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## SAN BERNARDINO CO., CALIFORNIA. Its Soil, Climate, Resources, Cities and Towns.

### Kansas Farmer:

San Bernardino county is the largest county in the State of California. It embraces a larger territory than the States of Massachusetts, Rhode Island, Connecticut and New Jersey. The first settlement in the county was made at Agua Mauda, near Colton, in 1842, by the Yagus. The first white settlement was made at San Bernardino in June, 1851, by a colony of Mormons, who laid out a town and planted large fields of grain which in those days yielded an abundant harvest. These people purchased the large valley between the San Bernardino and Temecula mountains, from which they have sold portions to other colonies, until we now have the satisfaction of seeing the valley dotted over with beautiful and thriving towns and villages.

### THE SOIL

of the country is greatly diversified, that of the valleys being a black sandy loam, getting more sandy as we approach the mountains, where it assumes a gravelly nature. This variety of soils affords opportunity for a great variety of products. The low or bottom lands are adapted to the cultivation of corn and alfalfa, which attains enormous growth. The benches or mesas are unsurpassed for the production of fruit, especially the citrus varieties. The San Bernardino range divides the fertile valleys from the sterile table-lands which have, in some places, never been traversed by a white man.

### THE CLIMATE

is one of the many specialties of this country. By reason of its inland position of seventy miles and at the base of a high mountain range, it possesses a climate differing in many respects from the coast valleys, the dryness of the atmosphere being the most marked feature. It is for this reason that this valley is visited by invalids suffering with pulmonary affections, where they derive greater benefit than in any other part of the State. There are but two seasons, the wet and the dry. The spring and the fall months being the most pleasant seasons of the year; in fact, they cannot be surpassed anywhere. July, August and September are the dry months, at which time, between 9 a. m. and 3 p. m., the mercury often reaches 100 deg. and in some instances 110 deg. in the shade. This would be almost unbearable were it not for the continual air currents from mountain to ocean at night and *vice versa* in the daytime. The ocean breeze begins about 3 p. m., and by night the air is cool and pleasant, making sleep enjoyable and refreshing. The winter or rainy season begins usually in November, with a storm of several days duration extending over the months of December and January. There are occasional showers during the months of February, March and April, but lighter and less frequent. When it rains in the valley it snows on the mountains, which is plainly seen on the summits of Old Baldy, San Bernardina, Greyback and San Jacinto for at least nine months in the year. The valley is visited by a snow-storm once in about five years, which does no damage and affords enjoyment to old and young. In many places tomato vines bear the year round, some being several years old. The most disagreeable feature is the north winds, which are not very prevalent, but they are often destructive, being hot and

depressive, evaporating all the moisture, leaving vegetation in a withered condition.

### THE WATER SUPPLY.

The principal water supply for irrigation comes from the streams flowing from the southern slope of the San Bernardino range, of which the Santa Ana river, Worm and Lytle creeks furnish the largest portion. The water in these streams is claimed by companies holding water rights, who take the water out of the streams into canals, from which it is distributed through small ditches over the lands below. In the matter of a water supply the valley possesses an abundance.

### ARTESIAN WELLS

can be found between the mountain range and S. P. railroad in depths varying from fifty to 500 feet. There are about 600 of these wells within a radius of five miles, which furnish water sufficient to irrigate on an average twenty acres each. A Mr. Gage, of Riverside, is boring a number of these wells from which he has enough water to irrigate several thousand acres of land adjoining Riverside. Good surface wells are obtained at a depth of from fifteen to 150 feet, which furnish plenty of water for household purposes.

### THE PRODUCTIONS

are innumerable, as anything that will grow in a semi-tropic climate can find a suitable place in the valley. The chief articles of production are grapes for raisins and citrus fruits, mostly oranges and lemons.

Recent experiments have developed the fact that this valley can produce a perfect raisin, which, like the orange, is fast acquiring a national celebrity. They can be grown in nearly every part of the valley, Riverside, Etiwanda, Cucamongo and Redlands having the largest vineyards. The raisin production of the last year is estimated at 120,000 boxes of all varieties. The principal citrus fruit is the orange, which is grown in every part of the valley but especially in Riverside, where the yield for the past year was over 400,000 boxes, which will be exceeded this year by 50,000 boxes. The choice varieties are the Washington, Navel, Mediterranean Sweet and St. Michial, of which the first is the favorite. The cost of planting an orange grove, after buying the land, varies from \$60 to \$100 the first year and about \$30 per year afterwards, including water. The length of time until a grove comes into bearing is three years for budded fruit and five years for seedlings. The present price will perhaps average \$2 per box, delivered to the packers.

### COLTON

is in the center of the San Bernardino valley and has been named the hub, perhaps in jest, but here the two great trans-continental railroads intersect, making Colton the railroad center; also from which stages and freight teams distribute travelers and freight to all parts of the valley. The destiny of Colton is beginning to loom up in the horizon, and it is now easy to predict what its future will be. The people of Colton are wide-awake, enterprising and energetic, taking advantage of every opportunity to "improve each shining hour." The water supply is brought three miles from the mesa or bench lands east of town, and the plain has been turned into a land of fruit and flowers. The present population is about 1,000, which is rapidly increasing.

### SAN BERNARDINO CITY

is situated in a beautiful little valley three miles east of Colton, and is the county seat. It is the principal business and manufactur-

ing town in the county and second in southern California. The city is supplied with good artesian water and the streets are lit with gas. All kinds of business are represented and all are in prosperous condition. There are good schools. The secret societies and benevolent associations are also represented, while a free library and reading room are kept open for the use of the public. The California Southern Railroad Company has moved its headquarters here from National City, and they have now under consideration the feasibility of moving their machine and car shops to San Bernardino.

### RIVERSIDE

the great orange colony of California, is situated about eight miles southwest of Colton, and includes over fifty square miles within the limits of its corporation. During the shipping season an average of five cars per day is necessary to supply the demand for oranges alone. The shipments last year amounted to 414 carloads, which will be increased this year to at least 450 carloads. The city is well supplied with good schools. The population is about 3,000. There can be found here people from all over the Union and Canada, all of whom are energetic, wide-awake and enterprising, showing acceptable courtesies to travelers who come by the hundreds every week in the winter season. Riverside is widely known as a health resort. The hotels are crowded to overflowing at least eight months in the year. It is a general remark with tourists—"We must not leave California until we see Riverside."

WM. KLEMP.

### From Washington County.

#### Kansas Farmer:

By referring to the KANSAS FARMER for the past six months one would infer that Washington county was of minor importance, judging by the correspondence and news received therefrom. I believe there are as interesting and competent writers among the farmers here as in any other portion of the State, and I know we have as thrifty; enterprising, industrious and observant a class of farmers as any other locality can possibly have; and as for quality of soil, water privileges, and such other facilities as tend to encourage and assist in making the way of the tiller of the soil easier, fill his purse with the nation's currency and make for him a luxuriant and happy home filled with the comforts of this life, I know that Washington county cannot be surpassed. Quite a portion of the county has been and is yet held by Eastern capitalists, thereby retarding somewhat the rapidity of improvement and thoroughness of settlement which is so characteristic in some of the other counties of the State; yet, such being the case, a much larger per cent. of our farmers are more independent and well-to-do, which answers the fact that Washington county represents more wealth than some of her older neighbors. The soil is mostly upland, but very fertile, with very little of the broken, rough and rocky grazing land which is so abundant in portions of the State. The writer having traveled over the greater portion of Kansas, can safely say this county has as large if not larger portion of fertile productive soil than any other county. Every kind of fruit or cereal flourish as well here as in any other locality, except, perhaps, peaches, which are almost universally conceded to be a failure over the northern portion of the State for the last four years. Harvest now all over, the yield, perhaps,

not quite up to that given in your crop reports of recent date, but quality is of the best. A larger acreage of corn was planted last spring than ever before, and as a whole it is looking splendid, the latest planting, however, suffering the most from the recent dry spell, it being smaller so it could not shade the ground, thereby drying out much more than that planted earlier. The listed corn that was planted early is looking at present the best. The evening of the 18th our three week's drouth was broken by a copious gentle rain and has also rained considerably since, which seems to somewhat refute the prophecy of Prof. Blake.

Some of our best wild land is still owned by capitalists, and ranges in price from \$7 to \$15 per acre. Cultivated farms with improvements from \$20 up as high as you like. Washington, the county seat, situated near the center, is enjoying quite a vigorous boom, a \$40,000 court house being under construction, besides other valuable improvements. Population, 1,800. Other towns of considerable importance are located over the county, such as Greenleaf, Clifton, Hanover and Haddam, all railroad towns of splendid prospects.

One fact I am sorry to note is that among our breeders of fine stock we find only the advertisement of Z. D. Smith represented in your paper. Surely they would reap a rich reward by patronizing a paper that has the circulation and standing of the FARMER.

Fruit has not received the attention it should, but we are glad to see some are beginning to realize the importance of it and are acting accordingly; and with such an extensive nursery as Carpenter & Gage's, of Fairbury, Neb., so near, they certainly should get the best. A. S. VOTAW.  
Haddam Kas.

### Shaffer's Colossal Raspberry.

#### Kansas Farmer:

Permit the use of a small space in your FARMER to answer a numerous correspondence regarding this berry. After fruiting it through the last four years, I regard it as a remarkably fine sort. The plant is most vigorous, healthy, and adapts itself readily to our soil, endured the extremely low temperature of the winters of 1884-5 and 1886 without injury, nor has it suffered any serious impairment from the heat of our summers. It is easily propagated from the tops of the canes. Being a strong grower, it requires plenty of room both in and between the rows. Its productiveness exceeds that of any other variety I ever tried—and they are many—and continues through a season of four or five weeks, affording a supply for medium, late and very late season's use. On this, July 22d, my table is supplied with large to very large berries from plants set the present year, and although grown in the midst of a three to four week's drouth, it has had no equal in size, and very few varieties excel it in quality. The range of its success is quite general. No fruit plantations should be without this valuable sort, at least for family purposes.

Yours for the public good,

G. C. BRACKETT.

NOTE.—Please bear in mind that this is not a nurseryman's advertisement, but intended to call attention to a most valuable variety of fruit.

[Mr. Brackett is Secretary of the State Horticultural Society.—Ed. K. F.]

President Cleveland once did local writing for the Buffalo Courier.

# The Stock Interest.

## PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.  
 August 5—W. H. H. Cundiff, Short-horns, Pleasant Hill, Mo.  
 August 24—T. A. Hubbard, Short-horns, Wellington, Kas.  
 Tuesday and Wednesday of next Kansas City Fat Stock Show, Inter State Breeders' Association, Short-horns

### Wheat Bran as Food for Stock.

That wheat bran has some good food properties has been proved many times, but it has never been in general use as an exclusive food in place of grain. Under late improved processes of grinding wheat there is so little left in the bran that most farmers believe about all there was good in the bran is taken away. Experiments, however, do not confirm that belief. Wherever a test has been made under favorable circumstances, even the "roller process" bran has been found useful as food for stock. Some time ago we presented the report of an experiment made by Mr. Dudley, of this (Shawnee) county. It was favorable, and demonstrated at least partially that bran may be used to great advantage in the feeding of cattle. In our personal experience, we always found bran very serviceable for all kinds of stock, more especially for hogs and sheep.

We present herewith a partial report of experiments now in progress in Minnesota at the Oakwood farm of O. A. Pray, near Minneapolis. Fred C. Pillsbury, of the great milling firm of C. A. Pillsbury & Co., is the prime mover in this matter, and is sparing no pains to make the tests reliable and convincing. A little more than a month ago he sent to Granite Falls, this State, and bought fifteen three-year-old grass-fed steers. He intended to get blooded stock, but could not do so, and the lot was therefore composed of common "scrub" cattle, thin in flesh, wild, and with one exception, having no signs of good blood. The steers were stalled and carefully fed, being allowed no exercise save in a quarter acre yard littered with husks. Each steer was numbered, and the rations of bran were carefully weighed out each day. The hay was weighed the first few days, but this was found impracticable, so that the custom was discontinued and only the gross amount fed for the month weighed. The steers, although a hard-looking lot, were, with one exception, in apparently good health when the experiment began, and the change of diet soon cured the ailing one, so that all were hearty and lively at the end of the first month. Mr. Pillsbury gave strict orders that the bran used should be of the very poorest quality to be found in Minneapolis, in order that there might be no question as to results, and these orders were well obeyed. Whenever an animal ate all of its feed, the ration was increased, this policy being followed all through. Hay was liberally supplied, water was given in a common trough, and salt licks were provided. Despite the dryness of their provender, the steers never visited the water trough until they had finished eating. The subjoined table shows the weight of each steer at the beginning and end of the month, the weight of the daily bran rations of each, and the total quantity of bran fed to each steer.

It will be noticed that the feed was heavier in the morning than in the evening, the average morning feed being 6.43 pounds, while the evening feed averaged 6.08 pounds. The quantity of hay fed for the month was 7,500 pounds, and of bran 5,635 pounds. The bran supply gave out one day, and before more arrived the cattle were as nervous and fretful as a hungry boy, showing

plainly that they missed their bran. The average gain in weight during the month was 110 pounds, the heaviest steer gaining 172 pounds, and the lightest 63 pounds.

Mr. Pillsbury and Mr. Pray are thoroughly satisfied with the progress made and will continue the experiment. Prof. Porter, of the State University, has become deeply interested in the matter, and cattle have been secured for the purpose of not only testing bran, but other cereal stock foods as well, on the State farm. These cattle are blooded and are liable to show a better and more rapid growth in weight than that of the Pillsbury-Pray scrubs. It should be noted that the cattle mentioned above were fed three or four days before the test was begun, so it cannot be said that the phenomenal gain is partially due to their "filling up" after their hard journey to Minneapolis. It should be further noted that the bran fed was from the Pillsbury A mill, certainly as poor as the poorest in the city. It is cleaned until there is literally no flour left on it, and in the cleaning process it is badly cut up, no attempt being made to make "broad" bran in this mill, the sole aim being to get every vestige of flour out of it.

The table following gives the exact results of the experiments:

We make the following summary from the table, giving the exact results of the above experiments:

Number	Gained in 30 days		Consumed hay in 30 days		Consumed bran in 30 days		Weight of corn	
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1	140	437	500	1010	500	500	500	1010
2	113	353	500	942	500	500	500	942
3	100	354	500	770	500	500	500	770
4	129	386	500	840	500	500	500	840
5	121	367	500	906	500	500	500	906
6	143	410	500	962	500	500	500	962
7	90	286	500	887	500	500	500	887
8	110	344	500	972	500	500	500	972
9	171	359	500	968	500	500	500	968
10	68	274	500	792	500	500	500	792
11	63	267	500	961	500	500	500	961
12	93	381	500	907	500	500	500	907
13	110	391	500	820	500	500	500	820
14	110	419	500	1095	500	500	500	1095
15	103	383	500	871	500	500	500	871

Daily ration of bran.....12 1/2 pounds  
 Daily ration of hay.....16 3/4 pounds  
 Average daily gain.....3 1/2 pounds  
 Cost per pound of gain.....2 1/2 cents

### Warm Drinking Water for Milch Cows.

By Prof. Shelton, of the State Agricultural College.

