in place by a hickory bow bent over the top and tied by the ends to the two lower pieces. It is set with figure 4 triggers, the long one pointed sharp and pushed into a broken ear of corn.

In the afternoon I went to the school house, carrying my trap. There was no school, it being Saturday, but I could not wait. I was a little boy and the big oak trap was very heavy, but I tugged it across the plowed field to the woods. I rested a little in front of the empty school house, then set out to find a suitable place for my purpose.

Some distance from the school house there was a thick growth of hazel and in the midst of this I set my trap. I placed the triggers so as to fall easily, then laid grains of corn in two long rows leading away from it, placing the grains a few inches apart, so as to entice the game nearer and nearer and to final capture.

It was very quiet there among the hazel. It had been moist and warm all day and the clouds above me were heavy and hanging low. Somehow after all I did not feel as happy as I had expected. I was inclined to be tenderhearted and the thought of trapping the timid little bobwhites I think weighed on my conscience. But I consoled myself by thinking that I probably would not catch any and if I did I could let them



MY HEART WAS BEATING WITH EXCITEMENT.

go. Then I ran home and I believe I was more quiet than usual during the evening.

About dusk it began to snow. A few inches fell during the night, then the weather cleared and turned cold. All day Sunday it grew colder and Sunday night the thermometer fell below zero. Monday morning it was too cold for me to go to school. Tuesday morn-

ing the weather had moderated. I hurried down my breakfast and hastened to my trap. Before I got to it I could see through the brush that it was down and partially covered with snow.

My heart was beating with excitement as I ran to it and looked in between the slats. Then I raised it up and flung it back, bottom upward. I had caught a quail, just one, and it was lying there frozen—dead.

I believe that as a child my imagination was unusually vivid. I could see the little creature, lost from its mates, seeking food and a place of shelter from the storm; finding at last the scattered grains that led to what seemed protection; pecking at the ear until the heavy trap fell and shut it in forever; sitting there crouched down and frightened; beating against the slats or pulling nimbly at the flinty kernels that clung stubbornly to the broken ear. Colder and colder the wind and fine snow blew in through the crevices. All night it had sat there trying to get warm—perhaps by Sunday morning it had been too numb to stir—surely it had died by Sunday night.

I untied the hickory bough from the trap and kicked the oaken slats in every direction. Then I hid the little dead quail and covered it up with sticks and leaves from beneath the snow. On the way back to the schoolhouse I said a little prayer. I never told of my trap and I have never set another to this day. —Howard White, in Brooklyn Eagle.

INSTRUCTIVE PASTIME.

How an Oak Tree May Be Grown in a
Tumbler of Water.

An oak tree has a very humble beginning. When it first sprouts from the acorn it has a fragile green stem and looks something like a young pea plant.



To examine it at this stage of its existence one can scarcely imagine that some day it may become a huge oak. Any boy or girl can sprout an oak tree in a tumbler without much difficulty. Take an acorn and run a threaded needle very carefully a little way under the shell on one side, draw the thread through and suspend the acorn so that it is partly submerged in the water of a tumbler, as shown in the cut. Keep in a warm place, and before long the oak tree will sprout, sending a tender stem upward and a root downward.—Chicago Record.

Horace Mann's Advice to Boys.

Horace Mann gives a bit of advice to boys: "You are made to be kind, boys. If there is a boy in school who has a club foot don't let him know you ever saw it. If there is a lame boy, assign him to some part of the game that doesn't require running. If there is a hungry one, give him part of your dinner. If there is a dull one, help him to get his lessons. If there is a bright one, be not envious of him; for, if one boy is proud of his talents and another is envious of them, there are two great wrongs and no more talent than before. If a larger or stronger boy has injured you, and is sorry for it, forgive him. All the school will show by their countenances how much better it is than to have a great fuss. And remember who said: 'Love your enemies,' and 'Bless them which curse you.'"

Jimmy's Lucid Explanation.

"I really cannot understand,"
Said little Jimmy's ma,
"Why they've such poor conductors
Upon this trolley car!"
"I think, ma, I can tell you;
My teacher 'splained to me.
A poor conductor won't let out
The electricity."

—N. Y. Mercury.

FEATHERED PARSON.

An Antipodean Bird Who Probably Is the
Best Talker of His Kind.

Some time since a friend of mine, having occasion to purchase a small article, entered a little thread and needle shop in the environs of the city of New Orleans, but found no one in the place, writes J. Carter Beard in the Philadelphia Bulletin. As he turned about to leave a hoarse voice called out:

"Wait a moment, ma'am. Take a chair."

Looking around her in some surprise at not seeing any source from which she could suspect the voice to proceed or any possibility of accepting the invitation so cordially extended to her, she replied:

"I'll wait, but I see no chair."

"Betty! Betty! come quick! come quick! come quick! Some one here. Take a chair," called out the voice loudly.

In the little shop but herself, my friend hastened to the door, when she happened to catch sight of a bird cage just inside it, containing a strange looking black bird, with two white bands, that reminded her of those worn by English clergymen, extending downward from its throat. At the same moment a woman appeared at the half-opened door leading to the rear of the shop.

"Tas tha burd be talken, mum," said she, with a strong North-of-England accent. "Tas a parson, mum; them do go on wos'n parrots."

On inquiry, the talker proved to be what naturalists call Prosthemadera, which had been brought by the shopkeeper all the way from New Zealand (where she had formerly resided), of which the bird is a native.

Its popular name, "parson bird," given it by the early colonists of New Zealand in allusion to the peculiar tufts of long white feathers that hang down from the throat as if to set off its glossy black plumage, and which resemble clerical bands, certainly seems appropriate. Perched on a stump, as an extemporized talker, it gives vent to a jargon of sounds, displaying its bands and gesticulating in a manner that irresistibly reminds one of the declamatory style of preaching. A gentleman describing the bird says:

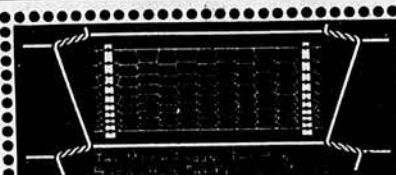
"He shakes his head, bending to one side, then to another, as if he made his



THE FEATHERED PARSON.

remarks first to this part of his hearers and afterward to that, and once again, with pent-up vehemence, contracting his muscles and drawing himself together, his voice waxes loud, as if to awaken sleepers to their senses."

It is a favorite cage bird with the colonists, being easily reared in confinement, and its extraordinary powers of mimicry make it a very interesting pet. It can repeat whole sentences and imitate, among other things, the barking of dog to perfection. Its memory, teachableness and articulation are better than those of any parrot; in fact, perhaps, it is the best talker among birds.



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Will turn your stock. Perfectly safe. 25 to 53 inches high.
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THE MOST SUCCESSFUL REMEDY FOR MAN OR BEAST.

Certain in its effects and never bilsters.
Read proofs below:

KENDALL'S SPAVIN CURE

SHELBY, MICH., Dec. 16, '93.

DR. B. J. KENDALL CO.

Sirs:—I have used your Kendall's Spavin Cure with good success for curbs on two horses and it is the best Liniment I have ever used.

Yours truly, AUGUST FREDRICK.

For Sale by all Druggists, or address

Dr. B. J. KENDALL COMPANY,
ENOSBURGH FALLS, VT.

For the Meeting of the Nobles of the Mystic Shrine, at Cleveland, June 23 and 24, the Nickel Plate road will sell tickets available on trains June 21 and 22, from Chicago to Cleveland and return, at \$8.50 for the round trip, good returning until June 25. This is a saving of \$1.50 on the round trip, as compared with other lines, and our passenger service includes fast trains, drawing room sleeping cars, and an unexcelled dining service. For further particulars address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 108

Low Rates to Cleveland.

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

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

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

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

Important to Teachers.

Low rate over the Great Rock Island Route to Buffalo and return to attend the convention, July 8-10, 1896.

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

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

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

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

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

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

FREE Cut this out and send to-day for free catalogue. \$2.75 buys natural finish Baby Carriage with plated steel wheels, axle, springs, one piece bent steel. 3 years guarantee. Catalogue sent on 10 days FREE TRIAL. BUY FROM FACTORY & SAVE DEALERS' PROFITS. OXFORD MFG. CO., 240 Wabash Ave., CHICAGO.

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

FREE A GENUINE 14 K. GOLD-FILLED SET WATCH and chain to every reader of this paper. Cut this out and send it to us with your address and we will send you FREE for examination the Best and Only Genuine American watch ever offered at this price. It is 14K. Solid Gold filled, with Genuine American Movement, 20 Years' Guarantee, and looks like a Solid Gold Watch sold at \$40. Examine at express office and if you think it a bargain, pay \$1.50 and express charges, otherwise pay nothing. A Handsome Gold Plated Chain, sold in certain stores for \$3 goes free with each watch. **OUR GRAND OFFER.** One of these \$7.50 watches and FREE a chain, if you buy or sell SIX. Write to-day, as this price holds good for 30 days only. **ROYAL MFG. CO.,** 407 Daily Bldg., Chicago, Ill.

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.

Electros must have metal base.

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

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

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

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

Address all orders—

KANSAS FARMER CO., Topeka, Kas.

H. A. Naber, of Leavenworth county, writes KANSAS FARMER, recommending his method for the destruction of thistles. He cuts the thistle close to the ground with a hoe and applies salt and coal oil to the roots. This method, he claims, will clear any field.

Our old friend, A. H. Griesa, of Lawrence, has sent us an accurate account of the meeting, organization and disastrous disruption of the national Prohibition convention at Pittsburgh, recently. Mr. Griesa writes from the knowledge of one who was present and to whom the breaking up of the convention was a great disappointment. We should like to give his letter in full were not our space so much in demand for the discussion of purely agricultural questions.

The total amount of money and bullion in the United States Treasury, June 1, 1896, according to the official statement, was:

Gold coin.....	\$118,644,283
Standard silver dollars.....	376,572,499
Subsidiary silver.....	15,637,424
Treasury notes (act July 14, 1890).....	33,304,774
United States notes.....	121,118,261
National bank notes.....	10,002,385
Gold bullion.....	32,662,860
Silver bullion.....	119,989,914
Total.....	\$827,932,400

It looks as if "Uncle Sam" would be able to feed his officers for at least a few days more without borrowing money.

A call has been issued for a National Co-operative Congress, to be held in St. Louis, July 24 and 25, 1896. The object is stated to be "to establish harmonious and reciprocal relations between all co-operative associations, including stores, creameries, mills, factories, fire and fraternal life associations, labor exchanges, colonies, publishing houses, profit-sharing establishments, and the more general, but no less co-operative, societies in favor of the municipal ownership of public utilities and the national ownership of monopolies; also to effect a national organization," etc.

The second edition of a valuable book on "Weeds and How to Eradicate Them," by Thos. Shaw, Professor of Animal Industry at the University of Minnesota, is just published by the Webb Publishing Co., of St. Paul. Prof. Shaw has justly earned the reputation of being one of the most practical of the men in college work. In his preface he says of the book: "It is the outcome of much experience in dealing with weeds, and of much study and thought as to the best methods of eradicating them; and also of a profound conviction, based thereon, that no farmer need despair of having a perfectly clean farm if he have but the necessary determination and energy to put into practice the methods of weed eradication herein described." The book, which contains over 200 pages, takes up the entire subject very thoroughly and is worthy of a conspicuous place in every farmer's library.

BEWARE OF STOCK SPECULATORS' SOHEMES.

