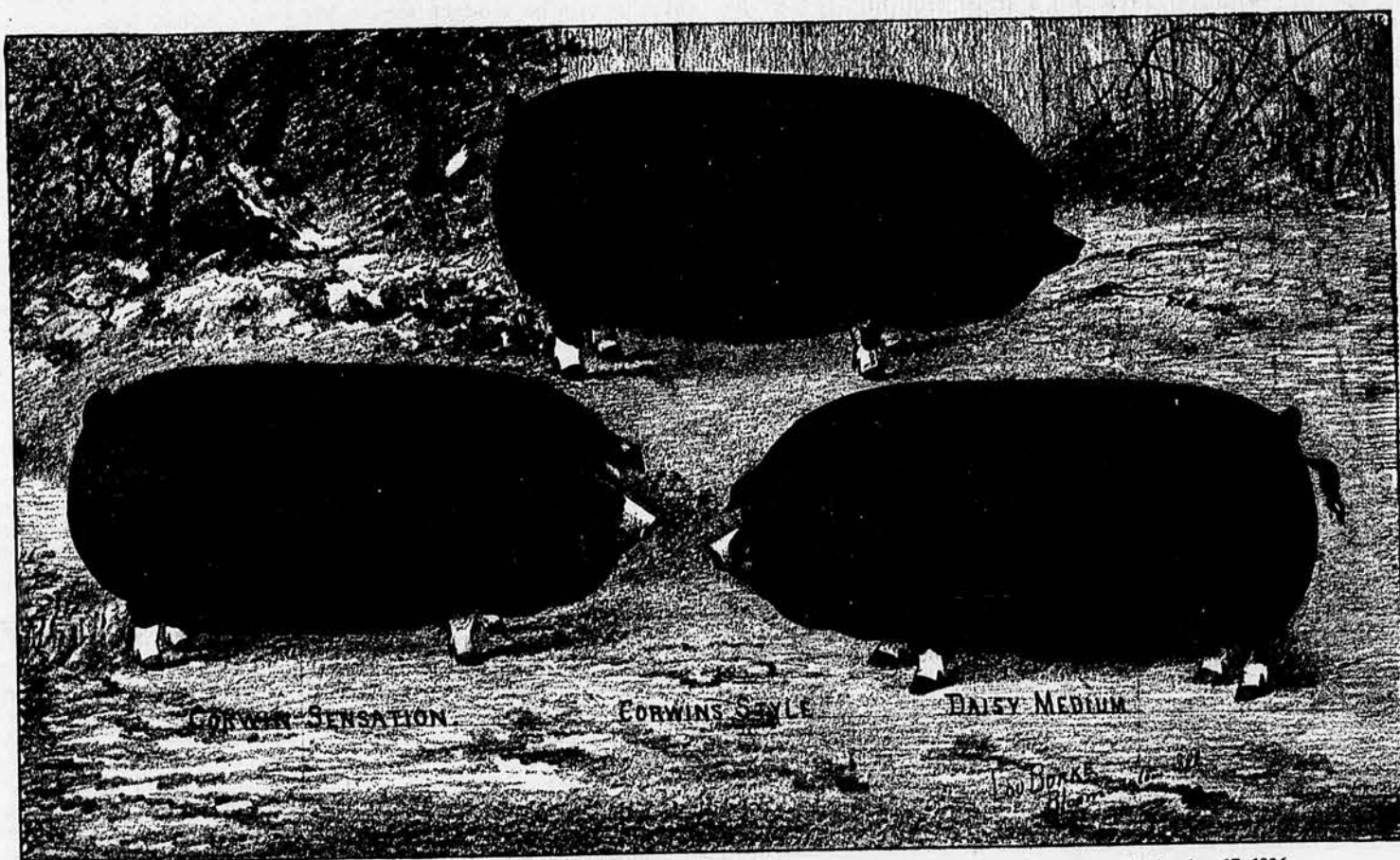


# KANSAS FARMER

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Property of W. H. Wren, who holds a Public Sale of Poland-Chinas, at fair grounds, St. Joseph, Mo., Thursday, September 17, 1896.

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Registered Berkshires and B. P. Rock Chickens.

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(Breeder's Directory continued on page 16.)



## Agricultural Matters.

### A GOOD CROP OF GRASS.

A writer in the *Rural New Yorker* gives the following account of the preparation of a grass field, one acre of which is reported to have yielded 12,340 pounds of well-dried hay this year, a yield almost incredible of any grass save alfalfa:

"On July 15, 1895, the field was in sod, much like many other meadows, except that the stand of grass was better than the average. The sod was not plowed, but cut up with Right-lap Cut-away harrow or plow. This tool has three disks at the right, shaped with teeth much like those on the ordinary cutaway. On the other side of the pole, are three round, flat plates—not disks—with teeth somewhat like those on a saw. As the machine works around the field to the left, the outer disks tear the sod apart and turn it over, while the plates on the inside cut the tough sod into narrow slices. At the next round, the disks work on these slices while the plates are slicing another round. The effect of this slicing and turning is to tear the sod into shreds and leave most of the roots turned up to the sun. I saw the machine working in a tough old pasture. It was loaded down with two men and a bag of fertilizer with three horses to haul it. The sod was torn and twisted and turned until it looked like a garden sod turned over by a spade. A plow would have left the sod in tough, hard chunks and strips, and even the best of spring-tooth and Acme working could hardly have gone deep enough to break them up thoroughly. The right-lap, instead of leaving the sod in long strings and chunks, cut it into pieces varying in size from the fist to the head, and threw each piece over by itself.

"I think that most farmers would have said that one such working, with one or two harrowings, would fit the ground for any crop. That is where the 'new method' comes in. Before that field was seeded, every living thing was killed—by cultivation, air and sun. That sod was worked over, not once, but twenty-five times, with that tool. Up and across, and then diagonally, as often as any green growth showed on the surface, the right-lap went over the field. A good team will work over ten acres per day after the first breaking. The object is to have the upper six inches of soil as fine and open as a heap of dry-wood ashes. That is the only way you can cultivate the grass crop. Corn, potatoes, orchards and vineyards are cultivated as the crops advance, thus letting the air and sun into the soil, and forming a 'dust blanket' to carry the crop through the drought. You can cultivate these rowed crops while they are growing, but for a crop of grass that will stay in sod four or five years, the cultivation must be done in advance. You cannot hoe the weeds out of a meadow after the grass starts—they must all be killed before the seed is sown. If you cultivate a crop of corn five times each season, for five years, you can well afford to work your grass land twenty-five times if you are to cut it five years!

"The hay crop is worth more than any other crop grown in this country; yet it is the most neglected of all. For centuries, grass has been made a sort of hired man for grain crops. It has had the second place at the table, and has been expected to be tough enough to stand anything. One of the singular old traditions is that timothy needs a nurse crop to carry it through the winter. Accordingly, the grass seed is sown with the grain, with the result that a year is lost in getting a crop of hay, while the yield is cut down at least one-half of what it might have been if the grass had been seeded alone. We saw, last week, how nearly 15,000,000 plants were growing on one acre of this hay field. With a fair seeding of grain not half this number of plants could be grown. There would not be room for them, for the grain plants crowd them out, and not only that, but in a dry season the grain will kill more than they crowd out by absorbing the moisture needed by the

tiny grass plants. When the grain is cut you will find where every grain plant stood a bare spot as large as your palm or larger. There ought to grow on that bare spot at least twenty grass plants if you are to have the average found on Mr. Clark's field. You cannot possibly cut over two and one-half tons of hay to the acre if these little unproductive bare spots are to be found all over the field.

"In his twelve years of experimenting Mr. Clark says that he has spent much time trying to reseed these bare spots, but has never been able to do it. He has scratched them over and reseeded, and has even gone so far as to 'graft' them by cutting little pieces of good timothy sod and setting them out carefully in the largest of the bare places. He has never been able perceptibly to increase the number of desirable grass plants on an acre after the sod is well established. His rule is, whenever the hay yield falls below four tons per acre to cut up the old sod and reseed. This experience has convinced him that the only safe way to insure a large crop of hay is to start with as many grass plants as can be made to grow. From this point of view weeds and grain are only in the way. The former are to be killed, root and branch, by turning them up to the sun again and again in the twenty-five times of thorough working before the seed is sown. As for the grain, keep it out of the grass. If need be, buy it of your neighbor who is willing to give away half his grass crop for the sake of growing the two together. Some folks may think that it pays to keep a few big steers in the calf pen to eat out of the same racks and boxes that the calves are to patronize. It is all right for the steers, but woe be unto the calves. It won't do to say that the steers are needed to keep the calves warm, for you should have made the pen comfortable beforehand. The steers are like the grain and the calves are like the little grass plants. The grass needs the nurse crop only when you have failed to fit the ground so that the grass seeds will start properly. If you wish to raise grain, sow it by itself, and when it is harvested prepare the stubble just as Mr. Clark does the old meadow and sow it to grass. You will have more grain and more grass to pay for it. This may be a hard thing for some farmers to believe, but the crop proves the theory.

"We have told how the ground is worked with the right-lap until the upper six inches are as fine as an ash heap. Work the ground after every shower. Let the air and sunlight into the soil. You know how the best grape-growers put the fertilizer midway between the rows, because they know that the feeding roots are strongest where there is most sunlight. You literally make future crops of hay when you permit the sun to shine into and through the upper soil. The sun in the hay field does not 'make' the hay, it only dries the grass. The 'making' is done all through the growing season, and before the seed is put into the ground.

"Another thing of great importance is to have the field properly graded; all hollows where water can stand should be filled up, for the grass in these places will be killed out. Mr. Clark uses a tool for this purpose which is a combination of the tooth harrow and scraper. The harrow is made somewhat like a Thomas harrow, only that it is much lighter and with smaller, slanting teeth. A board behind it can be raised or lowered at will, so that when, in harrowing, one sees a little hollow ahead, he can bear down on the board scraper, carry a load of soil to the hollow, then lift the scraper and dump the load into the low place. In this way it is comparatively easy to get a good grade on the field.

"Mr. Clark's field is half wet and half dry—the lower part being almost wet enough to be called a swamp. This wet part, in starting, was ditched—the ditches running 100 feet apart and from three to six feet deep. The stones dug and picked from the higher parts of the field were thrown into the ditches to within a foot of the surface and covered with earth. He says that

it made the land too dry at first; but as the soil worked down among the stones the drains did better. Good surface drainage, with a perfect grade that will let the surface water run off, is more desirable than ditching.

"For seeding Mr. Clark uses for each acre fourteen quarts each of red-top and timothy and four quarts of red clover. The timothy and red-top seed are mixed and half sowed one way and the other half sowed across the first sowing. The red-top makes good hay and will give at least one and one-half tons extra yield above what timothy alone could do. Of course, the ground is in perfect condition before the grass seed is sown.

"In some cases even the right-lap cannot reach and throw out deep grass roots or weeds along the fence; in that case a tool known as an underground cultivator is used. The teeth on this cultivator are somewhat the shape of hooks, and they can be set to catch and pull at any angle or depth. They work down under the surface and snap off and drag out many roots that could not otherwise be brought to the surface."

### Corn Not King in the Short Grass Country.

EDITOR KANSAS FARMER:—The corn crop has failed again in the "short grass country," or at least in this portion of it. Here and there, especially in sandy soil, there are pieces which have withstood the drought and hot winds, partially at least, and will produce something, but most of the fields are "fired" and will not yield even leaves. This thing has gone on so long that it has passed the serious point; it is getting to be ridiculous. Year after year, men strain every nerve to put in a large acreage of corn, neglecting, often, everything else. They spend almost their whole strength all spring and early summer on the corn field and then are rewarded with little more than dry stalks. The only lesson they seem to learn is that they must increase their acreage next year. They have been brought up to raise corn and they must follow that pursuit. It seems to be their idol and they must worship it. It does seem to me that if I had raised corn seven years and only got one crop out of the seven, I should either try something else, or exercise my "talent for repose."

People are now speaking of this country as a stock or cattle country. Some of them, however, mean a cowboy country with a sort of nomadic or semi-nomadic population, where large herds of cattle roam over free range, about one animal to fifteen acres. It is, however, too good a country for that; too many things will grow here. We ought to learn after a while that the "short grass country" is different in its climatic peculiarities from any other portion of North America. It has a different natural vegetation and it may reasonably be expected to require a different kind of crops. We have the buffalo grasses upon which, in the winter of 1894, horses and cattle lived without a pound of grain or a mouthful of hay, and were in good condition in the spring—in better trim, in fact, than stock that was sent away to be wintered. There seems to be no difficulty in raising an abundance of forage when a reasonable attempt is made. Broadcast sorghum, if sown in time, yields an immense burden of fodder. So, also, does Kaffir corn, and a farmer who put in three acres of it last year told me that he never had so much and so good fodder on the same amount of ground. I fear, however, that the Kaffir corn requires too long a season to be reliable in maturing seed in this latitude. Perhaps an early variety may yet be found which will correspond to the Early Amber among the sorghums.

The great need now is some grain that will take the place of corn and oats. In the great sorghum-durra family there surely ought to be one somewhere that will answer the purpose. A few have been experimenting with hirse. It seems to have stood the drought and hot winds and those who have tried it are enthusiastic in its praise. It will be tried on a larger scale next year. Corn is evidently not king in the "short grass country," and

## A Sufferer Cured

"Every season, from the time I was two years old, I suffered dreadfully from erysipelas, which kept growing worse until my hands were almost useless. The bones softened so that they would bend, and several of my fingers are now crooked from this cause. On my hand I carry large scars, which, but for



### AYER'S

Sarsaparilla, would be sores, provided I was alive and able to carry anything. Eight bottles of Ayer's Sarsaparilla cured me, so that I have had no return of the disease for more than twenty years. The first bottle seemed to reach the spot and a persistent use of it has perfected the cure."—O. C. DAVIS, Wautoma, Wis.

**AYER'S**  
THE ONLY WORLD'S FAIR  
Sarsaparilla

AYER'S PILLS Promote Good Digestion.

the sooner people discover that fact the better it will be for them.

T. C. MOFFATT.

Palisade, Neb., August 19, 1896.

### Seedling Peaches.

Mr. Hans Rasmus, of Corning, Nemaha county, Kansas, has sent to KANSAS FARMER a very fine specimen of seedling peach, which was nearly so large as the general size of the best budded fruit. The flavor was fine and to the taste was equal to any sampled this year. In his letter accompanying the fruit Mr. Rasmus says:

"I send you to-day one of my Corning seedling peaches. I have other kinds which are larger, but for a long-keeping and good-paying peach I have none better. Some seeds I planted last spring sprouted and have grown three to four feet already this summer."

Mr. Rasmus has given a good deal of attention to peach-growing, and believes he has now found a seedling peach which will prove more profitable than any other kind grown in Kansas.

### A Cattle Fly Trap.

A farmer of Madison county, Kentucky, claims to have completely circumvented the horn-fly and all other flies that torment cattle.

In a convenient place in his pasture, near the watering place, he erected a small tower, inclosed in the wire gauze usually used for window and door screens. An ordinary chute leads to the tower, and beyond it is a dark room, in which large brushes are arranged to sweep all flies from the animals as they pass through it. On being swept from the animal the flies make a bee-line for the day-light of the tower and are thus entrapped and gradually beat themselves to death against the wire screen of the dome, while the animal walks out of the other doorway. The door admitting the animal to the base of the tower opens inward and immediately springs shut when the animal passes it. It is a screen door, protected by an outside lining of stiff wire netting, and the cattle readily push it open.

The inventor claims that after being driven through a few times the cattle learn to run to this trap and run through by themselves when tormented by flies as readily as they learn to go to a thicket of brush to scrape off the flies, or as readily as horses learn to run to a barn to escape flies.—*Rural World*.

DO NOT EXPERIMENT in so important a matter as your health. Purify, enrich and vitalize your blood with Hood's Sarsaparilla and thus keep yourself strong and healthy.

HOOD'S PILLS are the best after-dinner pill; assist digestion, cure headache. 25 cents.



## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

SEPTEMBER 17—W. H. Wren, Poland-Chinas, St. Joseph, Mo.  
OCTOBER 1—E. E. Axline, Poland-Chinas, Oak Grove, Jackson Co., Mo.  
OCTOBER 23—Gudgell & Simpson and J. A. Funkhouser, Herefords, Independence, Mo.  
OCTOBER 30—J. R. Killough & Sons, Poland-Chinas, Richmond, Kas.

### CORN STALK DISEASE.

From Bulletin No. 58 (June, 1896) by N. S. Mayo, M. S., D. V. S., Professor of Physiology and Veterinary Science, Kansas Experiment Station.

(Continued from last week.)

Mr. Edward O'Connor, of Stafford, Stafford county, writes under date of November 21, 1895, that he had lost seventeen out of ninety head that were running on stalk fields:

"Cattle were first driven on Thursday forenoon, remained in two hours. Friday afternoon one and one-half hours, Saturday forenoon three hours, and Saturday afternoon one and one-half hours. The first one died about 6 o'clock Saturday evening, and sixteen more died within the next twelve hours.

Symptoms: Stiffness and inclination to stagger as if affected by blind staggers; eyes rather wild and crazy-looking. Died in a few hours after symptoms appeared and did not seem to suffer much.

"The paunch seemed natural except in one case, when the lining of the stomach was destroyed. The monifold was very full, hard and dry. The inner membrane parted from the outer coat in removing the contents. None recovered that were affected."

In response to my request, Mr. O'Connor kindly forwarded a small box of wormy and smutty nubbins of corn. He reported little wormy corn but abundance of smut.

Mr. D. M. Adams, of Rome, Sumner county, on November 23, writes as follows:

"There have been many deaths among horses and cattle in Sumner county this fall from pasturing in corn stalks. I lost two cows and a bull calf six months old.

"The corn made only about six bushels per acre. On many stalks there were ears that did not fill out. There was only a cob and husks with a large quantity of worm dust inside. I think the worm dust was the cause of the animals dying.

"It had been very dry until we turned the cattle in. We pulled off every bit of smut that we found and threw it on the ground. We turned the cattle in on Monday forenoon and let them run about three hours, and then took them out until afternoon and put them in again for three hours. On Wednesday there was a drizzling rain all day and we let them stay in the stalk field all day. They had free access to water all the time. On Saturday night, when we went for them, one of the Holstein cows jumped up as if scared and went with other cattle to the creek but did not drink. When we attempted to milk her she trembled and would not give down her milk. The bull calf laid down when the cattle came to the yard but showed no other signs of sickness. The Jersey cow appeared perfectly well and gave the usual quantity of milk. This was at sundown. On Sunday morning the Holstein cow and bull calf were dead, the Jersey cow was down and swollen so tight she could not touch her upper feet to the ground. She suffered greatly. A little froth ran from her mouth. She died in about an hour. I opened them and the stomachs appeared moist as usual, but as I have had but little experience I could not tell how a healthy stomach should look. Both cows were well along with calf. The Holstein cow's gall was bursted and the bull's bladder was so full that it looked like the bladder of a large beef blown up. There was a three-year-old bull, a cow and a six-months-old heifer with these cattle that were not affected in any way."

In response to my request, Mr. Adams sent me a quantity of the wormy and moldy ears of corn. He says, regarding the corn, December, 1895:

"The ears that are husked here have been husked about six weeks and in a dry granary. The husks were gathered in the field; I was husking yesterday. You will find on opening that many of the husks have worm dust in them as in the field that killed the cattle. The latter field was upland and husked in October."

This corn received from Mr. Adams and that received from Mr. O'Connor was turned over to the chemical department of this station, and Prof. Fallyer, the chemist, reports as follows:

"Fourteen hundred and thirteen grams of wormy and moldy corn (including grain and affected portions of cob and husk, not a large proportion, however, being real worm dust), well ground and extracted repeatedly with alcohol. The extract was concentrated at low temperature under diminished pressure until all the alcohol was driven off. The watery syrup remaining was further concentrated by standing over sulphuric acid until it had the consistency of thick molasses. Fifty-three and two-tenths grams of this thick syrup were obtained. Sixteen grams were used in testing its effects upon guinea-pigs. Thirty-seven grams were treated after Dragendorff's method for active substances. No well-defined bodies were found in the portion operated upon. But this is considered only a preliminary trial. The work will be continued. It is hoped to be able to isolate the poisonous or active principle if one exists."