An interesting experiment was begun early in February, having for its object to ascertain the influence of warm water as compared with water at the ordinary temperature of wells, when used as drink for milking cows.

Four cows, two Short-horns and two Jerseys, were employed in this trial. These cows had been milked steadily for upwards of six months, when the experiment was begun, and, of course, were considerably past the period of full milking. The general plan of the experiment was to feed all of the cows food uniform in quantity and quality each day, and from day to day, while giving them warm drinking water upon alternate days, and water freshly pumped from the well at all other times. This "warm" water during the first three days of the trial was ordinary well water raised to the temperature of 80 deg. Fahr., but after the third day water at 90 deg. was used for two days, and from that time to the end, water at 100 deg. was steadily used. The cows were watered at about 10 o'clock in the morning, running in the yard with the general herd during the remainder of the day. This was the general treatment when either warm or cold water was used, although at times modifications of the plan were found necessary. Thus at the first the cows approached the warm,

steaming water with great reluctance, their timidity being heightened by the unusual position in the barn, where the water was furnished. On this account it was found necessary at the first to delay watering in order that strong appetites might neutralize this natural timidity. The difficulty, however, was not lasting; after two or three trials of the warm water, a liking for it which amounted to greed was rapidly developed. The cows not merely drank the warm water without hesitation, but rushed eagerly to it and drank to repletion as soon as freed from their stalls. It seems reasonable to suppose that the effect of the drink, warm and cold, would be noticed in the milk yielded at the two successive milkings which followed the use of the particular drink. In the figures given below, therefore, the milk credited to the warm water is, in every case, the total milk yielded at the evening and morning milkings following the use of that particular drink. I have no doubt that the plan fails to show the true value of either the warm or cold drink—that, in short, the influence of the warm water extends, to some extent, beyond these two milkings, and the cold water in like manner tends to neutralize any effect the warm water may have in milk production. Be all this true, it is not clear that any other plan of operations would be open to fewer objections than the one here. The table which follows is a statement of results for every day of the trial:

	Daily milk yield, Pounds.	
	Warm water.	Water directly from well.
February 9th—Beginning of experiment		74
" 10th.....	81	74
" 11th.....		75
" 12th.....	86	75
" 13th.....		78
" 14th.....	84	78
" 15th.....		80
" 16th.....	87	80
" 17th.....		81
" 18th.....	90	81
" 19th.....		82
" 20th.....	90	82
" 21st.....		85
" 22d.....	90	85
" 23d.....		92
" 24th.....	89	92
" 25th.....		75
" 26th.....	89	75
" 27th.....		81
" 28th.....	85	81
Totals.....	871	803

Total increase in milk while warm water was used.....68 pounds.  
 Total increase per cent. in milk while warm water was used.....8.74 per cent.

While this experiment, from its brevity and the peculiar circumstances surrounding it, is far from conclusive upon the point under examination, it certainly is suggestive of great value. The fact that at every day except one when warm water was the drink of the cows, a marked increase in the flow of milk was recorded—this increase amounting to 14 and even 18 per cent—shows conclusively, as it seems to me, that the warm water was always beneficial. I am confident, however, that this beneficial influence is shown here at the minimum for the reason before stated—that the influence of the warm and of the cold drink extends beyond the two milkings immediately following, and for the reason that the experiment, because of our inability to complete the steaming machinery earlier, was carried on after the winter had spent its force, during a period of warm "open" weather.

That the loss to stock-owners from the use of water in a freezing condition in cold weather, is very great, is strongly suggested by the ordinary winter experiences of the barnyard. The picture of the herd of shivering cattle

standing over the trough or partly frozen stream by the half hour, dreading the shock that the freezing water gives to the system, and after drinking, shivering and shaking as if in an ague, is a familiar one to every Northern stock-raiser. In striking contrast to this was the behavior of our cows after they had learned the taste of warm water; they drank it greedily in full draughts, afterwards "stretching" themselves with evident comfort and satisfaction. Even the young suckling calves, which ordinarily took cold water with great reluctance, if at all, rapidly acquired a taste for the warm drink, sipping it slyly at first, but soon taking it in full draughts.

This experiment seems to suggest a practically valuable use for that on every farm abundant product, woody fiber. This substance, which makes the bulk of the overripe and spoiled fodders, straw, cornstalks and cobs, to say nothing of recognized fuel materials, is for the most part a waste upon every farm. It is doubtless useful to a limited extent in diluting concentrated foods, and in giving them the bulk needed to call into use the full powers of the digestive organs; but as a food, "that which is capable of being assimilated by an organism," woody fiber has no value. The suggestion of this experiment plainly is that this crude and worthless woody fiber, when in a suitable condition to burn, may be made, in a sense, a valuable food; supplying, directly to the animal, heat which otherwise must come from the more expensive digestible foods. The heat thus obtained must be conveyed to the animal in the water he drinks, because the large amount of water consumed daily makes it the necessary vehicle for conveying the largest possible amount of heat to the animal organism. That this is a simple and inexpensive process may be shown by a single fact gathered from general experience; a bushel of bituminous coal burned in an economical boiler we have found to be ample fuel for heating the daily drinking water required by twenty-five cows.

I am unable to think of one of the "leaks of the farm" that may be so easily and with such profitable results stopped as this waste of animal heat. The general proposition, that warm, comfortable quarters,—not mere "shelter,"—supplemented with warm food and drink, are advantageous to domesticated animals, is rarely questioned. I go a step further, and assert that the heat and comfort of animals may be conserved, in the way indicated, to the great financial advantage of their owners.

Neatness about the stable is desirable at all times. The man who has not pride enough about him to keep his barns and stables clean and neat should not have the pleasure of owning a good horse.

The breeding and handling of the heavy classes of horses moves steadily on regardless of the hard times. The man who invests his money judiciously in draft horses for breeding purposes need not fear the result.

Brood sows are very apt to be ill-tempered, and care must be exercised in caring for them for a few days after the little pigs come, or they may become excited and do damage to their young, if not to the attendant. A cross sow is a dangerous animal to have around, and should be made fat and shipped at the earliest opportunity. In securing a young animal for breeding purposes, one with a gentle and tractable disposition should be chosen, as nearly as can be judged.



## Correspondence.

### Poultry Matters.

The two letters following were received after our "Poultry Yard" for this week was made up, hence they are inserted here.—Ed. K. F.]

STATE POULTRY ASSOCIATION.

#### Kansas Farmer:

It looks as though my first letter was a stone dropped where it caused a ripple. The satisfactory response is what should have been going on heretofore. I knew Kansas had the stuff, if it only could be got at. Those two columns of original matter were worth more to me than four columns of clippings would be. We hope your Kansas readers will keep you well supplied with fresh, original letters for the "Poultry Yard" hereafter.

A certain editor in this part of the State criticises me on the use of the word animal in my first letter. In that letter I referred to fowls as being animals. He intimates that fowls are not animals. We run to Webster to see if we are right. Webster says we are right. If Webster is mistaken we are not to blame. "Animal," he says, is "an organized living being, endowed with sensation and voluntary motion; an irrational being." "Fowl," he says, is "a winged animal; a bird." So we were not ungrammatical in the use of the word in our letter to you.

"Mr. T. S. Hawley brings up the subject of a State Poultry Association. A few months ago, as Mr. Hawley will remember, I presume, I took some interest in such an enterprise. In my rounds I stumbled on to the Association Mr. Hawley refers to in his letter to the "Poultry Yard." I went to work then to resurrect the members, and found only the officers, who are doing nothing about having exhibitions. I took the pains to call personally on Mr. Frank Hitchcock, of Greenleaf, Kas., who is Treasurer. He stated that the Association was going to make an effort to have an exhibition next winter. As far as I am concerned, I hope they will not fail. Just as Mr. Hawley says, I do not believe there is another State north of Texas but what does have its poultry shows every winter. These exhibitions are the tests of the excellence of our breeds. We do not like to be to the expense of going out of the State for this purpose. It is a good idea to have the Association do something or formally dissolve and organize under new management.

"Mrs. C. P." wishes some ideas about the raising of turkeys. I have raised turkeys and have been quite successful. In a future letter I shall be glad to give the results of my experience in that respect. It is true, as "Mrs. C. P." says, the raising of turkeys is the most difficult part of the poultry business. Yet they can be raised the same as chickens. JOHN A. BRANSON. Clifton, Kas., July 23.

TURKEY HEN HATCHES A BROOD OF QUAILS.

#### Kansas Farmer:

I for one am highly elated at the way friend Branson has stirred up the fanciers and breeders of thoroughbred poultry of our State, and I hope all such will give the ball a kick and keep it rolling. I contribute my mite, not, however, with any benefit or value to the fraternity, but as an episode that made us smile. Some time early in May, a shy Bronze turkey hen stole her nest away from home, in the wheat field, not far from our house. After a good deal of reconnoitering and strategy by Mrs. T., the old turkey hen was found sitting on eleven eggs, about a quarter of a mile from home. She was immediately brought home and the eggs set under one of our old biddies. The hen turkey was kept up for a few days, until we supposed the sitting fever was broken, when she was again turned out, and immediately disappeared. She was seen occasionally on the far side of the meadow. Supposing she was again setting, we paid very little attention to her, until, one morning, some two weeks ago, a little after daylight, we observed her sitting on the meadow, hovering over something. What was our surprise can readily be imagined when we went out to see how many young turkeys she had, to find her hovering a brood of young quails that flew at our approach, and she with them. The quails are now nearly grown and are still with the old turkey. She now brings

them up to the house and they roost on top of the corn crib. They are wild as deer; when they fly she flies too. Gentlemen, we have the papers for this. Lots of Rossvillians have seen 'em. M. F. TATMAN. Rossville, Shawnee Co., Kas.

P. S.—No rain at this writing for nearly four weeks. Corn is suffering badly.

### Dehorning Cattle in the West.

#### Kansas Farmer:

I tried Mr. Haaf's plan of dehorning cattle, and like it very much. I have a thoroughbred Holstein bull, 4 years old in June. He was always very quiet until this spring. I let him run at large in small pastures with the cows, and he got independent and threatened the passers-by, and would meet me half way when I went out with a bucket of corn to feed him, and I had to drop the corn and give back for him. So I concluded I had always been boss, and I would just dehorn him. I put him in the barn, and with the assistance of the ring in his nose, I tied him up to a post with a three-fourth-inch rope around the neck and head, and then took an old gunny-sack and blinded his eyes so he could not see to fight me; I then took a sharp fine tooth meat saw and sawed both horns off close to the head, or at the seam between head and horn. He bled some three or four tablespoonfuls of blood in all. Then I turned him out and let him run two days; then took him up and used a small can of pine tar on the stumps to keep the flies off, and a little sprinkle of spirits of turpentine. I did that the 2nd of June, those cool days after a rain. I should have done it earlier, before the warm weather set in, and it would have been all right without any tar or spirits of turpentine. But it is all healed up now and well. He is as docile as a calf now, and my little boys, 8 and 11 years old, drive him where they please. As for hooking and butting other cattle, my 3-year-old cow can eat corn off the same bucket with him. His head was so sore and tender he will remember it for six months before he can begin to learn to butt anything. The horses run in the same lot with him safely. I think it is the best way to keep control of horned cattle, and does not hurt the looks of the animal half so much as I expected. He looks just as the Polled Angus cattle do, without horns. I believe I can save feed and much abuse to cattle and stable room by dehorning all of them, especially the old ones, and lifting the horn germs off the calves at 3 months old with the point of a sharp knife. W. A. T. Holstein Park, North Topeka, Kas.

### York Nursery Company.

Among the many enterprises which have contributed to the growth and development of Fort Scott, the York Nursery Company occupies a front rank. The York nursery was established in 1870, but it was not until 1881 that it was incorporated under the laws of the State of Kansas. Prior to its incorporation, the business was local in its nature and extent, being limited to the counties in southeastern Kansas and southwest Missouri.

After the incorporation of the company the business was rapidly extended through the greater part of Kansas and Missouri, and later into Nebraska, Colorado, Arkansas and Texas, until, in 1882, the company employed 250 salesmen, and their sales reached a quarter of a million dollars. The growing department has kept pace with the sales, and the plant equaled that of any nursery in the country. The plant of apple grafts alone during the past three years has averaged a million, and other kinds of stock in proportion. In the short period of two years it has become one of the leading distributing centers of nursery stock in the country, and at this time there is only one company in the United States doing a larger business. During the year 1885 its shipments aggregated nearly 200 cars, and bulk shipments were made to New York, Illinois, Iowa, Nebraska, Washington Territory, Colorado, California, Arizona, New Mexico, Texas, Arkansas and Missouri.

Like all enterprises of any considerable magnitude, it has had its crucial tests and its periods of uncertainty as to the wisdom of its policy incidental to all new enterprises, until now it has passed its experimental age and takes its place among the solid and enduring business institutions of our city.—Fort Scott Daily Monitor.

### Gossip About Stock.

F. R. Foster & Sons' sale of grade Herefords at Topeka last week was a good one, thirty cows and heifers averaging \$32.20. For want of bidders the Hereford bulls were reserved for private sale.

F. W. Arnold & Co., Osborne, Kas., in renewing his card, writes: We shipped this week to Geo. W. Reed, Salem, Jewell county, a Poland-China sow ninety-five days old that weighed seventy pounds.

Echo Chief, owned by a colored man by the name of Hansboro, of Topeka, has gone East to be entered in the 2:23 class at Cleveland, Ohio, to-day. He will then follow up the Eastern circuit. Echo Chief has a record of 2:24½, and has also proven himself an excellent sire.

F. E. Loose, of Tuscola, Ill., writes that in a herd of ninety-four Berkshires he placed a pair of the Ohio Improved Chesters, bought of the L. B. Silver Co., Cleveland, Ohio, last spring. It was claimed by his neighbors that a white hog would never stand what a black hog could, but every one of the Berkshires died of the cholera while the I. O. Chesters were unharmed. The significance of this fact can scarcely be overestimated.