The schemes for getting money from those who, by industry, produce value are not reduced in number by the vicissitudes of the times or the progress of civilization. It is true that the hand of law is now laid upon some forms of gambling which, a century or less ago, were thought to be as privileged as "other" business. Thus, lotteries are almost effectually prevented in this country by act of Congress. But other forms of gambling, put forth under the name of business, are even more insidious and equally bare-faced in their characteristics as agencies for robbery and are still protected, or at least permitted, by the law, and are allowed to use the United States mails in the steering of victims.

A swindler not long ago crossed Kansas avenue, in Topeka, and approaching one of the leading business men of the city, representing himself as a clerk or messenger from another leading business man, whose place of business was on the opposite side. It was after banking hours and the swindler asked his victim if he could accommodate his employer with cash for a \$225 check. The request was not an unreasonable one and the merchant, willing to accommodate his neighbor, replied in the affirmative. To carry out the deception the swindler recrossed the street, entered the store from which he pretended to be a messenger, and after a few moments returned with a check for \$175, explaining that his employer had found that he could get along with this amount and would be much obliged by the accommodation. The \$175 was paid to the man, who has not been seen in Topeka since, and was never employed in any business house here. The forgery was immediately discovered when the victim sent the check to the bank the next day. A swindler who thus procures money from another is severely dealt with if caught. He gained the confidence of a shrewd business man and robbed him.

It has often been thought that farmers are easy prey for the smooth swindler, and are oftenest victimized. However this may be, in general there is a class of gamblers now actively at work who take greater stakes from traders, clerks and other denizens of the cities and towns than from farmers. These are the "board of trade" and the "curb-stone operators." True, farmers, though they do not generally fall into the traps of these "operators," are victims to their schemes for depressing the markets. These operators have for many months complained of dullness in "business." Some of them have recently sent broadcast alluring circulars. One of these from a New York "house" purports to show by sample statements of business done how, with an investment of \$100 for a "client," this house has in less than a month returned to the customer his original \$100 and with it \$485 profit. This profit was made by buying shares of some of the fluctuating railroad and other stocks, paying 5 per cent. "margins," and selling when advances came. That some immense accumulations have been made in this way is true. It is also true that immense stakes have been made on simple wagers. In either case, the money was taken, unearned, directly or indirectly, from somebody who had earned it.

So great is the disposition to gamble that, for the promotion of gambling operations on any scale desired, special facilities are provided. A percentage is charged on all operations by the "houses" through which the "deals" are made. This profit is sure to the "house" whichever party wins or loses. So, too, in the "deals" in corporate stocks, the broker gets his commission in any case, his only proper interest being in the commissions on the amount of the transactions negotiated by him. But the broker may have, and often does have, another interest. The stocks which he buys or sells for a client may be those which he buys or sells for himself or in which he has an interest. It is not impossible that in transactions of this kind, in which he has the entire matter in his own hands,

he may make great profits for one customer and heavy losses for another.

The dullness complained of on the stock boards results from the recent reluctance on the part of outsiders to embark in the gambling operations of the "exchanges." Their operations are not under the ban of the law, and while farmers and the classes generally who read the KANSAS FARMER are not the usual victims of this species of gambling, the persistence of recent efforts to secure "lamb" for fleecing is likely to extend their allurements among farmers. The only way to avoid the almost certain eventual catastrophe of the gambler is to keep entirely clear of these schemes and schemers.

RAILROAD COMMISSIONERS AT WORK.

The Kansas Railroad Commissioners are attempting to secure rates from Kansas points to the Gulf, proportionate to the rates from the Missouri river east. At present, rates via the route south are much higher than via those east. It is well understood that the limited control of the State Railroad Commissioners within the State is reduced to nothing as to roads or connections beyond State lines. But the Kansas Commissioners have brought the matter to the attention of the Inter-State Commerce Commission and a hearing has recently been had. The prospect of lower rates to the Gulf has stirred up the interests of cities on the routes east and has also developed some jealousies among them as to Kansas trade. It is necessary to consider with caution all discussions of the subject which appear from interests located on either route, for their arguments are cast upon the lines of the local interests. What Kansas is interested in is the cheapest possible outlet for her crops. Her produce has heretofore gone almost exclusively via the long routes to the East. Most of the railroad influences favor the eastern route, so that direction is likely to secure its full measure of concessions through other influences than those of the Kansas Commissioners, who, therefore, do well to direct their attention to obtaining concessions via the south.

THE HISTORICAL SOCIETY'S ROOMS.

At the last session of the Kansas Legislature, a joint resolution was passed assigning to the State Historical Society, for its permanent quarters, all of the rooms in the east wing below the Senate chamber. The growth of the historical collection of this society has been phenomenal. Beginning with a little case in one of the State offices, it has gathered and arranged for present and future use of those who would ascertain anything about the history of Kansas, such a vast amount of materials as can be properly accommodated only in large quarters. The society is the legally authorized agent of the State in making and preserving this collection. Its members are largely the editors and publishers of the papers of the State, who give their services in the society free of charge and in addition contribute regularly copies of their papers. These are filed, and as the volumes are completed are bound, thus preserving in every detail every event, both great and small, of every locality in Kansas. Besides these papers, the collections of the society contain almost every other conceivable piece of information as to Kansas history, and also a miscellaneous and historical library of great and increasing value.

The Legislature did wisely in assigning to this collection the ample room above mentioned. But this assignment by the body most nearly representing the people seems to have been at least temporarily disregarded by the Executive Council, and the rooms intended for the Historical Society, as soon as vacated by their former occupants, have been given to other departments. It cannot be that the Executive Council intends to thwart the purpose of the Legislature in this way. These intruding departments should be moved out as soon as places can be prepared for them in other parts of the building.

SILVER AS SEEN IN WALL STREET.

Henry Clews' circular, of last Saturday, is devoted almost entirely to the silver question. Among other observations he says: "The feeling is one of surprise at the unexpected force of the pro-silver faction in the South and the West. While the East has been supposing that its educational efforts had largely broken the force of this faction, the heresy has been gaining ascendancy with surprising rapidity. It has become a serious question whether free silver may not possibly obtain a formidable vote in the coming elections of Representatives. It is now considered settled that the Democratic national convention will be controlled by a large silver majority; and no small uncertainty exists in the minds of many as to how far like views may influence the action of the Republican convention."

He is not, however, without hope, for he says: "When the silverites have deposited their vote their passion will quiet down and their leaders will become more amenable to reason."

A remedy is proposed which will remind the old men of the days of "wild cat" and other unreliable bank currency which was used as money. Or if the proposition will not admit of that construction, it is undeniably a proposition to secure to banking companies the profits to be derived through loaning their own notes to be used as money. The circular says: "More currency is doubtless needed for facilitating cash transactions in those sections; but that want can be easily satisfied through such modifications of our banking legislation as will cause the note issues to respond readily to every real need for currency. There is, however, an important class among both planters and farmers to whom credit facilities are even still more vital than 'more money.' It is well worth considering whether arrangements cannot be devised for satisfying those wants, if not under any now existing banking methods, yet through authorizing other lending institutions specifically adapted to affording the smaller credits which this important class so vitally need."

The opinion is expressed that, with a sound money President, it is beyond belief that a Congress can be elected which will pass a free coinage bill over the President's veto, since this will require a two-thirds majority in each house.

WASHBURN COLLEGE.

Among the States of the Union Kansas holds a proud place, on account of the number and excellence of her public and private educational institutions. The public prints are apt to have most to say of those conducted by the State, and the prominence attained by the University, the Agricultural college and the State Normal among the schools of the nation entitle them to all the notice they receive. But the people who have brought Kansas to her present position have been strongly impressed with the importance of bringing the higher education within easy reach of all the young people of the State. They have, therefore, founded academies and colleges in great numbers and are patronizing them well. Prominent among the college builders have been the churches. Many parents and others interested in the best development of the capabilities of the young desire a more prominent place for the influences of Christianity in education than it is usually thought proper to introduce in the necessarily secular schools supported and managed by the State. To meet this want the leading denominations have each established and endowed a college. Prominent among such colleges is Washburn, at the State capital. It has been doing its work for many years and its graduates have taken prominent positions in the affairs of life. This is doubtless owing to the thoroughness of the instruction and the care exercised in giving the honors of the institution to those only who, by their attainments, earn them.

The college year just now closing at Washburn has been a successful one. The total number of students is 219. Of these 113 pursued the studies of the

academy and 106 those of the college proper. There are fifteen graduates from the academy and fifteen from the college.

The course of study in the academy is about the equivalent of those in the best city high schools, and is intended to prepare the students as they come from the grammar schools for entrance to the college. The course is three years.

The course of study in the college requires four years diligent labor. The proportion of graduates to the entire number of students is surprisingly large and speaks well for the staying qualities of the students.

The instructors number fifteen. The grounds and buildings are elegant. The library occupies a beautiful stone edifice, erected for its accommodation. The apparatus and means of illustration are well suited to the purpose.

It will be well for those who desire to avail themselves of advanced educational privileges to write to Washburn college, Topeka, for information.

A KANSAS HEREFORD PROTEST.

A most absurd position has been taken by the majority report of the committee of the American Hereford Association in cutting out Kansas this year from the one hundred dollar special premium offered to each of the leading States west of the Mississippi river, and instead dividing the \$100 with Iowa, Missouri, Nebraska and Minnesota.

This money, offered by the American Association, is intended to encourage breeders to breed good Herefords and to exhibit at the leading fair of each of the States named, and the money—every cent—goes to the Hereford breeder and not to the fair association, and yet Kansas is cut out because the Topeka fair association did not pay their other premiums at their last fair, hence every breeder must suffer still more as a consequence thereof. If the American Hereford Association permits Kansas to be cut out for such frivolous reasons as given by the majority of the committee on assignment of this special premium, they need not murmur hereafter if fair associations follow suit and likewise fail to offer classification for Hereford cattle.

Kansas breeders will not permit discrimination in favor of other States that do not do nearly so much to sustain the American Association as they do. They are not built that way.

In order that Kansas breeders may have some definite idea of the strength and comparative importance of Hereford interests in Kansas, we publish herewith the minority report of the committee, prepared by C. S. Cross, owner of Sunny Slope farm of Herefords, at Emporia, Kas., which is as follows:

C. R. Thomas, Secretary American Hereford Association, Independence, Mo.

DEAR SIR:—As a member of the committee selected to apportion fair money west of the Mississippi, I desire to submit the following minority report:

I favor giving \$100 each to Minnesota, St. Louis, Iowa, Nebraska and Kansas. In asking for money for Kansas, I wish to make a few comparisons. Volume XV shows Minnesota has 11 members and 5 men registering, Missouri has 95 members and 92 men registering, Nebraska has 59 members and 46 men registering, Iowa has 97 members and 101 men registering, Kansas has 52 members and 84 registering.

Last year, Nebraska had one Hereford herd exhibiting, Iowa two, Kansas had five. As a matter of argument, it makes no difference to the Hereford Association whether the various fairs pay their premiums or not. As a matter of fact, Iowa gave orders for premiums, as well as Kansas, and if the payment of premiums is to be the question as to the distribution of money, Kansas is as well entitled to the money of the association as Iowa. If the number of members represented in the herd book and the number of men registering in the same book are to be taken, then Kansas is a dozen times entitled to the money rather than Minnesota. If the number of herds showing is to be the guide, then Kansas exhibiting five herds is certainly entitled to the money rather than Nebraska, exhibiting one, and Iowa two.

I therefore protest against the committee's action in ignoring Kansas in the distribution of the money of the association.

Very respectfully,
C. S. Cross.

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

KANSAS CROP CONDITIONS.

The State Board of Agriculture issued, June 5, 1896, a bulletin showing the crop conditions in Kansas, as given by correspondents, for May 31, as follows:

WINTER WHEAT.