A guinea-pig weighing 350 grams was given eleven grams of this extract as prepared by Prof. Fallyer. The first dose was given at 9:40 a. m., and between this time and 4 p. m. the pig was given in all eleven grams, with no apparent ill effect except a slight appearance of nausea. About 4 o'clock the pig appeared sluggish, hair erect, and pig huddled down in corner of box. The pig died during the night. Autopsy:—Pig was found stretched out lying on belly. There was considerable moisture about the pig's mouth, probably from ensalivation. *Rigor mortis* well marked. The only abnormal condition observed internally was congestion of the stomach and small intestines, and a congested spot in the abdominal wall directly beneath the stomach. There was a distinct odor of the corn extract apparent when the abdominal cavity was opened.

On April 8, 1896, another pig weighing 350 grams was given two grams of wormy corn extract at 10 a. m. At 11 a. m. pig appeared sluggish, hair erect, lying stretched out on its belly. The pig appeared to improve for the next two hours and at 1 o'clock p. m. was given three grams more. No marked effects were noticed. Pig did not appear well for the next two days, eating but little and remaining quietly in the corner of the pen. On the 11th, while out on a grass plot in an open pen, it was exposed to a shower of rain and when brought in at evening was found to be in a dying condition. It died during the night. The control pig which had been in the same pen appeared perfectly well. Autopsy revealed only congestion of the stomach and intestines.

A bacteriological examination was made of blood and tissues from both of these pigs but no organisms were found. This experiment is not at all conclusive, although both guinea-pigs died to which the extract was given. All indications point to worm-eaten and moldy corn as the cause of cerebritis in horses, whether they eat it in the feed or whether it is fed separately as grain. I am not satisfied that there is any connection between corn stalk disease in cattle and cerebritis in horses. A great many horses have died in southwestern Kansas this year from this disease. This disease was investigated in 1890 and reported in Bulletin 24. Experiments have since been made and, in connection with the chemical department, will be carried on to determine what the active injurious principle is in the wormy corn, and whether it has any relation to corn stalk disease. It is doubtful if this moldy corn has any direct bearing upon the corn stalk disease in cattle, as no case has ever been reported where moldy or wormy corn alone, fed to cattle, has had any ill effects, while at certain seasons of the year it is very fatal to horses.

In Bulletin 49 of this station an account is given of cattle being poisoned by eating corn fodder containing large quantities of saltpeter (nitrate of potash). While the presence of saltpeter in corn stalks suggested a possible cause of corn stalk disease, it was not advanced in that bulletin because of the absence of any evidence pointing to the presence of saltpeter in corn stalk disease. Yet, if the cattle that died near Wellington, which an account is given in Bulletin 49, had been pasturing in stalk fields, there is little doubt but that they would probably have been reported as dying from corn stalk disease.

Unfortunately, I had no opportunity to examine a corn field where cattle had died from corn stalk disease except the one at Garnett, where I found

no potash in the small area examined. In the *Newton Republican* of December 6, 1895, Mr. A. E. S. Danner, a prominent and well-known farmer of Harvey county, writes as follows:

"Last Friday evening I noticed a short sketch about saltpeter poisoning and reference to Kansas Agricultural Bulletin No. 49 in the last issue of the *Homestead*. An idea struck me at once and I rooted No. 49 out of my bulletin drawer and read it from alpha to omega. The first part of it is an investigation and experiment of cattle poisoning by potassium nitrate, nitre saltpeter, or by whatever name you happen to know it, by N. S. Mayo, professor of physiology and veterinary science.

"The bulletin gives results of examinations of cattle that have died in large numbers in proportion to the number fed on corn fodder that was heavily charged with saltpeter. It said nothing about corn stalks standing in the field, so I was disappointed, but I couldn't see why. If corn fodder has saltpeter in it in dangerous quantities why not corn stalks, too, and why isn't that an explanation for corn stalk disease? The opportunity for investigation is all around us at present, so I spent a good deal of Saturday examining and experimenting, and I don't know but I thought a great deal about it Sunday, and on Monday I went off on horseback to examine several of our neighbors' fields where cattle have recently died, with the following results:

"S. T. Danner, one field of eighteen acres, pastured off well with about twenty-five head of horses, no signs of sickness, showed some saltpeter in one corner of the field next to the hog pen. The same stock in another field of nine acres, no sickness, showed four stalks with considerable of saltpeter out of about twenty tested. We have a third field of nine acres that shows much saltpeter. We haven't turned into it and are afraid of it.

"Frank Ewart, one field of twenty acres, pastured off clean with about sixty head of cattle, no sickness, forty-five samples of these stalks showed seven well charged with saltpeter and two slightly. The same cattle after eating this field were turned into another field of 100 acres a few days ago and by Monday morning four of them were dead. Mr. Ewart only let them run in this field in the morning at first and to millet and straw in the afternoon, but as they began to die he shortened up on the time until now he lets them run only three hours a day. Out of forty-three samples of this field there were nineteen strong with saltpeter; on some of them it could be seen with the naked eye in little crystals on the outside of the stalk after peeling off the leaf sheath.

"P. Nickle has pastured about eighteen acres, some with about twenty head of cattle, very carefully, without any bad results. Out of twenty-one samples six showed considerable salt and four slightly.

"Peter Schroeder pastured seven acres with twelve head of cattle before the rain and sleet storm, very carefully, and lost two, then after the damp weather he finished up pasturing carefully without any more loss. There was about one acre of this that was highly manured. Thinking this would be the place where I would find the nitre I took nearly half my samples from this acre, but they were nearly all good. The test was twenty-six samples from the field, seven strong and two slightly salt.

"In all the tests I tried to get as honest a test as possible, taking a stalk here and there in all parts of the field, cutting about two joints, from six inches to a foot above the ground. You will generally find it there if anywhere, though sometimes one joint will have it and the next will not. Sometimes one stalk in a hill will have it and the others will not. Sometimes there will be quite a patch where they nearly all have it, then there will be a patch, apparently the same to look at, where there is absolutely none. Why these peculiarities I cannot say, unless it be the difference of growth and condition of the stalk at that particular season of the year when the climatic conditions are favorable for the storing up of the drug, viz., a hot, dry spell, while the stalk is, or ought to be, growing. I believe the leaves and all have the drug in them, but at this time of the year it is more or less washed out of the lighter exposed parts. My laboratory is all out of doors, my furnishings in this case is a lucifer match. Take the pith of the stalk and light it; if there is much saltpeter in it you will have no trouble in getting it to burn. It will sizz like a fire-cracker fuse and sometimes almost explode as if it contained powder. If you are interested get bulletin No. 49 and read it."

Mr. Danner kindly sent me by mail specimens of some of the stalks he had found to be heavily charged with saltpeter. As there was but a very small amount of stalks sent no analysis was made, but judging by previous analysis I should estimate the amount at 12 to 15 per cent. I have examined the stalks in fields in the vicinity of Man-

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hatten and have found in every field some stalks which contained unusual quantities of saltpeter, but have not found it so prevalent as did Mr. Danner. I examined no fields where cattle had died of corn stalk disease. The examinations I have made indicate that the potash in corn stalks is liable to be in patches, and even in these patches only a portion of the stalks contain the potash in an unusual amount.

(To be continued.)

### Stomach Worms in Sheep.

A. W. Bitting, Veterinarian, Purdue University Agricultural Experiment Station, says:

"The numerous losses of sheep, especially spring lambs, at this season of the year, is largely due to the presence of the twisted stomach worm. The symptoms of the disease produced by this worm are not very characteristic and therefore do not admit of a close description. They are dullness, languor, loss of appetite, increased thirst, with or without diarrhea, usually some accumulation of serum in the space between the lower jaws, and paleness of the mucous membrane. In acute cases there are symptoms of colic and the animal will eat decayed wood, earth, etc. In the majority of cases the animals simply lie around for a few days and then die. The duration of the disease is from a few days to a week or more.

"The parasite which causes the disease is found in the fourth stomach. It is quite small, being only about one-half inch in length and as large around as a linen thread. They have the habit of collecting in masses and are thus readily mistaken for fibres of the food. If the sheep is killed and opened at once the worms have a reddish appearance, due to the blood which they have extracted from the wall of the stomach. In a short time they become pale. They obtain entrance to the stomach with the food while on pasture.

"The treatment consists in giving a vermifuge, and we have found none better than santonin, or powdered wormwood seed. When single individuals are to be treated the former is preferable, and is given in doses of one to four grains, depending upon the size and age of the sheep. The dose is given once a day for a week. Whenever the disease makes its appearance it is well to treat the whole flock, and this is best accomplished by mixing one part of the powdered wormwood seed with eight parts of salt. Salt frequently or keep it where it is constantly accessible."

### Sheep Industry Report.

At the close of Secretary Rusk's administration as Secretary of Agriculture there was issued by his Department a 1,000-page "Special Report of the Sheep Industry of the United States." This report was prepared under the direction of Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. The preparing of this report was the work of Ezra Carman, H. A. Heath and John Minto. It is the only late government report relating to sheep husbandry, and the supply is limited to those in the hands of Congressmen. Senator W. A. Pepper, of Topeka, has a number on hand and will gladly send a copy of this valuable report to any farmer interested in sheep husbandry who will request the same.



## Irrigation.

### VALUE AND NECESSITY OF IRRIGATION.

(From Report of United States Geological Survey.)

In view of the interest in the subject of irrigation which has been recently developed in this country, it will be well to observe what benefits have been derived financially and otherwise from the irrigation works that have been in active operation in India during the last century, and also to note what Indian and English statesmen and engineers have to say on the subject of the extension of irrigation in India. Because of the similarities of the countries, climates, and the conditions under which irrigation works are operated in America and India, some useful lessons may be drawn from these comparisons. It has already been shown that the conditions of the utilization of the waters of irrigation works are quite similar in the two countries, and that the autumn crop in India is cultivated under circumstances almost identical with those under which our ordinary summer crops are grown in the arid regions.

The Indian financier divides the irrigation works into two great classes called major and minor works. Major works are generally those of more importance from an engineering point of view and have been in some cases almost entirely constructed by the British government, while the minor works are of smaller pretensions and in many cases modifications or improvements of existing ancient irrigation systems. The portion of the major works that are constructed from capital provided from the general revenues of India are styled "protective works." "Productive works" are usually constructed from capital which has been borrowed, and it is expected that a sufficient profit will be realized from their operation to pay interest on the borrowed money. Many minor works are also productive works. In general, protective works are constructed as a protection against famines, and they act in the amelioration of these in two ways. Firstly, they are constructed during famine times to give employment to the people and furnish them money and food for their sustenance; and secondly, after their construction they are expected to furnish sufficient water for irrigation purposes to render them a protection against future famines. The majority of these famine protective works consist of storage reservoirs constructed in the more arid portions of India.

The reason for the success of the greater productive works of northern India is two-fold. Firstly, these works are constructed in a country similar to that of the western United States, so barren and devoid of water that nobody could live there or produce crops of any sort until canals had been dug and water provided for irrigation. Accordingly, all those who immigrated to the neighborhood of these canals were at once compelled to use and pay for the water, otherwise they would have been unable to raise crops. It is owing to the fact that these works have been able to do their full duty and the total amount of water furnished by them has been in constant demand, that these works have paid interest. On the contrary, the protective works, which have usually proved financial failures, have been made in regions where in ordinary years the precipitation has been sufficient to produce good crops, but where during occasional years the crops suffer from lack of water, and it is then only that the irrigation works are called upon. Such works being only utilized occasionally, produce only moderate returns during occasional years. Were these works constructed in a less inhabited region and in one

lacking sufficient precipitation to raise crops, they would doubtless then do constant duty, and it might reasonably be expected that they would become productive works. In some few cases, such as those of the Sidhni canal in the Punjab and the Betwa canal and reservoir in the northwest, works originally constructed as protective works have received such a constant demand for their waters that they are now productive, returning moderate interest on the capital.

Anywhere in our arid West where irrigation works may be constructed it is reasonable to suppose, judging from analogy, that when a sufficient population settle below them these works will be called upon to furnish all the water they can provide, and if properly and carefully planned and estimated for should return fair interest on the original outlay. Only semi-humid regions, such as western Kansas, the Dakotas, Nebraska and Oklahoma, have been subject to famines. These occur every few years, and are the results of the country having been occupied by settlers during periods of fair rainfall. Following these good years came a season or two of minimum rainfall when the crops were parched. It is only because of the increased transportation facilities in our West and the extensive charities undertaken by the government and people that settlers in that portion of our country have been saved from famine. It is in such regions as those in India that the government has devoted the most time, attention and money for the construction of irrigation works as a means of protection against such losses, and convincing arguments have been brought to prove that money expended in such protective works is saved to the government.

The high price paid for labor as compared with that in India is the argument generally used to prove that similar profitable returns from irrigation enterprises in this country cannot necessarily be expected, as the cost of construction here would be proportionately so much greater as to demand a higher return from the use of water in order to pay a corresponding rate of interest. It is not improbable that with the increased amount of work done by an American laborer as compared with that of a Hindoo coolie, and with the aid of many mechanical devices, the discrepancy in cost is not so great. Moreover, returns derived from irrigation works in the two countries are more nearly equalized from the fact that we can impose a higher tax for the use of water than it is possible to demand of the poor farmers in India, where from two to five acres support a large family. The apparent low cost of Indian labor is at first glance against this argument. Men, women and children are engaged alike in the construction of all works. As common laborers women and children receive about 4 cents per day, and men from 8 to 10 cents. Skilled masons and machinists receive from 18 to 22 cents per day, and carpenters and blacksmiths nearly the same.

In the interior towns of Bombay Presidency contract prices are about as follows: At the Bhatgur dam uncoursed rubble masonry costs \$1.75 per cubic yard, while at Tansa dam it costs \$2.50 per yard. In the northwest provinces earth excavations in deep canal cuts cost 6½ cents per cubic yard, while surface excavation costs 2½ cents. In the Punjab, according to the revenue reports, water in the canals yields a return of from 70 cents to \$1.25 per second foot, while the water rate charged per acre irrigated was from 70 cents to \$1.15. In Bombay, according to the revenue report of 1889, the water rate derived was \$1.15 per acre irrigated, and ranged from 35 cents to \$3, the latter figure being abnormal and paid for the irrigation of sugar cane crops which require an enormous

amount of water in their cultivation. Against these prices we are able to obtain in the central arid regions of America a revenue of from \$1.50 to \$3 per acre, which is equivalent for a duty of eighty acres per second foot to from \$120 to \$240 per second foot utilized. In California and other portions of the country where water is scarce and the crops valuable the rate is usually many times higher than the above.

In the province of Sind in the Indus valley, including the southern Punjab, there is an enormous and thirsty waste of sandy desert where the annual precipitation is always below ten inches, even falling as low as three or four inches. There nothing can be grown without the aid of irrigation, and the entire area under cultivation and the population supported thereby are entirely dependent on irrigation. The works in that region are chiefly inundation canals with a few perennial canals mostly taken from the Indus river. In the Sind alone over 1,500,000 acres are under cultivation, and yield an annual revenue of about \$1,600,000.

In Bombay and the northwest provinces nearly double the population is now sustained that was supported previous to the introduction of modern irrigation works. According to Col. Baird Smith the whole of the region irrigated by the Eastern Jumna canal would have been devastated by the famine of 1837-38 without the aid of the irrigation which that canal afforded. With its aid the population was comfortably supported and the gross revenue derived from the use of the water was \$2,445,000, of which the government received a yearly net income of \$250,000, and this shortly after the completion of the work. In the same year the united Eastern and Western Jumna canals were estimated to have saved property to the value of \$10,000,000, and as a result of this showing the British government shortly afterward began the construction of the great Ganges canal and other similar works. From the report of Major Baker, R. E., it appears from actual measurements made on the Western Jumna canal in 1838 that the gross value of crops on land irrigated by that canal was \$7,500,000, of which \$750,000 was paid to the government as land and water rent; the remainder aided to feed and support the inhabitants of 500 villages during a period of devastating famine. Without irrigation this land would during that drought have been totally unproductive.

As an indication of the increased revenue derived from the use of water and the capability of the soil to pay that increase, it appears that in the presidency of Madras the rate of assessment in the tank region is about \$2.30 per acre on irrigated land, as against 55 cents per acre on land not irrigated. It is difficult to show in a satisfactory manner what has been the actual results of the irrigation works in India as financial undertakings. The figures given convey little idea of the actual benefit derived from the canals, as much of this is collected as the land tax, which forms nearly half the total revenue of the Indian government.

Another difficulty in reviewing the financial results of Indian irrigation works is found in the fact that in several cases capital shown by the government accounts does not include the value of the old native works, upon which the British undertakings were founded. Recognizing these difficulties, Maj. Gen. Dickens presented to the select committee on public works a statement, of which the following is a summary, which was given as the nearest approximate to the truth that could be obtained. This statement was for the year 1875-76 only, and no allowance was made for the value of the old native works, which Gen. Dickens stated did not exceed \$2,500,000. The total expenditure to date



There is danger ahead for the woman who goes on suffering in silence from weaknesses and diseases peculiar to her sex. There is danger for herself. There is danger for her children. The woman who suffers thus cannot be a bright, cheerful and agreeable companion for her husband. Tortured with pain she is prone to despondency. Weakened by disease she is listless and dull and unfit to perform the duties of her household or the higher duties of wifehood and motherhood. If she bears children she risks her own life, and her children will be sickly, puny and weak. There is always danger ahead for such a woman unless she takes prompt measures to cure her troubles and stop the drain upon her system.

An unfailing cure for all weakness and disease of the organs distinctly feminine, is found in Dr. Pierce's Favorite Prescription. It acts directly and only on that one set of organs. It transforms the woman tortured with the troubles peculiar to her sex. It fits her for wifehood and motherhood. Taken during the period preceding motherhood it does away with the usual discomforts of that time. It makes the coming of baby safe and almost painless. Women who want to know all about the "Favorite Prescription" should write to Dr. Pierce, chief consulting physician to the Invalids' Hotel and Surgical Institute, Buffalo, N. Y.

No family should be without a copy of Doctor Pierce's Common Sense Medical Adviser. It tells how to get well and how to keep well. It is the work of Dr. R. V. Pierce for thirty years chief consulting physician to the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y. It pays special attention to diseases and weaknesses of the organs distinctly feminine and contains several chapters devoted to the reproductive physiology of women. The book contains over 1,000 pages and is handsomely illustrated. A copy, paper-covered, may be obtained absolutely free by sending twenty-one one-cent stamps to cover the cost of mailing only, to the World's Dispensary Medical Association, No. 663 Main Street, Buffalo, N. Y. If French cloth binding is desired, send ten cents extra, thirty-one cents in all, to cover merely the extra cost of the more durable and more handsome binding. Send now, before the free edition is exhausted.

was \$77,500,000; the total receipts were \$6,150,000; and the working expenses were \$2,000,000. This shows that the irrigation works of India, taken altogether, paid at that time a revenue direct and indirect of 5½ per cent. to the state. This includes some works which were only partially in operation. Gen. Dickens anticipated that when in full operation they would eventually pay 6 to 7 per cent.

As an indication of the time which must necessarily expire after a canal work is opened and before it is doing its full duty and returning its full revenue, the Great Ganges canal was fourteen years in operation before it paid 4 per cent. on its simple capital, and Col. Crofton, the late inspector-general of irrigation in India, appears to think that ten years is by no means an unreasonable time to elapse after an irrigation work has been put in operation before it can pay interest on its cost. Gen. R. Strachey in 1865 gave it as his opinion that it was not likely that even 5 per cent. would be realized in ten years on the capital stock on any but the smallest irrigation works, while Col. Baird Smith took it for granted, in reporting on the proposed Soane canal, that the works would not be self-supporting for sixteen years after they had been opened for irrigation.

The following quotations are from the reports of the select committee appointed in 1888 by the British government to report on the measures of protection and prevention of famine. This report must bear great weight, owing to the high character of the members of the committee, both as engineers and men of experience in the construction and management of irrigation works and as statesmen of broad views, whose integrity cannot be doubted. This committee consisted of Gen. Richard Strachey, James Caird, H. S. Cunningham, H. E. Sullivan and J. P. Peile. Their remarks relative

SECOND ANNUAL PUBLIC SALE OF FORTY BOARS © FORTY SOWS.



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Consisting of about eighty head of spring pigs, about forty head of boars and an equal number of sows, sired by three different boars, viz.: Chief You Know (Vol. XI. S.) by Chief I Know (the boar whose get won 90 per cent. of the premiums at the fairs in 1895) and out of Black Beauty 4th (23364) by Corwin U. S. 7116, and he by Corwin King 4253; Chief All Right (Vol. XI. S.) by Chief You Know, the hog that H. G. Sims won second on and sweepstakes on boar and five of his get at Des Moines last year (Chief All Right was one of the five), and another good son of Chief Tecumseh 2d. The sows are strong in Tecumseh, Wilkes and Corwin blood and are as fine a bunch of brood sows as one would want to see. Sale will be held on farm, four miles east of Verdon and nine miles north of Falls City, both on M. P. and B. & M. roads. Parties from a distance will be met at train at both places. Free entertainment for visiting breeders. Write for Catalogue.