Mr. E. R. Bennett, of the firm of E. Bennett & Son, of Topeka, landed at Montreal last week with 116 stallions from Glasgow, Scotland. Said shipment is the largest ever made from Scotland, and includes the best horses of England, Scotland, Wales and France. Said horses will arrive at the extensive stables of this firm in Topeka about August 1. The above shipment is the largest in number that will come to America this season and the largest ever made west of the Mississippi. All parties wishing to improve their stock should at once call upon Messrs. E. Bennett & Son and make their selection while their stables are full and before they have been culled out any. They will sell to any company of good farmers a horse on such length of time as will be ample for the horse to pay for himself without taking money out of other crops to pay for said horse.

An important decision to cattlemen was made at Chicago this week. Judge Blodgett rendered an opinion in an important case of Milton H. Bennett, of Caldwell, Kas., and Robert L. Dunman, of Colman, Tex., against Edward M. McGillan, of Cleveland, O. The facts were that on April 16, 1885, Bennett & Dunman sold to McGillan a ranch of about 260,000 acres, together with the cattle and equipments, for \$400,000. The ranch was formerly known as the "X" ranch, and is situated in the Cherokee Strip, Indian Territory. The contract provided that the purchaser was to take all the cattle on the ranch, and if there turned out to be more than 12,500 head he was to pay \$25 a head, in addition to the purchase price. If there were less than that number \$25 a head for the shortage was to be deducted from the purchase price. The purchase was to be paid partly in notes and partly in lands near Englewood, Ill., to the value of \$168,000. The ranch and cattle were delivered July 15, 1885, but owing to the severe winter there was a shortage of 7,646 head of cattle. Bennett & Dunman were thus only entitled to receive \$208,850, the shortage amounting to \$191,150. McGillan claimed that the shortage should be deducted from the notes and cash payment and that the plaintiffs should take the whole of the eighty-four acres at Englewood, which would require them to pay him back \$68,000. Bennett & Dunman claimed that on the contrary the shortage should be deducted from the Englewood lands and that they should receive the notes for the remaining \$108,850. McGillan refused to give the notes and the plaintiffs brought suit. Judge Blodgett decided that, under the law of appropriation of credits, a credit which is to be given immediately must be applied on a payment which is due rather than on one which is not due; that the payment of \$168,000, which McGillan had the option of paying in the Englewood land was due, and that as credit was to be given immediately it must be applied to that payment so far as it went, and as McGillan has made default by refusing to give the notes, judgment must go against him for \$108,850 and interest, amounting in all to \$115,580.15. An appeal was taken by McGillan, his bond being fixed at \$200,000. This decision will be regarded with considerable interest by

cattle dealers, as the parties are widely known.

### Food and Drink of Cows in Warm Weather.

In the line of what we presented last week under the head of cattle feeders, here are some good thoughts clipped from the *National Live Stock Journal*, of Chicago: This is a season of the year when trouble is pretty likely to get into the cheese vat and the churn. A long, dry spell has made the pastures short and the grass tough, and the brooks are liable to be dried up. The ponds and sloughs are either dry or stagnant—it would be better if they were dry. Are the cows allowed to drink this stagnant water, loaded with bacteria, algæ, and all sorts of unwholesome spores? Short feed, hot weather, and perhaps no shade, makes the cows exceedingly feverish and dry. They require an extra quantity of water, and will fill themselves with the first that they reach, regardless of quality. They ought not to be allowed to do this. If they are, what else but feverish and quickly-decomposing milk can they reasonably be expected to secrete? This rapidly decomposing character of the milk will play the mischief with whatever product may be manufactured from it. The butter will be spongy and bad flavored, and the curds will be tainted with floaters. Of course the flavor will be bad—and this is not the worst of it, for the cheese will have no sound keeping quality. It will begin to go off flavor and decay before it is fairly cured. There is a good chance for the development of tyrotoxin, as Prof. Vaughan calls it, and a batch of poison cheese. It may not be for our own people, it is more likely to be shipped abroad. Myterious cases of sickness and perhaps death, may follow in the neighborhood where it is cut and sold. The sickness may or may not be traced to the cheese. But does not moral responsibility rest on the dairyman who sends out such cheese? Then if the milk of feverish cows, drinking stagnant water, is peddled in some village or city, what is likely to be the consequence where it is fed in considerable quantities to children, or to invalids? Cholera infantum rages in such a season as this. Does responsibility rest on nobody? When used in hot tea or coffee, the quantity is so small as to be perhaps harmless, especially when these hot drinks have a temperature high enough to destroy the germs in the milk when it is poured in. We insist that it is the moral, and should be the legal duty of every dairyman to furnish his cows plenty of nutritious food and water the year round."

### Cowley County Schools.

Of the good schools of southern Kansas, Cowley county has its share. The Southern M. E. College and two commercial schools located at Winfield and now under process of building will all be completed and ready to receive students this year. Also, Cowley Cowley has the Wilmot Academy, which is one of the best and most thorough preparatory schools in the State, besides giving the best opportunity to students in elocution and eclectic short-hand. Besides these special schools, Cowley county is the equal of any section of the State in its district schools. And in the present National Association its exhibits compare favorably with those of the older counties. It also sent one of the largest delegations from any southern county of Kansas, there being nearly fifty teachers.

For information regarding Wilmot Academy, address the Principal, P. H. Finck, Wilmot, Cowley county, Kas.

The car drivers of Minneapolis have struck because the company has taken away their stools, thus depriving them of the privilege of sitting down.

The average yearly expenses of this year's graduating class at Yale College were \$960. The largest sum spent by any man in a year was \$2,750, and the smallest \$150.

"From His Own Experience in Preparing Ground for Winter Grain, by the use of the 'ACME' Pulverizing Harrow, the writer is quite free to say that had this implement been used instead of the common harrow, the loss of wheat by the hard winter would have been trivial, and that many a single acre which has not returned the seed sown upon it, might easily have made enough grain to have paid the whole cost of this implement." See advertisement on page 15.

**Silver and Hard Times.**

The following is an extract taken from a speech recently delivered in the British Parliament by an English farmer: "We have heard a good deal to-night about the effect in India, and on Indian trade and prosperity, of the fall in the value of silver. We have been told that in exchange with gold the value of the silver rupee has fallen from 2s., at which it formerly stood, to 1s. 6d. or 1s. 5d. We have been told, too, that a further fall is expected, which may even go to 1s. Now, I, sir, have been wondering what has been the effect of this fall on England. We have heard from member after member to-night that every fall acts a bounty on all produce of India sent to a gold-using country like England. When the Indian farmer sends his produce to England, and sells it here for a sovereign, he can change that for twenty-five shillings of his own silver money; and the purchasing power of silver in India is just the same as it used to be. Consequently he receives a bounty of 20 per cent. on all produce that he sends here. Well may our agriculture be in difficulties when we have to face an unnatural competition such as this. During the short time that I have sat in this Parliament—now, alas! cruelly destined to such a premature end—I have heard the subject of agricultural depression discussed again and again. Well may there be agricultural depression when the produce of our fields has to compete with produce receiving a bonus of 20 per cent. I am a farmer, and can speak with knowledge of what is passing at the present time in the eastern counties. Farmers there are becoming bankrupt through no fault of their own; rent is fast disappearing; land is going out of cultivation; and, consequently labor, is being cast out of employment. The condition of things is really heartrending. The Secretary for India has told us that every fall in silver means a general fall in prices here. When I also hear that a considerable further fall is probable, the prospect fills me with dismay. I have spoken of the sufferings of agriculture because I have most knowledge of that profession; but I suspect that other industries are in equal difficulty. The same cause which is ruining us has caused a fall in the prices of all commodities, which fall is the great cause of the difficulties in which all trades and industries have been placed. Here is the real explanation of the long depression which has ruined so many good men, closed so many manufactories, and put so many workmen on short time, or thrown them out of employment altogether; and we are told the fall will go still further. Why cannot we retrace our steps before more disasters follow, and open again English and European mints for the free coinage of silver as they used to be? The fall in silver has all taken place since 1873, when France followed the example of Germany and of England, and ceased to allow free coinage of it. The principal demand for silver in past times has been to coin for money. Of course, when the European nations closed their mints a large part of the demand ceased and silver fell. The fall is still going on. Need we look any further for an explanation of the fall in prices which has caused, and is, causing, so much misery? I hope, sir, this country will not oppose the wish of France, of Germany, and of America to return to the old user of free mintage of silver as well as gold."

**Fictitious Cattle on the Range.**

There is trouble brewing for the large cattle companies, for, as the Kansas City *Live Stock Indicator* remarks, when the range fever first broke out, sales were made upon a fairly honest "range count," but the increased demand and extravagant prices led buyers into accepting almost any statement as to numbers of cattle on the range, provided the seller was willing to take a few dollars less per head, "range count," than was asked by somebody else. As a consequence scores of cattle companies who supposedly purchased a thousand cattle, more or less, found after a couple of seasons, that the number was very materially less. The heavy losses of the past two winters have caused the stockholders no little uneasiness, and we hear of many representatives of the various companies having been sent to the ranges to make a personal investigation of affairs for the satisfaction of the Eastern and foreign stockholders. As a sample of what these representatives find, the follow-

ing, from the *Texas Panhandle*, of Mobeetie, needs no further comment:

"For several weeks past there have been a number of rumors current here regarding the Francklyn Land & Cattle company and its maunagement. From Mr. Tyng, a gentleman whom we have every confidence in, and who evidently exercises great caution in his remarks, we learn that he has been sent here to investigate the affairs of the above company for the satisfaction of parties interested in New York. He says that the managers' report sent in the latter part of May last shows 56,000 head of cattle, less 14,000 contracted for sale, to be in possession of the company. Mr. Tyng has ridden the company's range thoroughly the past few weeks and has come to the conclusion that there are not more than 5,000 cattle on said range. The discrepancy between the report and the fact as developed by Mr. Tyng led the latter gentleman to ask Mr. Groom where the 42,000 cattle were. He was answered: 'We have them. Count them. They are scattered from the Territory to the Pecos, and from Parker county to Colorado.'

**MONEY--ATTENTION.**

In any Amounts From \$200 to \$100,000.

To Farmers and Ranchmen—in Eastern and Central Kansas:

If you want to borrow money or refund present incumbrances on your farm, at reasonable rates of interest, with or without commission, write direct to us. No delay, when security and title are satisfactory. We make a specialty of placing large loans—from \$2,000 to \$100,000—at lower rates and less commission than any agency in the State. Money ready when papers are executed. We want nothing but first class improved or partially improved farms and stock ranches. Address

A. D. ROBBINS & Co.,  
179 Kansas Ave., Topeka, Kas.

**FAST TIME**

From Kansas City to New York Via the Wabash Route.

The following telegram explains:

St. Louis, May 20, 1886.  
H. N. Garland, Western Passenger Agent, Wabash Route, Kansas City, Mo.:

Under new arrangement taking effect Sunday, May 30, the Wabash New York Limited train will leave Kansas City at 7 a. m., St. Louis 6:30 p. m., Toledo at 7:50 a. m., Buffalo at 5:10 p. m., arriving at Grand Central Depot, New York City, 7:30 a. m., second morning from Kansas City. This shortens the time between Kansas City and New York four hours. The finest through car service in the world is on this train.

F. CHANDLER, G. P. & T. A.  
Wabash Ticket Offices, 531 Main street, 1040 Union avenue and Union Depot.

**Are You Going South?**

If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays and by which through trains are run. Before you start you should provide yourself with a map and time table of the Kansas City, Fort Scott & Gulf Railroad (Memphis Short Route South). The only direct route from and via Kansas City to all points in eastern and southern Kansas, southwest Missouri and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars and free Reclining Chair Cars, Kansas City to Memphis; through Sleeping Car Kansas City to New Orleans. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville and all points in Arkansas. Send for a large map. Send for a copy of the *Missouri and Kansas Farmer*, an 8-page illustrated paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free.

Address J. E. LOCKWOOD,  
G. P. & T. A., Kansas City, Mo.

**Stock Water.**

If you have not a permanent supply of stock water you can have it by making a good, large, deep pond, and by attaching the Advance stock hydrant you can have a convenience and a quality of water that is unsurpassed.

**Kansas Fairs for 1886.**

- Kansas Fair Association, Topeka, September 23 to October 1.
- Western National Fair Association, (Bismarck), Lawrence, September 6-11.
- Anderson County Fair Association, Garnett, August 24-27.
- Bourbon County Fair Association, Fort Scott, October 5-8.
- Brown County Exposition Association, Hiawatha, September 14-17.
- Chase County Agricultural Society, Cottonwood Falls, September 29 to October 1.
- Cherokee County Agricultural and Stock Association, Columbus, September 7-10.
- Coffey County Fair Association, Burlington, September 13-17.
- Cowley County Fair and Driving Park Association, Winfield, August 30 to September 3.
- Crawford County Agricultural Society, Girard, September 23 to October 1.
- Kansas Central Agricultural Society, Junction City, September 21-23.
- Decatur County Exposition Society, Oberlin, October 12-14.
- Dickinson County Agricultural and Industrial Association, Abilene, August 31 to September 3.
- Edwards County Agricultural Association, Kinsley, October 12-15.
- Elk County Agricultural Association, Howard, September 9-11.
- Western Kansas Agricultural Fair Association, Hays City, October 5-8.
- Franklin County Agricultural Society, Ottawa, September 27 to October 1.
- Harvey County Agricultural Society, Newton, September 23 to October 1.
- Jefferson County Agricultural and Mechanical Association, Okalosa, September 23-30.
- Johnson County Co-operative Fair Association, Edgerton, September 20-23.
- Pleasanton Fair Association, Pleasanton, September 14-17.
- LaCygne District Fair Association, LaCygne, September 7-10.
- Emporia Fair and Driving Association, Emporia, July 5-7 and September 20-25.
- Marion County Agricultural Society, Peabody, September 14-17.
- Mystic Driving Club, horse fair, Marion, September 29 to October 1.
- McPherson County Fair Association, McPherson, September 14-17.
- Marshall County Fair Association, Marysville, September 21-24.
- Miami County Agricultural and Mechanical Association, Paola, September 21-24.
- Montgomery county, Independence, September 14-18.
- Morris County Exposition Company, Council Grove, September 7-10.
- Nemaha Fair Association, Seneca, September 14-17.
- Northwestern District Fair Association, Cawker City, October 5-8.
- Norton County Agricultural Association, Norton, September 23 to October 1.
- Phillips County Agricultural and Mechanical Association, Phillipsburg, September 21-24.
- Kaw Valley Fair Association, St. Marys, September 29 to October 1.
- Rice County Fair Association, Lyons, October 5-8.
- The Blue and Kansas Valley Agricultural Society, Wauhattan, August 24-27.
- Saline County Agricultural, Horticultural and Mechanical Association, Salina, September 7-10.
- Arkansas Valley Agricultural Society, Wichita, September 20-24.
- Smith County Agricultural Society, Smith Center, September 15-17.
- Sumner County Agricultural and Mechanical Association, Wellington, September 7-11.
- Sabetha District Fair, Sabetha, August 31 to September 4.
- Washington County Exposition Association, Washington, September 21-24.
- Washington County Live Stock, Agricultural and Mechanical Association, Greenleaf, September 23-30.
- Kansas City (Mo) Fat Stock Show, Kansas City, October 25-30.