The extremely high percentage of condition reported April 30 has been maintained in but very few counties, the present average for the entire State being 69. The average, however, in eighty-four counties, containing a small fraction less than 75 per cent. of the total acreage, is given as 79.26, while in the twenty-one counties having the remaining acreage, it is 33.45. Twenty-eight counties having an average condition of 97.46, ranging from 90 to 117, and containing 477,776 acres, or 14.35 per cent. of the total acreage, according to rank are, Washington 117, Clay 102, Marshall 102, Doniphan 101, Jewell 100, Leavenworth 98, Brown 97, Gove 97, Osborne 97, Harvey 96, Riley 96, Nemaha 95, Potawatomi 95, Republic 95, Wabaunsee 95, Jackson 94, Chase 93, Geary 93, Marion 93, Phillips 93, Cloud 92, Allen 91, Atchison 91, Smith 91, Douglas 90, Norton 90, Shawnee 90, Wyandotte 90. Thirty counties showing a condition of 75 to 89, inclusive, according to rank are, Johnson 89, Lyon 88, Jefferson 87, Mitchell 87, Bourbon 86, Wilson 86, Decatur 85, Dickinson 85, Chautauqua 84, Neosho 84, McPherson 83, Trego 83, Ellsworth 82, Linn 81, Sheridan 81, Crawford 80, Morris 80, Montgomery 79, Ottawa 78, Elk 77, Franklin 80, Osage 77, Rawlins 77, Scott 77, Sedgwick 77, Anderson 76, Logan 76, Russell 76, Graham 75, Greenwood 75. The severe decrease in the triangular block of counties southwest of a line extending from Cheyenne to Sumner is due to high winds, unusual heat and lack of timely rainfall which prevailed to a greater or less extent during the first three weeks of May. In the eastern tier of four counties southward from the Kaw valley the chief harm is a result of too much and too frequent rain, flooding some of the low lands and causing more or less rust and falling down. The late cool, cloudy weather has been against a large development of rust and generally favorable to wheat. Here and there worms strange to the locality have caused damage but no widespread harm. The month has been so wholly unfavorable for chinch bugs that they are scarcely mentioned. Harvesting is in progress in the extreme southern counties, and from ten to fifteen days early.

SPRING WHEAT.

The average condition of spring wheat is 72.

RYE.

Condition 76. The averages of 100 and above are in Clay, Jewell, Phillips, Marshall, Allen, Gove, Marion, Norton and Washington, respectively.

OATS.

Condition 83.50. In nine counties the average range is from 100 to 119, Washington leading with the latter.

CORN.

The only material drawback to corn prosperity generally as yet is ascribed to too copious rains. These have been so heavy as to not only well-nigh submerge and drown out plants on the lower bottom lands, but to do much harm by washing, especially on listed ground having any considerable slope, thereby lessening the stand. On extensive areas in the eastern third of the State needed cultivation has been much retarded and the weeds have made such a lead that vigorous work will be required for their subjection and mellowing the imporous surface soil. In spite of excessive moisture little of the corn shows other than a brilliant green color and the prospect in the State as a whole is highly favorable. The average condition is 90, and fourteen counties reporting it as 100 or above are as follows: Elk 103, Smith 104, Kingman 103, Marion 103, Gove 102, Cowley 102, Jewell 102, Norton 101, Atchison 100, Ellsworth 100, Phillips 101, Geary 100, Graham 100, Rooks 100.

Forty counties report average conditions ranging from 90 to 99 inclusive.

POTATOES.

About the same area is reported in potatoes as one year ago. No unfavor-

able conditions are mentioned except too much moisture in some of the eastern counties, and the presence of potato bugs in a few isolated fields.

THE SORGHUMS.

The various sorghums, including Kaffir and Jerusalem corn and millo maize, average a condition of 85.

MILLET AND HUNGARIAN.

The acreage of millet and hungarian is indicated as slightly less than last year.

CASTOR BEANS.

The area in castor beans is reported as 15 per cent. less than the diminished acreage of one year ago.

BROOMCORN.

Broomcorn shows a more notable decrease in acreage than any other crop—an estimated cut of 60 per cent. from the 134,487 acres of last year. Its condition is 83.

FLAX.

The decrease in flax acreage amounts to 10 per cent., or 23,000 acres.

BARLEY.

Barley shows an enlarged acreage in nearly every county where much grown, and the general increase is put at 30 per cent.

GRASSES.

Reports on conditions of grasses and clovers mostly represent them as excellent, giving luxuriant pasturage and promise of great yields of hay. Much of the alfalfa has made a most vigorous growth and the first crop is in process of harvesting.

LIVE STOCK.

Live stock is invariably reported healthy except that "cholera" among hogs to a limited extent is mentioned in twelve counties.

Lye on Potato Bugs.

EDITOR KANSAS FARMER:—I notice in local papers this statement: "Kill potato bugs by mixing a weak solution of lye and water." Now, I don't know the proper proportions. Will you please tell me how many gallons of water to the can of lye? Also, what part of a spoonful to the gallon of water. ONE OF YOUR SUBSCRIBERS.

This plan is new to the editor. Let those who have had experience explain fully. It is doubtful whether there is a better or cheaper plan than dusting or spraying the vines with London purple or Paris green. Either of these mixed with water—one pound to 250 gallons of water—with, say a pound of lime added, may be sprayed over potato vines with reasonable certainty of death to the potato bugs.

Want to Borrow Money From Kansans.

EDITOR KANSAS FARMER:—Enclosed find the following clipping from Kansas City Star, in which a number of Senators, Majors and Judges call upon the people of Kansas to raise the money to build an elevator at Galveston for the Export Company:

FOR A GALVESTON ELEVATOR.

WICHITA, Kas., May 2.—Delegates from McPherson, Rice, Barton, Butler, Sumner, Harvey, Reno, Cowley, Harper, Kingman Pratt and Stafford counties met here this afternoon to consider the elevator proposition made by the Galveston Export Commission Company. Senator Forney, of Sumner county, presided, and Judge King, of Kansas City, Kas., Mayor Savage, of Wellington, Brown, of Anthony, Brinkerhoff, of Lyons, and Moses, of Great Bend, and others, spoke in favor of the project, which is for the Export Company to erect an elevator of not less than one-half a million bushels capacity, the people of Kansas to advance the money, secured by first mortgage liens. Resolutions were adopted endorsing the project and committees were appointed to push the work.

No doubt a good thing, but if the people of Kansas have gumption enough to raise the money why not have enough gumption to build and manage it themselves, and not have either first, second or any other mortgage liens about it. I read about "Uncle Sam" having mortgage liens on certain railroads. Is this something similar? We would be pleased to know something more about it, and let the people of Kansas have an opportunity to think on the subject.

JUST A FARMER.

The United States Treasury estimates place the population of the United States, June 1, 1896, at 71,623,000. The same authority places the money in circulation at nearly \$100,000,000 less than a year ago, and over \$18,000,000 less than one month ago. And prices are declining.

Lower Rates on Grain and Hay Demanded.

EDITOR KANSAS FARMER:—What will the Kansas railroads do to help move the coming wheat crop, and will they make needed reduction in rates to Missouri river towns? Will the Railroad Commission of Kansas be hoodwinked by the lines in Kansas by confining their work to an appeal to the Inter-State Commerce Commission for rates to Gulf ports, most of which have already been corrected, or will they do their duty by reducing the rates within themselves as they have the power to do and should do at once?

Petitions have been sent them from various parts of the State, asking that reductions in the local rates of the State be made. It is believed others will follow. What action will they take on these petitions, and will it be early enough to benefit the present crop? The rates in Kansas on grain are higher than in any other grain State. When the matter has been brought before the Railroad Commission, the answer has been made by the railroads that what you want is lower through rates. The people of Kansas want lower through rates, but they will never get them until they get lower local rates. The board in 1894 recommended a lower distance tariff, which was never put into effect. The present commission could do no better work than to order these rates put into effect. In order that their effect may be seen, a comparison of the present figures with those proposed are shown below:

PRESENT AND PROPOSED DISTANCE TARIFFS.

	No. 1. Kansas. Now in effect.		No. 2. Kansas Commissioners' order of 1894.	
	Wheat per 100...	Other grain per 100...	Wheat per 100...	Other grain per 100...
5 miles and under...	5.5	4.5	4.5	3.5
10 miles and over...	5.5	4.5	4.5	3.75
15 " " " "	5.5	4.5	4.5	4.0
20 " " " "	5.5	4.5	4.5	4.25
25 " " " "	5.5	4.5	4.5	4.50
30 " " " "	5.5	4.5	4.5	4.75
35 " " " "	5.5	4.5	4.5	5.00
40 " " " "	5.5	4.5	4.5	5.25
45 " " " "	5.5	4.5	4.5	5.50
50 " " " "	5.5	4.5	4.5	5.75
55 " " " "	5.5	4.5	4.5	6.00
60 " " " "	5.5	4.5	4.5	6.25
65 " " " "	5.5	4.5	4.5	6.50
70 " " " "	5.5	4.5	4.5	6.75
75 " " " "	5.5	4.5	4.5	7.00
80 " " " "	5.5	4.5	4.5	7.25
85 " " " "	5.5	4.5	4.5	7.50
90 " " " "	5.5	4.5	4.5	7.75
95 " " " "	5.5	4.5	4.5	8.00
100 " " " "	5.5	4.5	4.5	8.25
105 " " " "	5.5	4.5	4.5	8.50
110 " " " "	5.5	4.5	4.5	8.75
115 " " " "	5.5	4.5	4.5	9.00
120 " " " "	5.5	4.5	4.5	9.25
125 " " " "	5.5	4.5	4.5	9.50
130 " " " "	5.5	4.5	4.5	9.75
135 " " " "	5.5	4.5	4.5	10.00
140 " " " "	5.5	4.5	4.5	10.25
145 " " " "	5.5	4.5	4.5	10.50
150 " " " "	5.5	4.5	4.5	10.75
155 " " " "	5.5	4.5	4.5	11.00
160 " " " "	5.5	4.5	4.5	11.25
165 " " " "	5.5	4.5	4.5	11.50
170 " " " "	5.5	4.5	4.5	11.75
175 " " " "	5.5	4.5	4.5	12.00
180 " " " "	5.5	4.5	4.5	12.25
185 " " " "	5.5	4.5	4.5	12.50
190 " " " "	5.5	4.5	4.5	12.75
195 " " " "	5.5	4.5	4.5	13.00
200 " " " "	5.5	4.5	4.5	13.25
205 " " " "	5.5	4.5	4.5	13.50
210 " " " "	5.5	4.5	4.5	13.75
215 " " " "	5.5	4.5	4.5	14.00
220 " " " "	5.5	4.5	4.5	14.25
225 " " " "	5.5	4.5	4.5	14.50
230 " " " "	5.5	4.5	4.5	14.75
235 " " " "	5.5	4.5	4.5	15.00
240 " " " "	5.5	4.5	4.5	15.25
245 " " " "	5.5	4.5	4.5	15.50
250 " " " "	5.5	4.5	4.5	15.75
255 " " " "	5.5	4.5	4.5	16.00
260 " " " "	5.5	4.5	4.5	16.25
265 " " " "	5.5	4.5	4.5	16.50
270 " " " "	5.5	4.5	4.5	16.75
275 " " " "	5.5	4.5	4.5	17.00
280 " " " "	5.5	4.5	4.5	17.25
285 " " " "	5.5	4.5	4.5	17.50
290 " " " "	5.5	4.5	4.5	17.75
295 " " " "	5.5	4.5	4.5	18.00
300 " " " "	5.5	4.5	4.5	18.25
305 " " " "	5.5	4.5	4.5	18.50
310 " " " "	5.5	4.5	4.5	18.75
315 " " " "	5.5	4.5	4.5	19.00
320 " " " "	5.5	4.5	4.5	19.25
325 " " " "	5.5	4.5	4.5	19.50
330 " " " "	5.5	4.5	4.5	19.75
335 " " " "	5.5	4.5	4.5	20.00
340 " " " "	5.5	4.5	4.5	20.25
345 " " " "	5.5	4.5	4.5	20.50
350 " " " "	5.5	4.5	4.5	20.75
355 " " " "	5.5	4.5	4.5	21.00
360 " " " "	5.5	4.5	4.5	21.25
365 " " " "	5.5	4.5	4.5	21.50
370 " " " "	5.5	4.5	4.5	21.75
375 " " " "	5.5	4.5	4.5	22.00
380 " " " "	5.5	4.5	4.5	22.25
385 " " " "	5.5	4.5	4.5	22.50
390 " " " "	5.5	4.5	4.5	22.75
395 " " " "	5.5	4.5	4.5	23.00
400 " " " "	5.5	4.5	4.5	23.25
405 " " " "	5.5	4.5	4.5	23.50
410 " " " "	5.5	4.5	4.5	23.75
415 " " " "	5.5	4.5	4.5	24.00
420 " " " "	5.5	4.5	4.5	24.25
425 " " " "	5.5	4.5	4.5	24.50
430 " " " "	5.5	4.5	4.5	24.75
435 " " " "	5.5	4.5	4.5	25.00
440 " " " "	5.5	4.5	4.5	25.25
445 " " " "	5.5	4.5	4.5	25.50
450 " " " "	5.5	4.5	4.5	25.75