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to the value of irrigation works were as follows:

"It is not only in years of drought and as a protection against famine that irrigation works are of value. In seasons of average rainfall they are of great service and a source of great wealth, giving certainty to all agricultural operations, increasing the out-turn per acre of the crops, and enabling more valuable descriptions of crops to be grown. The following instances may be quoted from the mass of evidence before the commission. The outlay on completed canals in the Punjab up to the close of 1877-78 had been \$11,300,000. The total area irrigated by them was 1,324,000 acres. The value of food grains raised on two works, the Western Jumna and the Bari Doab canals, was \$14,400,000. It may, without exaggeration, be reckoned that one-half of these crops would have perished if unwatered or would not have been raised at all if the canals had been absent, so that in one year alone the wealth of the Punjab was increased by these two canals by \$7,200,000, an amount equal to about two-thirds the cost of the works, and but for the protection they afforded the government would have lost heavily from the necessity of remitting revenue and otherwise providing for famine relief. The net revenue for the year in the Punjab was only \$610,000, being about 5½ per cent. on the capital outlay on works in operation, a result which obviously supplies a wholly inadequate test of their value to the country.

"Up to the year 1878 the capital outlay on canals completed in the north-west provinces had been \$21,800,000. The area irrigated that year was 1,461,000 acres, the value of the crop raised on which was estimated at \$30,000,000. Half of the area irrigated was occupied by autumn crops which but for irrigation must have been wholly lost, and it may be safely said that the wealth of these provinces was consequently increased by \$15,000,000, so that three-fourths of the entire first cost of the works was thus repaid to the country in that same year. The net revenue to the government from irrigation in these provinces was \$1,550,000, or 7½ per cent. on the whole capital outlay of \$28,750,000, of which about \$6,250,000 was still unproductive.

"The results of irrigation are not so favorable in Bengal and Behar as in the above two provinces, chiefly because irrigation is there less necessary since the rainfall is more abundant. There is sufficient evidence of its value in Madras. The three great deltaic systems of irrigation, the Godavari, the Kistna and the Cauveri, yield direct returns of 8, 6 and 31 per cent., respectively, on the capital spent on them. During the year 1876-77, a year when every unirrigated district was importing a large part of the food of its population, the value of rice produced in the deltas of the Godavari and Kistna rivers is calculated to have been not less than \$25,000,000. The ordinary rental of land in northern India is doubled by irrigation, while in eleven districts of Madras the average rental rises from 40 cents to \$1.70 per acre. In considering this question it should be borne in mind that there are other causes of financial ill success of irrigation works; the one temporary, the other permanent. In the one case the works may fail to pay for a time because of the slowness with which the people adapt themselves to the new system of cultivation, a difficulty which arises in almost every new work, or because of errors in the details of the scheme which experience detects and which are easily remedied. In the other case the failure may be due to the inherent defects of the scheme and to the fact that the water costs more than it is worth. In the former case there may be reason to expect that the water will be eventually fully utilized and the deficit be converted into a surplus, though the accumulated excess charges during a series of years may amount to a large sum which receipts will only gradually wipe out. In the latter case, though there may be room for improvement and economy in the distribution

and use of the water, it may be impossible ever to realize a surplus."

According to the same authorities the net income of the whole works in operation in British India was, in the year 1879-80 \$5,830,000, which amounts within a very small fraction to 6 per cent. of the whole capital, including about \$16,250,000 spent on works not yet brought into operation. If this part of the outlay be excluded the income is found to be more than 7 per cent. on the capital actually utilized.

The following statement of the water rents derived from the use of the Western Jumna canal and the Punjab between the years 1820 and 1850 will give a fair idea of the rapidity with which the income from the use of irrigation works increases. In 1820 the water revenue was \$420 per annum; in 1830 it was \$28,800; in 1840 it was \$112,900. On the Eastern Jumna canals in the northwest provinces the water revenue was in 1830 \$3,000 per annum. In 1840 it was \$29,300 per annum, and in 1845 it was \$48,200 per annum.†

†Report of the Indian Famine Commission, Part 2, London, 1880.  
\*R. Baird Smith, F. G. S., Italian Irrigation, London, 1855, Vol. I, 318-340.

### OFFICIAL CALL

#### Of the Fourth Annual Meeting of Kansas Irrigation Congress.

By authority of the State Executive committee, the fourth annual meeting of the Kansas Irrigation Congress is hereby called to meet at Great Bend, Kas., on the 15th, 16th and 17th of October, 1896.

Four years of drought and crop failures have riveted the attention of farmers and all-classes of people to the fact that irrigation is the only salvation of the great plains country. Texas, Colorado, Oklahoma, Nebraska and the Dakotas are pressing forward with unabated zeal towards the reclamation of their lands by irrigation.

Kansas is not one whit behind any of them. She points with pride to the work already done. Within her borders over 2,500 private irrigation plants have been put in since this agitation was begun, besides thousands of farmers have been induced to try irrigation in a small way, which insures them a living outside of their farming. The Kansas State Board of Irrigation will be here to give account of their stewardship. The prominent candidates of the different political parties, as well as those directly interested in irrigation, will be present to thoroughly discuss the duties of the national and State governments towards irrigation. Noted speakers will be present from other States and practical irrigation will be treated in all its different phases.

No person should be absent from this meeting, who can possibly come. Every town, city and township in the State should be represented. Every person coming will be considered a delegate. The ladies are especially invited. All can have their "say" and ask as many questions on the various subjects as they desire.

The following railroads have made one-fare rates in the State of Kansas, Kansas City, and St. Joe, Mo., included, excursion tickets to be sold October 14 to 16 inclusive, good to return until and including October 19, 1896, tickets to be good for going passage commencing date of sale and for continuous passage in each direction: A., T. & S. F., B. & Mo. R., C., R. I. & P., Colorado Midland, D. & R. G., Fremont, Elkhorn & Mo. Valley, Mo. P., Rio Grande Western, St. Joe & Grand Island, St. Louis & San Francisco, Union Pacific.

Great Bend has ample hotel accommodations and can take care of all who come. For any information wanted correspond with

L. BALDWIN,

Local Secretary.

JOHN H. CHURCHILL, President.

H. N. LESTER, Secretary State Irrigation Congress.

JOHN E. FROST, Chairman State Executive Committee.

E. R. MOSES, Chairman Local Executive Committee.

Issued at Great Bend, Kas., September 2, 1896.

Young men or old should not fail to read

Thos. Slater's advertisement on page 15.

#### J. T. Lawton's Chester Whites.

Among those engaged in breeding Chester White swine in the West is Mr. J. T. Lawton, of North Topeka, Kas., the successor of John Kemp, who founded the herd sixteen years ago. The visitor at the farm, which is situated five miles north of Topeka, finds now about one hundred head, all ages. Three harem masters did service last year in the herd—Kaiser (Vol. 6), Bell Boy (Vol. 6), and Excelsior 8159 A. C. W. R. Kaiser is by Arion 6729, he by Canady King 6417; his dam, Fry's Choice 9961 by Royal K. 6209 and out of Queen of Long Branch 9954. This boar, Kaiser, is one of the best yet seen by the writer on Kansas soil, and now in his yearling form possesses a good head and extra well-shaped ear, nicely dished face, broad back, supporting a remarkably well-sprung rib, good, thick ham, strong, smooth bone and well up on toe. He possesses much style and character and his get are good ones. There are now about thirty youngsters to his credit in the herd. Such has been his success that he will be retained another year to preside as master of the herd. His first lieutenant, Bell Boy (Vol. 6) by Squire B. 6971, he by Dexter 6478; his dam was Sunol 8886 by Osage Boy 6677 and out of Susie B. 7454, is a little different type of an animal, yet in his general characteristics close up to his chief, Kaiser. His get are just about what the improved Chester White breeder expects and hopes to raise, hence they grow out early, are mellow and smooth and far ahead of the "white hog" even of ten years ago. There are about thirty youngsters on the farm to his credit. Excelsior (Vol. 6) has two litters out of choice dams that are sure to please those desiring the white hog.

In the brooder division are seven harem queens that are sure to attract the eye of the visitor. One of the final short leet kind is the two-year-old Maud 5430 by Rustler 2211 and out of Lilly 2d 8886. She is what one calls an out and out all over good one and a show yard animal, not only in a white-coated ring, but a final leet of any color. Her May litter of ten by Kaiser were all good, smooth and thrifty pigs. Close up in her company is the two-year-old Lady Gladis 5428 by Hillside Chieftain 2213 and out of Eva 2d 8890. Her general conformation is smooth and of a desirable kind. Her last of April litter of eight by Bell Boy are coming on in a promising way. Next in line is the yearling Ocean Wave (Vol. 6) by Prince Albert 3001 and out of Maud 5430, the female first mentioned above. She is smooth, well balanced, with good bone and feet, and of the mellow sort. Her May litter of eight by Kaiser are sure sellers. The largest, yet smooth, harem queen is Lilly's Best 5432 by Rustler 2211 and out of Lilly 2d 8886. In her show yard dress she will weigh up close to 650 pounds. She raised eight of her litter of twelve by Bell Boy. The visitor finds one that is sure enough low to the ground and blocky when he sees the short yearling Bessie (Vol. 6) by Victor 2875 and out of Kemp's Pet 4248. If one is looking for mothers possessing both the ability to farrow large litters and raise them well, here is the sow that does it. She is raising eleven of her last of May litter of twelve, and at no time nor at any place does one find a more clean, smooth, thrifty, well conformed litter in its general character or make-up. Stella 5436, a two-year-old by Dandy 2409 and out of Queen 4250, is another choice smooth, low down individual and a great brood sow. Her April litter of twelve are all coming on in good form and some extra good ones among them.

In the youngster division are now four March, five April and twenty-eight May and June boars that are as clean and smooth a lot as one sees in the best Chester White herds, East or West. The gilts came, five in May, eighteen in March and April, and are of the type that are sure to please the Chester man who is an up-to-date breeder.

Among the late sales was a boar and gilt to Irvin Lively, of Peoria, Maricopa county, Arizona, and consignments went to Fontana, Oakland and Hutchinson, Kas.

Those that fancy high-class Light Brahmas of the Felch strain will find about 200 choicely bred birds to select from.

During the last day of the Springfield, Mo., fair (September 5, 1896), Mr. L. W. Mingo, of Fair Grove, Mo., had Col. S. A. Sawyer auctioneer a sale of thirty Poland-China pigs which made an average of \$13. It was the first public sale of Poland-Chinas in that part of the State, and for a new breeder may be considered a good sale. The following is a list of the purchasers, all of Missouri: Chas. Lewis, D. A. McMillan, D. F. Trogen, S. W. McLaughlin, H. S. Vall, F. S. Mason, F. R. Shafer and D. B. Neil, all of Springfield; H. C. Vaughn and E. S. Garrison, of Ozark; A. Baker, Ash Grove; T. H. Wiley & Son, Sedalia; J. A. Kerr, Republic; Fred Otting, Mansfield, and H. T. Vogel, C. F. Hazeltine, of Dorchester.

On Thursday, September 3, William H. Barnes, of the State Horticultural Society, addressed a large gathering of horticulturists in the grand stand at the Anderson County fair, Garnett.

## Special Want Column.

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

WANTED—Second-hand Alpha or W. T. cream separator, boiler, engine, vats and shafting. C. V. M. House, Spring Hill, Kas.

CHEEROKEE STRIP—Homestead claims for sale or trade. When writing state what you want. McDaniel & Gilmore, Clay, Okla.

SHORT-HORN BULLS.—Write for prices or call on J. F. Stodder, proprietor of Silver Creek herd, Burden, Kas. He has yearlings and calves for sale. Prices low, quality considered. Can ship over Santa Fe, Frisco or Missouri Pacific railroads.

ASAP!—For rent or will sell at a bargain (possession given October 1), eighty-acre farm, two miles southwest of Washburn college, on the Shunganunga creek; fifty-five acres in cultivation; twelve acres in timber; thirteen acres in pasture; about 800 fruit trees; thirteen acres in pasture; about 800 fruit trees; running water; five-room house; forty acres good corn, will make forty to fifty bushels to the acre; about thirty tons millet; will sell with the farm. W. W. Manspeaker, 704 Kansas Ave., Topeka, Kas.

TO TRADE—For windmill and feed grinder, two choice lots in Corpus Christi, Texas, or four lots in Tonovay, Kas., for feed mill. Thos. Wells, Tonovay, Kas.

ENGLISH RED POLLED BULL.—For sale or to exchange for another of same breed; 5 years old, bred by D. F. VanBuskirk. Address R. L. Gilbert, Sarcosie, Jefferson Co., Kas.

LOST—Two miles north of town, a dark sorrel mare, white face and feet; in good condition. Reward for return to 1341 Dillon St., Topeka.

FOR SALE, CHEAP—A fine imported English Shire stallion. Address Wm. Morganfield, Ogden, Riley Co., Kas.

FOR SALE OR TRADE—One hundred and sixty acre farm in Graham county, Kansas. Nice, smooth land. No incumbrance. Also 160 acre farm in Scott county, Kansas. Smooth land. No incumbrance. I will sell cheap. Address Thomas Brown, Box 55, Palmer, Kas.

WANTED—SEVERAL FAITHFUL MEN OR WOMEN to travel for responsible established house in Kansas. Salary \$750, payable \$15 weekly and expenses. Position permanent. Reference. Enclose self-addressed stamped envelope. The National, Star Building, Chicago.

ALFALFA SEED—Crop of 1896. Pure and fresh. Write for prices. McBeth & Kinnison, Garden City, Kas.

FOR SALE—Farms in Morris, Osage, Lyon, Bourbon, Cherokee, Labette, Neosho, Anderson, Montgomery, Coffey, Woodson and many other counties for sale on eight years' time. No interest asked or added in. Write for new circulars with descriptions and prices. Hal W. Nelswanger & Co., Topeka, Kas.

FOR SALE—A desirable residence convenient to Washburn college. Will be sold at a bargain before November 1. C. L. Traver, Topeka, Kas.

LADY WANTED—To sell the Hook Spoon. A very useful article for the kitchen. Send 15 cents and get a sample. Special terms to agents. Keystone Supply Co., 2420 N. Taylor Ave., St. Louis, Mo.

WANTED—SEVERAL FAITHFUL MEN OR WOMEN to travel for responsible established house in Kansas. Salary \$750, payable \$15 weekly and expenses. Position permanent. Reference. Enclose self-addressed stamped envelope. The National, Star Building, Chicago.

FARMER WANTED—Man and wife preferred, to take charge of farm in Noble county, Oklahoma. For terms and conditions, write W. McKay Dougan, M. D., Western Shoshone Agency, White Rock, Nev.

SHAWNEE COUNTY CIDER MILL.—Bring your apples to my cider mill, three miles west of Kansas Ave., on Sixth street road. My mill will be in operation every Tuesday, Thursday and Saturday till November. Henry McAfee Topeka.

FOR SALE—A handsome six-year-old mammoth Kentucky jack. Cost \$500 at 2 years old. Can be had at a bargain. Write H. C. Bowman, 116 West Sixth St., Topeka.

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

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

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

FOR SALE AT SPECIAL PRICES—Hay outfits, carriers, forks, etc. Inquire at the store of P. W. Griggs & Co., 208 W. Sixth St., Topeka, Kas.

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

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

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

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

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

FOR SALE—One hundred and sixty acre farm, one and a half miles from Hushong station, Lyon county, Kansas. Good spring. Price \$3 per acre. J. B. McAfee, Topeka, Kas.

FARM FOR SALE—A good Arkansas valley farm, close to Larned. Well improved, large frame house and barn, granary, fencing, etc.; close to school; two railroads in sight. Price, \$10 per acre, payments to suit. A. H. Duff, Larned, Kas.

#### Five Little Books.

All interesting and profitable reading. Books about "Texas," "Homes in the Southwest," "Glimpses of Arkansas," "Truth About Arkansas" and "Lands for Sale Along the Cotton Belt Route." If you are seeking to better your location, send 10 cents to pay postage on any or all of these books, to E. W. La Beaume, Gen. Pass. Agent, Cotton Belt Route, St. Louis, Mo.



## The Home Circle.

### THE BUSYBODY.

She sits behind the curtains, drawn,  
Or else behind the shutters;  
She watches every coat and hat  
And every dress that flutters;  
There's not a thing the neighbors do—  
Unless they seek to pester  
By shutting doors and windows, too—  
That doesn't interest her.

She knows what kind of meat they buy,  
What kind of servants buy it,  
Who calls on who, and when and why,  
And no one can deny it.  
She hears the doorbells when they ring,  
And, though she may be sleeping,  
Up from her slumbers she will spring  
To do her little peeping.

It's really fun, so folks aver,  
To see her daily dodging;  
A matrimonial spat to her  
Is food and drink and lodging.  
And should some husband sneak home late  
O'ercome with curious capers,  
He might as well proclaim his state;  
In all the daily papers.

She'll tell you what the lovers say  
When on the steps they're spooning,  
And each piano, far away,  
That stands in need of tuning.  
About her knowledge of affairs  
She often grows elated,  
And seems to know 'most everything  
Except just how she's hated.

—New York Recorder.

### UMBRELLA HANDLES.

The Very Latest Are Thickly Encrusted with Fine Jewels.

Jeweled umbrella handles are the coming correct thing for the man or woman who strictly follows the dictates of fashion. If one has any social ambitions or aspires to any pretension of style the umbrella handle must be thickly encrusted with jewels. So say the ultra-fashionable dealers of Paris, and their New York brethren in the trade are already filling orders for similar umbrella handles for their patrons. These jeweled conceits are made in either tasteful or grotesque designs, as the fancy of the owner may dictate. Some are made with antique designs of gold and silver, with the jewels set in an apparently haphazard sort of fashion, while others have the precious stones set in the natural wood.

A Fulton street manufacturer of umbrellas has already filled several such orders. In speaking of the new fad he said: "All the ideas are original with our customers, and we receive some very odd orders, as well as some very beautiful ones. One of the finest we have done was a silver figure of liberty. Two magnificent rubies formed the eyes, and a truly gorgeous one flamed from her torch. The setting alone cost \$35. Most of the setting is done in Lancaster, Pa."

"One feature of the fad," said another dealer, "is that cheap stones cannot be used. The gems must be genuine and of good quality or else the entire effect is lost. It is a costly sort of idea for those who adopt it, but as a rule persons who readily adopt such a fad are perfectly able to pay for it. It will, I think, become more than a passing fancy and last some time among those who regard the laws of fashion. It will hardly be advisable for one to carry a jeweled handled umbrella to church or play and leave it standing in the customary rack at the entrance, and for much the same reason the owner of a gem-adorned umbrella might be pardoned if he allowed his best friend to go home in the rain without offering him the loan of an umbrella."—N. Y. Herald.

### The Flower Girls of London.

So seriously has the city of London taken the custom of buttonhole bouquets worn by stockbrokers that it has actually given the women who sell flowers recognition. The flower girls, as they are all gallantly called, are permitted by the regulations to set down their baskets and sell their flowers around the iron railings opposite the royal exchange. They are among the most respected stallholders in the city. They are uniformly polite, as they may well be, since they may be said to be on speaking terms with all the youth and gallantry of Threadneedle and Throgmorton streets, and they are very skilled in the making of boutonnières.

### The Czarina's Private Car.

One of the czarina's newest possessions is a railway car of her own, exquisitely upholstered in rose satin and lighted by electricity. The wheels of the compartments are covered with India rubber tires.

### WHAT IS LIFE WORTH?

Important Question Answered by Mrs. Henry Ward Beecher.

What is life worth?  
Just what you choose to make it and no more.

As you sow, so will you reap. If from the first hour of responsible living you choose to live only for self, for your own comforts and pleasure, regardless of the wishes or comforts of others—if a habit begun in childhood, thinking first of all how will such a course or act profit me, is allowed to gather force as years roll on, your life will be worth very little.

While the young blood rushes wildly through the veins, and, careless and reckless, you plunge from one excitement to another, still more selfishly regardless of the wishes or comfort of parents and the closest friends, for you there may be a kind of mad enjoyment. But will it last? And while it lasts what is it? What is your life—what is such a life really worth? How soon will all such unnatural excitements and selfish pleasures wear themselves out? How soon will they prove a totally insufficient stimulant and leave you always reaching out after more, which, when gathered, may prove just as worthless and unsatisfying.