Every fourth Republican voter in Dauphin county, Penn., is a negro.

One hundred and fifty of the 365 colleges of the United States publish newspapers.

Storm Bull is the cyclonic title of one of the professors in the Wisconsin State University.

A little Illinois village is happy because its name is changed from Kickapoo Station to Pottstown.

A man in New York committed suicide by pushing a handkerchief down his throat with a long ruler.

Be merciful to dumb animals. Heal all open sores and cuts with Stewart's Healing Powder, 15 and 50 cents a box.

Mrs. Maria Farrow, aged 76 years, of Centralia, Ill., has been awarded the contract of carrying the mail from the depot to the post-office at \$5 a month.

Send for a sample copy of *Orchard Vineyard and Berry Garden*, a monthly journal devoted to the interests of the fruit-growers in the West. Subscription price only 50 cents per annum. J. R. Hendricks, editor, Cawker City, Kas.



This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low-test, short-weight alum or phosphate powders. Sold only in cans. ROYAL BAKING POWDER CO., 106 Wall St., N. Y.

50 Chromo or 25 Hidden-name Cards, name on 10c. Samples & terms, 4c. Crown Ptg. Co., Northford, Ct.

Beautiful Cards. Agents' sample book and full outfit for 2c. stamp. EAGLE CARD WORKS, Northford, Conn.

**THIS PAPER** is on file in Philadelphia at the Newspaper Advertising Agency of Messrs. N. W. AYER & SON, our authorized agents.

**AGENTS COIN MONEY WHO SELL DR. Chase's Family Physician and Receipt Book.** New and Improved Edition. Three Thousand sold in one month. Price, \$2.00 For particulars, address A. W. HAMILTON & CO., Ann Arbor, Michigan.

**HIRES' IMPROVED ROOT BEER.** Packages, 25 cts. Makes 5 gallons of a delicious, sparkling and wholesome beverage. Sold by all druggists, or sent by mail on receipt of 25 cts. C. E. HIRES, 48 N. Delaware Ave., Philadelphia, Pa.

**WILMOT ACADEMY**

Has a complete and practical Academic course; also a special School of *Elocution* and *Eclectic Short-hand*. Address F. H. FINER, Ck., Principal, Wilmot, Cowley Co., Kas.

**OTTAWA UNIVERSITY.**

Thorough in Work Liberal in Spirit. Progressive in Methods. Business, Teachers' and three Collegiate Courses, Music and Art. Location one of the best for a thorough education. Ottawa is known as the Chautauque of the West. Necessary expenses from \$105 to \$120 a year. Fall term opens September 1st, 1886. For catalogues, advice or information, address, President Ottawa University, Ottawa, Kas.

**FINE ARTS**

Gentlemen of good address WANTED To Solicit for Our Portraits. Something New--Photo-Steel-Engravings. Enclose stamp for Catalogue. Address PHOTO-STEEL-ENGRAVING CO., Geneva, New York.

**PAIRONIZE HOME INSTITUTIONS.**

**THE SOUTHERN KANSAS RAILWAY IS A KANSAS ROAD,**

And is thoroughly identified with the interests and progress of the State of Kansas and its people, and affords its patrons facilities unequalled by any line in Eastern and Southern Kansas, running.

THROUGH EXPRESS trains daily between Kansas City and Olathe, Ottawa, Garnett, Iola, Humboldt, Chanute, Cherryvale, Independence, Winfield, Wellington, Harper, Attica, and intermediate points.

THROUGH MAIL trains daily except Sunday between Kansas City and Independence and intermediate Stations, making close connections at Ottawa, Chanute and Cherryvale with our trains for Emporia, Burlington, Girard, Walnut and Coffeyville.

ACCOMMODATION TRAINS daily except Sunday between Kansas City and Olathe and Ottawa.

REMEMBER that by purchasing tickets via this line connection is made in the Union Depot at Kansas City with through trains to all points, avoiding transfers and changes at way stations.

THROUGH TICKETS can be purchased via this line at any of the regular Coupon Stations, and your baggage checked through to destination, East, West, North or South.

PULLMAN SLEEPERS on all night trains. For further information, see maps and folder, or call on or address S. B. HYNES, Gen'l Passenger Agt., LAWRENCE, KANSAS.



### The Young Folks.

#### Weeds in the Corners.

The wheat was cut and the corn laid by,  
 The ricks in the stack yard towered high,  
 The tall hay-shed and the deep barn bay  
 Were filled with the richest, choicest hay;  
 The cows stood full knee-deep in the creek,  
 Lazy, contented, fat and sleek;  
 The stubble shone brightly as cloth of gold,  
 The well-trimmed hedges were fair to behold,  
 And everywhere far as the eye could see,  
 The farm was tidy as farm could be,  
 But that, by fences and low creek banks,  
 The tall weeds towered in stately ranks,  
 In uniforms of dark green arrayed,  
 Like soldiers out upon dress parade.

Farmer John stood in the big barn door,  
 And he viewed the whole scene o'er and o'er  
 And then, with never an uttered word,  
 But as deep a sigh as ever you heard,  
 He took the scythe from the apple tree,  
 And slowly, but surely, started he  
 To mow down the weeds in the corners.

With every sweep of the well-swung scythe,  
 See them topple, and fall and writhe;  
 In solid phalanx, and serried row,  
 Rank upon rank, swift down they go,  
 'Till an army vast lies scattered round,  
 Like French Huzzars on a battle ground,  
 So rod after rod, for a full half mile,  
 With often a sigh, but never a smile,  
 He smote those weeds in the corners.

He rolled up his sleeves and he bared his breast,  
 He paused but a moment, e'en now, to rest,  
 Though his legs were weak and his back was lame,  
 Though his breath, like bellows wind, went  
 and came.  
 With strokes as steady and strong as before,  
 He bent his back for a half mile more,  
 Cutting the weeds in the corners.

Again he pauses and wipes his brow;  
 But starts he out on the "home stretch" now,  
 And strong and sure and relentlessly,  
 He "smites the Philistines, hip and thigh,"  
 'Till there is never one left to show  
 How large and how strong a weed can grow,  
 He left not a weed in the corners.

He hung up the scythe in the apple tree,  
 And smiled in a way that was good to see,  
 And said, as he took a resting spell,  
 "Though I farm but little, I'll farm that well.  
 I'll leave no dock or thistles to grow,  
 Ther seeds, in the fall, broadcast to sow,  
 I'll have no weeds in the corners."

Ah! noble farmers and farmer's wives,  
 Do we, in the fair fields of our lives,  
 Leave any weeds in the corners?  
 Large harvests of good deeds we would reap;  
 But "the enemy sows tares while we sleep."  
 And knowing not that is sown the seed,  
 Springs up full many a noxious weed.  
 If we leave but one it grows and thrives,  
 'Till it spoils the symmetry of our lives,  
 With growing weeds in the corners.

Ah! while we are filling life's fields so fair  
 With all that is beautiful, rich and rare,  
 With blossoms of beauty, in every hue,  
 Let us mindful be of the corners, too.  
 The crops that we sow, spring up and yield,  
 One season brief in the well-tilled field,  
 Not so the weeds in the corners;  
 Through all mischances, their germs live on  
 When every seed of good grain is gone,  
 Befouling the fields we thought so clear,  
 More and more with each coming year;  
 So little faults flourish, and nobody knows  
 How fast and how far their influence grows,  
 Those noxious weeds in the corners.

A fretful manner, or grumbling tone,  
 Dissatisfaction with what we own,  
 Failing to give a neighbor his due,  
 Or to keep the "Golden Rule" in view,  
 Neglecting to speak a comforting word,  
 When another's heart is by sorrow stirred,  
 Failing by word, look and act, to prove  
 That "our own" we tenderly, truly love,  
 Are wicked weeds in the corners.

But mindfully, prayerfully, day by day,  
 For the "hidden sins" let us watch away;  
 'Till like a beautiful, well-tilled farm  
 There never is left a weed to harm,  
 And no weeds are left in the corners.  
 —Dart Fairthorne, in *Western Plowman*.

#### THE BAHAMA ISLANDS.

##### A Region Where Earthly Existence is an Endless Lullaby.

The Bahamas are said to have been settled as early as 1622, and their population is estimated to be about 40,000 souls. But they are a listless, indolent lot, to whom simple existence is the highest aspiration. For the most part the language is a curious mixture of the English, Spanish and Negro tongues. Sponge-gathering, fishing, conch-gathering, fruit-picking and wrecking constitute about all the labor done. The islands swarm with these wreckers, who are nearly all good-natured souls, that regard everything cast upon the shores, every vessel that grounds upon the dangerous wrecks and cays, and every craft that can be even lured upon the rocks,

as their rightful gain, and receive all such ocean salvage as if the blessing of Heaven accompanied it; though for that matter our own Government permits quite as bad a state of things at Key West and along the Pine Islands, off the south coast of Florida. In the capital, Nassau, there is some wealth, some refinement, and some regard for the fitness of things, but even here the enervating blight of a society largely impregnated with political and novel castaways has fallen.

**A REIGN OF PRODIGAL PROVISION.**  
 For the traveler, the scientist, the invalid, the dreamer, the outcast, or the outlaw, these islands are the ultima Thule. Life is sustained with scarcely an effort. It is a region of prodigal provision, of thyme, and balm of life in endless lullaby. All this is the vision of toilers. Its realization to any people begets squalor. The population of the entire islands, whose capital and Governor-General are at Nassau, New Providence, is nondescript, with English, Spanish and Negro commingling, and comprise such a people as might be likened to Lazzaroni unconsciously possessing Heaven; and, in coming to know and think of it all, it is one of those intellectual evidences that almost compels the rejection of any sort of future state in which activity and progression are not possible.

There is actually a sense of rest in these latitudes so intense as to be oppressive. Something in the very air compels sleep that can be likened only to a rest which brings no renewal of that elation and vigor we in the colder climates know, and I doubt not that this carries on from physical to mental effects, and dims intellectual and spiritual alertness sadly. But to know it and experience it—and to leave it—are delicious; though it all leaves with it an undertone of sadness, because one so much longs to change the unchangeable law of compensation and give the sweet clime to the driven, jaded men and women of our harder, more verile peoples, and compel these half-awake existences to live and labor where the awful friction of things would straighten the form, put light behind the eyes, and polish the perception until recognizable.

But all about you is weird, charming, sensuous, narcotic, dreamful. It is to you like old wine that lulls and soothes, but does not fire the blood and brain. The sea has changed from its hard, cold, steely blue, but is now opaline, almost milky white, but translucent. The horizon that, abreast of the dreary, dangerous headlands of the north, seemed shut down upon near and quick and hard by as dreary a sky, is now far and far away, and the waters and sky meet lovingly. The sky, too, that was so close and forbidding 500 leagues behind now seems infinitely far above you, and has a fleeciness and softness which opens to the imagination undreamed-of flights toward Heaven.

**NATURE'S HAND IS FOREVER OPEN.**  
 In these islands nature's hand is forever wide open. Here the pineapple, melon, citron, guava, custard apple, yam, bread-fruit, sweet potato, pomegranate, banana, orange, lemon, cocoonut, and a hundred other vegetables and fruits, spring unasked from a surpassing and prodigal productiveness. The forests teem with the cocoonut tree, a hundred feet to its strange pinnate leaves, the ceiba or silk-cotton tree, the black mangrove, almond, mahogany, ebony, lignum vite, lance, and the royal palm, while the swinging cactus, oleanders as tall as our trees and flowering every month in the year, the glowing coral vine, the tuberose, the Cherokee rose, and roses of every hue and size, the alligator pear, the night-blooming cereus, and a myriad of shrubs, ferns and flowers delight the eye and gladden with perennial color and odor, and that forever without the bidding of wish or touch of labor.

The luxuriance of land is also equaled by the prodigality of sea life and form, so varied, beautiful and wonderful. No shores are so enchanting, no waters so winsome, and no depths of ocean hold such mazes of mystery and delight. The fish alone are remarkable in variety. Among them are the blackfish, the porpoise, which seems to tumble about in all waters; the shark, that deadly foe of the sailor; the dolphin, which is in endless pursuit of the delicate flying-fish which scuds through the air because it is chased and not because it enjoys it, which same dolphin is never cooked aboard a vessel unless a silver half-dollar is put in the same pot, for if the half-dollar blackens then the dolphin is full

of poison from having sucked copper from ship bottoms; the whipray, like the flounder and with a tail like a coachman's whip, sometimes ten feet long; the jew-fish, which is to these waters as the halibut of our north-east coast; the yellow-tailed snapper, gigantic turtles, the catfish, the groupa, striped snapper, bonito, Spanish mackerel, angel-fish, pork-fish, hound-fish, and sucking-fish. Then there is that dread mystery to seamen, the Portuguese man-of-war, that strange formation of marine life like a mass of jelly with its ventral fins extended in every direction, riding the heaviest seas like a bird, and which sea-folk say is a deadly poison to the touch.—*Edgar Wakeman, in Chicago News.*

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# THE KANSAS FARMER

ESTABLISHED IN 1863.

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The KANSAS FARMER, the State Agricultural paper of Kansas, is also the official State paper for publishing all the Stray Notices of the State, and is kept on file in every County Clerk's office.

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Address **KANSAS FARMER CO.,**  
Topeka, Kas.

Twig blight is supposed to be caused by an insect sting at the base of the twig.

Montgomery County Agricultural Society will hold its Fair at Independence September 14th to 18th.

Waldo F. Brown says he believes that a great many colts are permanently injured by the too free use of corn.

The wheat crop of the country this year is ample for home use, for seed, and for all foreign demand likely to be made on us.

As to wheat yields, we hear of 22 to 30 bushels to the acre, but the average of what fields were cut will not exceed 12 bushels.

Some Eastern papers are discussing the fence question with the object of creating a public opinion in opposition to fences.

The Liberal party in England, with Mr. Gladstone at its head, failed to carry the elections recently held. The "old man" resigned the ministry a few days ago, and Lord Salisbury will form a new cabinet.