If these rates were put into effect they would bring about not only a reduction on grain and grain products that would be beneficial to the consumers and millers on local business, but they would force a reduction in every through rate in the State. The sooner it is done by the commission, the sooner will they accomplish part of what they are trying to do in their complaint to the Inter-State Commerce Commission.

A. J.

Horticulture.

IRRIGATION IN HORTICULTURE.

By Judge J. S. Emery, of Lawrence, read before the Kansas State Horticultural Society.

The question of irrigation is, to us, far above tariff, and silver, and all that. To us, who live in Kansas, above all other questions. The horticultural society of forty years ago discussed flowers and gardens and things of that kind. Last evening I took down a horticultural address delivered forty-seven years ago by Mr. Robert C. Winchell. In that address Mr. Winchell said horticulture does not administer greatly to the financial want of man, but to his pleasure. He finally said that the finest exhibition of horticulture was to be found in the foliage-garden and cottage windows. And he went on to quote the words of the Almighty to Mother Eve when she left her flowers in the garden of Eden.

I come here to-day, and I see these tables loaded with apples, and I think, what does horticulture mean in 1895? It does not concern itself pre-eminently with the gratification of man's appetites, but it ministers to his financial wants. Our Mayor, last evening, told you one bushel of apples was worth two bushels of potatoes. Horticulturists talk about apples ten minutes out of eleven. We talk about apples and fruit trees, other things follow. Any kind of tree is the friend of man. It is our protection, and administers to our wants, our pleasures, our comforts, and without trees we suffer. Humboldt, said: "A nation that cuts down trees on its mountains and hills, prepares for the following generation two evils, loss of water and loss of fuel." The Ohio river is lower this winter than ever before, because there are fewer trees on its banks than before. Mr. Morton said, the other day, when it was suggested to have the Adirondack mountains despoiled of their trees, that New York city would not have water enough for domestic purposes. Mr. Potter said, recently, he saw more trees burn in one fire in the mountains of Colorado than had been used for man's wants since Colorado was settled, and he had seen several such fires; and I think of what you are doing to minister to the wants of man, by planting trees, thus reclaiming arid America. I have given much thought to the reclaiming of arid America. Part of Kansas can never be reclaimed without the aid of trees. They are spending much money all over Europe on forests. France is spending over a million dollars a year wheeling dirt up the mountain sides and planting trees and hedges, to stop the water as it comes down, to make the southern part of that country habitable again. The trees were sold to pay the war debts of Napoleon. In England they are spending more money to reclaim the country by irrigation than ever. Spain lost her supremacy by destroying her trees and went into decay. There was once a great empire in Arizona and New Mexico, which disappeared with the trees. I never see a man cutting a tree but I think it is a mistake. Let that tree alone; it is needed to reclaim this country.

Half of this country is practically unoccupied to-day. You know the condition of western Kansas as well as I do. No sadder sight greeted my eye than wagons filled with men, women and children, with all they had crowded in with them, coming from somewhere. I ask, "Where from?" "Nebraska." "Where to?" "Missouri." "What are you going to Missouri for?" "I got driven out of Nebraska by drought." So drought has driven people from our State. Some of you whose heads are not white will live to see orchards from here to the foot-hills of the mountains. I saw as fine fruit as is on that table from an orchard seven years old, at Rocky Falls, Col. I presume the boy is now born who will see a continuous garden from Wichita to Pueblo. At the Soldiers' Home, at Dodge City, they have done a noble work. They have irrigated 100 acres with reservoirs. The Arkansas valley is filled with water that can never be exhausted. We

have gone down 300 feet in that valley and found only sand and water. It is 300 miles long and five to ten miles wide in our State. We have been forty years finding out that the methods of the old country will not do for western Kansas. These men going back in wagons, became poor out there, and could not get a living. Irrigation and small farming should be taught at the University and the Agricultural college. We must come to it. Last week, in Chicago, I saw 500 young people filling up to a large dry goods house for employment, with sober faces, and I said, "If I was in Chicago I would hire you all." Something is the matter, and reclamation by irrigation is the only way out. We have the land, the sunshine and the soil.

We have one-seventh of the good land of the world. The French geographer said: "The Mississippi valley is the largest continuous body of agricultural land on the globe, all in the temperate zone—the zone of power." And we will yet support five hundred millions of people in this valley. How? In the new way! Go out where the water is twenty-five feet under, buy ten acres; put up a windmill; water your ground, set out trees, garden and orchard, and begin to live! Out on the Union Pacific I found ten acres of land; one acre was irrigated. There was a house, and flowers in the windows, and I knew those people were prosperous. I rode out of my way to talk with the old gentleman there. He had a windmill, a reservoir of an old whisky barrel, set as high as this window. I said: "Why did you come here, and where from? I see you are prosperous. How did you do it?" "Well," he said, "I have a well 115 feet deep; I put up a windmill, and I have got along well." He was irrigating one acre. (He had five acres in garden.) "Why not irrigate the five acres?" said I. He says: "I will get to that in time. I get along very well. I brought up my family; my three daughters are teaching school. I am very comfortable, thank you." There is a man, way out West, with a well 115 feet deep, drawing water and living in peace and comfort, and bringing his girls up to be school teachers.

Irrigation will double the life of your orchard. I have a son giving attention to that now in Ohio. A clipping he sent me reads thus: "A gentleman in a city adjoining Cincinnati has an old orchard that had almost stopped bearing. He irrigated it and the trees took a new lease of life." Why should trees in Kansas become useless at fifteen, sixteen or seventeen years old? An old friend in Missouri said to me: "I cut my orchard down at fifteen years old. After bearing five or six years I cut them down. I cannot afford to have trees that do not bear a full crop." Now I do not think an apple tree ought to die so young in Kansas. If we irrigate our apple trees they will live longer. Why not? Our apple trees receive their death-blow in July and August. Water in these months. At Ellsworth, a German, got up and said: "Last year I did irrigate one row, and this year I did irrigate one acre, and I planted it to everything." That man started right and will win. So now I suggest, begin small, irrigate your orchards here in Douglas county. Mr. Smith told me he sold a certain amount of strawberries, and "if he had had rain three weeks earlier he would have had three times as much." You will find some who think irrigation a fraud. This question is world-wide. They are irrigating everywhere, and the man who does not begin is sleeping on his opportunities. Governor Morrill was right when he said we had a start in horticulture in this Sunflower State that will become dominant. If we irrigate, there is no uncertainty. T. C. Henry said to me: "I can get money to build dams, but the difficulty is to get men who know how to live by irrigation." We must learn it. A man said to me: "I am out of luck, Emery. Do you think I could live by irrigation if I went down to Garden City? Is there water there, and can I do it?" I said, "Go and try." Mr. Frizell, at Larned, raised bushels of grapes on his farm

with a windmill. When you make your garden, irrigate it; don't devote this whole country to wheat and corn. Put up your pump; in that there is good reward.

A Cheap Fruit Cellar.

It is time to begin thinking about how to store the apples. Last fall thousands of bushels of Kansas apples rotted in the orchards, and by mid-winter apples commanded a good price. Read what L. A. Goodman, one of the most successful fruit-growers in the country, says about a cheap fruit cellar:

"A fruit cellar for the storage of apples for the winter seems a necessity and a growing demand is made for such a place. An excavation into the side of a hill, making it as wide and deep as the necessities demand, is the best storage place for apples for the winter. The entrance to this cave must be strong and substantial, with logs for the roof and sides and then covered with soil from the cellar. An outer door, and then a short passage way to the inner door, where the cellar proper begins, is required. If a person can afford it this outer wall and cover might be made of stone and then would be permanent. In some places the roof of the cellar proper might need the support of timbers if made very wide; in other places the roof would be of stone, and only need supports to make it as large as it might need.

"If found impossible to get the side hill, as here outlined, then the next best plan would be to select some location where the drainage is good and scrape out the cellar, only have it not to exceed sixteen feet wide and as long as necessary. After excavation set a row of posts through the center and place a strong heavy ridge-pole on top of them. Set a row of posts on each side of the excavation, with strong poles on top of them. Use logs for the cover and lay them closely together; fill the cracks so that the dirt will not sift through and then cover it all with the soil; have the soil well packed so that the rain will not penetrate. A ventilator at the rear end, extending to the floor, with a valve opening at the top of the cellar, should be put in, so that cold air can be admitted to the bottom of the cellar or warm air can be taken out from the top.

"Bins made on each side for the reception of the apples will be sufficient. Apples placed in bulk thus will keep much better than when placed on shelves. Keeping the air from the fruit will hold fruit much better than allowing the air to pass over the fruit.

"If the apples are to be barreled, then put them in the barrels loosely and stack the barrels one on top of the other until the cellar is full. When you wish to sell, take the barrels down, empty on tables prepared for the purpose and sort out and pack ready for market.

"Where these cellars cannot be made, then a double house with the space filled with sawdust and the roof double and filled with sawdust also, will be the next best thing, but much more expensive. A foot or ten inches of space should be allowed for the filling in order that the temperature may not change in the house.

"If we keep in mind the fact that it is the changes of temperature that injures fruit more than anything except 'too warm,' we can easily understand the necessity of care in the building."

On the 3d inst., William H. Barnes, Acting Secretary of the State Horticultural Society, went to Oskaloosa and organized the Jefferson County Horticultural Society, with the following officers: President, Edwin Snyder, Oskaloosa; Vice President, J. M. Puderbaugh, Osawatie; Secretary, E. M. Gray, Perry; Treasurer, J. M. Curry, Winchester. This society started off lively, with thirty-seven members. They will meet on the third Wednesday of each month.

A Potato House.

[This paper was held over from last winter and is published now as a reminder.—EDITOR.]

I was much interested in Mr. Norton's article on potatoes, especially the description of Mr. Pugh's potato house.

I built a potato house last fall, something like Mr. Pugh's, but with Mr. Norton's suggestions of improvements added. The house is forty feet long by twenty feet wide and eight feet deep. It is built in a bank, facing south. The frame-work is made up of 2x6 material; the floor is of 1x6 fencing laid one inch apart, and the sides and ends of bins are of 1x4, one inch apart.