Or, if in your heart you are longing for wealth instead of riotous pleasures, and if you determine to secure it and labor for it until you have spent all your young years, it begins to flow in upon you, and instead of finding pleasure in it you become a miser. You hoard your hard-earned wealth, instead of using it. What have you gained? Your bank accounts swell to large proportions, but you live on the barest pittance, giving your family only the most common necessities, while your ledger at last shows you to be worth millions. What has your life been worth?

Or, if you enter into manhood, ambition becomes your besetting sin, and you turn from friends, and suitable



MRS. HENRY WARD BEECHER.

amount of family pleasures and sympathy with the world at large, urging every faculty to secure a worldly reputation that shall outshine all others, what shall it be worth when you get it? For, with all the applause that awaits your achievements, there may be no words of praise for your goodness, as well as your high standing and worldly distinction. There may be no sad homes that give you loving gratitude for your generous kindness, no thanksgiving for the fallen raised by your efforts and redeemed from sin. What is your life worth?

But there is a value which no words can fully reveal in a life made perfect by good deeds and unselfish labors, to help and redeem the suffering and the degraded. There is infinite difference between a life of selfish indulgence and a life which secures divine happiness by living to do good to others.

I look back upon the life of one who was called to his reward many years ago, who started out an orphan and all alone, a poor boy, to make his way, unaided save by his Heavenly Father. By industry and by doing well whatever he undertook, little by little he laid by very small sums at first. He had the feeling that however small it might be he would be happier and no poorer if from his scanty earnings he took a small proportion to try to help other poor men to get a start.

When he died he had become possessed of a fair proportion of wealth, but of the large body of people assembled at his funeral all could tell, with tears, of the good they had received through him. There was no ostentatious display of his good deeds, but rather a

very humble intimation of his own merits. Among the last things he said to the clergyman, who repeated them as he stood in tears over the coffin, was: "The great mistake of my life, which dwarfed my ability to do good, was that I did not become a Christian when a young lad. How much more good I might have done! How much better a man I should have been had I given all my life—had I begun younger! That is the lesson which I hope you will teach the young."

Now, what was this man's life worth? He sowed good seed wherever he went, and in the glorious mansions where his freed spirit has gone he is reaping his rich reward. —Mrs. Henry Ward Beecher, in N. Y. World.

### FAMILY SCRAP BASKET.

Vaseline makes the best dressing for russet shoes.

Use milk pudding and stewed fruit for bilious dyspepsia.

After washing never wring worsted dress goods. Shake them.

Spirits of turpentine is the thing with which to cleanse and brighten patent leather.

Moderately strong salt and water taken by the teaspoonful at intervals is a cure for catarrhal cold.

Soak black calico in salt and water before washing, and so prevent its fading.

Toilet vinegar, cologne water, alcohol and red wine are good for oily and moist hands.

An exchange says: Apply castor oil once a day to warts from two to six weeks, and they will disappear.

No receptacle for soiled clothing, even if handsomely decorated, should be kept in a sleeping apartment.

The dirtiest frying pan will become clean if soaked five minutes in ammonia and water.

Old feather beds, if left on a grass plot during a summer shower, and allowed to get thoroughly wet, will, when dry and beaten, seem fresh and new again.

Whiten yellow linen by boiling half an hour in one pound of fine soap melted in one gallon of milk. Then wash in suds, then in two cold waters with a little bluing.

A skewer will be found to be of great assistance in sweeping a room. Nothing else can so thoroughly dig out deposits of rust from dusky corners. For still smaller recesses a bit of twisted wire that started life as a hairpin will be found equally effective.

### Piano Seats and Drapery.

The straight back of an upright piano has inspired the brain of many a housewife to the invention of new kinds of drapery. But no matter how new the drapery or how ample its folds, the object is always obvious. To assist it and to give it a reason for being a most becoming background, the latest fashion of piano seats is as clever as it is comfortable. These seats may be with or without backs and should be placed directly against the piano, where the drapery falls. The Recamier bench, in which any woman might fancy she would look well after gazing upon the fair Recamier as she reclines against its one arm, is peculiarly fitted to accomplish the pleasing result sought by the housewife.

### Martin Luther's Wedding Ring.

Luther's wedding ring was a most elaborate affair, containing representations of all the articles used at the crucifixion; the ladder, the cross, the rope, the nails, the hammer, the spear, the thorns, were all shown in the circumference of this peculiar piece of jewelry.

### A Bright-Eyed Flower Boy.

A London paper says that some time ago Princess Maud went shopping strictly incog. While she was walking along the street she was accosted by a little street Arab who was the happy possessor of a pair of large, pathetic brown eyes and a tangled crop of curly brown hair. He was busily engaged in the absorbing task of earning his living (and, perhaps, some one else's as well) by retailing "fresh spring flowers, penny and tuppence a bunch." The princess stopped by him, and, while choosing some flowers, she was a little startled by the lad saying, in an excited and familiar whisper: "It's all right, miss, I knows yer." The princess smilingly shook her head in a denial. "Yes, I do knows yer" (more emphatically). "Yes, Princess Maud, I twigged yer directly."—Detroit Free Press.

### Stain and Polish for Floors.

Of all stains and polishes to use for floors the cheapest and most durable stain is permanganate of potash. Pour a quart of boiling water on half an ounce of permanganate of potash crystals. Apply this hot to the boards. It will look red at first, but soon becomes a good brown. See that the boards are perfectly clean and dry, then with a large painter's brush apply the stain. When this is dry give a second coating if necessary. Wash the brush in soft soap and soda, using plenty of warm water, dry it and then give the boards a coat of linseed oil, mixed with a good drying medium. When the oil has dried in begin polishing with the usual beeswax and turpentine. Two or three rubbings with this will be necessary before a good surface is obtained.

### Never Used a Hair Brush.

A charming English woman, whose hair always looked like burnished gold, announced one day that she never used a brush on it. However, she had a substitute. With a large silk handkerchief, such as good housekeepers covet for brightening their silver, she stroked it firmly and briskly 100 times, night and morning. She said this method possessed all the good qualities of a brushing, without ever running the danger of breaking a fine hair or tiring the head.

### Hot Water for Headache.

Putting the feet in hot water will invariably cure a headache from whatever cause it arises. The head aches when, from any cause, the little blood vessels in the brain are too full. Putting the feet in hot water draws the blood from the head.


Ayer's Hair Vigor tones up the weak hair roots, stimulates the vessels and tissues which supply the hair with nutrition, strengthens the hair itself, and adds the oil which keeps the shafts soft, lustrous and silky. The most popular and valuable toilet preparation in the world.

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

**WANTED**—SEVERAL FAITHFUL MEN OR WOMEN to travel for responsible established house in Kansas. Salary \$750, payable \$15 weekly and expenses. Position permanent. Reference. Enclose self-addressed stamped envelope. The National, Star Building, Chicago.

**LADIES** I Make Big Wages At Home— and want all to have the same opportunity. The work is very pleasant and will easily pay \$18 weekly. This is no deception. I want no money and will gladly send full particulars FREE to all. Miss M. E. Stebbins, Lawrence, Mich.

**ORGANS** FREE on trial. High-grade, popular priced Organs, such as never were offered before. Unequalled for sweetness of tone and beauty of design. We have a large assortment at lowest prices. Send for Our Mammoth Catalogue. H. R. EAGLE & CO., 68 and 70 Wabash Ave., Chicago, Ill.



## BACKACHE

WHY? Because your Liver and Kidneys are out of order

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

is the "PEERLESS REMEDY" for curing ailments of the Liver, Kidneys and Bladder, Diabetes, Rheumatism and Bright's Disease.

FOR SALE EVERYWHERE AT \$1.00 PER BOTTLE

THE DR. J. H. McLEAN MEDICINE CO., St. Louis, Mo.



## The Young Folks.

### THE TREE TOAD.

"'Scurious like," said the tree toad,  
"I've twittered for rain all day;  
And I got up soon,  
And I hollered till noon,  
But the sun, hit blazed away,  
Till I just clumb down in a crawfish hole,  
Weary at heart, and sick at soul!"

"Dozed away for an hour,  
And I tugged the thing agin;  
And sung and sung,  
Till I knowed my lung  
Was jest about givin' in;  
An' then, thinks I, of hit don't rain now,  
There's nothin' in singin', anyhow!"

"Once in a while some farmer  
Would come a drivin' past;  
And he'd hear my cry,  
And stop and sigh,  
Till I jest laid back, at last,  
And I hollered rain till I thought my throat  
Would bust right open at every note!"

"But I fetched her! O, I fetched her!  
'Cause, a little while ago,  
As I kind o' set,  
With one eye shet,  
And a-singin' soft and low,  
A voice drapped down on my fevered brain,  
Sayin', 'Ef you'll jest hesh I'll rain!'"

—James Whitcomb Riley.

### SEED DISTRIBUTION.

#### One of Nature's Most Wonderful and Mysterious Operations.

In the hedgerows and along the country highways, so infinitely varied in their peaceful beauty, what wonderful and diverse operations and designs are taking place to secure the distribution of the ripened seed—winged seeds of suitable shapes for the wind to carry and let drop here and there in cleared space; seeds that hook themselves to the passer-by, so that perchance they may be conveyed to a bit of ground not overcrowded.

The wild geranium that grows here and there so abundantly, when its pink petals have fallen and the seed within its seed-case are ripe, by a simple mechanism shoots its seeds some little distance.

The capsule of the common poppy has little doors in the top, and when it is agitated by the wind, the seeds are ejected one by one through these small apertures. The little doors are protected from rain by an overhanging roof, and close themselves in wet weather.

In the autumn, a dry, bristly, roundish thing about the size of a large marble (the burr of the burdock) gets attached to our clothes or entangled in the long hair of our dog, and can be only got rid of with some difficulty.

The burdock, wild parsley and enchanter's nightshade, so common to our woodlands, by means of hooks cling to any passer-by who may chance to knock against them, using this method of distributing their seed.

Seeds by adhering to the wool of sheep have been conveyed in the fleece to other countries, and a new and vigorous growth has resulted therefrom. In the plants I have named the hooks are so arranged as to provide for the removal of the seed, and, although beautifully formed, are small, but in some foreign species they are truly formidable. If the fruits of the martynia, found in Louisiana, get hold of an animal they are most difficult to remove.

A kind of grass grows in Australia, in which the mass of inflorescence forms a large round head, and is thus driven for miles over the dry sands till it comes to a damp place, when it expands and soon takes root.

A small annual, with rounded pods, is met with in the sandy places in Egypt, Syria and Arabia, which, when dry, curls itself up into a ball or round cushion, and is then driven by the wind till it finds a damp place, when it uncurls the pods open and the seeds drop out.—Golden Days.

#### Male Birds Lead the Way.

When birds are migrating the males usually precede the females. The robins, for instance, which are seen early in the year are almost invariably males, which apparently traveled on before their mates. The female birds follow, perhaps because they are not such powerful flyers, and also, perhaps, because they like to take their time and gossip with one another. In the fall the male birds leave first—the old ones—while the females travel along together with their young, solicitous for their welfare, and still training them after the fashion of mother birds.

### TALK WITH WASHINGTON.

#### How a Brave Little Boy Met the Great American Commander.

In St. Nicholas Sara King Wiley has a romance of the American revolution entitled "Maurice and His Father." A brave little English lad is separated from his father and falls into the hands of the Americans. His father afterwards embraces the patriot cause and his son is restored to him through the medium of Washington, as shown in the following extract:

Maurice was informed that Gen. Washington was there showing the works to Gen. Lafayette, and his heart began to flutter and thump within him. Barney was sitting beside him, looking at his master with bright and loving eyes, his little black nose quivering.

"Barney," said the boy, "we're afraid, but we're not going to stop if we are." And, picking up the dog, he took his way through the rustling leaves that lay like heaps of gold towards the house which one of the soldiers, from whom Maurice ventured to ask for directions, had pointed out to him.

"Yes, Gen. Washington is there and alone," he was told.

Could he see him?  
"Sure, no, ye little bye," said the Irish sentry. "It's wore out the poor gentleman is, already, and it's meself wouldn't bother with all thim jabbering Frenchmen."

Maurice was desperate.  
"Oh, please!" he said. "Beg, Barney; you beg, too."

The little dog sat up at once with drooping paws.

"Sure, me own name's Barney. And is your dog's name O'Reilly, too?" said the sentry.

"Oh, if he is your namesake," exclaimed Barney, "you must let him in! Oh, see, you can hold him while I go in!" Maurice thought no one could resist such an offer.

"I'll see," said the soldier, and he stepped within, and, returning, said: "Go on."

Maurice yielded up Barney and stepped into the hall, went along it and paused just inside an open door. He was trembling. A voice said: "What is your errand?"—a voice even grave and rather severe.

Maurice raised his eyes. Just before the fireplace stood that great com-



THERE STOOD THE GREAT COMMANDER.

mander; to the boy's excited thought he seemed even larger than he was.

"What is your errand, my lad?" said he again, with a note of command in the tone.

"Oh, my father—my father!" he said. "I have been lost from him so very long!"

Something in the thrilling child's voice, something in the piteous and forlorn expression of his face went straight to the warm heart that the general carried beneath his calm exterior. He crossed the room in quick strides, and, laying his hand on the boy's shoulder, said, kindly:

"My poor child!"

This was too much. Maurice had borne bravely the long strain of waiting, the repeated disappointments, but the unexpected sympathy broke down his self-possession. He put his head in the crook of his arm and sobs came fast, sobs that shook him from head to foot. The general drew him aside, sat down in an arm-chair, and, taking the little hanging hand in his own, said: "There, there, stop crying and tell me all about it."

Maurice choked down his sobs and told his story. At his father's name the general rose quickly.

"Col. Terraine's son! Why, then, your father was here a short time ago—he may be upstairs now!"

Maurice forgot even the great chief and sprang for the door. But Washington caught him by the arm.

"My dear boy—he does not know—I will go."

Maurice stood still in the center of the room and pressed his hands hard together. The general went out and upstairs; it seemed to Maurice that he stepped very slowly.

Col. Terraine sat in an upstairs room writing; he laid down his pen and rose as the general entered.

"Colonel," said Washington, "I have some wonderful news for you." He paused; the officer took a step forward and opened his lips, but did not speak.

"Come downstairs with me," continued the general, slowly, "and remember as you go that passage in the Scriptures: But the father said: 'Let us be merry, for this my son.'" Col. Terraine caught the back of a chair—"for this my son—" went on the sweet, grave voice, "was dead, and is alive again; he was lost and is found."

Col. Terraine stood an instant with wide, questioning eyes; then he rushed through the doorway and down the stairs. The general followed him quickly. There was a loud cry as the colonel entered the room and Maurice sprang into his father's arms. Gen. Washington closed the door and stood guard over it himself. Barney, having escaped from the soldier, tore in, and the general stooped from his great height to pat the little dog. If Barney had been a man he would have seen that there were tears in the bright blue eyes.

### SOME FAMOUS BOYS.

#### Their Childish Actions Indicated Future Greatness and Fame.

A Swedish boy fell out of a window and was severely hurt, but with clenched lips he kept back the cry of pain. King Gustavus Adolphus, who saw the fall, prophesied that that boy would make a man for an emergency; and so he did, for he became the famous Gen. Bauer.

A woman fell off the dock in Italy. She was fat and frightened. No one of the crowd of men dared to jump in after her; but a boy struck the water almost as soon as she, and managed to keep her up until stronger arms got hold of her. Everybody said the boy was very daring, very kind, very quick, but also very reckless, for he might have been drowned. The boy was Garibaldi, and if you will read his life you will find these were just his traits all through—that he was so alert that nobody could tell when he would make an attack with his red-shirted soldiers; so indiscreet sometimes as to make his fellow-patriots wish he was in Guinea, but also so brave and magnanimous that all the world, except tyrants, loved to hear and talk about him.

A boy used to crush the flowers to get their color, and painted the white side of his father's cottage in Tyrol with all sorts of pictures, which the mountaineers gazed at as wonderful. He was the great artist, Titian.

An old painter watched a little fellow who amused himself making drawings of his pot and brush, easel and stool, and said: "That boy will beat me some day." So he did, for he was Michael Angelo.

A German boy was reading a blood-and-thunder novel. Right in the midst of it he said to himself: "Now, this will never do. I get too much excited over it, and I can't study so well after it. So here goes!" and he flung the book out into the river. He was the great German philosopher, Fichte.—Our Dumb Animals.

A little four-year-old occupied an upper berth in a sleeping-car. Awaking once in the middle of the night, says the Youth's Companion, his mother asked him if he knew where he was. "Tourse I do," he replied. "I'm in the top drawer."

#### Rescued by an Elephant.

Babylon is one of the elephants in a circus exhibiting in Chicago, and "Growler" is a bear, which is chained near the elephant. Not long ago a little girl, the daughter of one of the circus riders, was playing near the elephants, when Growler seized her in his claws. Babylon, who witnessed the capture, promptly brought his trunk down with crushing force on Growler's head. The bear was stunned by the blow and released the child, who had fainted. The elephant then picked her up and placed her where the bear could not reach her. Attendants then came running to the rescue, but too late to deprive Babylon of the honor of saving a human life.

#### Little Girl's Wonderful Nerve.

A wonderful exhibition of nerve and coolness in the face of deadly peril was shown by Jennie Sheets, aged eight years, recently near Kansas City. A heavily loaded passenger train left Cabool, Mo. A small trestle terminates a sharp curve a few miles east of the town, and the train was making 40 miles an hour when the curve was reached. As the train approached the trestle, the engineer saw two women and two little girls on the trestle. To stop was impossible. The women jumped to the dry bed of the creek below; the children remained on the trestle. Jennie Sheets was one, and she seized her companion, threw her on the extreme edge of the bridge sleeper and there held her until the train had passed. The train was stopped and all the passengers ran back, to find little Jennie anxiously inquiring if her mother was hurt.

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# KANSAS FARMER.

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

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

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KANSAS FARMER CO., Topeka, Kas.

The annual meeting of the Kansas State Dairy Association will be held at Abilene, on the 18th, 19th and 20th of November. The program will be published later on.

"Principles of Profitable Farming" is the title of a booklet which the German Kali Works, 93 Nassau street, New York city, propose to send free of charge to any farmer who applies for it.

Jackson county organized a county horticultural society on Thursday, September 3, with the following officers: President, J. W. Williams; Vice President, Geo. Hoover; Secretary, F. W. Dixon; Treasurer, Jacob Hixon; Prompter, T. E. Ashton, all of Holton. This society will send a large display of horticultural products to the "Fall Festivities" exhibition at Topeka.

In October, 1852, the highest-priced wool was that denominated fine, which was worth 50 cents per pound, while medium was 42 cents, and coarse was 37 cents. In October, 1860, the prices were, fine 60 cents, medium 50 cents, coarse 42 cents. In the same month, 1864, medium was lower than either of the others. Prices were, fine 103, medium 95, coarse 100. Now medium wool leads. For October, 1895, the figures are, fine 18, medium 21, coarse 19.

Cut rates on grain shipments continue to be the order. The Santa Fe last Friday announced a reduction to Chicago, and was intended to meet a reduction of 1 to 2 cents per 100 pounds recently made by the Missouri Pacific to St. Louis. The new rates are said to affect all points where the two companies are rivals. The new tariffs will give Wichita a rate of 16 cents on wheat and 12 cents on corn per hundred pounds. The rate from Arkansas City and Belle Plaine will be the same. The McPherson rate will be 18 cents on wheat and 14 cents on corn. There are corresponding reductions of from 1 to 3 cents from all other points where the two roads compete for the business.

The monthly report of the Chicago Union Stock Yards Company for August shows receipts of cattle 241,100, a decrease of 4,536, compared with August last year; calves 9,190, decrease 7,082; hogs 498,674, increase 119,445; sheep 295,751, decrease 22,224; horses 6,251, decrease 313. The average weight of hogs was 253 pounds, increase 16 pounds. The number of cars of stock received was 21,838, increase 2,123. Of these there were used or packed in Chicago, of the cattle more than two-thirds, of the calves more than eight-ninths, of the hogs more than three-fourths, and of the sheep more than five-sixths. The C., B. & Q. brought in the greatest number of cattle; the C., M. & St. P. the greatest number of calves; the C. & N. W. the greatest number of hogs and sheep; the C., B. & Q. the greatest number of horses.