The oleomargarine bill, as finally passed both houses, put the tax at two cents a pound. The President referred it to the Attorney General for his opinion as to its constitutionality, which, we guess, means its veto.

It was not our intention to collect special crop reports for the month of July. There is nothing to report for that month except corn, and our report of September 1st will be much more satisfactory, because then, farmers can state definitely about the crop, which they cannot do now.

A London cablegram of the 21st inst. said: "Remarkable heat is passing over England, accompanied by disastrous thunder storms. At Liverpool the rivers were overflowed and two persons drowned. Severe storms, with loss of life, are reported in France. In Paris the heat is excessive."

The Rock Island Railroad company made large purchases of vacant ground in Topeka last week for depot facilities. The Kansas, Nebraska & Dakota road made similar purchases some weeks ago. It is confidently expected that Topeka will be connected directly with both St. Louis and Chicago before the leaves fall.

## ABOUT THE WEATHER.

It is often said that when one has nothing to talk about and wants to say something he falls back on the weather. But it frequently happens that weather is a very interesting subject, and that has been true in a very large portion of the United States in the last two or three weeks. It was getting to be very dry in some parts of Kansas, as well as in Missouri, Iowa, Dakota, Nebraska, Colorado, Texas and Arkansas. And it was dry enough to injure a good deal of corn. Some of the early-planted was in fresh tassel just when the greatest heat came, and in the dry atmosphere the tassels soon became unfitted for their natural uses. Then there was some late corn on high and thin ground, and still other in weeds, and in those three classes of cases, Kansas corn will be short; but the acreage is so large, and there is yet so much uninjured that there will be still a very heavy crop of corn raised in the State. In the last ten days a great deal of rain has fallen in Kansas. The following dispatches were published in the morning papers, Sunday last:

**STRONG CITY, CHASE CO., July 24.**—The drouth is broken. It commenced raining here just after dark last night and has rained steadily all night. It is not a shower; there was no wind, no thunder, no lightning, but a steady, soaking rain. It commenced very gently at first, as if timid after five weeks of dry weather, but it increased all night and is still raining, with indications that it will rain all day.

**SYRACUSE, HAMILTON CO., July 22.**—Throughout the East the crops are withering in the drouth, while here we are having a splendid rain almost every evening. Crops are looking excellent, and farming, so far from being an experiment, amounts to a practical demonstration.

**KINGMAN, KINEMAN CO., July 24.**—Heavy rains have fallen in Kingman, after nearly three weeks of dry weather. This whole county, as well as Pratt and Reno counties, was visited last night with the best rain in a year. It rained from 8 o'clock last night till 5 this morning, at least six inches of water falling. Last night's rain raised the Ninnescah river at this point nearly as high as during the great flood of April, 1885.

**GARDEN CITY, FINNEY CO., July 24.**—The Arkansas is on a boom. Before 9 o'clock Thursday morning the river had risen two feet, and had commenced to overflow its banks, and was rising at the rate of a foot an hour. At 11 o'clock the water had covered all the space between the small bridge and the river and had spread over the bottom on each side of the road, reaching up to the little shanties on the east side of Main, below the lumber yards. The river was at this time fully a mile wide and required quite a volume of water to raise it an inch, still it continued to come at the rate of six inches an hour, and soon the entire bottoms were covered, presenting one vast sheet of water.

**LA CYGNE, July 24.**—A fine rain, lasting several hours, to-day, fell in La Cygne and vicinity, causing general rejoicing.

**CLAY CENTER, July 24.**—A steady rain has fallen for the past two days, insuring a prodigious corn crop in the Republican valley.

**EL DORADO, July 24.**—We have had a twelve hours' root-soaking, washing rain. This will be of great benefit to the crops. It is general all over the county.

**FORT SCOTT, July 24.**—A heavy rain fell throughout the county to-day. It began raining in the morning and continued throughout the entire day. For hours the water came down in torrents. The streams and rivers are rapidly

rising. Advices to the *Monitor* indicate that the rain is general throughout this section of the State. A splendid corn crop is now a certainty. The yield will be the largest for several years.

**MEDICINE LODGE, BARBER CO., July 24.**—Last night and this morning the heaviest rain of this year fell in Barber county. It was general and has insured a corn crop and greatly improved the grass. The county was not suffering as its neighbors, though the rain was needed.

**YATES CENTER, WOODSON CO., July 24.**—A heavy rain has been falling here for ten hours. There is no question about the corn crop in this locality.

**TORONTO, GREENWOOD CO., July 24.**—It commenced to rain here at 12 o'clock last night and was still raining at 6 o'clock Saturday evening. The drouth was of five weeks duration, but farmers say the present rain will insure them fair corn. The hay crop suffered more and will be short, not only in staple but in quantity. The city is filled with farmers to-day, with smiling countenances, who say this rain is worth millions of dollars to the farmers and stock-raisers of the Verdigris valley.

**HUTCHINSON, RENO CO., Kas., July 24.**—There has been a drenching rain here for twelve hours steady. This insures Reno county five million bushels of corn.

**EUREKA, GREENWOOD CO., July 24.**—The rain which began here at 2 o'clock this morning continued until 9. It began again at 4 this evening and has the appearance of continuing all night. The ground is thoroughly soaked. This insures a fair corn crop.

The following appeared on Saturday morning:

**WELLINGTON, SUMNER CO., July 23.**—The five weeks' drouth was ended to-day by a good rain of several hours' duration. The corn will now make a fair crop.

**KIOWA, BARBER CO., July 23.**—The drouth is broken. Three heavy showers this afternoon, with appearance of more.

**WICHITA, SEDGWICK CO., July 23.**—A very fine rain fell this afternoon in this section, which was very timely. The indications to-night are for still a more heavy fall within the next few hours. Specials to the daily *Eagle* from other points in southwestern Kansas indicate a general fall of rain. At Wellington and points in Sumner county the rain was a heavy one.

**FREDONIA, WILSON CO.**—The heavy rains of the 24th have assured at least a half crop of corn in Wilson county, and an abundance of stock feed. Farmers are in high spirits over the crop outlook.

**WILSON, LINCOLN CO.**—Last night our section of country was favored with the finest rain we have had this summer. From 7 p. m. until 3 a. m. this morning, it fell steadily and continuously. North of us it must have been still heavier, as the rise in the Saline river was unprecedented, as the oldest inhabitants never knew it to be so high before.

**OAK VALLEY, ELK CO.**—We had a fine rain this morning; commenced raining the latter part of the night and rained until after 10 o'clock a. m. Not an old gully washer, but a nice steady rain.

**ABILENE, DICKINSON CO., July 23.**—There has been a steady rainfall throughout this section of the country since dark, and the chances are that it will last for some time. The indications are that the rain will be general throughout central Kansas. It comes just in the nick of time, as the corn was fast drying up, and also tends to allay the oppressive heat from which

this region of the country has suffered for some time past.

General Guthrie has just returned from a trip to Doniphan and Brown counties, and reports that the crops in that section of the State are looking splendidly. Copious rains have lately fallen, assuring the largest corn crop in the history of Brown, Doniphan and Atchison. The wheat crop which has just been taken off has been more than an average yield, while the oats crop has been plentiful and of a good quality.

**OSBORNE, OSBORNE CO., July 24.**—This vicinity is enjoying a good steady rain to-day, which is very much needed. Corn generally is doing well, although the dry weather was beginning to affect it.

A heavy rain fell in Wabaunsee county a few days ago, and in portions of Shawnee, though in the city of Topeka the fall was very light. It is safe to say that rain enough has fallen and it has been well enough distributed to insure a fair corn crop in the State, unless some misfortune overtake us yet.

## Constitutional Amendment.

The voters of Kansas will have submitted for their decision next election a proposition to amend the constitution of the State so as to provide for two new judges of the Supreme court at once and for two others whenever a further increase becomes necessary, and to increase the salary of judges of that court to \$5,000 a year. The present number of judges is three and the salary is \$3,000.

There is no room for doubt about the need of additional judges. The present court is a year behind and there are no harder worked men in the State than Judges Horton, Valentine and Johnson. They are overworked, and it is impossible for them to keep the docket clear unless they have assistance. Every court docket ought to be cleared every term, so that nothing should be left over from inability of the judge or judges to handle it. The number of justices may be increased and that will divide the business, so that more work can be done. Where three now do it, five would have it then. Many hands make light work, the adage has it, and so it is with judges in court.

As to the salary proposed, it will seem high to farmers and manual laborers in general, but it is not above an average of judges in State courts. United States Circuit judges receive \$5,000 a year and judges of the Supreme court receive \$8,000. The amendment would be more satisfactory to the people if it did not change the salary at all from what it now is, for Kansas is yet a young State; still, in view of the fact that no change could be made for two more years and in the meantime the business of the court is increasing further beyond the capacity of the present judges to dispose of it, it will be better, probably, to adopt it and set the new judges at work.

We have received a few copies of the premium list of the Illinois State Fair for this year, to be held at Chicago, September 6th to 10th. The lists were sent to us for distribution to persons who may call for them.

Mr. F. W. Arnold, Osborne county, writes us: "Our county is making preparations for a first-class agricultural fair to be held in Osborne this fall; date not yet chosen. The society is organized on a solid foundation, being incorporated under the laws of the State. They have bought a suitable tract of land just without the city limits, and expect to improve it with all the necessities and conveniences which go towards making a good fair ground."



### Railroad Competition.

The winner hardly ever complains of unfair treatment by the loser. Chicago and St. Louis are competing railroad points, and so far as Western trade is concerned Chicago leads her neighbor on the Mississippi. Rates of freight between Chicago and Western points are about the same as those between St. Louis and Western points. This operates to the injury of St. Louis in some cases, and there is an effort being made to remove the difficulty. A letter was published in Topeka recently, purporting to have been written by a business man in St. Louis, President of a commercial body, to the State Board of Railroad Commissioners of Kansas, asking the influence of the Board in favor of establishing freight rates on the basis of mileage. If that could be agreed upon it would help St. Louis as against Chicago and as to trade west of St. Louis, and it is for that reason that the effort is being made.

The suggestion appears reasonable on its face. What, apparently, could be more equitable than to charge according to mileage on the same weight? If it cost one dollar to haul a loaded car ten miles, is not ten dollars the proper charge for a hundred miles? And if the distance between Kansas City and Chicago is greater than the distance between Kansas City and St. Louis, why should not freight charges on equal tonnage be in proportion to the distance? That doctrine, we say, looks reasonable. But is it so, really? Would St. Louis wish to be bound by it on Eastern freight? If there were a choice of freight lines between New York city in the East and St. Louis and Chicago in the West, would not St. Louis roads be willing to haul the freight to New York or from New York to St. Louis for the same rates that Chicago roads charge or even less? The distance between Chicago and New York is considerably less than that between St. Louis and New York, and if the mileage basis were adopted, St. Louis roads would be compelled to charge more for hauling freight to New York than Chicago roads would. The effect of such a rule would be to destroy competition between the two cities for both Eastern and western trade.

Whether, as between the two cities of Chicago and St. Louis, the final outcome would not be equitable if the mileage basis were adopted, need not now be considered; but there is a larger field than two cities covered by this subject of railroad competition. If mileage is to govern charges, the rates must be those of local traffic, because rates of compensation that would justify a haul of a thousand miles would not be enough for a haul of five miles or ten; and the effect of adopting a general system of charging local rates per mile for a shipment twelve hundred or fifteen hundred miles, would destroy all agricultural profits in far distant localities. Wheat and corn would not bear transportation a long distance if that were the rule. What would become of Kansas farmers, then? If they had to pay as much per mile for the transportation of their grain to New York city as New York and Pennsylvania farmers have to pay, they could not afford to raise it. But because of the established custom of charging less as the distance increases, Western farmers get the benefit of the discrimination in their favor, and it is not an unjust discrimination, because it is in accord with the common practice of men in all business transactions. It does not cost as much per mile to haul a car or a train of cars one thousand miles as it does to haul the same or a similar load ten miles or one mile. The greater the

magnitude of a transaction the less profit can be afforded as to particular items. If a farmer wished a thousand bushels of wheat hauled to the railroad depot and let it out to a teamster, he would not be willing to pay as much per bushel for hauling it as he would offer to the same man for hauling only ten bushels. One is a small job, the other is a large one. So, if he wanted a load of bacon hauled two hundred miles he would not pay as much per mile as he would if it were to be hauled only one mile. There are a great many little things entering into the expense of transportation, and the longer the distance hauled or the larger the quantity of matter, the less are the charges as to miles or pounds.

It happens, then, that the railroad competition between trade centers is not unreasonable or unbusiness-like, and as between Chicago and St. Louis, what is gained or lost on Western trade is balanced by Eastern trade. If Chicago hauls longer distance west than St. Louis and does it for the same rate of compensation, St. Louis hauls longer distance east than Chicago, and for the same rate of compensation. The better plan for St. Louis in this matter, as suggested by a contemporary, is not to push up Chicago charges, but rather pull down St. Louis charges, if the mileage system must prevail.

### A Word About Alfalfa.

We have request from readers in Sheridan county for information concerning the growth and culture of alfalfa. It is good for pasture, especially for hogs; it grows luxuriantly, and if well cured makes fair hay. It is sometimes cropped four times in one season, turning off a ton and a half to the acre at each mowing and frequently more. Prof. Shelton says they did that well with it on the college farm last year, and he says, also, that "in a country which gets its moisture from the clouds, it will not pay to raise alfalfa for its hay." He is of opinion, however, that with irrigation alfalfa would be "simply invaluable."

The plant is peculiar in one respect; it sends its roots deep down in the soil, and is, for that reason, enabled to withstand drought better than most forage plants. And that peculiarity indicates to the thoughtful person that a porous subsoil is best for it. It will not do well in land where the subsoil is hard and near the surface. In almost any part of Kansas, and especially as far west as Ellsworth, alfalfa ought to do fairly well in any of the best lands whether high or low. But the best land for this plant is that which is best, also, for corn.

As a pasture plant, alfalfa is much more valuable than if used for hay, because, in addition to the hay being of inferior quality, even when well cured, to red clover or timothy, it is very difficult to cure well if rain fall upon it while in the field. The stalks are long and coarse, taking water readily. It needs to be cured in the windrow or cock in order to save the leaves and small stems, and rain runs through it like it would through a sieve. It grows steadily and affords good pasturage all summer, but it must not be pastured very close, and especially late in the fall. It does not spread like some grasses, and in Kansas it will probably run out in four or five years, though this last remark is not yet known absolutely to be true. In South America, where the seed came from originally to California, the same ground has been producing alfalfa continuously a great many years. In South Carolina it has been growing more than a quarter of a century on the same ground without any reseeded by man. Why it will not do so in Kansas, in suitable soil, is difficult

to understand, but experience thus far makes it look that way. Prof. Shelton says: "Very close pasturing late in the season, and very severe freezing when the ground is not well protected with snow, have proved almost certainly fatal to alfalfa; and the stand, after the third or fourth year, usually becomes so thin as to make it no longer a profitable crop. Like orchard grass, alfalfa never self-seeds or thickens or spreads in the least beyond the ground originally seeded." It may be that what is most needed is careful culture for a few years until it becomes thoroughly rooted.