Now, as to ventilation, the greatest point to be considered in building a potato house, I believe this house has some very good features. There is a run-way four feet wide through the center; the studding are about six inches from the main walls; the ends are double, the walls being about one foot apart, the surface being covered with tar felt. The north end differs from the south in that it is practically air-tight, which makes a dead-air chamber at this most exposed point, and at the same time does not interfere with the free circulation of air through the slatted inside wall; there is a door in each gable and a convenient top ventilator, and in the south end there is an air-tube on each side of the door, which run down under the center of the floor of each bin. When these and the top ventilator is open, they set up a free and very equally-distributed circulation of air. I do not believe that any heating apparatus will ever be required. The potatoes have kept nicely, but the winter being so mild, my greatest trouble has been in keeping the temperature low enough.

CHAS. D. WILLIAMS.

Silver Lake, Kas.

Experiments in Potato-Growing.

The Missouri Experiment Station has issued a bulletin giving account of several carefully-conducted experiments in potato-growing. The following summary of "conclusions for the guidance of farmers" gives valuable points:

1. Missouri soils are well adapted to profitable potato-growing.
2. Drought and extremely hot seasons, whenever expected, demand the planting of only early varieties.
3. A mean temperature from April to September—of between 60° and 75° F., the maximum not reaching higher than 85° F., the minimum not lower than 50° F., with a monthly rainfall, evenly distributed, of about six inches in spring, gradually decreasing to two and one-half inches in fall—presents the best climatic condition for a sure and profitable potato harvest.
4. The crop yields are increased nearly proportionately to the amount of chemical fertilizer used up to about 900 pounds of sulphate of potash and superphosphate each per acre.
5. This amount of fertilizer will cost between \$30 and \$35 and increase the crop 100 to 150 bushels per acre.
6. The harvests in the variety tests for 1895 were obtained with 300 pounds of superphosphate, costing about \$3 per acre, and amply paid for the outlay.
7. The harvest depends (a) upon the

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quality and texture of the soil and this, in large measure, upon the character of the season; and, (b) upon the fertility of the soil.

8. It is proportionate under favorable conditions to the number of vigorous plants and not to the mode of planting.

9. Planting by eyes, quarters or wholes, by stem or by seed end influences but slightly the yield per acre; under the diverse and not to be foreseen conditions of soil and climate for our State the most generally suitable planting is probably by quarters.

10. Keeping the growing crop free from weeds, blight, and potato bugs, and the soil loose are, of course, prerequisites for a good harvest.

11. The amount of small, i. e., unmerchantable potatoes in the crop depends not upon the mode of planting and subsequent cultivation, but upon the fertility of the soil, the favorableness of the season, the vigor of the plants and the nature of the variety.

12. When seed potatoes are high in price it is advisable to consider the output per acre, viz.: Thirty-three bushels in experiment 1 yielding 249.7 bushels in crop; 4.5 bushels in experiment 5 yielding 219.7 bushels; 2.2 bushels in experiment 16 yielding 250.2 bushels; 2.2 bushels in experiment 19 yielding 282.3 bushels. And, bearing in mind the cost of the fertilizer in the two last experiments, of respectively \$10.50 and \$25 per acre, make a selection of the mode of planting most suitable to the conditions.

In the Dairy.

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

Asked and Answered.

DAIRY EDITOR KANSAS FARMER:—I was glad to see you discuss the low price of butter in the FARMER of May 21. What concerns me is not the product of the cow, but the price of her production. From 105 pounds of milk set and skimmed in the old way I made six pounds of butter. In what respect does separator butter differ from skimmed cream butter, that it commands a better price? What is right temperature for cream to be churned, and what kind of a thermometer can be used to test temperature of cream, and how used? What is considered good salting for general market? And last, but not least, how are farmers' daughters, who live miles from a good town, to get a paying price for their nice, sweet butter, so that they can stay at home and make their own living and not be compelled to enter the great industrial throng, unsex (?) herself and perhaps crowd some poor man to the wall? Cambridge, Kas. BERTHA UTLEY.

We are always glad to receive letters like the above from readers of the KANSAS FARMER, especially from farmers' wives and daughters, who, in most instances, have entire charge of looking after the milk and making butter.

The low price of dairy products at this time is a grave question with every one who depends on the nearest store for a market. A better plan, however, is to sell nearly all the milk to a creamery during warm weather, if one is located within reasonable distance; if not, make the very best butter that is possible, and try selling in the larger towns.

Six pounds of butter from 105 pounds of milk is above the normal, and is an average of one pound of butter to seventeen and one-half pounds of milk. Of course, this rate varies with the season. If the test was made in the winter time or on dry feed it would still be somewhat above the record made by most creameries. The average returns last year gave one pound of butter to twenty-two and one-half pounds of milk among the Kansas factories.

As compared with the common way of raising cream among farmers the separator has several advantages, viz.: (1) It takes out whatever dirt has found its way into the milk. (2) Separator cream can be kept under better control than gravity cream, as the latter is generally sour when removed from the milk. (3) Separator cream can be ripened to the desired acidity with more certainty than any other. Of course, where ice is used and the utmost care observed, good butter can be made in the old way, but, as a rule,

separator butter is of better flavor and sells higher in the market.

The best temperature to churn at in warm weather is 58°. One other advantage claimed by butter-makers is that separator cream can be churned as low as 50°. This would be another point in favor of the separator.

Get a standard dairy thermometer from a supply house. Insert the bulb in the cream and observe the point to which the mercury rises in the tube. One ounce of salt to a pound of butter suits most customers.

There is one difficulty in disposing of even the very best butter in small lots away from large markets at paying prices. Creameries have the advantage of selling in car-loads and thereby saving on the cost of transportation, and besides getting top prices for their product.

It is a commendable act on the part of young women to learn trades and take their places in the industrial world alongside of men in whatever station she is capable of filling. In Denmark and Holland almost the entire work in creameries and dairies is done by young ladies.

Kansas is in need of a dairy school in connection with the State Agricultural college, where boys and girls may go without cost and learn the whole art of handling milk and making butter and cheese. Butter made on correct principles is more sure of sale and at a better price than the badly-constructed article. A well-educated butter or cheese-maker of either sex will nearly always find steady employment.

Good Cheese.

G. A. Smith, of New York, thus described, before the Vermont Dairy-men's Association, a good cheese. We add a few suggestions from him in regard to the art of making it:

"There are a great many ideas of what constitutes good cheese. People have different notions of what they like, but there are few people but that like a good, silky cheese; a cheese that, when you press it between your thumb and finger, you feel you have something there—it is solid, but still smooth and silky. If it is gritty between the thumb and finger, a good many don't like it—it is likely to become sharp, and a good many people don't like sharp cheese. The majority of cheese-eaters want a mild cheese. To obtain this solid but silky texture, first cut the curd when it is not too hard; if you allow your curd to stand too long the action of the rennet is lost, and it is not so active in driving the moisture out of the curd.

"Commence gradually stirring it; agitate it enough to keep it from settling together; if it settles together you will have to break it apart, and when you do that you lose the fat. Keep stirring so that the particles won't adhere, so that the curd gradually shrinks down, and continue it as you increase the heat until it is shrunk down to about the amount of dryness you want it, and you have lost no fat. If you draw the whey off the curd, when the acid first begins to develop, take the curd in your hands, and if it springs apart and don't stay together at all, then your curd shows it is dry enough; or if you bite the curd and it squeaks between your teeth; that is the way our mothers used to tell, by the squeaking of the curd.

"Get the moisture out of the curd; lactic acid is formed by the breaking up of the sugar, and the quicker you get that out of the curd the quicker you get rid of the tendency to acidity. You must retain the amount of moisture you want, thirty-six and a quarter in the hundred, then pile your curd up and cut it up into convenient pieces to handle and turn it over, and so gradually work the moisture out; but don't let the moisture collect on your pile of curd or it will develop acidity. To make the other kind of cheese—the hard and brittle kind—first let the curd get hard, and then put on the heat rapidly. In that way the moisture is not assimilated into the body of the curd. If the curd is harsh the cheese will be harsh."

"BROWN'S BRONCHIAL TROCHES" are of great service in subduing Hoarseness and Coughs. Sold only in boxes. Avoid imitations.

Is it More Over-Production or Under-Consumption?

The low prices for butter have set a lot of men to talking about the causes that have produced this state of affairs. With a majority it is over-production. This may be true to a certain extent, but it seems strange that no one has anything to say about under-consumption. Let us see how this matter would look in the light of certain facts.

In 1892, the Hoard creameries were supplying 3,000 families in Chicago with their butter every week. Times were prosperous, business was good and all the forces of society were moving along in a healthy state. These three thousand families were prosperous and were living well, consuming lots of butter. Indeed, their demands were greater than the capacity of the creameries to supply, and that year \$15,000 worth of butter was bought from outside creameries to supply their demands.

How was it in 1894? The Hoard creameries were supplying the same number of families and nearly all were identically the same. Hard times had come; business was dull and revenue was greatly lessened. The house-wives being restricted as to family expenses, economized as to the butter expenditure, and so it came to pass that the 3,000 families consumed \$31,000 worth less of butter that year than in 1892. This simply means under-consumption. It also means that there is no man on earth who is more interested in the business prosperity of the consuming classes than the farmer.

The farmer produces food and the raw material for clothing. When everybody is busy, well paid for their labor, they live well and dress well. When business paralysis prevails, as it has done since 1893, every one makes one pound of butter go twice as far as it did in more prosperous times. This should teach us as farmers, and especially dairy farmers, not to listen to the cheap demagogues who would try to make us believe that our interests are not bound up in the prosperity of all other classes of society.—Hoard's Dairyman.

Messrs. Brandt & Essley, of Canton, Kas., will open a new creamery at Burlingame, about the 15th of June. The main building is 24x82 feet, with a boiler-room 24x30. The plant will cost \$10,000, and has a capacity of 6,000 pounds of butter a day. There will be a formal opening, with speeches and music. The above firm are already operating factories in ten different towns, mostly in McPherson county. Mr. Brandt says the demand for Kansas butter was never better, especially in the New York and Boston markets. That the product of Kansas creameries in operation less than eight years should be competing with Vermont, Wisconsin, Minnesota and Iowa is gratifying to Kansas dairymen.

TO WOMEN ONLY.

Free Treatment for Diseases Peculiar to Females.

In a lecture to women, recently, Dr. Hartman, of the Surgical Hotel, concluded his remarks as follows: "No one knows better than I how much some women suffer with diseases peculiar to their sex. No one knows better than I do how many of these suffer with such diseases. Patiently, hopefully, wearily, and often silently, they eke out a miserable existence year after year. No martyr in poetry or heroine in romance makes a more touching appeal to human sympathy than the woman burdened with the care of a family trying to carry the extra load of some tormenting and ever-present female disease."

To all such we would say: Write him, giving him a careful description of your symptoms, and he will promptly advise you what to do and continue to correspond with you until you are well. He will direct every detail of the treatment by letter without charge. The medicines he prescribes you will be able to get at the nearest drug store. Free book for females sent by the Pe-ru-na Drug Manufacturing Co., Columbus, O. Dr. Hartman's address is Columbus, O.

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

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Gossip About Stock.

A big Hereford sale was made by Sunny Slope farm, Emporia, Kas., last week, consisting of twenty-one head of thoroughbred Hereford bulls, to go to fine stock ranches in Wyoming. The purchaser was Mr. James MacKenzie, of Kansas City, Mo., the representative of Scottish investors in America. Enterprising buyers are fast learning that Kansas is headquarters for improved stock of the highest quality. This sale completely cleans up Sunny Slope farm of range stuff and only leaves a few topdy bulls for this season's trade.