## CAR WINDOW OBSERVATIONS OF KANSAS AND COLORADO.

By a business arrangement with the Rock Island and the Colorado Midland railroads for the going trip and with the Denver & Rio Grande and the Santa Fe for the return trip, the editor of KANSAS FARMER and his wife took car-window views of the prairies and plains, the mountains and canons, between eastern Kansas and western Colorado.

The notable observation about the eastern half of Kansas is the great corn crop. This is especially true of the going trip over the Rock Island, which traverses for much of its course the northern portion of Kansas. As the sun went down and darkness shut off the view, just west of Belleville, we were still in the corn fields.

The awakening next morning was in the short grass country of eastern Colorado, and by the time it was fairly light, Pike's Peak was visible, although it looked much like a cloud and was one hundred miles away to the southwest. On the plains of this part of Colorado the cattle industry is the only one apparent.

Denver, in the shadow of the mountains, is even now a busy city. Colorado Springs is enjoying the prosperity resulting from her large ownership in the Cripple Creek gold mines, which last year produced about \$10,000,000 and will this year do as much. These mines are worked with costly machinery and are paying so well that no developed mining property in the camp is for sale. The deeper shafts are now down about 400 feet and the mineral is growing richer. The gold occurs in two forms—first, native uncombined gold, constituting bright yellow specks and threads through the rock; second, in combination with sulphur, in which form it is crystalline and looks like silver. By slightly heating the rock containing this ore the sulphur is easily driven off and the gold appears in its natural color. The gold-bearing rock occurs in fissures in the granite. These vary in thickness from almost nothing to twenty or thirty feet in thickness and are of varying lengths. At Cripple Creek the surface indications of gold-bearing fissures are buried under some twenty feet of washings, so that the wonder is that they were ever discovered. The expense of mining gold when the mines have been found, as at Cripple Creek, is not greater than the expense of mining silver, and at present the gold is sold to the smelters at about thirty times the price of silver.

But we write of this trip, not so much to describe the production of gold and silver as to consider the productions of Colorado and Kansas. After entering the mountains of Colorado one sees little of agriculture. In South Park there are ranches, and along the many streams which traverse the mountains some farming is done, in all cases with the aid of irrigation. In the Arkansas valley some productive ranches were seen, almost as high as Leadville, within sight of the bald and snowy mountains of the great divide, where the areas of small evergreens are bounded by a sharply defined line above which nothing grows. Appreciation of the value of water is intense in Colorado. They do not try to farm without it. The areas of fertile land to which it can be applied are very limited, especially among the mountains, and while present production may be considerably increased, the opportunities for expansion are not great.

Beyond the snowy range, which we crossed at Hagerman pass, 12,000 feet above the sea, the descent to Grand river is very rapid, and Glenwood Springs is at a lower level than Colorado Springs, at the edge of the prairie this side of the mountains. Fruits thrive immensely on the Grand river, and yet the tillable areas are so small that the total product can scarcely influence general markets.

Glenwood Springs is a little town in a glen in the mountains and is so surrounded that the wind can scarcely touch it. The attraction is the great flow of hot salt water, bubbling with sulphureted hydrogen and carbonic

acid gases. The temperature of the water is 127°, and it has to be tempered with cold water from a mountain stream to make it cool enough for bathing. An acre of warm water makes a resort for both summer and winter bathing and swimming.

The return on the Denver & Rio Grande gave a variation from the scenery of the going trip, bringing us out to the prairie through the Grand Canon of the Arkansas, which no description can ever describe. A roaring river between perpendicular walls of rock half a mile high and so close together that, for a portion of the distance, the railroad has to be hung to trusses which span the chasm—winding walls of pinkish rocks standing on edge, a channel into portions of which the sun never shines—a way which water has been for ages wearing for itself, and in the bottom roars, louder than the rumble of the train, its dissatisfaction with the result—a masterpiece of nature's workmanship, beside which the most stupendous undertakings of man are little—such and more is the impressive grandeur of the Grand Canon of the Arkansas.

Even before the river leaves the canon it is tapped by irrigation ditches, and just beyond the line between mountain and prairie these ditches are numerous and large. The result of the application of the water to the land is strikingly apparent, and the contrast of vegetation here with that in the small valleys among the mountains is entirely in favor of the prairie—the prairie which, without violent variation, extends down the river at least three hundred miles. The diligence with which the farmers at the base of the mountains are appropriating the water of the river fully explains why those further down, even in Colorado, find their ditches empty and the river but a bed of moist sand. It is folly for people in Kansas to expect a reliable supply of water from this stream, and the sooner they reconstruct their plans and depend on raising water from the underflow the sooner may they expect prosperity.

A good deal has been written about the extent of irrigation in Colorado. If every foot of arable land in Colorado, west of the base of the mountains, were irrigated, the proportion would be less than can be watered in eastern Colorado and western Kansas. Further east in Kansas the proportion of irrigable land increases rapidly. Under much of this the water is found near the surface, so that the expense of raising need not be great.

The mountains of Colorado are rich in minerals, of which the vast stores of available gold and silver may, in the not distant future, prove to be less important than the coal and iron and other metals of utility. That these mountains will eventually become a hive of busy industry similar to what is seen in the mountains of Pennsylvania, and requiring the productivity of the plains—irrigated—for food supplies is not too much to expect. The agriculture of Colorado is more nearly its full development than that of Kansas. The industries of the mountain district, however, have but begun.

The precipitous rise of the Rocky mountains from the prairies is well-nigh a wall against further extension of agriculture in a broad way. The plains this side must for a long way be used, for the most part, forever, as a range for grazing animals, of which but few can be assigned to many acres. Facilities—water—for irrigation will be obtained in increasing quantities eastward, but the development is slow. Lands are being made available for agriculture much less rapidly than the population of the country at large is increasing. Indeed, along the borderland between the humid and the arid countries less land is now cultivated than a decade ago, and the end of the century is not likely to see in cultivation as many acres of this to-be-irrigated region as were under the plow in 1890. So, also, the present course of events, while irrigation is slowly and surely extending, indicates the probability that the 1900 production of the region extending 300 miles east from the mountains and 1,000 miles long

from north to south will be less than that of ten years ago. But the retrograde movement, the almost discouraged attitude of even the irrigation farmers of this region, do not change the fact that good land and great and continually replenished supplies of water lie nearer together in this than in almost any other region. The necessities of man for the products of the soil, necessities which increase even while the older farms wear out, necessities which are especially urgent for the staples for which this region is adapted, must cause the utilization of these lands and this water with such intelligence as shall develop their immense capabilities and make this seemingly barren country one rich in productions with a near-by market in the mountains.

## KING CORN IN KANSAS.

The Kansas State Board of Agriculture issued, September 7, the following statement of the condition of corn as returned by its correspondents for August 31, and also their present judgment, before husking has begun, as to the probable yield. The figures given apply to eighty-eight counties, and do not include seventeen of those in the southwest where the total area planted is but 28,299 acres, where the condition August 1 was less than 53, and where the entire product for each of the three years past has averaged less than 200,000 bushels. In the eighty-eight counties the total of the yield of marketable corn as now estimated by the correspondents is 224,845,000 bushels, being 23,387,000 bushels, or 11.6 per cent. more than the total crop of 1895.

The average number of bushels per acre on the area planted in the eighty-eight counties is 28½. A trifle less than 85 per cent. of the yield stated is in forty-eight counties, with 2,000,000 bushels or more in each, their total product being 190,106,958 bushels. The average yield per acre in these counties ranges from nineteen bushels in Osborne to forty-eight in Doniphan, and their total product, leading with Jewell, which has 9,963,480 bushels, is, in Marshall, 8,593,231; Nemaha, 8,379,797; Washington, 8,270,749; Brown, 6,716,782; Sedgwick, 6,674,464; Republic, 5,881,847; Reno, 5,678,448; Clay, 5,520,813; Smith, 5,505,766; Pottawatomie, 5,364,440; Cloud, 5,114,736; Jackson, 4,836,672; Butler, 4,775,550; Sumner, 4,505,124; Greenwood, 4,151,910; Mitchell, 3,975,642; Cowley, 3,949,184; Doniphan, 3,675,696; Jefferson, 3,636,832; Phillips, 3,614,712; McPherson, 3,500,520; Riley, 3,386,097; Atchison, 3,216,681; Osage, 3,176,530; Douglas, 3,091,452; Miami, 3,084,625; Lyon, 3,082,025; Wilson, 2,989,455; Marion, 2,918,474; Dickinson, 2,846,340; Wabaunsee, 2,824,380; Franklin, 2,787,090; Shawnee, 2,628,638; Leavenworth, 2,537,793; Coffey, 2,511,192; Allen, 2,503,994; Osborne, 2,422,329; Neosho, 2,374,290; Harvey, 2,345,436; Johnson, 2,301,915; Elk, 2,154,570; Kingman, 2,146,340; Ottawa, 2,138,136; Linn, 2,088,040; Harper, 2,075,892; Morris, 2,059,624; Cherokee, 2,029,222.

The nineteen counties having an average yield of thirty-five or more bushels per acre are: Atchison 39, Brown 46, Chautauqua 35, Clay 43, Cloud 36, Doniphan 48, Douglas 39, Greenwood 35, Jackson 36, Jewell 40, Johnson 35, Leavenworth 37, Marshall 41, Nemaha 43, Pottawatomie 40, Riley 39, Washington 43, Wilson 35, Wyandotte 41. It should be understood that these figures as to yields represent but preliminary estimates, and that only the figures obtained when most of the husking shall have been done will be applied finally to the acreage returned by assessors.

A decrease in condition during August is noticeable in nearly all the counties, due to extremely drying winds and lack of rain, making the average of the State 79, a loss of eighteen points from the very excellent showing made one month ago, when forty counties reported 100 or above, as against the eleven for this month, which are, Washington 111, Nemaha 110, Doniphan 109, Brown 108, Clay 108, Johnson 108, Pottawatomie 108, Marshall 103, Greenwood 102, Leavenworth 102, Chautauqua, 101.

The quantity of old corn on hand in March, as found by assessors, was



57,627,421 bushels; one year before it was 14,434,250 bushels.

In portions of the State fall plowing is being retarded because of insufficient moisture, while in others it is being pushed, and seeding to wheat and rye will be done early.

#### AT THE FAIRS.

##### OSAGE COUNTY.

The twentieth annual exposition of the Osage County Fair Association was held at Burlingame, Kas., September 1-4, 1896, and compared favorably with recent exhibitions but was deficient in attendance, especially from the country, although the town gave a fair attendance.

The small premiums offered did not attract as extensive displays as was expected, but the improved stock breeders were more public-spirited and made a showing of excellent quality, and those deserving special mention for good quality stock were Waltmire & Son, Fountain, and W. D. Vawter, of Burlingame, who made a very creditable show of Poland-China swine. Chas. Dorr had the only exhibit of Duroc-Jersey swine. The principal display of fine poultry was made by Burlingame poultry yards, Bassett Bros. and E. K. Terry, of Burlingame, and John Sloop, of Lyndon. A show of sheep was made by E. B. Kelley, of Burlingame. John Coffman, of Burlingame, made an exhibit of Percheron and Clydesdale horses, and Peter Sim, of Wakarusa, was out with his herd of fine Short-horns, that are prize-winners wherever shown. He also had a number of Clyde horses that seldom miss a first prize. The FARMER representative received many courtesies from exhibitors and desires to acknowledge his appreciation.

##### JEFFERSON COUNTY.

The thirty-second annual fair of Jefferson county, Kansas, was held at Oskaloosa, last week. It had the biggest attendance for years and was a veritable reunion of the citizens of that county, who made a general picnic of the occasion. The exhibits in general were small but of excellent quality, owing to the very meagre premiums offered. It is quite evident that the ladies of Oskaloosa and Jefferson county are the progressive and public-spirited people of the county, as evidenced by the artistic and extensive display of fine arts and needle-work, which the writer thinks was the finest show of the kind ever made in the State. The chief display was made by the ladies of the M. E. church and the Christian Endeavor Society of the Presbyterian church, who made rival displays that were a credit to any exposition in the land.

There was a good show of poultry, indicating that this county is up to date with the leading varieties.

In the cattle department there were a few Jerseys, Holsteins and Red Polled cattle, also a strong string of Cruickshank Short-horn cattle shown by J. F. True, of Newman, who now has one of the principal herds of this breed in Kansas. D. P. Reardon, of McLouth, made a creditable show of Shropshire sheep and Poland-China swine. Mr. James Mains, of Oskaloosa, the well-known breeder of Poland-Chinas, had the leading exhibit of swine. The other departments of the fair hardly did justice to Jefferson county; but as the association is now in better shape, it is hoped that next year they will redeem themselves by offering more liberal prizes to exhibitors.

#### TO JERSEY CATTLE BREEDERS.

The KANSAS FARMER has been authorized to announce a convention of Jersey cattle breeders, to meet at Concordia, Kas., September 30, 1896, for the purpose of perfecting the organization of a State association. The meeting will be held during the Cloud County fair, when there will be a good exhibition of splendid Jerseys. Let every breeder in Kansas be present in person or by proxy. The assistance and influence of every breeder is desired. Any suggestion or correspondence meantime should be sent to W. S. James, Concordia, Kas.

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

#### Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending September 7, 1896, prepared by T. B. Jennings, Section Director:

##### GENERAL CONDITIONS.

The temperature for the State was very near normal, being about 2° above in the western counties and about 1° below in the eastern. The rainfall for the State is much below the normal. Little or no rain fell in the western division except in the extreme southwest, Morton county receiving the first fair rain for weeks; fair showers occurred in the middle and eastern divisions.

##### RESULTS.

##### EASTERN DIVISION.

Haying and threshing nearly over, with a good crop of excellent hay secured. Corn-cutting, fall plowing and wheat-sowing in progress, with the first sown wheat up in the south, presenting a fine appearance. Corn is being cribbed in the south and new corn is on the market in Chautauqua and is a fine crop. Pastures generally are good. Apples have fallen badly in the south but the crop is abundant north.

Allen county.—Favorable week for the ripening of all crops; corn-cutting in full blast and the fodder excellent; haying about over; clover threshing, yielding well; wheat and rye up and a good stand; turnips and late cabbage good; late potatoes a failure.

Brown.—Farmers preparing ground to sow fall wheat; wild grass making a good yield; pastures are in good condition; the apple crop is very heavy.

Chautauqua.—Fine week for work; new corn on the market, the finest ever grown in this county; light rains have repaired the pastures.

Cherokee.—A fine week; apples dropping badly and will be almost a total loss.

Coffey.—Haying and threshing about finished; fall plowing and wheat-sowing in progress; pastures good and stock doing well.

Douglas.—The little showers keep the corn from drying very fast; late potatoes look well; prairie hay is nearly all up.

Johnson.—Past week has been favorable for late pastures and plowing; light hail on 4th, no damage.

Labette.—Wheat-sowing in full blast, early sown is up nicely; cane and Kaffir corn being harvested, making a fair crop; corn dried up; apples about all off the trees and rotting badly.

Marshall.—Corn most all out of reach of frost; ground in good condition for plowing and seeding; peach crop good; hay crop excellent.

Montgomery.—Good rain in north part of county, lighter south; while the average temperature was above normal, there was less sunshine, which, with two light showers, has made the week more pleasant than for several weeks; corn is being cribbed and Kaffir corn-cutting has commenced; haying still in progress; too dry for seeding as yet, with stock water getting scarce.

Osage.—Corn-cutting in progress, the yield will not be so large as was expected; haying about done, the crop not so large but of good quality; pastures in fair condition; peaches plentiful but mostly of poor quality.

Riley.—Corn-cutting, plowing for wheat and haying keep the farmers busy; pastures continue fine and stock in unusually fine condition.

Shawnee.—Late corn gives a fair prospect; plowing for wheat, haying and corn-cutting the order of the day.

##### MIDDLE DIVISION.

Haying and threshing nearing completion, the hay crop being unusually good and abundant. New corn of fine quality is being marketed in Cloud and Sumner. Corn is generally beyond danger from frost, and is being cribbed in many of the southern counties. Grasshoppers have damaged some alfalfa fields in Republic. Too dry for plowing south.

Barton.—Weather continues dry and everything is almost finished; rain is needed to get the ground in a good condition for sowing.

Butler.—Needling rain; majority of the Kaffir corn looking green and good crop; alfalfa good; late peaches damaged by dry weather.

Barber.—Considerably cooler; fine growing weather but rain is badly needed; while the range is quite dry all stock of kinds doing well and in good condition; feed plentiful.

Cloud.—Early corn ripe, first load marketed on the 2d, it was very fine; late corn safe, a magnificent crop; hay excellent; pastures.

Harper.—Light rain on 4th; too dry for farmers to plow; new corn being harvested; pastures drying up; cool most of the week.

Marion.—A week of nice weather; pastures good and stock doing well; has been a good amount of hay put up; but little preparation for fall seeding on account of dry weather.

Ottawa.—Some cool weather this week; wheat ground in good condition and better worked than usual; peaches and watermelons all gone; pastures falling fast for want of moisture.

Phillips.—Getting dry again; haying nearly finished; sorghum doing fine; plenty of feed of all kinds; sock doing well.

Republic.—Weather much cooler; hay mostly made, an abundant crop; the earliest corn past danger of frost; alfalfa is very good where grasshoppers did not eat it, they destroyed a number of fields.

Saline.—A good week for haying and threshing.

Stafford.—Crops all dried up; ground too dry to work; high winds of 1st and 2d stopped haying.

Sumner.—All crops matured; new corn being marketed; pastures dry south, much better north.

Washington.—Fine week for farmers, some have commenced fall seeding; pastures fine; everything flourishing; haying in progress; corn out of danger of frost, with prospects of best yield ever raised.

##### WESTERN DIVISION.

First part of the week was quite warm, but Saturday morning was cool. Farmers have improved the time in threshing. Haying progresses slowly. Reports are short.

Morton.—A refreshing shower Thursday morning brought some relief and cooler weather.

Thomas.—Another week without rain; nothing new; farmers are all busy threshing.

Trego.—Good weather for harvesting late fodder crops; wheat threshing completed; haying progressing slowly; temperature high; very dry.

#### Gossip About Stock.

A State meeting of Jersey cattle breeders is called to meet at Concordia, Kas., September 30, 1896.

R. L. Gilbert, of Sarcoxie, Kas., offers to exchange or sell cheap a well-bred Red Polled bull, a good breeder and a great bargain for some one.

Kansas swine breeders should not overlook the State meeting, at Wichita, during the State fair, on September 24, 1896. Important matters come up for consideration that are of special interest to every breeder of pure-bred swine.

There will be held a combination sale of tippy Poland-China hogs at Fort Scott, Kas., on November 19, 1896, of select drafts from the herds of B. R. Adamson and G. Hornaday, of Fort Scott, and J. M. Turley, Stotesbury, Mo. It will be a great sale.

The KANSAS FARMER takes pleasure in calling attention to the coming sale of Poland-China swine that will take place on the farm of Ferdinand Friedley, near Verdon, Richardson county, Nebraska. Our live stock field man made the farm a visit last week and among other things reports an excellent lot of nearly 100 head that will go into the sale on Wednesday, October 7, 1896. He says, too, that representatives of the herd won at the late Nebraska State fair and that he has seen no better all-round lot of young boars and gilts, numbers considered, anywhere this year in three States. Consult the advertisement and send for a copy of free catalogue.

There was held a combination sale of Berkshire swine at the Springfield, Mo., fair grounds, last Friday, September 4—a small draft from the herds of J. S. Magers, Arcadia, Kas., C. G. Noblett, Glidewell, Mo., and Ellis Duncan, Fayetteville, Ark. The offering was a novelty for this section, and being held during the races, it was certainly a missionary experiment, in view of the fact that most of the pigs sold were not in prime condition for the sale ring, and in view of these difficulties the sale may be considered a success and will open a large field for future business. Col. S. A. Sawyer, of Manhattan, made many friends by

his skillful manner of handling the sale. The following is a list of the buyers: Henry Aplers, Glidewell, Mo.; P. C. Roberts, Bolivia; S. U. McLaughlin, Springfield; T. H. Pugh, Maple Grove; W. R. Robertson, Springfield; Jas. C. Baxter, Judge Appleby, J. W. Robinson, Howser & Halderman, P. E. Wilkinson, J. H. McNeese and Will Lyman, all of Springfield; D. R. Thomas, Monett, Mo.; J. T. Carter, Plano, and T. H. B. Bell, of Maple Grove, Mo. Twenty-five pigs sold at an average of \$15.65.