As to culture, the ground needs to be well prepared as if for corn. It ought to be plowed deep and the soil well pulverized. But the plowing ought to be done long enough before seeding to have become well settled. The surface should be freshened just before seeding so as to destroy young weeds. Twenty-five pounds of seed ought to be sown to the acre; sow any time in the latter half of April as the ground may be in best condition. Sow broadcast, harrow lightly and follow with roller if one can be had. The plants may not appear as fast or as thick as desired, but be patient, and keep all animals off the ground. When the weeds appear and are high enough to cut with a mower, cut them down and let them lie, and do that all through the summer as often as necessary to keep the weeds down; but do not undertake to mow the grass for hay or to pasture it the first season. The second year it will take care of itself and the weeds, too. We would advise light cropping the second year, in order that the plants may become well rooted.

Good seed may be had of S. H. Downs, of Topeka; F. Barteldes & Co., Lawrence; Trumbull, Reynolds & Allen, of Kansas City, and other reliable seedsmen.

### Inquiries Answered.

**MILL TOLL**—Please let me know through the FARMER what rates of toll millers are allowed by law, and what penalties for infringing the same.

—There is no rate prescribed by law. Millers are required to keep their rates of toll posted up in a conspicuous place in the mill; that is all there is on the subject in the law.

A British authority on wool says that too rapid growth is inconsistent with perfection; that is, a true, uniform fibre from root to point, elastic, not easily broken, with shining silvery luster. To grow fine wools on rich pastures one must not overstock them. Disease and want of food and warmth cause a secretion of the wool-forming fluid to cease, making a jointed staple which breaks where the stoppage took place.

### St. Louis Wool Market.

Messrs. Hagey & Wilhelm write: Our wool market continues buoyant and strong, and so anxious are buyers for all receipts that outside prices are easily obtained. Our sales to-day were at the following prices for Kansas grades:

Fancy $\frac{3}{8}$ and $\frac{1}{2}$ -blood.....	27
Choice medium.....	26
Fair medium.....	25
Low medium.....	23
Light fine.....	22
Heavy fine.....	20
Carpet.....	17
Common.....	17
Bux and pulled.....	16

While it is a laudable ambition to excel there is truth in this: "That the forcing a young cow to her full capacity, in the attempt to make her attain to a higher record in milk and butter yield, is simply to overtax the ability of a promising young animal and injure her future usefulness. It is a debatable question in the minds of many good stockmen whether a heifer

should be allowed to have a calf before she is three years old or not, let alone forcing her to make a big milk record."

### Gilt-Edge Farming.

An old farmer said to the editor of the *Scottish Agricultural Gazette*, recently: "There is too much gilt edge about farming now—more fancy than substance. I might illustrate this in many ways; but what has operated as much as anything against farmers during the past twenty-five years has been their depending so largely on costly purchased manures, some of them worthless. This unwise system has ruined many, both in pecuniary results, and in using fertilizers that were of no permanent value to their lands. Without the organic matter which is only abundantly supplied in bulky home-made manures, or in crops grown and plowed in for the purpose, few soils are capable of retaining moisture and manure. And even the best of lands and most favorable seasons will not maintain the farmer who manages on that system. We want to go back to the old-time, common-sense farming—entirely self-sustaining and independent."

There is a great deal of good hard sense in that paragraph of the Scotch farmer that applies equally well in this country where there is entirely too much gilt-edge farming. The most common mistakes made by our Western farmers are two, cultivating too much land, and extravagance in the use of machinery. This is not gilt-edge farming in the sense of high success in agriculture; it is rather an attempt to do what good common sense does not approve, and it results just as the kind of farming does which the old Scotsman was talking about. When a farmer undertakes to cultivate a hundred acres and is not able to handle more than twenty-five acres well, he is putting on airs that will impoverish him. One acre may be made to produce fifty bushels of wheat or a hundred bushels of corn. What use, then, to fuss over four times that much ground and raise no more grain? And if a farmer have no more wheat than he can cut himself with a grain cradle in three days and bind and shock it in three other days, why should he buy a self-binder and keep it in the open air all the year?

The KANSAS FARMER believes in using every useful improvement, but there is no more sense in running things on a ten-acre farm like they ought to be on a thousand-acre farm, than there would be in attempting to run a country newspaper of five hundred circulation on the scale of a metropolitan daily of thirty thousand circulation. An old-fashioned handpress does very well in an office where even in that slow way the whole edition can be worked off in half a day; but where an issue of many thousands must be run off in an hour, it requires the fastest steam power presses. So it is on a farm. Where there is not much to be done there ought not to be much fuss over it, and there ought not to be one dollar of expense incurred where it can be avoided in any reasonable way. Farming, to be successful, must be done economically whether the operations be limited or extended. Where one is able to take care of a great deal of land, he must use machinery and he ought to have the best for the best is cheapest always, provided any is good; but where one has but little, (and that is the condition of most of us) he ought to draw on others for the least possible amount of work. There is no more independent and comfortable farmer than he who works no more than he can do himself, with occasional assistance in times of unusual pressure.

## Horticulture.

### MISTAKES AND EXPERIENCES IN HORTICULTURE.

A paper read before the State Horticultural Society, at its sixteenth semi-annual meeting, in Wichita, June 29-30, 1886, by Dr. Chas. Williamson, of Washington Kas.

In practical horticulture we find many things to learn as well as unlearn, and some of our best ideas are picked up by the wayside, the donor probably being too modest or too weary as a breadwinner in his own industrial home to attend the meetings of either his own county or State horticultural society. To a large extent, appreciative, we are the gleaners of one another's experience, and although we have the past and the present to stimulate and to encourage us, we still realize that there is a persistent and continued battle to be fought, whose results add to the material prosperity, happiness and health of every home in Kansas, and richly deserves the appreciative fostering care given to it by our legislators. In the northwest and southwest, in the south-central and eastern portions of our State, even to the utmost limits of the newer parts of western Kansas, millions of trees, plants and shrubs are being planted, and even now, our western homestead area—once known as a desert—looks as if the magician's wand had passed over it, making an oasis with trees and shrubs, where but a short time since the Indian, buffalo and antelope roamed at will.

Still, we have enemies in our insect foes, our hot summer sun, southwest winds, occasionally severe winters—for this climate, and late frosts; but last, although not least by any means, is the smooth, suave and unprincipled dude that visits our suburban homes twice a year under the guise of a tree peddler, having pictures of strawberries growing on trees, two-year-old Russian roots raised on the Kaw—with two-year-old scions to match, with a pledge that they'll bear fruit in two years or more, and a patent method of pruning peach trees so that they will bear every year, even though the mercury falls 40 degrees below zero in the winter. With an eye single to our pocketbook, he sizes us up or down (rather call it what you please). Snugly wrapt in his own conceit, he disdains the teachings of the voted fruit-list of our Society; being wise in his generation, his labels never fail to give the desired variety. When I see him coming over the prairie toward the house, I am led to exclaim, as Robert Burns did to the witches and warlocks and long-nabbed things that gang among the heather, "Good Lord, deliver us."

The A B C of horticulture in Kansas in its earliest days were copied from Missouri, but like the French alphabet, it had a letter left out. It taught us first, that, plant as we might, we could not be successful, or, in other words, an apple grown in Kansas would need a wire stem to keep the winds from blowing it off the tree. Others taught that any variety of trees successful in the Eastern States would be equally so here. Both errors. It also taught that fruit trees in the orchard should have their stems trimmed up, so that a wagon could be driven under the limbs; also that they should be planted close together for mutual protection, and to plant the tree perpendicular; wind-breaks were also considered unnecessary.

All mistakes; for the sun scalded the bark on the south side, and then the borer made his home there, destroying the tree. The close planting necessitated the removal of one-half the trees when they came into bearing. If

planted upright, in a few years the southwest winds would lean them to the northeast, thus causing an effort to be made to get them back again.

Now, in setting trees, we lean them to the southwest, while the wind-breaks on the south and west have made one-half difference in the amount of fruit raised when they commence to bear, as well as in the successful growing of the young orchard.

Then, again, we planted too many varieties of apples, especially summer apples, and when our trees came into bearing we had not enough of any good variety to market. When we were taking these early lessons we did not have the voted fruit-list of the State Horticultural Society for our primer. Hence, each settler selected the variety he preferred in the State from whence he came.

We now plant fewer varieties, and these are tested by the experience of other orchardists all over the State. Another early lesson was not to mulch, but water the trees, all through the season. That leaf in the primer was a dear one to me, for I lost plenty of trees every season, and, too, often blamed the nurserymen for it; but in dry years, like 1860, the water gave out, and we went to mulching, and have mulched ever since. Others said we must cultivate all the time, but the early settler had to turn so many ways to keep the wolf from the door, that he preferred to let the earth worm do his plowing under the mulch, thus helping him still to make a success of it.

The next drawback was, our apple trees took the blight, pear trees, too, and they were worst of all—root and top included, and some of us almost gave up in despair; but of latter years we have changed the name, calling it winter-killed. With the apple we now try to mature all wood ready for winter, and never cultivate later than June. With the pear, we cut back a portion of the growth, so that no immature wood goes into winter quarters; and later, taking a lesson from a Swiss horticulturist, when my pears are injured by blight (alias winter-killing), sun-scald, etc., (for the bark of the body of a tree needs an umbrella or other shade on the south side, in the hot summer days, as much as a man), and when they are injured I get some clay and mix it like mortar; this is put on two or three inches thick around the trunk of the tree, and a little upon the limbs where the bark is black and dry; it is then wound around with cotton cloths. In the fall you will find a new bark, and the dead outside scaling off. This was a wayside idea or lesson, a surprise to me; but such things may come to any one of us who travels through the world with his eyes and ears open.

No tree is as much at home in Kansas soil as the cherry. My first lesson was that the May Duke and Early Richmond were the only kinds that would succeed in our climate, but I find every year a new name added to the list. My best cherry is an accidental seedling of the Early Richmond. I have this to say for the benefit of northwest and southwest Kansas, having passed through all the ups and downs of homestead pioneer life and experience, and it is a summarizing-up of my experimental work on the frontier in the last eighteen or twenty years, and near thirty, including Territorial days: That it is no sign that, because you cannot cultivate a certain kind or class of fruit to-day, you may not do it a few years hence. This is a part of our horticultural history that is repeating itself all over the State, including small fruits and shrubs. It is Washington county's history, and this success comes with the settlement of the country, and the

increased rainfall that follows as the result of cultivation, stoppage of prairie fires and the planting of trees. The birds in their migratory annual visits help to plant on the creeks the seeds of wild fruits and timber, which with the reserved store placed there by Providence, (for we now realize that when cutting off the stunted, prairie-burnt white elms, a different growth of more valuable timber takes its place), stimulated the energies of the first settlers with the promise of better things to come in the future, and for some reason, which I am not ready to explain, as soon as tame fruit becomes abundant the wild dwindles and ceases to be, even in its old haunts.

Now, in northern and eastern Kansas, what of promise does our lesson give us in peach culture? In the past, one crop in six years was all we looked for, and often more than we got. In Washington county, one year in four, and still farther west, in Jewell county, the crop becomes more certain, following very hard winters being the exception. Is it not possible to do better in northern and western Kansas? I say yes. But we must not persist in planting and trimming the peach the same as the apple, unless to fail!

When we look for peaches, even in one of our worst years, they are found on the end of the limbs that lay close to the ground. Even this year, following one of our hardest winters, we have a few peaches where the earth prevented immature development of buds. Then why not cut out the leader, and train the limbs horizontal, close to the ground, or in a fan-shape, against the fence or stakes, as the apricot and nectarine are raised in England, covering them in winter with matting or corn-stalks. It will pay us to do so, whenever we get ready to get out of the old ruts, for it has proved a success as far north as Des Moines, Iowa. Then why not here in Kansas? We have in Washington county been substituting the apricot, which is hardier than the peach, easily propagated from seed or cutting, and bears in three years from planting. It is also a success with the Russians in their settlement in Nebraska. In horticulture we have much yet to learn, and the limit of experiment, research and experience is not yet reached.

The State of Iowa has pushed her investigation even into central Asia, and by experiments in her Agricultural College; and even Kansas has much to hope from the investigations of the Iowa State Horticultural Society in their experiments with the hardy, thick-leaved Russian fruits. Chas. Gibbs, of the Province of Quebec, a noted horticulturist, and Wm. Budd, of the Iowa Agricultural College, visited in 1882, the two great plains of northern Europe, which are said to be the counterpart of our western prairies, covering like a blanket the larger part of continental Europe on the northeast, and passing, without elevations, into the plains of northern Asia. This wonderful plain is washed on the north by the frigid ocean, and on the west and south by the inland Baltic, the Caspian and Black seas, and includes all of Russia in Europe. On the Volga, the annual rainfall, summer heat and aridity of air, is similar to western Kansas and Nebraska. The geological formation is

the same as ours. The melon and tomato flourishes there, and Dent corn ripens perfectly. It is nothing uncommon to find cherry orchards in the Province of Valdimer of 15,000 trees, and such is their abundance that Valdimer cherries are cheap in every Russian city reached by rail, in their season. On the Volga, which is noted for its apples, history tracing them back to the time when Rurick was on the throne, in the year 850, and yet, in this climate the winter temperature often gets below zero 50 degrees Fahr. The hardiness of the northern pears of this region is surprising. The seedling varieties are used for park and other shade trees, and lives where the northern poplar dies.

There are many varieties of the Russian wild Bergamot pears from this region, which, as the result of experiments made at the Iowa Agricultural College, have stood the test of winters that have killed the Flemish Beauty. I cite the above to show the necessity of experimental work in our own State with these hardy fruits. Individual experiment is not sufficient, but should be aided by a small appropriation from the State, which, with a small profit from the sale of these trees, in their distribution all over the State, would be of great benefit to all. Too many of us are apt to lack faith in ourselves and in the outcome of the fruit interests of our western counties. However, as a pioneer, I am not one of that number.