The Princeton herd of Poland-Chinas, owned by H. Davison & Son, Princeton, Kas., enjoyed a splendid business last season, and with the new blood added and the superiority of the stock for sale this year a big improvement of trade is anticipated, as the seventy-five spring pigs and the fall boar pigs are by far the best offering Princeton herd has ever produced, and were sired by the following boars: Business 11637 C., Princeton Chief 14545, by the famous Chief Tecumseh 2d; Dictator 2d 14065, by Dictator, he by Guy Wilkes 2d and out of Lambing's Choice; dam Lula Woodburn, by Woodburn Medium; Upright Wilkes, by George Wilkes, and Riley Medium 12806. Business, however, still holds the post of honor. He was by Square Business 23163 O. and out of Corwin Lass 65128 O., by Adam. He is a very large hog, weighing over 700 pounds and measuring seventy-three inches around the heart in show trim. He has a very heavy bone, is right up on his feet, has a perfect disposition and has made a record both as a sire and show boar. At both Ottawa and Paola fairs last fall he was first in class and sweepstakes boar. At the Ottawa fair these breeders were awarded the special prize offered for best display. The spring litters are very fine, uniform, well colored and well marked. Betsey Wilkes, a granddaughter of McWilkes, has a litter by Dictator 2d; Bonnie U. S., by Loyal Duke and out of Bonnie U. S., by old Black U. S., has a litter by Princeton Chief that unite the Black U. S.-Chief Tecumseh 2d cross. Lady Favorite 2d, one of the best brood sows, also has a litter by Princeton Chief; Daisy Dean 2d, by Imitation, by Black U. S., has a litter by Dictator 2d; Dolly K. 5th, a prize sow by Kerr's Tecumseh, has a litter by old Business. Other sows in the herd by such well-known boars as J. H. Sanders (the Columbian winner), Claud D., by Claud (the World's Fair sweepstakes boar), Hadley's Perfection, by One Price, Wilkes by Guy Wilkes 2d, Kansas Chief by One Price, Premium Tecumseh, by King Perfection, O. K. 11781, Moorish Pride, and others. Princeton Girl has seven by Riley Medium, Black Daisy 4th has pigs by Business, White Ears 2d has pigs by Princeton Chief.

Two Great Shows.

Of those who have succeeded in their business by making a specialty of it, none have made more marked successes than those eminent in the show business. In later years two names have stood out with especial prominence in the West because of the excellence, magnitude and variety of their displays. These are Forepaugh and Sells, each of whose shows has from year to year been greeted with packed tents as they have presented their entertainments of trained people and trained animals. These two great shows have now been united and will exhibit at Topeka, Monday, June 15. The combined shows are truly worth the time and money it costs to see them.

The method pursued by the Nickel Plate Road, by which its agents figure rates as low as the lowest, seems to meet the requirements of the traveling public. No one should think of purchasing a ticket to Buffalo N. E. A. convention, during July, until they first inquire what the rate is over the Nickel Plate Road. For particulars, write J. Y. Calahan, Gen'l. Agent, 111 Adams street, Chicago, Ill. 94

Ottawa Chautauqua.

Tickets will be sold by the Missouri Pacific, June 18 to 26, from Topeka at rate of \$1.59 for the round trip, limited for return trip to June 30. From all other stations in Kansas at rate of one fare for the round trip. Train leaves Topeka 8 a. m.

Low Rates to Pittsburgh.

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

Tickets will also be sold at all coupon stations throughout the West and Northwest. A through double daily service of fast vestibuled express trains run between Chicago and Pittsburgh.

For further information address L. A. Allen, Asst Gen'l Pass. Agent, B. & O., Chicago, Ill.

Easily Done.

How easy it is to get a subscriber for the KANSAS FARMER on some of its various combinations, when the merits of the paper are understood, is illustrated by the following letter. Bless the man who lends his paper:

EDITOR KANSAS FARMER:—I got a copy of your paper from a neighbor and saw that you are sending your paper and the Semi-Weekly Inter Ocean for \$1.35. Please find enclosed that amount, for which send to my address. T. WEIR.

Preston, Pratt Co., Kas.

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

"Dead Easy" insecticide, as advertised by T. W. Southard, General agent of the Western Chemical Co., Kansas City, Mo., is considered the most successful remedy for ridding poultry of lice and mites and thereby keeping them free from these ravages which cause poultry-raising to become unprofitable. Our readers need have no hesitation in ordering this insecticide.

Union Pacific Route.

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

Millions of Gold

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

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

A Look Through South Missouri for Four Cents.

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

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

Republican Convention at St. Louis, via Burlington Route.

For the National Republican Convention, at St. Louis, June 16th, 1896, excursion tickets will be sold at very low rates over the "Burlington Route."

This will be the greatest political gathering since the War. Preparations are being made for entertainment on a grand scale; scores of marching clubs in uniform will take part in Parades; all the prominent Republicans of the country will be present.

Write Major C. C. Rainwater, 910 Washington Ave., Chairman of Hotel and Boarding House Committee, in regard to your accommodations.

Consult your Ticket Agent in regard to time and rates. L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

Uniformed Attendants for Eastern Passengers via Vandalia-Pennsylvania Lines.

Uniformed Parcel Porters will, free of charge, look after the comfort of all arriving and departing passengers over the Vandalia-Pennsylvania route at Jersey City Passenger station and will accompany them (if desired) between Cortlandt street ferry, New York city, and the American Line Pier, Sixth Avenue Elevated Railroad, and the Central Railroad of New Jersey station; also between Desbrosses street ferry, New York city, and the Ninth Avenue Elevated Railroad. They will also meet Vandalia-Pennsylvania Line trains at Philadelphia Broad street Passenger station and assist passengers who may desire their aid; take charge of rolling chairs when needed; meet carriages and make themselves generally useful to passengers. They will be in attendance from 6 a. m. until 12 midnight, and when accompanying passengers will carry parcels and hand baggage.

Test of Separators.



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

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

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

Hubbardton, Vt., May 20, 1896.

C. A. ST. JOHN.

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

WE WANT AGENTS IN ALL unoccupied territory.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Great Farmers' Supply Store

WE SELL FARMERS DIRECT.

TWINE—TWINE—TWINE

Pure White Sisal for 7 cents per pound, and we pay the freight to any railroad station in Kansas or Missouri.

Sections for all mowers, in lots of twenty-five, each 6 cents. Four and a half foot knife, for any mower, \$2.75; five-foot, \$3; six-foot, \$3.25. Everything else in proportion.

THRESHERS, A SELF-FEEDER FOR \$125.

Send 4 cents in stamps for Supply Catalogue.

The Kansas City Machinery Co., 1400 W. 10th, Kansas City, Mo.

Homes for the Homeless.

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

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

For the N. E. A. Meeting

at Buffalo, N. Y., July 7 to 11, it will be of interest to teachers and their friends to know that arrangements have been successfully accomplished by the Nickel Plate Road providing for the sale of excursion tickets at \$12 for the round trip with \$2 added for membership fee. Tickets will be on sale July 5 and 6 and liberal return limits will be granted. For further information as to stop-overs, routes, time of trains, etc., address J. Y. Calahan, Gen'l. Agent, 111 Adams street, Chicago, Ill. 98

Ho! for Cripple Creek.

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

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

THE STRAY LIST.

FOR WEEK ENDING MAY 28, 1896.

Cherokee county—T. W. Thomason, clerk.

MARE—Taken up by J. L. Church, in Pleasant View tp., April 27, 1896, one dark bay mare, fifteen hands high, white strip in face, collar marks, 5 years old; valued at \$25.

HORSE—By same, one light bay horse, fifteen hands high, white strip in face, four white feet, shod in front, 14 years old; valued at \$10.

HORSE—By same, one dark bay horse, fifteen hands high, white strip in face, three white feet, shod in front; valued at \$15.

MARE—Taken up by R. F. Hartley (P. O. Baxter Springs), April 25, 1896, one gray mare, fourteen hands high, shod all round; valued at \$15.

MARE—By same, one sorrel mare, white strip forehead, two white feet; valued at \$15.

Johnson county—J. W. Thomas, clerk.

MARE—Taken up by W. C. Montgomery, in Oxford tp. (P. O. Morse), April 15, 1896, one bay mare, sixteen hands high, 6 years old, star in forehead; valued at \$20.

MARE—By same, one sorrel mare, 6 years old, fifteen and a half hands high, white hind feet, blaze in face; valued at \$20.

MULE—Taken up by W. J. Wedd, in Shawnee tp. (P. O. Lenexa), April 20, 1896, one dark bay horse mule, 9 or 10 years old, collar mark on each shoulder; valued at \$20.

FOR WEEK ENDING JUNE 4, 1896.

Allen county—James Wakefield, clerk.

PONY—Taken up by Newman Crowell, in Elm tp. (P. O. Iola), April 28, 1896, one dark bay gelding pony, about 10 years old, shod on front feet, harness marks; valued at \$17.

FILLY—By same, one dark brown filly, fourteen

and a half hands high, about 3 years old, white spot in forehead, slender built, had halter on.

Cherokee county—T. W. Thomason, clerk.

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

FILLY—Taken up by De Dorsey, in Pleasant View tp., May 8, 1896, one sorrel filly, fourteen hands high, star in forehead; valued at \$15.

Sumner county—Chas. Sadler, clerk.

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

MULE—By same, one light brown horse mule, branded O on left shoulder; valued at \$20.

FOR WEEK ENDING JUNE 11, 1896.

Douglas county—Harry Dick, clerk.

MARE—Taken up by R. L. Patton, in Kanawha tp., May 18, 1896, one light bay mare, about fifteen hands high, about 4 years old, white feet and some white in face, no marks or brands; valued at \$15.

Cherokee county—T. W. Thomason, clerk.

HORSE—Taken up by C. A. Lyerla, in Shawnee tp., one bay horse, fifteen hands high, 7 years old, black mane and tail, star in forehead, left hind foot white, scar on right front foot, shod all round, spavin on both hind legs; valued at \$10.

MARE—Taken up by G. W. Russell, in Shawnee tp., one gray mare, fifteen hands high, branded K on left thigh.

MARE—Taken up by E. D. Bray, one sorrel mare, fifteen hands high, fifteen years old, slightly away-backed, branded L. M. on right hip; valued at \$10.

HORSE—Taken up by E. A. Ellis, in Shawnee tp. (P. O. Crestline), one dark brown horse, fourteen hands high, 14 years old, brand on left shoulder.

HORSE—By same, one light brown horse, fourteen hands high, 12 years old, left hip down.

HORSE—Taken up by E. Barnes, in Crawford tp., May 26, 1896, one black horse, star in forehead, about 10 years old, weight about 1,000 pounds, shod all round.

MARE—By same, one light bay mare, star in forehead, left hind foot white, about 4 years old, weight about 1,000 pounds, shod all round.

Pottawatomie county—Frank Davis, clerk.

STEER—Taken up by T. F. Wells, in Shannon tp., May 25, 1896, one black muley steer, 2 years old, smooth crop off right ear; valued at \$24.

Sheridan county—H. W. Percival, clerk.

MARE—Taken up by R. M. Love, in Logan tp., one flea-bitten gray mare, weight 1,000 pounds, 13 years old; valued at \$5.

PONY—By same, one white pony, weight about 700 pounds, age unknown; valued at \$5.

COLT—By same, one iron-gray colt, 1 year old, had halter on; valued at \$5.

Shawnee county—Chas. T. McCabe, clerk.

THREE COWS—Taken up by D. F. Herring, in Silver Lake tp. (P. O. Swinburn), three cows—one red, shell of right ear broken, branded O on right hip; two spotted cows, dehorned, branded O on right hip.