Notwithstanding the prevailing low prices of fat hogs, the result of the sales held so far this fall indicate that confidence in well-bred Poland-Chinas keeps up right along with the prices of last year's sales. Experience with the best of improved blood, even when crossed with just the ordinary bred hog, always pays the best. The reader will find if he consults the sale catalogue of W. H. Wren that he will offer at St. Joseph, Mo., Thursday, September 17, a draft of bred sows and youngsters belonging to the best of Poland-China breeding.

The KANSAS FARMER takes pleasure in calling the attention of its readers interested in high-class pedigreed Poland-China swine to the advertisement of Mr. D. A. Kramer, of Washington, Kas., which appears in this issue. Our live stock field man reports a late visit at Mr. Kramer's farm, four miles north of Washington, the county seat of Washington county, and says that the visitor finds a strong, well grown out herd belonging to the best Poland-China families. There are a tippy lot of twenty-five boars ready to go out that are sure to please the most fastidious of Poland breeders. A more extended notice of the herd will appear in next week's issue.

#### FALL FESTIVITIES AT ST. LOUIS,

September 9 to October 24, 1896.

#### A Grand Continuous Reign of Mirth, Melody and Mystery.

The committee having in charge the St. Louis Fall Festivities, which have contributed so much to the pleasures of the good people of the Mississippi valley, as well as those residing in adjacent States, again announces its program covering the nineteenth annual season of mirth, melody and mystery. After a voluminous correspondence, carried on with the aid of Uncle Sam's postal service and mysterious messengers from foreign lands, it was decided that all the novelties of the world, including the queens of song, kings of humor, princes of melody and wiseacres of mystery, could by land, water and aerial flight, reach St. Louis September 9, 1896, and take their places on her carnival stage, where no curtain will drop between the twilights of September 9 and October 24.

The first attraction announced on the program of gilt is the opening of the thirteenth annual St. Louis exposition, which throws its doors open to the public September 9, and for forty days and nights, until October 24, will be the home for all wishing to be delighted with its magnificent displays and enraptured by the strains of Gilmore's and Innes' peerless bands.

The master of ceremonies next announces our newly-discovered but highly esteemed friend, King Hotu, supreme high chief of the Funny Fellows. The jolly king with his band of humorous chaps will entertain the young and old on Saturday afternoon, October 3, by a mirth-provoking parade through the decorated thoroughfares of the city. Act No. 3 on the program of gold will be delineated by the St. Louis Fair Association through its Thirty-sixth Annual Exhibition. The stage for this event will be set on the morning of Monday, October 5, and will not be disturbed until Saturday, October 10, when the curtain drops on a pleasing feature of St. Louis' Carnival. A blaze of light athwart the darkened eastern skies, strange creatures of inconceivable forms darting to and fro in the heavens and weird sounds on discordant tom-toms wafted on the breezes from the seas announce on the evening of Tuesday, October 6, the approach of a mysterious cavalcade of beings from another sphere. As this mighty army settles on the streets of St. Louis for a triumphant march through its avenues of wealth and beauty, his august highness, the Mightiest of the Mighty, the astute Veiled Prophet, is seen in its van, robed in purple and gold and carrying a wand charged with the powers of magic. In order that the season of carnival be highly successful, his highness, the Veiled Prophet, King Hotu and couriers from the Fair Association and St. Louis Exposition have issued an edict ordering the Missouri Pacific Railway and Iron Mountain Route to sell tickets to St. Louis and return at greatly reduced rates from all points on their lines. Complying in full with the edict of such notables, the management of these lines will place the above mentioned rates in effect. For full particulars and copy of program giving attractions in detail, call on local agent, or address H. C. Townsend, General Passenger and Ticket Agent, St. Louis, Mo.



## Horticulture.

### HOW THE FRUIT MIGHT HAVE BEEN BETTERED.

There is scarcely a time of year when the orchardist is more anxious to learn a remedy or a preventive for the ills which lessen his harvest than at the time of gathering. For this reason, and also to have KANSAS FARMER readers prepared against the time of trouble in advance of its coming, we present here and now an excellent paper, read some time ago by Prof. Popenoe, before the Brown County Farmers' Institute:

"It is a statement worth repetition that at the present state of our knowledge in the rise of insecticides and fungicides, the spraying machine is the implement next in importance to the cultivator, in the hands of every planter of orchard, vineyard or garden. For of what avail are careful planting and high culture if the entire crop be subject to destruction by insects or by vegetable parasites?"

"That many well-informed planters are still without this important implement is a mark of unwise conservatism; but even these must fall into line when their products seek a market, at a disadvantage, alongside of the more abundant and more perfect fruit of their progressive neighbors.

"We are now more seriously threatened by losses from insects and plant diseases than ever before, as few will deny. At the same time we have acquired, though but recently, the knowledge of practical means for the more or less effectual and easy suppression or limitation of these scourges in both classes. It is of these scourges that I propose to speak here.

"Our concern is largely to prevent attack, or at least to prevent further injury by the destruction of the pest itself, with corresponding immunity to the plant. Two groups of materials are most available, called from their use fungicides and insecticides. As the greater number of these must be applied in water, as a spray, over the plants under treatment, a brief preliminary notice of suitable forms of spraying apparatus is in order.

"Forms of these are furnished by dealers in great variety, but all are reducible essentially to the combination of these parts: The receptacle for the liquid; the force pump; the connections and the spray nozzle.

"The form and character of the receptacle for the liquid will vary with circumstances and the special demands. A barrel is the most popular, for evident reasons. Where large plantations are to be treated, however, it is economy in the end to prepare a tank of sufficient size to load an ordinary two-horse wagon, and holding several barrels. In the selection of the force pump, also, considerable latitude is given. The chief requirement is a strong and steady stream through the nozzle at the least expenditure of power, and any compact, cheap and well-made force pump may be used that will throw water as desired. To avoid the necessity for a separate stirring arrangement, demanded where some mixtures are used to keep the liquid in proper proportion, I prefer a common force pump with two deliveries, one of which is made to enter the receptacle, where the force of the jet keeps the water well stirred. With most of the mixtures or solutions used as fungicides this stirring is not necessary; and in such a case the two vents may each supply a hose and spraying nozzle, allowing two rows of trees to receive the spray at the same time.

"The indispensable part of the connection is the hose or tube leading the liquid from the pump to the nozzle. Some use the hose alone, with proper couplings, securing facility of extension and direction of the nozzle by a rod alongside which the hose is tied. For this purpose nothing is superior to a stout cane fish pole of proper length. I prefer to this arrangement a connection of hose, at the pump, of suitable length, extended above by a tube of the required diameter, at the end of which the nozzle is placed. The tube may be of brass or of light iron gas

pipe, or a similar arrangement may be secured by passing the hose through a bored bamboo or cane of proper strength. The best arrangement for orchard use is a light but strong metal tube of six or eight feet in length, connected with the stop-cock at one end and with the nozzle at the other. For vineyard or garden use the tube may be shorter, with equal efficiency and greater convenience.

"The nozzle, to be of greatest service, must throw the liquid in a perfect spray, evenly distributed throughout the jet. I have tried many forms, both against insects and plant diseases, but all in all have found none equal to the 'Vermorel,' especially as improved by extending the 'needle' by a rod to a thumb lever handy to the hand of the operator. While I have used everywhere with the same satisfaction the Vermorel as a spraying nozzle, its rate of delivery is so strong that when pressed for time, as in the spraying of a large orchard, I should use preferably some substitute of more rapid delivery, as, for example, the Nixon No. 3, though the work would be much less well done.

"For use in vineyard and garden to the extent usually required I know of no more desirable combination than a knapsack sprayer of some of the best patterns. Numerous makes of this implement are on the market, all of the same general style, but varying in efficiency and especially in workmanship and mechanical detail. One of the best I know at present is the Douglas Perfection, Middletown, Conn. Another excellent form is the original Galloway knapsack sprayer, manufactured in Washington city. A third that is well recommended is made by the Field Force Pump Co., Lockport, N. Y. I have not tried this.

"In the treatment of plant diseases certain fungicides are so generally employed that I shall give the formula here and refer to them below by name only:

"Simple Solution of Copper Sulphate of Blue Vitriol.—Made by dissolving one pound copper sulphate in twenty-five gallons of water.

"Bordeaux Mixture.—A mixture of a solution of copper sulphate and slacked lime. Made by dissolving six pounds copper sulphate in water and adding a strained thin whitewash made of four pounds lime. The entire mixture to be brought to the amount of twenty-two gallons. All to be thoroughly stirred.

"When only a few acres are to be treated the chemicals might be obtained ready mixed, put up in air-tight cans. A five-pound can, sufficient for 100 gallons of the solution, put up in this way, should not cost over 50 cents.

"Eau Celeste.—Dissolve two pounds of copper sulphate in six or eight gallons of water. When thoroughly dissolved add three pints of strong ammonia and dilute to fifty gallons.

"It is not safe to use this on tender foliage.

"Among insecticides the most useful in one field belong to three or four classes, of which the following will serve as types:

"Arsenical poisons.—The best form is Paris green, or copper arsenite, containing, when pure, about 60 per cent. of arsenic. Use this in place of London purple, which is arsenite of lime and a product of certain manufactures, of uncertain proportion, but averaging perhaps 30 to 40 per cent. arsenic. Paris green is preferable because of its more reliable proportions of arsenic, and especially because of its lower solubility. It is practically insoluble in water, and hence is less likely to injure the foliage when used in the spray as an insecticide. The much lower cost of London purple induces many to use it, but as much of the poison is soluble, the result of its use is often a severe scalding of the foliage, equal to or possibly greater than the possible injury by insects.

"In the use of either of these materials several variations are possible. They may be applied dry as powder, sifted over the leaves of the plant under treatment. In this use it is well to mix them with three or four times the bulk of flour, and plaster or other cheap diluent, to secure a more eco-

nomical distribution of the poison. In most cases, however, it will be found more convenient as well as more effective to use the arsenites in a mixture with water, and applied with a spraying machine.

"In this use we commonly prefer a mixture in the proportion of one ounce of the powder to fifteen gallons of water, or in case the work of application is of less importance than the preservation of the foliage from injury by excess of the poison, we use one ounce to the twenty gallons, or two and one-half ounces to the fifty-gallon barrel. In order to secure a more perfect adhesion of the water to the foliage, we find it desirable to stir in a few ounces of flour to the barrel. It is important that the water in the barrel should be free from trash or dirt that would otherwise impede the action of the spraying nozzle, and after the mixture it is essential that the fluid be kept well stirred to secure the equal proportion of the poison in the application.

"Kerosene.—This material is an insecticide of great value, and may be used in the destruction of any insect accessible to the direct contact of the fluid. It acts also in a certain degree as a repellent, though not a permanent one. The best kerosene is probably as cheap in this use as inferior grades. As the raw fluid has a caustic effect upon foliage it is rarely desirable to apply it undiluted, and as the oil will not by itself mix readily with water, it is desirable to employ it in the form of an emulsion. The emulsion is readily made by pumping or churning a mixture in the following proportions: Two quarts oil, one quart sour milk or one quart very strong soapuds. The formation of the emulsion demands the thorough beating of the fluids together for about fifteen minutes, and better success will always follow the use of soft water. The creamy mixture resulting is more or less stable and is used diluted with water in the proportion of 1 to 10, more or less, as special circumstances demand. The dilution should be effected at the time of application.

"Pyrethrum, or Persian Insect Powder, as it is variously called.—The powdered heads of the chrysanthemum-like flowers of pyrethrum. The Californian product is apparently more efficient, probably because we have secured it fresher. This powder is useful in the destruction of most sorts, but especially those of high activity and thin skins, as the house fly and mosquito. It may be applied in a mixture of water one ounce to three gallons, or it may be dusted or blown over the plant from a sifter or powder gun. It kills by reason of a certain volatile principle readily dissipated on exposure to the air. Hence it should always be fresh to be effective, and in mixture freshly prepared and must be kept only in air-tight jars or cans.

"Bisulphide of Carbon.—A strong-smelling, heavy liquid, highly volatile, and the vapor highly inflammable and explosive. This vapor is very destructive to all animal life and soon strangles insects or small animals exposed to it. It is heavier than air and sinks through the soil or in a bin or room where enclosed and free from draughts of air. Its principal efficacy in horticulture is in root lice and similar pests by volatilization of a small quantity of the liquid poured into an opening in the soil near the parts inflicted. It is of greatest value in the destruction of seed weevils of any sort, as grain in a bin. As it is explosive it should never be used near a lamp or fire, and the person applying it should avoid inhaling the vapor on account of its stupefying effect.

"Now, briefly, as to the availability of the several materials.

"The fungicides above named owe their efficiency to the salts of copper, which, even in small quantities, are destructive to tender plant life. As by far the greater number of the destructive beings gain a way into the plant from spores or growths on the outside, the external application of a fungicide solution is both protective and remedial. The black rot of the grape and apple scab are cases in point. Both come from spores which, wafted through

the air, reach a place favorable to their growth, on twig or leaf or fruit, and in the presence of a minute drop of moisture germinate, sending the destructive mycelium or fungus growth into the healthy tissue below. If in this juncture the moisture contains a minute portion of the poisonous solution, the germination is prevented and the spore destroyed. These parasites fruit on the surface and their spores maturing there may increase the trouble on neighboring spaces, or blown by the wind, may carry the disease to new localities. The application of the material at this time not only destroys the spores forming on the surface of the diseased part, but kills all the external portions of the fungus, materially checking its development. But it is best to look specially toward prevention, as it is impossible to cure a fruit once diseased, in a practical sense.

"A vine once sprayed with these solutions retains for some days a thin coating of the soluble salt unless washed clean by rain. The repetition fortnightly is sufficient under ordinary circumstances to protect the vine from the black rot, which is the most serious of our vine pests. For this purpose we find the Bordeaux mixture quite efficient.

"A similar method vigorously pursued will lessen the injury caused by the apple scab, which now threatens the complete reduction of our older orchards. To subdue this the best material is a solution of potassium sulphide, one ounce to the gallon of water, applied several times during June and July.

"Among insecticides, the arsenites are useful in the destruction of all insects that destroy the external parts or tissues of the plants by biting into them. The bugs with the piercing mouth parts are by the nature of the case exempt from the action of these external applications of simple poison, as they cannot be taken in with the food. The only caution, after providing that the application be made not strong enough to injure the plant by its caustic action, is to take care that these deadly stomach poisons be not in the way of entering the food of man or animals. In ordinary cases, however, the danger on this account is very slight, and common sense will suggest the proper conduct with the arsenites.

"Kerosene, properly diluted, does little or no injury to the plant, and kills most insects by contact, whatever the nature of their food. It is, then, a very valuable as well as cheap and safe insecticide. As it is necessary that insect be touched by the spray in every case the chief difficulty is found in the application, which must be perfect.

"Insect powder is of less value in the garden than in the house, but even in horticulture entomology it has a definite value. It is one of the most available insecticides in the control of the cabbage worm, for example, as while destructive to the insect it is non-poisonous to the human consumer of the cabbage. The volatility of the destructive essence is so great, however, that the use of pyrethrum in the garden is limited.

"Carbon bisulphide and similar poisonous vapors find their special value in cases inaccessible to treatment by the more common materials. As this vapor is practically harmless to plants, and as it is not permanent it may be used anywhere.

"The foregoing paragraphs are given as suggestive only of the means within our easy application. A preliminary knowledge of the habits of destructive insects and of the character and time of appearance of parasitic fungi is important.

"The judicious application of a few simple remedies as hinted at above will do much to bring us out of the slough of despond in which we have all found ourselves, so far as profitable fruit culture is concerned. The thrifty gardener may do much for his own protection unaided, but neighborhood co-operation is the only way out of this matter."

Baldness is often preceded or accompanied by grayness of the hair. To prevent both baldness and grayness use Hall's Hair Renewer, an honest remedy.



## In the Dairy.

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

### Some Facts About Rennet.

Rennet is a ferment found in a calf's stomach. It has the power of curdling and digesting milk.

Who discovered rennet is not known, but we have a record three thousand years old that Jesse, the father of David, sent ten small cheeses to his sons in the Hebrew army, and we think it probable that he used this peculiar ferment of the calf's stomach to make the cheese referred to.

Rennet has been found in other places beside the common source, in the stomach of lambs, pigs and fishes, and even in vegetable life.

The dried membrane, called the rennet, is really only one of four chambers of the bovine animal. At the birth of the calf it is larger than the other chambers, but as the calf begins to get other food than milk these grow proportionately larger.

The rennet principle or ferment is secreted in the walls of the stomach and it has the greatest amount when the animal is about a week old and has just had fresh milk.

Some fifteen years ago in this country the cheese-makers usually bought the dried stomachs (rennets) and prepared their rennet extract each day by soaking in brine or whey, but the rennet extract of commerce has taken the place of the daily home-made extract.

As we see the large quantities of rennet annually used in our cheese districts and remember that each barrel represents several hundred rennets, we wonder where they all come from. It means the slaughter of a great number of calves at about a week old.

In this country no good rennets are saved. Our farmers usually raise their calves till they are too old. At our slaughter houses the calves are starved for some hours before slaughtering and consequently the rennets are not good.

The best rennets are called Bavarian, because they come largely from Bavaria. The supply is not, however, restricted to Bavaria. In Europe the farmer kills the calves at the right age and just after feeding. The stomach is hung up in a smoke-house to cure. There is a middle man who goes from farm to farm buying hides, tallow, etc., and rennets. He, in turn, sells these things to the wholesale houses, where the rennets are sorted. Any not of uniform size or that are mutilated are classed as seconds, while the uniform ones are termed firsts.

The sorted rennets are bought up by the houses that make the rennet extract. Some houses buy the seconds to make cheaper but inferior extract.

Rennet extract is a solution of the ferment in water, with salt added to preserve it.

Several hundred or thousand stomachs are put to soak in a large vat of water or rather brine. The rennets being sorted are very uniform in strength, at least average uniform where so many are used, and consequently the extract is of uniform strength where a certain number are soaked in a stated quantity of water.

The extract is made a little stronger than it is sold and is then diluted to a commercial strength.

Before soaking, the rennets are cut open so that the water can easily get into them.

Rennets that are old or that have been kept in cold storage make deeper colored extract. I am told by a prominent manufacturer that the color of extract is not an indication of its strength.

Extract should be kept in a cool and preferably dark place to prevent decomposition.

It should also be kept tightly corked. Do not let rennet freeze, as that will also spoil it.—John W. Decker, in *Hoard's Dairyman*.

An exchange says to keep butter hard and neat, without ice, take a tight box, ten or twelve inches high, twelve to fourteen inches wide, and eighteen to twenty inches long, that can be got at any grocery store; put a loose shelf five inches from the bottom, on which to place the butter. Set a

dish containing water in the bottom of the box and place the butter on the shelf. Take a piece of cloth large enough to well cover the butter and drop over the edge of the shelf into the dish of water. Moisten the cloth, spread it over the butter and let the end drop into the dish of water, and it will take up the water so as to keep the butter cool and hard and free from salt crystals and in fine shape for table use. Toweling crash is the best cloth to use for the purpose. The box should have a cover.

### Butter Made From Human Bones.

The Chester Farmers' Club has brought to light a most horrible feature in the manufacture of margarine. The Secretary said that with respect to margarine, which was looked upon as a perfectly legitimate article of food, he wished to mention a fact that came to his knowledge a day or two ago. Two farmers paid a visit to a bone dust works, and on looking round the premises they were shown everything quite openly. The bones were a mixture of human bones and animal bones nicely blended together. ("Oh!" Some gentleman said "Oh!" but he was simply stating a matter of fact; they were foreign human bones, of course, possibly collected from some seat of war. The two farmers saw a great tub of fat, and they said to the person showing them round, "Well, you cannot make anything of that." "Oh yes," was the reply, "it is fat and marrow boiled out of the bones." They added that they sold it to be manufactured into margarine; they got £17 a ton for it, where formerly they got £20, and he (the speaker) supposed prices had gone down on account of competition.

It appears to us that there may be a reasonable doubt as to the human remains, but probably the latter part is accurate, and that the public are eating marrow from the bones of diseased animals when enjoying either what is sold as pure butter and what is acknowledged as margarine for their breakfast.

The Secretary continued that he had sufficient confidence in the common-sense of the British consumer to think that when he had the chance of getting good Cheshire butter at a reasonable price he would not buy margarine made from marrow boiled out of the bones of animals that had possibly died from disease, and human bones. (Applause.) He moved a resolution expressing the hope that the government would place an act on the statute book during the present session.

Mr. Corbett seconded, and the motion was carried unanimously.—*Cable, London*.

### Some Facts About Foods.

An Iowa station bulletin gives some interesting facts about different foods, as brought out by a series of experiments in feeding the station cows, which include Holsteins, Jerseys and Short-horns. They are mainly in accord with results obtained by similar experiments at other stations, but one, at least, where beets caused Jerseys to lay on fat, is exceptional.