When the craggy heights and sides of Lookout mountain, which our brave boys in blue, midst the roar of cannon and the rattle of musketry, baptized with their blood, can be cultivated from valley to hill-top with strawberries and vines, and the land which was once considered worthless, stirred as it were by the magic of the skilled horticulturist, has now reached the fabulous price of \$800 per acre, who is there here, as they look over the homestead era of counties of north and southwestern Kansas, but will exclaim with me, that the sons and daughters of our dead heroes who have settled there—for Kansas is truly the soldier's home—have both the courage and the will to make there a paradise of happy homes that shall blossom as the rose.

Raspberry canes are best kept at about two and a half feet high. When grown to that height, pinch off the ends. Bearing canes should be headed back in the spring.

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# The Poultry Yard.

### Preserving Eggs.

Mr. T. S. Hawley, a Shawnee county poultryman, says it is an established fact that infertile eggs will pass through the three weeks' period of incubation under 104 deg. of heat and come out at the end of that time perfectly clear. Having discovered this fact, the vexed question is almost settled. Have the eggs for preserving infertile. After the breeding season is over, shut up, or in the case of the general farmer I would say kill all your cocks. Don't be afraid the hens will stop laying, for the fact is they will lay better without the cocks. Having thus obtained infertile eggs, it is only necessary to pack them, small end down, in some non-heating material (I prefer wheat bran or dry oats), and set away in a cool place where the temperature does not change materially. There is nothing in the pure egg to decay, but the sole trouble is with the life germ within the fertile egg. Try this and report success, please.

### Chicken Food.

Corn alone is not good food for any animal. Chickens are no exception. Some persons feed corn meal to young chicks and do not know what ails them when they get sick. Here is a case in point: "A few days since a gentleman informed me he was losing nearly all his young Houdan chicks; they grew remarkably fast, but as soon as they commenced to get their feathers, weakened and died. Inquiry brought to light the fact that the feed was corn meal, mixed with cold water, with little or no other diet. Houdan and also Leghorn chickens are rapid growers, and very soon get their feathers, and during this development of feathers should be fed a varied diet, as the strain on the system of the chicks is a severe one. We have always been very successful with Houdans, and never have been bothered with the complaint referred to. Our feed for them has always been corn meal at the rate of two quarts to one of good wheat middlings thoroughly mixed together while dry, a tablespoonful of good fine ground raw bone mixed in, and then pour on boiling water and stir so as to mix of a crumbly nature free from any stickiness, cover up and let stand until cooled, then feed; give wheat all they will eat up eagerly for last feed in the evening."

### Poultry Enemies--Crows.

A correspondent of the *Poultry World* tells a crow story. He says: The spring laying season had opened and the attendant of the poultry had been very much elated by the richness of his egg harvest, when I found him one day, quite dejected by the loss of his finest pullet. He said that she had been struck by a hawk some days before, and had just died from the effect of the wound. The next day he reported another case of the same kind, and the experience was repeated daily until it became both monotonous and inconvenient. Six of the best hens had been wounded and most of them were dead. The hawk theory was exploded, but none more satisfactory had been suggested. We would have suspected hogs which frequented the woods adjoining the poultry yard, but the wounds were always inflicted upon only one part of the body of the hen and no corresponding impression of another set of teeth could be found. The destruction of the fowls still continued, and its cause still baffled our efforts at comprehension, until one day a boy working on the farm happened to pass the fowls ranging in the woods near their yard, and dis-

covered the enemies. The hens were running with loud screams from a flock of crows pursuing them. One crow was perched upon a large hen's back, at which he was pounding and tearing with his beak in order to pluck out the feathers. When he succeeded, he flew off to "feather his nest," leaving his victim with a large wound in her back, from which she was to die in a few days. The crafty wretches had insidiously obtained the confidence of their daily companions, the hens, by walking about with them in the woods and pretending to be very sociable, while in reality they were plotting their base designs of a "forced levy." Have they not proved themselves eminently worthy of the appellation "black rascals," and has such an experience ever been reported before? To me, the latter was both novel and painfully instructive.

### Poultry Notes.

Tarred paper applied to the outside of the building and exposed to all kinds of weather, if put on with care, will last two seasons. Tarred paper applied to the inside of buildings will be of some service in protecting fowls against vermin.

Fowls should never be allowed in barns, stables or carriage houses. Their houses should be fumigated by burning half a pound of sulphur every spring and fall, while the fowls are out for the day, and be well aired before roosting-time.

Throughout the entire year turkeys are salable in lesser quantities, for the city hotels and restaurants chiefly, and there is no kind of common poultry, perhaps, that will average, the year through, better or steadier in price than will these fine fowls.

While it is necessary to see that the chicks have plenty of shade during the heated portion of the day, and protection from chilliness during the cool nights, their diet must be specially attended to. All laxative articles should be avoided; and as prevention is better than cure, this must be observed from the time they are first able to eat.

In the absence of fish, potatoes boiled in milk, where there is plenty of the latter, is an admirable preparation for feeding to young, growing chicks. A mixture of one-third corn meal and wheat bran with the above will make the young chicks grow wonderfully if given fresh every day. The best feed for sitting hens is plenty of good, sound, whole corn. They should have plenty of fresh water to drink.

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DR. JOHN BULL.—I procured one bottle of BULL'S SARSAPARILLA for my eldest son. Among the remedies and various prescriptions that he has tried for weak lungs and chest, this one bottle has been of more benefit to him than all. It has cured me of dyspepsia as well.

JOHN S. MCGEE, Horse Cave, Ky.

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DR. JOHN BULL.—I have used BULL'S SARSAPARILLA for rheumatism and kidney trouble, and my son has taken it for asthma and general debility. It has given us both great relief.

Yours truly,

THOS. H. BENTLEY, Rossville, Ill.

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### The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

**INJURED HIP.**—I have a horse that got kicked two weeks ago right on the hip joint, and it swelled up very much, but we bathed it two or three times a day with warm water. That reduced the swelling and the inflammation, but there still remains quite a large bunch. He is not very lame now, but I should like to know what will bring the swelling down. [Clip off the hair from the part and apply a blister: Spirits of turpentine, 1½ drachms; cantharides, 4 drachms; lard, 4 ounces. Apply with friction for ten minutes. Attend to the general directions given for blistering. Tie the horse's head high so he cannot lie down for nine days, and also arrange the stall so he cannot rub the blistered surface.]

**ATROPHY OF THE MUSCLES.**—I have a three-year-old filly that is sweened. She is not very lame, only when on the hard road. I have to work her almost every day on the farm. I think the cause was collar too wide, but have put in a sweat-pad. Her shoulder is wasted away and shrunk. What can I do to cure her? [You must give the mare perfect rest. You should have stated how long the wasting has existed. Use the following blister: Cantharides, pulverized, 6 ounces; lard, 6 ounces. Mix, and after clipping off the hair, apply two ounces, rubbing it well in with the hand for ten minutes. Apply fresh lard every day for ten days, washing off the blister on the third day after its application. At the end of three weeks repeat the blister, and should it be necessary, repeat three weeks afterwards. It takes considerable time to restore wasted muscle to its natural condition. Put on a neck-cradle, or keep the mare's head tied up so she cannot bite the part.]

**PARASITICAL DISEASE IN SHEEP.**—Some of my yearling sheep have been growing poor for the last two months, and have had the best of care; their feed has been hay three times a day, and oats twice a day; have had a good appetite, excepting the last two weeks they were on hay. Some of them run at the eyes, and nose, and are frothy at the mouth, their nose and lips are scabby and sore; and their bowels are constipated, their skin is as white as it is after they have been bled to death. In tagging I cut some of them, and where I cut them no blood would start, it looked as white as wax. I had one last fall that was similar to these (with the exception of the skin which was a natural color), I killed it, and found a white flat worm, several feet long, in the small intestines; it was very thin and about five-eighths of an inch wide, and jointed. Thinking these might be the same, I killed one, but could not find anything but what was all right. Was it a tape worm in the one I killed last fall; if so, what causes them, and what will get rid of them? Is there such a disease as paper skin in sheep; if so, what is the cause of that, and what is the cure? [The symptoms present in your sheep indicate complications not made sufficiently plain by your description to enable us to make an intelligent diagnosis of the disease. That parasites may be the primary cause of the trouble is probable; some varieties of which are a common cause of extreme emaciation and debility of the general system. There are no less than forty varieties of these parasites found in the various tissues of the body in our domestic animals. Some are apparently harmless to the animal; while other varieties are very destructive to life;

their presence is not suspected until too late to save the animal. The presence of St. John's wort in the pasture where your sheep are grazing, will account for the soreness of the skin on the face of your sheep. Paper skin, as it is called, is a symptom and not a disease. The white flat worm found in the small intestines of the sheep killed is the tænia or tape worm. Common salt in the feed is a good preventive. Treatment: Sulphate of iron, pulverized, chloride of soda, of each 1 ounce; powdered savin, 6 drachms; mix all together and divide into sixteen powders; give one powder at night for a week.]

"Summer fallows receive one or two plowings only during the summer. The surface hardens into a crust and becomes a mass of clods when plowed; and weeds are allowed to grow and seed the land. The time required for repeated plowings prevents the necessary work. But with the 'ACME' Pulverizing Harrow, Clod Crusher & Leveler, work even better than plowing may be performed in one-fifth of the time, the weeds sliced up and killed and the operation repeated so often that the field will be a clean, mellow bed by 'autumn.' See advertisement on page 15.

A Chicago jeweler has invented a self-winding watch. By an arrangement something like the carefully-balanced lever of a pedometer, the watch is wound by the motion of the wearer when walking. A walk of seven minutes will wind the watch to go for forty-two hours.

#### Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought. T. E. BOWMAN & CO., Bank of Topeka Building, Topeka, Kas.

#### JOHNSON BROS.

Garnett, - Kansas,



Breeders of and Dealers in Imported and High-Grade

#### French Draft Horses.

Choice Stallions for sale on easy terms. Write us and mention KANSAS FARMER.

#### J. L. HASTINGS,

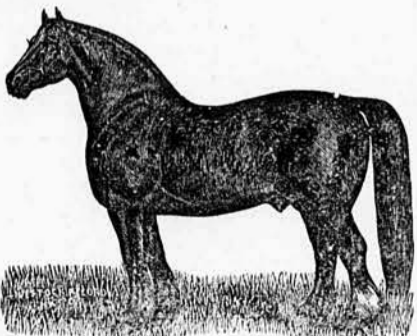
Wellington, - - Kansas,



Dealer and Breeder in Imported and High-Grade

#### FRENCH DRAFT & CLYDESDALE HORSES.

Terms reasonable. Satisfaction guaranteed. Correspondence solicited.



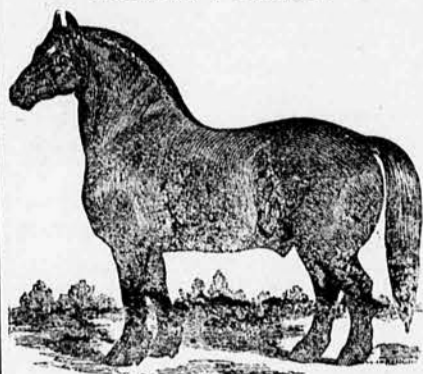
#### JOHN CARSON,

Winchester, - - - Kansas,

Importer and breeder of CLYDESDALE and PERCHERON-NORMAN HORSES. Choice stock for sale, including some fine Grades. Also Jacks for sale. Correspondence solicited. Satisfaction guaranteed.

#### E. BENNETT & SON

TOPEKA, KANSAS.



Importers and breeders of PERCHERON, CLYDESDALE and CLEVELAND BAY HORSES. 108 head will arrive from Europe July 28th. Horses sold on terms to suit purchasers. Write for illustrated Catalogue.

#### J. N. THOMPSON

MORAN, ALLEN CO., KANSAS,

#### Breeder, Dealer in and Shipper of IMPROVED POLAND-CHINA SWINE.

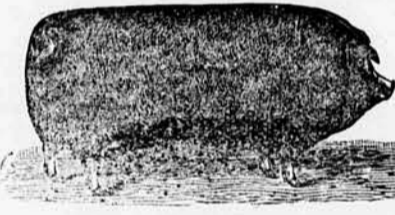
Choice Pigs for Sale.

Pedigreed stock—C. P.-O. Record. Correspondence invited. [Mention this paper.]

#### RARE BARGAINS

RARE BARGAINS offered from the Golden Belt Herd of pure POLAND-CHINAS. Three hundred Pigs, 2 to 3 months old, at \$8 each, \$20 per trio. Boars ready for service and Sows safe in pig. \$15 to \$20 each. Cash to accompany order. None out first-class stock shipped. All my breeders recorded in A. P.-O. Record. Pedigree with every animal sold. These prices are reduced only for a short time. Order at once. F. W. TRUESDELL, Lyons, Kansas

#### EASTERN KANSAS HERD OF POLAND-CHINA HOGS.



Perry D. 5851 and White Ear 8117 at head of herd. Among the sows are Mills 6696 (C. R.), sired by Streber's Cor 6119; Fancy Gem 1244, sired by Gem's U. S. 2501; three sows bred by B. F. Dorsey & Sons, sired by St. Loui-King 1993; six sows sired by Book's U. S. 3549. Choice pigs for sale at prices to suit the times. Inspection invited. Recorded in O. P.-O. Record. Stock all healthy. J. A. DAVIDSON, Richmond, Franklin Co., Kas.

#### THOROUGHbred POLAND-CHINAS



As produced and bred by A. O. MOORE & SONS, Canton, Ill. The best hog in the world. We have made a specialty of this breed for 38 years. We are the largest breeders of thoroughbred Poland-Chinas in the world. Shipped over 700 pigs in 1893 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 160 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-O. Record Pigs all eligible to record. Photo card of 48 breeders free. Swine Journal 25 cts. in 2-cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.

#### OTTAWA HERD OF Poland-China and Duroc Jersey Red Hogs.



#### I. L. WHIPPLE, Prop'r, Ottawa, Kas.

I have for sale a fine lot of young pigs sired by Jayhawk 2639, Ottawa King 2885 (the champion hogs of Franklin county), and Buckeye Boy 2d 2219, Ben Butler 2977, Lee's Gilt-Edge 2887, which are very fine breeders of fashionable strains. My sows are all first-class and of popular strains. I also have an extra fine lot of Duroc Jersey Red pigs for sale from sires and dams that have never been beaten in the show ring in four counties in Kansas. I have hogs of all ages in pairs or trio of no kin, for sale. Herd has taken over twenty prizes this last year. My herd has never had any disease. Stock all eligible or recorded in Central Record. Please call and see stock, or write and give description of what you want. Inquiries promptly answered. Farm, three miles southeast of Ottawa, Kas.