TWO CALVES—By same, two spring male calves, one spotted and one roan; value of five strays \$56.

DOGS.

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



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

The 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. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. ORR, Manhattan, Kas.

MANGY PIGS.—Some of my pigs are getting mangy. The skin gets thick and rough, then dries and cracks and forms scabs. J. H. C. Olsburg, Kas.

Answer.—Give your pigs each a teaspoonful of turpentine in a little sweet milk or swill once a day for a week. Before you begin this give each pig a good washing with warm water and soap, then apply a mixture of sulphur, lard and kerosene in equal parts. Repeat this greasing twice a week without the washing.

INDIGESTION.—My cow got on the wheat and scoured very badly. The next morning she was bloated and I stuck my knife in her paunch and she got better, but she still bloats at times and is getting poor. She bloats worst on wet days. S. E. P. Brookville, Kas.

Answer.—Give your cow two tablespoonfuls of the following mixture twice a day: Powdered charcoal, powdered gentian root and bicarbonate of soda mixed together in equal parts.

LAME MARE.—In December last my mare got thrown and the wagon ran over her pastern joint. She was very lame but got nearly over that, but the joint is large and hard. What can be done? S. S. B. Topeka, Kas.

Answer.—Apply a blister made of 1 dram of biniodide of mercury and 1 ounce of vaseline. If this does not remove the lameness have some good veterinarian fire her. The joint will probably remain large to some extent.

SORE SHOULDER—GARGET.—(1) My mare has a lump on her shoulder from a collar bruise. I opened it and let out some bloody matter but the lump does not go down. (2) We have a cow that gives milk that looks like lard and will not run through the strainer. Can anything be done for her? Herington, Kas. C. G. K.

Answer.—(1) Open the sore up well to the bottom to give drainage, then inject once a day with a saturated solution of blue vitriol till it presents a healthy surface, after which inject once a day with a weak solution of the same, to heal it. (2) A tablespoonful of saltpetre dissolved in water, 2 drams of fluid extract of poke root added and the whole given as a drench twice a day may remove the trouble in your cow, but if the case is of long standing a cure is very doubtful. The udder should be milked clean three times a day, or better, let the calf run with her.

\$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer one hundred dollars for any case that it fails to cure. Send for list of testimonials. Address, F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75 cents.

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

Reduced Rates to Washington.

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

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

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

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

You Will Save \$1.50

If you patronize the Nickel Plate road Chicago to Cleveland and return on occasion of the meeting of the Imperial Council, June 23 and 24, at Cleveland, O., for which tickets will be on sale at \$3.50 for the round trip, June 21 and 22, available on all trains and returning until June 25. Why not travel over the Nickel Plate road? Perfect service; luxurious sleepers; unexcelled dining cars. For further information as to trains, etc., write J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 109

Unequaled Service

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

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

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

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, June 8.—Cattle—Receipts since Saturday, 6,329; calves, 369; shipped Saturday, 1,447 cattle, 288 calves. The market was steady to 10c lower and slow. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price	No.	Ave. Price
54.....	1,413 \$3.90	18.....	1,513 \$3.85
20.....	1,291 3.80	17.....	1,383 3.80
20.....	1,383 3.75	21.....	1,090 3.75
35.....	1,431 3.70	18.....	1,344 3.70
20.....	1,302 3.70	17.....	1,400 3.70
20.....	1,380 3.65	18.....	1,556 3.65
3.....	1,006 3.25	1.....	1,220 3.35
1.....	1,200 3.25	1.....	1,000 3.25

TEXAS AND INDIAN STEERS.

44 Ind.....	1,114 \$3.15	23.....	987 \$3.00
48.....	1,053 2.90	51.....	945 2.90
16 grs.....	799 2.25	4.....	490 2.25
13.....	10,14 2.25	1.....	1,000 2.25

COWS AND HEIFERS.

5.....	908 \$3.25	1.....	1,200 \$3.25
2.....	1,025 3.25	1.....	1,390 3.50
1.....	1,025 3.25	1.....	1,390 3.10
1.....	1,070 3.00	1.....	880 3.00
2.....	1,065 2.50	1.....	1,090 2.50
2.....	990 2.50	5.....	1,042 3.35
1.....	1,120 1.95	4.....	702 1.85
2.....	887 1.75	1.....	950 1.75
1.....	890 3.10	57.....	728 3.15
2.....	510 3.00	11.....	649 3.00

STOCKERS AND FEEDERS.

17.....	524 \$3.65	21.....	914 \$3.65
32.....	836 3.60	14.....	745 3.55
17.....	1,024 3.50	1.....	1,100 3.45
3.....	886 3.00		

Hogs—Receipts since Saturday, 5,599; shipped Saturday, 804. The market was 5c@10c higher. Following are representative sales:

66.....	176 \$3.20	75.....	173 \$3.20	23.....	161 \$3.20
64.....	203 3.17½	81.....	204 3.17½	77.....	197 3.17½
76.....	217 3.17½	144.....	205 3.17½	96.....	215 3.17½
8.....	195 3.17½	91.....	195 3.15	72.....	223 3.15
74.....	266 3.15	81.....	195 3.15	81.....	190 3.15
70.....	231 3.15	79.....	201 3.15	74.....	176 3.15
75.....	215 3.15	75.....	246 3.15	67.....	200 3.15
17.....	210 3.15	77.....	158 3.15	81.....	210 3.15
64.....	254 3.12½	123.....	225 3.12½	86.....	188 3.12½
61.....	208 3.12½	81.....	211 3.12½	15.....	156 3.12½
77.....	221 3.12½	64.....	249 3.12½	57.....	265 3.10
64.....	285 3.07½	68.....	265 3.07½	55.....	304 3.07½
67.....	239 3.07½	58.....	298 3.05	45.....	312 3.05
33.....	309 3.05	60.....	313 3.05	24.....	307 3.00
36.....	304 3.00	21.....	320 2.92½	3.....	366 2.75
1.....	420 2.75	4.....	381 2.75	1.....	400 2.75
3.....	356 2.75	2.....	365 2.75	1.....	550 2.65
1.....	960 2.50	1.....	330 2.50	1.....	243 2.50

Sheep—Receipts since Saturday, 2,704; shipped Saturday, 1,000. The market was weak. Following are representative sales:

9 lambs.....	52 \$5.00	2 lambs.....	65 \$5.00
17.....	75 2.65	25 Tex.....	75 2.25

Horses—Receipts since Saturday, 70; shipped Saturday, 43. The receipts have been very light and not many buyers are in the city. The quality is somewhat better, but the offerings not up to the standard required by the eastern buyers as yet.

Chicago Live Stock.

CHICAGO, June 8.—Cattle—Receipts, 17,000; market steady to lower; fair to best beefs, \$3.35@4.35; stockers and feeders, \$2.00@3.80; mixed cows and bulls, \$1.40@3.50; Texas, \$2.50@3.70.

Hogs—Receipts, 36,000; market opened steady to 5c higher; closed weak, advance mostly lost; light, \$3.30@3.60; rough packing, \$2.95@3.15; mixed and butchers, \$3.15@3.45; heavy packing and shipping, \$3.20@3.40; pigs, \$2.50@3.60.

Sheep—Receipts, 18,000; market steady; for best; common 10c lower; native, \$2.25@4.40; western, \$3.50@4.00; Texas, \$2.25@3.75; lambs, \$3.50@5.00; spring lambs, \$3.50@4.35.

St. Louis Live Stock.

ST. LOUIS, June 8.—Cattle—Receipts, 3,000; market steady; native steers, \$3.40 @ 4.35; stockers and feeders, \$2.25@3.00; Texas steers, \$2.40@3.60.

Hogs—Receipts, 6,000; market strong; light, \$3.10@3.35; mixed, \$2.90@3.25; heavy, \$3.00@3.25.

Sheep—Receipts, 6,000; market steady.

Chicago Grain and Provision.

	June 8.	Opened	High'st	Low'st	Closing
Wht—June.....					69½
July.....	62½	63½	60½	60½	60½
Sept.....	63	64½	61½	61½	61½
Corn—June.....					27½
July.....	28½	28½	28½	28½	28½
Sept.....	29½	29½	29½	29½	29½
Oats—June.....					17½
July.....	18½	18½	17½	17½	17½
Sept.....	18½	18½	18½	18½	18½
Pork—June.....					7 10
July.....	7 17½	7 25	7 17½	7 17½	7 17½
Sept.....	7 40	7 42½	7 30	7 32½	7 32½
Lard—June.....					4 23½
July.....	4 30	4 30	4 35	4 27½	4 27½
Sept.....	4 40	4 45	4 45	4 42½	4 42½
Ribs—June.....					8 85
July.....	8 92½	8 92½	8 90	8 90	8 90
Sept.....	4 10	4 10	4 02½	4 05	4 05

WOOL

We are now the largest receivers of wool direct from the CROWERS of any house in this market. A few years ago we commenced at the bottom of the list but the year 1896 finds us on top and we are going to stay there. We Make QUICKER SALES and QUICKER RETURNS for wool than any house in this market. THAT'S OUR RECORD and we are going to keep it. Don't Dispose of your Wool until you write us for our report and other valuable information which will be sent you at once free of charge. SACKS FURNISHED FREE.

SUMMERS, MORRISON & CO., COMMISSION MERCHANTS,
References: Metropolitan Nat'l Bank, Chicago, and this paper. 174 S. Water St., CHICAGO.

AFTER THIRTY YEARS

Continuous experience in the Wool Business we should be in a position to serve your interests in the most acceptable manner. We sell direct to the manufacturer, and charge as small a commission as is consistent with good business principles. We make liberal advances on consignments when desired. We furnish free use of sacks to all our shippers. We keep you informed at all times as to the latest and best points on the wool situation, prices, etc. As to our responsibility, we refer you to any reputable business house or the Chicago banks. Can't we correspond with you?

SILBERMAN BROTHERS,

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The Kansas City Stock Yards

are the most complete and commodious in the West,

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

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895.....	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City.....	922,167	2,170,827	567,015		
Sold to feeders.....	392,262	1,376	111,445		
Sold to shippers.....	218,805	273,999	69,784		
Total Sold in Kansas City, 1895.....	1,533,234	2,446,202	748,244	41,588	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST,
V. Pres. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintendent.
W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

Kansas City Grain.

KANSAS CITY, June 8.—The trade in wheat was not improved at all to-day. Prices were nominally steady. Offerings were fair, and there was little inquiry either from mills or elevator men.

Receipts of wheat to-day, 27 cars; a year ago, 46 cars.

Sales were as follows on track: Hard, No. 2, 1 car fair 5½c, choice held at 54¢55c, poor offered at 50c. No. 3, 1 car fancy 50c, 1 car choice 47c, 1 car 42c; No. 4, 1 car 37½c, 1 car 36c; rejected, 1 car 30c. Soft, No. 2 red, 1 car 57c; No. 3 red, 1 car good 54c, 1 car poor, new 50c; No. 4 red, nominally 42¢47c; rejected, 1 car 35c. Spring, No. 2, none coming in; 1 car choice, out of store, 50½c; No. 3, nominally 47¢50c; rejected, nominally 40¢44c; white, nominally 35¢48c.

Corn was in fair demand. Mixed sold at Saturday's prices. White was irregularly higher. There was no disposition to trade in futures. June was quoted nominally at 21½c; July, 22½c; September, 23½c.

Receipts of corn to-day, 46 cars; a year ago, 16 cars.

Sales by sample on track: No. 2 mixed, 8 cars 22c; No. 3 mixed, 4 cars 21½c; No. 4 mixed, nominally 20c; no grade, nominally 16½18c; white No. 2, 4 cars 23c; No. 3, 2 cars 22½c; No. 4, nominally 20½c.