It was found that turnips injure the flavor of both milk and butter. This injury is due to volatile acids which can be driven off by heating the milk to 160° for a short time.

Beets increased the milk and butter product and caused all the cows, even Jerseys, to lay on fat quite rapidly. When the roots were discontinued butter fat decreased and the cows ceased to gain weight, and it took more pounds of feed (calculated to dry matter) to produce a pound of butter.

When turned on pasture there was immediate increase of milk, butter and live weight. Feeding bran during part of the grazing period produced sufficient gain to yield a small profit.

Several correspondents have recently requested that we give the tariffs on butter and cheese, which is here presented for reference: The Wilson tariff on butter is 4 cents per pound; McKinley rate, 6 cents. The Wilson duty on cheese is 4 cents; the McKinley rate, 6 cents.

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

### Meriden Creamery Notes.

Butter is shipped to the Eastern markets in car lots.

Osawkie station has sixty-two patrons; Valley Falls, 81; McLouth, 148; and Meriden, 175.

Every station greatly increased in the quantity of milk received in July over the supply of June.

The management to-day (August 15), pays out \$6,164.12 to the farmers for the supply of milk in July.

The total amount of milk received in June was 1,059,264 pounds, from 466 patrons. Meriden furnished 566,642 pounds; Valley Falls, 147,597; Osawkie, 130,879; McLouth, 224,145.

### Where Goes the Cheap Butter?

In spite of the creamery, the fine home dairy, improved methods all along the line, due to the gospel of the papers, the dairy school and the farmers' institute, there is yet a vast deal of poor butter made in the United States, and the questions are often asked, where does it go and what use is made of it? A study of our exports of butter will answer the question. The butter we send abroad averages 10 cents to 12 cents a pound; in other words, it is not butter but grease, and sold out of the country at probably 3 cents to 5 cents a pound less than it costs to produce it. This is not only a frightful waste, but it is an advertisement to Europe of our butter that makes it slow indeed to look to us for butter for table use. If nothing but good butter were made in this country we would have butter to export at a profit instead of grease at a loss, and therefore fear not to make all the butter good.

### "Among the Ozarks."

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

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

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

### Carnahan's Tree Wash and Insect Destroyer

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

**CIDER MACHINERY**  
Hydraulic, Knuckle Joint and Screw Presses, Graters, Elevators, Pumps, etc. Send for Catalogue.  
**BOOMER & BOSCHERT PRESS CO.,**  
399 W. Water St., Syracuse, N. Y.

## FARMERS

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

## KANSAS G. A. R. REUNION

—AND—

## Topeka's Autumnal Festivities!

FOR THE UNION VETERANS OF 1861-5,

Sept. 28-Oct. 3, 1896.

### A WEEK OF

Pageantry, Floats, Carnival Pranks, Civic, Military and Flower Parades, Campfires, Sham Battles, Band Contests, Firemen's State Tournament, Etc., Etc., Etc.

**MONDAY, Sept. 28.** Labor Parade and Celebration. Governors' Campfire at Camp Nelson A. Miles.

**TUESDAY, Sept. 29.** Kansas Firemen's Parade and Tournament. Illuminated Bicycle Night Parade and Great Campfires.

**WEDNESDAY, Sept. 30.** Band Contests, Arabian Band Procession, and an "All Round Campfire."

## FLORA'S FESTIVAL AND PARADE OF THE FLOWERS

2 P. M.

**THURSDAY, Oct. 1.** A Day of Great Pomp. Civic and Military Parades in Honor of the Union Veteran Visitors.

## THE DRAGON OF AGES

A Huge Moving Panorama of Illusory Mechanism, Manned by Don Quixote and Sancho Panza and their Train of Witch-Servants, will lead the

### GRAND PARADE ON THURSDAY NIGHT.

**FRIDAY, Oct. 2.** Band Contests, Campfires presided over by Famous American Soldier-Statesmen, Day Spectacular Street Show, ending at night with

## Grand "Midway Parade" and Carnival Masquerade on Kansas Avenue.

**SATURDAY, Oct. 3.** Great Kansas Political Feast, Famous Speakers, Last Campfire, Martial Music. Hon. WM. J. BRYAN has promised to be present on this day.

One Fare for Round Trip on all the Railroads.



## The Nebraska State Fair.

Special correspondence KANSAS FARMER.

The thirtieth annual meeting of the Nebraska State fair was held at Omaha, last week, and as far as the exhibit was concerned it was a success. An almost continual day's rain on Wednesday and Friday reduced the attendance, though on Thursday 65,000 people passed the gates.

The agricultural display was a grand good one and the display of live stock—horses, cattle, sheep, swine and poultry—was of the modern kind. The exhibits came from Illinois, Iowa, Missouri, Kansas, Wisconsin and Nebraska. The strongest division was that of swine, there being over 1,000 head on the grounds. In the Poland-China class Colthar & Leonard, Pawnee City, Neb., won first and sweepstakes on the seventeen-months' boar, Escort, and afterward sold him to Lachner Bros., Maryville, Mo., for \$500. Dawson Bros., Endicott, Neb., won first on the eleven-months' boar, Look Me Over, by Sir Charles Corwin and out of Princess Bertha, and sold him to S. R. Foss, Crete, Neb., for \$300. H. G. Sims, Pawnee City, Neb., won second on boar pig under 6 months and second on sow pig under 6 months. He also made thirteen sales, ranging from \$25 to \$75 each. Key & Parsons, of Verdon, Neb., won second on sow and five of her produce, also on sow and five of her produce under 6 months they won first prize. Ferdinand Friedley, Verdon, Neb., won third money on aged sow. On boar and four of his get under 1 year, Sam McKelvie, Fairfield, Neb., won first and Sayles & Son, Norcatur, Kas., won third. McKelvie also won first on yearling sow, second on sow 6 months and under 12. The above mentioned Nebraska breeders, belonging in southern Nebraska, will interest Kansas breeders later on with public sales, announcements of which will appear in the KANSAS FARMER. W. P. BRUSH.

## Soft Feed.

EDITOR KANSAS FARMER:—To some extent soft feed can be used to good advantage in feeding poultry. This is especially the case in fattening quickly for market, as it is easily digested, and to some extent it can be used to a good advantage in feeding the laying hens in winter, and especially so when it can be fed warm. But during the summer with all but the fattening fowls it is rather a disadvantage than otherwise to feed any considerable amount of warm soft feed.

Fattening fowls should be fed five times a day and be given all that they will eat up clean at each meal, and if what is given them is cooked until soft it is, of course, easier digested and in a better condition to be assimilated. But except for the morning meal as a rule it is not a good plan to give soft feed during the fall and winter. A very good plan of management is to put all of the meat and vegetable scraps into a vessel on the stove and let it cook while the various meals are being prepared, and then in the morning feed warm. If the quantity is not sufficient wheat bran and sweet milk can be added until the desired quantity is secured. But when this plan is followed the other two meals should be of whole grain. N. J. SHEPHERD. Eldon, Mo.

The regular September meeting of Shawnee County Horticultural Society was held last Thursday at the residence of Mr. Coleman, two miles north of Menoken. A goodly number partook of the basket dinner, after which A. H. Buckman read a paper on "Nomenclature." A discussion on "Peaches" was led by J. F. Cecil. "Ornamenting School Grounds" was the subject of an interesting paper by Miss Marple. The discussions were spirited and the interest well maintained.

## Will Harrowing Increase Liability to Blow?

EDITOR KANSAS FARMER:—Will harrowing the ground—for example, once a week from the time it is plowed until sown to wheat—make medium sandy soil more liable to blow? I would like the opinion of farmers who have had experience along this line.

Wichita, Kas. HARRY S. BIRD.

## A WOMAN'S HAPPIEST TIME.

In all a woman's life no happiness is comparable to the sweet and tender anticipation with which she looks forward to the coming of the first little visitor who shall call her "mother."

The time of expectant motherhood is associated with all that is best in woman's life, and with all the finest and fullest development of her nature. Only a heartless or unworthy woman can regard motherhood with indifference or carelessness. Yet it too often happens that the kindest and most loving women pass through this period with anxiety and solicitude and unreasonable suffering, because of delicate health or some unnatural weakness of the special organism.



Many prospective mothers have found a wonderful re-enforcement of their powers by the timely use of Dr. Pierce's Favorite Prescription, which gives special health and elastic endurance to the organs concerned in motherhood, and creates a great fund of constitutional energy and strength for the mother to draw from during her time of trial.

Taken early during the expectant time it makes the coming of baby comparatively easy; absolutely free from danger and almost free from pain.

It imparts that healthy tone to the nerve centers which makes a mother cheerful and capable, and fortifies her against any after period of depression or prostration.

Its beneficent influence upon the mother affects the offspring both directly and indirectly. It promotes an abundant secretion of healthy nourishment for the baby, and promotes its natural constitutional vigor and hardihood. It is a blessing both to mother and child.

No other medicine of the kind has ever accomplished so much for weak and suffering women. It is the only medicine for women devised by a regular graduated physician—a skilled and eminent specialist in the treatment of feminine difficulties. It was devised for this one special purpose of strengthening the weakness and curing the diseases peculiar to women.

Dr. Pierce has been for nearly thirty years chief consulting physician of the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y. Any woman suffering from any of the delicate complaints pertaining to her sex, may consult him either personally or by letter with the utmost confidence, and will receive free of charge authoritative professional advice and explicit instructions for self-treatment without the necessity of the mortifying and generally useless "examination" and "local treatment" which physicians usually insist upon.

Every woman who wishes to make the most of her womanhood and keep herself in the best physical condition ought to possess a copy of Dr. Pierce's great thousand-page illustrated book, "The People's Common Sense Medical Adviser." Its chapters on woman's physiology will be valuable beyond description to any woman. The book was formerly sold for \$1.50 a copy; but a paper-bound copy will be sent absolutely free to any one sending twenty-one 1-cent stamps to pay the cost of mailing only, to the World's Dispensary Medical Association, Buffalo, N. Y. For a handsome cloth-bound, beautifully-stamped copy, send 10 cents extra (thirty-one stamps in all), to pay the additional expense.

## THE STRAY LIST.

## FOR WEEK ENDING AUGUST 27, 1896.

Montgomery county—J. W. Glass, clerk.

HORSE—Taken up by A. W. Nettle, in Fawn Creek tp., August 1, 1896, one dark brown horse, 5 years old, branded T or Y with o underneath and line between on left hip.

MULE—By same, one bay mare mule, no marks or brands.

Crawford county—John Ecker, clerk.

HEIFER—Taken up by Wm. Cone, of Pittsburg, August 15, 1896, one bluish gray heifer, 2 years old, no marks or brands; valued at \$15.

## FOR WEEK ENDING SEPT. 3, 1896.

Nemaha county—F. M. Hartman, clerk.

HEIFER—Taken up by Henry Steve, in Richmond tp., (P. O. Seneca), August 13, 1896, one red yearling heifer, no marks or brands; valued at \$10.

Chautauqua county—T. L. Hargrove, clerk.

HORSE—Taken up by Z. T. Sears, in Hendricks tp., (P. O. Elgin), July 8, 1896, one dun horse, white stripe in face, 9 years old, weighs about 900 pounds; valued at \$15.

HORSE—By same, one dark bay horse, about 6 years old, weighs about 1,100 pounds, sixteen and a half hands high; valued at \$15.

Dickinson county—G. D. Kieffer, clerk.

MARE—Taken up by J. E. Phillips, in Rinehart tp., June 24, 1896, one bay mare, about 3 years old, white face and white hind feet, weight about 800 pounds; valued at \$15.

Labette county—J. F. Thompson, clerk.

MARE—Taken up by W. W. Lewellen, in Hackberry tp., October 15, 1895, one gray mare, fourteen and a half hands high, brand similar to HD joined together on left shoulder; valued at \$10.

## FOR WEEK ENDING SEPT. 10, 1896.

Cherokee county—T. W. Thomason, clerk.

HORSE—Taken up by C. E. Gray, in Shawnee tp., (P. O. Crestline), one roan horse, fifteen hands high, 8 years old, branded T6 on left hip and left shoulder.

## VETERINARY SURGEON.

DR. U. B. McCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

## LIVE STOCK AUCTIONEERS.

LiveStockAuctioneer, JAS. W. SPARKS, Marshall, Mo.

Sales made everywhere. Refer to the best breeders in the West, for whom I sell. Satisfaction guaranteed. Terms reasonable. Write before claiming dates. Mention KANSAS FARMER.

ELI ZIMMERMAN, Hiawatha, Kansas, Live Stock and General Auctioneer.

Pedigree and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

S. A. SAWYER, FINE STOCK AUCTIONEER—S. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Compile catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

## Notice of Publication.

(No. 18263.)

T O Willis C. Johnston: You are hereby notified that you have been sued in the District court of Shawnee county, Kansas, in the case of Cora May Johnston vs. Willis C. Johnston, and that you must answer the petition before October 7, 1896, or the petition will be taken as true and judgment will be rendered against you granting the plaintiff a divorce from you and for the care, custody and education of Fay Edna Johnston, minor child of yourself and plaintiff.

W. J. REEKS, Attorney for Plaintiff.

Attest: E. M. COCKRELL, Clerk District Court.

## PATENTS.

T. S. BROWN,

Patent Attorney and Solicitor. Fifteen Years' Experience. 335 Sheildley Bldg. KANSAS CITY, MO.

## Pete's Coffee House

AND LUNCH COUNTER.

The popular restaurant. Opposite

Kansas - City - Stock - Yards

P. S. RITTER, Proprietor.

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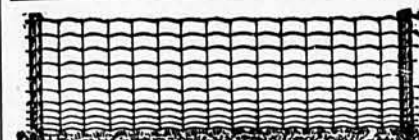
If it does not save its cost on one lot of hogs. Address

Martin &amp; Morrissey

Mfg. Co.,

OMAHA, NEB.

When you write mention Kansas Farmer.



## Under 25 Feet Of Snow.

We lately filled an order for a two mile sample for use in the great Yosemite Park, California. The statement that it would be subject to the above test, and that everything tried thus far had proved a dead failure, did not deter us, for the Page has no fear of "the beautiful." Send for evidence.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich. When you write mention Kansas Farmer.

**INCUBATION**

is the first step in the poultry business and much of future success depends upon its completeness. There is no failure where **RELIABLE INCUBATOR** is used. It is fully warranted and is the product of twelve years of experience. It has never been beaten in a show. It is not like its competitors—it is better. We tell why in new book on poultry. Send for it. **RELIABLE INCUBATOR AND BROODER CO., QUINCY, ILL.**

## Bannerman's Phenyle

Has Been Tested For Hog Lice, Chicken Lice, Horn-fly, Sheep Tick and Maggots and Hog Cholera. Nothing equals Bannerman's Phenyle as a germicide. It is all that is claimed for it. A trial package, 5-pound can, \$1, or 25-pound pail, \$3.50. Once tried you will not be without it. Mention this paper. For full particulars address The Anglo-American Stock Food Co., 113 Adams St., Chicago, Ill.

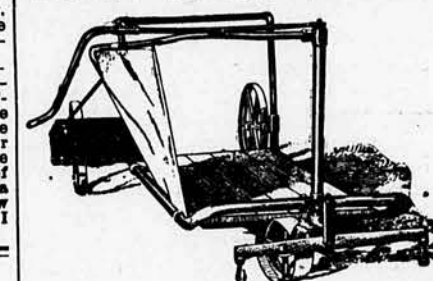
We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them. **CURRIE WINDMILL CO., AGENTS WANTED. Manhattan, Kas.**

**TOUGH ON FLIES**

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

Is the most practical machine now on the market. One man can cut from four to seven acres per day and put it on shock. Light and easy running. Gatherers, cuts and delivers corn in a nearly standing position upon the platform, thus making the act of cutting and shocking corn the least possible work for the operator. We can ship on short notice. Our machine is perfectly safe for man and beast. **PRICE \$20.** Write for illustrated catalogue. Manufactured by the **BLUE VALLEY MFG. CO., Manhattan, Kas.**

## THE BLUE VALLEY IMPROVED CORN HARVESTER!



Is the most practical machine now on the market. One man can cut from four to seven acres per day and put it on shock. Light and easy running. Gatherers, cuts and delivers corn in a nearly standing position upon the platform, thus making the act of cutting and shocking corn the least possible work for the operator. We can ship on short notice. Our machine is perfectly safe for man and beast. **PRICE \$20.** Write for illustrated catalogue. Manufactured by the **BLUE VALLEY MFG. CO., Manhattan, Kas.**

Manufactured by the **BLUE VALLEY MFG. CO., Manhattan, Kas.**

## To Cripple Creek

VIA COLORADO SPRINGS

The Chicago, Rock Island & Pacific Railway is

**4 hours quicker**

To Cripple Creek than any other line.

Full particulars by addressing **JOHN SEBASTIAN, G. P. A., Chicago.**

## CRIPPLE CREEK

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

## GOLD! GOLD!!

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

## SANTA FE ROUTE



## The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. ORR, Manhattan, Kas.

**LAME MARE—PIGS.**—(1) How must I treat my mare? Her legs began to swell below the knees after driving, in May. The cords seem drawn and she walks as if her feet were sore. (2) I have a bunch of shoats that have the hiccoughs when lying down.

J. T.

**Answer.**—(1) If the mare's feet are sore, poultice them once a day for four days with a poultice made of flaxseed meal and hot water. If the tendons are sore put on shoes with raised heels and blister the tendons with cantharidine ointment and turn the mare out to pasture for a few weeks. (2) Turn the pigs out where they will get more exercise and green food.

**MARE—HORSE—COLT.**—(1) I have a mare that had the distemper three months ago. She has a bad cough and wants to rub whenever warmed up. (2) A horse has lumps half way between the eyes and nostrils. One has broken and run but is still hard. (3) A colt has a soft puff on its hook. It looks like a thoroughpin.

J. L. C.

Scott City, Kas.

**Answer.**—(1) Mix together nitrate of potash, 4 ounces; bloodroot, 4 ounces; Jamaica ginger, 4 ounces, and sulphate of iron, 2 ounces. Give a heaping tablespoonful in feed three times a day. (2) The lumps are caused by diseased teeth, which will have to be removed by a veterinarian. (3) If the colt is lame blister the puffs with cantharidine ointment. If not lame let them alone.

### Publishers' Paragraphs.

H. S. Day, of Dwight, Kas., breeder of Chester White swine, has a few spring males and two males ready for service which he will sell at away down prices if taken by October 15. These pigs are well bred, from registered stock, and pedigree furnished with each. If you want to raise pork at a profit at the present prices you can do so by getting one of these pigs to use on common black sows, and you will be more than pleased with the result. This stock has a great record for growing into pork quickly, making from 200 to 225 pounds in six to seven months from farrowing.

**ADAM'S PORTABLE CORN CRIBS.**—One of the most satisfactory and serviceable corn-cribs ever sold in Kansas is the Adam's, which is cheap, practical and convenient, and is easily handled, erected and removed to suit the requirements of the farmer and easily saves its cost each season. These cribs heretofore have been mainly supplied from the factory in Illinois, but now are on sale in any quantity by the W. E. Campe Supply Co., of 606 Broadway, Kansas City, Mo. These cribs have the endorsement of leading farmers in Kansas, and it will pay our readers to investigate them at once.

### Meals on the "Order" Plan

are now served in the dining cars run by the Great Rock Island Route between Kansas City and Chicago. This change has been made to suit the convenience of the traveling public, and with the belief that such an arrangement will better please our patrons.

All meals will be served a la carte, and at reasonable prices.

While the system of serving meals has been changed, the traveler may still rely upon the excellence of cuisine and perfection of service that have earned for the Rock Island the reputation of maintaining the best dining car service in the world.

JOHN SEBASTIAN, G. P. & T. A.,  
Chicago, Ill.

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

Send \$1.35 to KANSAS FARMER office for one year's subscription to KANSAS FARMER and Chicago Weekly Inter-Ocean.

## A Well-Known Stock Food.

Anglo-American Horse and Cattle Food, Hog Food, or Poultry Food, do just what is claimed for them. The best conditioners and blood purifiers ever fed to stock. Our Hog Food is positively a worm-killer. All goods warranted as represented or money refunded. A trial will convince you of their merits. Mention this paper. For full particulars address The Anglo-American Stock Food Co., 113 Adams St., Chicago, Ill.