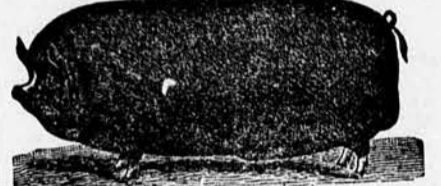
Chester White, Berkshire and Poland-China Pigs fine Setter Dogs, Scotch Collies, Fox Hounds and Beagles, Sheep and Poultry, bred and for sale by W. GIBBONS & Co., West Chester, Chester Co., Pa. Send stamp for Circular and Price List.

#### SELECT HERD OF LARGE BERKSHIRES

G. W. BERRY, TOPEKA, KAS.

British Champion II, 13481, is at the head of the herd, and the sows represent the best families and prize-winning strains in America. These hogs are distinguished for size, early development, and docile dispositions. Breeders registered. I offer none but first class stock for sale.

#### ENGLISH BERKSHIRES.



THE WELLINGTON HERD of well-bred and imported BERKSHIRES is headed by Hopeful Joe 4889. The herd consists of twenty matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address M. B. KEAGY, Wellington, Kas.

#### LARGE ENGLISH BERKSHIRES!

Bred and for sale by JOHN B. THOMPSON, At "MAPLE GROVE," one mile northwest of PLATTSBURG, MO.

The imported boar, SHELTON 14518, stands at head of herd. Weight at eighteen months of age, nearly 800 pounds, and secured at a cost of \$300. He is one of the grandest show boars in America to-day, having never been beaten in his class in the show ring. He won in 1885, five first prizes in England and six first in Canada and the United States. My herd is not the largest, but it is one of the best in the country. Have for sale, at all times, first class stock of all ages. If you cannot visit me, write for what you want, and receive by return mail, price and my illustrated catalogue free. Say where you saw this advertisement.

#### PLEASANT VALLEY HERD — Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. B. MCCULLUGH, Ottawa, Kansas.

CURES ALL OPEN SORES, CUTS FROM BARBED WIRE FENCE, SCRATCHES, KICKS, CUTS, &c.

STEWART'S HEALING POWDER.

Sold Everywhere, 15 & 50 cts. a box. Try it.

STEWART HEALING POWDER CO., ST. LOUIS.

#### PROF. R. RIGGS, V. S., and Horse Educator,

performs all surgical Operations on HORSES and CATTLE. Castrating, Ridgling Horses and Spaying Heifers a specialty Success Guaranteed. He performs the operation on Ridglings by a new method, using no clamps, and takes the testicle out through its natural channel without the use of a knife except to open the scrotum. The horse can be worked every day. The success which has attended Prof. Riggs in the performance of this operation has pronounced him one of the most skillful and successful operators in the country. Address PROF. R. RIGGS, V. S., Wichita, Kas.

References:—Dr. A. Stanley, V. S., Newton, Kas.; Chas. Westbrook, owner of "Joe Young," Peabody, Kas.; Dr. C. Wells, V. S., Salina, Kas.; Dr. Young, V. S., Abilene, Kas.; Dr. Votaw, V. S., Douglas, Kas.; Chas. Wolf, Topeka; J. J. Welch, V. S., St. Marys, Kas.; D. W. Woodford, McPherson, Kas., and hundreds of others, from every part of the State. [Mention this paper.]

#### N.W. AYER & SON

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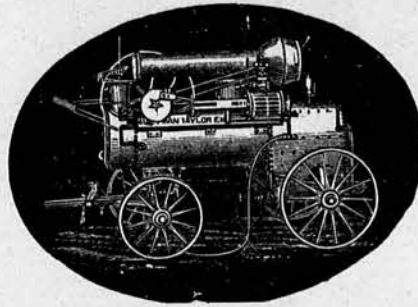
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# "OLD RELIABLE" AULTMAN & TAYLOR THRESHING MACHINERY

To the good Farmers and Threshermen of KANSAS and we know of no customer but will admit we gave him more Some of the Machines we sold around here when we first case in other sections. M. A. and W. W. Wisecarver, of last season to replace an AULTMAN & TAYLOR SEP-do good work, but they thought it about time to give the old chinery can show such a record as the "OLD RELIABLE"



MISSOURI, direct and through our able representatives, and for his money in this line than he could obtain elsewhere. came to this country are still running, and the same is the Keighley, Butler county, Kansas, bought a Thresher of us ARATOR they had run for thirteen years, and would still Machine a rest. We don't think any other Threshing Ma-STARVED ROOSTER THRESHER.

We are now receiving our stock for harvest of 1886, SEPARATORS with the latest improvements, TRACTION ENGINES, SELF-GUIDE ENGINES, STRAW-BURNER ENGINES, far ahead of any other make; LIGHT-RUNNING WOODBURY HORSE-POWERS—all sizes and prices. Buy nothing in the Threshing Machinery line until you see Aultman & Taylor Agents, or write us direct.

Respectfully, **TRUMBULL, REYNOLDS & ALLEN,**  
GENERAL AGENTS. KANSAS CITY, MO.

### TWO-CENT COLUMN.

"For Sale," "Wanted," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.

FOR SALE—A Ten-Horse-Power Aultman & Taylor Traction Threshing Engine in good repair. Address S. H. Downs, Topeka Seed House, Topeka, Kas.

FOR SALE—A Thoroughbred Percheron-Norman Stallion. Also a Kentucky Mammoth Jack. Both animals are splendid sires. Address E. Moyer, Bement, Ill.

FOR SALE—Nine hundred fine-wooled Sheep. For particulars address S. J. Yager, Auburn, Shawnee Co., Kas.

THE STANDARD TROTTING STALLION LLEWellyn No. 3229, for sale or exchange for real estate. Trotting stock for sale. Dr. J. V. Bean, Howard, Kas.

F. W. ARNOLD & CO., Osborne, Kas., breed Poland-China Hogs (O. P.-C. B.), American Merino Sheep, Wyandotte and Langshan Fowls. Young stock for sale. Write for terms.

\$5,000 will buy an Improved Farm of 160 acres of first-class land in McPherson county, Kas. Terms easy. Address DeMotte, 273 Kansas avenue, Topeka.

STRAYED—One dark bay Horse, 6 years old, 15 hands high, collar marks high up on both shoulders—fresh-made, long mane—clipped under collar-pad. Also, one bright bay Horse Pony, 9 or 10 years old, snip on nose, leather strap around neck, he is a cribber. The finder will be rewarded for information about said animals. Jas. Hayden, Cummings, Kas.

HUMPHREY'S HOMEOPATHIC VETERINARY Remedies for sale by D. Holmes, Drugist, Topeka, Kas.

BARTHOLOMEW & CO., Real Estate and Loan Brokers, 189 Kansas avenue, Topeka, Kas. Write them for information about Topeka, the capital of the State, or lands, farms or city property.

UNEMPLOYED MEN—Can make money fast as Agents for the Great Northern Copying House, headquarters for fine Portraits in India Ink, Water-Colors and Crayon. Samples free. Address N. L. Stone, Potsdam, N. Y.

I HAVE FOR SALE—The following Hogs, bred from selections from M. B. Keagy's Berkshire herd, viz: One Boar, 20 months old; three Sows of same litter; five Gilts, 9 months old. Choice Pigs; prices low. Orders solicited. Address J. H. Dougherty, Wellington, Kas.

GREAT BLUE RIBBON COUNTY OF EASTERN KANSAS. Jefferson county don't owe a dollar. Price List of Farms, etc., free. Address Metzger & Insley, Oskaloosa, Kas. Cut this out.

### Do You Want a Home? Yes.

Then write to WM. J. ESTILL & CO., Medicine Lodge, Kas. They have for sale over one hundred tracts of Choice Land in Barber county, Kansas, suitable for farms or ranches. Payments cash, or terms to suit purchaser. Those desiring to locate in the best part of Kansas should write at once. Particulars free. City property—addition of 80 acres to Medicine Lodge—in lots 50x150 feet, at low cash prices.

### FARMS AND RANCHES—INVESTMENTS and IMMIGRATION!

We have for sale or exchange Agricultural and Grazing Lands in Missouri, Kansas, Colorado, Texas and New Mexico, in tracts from one to one million acres. Wild Lands, \$1 to \$10 per acre on one to eleven years' time. Improved Farms, \$10 to \$50 per acre, owing to location; terms reasonable. We are agents for Union Pacific Railway Lands, and locate colonies; buy and sell city, county, township, bridge and school bonds; make loans on first-class improved lands (personal examination) at 7 to 8 per cent, 2 to 5 years' time. Correspondence and capital solicited. References and information given free. Special rates to excursionists. Address or call on, Farm, Ranch & Investment Co., Room 32, Cor. 7th and Delaware Sts., Kansas City, Mo.

### Closing Out Sale!

Of the NORWOOD HERD OF JERSEYS at bottom prices. Fifteen head of young Cows and Heifers of the best milking families. Also two-year-old Alphas Reitor—the best bull I ever owned. For prices and particulars, address E. A. SMITH, Norwood Stock Farm, Lawrence, Kas.

### Choice, Highly-Bred HEREFORD BULLS and HEIFERS,

For sale reasonable. Come or write for Private Catalogue.

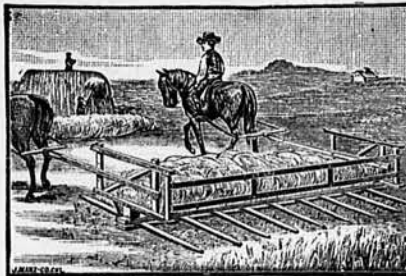
HEIFERS IN CALF TO BEAU REAL AND BEAU MONDE.

SHOCKEY & GIBB,  
Lawrence, Kansas.

### 7 Bulls 7 FOR SALE.

We offer the splendidly bred Flat Creek Mary Bull YOUNG MARY DUKE for sale. Also six others—one Fibert, one Adelaide, two Galateas, one Rosamond, one Nannie Williams. YOUNG MARY DUKE has been used in our herd for two years; calved February, 1883; he is a red, and breeds; got by 6th Duke of Acklem, dam Barrington Bates 11th by 20th Duke of Airdrie 13,873, grand dam Red Belle 2d by Bell Sharon, etc. Come and see him and his calves. Prices low. Prices low MILLER BROS., JUNCTION CITY, KAS.

### THE GREBE HAY SWEEP

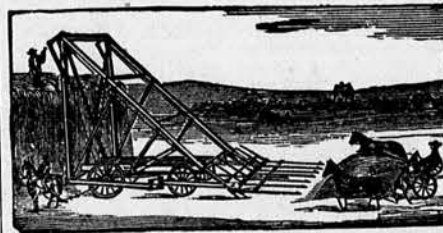


Pat'd July 15, 1879, and February 13, 1883. This Hay Gatherer is now so improved as to take hay from the swath clean, also from windrows; twelve teeth in each Sweep instead of nine as heretofore; TEETH AND SHOES SO SHAPED AS TO LEAVE NO HAY ON THE GROUND.

For price and circulars, write to HENRY GREBE, Omaha, Neb. Sold by Davidson & Hansen, Junction City, Kas; L. W. Libby, Marysville, Kas; — Twitchell, Concordia, Kas.

VIRGINIA FARMS Mild Climate. Cheap homes. Northern Colony. Send for circular. A. O. BLISS, Centralia, Va.

Over \$1,000,000 and the Hardest Work on the Farm Saved



SINCE THE INTRODUCTION OF  
**THE DAIN**  
Automatic Hay-Stacker & Gatherers,  
Manufactured by the  
**T. R. & A. MANUFACTURING CO.,**  
KANSAS CITY, MISSOURI.

Farmers and Ranchmen: You cannot afford to be without this Machinery. It will save more money, more time, and more hard labor than any machinery ever invented. One man, three boys and five horses will stack as much hay as ten men and six horses the old way and do it better. One Stacker and two Gatherers will put twenty to thirty acres per day in the stack after it leaves the mower. This is the only mounted stacker, the only Stacker that will work in windy weather and not scatter the hay. Will outlast any three Stackers of other makes. Price of Stacker, \$75; Steel Wheel Gatherer, \$25. Send for free Descriptive Circular.

### EDEN PARK FARM HERD. ONE HUNDRED AND FIFTY HOLSTEIN-FRIESIANS.

Excelled by None Equaled by Few.

JACOB WIT No. 2662 H. H. B. No. 210 N. H. B., a direct descendant of the famous Rooker, the founder of the Aagle family, and we candidly think the best Holstein bull now living in Holland or America stands at the head of the herd. We also have representatives from the Netherlands and all the noted families of Holsteins. This herd, the property



of F. G. Babcock, Hornellsville, N. Y., has been transferred to the farms in Kansas where they will continue to be bred and on sale. Nearly all of the original importation is contained in this lot, and they have never been picked or culled from to any extent. We have the best and will not be undersold considering quality of stock.

### ABERDEEN-ANGUS :: AND :: GALLOWAYS.

Correspondence solicited. New catalogue now out. Address D. D. CLARK, Manager, TERRA COTTA, ELLSWORTH Co., KANSAS. [Mention KANSAS FARMER.]

### FIRST ANNUAL PUBLIC SALE

—OF—  
**CHOICE SHORT-HORNS**  
—ON—  
Thursday, August 5, 1886,  
At ALTAHAM FARM,  
PLEASANT HILL, MO.,

Thirty-five miles southeast of Kansas City, on the main line of the Missouri Pacific railroad, at the time and place above named. I will make my first annual public sale of Short-horns, consisting of thirty-five head of Cows and Heifers and five Bulls, of well-bred Short-horns. Several first-class show animals in this selection, and all good, square, useful animals, such as need no labels to show what breed they belong to. The following families are represented, to-wit: Rose of Sharon, Flora, Phyllis, Fibert, Rosamond, Young Mary, Goodness, Iantha and Recilla. TERMS:—Cash; but those desiring credit can have the time which best suits them, from four (4) to twelve (12) months, on acceptable bankable paper at 10 per cent. per annum. Reduced Rates on all railroads on passengers and freight. Trains run to suit persons wishing to attend from any direction. From north and west, easy connection can be made through Kansas City, and from the southwest through Fort Scott. Catalogues ready July 10th. For full particulars address COL. L. P. MUIR, Auctioneer. W. H. H. CUNDIFF, Pleasant Hill, Cass Co., Missouri.

**TOWER'S FISH BRAND SLICKER** Is The Best Waterproof Coat Ever Made.

None genuine unless stamped with the above TRADE MARK.

Don't waste your money on a gum or rubber coat. The FISH BRAND SLICKER is absolutely water and wind proof, and will keep you dry in the hardest storm. Ask for the "FISH BRAND" SLICKER and take no other. If your storekeeper does not have the "FISH BRAND", send for descriptive catalogue to A. J. TOWER, 20 Simmons St., Boston, Mass.