Oats were a little lower and sold rather slowly, with liberal offerings.

Receipts of oats to-day, 16 cars; a year ago, 7 cars.

Sales by sample on track: No. 2 mixed, nominally 15¢16c, 1 car choice color 17c; No. 3, nominally 14c; No. 4, nominally 13c; no grade, nominally 10¢11c; No. 2 white, 1 car special billing 18½c, 5 cars 18c, 1 car 17½c; No. 3 white, 4 cars 17½c, 2 cars 17c.

Hay—Receipts, 13 cars; all but good hay sells very slowly. Timothy, choice, \$11.00@12.00; No. 1, \$9.50@10.50; No. 2, \$7.50@9.00; No. 3, \$5.50@7.00; choice prairie, \$6.50@7.50; No. 1, \$5.00@6.00; No. 2, \$4.00@4.50; No. 3, \$3.00@4.00; No. 4, \$2.50@3.50; straw, \$3.50@4.50.

St. Louis Grain.

ST. LOUIS, June 8.—Wheat—Cash, 59c bid; July, 58½c; August, 58½c@58½c bid; September, 59c asked. Corn—Cash, 25½c@25½c; July 26½c bid; August, 27½c@27½c. Oats—Cash, 17½c bid; July, 18c bid. August, 17½c bid.

Kansas City Produce.

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

Eggs—Strictly fresh candled stock, 7c per doz.; southern, 5c.

Poultry—Hens, 5c; roosters, 15c; springs, 11c per lb.; turkeys, hens, 6c; gobblers, 5c; old, 4½c; ducks, 7c; geese, not wanted; pigeons, 90c@1.00 per doz.

ROBT. C. WHITE, Pres. W. R. MUNGER, Sec-Treas.

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KANSAS CITY STOCK YARDS.

Money loaned to responsible parties for feeding purposes. Market reports free upon application. Consignments and correspondence solicited. Stockers and feeders bought on order.

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The Apiary.

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

Bees in Box Hives.

EDITOR APIARY DEPARTMENT:—As I note you are an authority on bees, will ask for information, being a novice in apiculture. We have five colonies of bees in common boxes. How will we manage to transfer them to good movable-frame hives, and when is the best time to do it? What are the best hives to use? We have plenty of alfalfa pasturage. WM. P. CHAIN.

Palmyra, Kas.

Bees may be brought up to the highest type of perfection by simply thus transferring them from box-hives to movable-frame hives, and if they are the black, or native bees, an Italian queen may be introduced. Transferring can be done with much more ease, and with better results in the spring of year, as at this time the occupants of the hive are few in number and the combs are light. It should be done at a time when the bees are gathering honey, as this enables them to do the work of patching up and repairing the combs more rapidly. We always aim to do our transferring about the time fruit trees are in bloom, and a warm, fine day presents itself.

For doing this work you will need a few tools, and of course everything should be in readiness, so that you can lay your hand on anything you want at a moment's notice. A hammer, a cold-chisel, a fine-tooth saw, knife with long blade, a ball of hard twine, such as used for broom-making, a little brush of some kind for brushing the bees off the combs—for this nothing is better than a few feathers from geese, or turkey wings (hair brushes will not answer in the absence of a regular bee-smoker), a few rolls of old cotton rags, and a transferring-board. This is a board a little larger than the frame of your new hive, and assuming that your frame is the regular "L" frame, which is seventeen and five-eighths inches long and nine and one-eighth inches deep, the transferring-board should be ten by eighteen inches. Nail strips of common lath on this board, the short way, half an inch apart, from one end to the other; a wooden needle, about a foot long and small enough to pass through the half-inch space between the lath, completes the outfit.

Take a roll of the rags and fire one end, and when well burning—do not allow it to blaze, but only to produce smoke—tip back the box-hive, and push the smoking rags under it; slip a block under to hold the hive in position, remove the smoke, and apply it again at intervals a number of times. In thus smoking them the bees will fill themselves with honey, and in this condition they will not sting you, except by accident. After thoroughly smoking, then pick up the box-hive and set it a few feet to one side, with the bottom end up. Place the new hive on the old stand, in the identical same spot the old one stood, with the entrance in the same place, or as near as it can be placed; open the new hive and remove the frames, take them and the transferring-board to the box-hive, and blow in some more smoke. Now, with the hammer and chisel, cut the nails and take out two sides of the box; hammering thus will do no hurt, but have the same effect on the bees as smoking them.

Cut out the first comb and brush all the bees off, lay it on the transferring-board, lay a frame on it and cut the size of the frame inside, so it will slip tightly into the frame, and if one comb is not large enough to fill a frame use two; cut and fit in all nice pieces of comb until the frame is full; then with the wooden needle insert the twine under the comb between the lath, draw up the twine and tie tightly over the top bar of frame. If the lath is about two inches wide this will give you a tie every two inches on the frame. Unless the comb is in small pieces it is not necessary to use all the spaces. When the frame is completed place it in the new hive, and all combs cut thereafter with adhering bees, they may be brushed off in the new hive.

Proceed in like manner until all combs are thus fastened into the frames and placed in the new hive; then pick up the old box, with adhering bees, and shake them down at the entrance, and see that all the bees that may be gathered in little clusters anywhere are removed to the proper place. We should be careful not to destroy or kill any bees that can be avoided, and if the queen can be found it is well to cage her until the job is completed, when she may be liberated in the hive. All fastenings may be taken off the frames in a few days, and, indeed, they must be taken off as soon as the bees fasten the combs, which they will do in a short time.

There are different methods of transferring, but I consider the above the best "short cut" plan for the beginner. The best hives in use to-day, and which are used by most leading beekeepers, are the "Langstroth," which are termed "L frame hives." The same goes by the name "Simplicity," "Dove-tailed," etc.

Handling Bees.

If you are afraid of bees you will not get along with them very successfully, and the greater your fear is the less success you will have. The fear of bee stings undoubtedly keeps many from engaging in bee culture. This reason to the practical apiarist appears very foolish indeed. You may say that bees will sting persons whether they are afraid of them or not. This may be true to some extent, but I am perfectly satisfied that fear causes 90 per cent. of all stings received. Almost the first question I ask a visitor to the apiary is, if he or she is afraid of bees. If they say "no," I generally show them through the apiary without using protection. But if they say "yes," then I know to use protection and get the bee veil and smoker. Now it is a very noticeable fact that the former class of persons seldom ever receive a sting, while the latter rarely ever escape it. Some very important points should always be observed by persons not familiar with bees when thus entering the apiary. On approaching a hive of bees, walk firmly but slowly. Allow your hands to hang by your side. Pass around to the side or back of the hive that the apiarist is opening. Never place yourself in front of any hive of bees, to blockade their thoroughfare. They have the right of way in front, and no apiarist or any one else has any business there. This is one mistake that persons so often make, and of course the apiarist must tell them to step aside. If he neglects this, the bees will notify them of the fact. Bees seem to take this intrusion as an insult, and I don't blame them for it in the least. Avoid all quick motions. If bees are flying about your head, stand as near motionless as you can; draw your hand to your face slowly, if you wish, adjust your hat or bonnet to afford you better protection. Never point at a comb of bees with a quick motion. If you do, some of the bees will undertake to inspect your finger.

By thus conducting himself any one can succeed, not only in passing through the apiary, but can get right down into a hive of bees and handle them with impunity. Absence of fear, firmness, and careful handling, is the whole secret to successful management of bees. This is better than bee veils, smokers, rubber gloves, etc.

Buckingham's Dye for the Whiskers does its work thoroughly, coloring a uniform brown or black, which, when dry, will neither rub, wash off nor soil linen.

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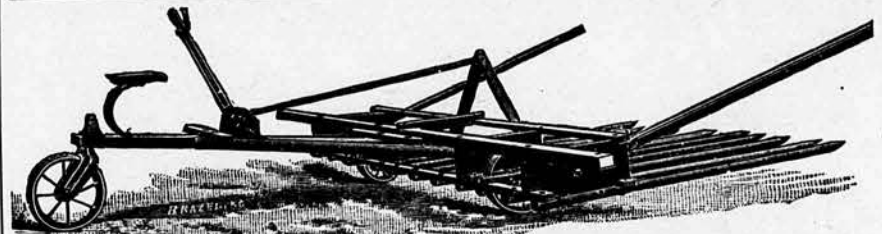
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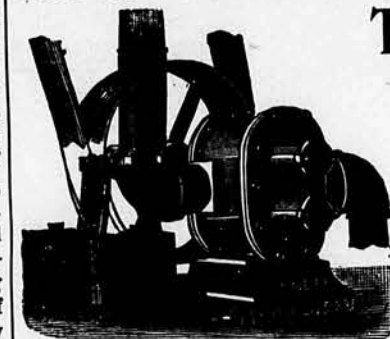
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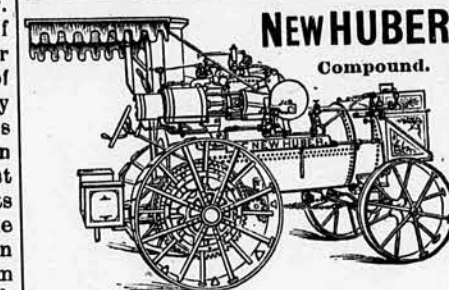
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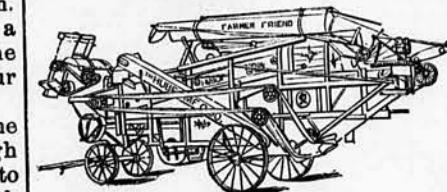
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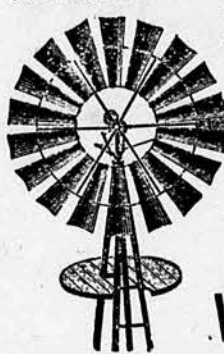
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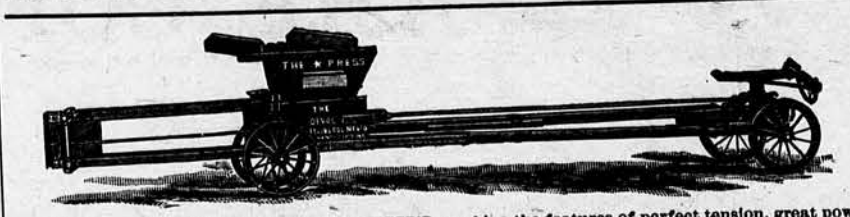
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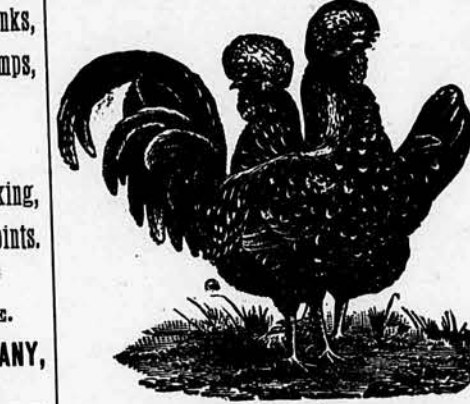
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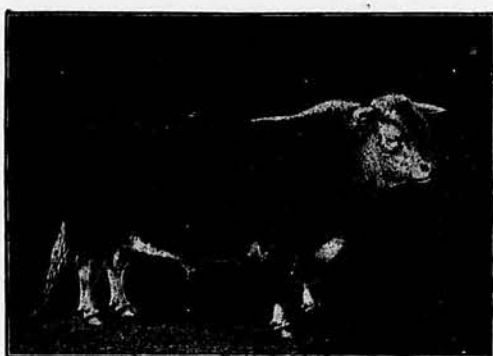
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