## Horse Owners! Use



GOMBAULT'S

## Caustic Balsam

A Safe Speedy and Positive Cure

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

### MARKET REPORTS.

#### Kansas City Live Stock.

KANSAS CITY, Sept. 7.—Cattle—Receipts since Saturday, 7,445; calves, 568; shipped Saturday, 1,819 cattle, 40 calves. The market was generally steady. The following are representative sales:

**SHIPPING AND DRESSED BEEF STEERS.**

No.	Ave. Price.	No.	Ave. Price.
43.....	1,361 \$4.25	21.....	1,296 \$4.15

**TEXAS AND INDIAN STEERS.**

No.	Ave. Price.	No.	Ave. Price.
81.....	960 \$2.95	80.....	883 \$2.75
77.....	936 2.70	16.....	881 2.65
26.....	914 2.50	95.....	938 2.35
19.....	821 2.15	2 Ind.....	1,060 2.00

**NATIVE HEIFERS.**

No.	Ave. Price.	No.	Ave. Price.
3.....	1,015 \$3.30	1.....	710 \$3.30
2.....	1,025 3.00	10.....	745 3.00
3.....	700 3.00	3.....	966 2.85
2.....	1,130 2.75	1.....	400 2.50

**NATIVE FEEDERS.**

No.	Ave. Price.	No.	Ave. Price.
18.....	995 \$3.65	2.....	955 \$3.50
1.....	1,070 3.25	1.....	980 3.25
1.....	920 3.15	2.....	920 3.10

**NATIVE COWS.**

No.	Ave. Price.	No.	Ave. Price.
1.....	1,530 \$2.50	1.....	1,420 \$3.00
20.....	902 2.50	1.....	1,037 2.25
1.....	1,055 2.00	2.....	860 1.75
2.....	955 1.50	1.....	980 1.00

**NATIVE STOCKERS.**

No.	Ave. Price.	No.	Ave. Price.
14.....	563 \$3.40	13.....	669 \$3.55
2.....	475 3.35	5.....	672 3.00
2 Jer.....	815 2.75	36 mix.....	650 2.70
2.....	670 2.00	1.....	400 2.50

Hogs—Receipts since Saturday, 2,226; shipped Saturday, 947. The market was steady to strong on lights and steady on heavy grades. The following are representative sales:

**SHIPPING AND DRESSED BEEF STEERS.**

No.	Ave. Price.	No.	Ave. Price.
101.....	155 \$3.20	7.....	183 \$3.15
37.....	209 3.10	77.....	224 3.10
62.....	157 3.07 1/2	38.....	152 3.07 1/2
95.....	171 3.05	70.....	204 3.05
75.....	224 2.05	88.....	216 3.02 1/2
53.....	245 3.00	68.....	233 3.00
32.....	223 2.95	3.....	280 2.95
103.....	255 2.95	39.....	242 2.95
3.....	278 2.82 1/2	83.....	225 2.80
10.....	330 2.75	62.....	147 2.75
12.....	105 2.75	22.....	500 1.50

Sheep—Receipts since Saturday, 8,699; shipped Saturday, 2,387. The market was 10 cents lower. The following are representative sales:

**SHIPPING AND DRESSED BEEF STEERS.**

No.	Ave. Price.	No.	Ave. Price.
1434 Utah.....	100 \$2.55	458 Utah.....	97 \$2.50
25 native.....	129 2.85	25 culls.....	96 1.65

Horses—Receipts since Saturday, 168; shipped Saturday, 78. There was little life in the market this morning, but there is more interest centered in the opening of the regular market to-morrow than there was last week. A better demand is expected and the supply is fair, considering the season.

**Chicago Live Stock.**

CHICAGO, Sept. 7.—Cattle—Receipts, 18,000; market strong for best, others 10 to 15c lower than last Thursday; fair to best beefs, \$3.15@3.15; stockers and feeders, \$2.50@3.75; mixed cows and bulls, \$1.25@3.80; Texas, \$2.50@3.15.

Hogs—Receipts, 35,000; market strong for light, weak for rough packing; and generally steady; light, \$3.15@3.45; rough packing, \$2.45@2.65; mixed and butchers, \$2.85@3.30; heavy packing and shipping, \$2.80@3.20; pigs, \$2.25@3.30.

Sheep—Receipts, 24,000; market 10 to 15c lower; native, \$2.00@3.25; western, \$2.40@3.10; lambs, \$2.50@4.25.

**St. Louis Live Stock.**

ST. LOUIS, Sept. 7.—Cattle—Receipts, 4,500; market steady; natives, \$3.00@4.50; Texans, \$2.50@3.10.

Hogs—Receipts, 2,400; market strong, \$2.50@3.35; bulk of light, \$3.25@3.80.

Sheep—Receipts, 1,500; market weak.

**Kansas City Produce.**

KANSAS CITY, Sept. 7.—Butter—Creamery, extra fancy separator, 14c; firsts, 13c; dairy, fancy, 13c; fair, 10c; store packed, fresh, 9@10c; packing stock, 7c.

Eggs—Strictly candled stock, 10c per doz.

Poultry—Hens, 5c; roosters, 15c each; spring, 6@ per lb.; turkeys, hens, 8c; gobblers, 7c; spring ducks, 7c; old, 5c; spring geese, 6c; pigeons, 75@85c per doz.

Fruits—Peaches, shipped stock, 1/4 bu. boxes, fancy, 50@60c; clings, 40c; inferior, 25@30c; 4-basket crates, 60c; inferior, 50c; 6-basket crates, \$1.00@1.25; inferior stock, 75c; home grown stock, fancy, Alberta, 50c a peck; good to choice, 30@40c; seedlings, 15@20c a peck; 30@35c a half bu. Apples—Fancy yellow are selling at 75c a bu.; ordinary eating sell from 35@50c a bu.; cooking, 20@30c; culls, 15c; Maiden Blush shipped stock, in a small way, fancy packed, \$2.00 a barrel; common to inferior, \$1.25; Rambo, fancy, \$1.50; common, \$1.00 per brl.; other varieties, \$1.00@1.50. Grapes, Concord, choice, 19@20c per peck basket; inferior, 17@18c; fancy Werdens, 20c; white grapes for jelly purposes, 17@20c per peck; Perkins (red), 25@30c per peck.

Potatoes—The market was steady at 20c per bu. in a small way; in round lots, 19@20c; car lots, 17@18c. Sweet potatoes, new stock, 25@30c per bu.

**No Grain Markets.**

KANSAS CITY, Mo., Sept. 7.—No business at all was done at the Exchange building to-day and not a "curb" price on anything leaked through from Chicago. The receipts were 223 cars of wheat, 49 cars of corn, 54 cars of oats, 6 cars of rye, 13 cars of flax and 71 cars of hay.

## BROOMCORN ESTABLISHED 1873

ON CONSIGNMENT OR SOLD DIRECT.

We carry the largest stock of Broom Manufacturers' Supplies in the United States. Correspondence solicited. J. P. GROSS & CO., 239-241 Kinzie St., Chicago, Ill.

## Ship Your Produce Direct TO MARKET.

It is the only way to get the true value of what you have to sell. It is no longer an experiment. Our shippers testify to it every day. We receive and sell: Butter, Eggs, Poultry, Veal, Game, Hay, Grain, Beans, Seeds, Potatoes, Broom Corn, Hides, Wool, Green and Dried Fruit, Vegetables, or anything you may have to ship. We make prompt sales at the Highest Market Price and send quick returns. Write us for Prices, Shipping Tags, or any information you may want.

**SUMMERS, MORRISON & CO., Commission Merchants,**  
174 South Water Street, CHICAGO, ILL.

References: Metropolitan National Bank, Chicago, and this paper.

## The Kansas City Stock Yards

are the most complete and commodious in the West,

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

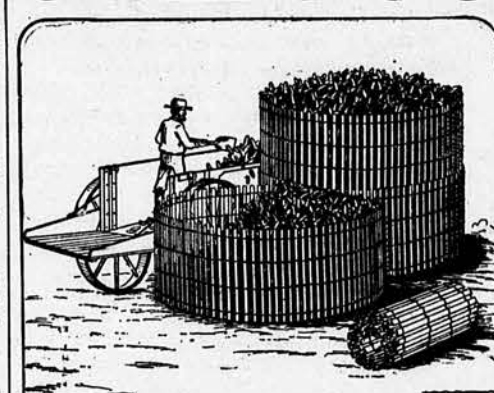
	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895.....	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City.....	922,167	2,170,827	567,015		
Sold to feeders.....	325,233	1,876	111,445		
Sold to shippers.....	442,252	273,999	69,784		
Total Sold in Kansas City, 1895.....	1,533,234	2,446,202	748,244	41,588	

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

**NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.**

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Corn Will Advance After Election.

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600 Bushel Crib.....	\$ 6.00
900 " " " " " " " "	7.00
1,200 " " " " " " " "	8.00
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## \$8,000 in Purses in Speed Department.

Five per cent. payable when nomination is made and 5 per cent. deducted from winner.

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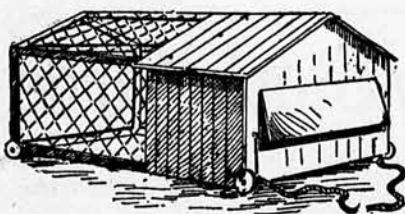


## The Poultry Yard

### HENS IN THE ORCHARD.

How to Put Up a Serviceable Movable Summer Poultry House.

Many farmers and orchardists would like to have hens in the orchard for the good their presence would do the trees, were it not that the fowls must be kept confined because of the damage they would do to the adjacent garden and flower beds. The sketch shows a way to keep one or more flocks of hens in an orchard. A light, low house, made of



MOVABLE SUMMER POULTRY HOUSE.

half-inch matched stuff, has a wire run attached to the end, as shown in the illustration. The house has no floor. The eggs are gathered by opening the hinged board in the end. Low trucks are attached to the corners so that the whole can be moved occasionally to a new location. It can thus be moved up and down beside the rows of trees, stopping for a day or two under each tree, scratching, fertilizing the ground and destroying insects. The fowls all do well under such conditions, and their presence will be of great value to the orchard. The lower sill of the sides of the house should continue out, and form the base of the sides of the run.—Orange Judd Farmer.

### POULTRY-HOUSE FLOOR.

Natural Earth Is the Best, for a Number of Reasons.

There is considerable difference of opinion concerning the matter of floor for a poultry house. Some contend that the floor should be of wood, and others that the best floor is the natural earth. I am a firm believer in the earthen floor, when it is properly made. The land on which the poultry house stands should be thoroughly drained if it is at all liable to become water-soaked, no matter what kind of a floor is used; and where there is no danger from water-soaking the earthen floor has many advantages over one of wood. The top soil should be taken out and clay or sand filled in until the surface is six inches above the surrounding level, and this should be firmly packed by beating it down with a heavy weight.

Such a floor is better for the fowls because more natural for them. When it becomes foul it can be easily renewed by taking off the top of it and putting in more clay or sand. Lice cannot find a refuge in an earthen floor, as the dust is fatal to them; while, if the floor is of wood, the cracks make an excellent hiding place for them.

If the cost were the same I would choose a well-made earthen floor to any other that I have ever seen. The houses in one of the most extensive poultry establishments in the west are all of them made of solid clay. Disease is hardly known about that place, and the foul odors that are so often present where wooden floors are used are entirely absent, because the earth acts as a deodorizer and disinfectant.—Farm and Fireside.

### ABOUT CAPONIZING.

The Operation Completely Changes the Nature of the Cockerel.

After caponizing a cockerel its nature becomes entirely changed. They take on a more rapid growth, are more tame, awkward in carriage and always exceedingly lazy; take on a very heavy and beautiful plumage, the comb and wattles cease to grow, the spurs do not develop as in cockerels. The erstwhile fighting cockerel becomes as docile as a chick. Instead of chasing about the yard he keeps his own company and spends each day in quiet living. Without the drawback of physical exertion the flesh rapidly increases, the bones add weight to weight, and where under the old way a farmer would kill an ordinary-looking cockerel of but little weight he now dresses for market a bird rivaling the turkey in size and

weight, whose flesh in flavor is superior to that of the spring broiler and as tender and juicy. Caponizing solves the problem of disposing of a large number of cockerels whose diminutive sizes are small inducements to the dealer. Caponize the chicks and you have at once laid the foundation for a handsome profit in a short time to come.

The bird to be operated on should be from two to three months old (not over six months) and weigh not less than a pound to a pound and a half. The size is equally important as the age. April, May, June, August, September and October are the months generally taken for caponizing, for the reason that spring chickens arrive at proper age and weight during these months; also, because cockerels caponized then arrive at proper age and weight for market during the months of November, December, January, February, March, April and May, at which times there is the greatest demand for them in the cities and highest prices secured.—Pilling's Guide to Caponizing.

### AMONG THE POULTRY.

Boiled eggs which adhere to the shell are fresh.

The dust bath is absolutely necessary for fowls.

If too much sulphur is given it is apt to cause leg weakness.

Keep lime and ground bone where the fowls can help themselves.

Feed the turkeys regularly so that they will come home regularly.

Milk can be given in place of water until the fowls are six weeks old.

If the hens are well cared for while molting they will lay before winter.

Nothing tends more to engender disease in poultry than filth in the coops.

In feeding fowls closely confined, never feed more than is eaten up clean.

The drinking vessels should be cleaned out daily and be filled with pure water.

With poultry, as with other stock, more than one-half of early maturity is in the feeding.

Feeding hard grain to ducks exclusively usually means crippled legs or feet sooner or later.

In keeping eggs for market at this time it is important to keep them in as cool a place as possible.

Late-hatched pullets will nearly always make small hens, as they do not grow after cold weather sets in.

When bantams are hatched too early in the season they are liable to grow too large to make them desirable.

Coarse bones in fowls indicate coarse meat, and a coarse-meated fowl is poor eating.—St. Louis Republic.

Alsike clover is a good crop to grow, especially for the bees and honey. It is one crop that bees benefit.

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

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

FRANK J. CHENEY.  
Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1888.

SEAL.

A. W. GLEASON,  
Notary Public.

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

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**KILLS HEN LICE**

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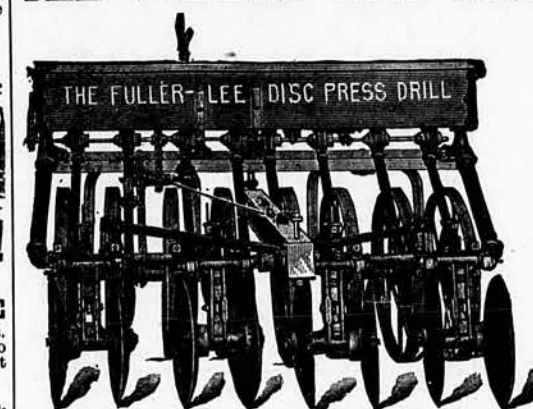


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It is light draft.  
It cultivates the ground.  
It makes an ideal seed-bed.  
It scatters the seed two inches in the rows, giving ample room for stooling.  
It throws up good ridges between the rows, which act as a mulch.  
It presses the earth firmly over the seed.  
It cuts right through the trash and deposits the seed under it.  
Trash gives no trouble.  
Corn ground and oat stubble need not be plowed.  
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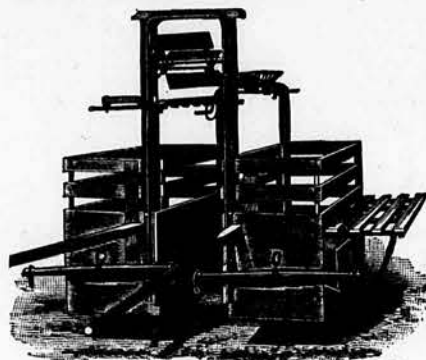
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boil, roots and plants taken up together, preventing stunting or injury. Vegetables, flowers, strawberries, tobacco, small nursery trees, etc., can be moved at all seasons. Invaluable for filling vacancies. Transplanter with blade 2 inches in diameter, \$1.25; same with 3-inch blade, \$1.50. SPECIAL PRICE with KANSAS FARMER: By a special arrangement with the manufacturers we are able to offer the Transplanter and KANSAS FARMER one year for price of Transplanter alone. Send \$1.25 and we will mail KANSAS FARMER to you and send you the Transplanter by express. Or call at FARMER office and get the Transplanter and save 25c. express charges. Address KANSAS FARMER CO., Topeka, Kas.

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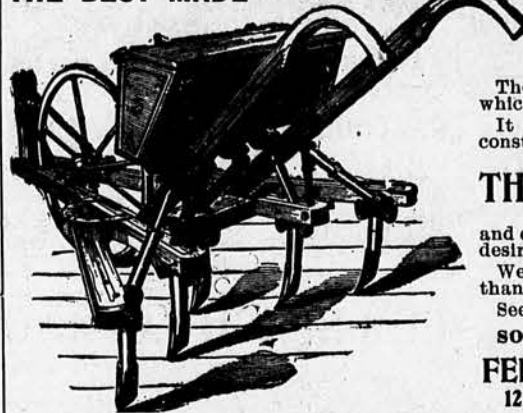
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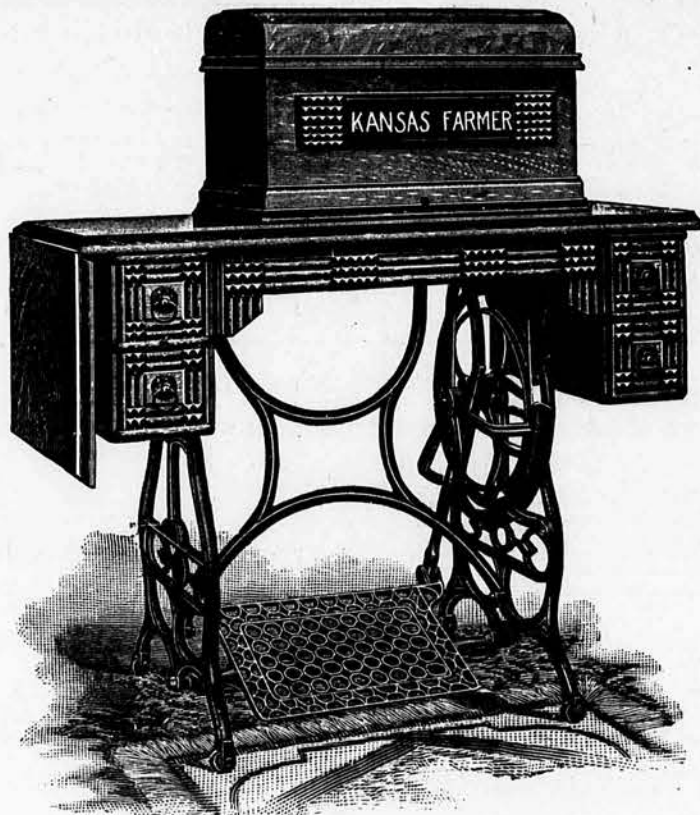
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Falling Sexual Strength in old or young men can be quickly and permanently cured by me to a healthy vigorous state. Sufferers from.....

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AND ALL WASTING DISEASES should write to me for advice. I have been a close student for many years of the subject of weakness in men, the fact is, I was a sufferer myself. Too bashful to seek the aid of older men or reputable physicians I investigated the subject deeply and discovered a simple but most remarkably successful remedy that completely cured me. I want every young or old man to know about it. I take a personal interest in such cases and no one need hesitate to write me as all communications are held strictly confidential. I send the recipe of this remedy absolutely free of cost. Do not put it off but write me fully at once, you will always bless the day you did so. Address

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(Continued from page 1.)

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One hundred head in herd, twenty brood sows, direct descendants of Black U. S. Ideal Black U. S., J. H. Sanders and Lord Corwin 4th. Our spring pigs, sired by Breckenridge, Upright Wilkes, Seldom, Fare, large, growthy and fine finish. We have a few fall boars that we will sell cheap, also a few fall gilts that are bred. Correspondence or inspection solicited. Stock as represented or money refunded.  
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We Have the Best. Nothing Else.  
J. H. Sanders Jr. 14953 S. 35089 O. heads our herd. Three of his get sold for \$865; entire set at sale averaged over \$200; get during his term of service exclusive of public sale brought over \$2,700. Thirty-eight pigs getting ready to go out. Among our 14 brood sows are Black Queen U. S. Corwin 30801 S., Silver Bar U. S. 30884 S., Black Queen Hadley 1st 36574 S., Annie Black Stop 36831 S. and Ruby Rustler 4th 36355 S. Write, or better, visit the herd.  
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175 head, 30 brood sows. Herd boars are Black Stop 10550 S.; U. S. Butler 13388 S.; George Free Trade 21053 A., and a grandson of J. H. Sanders 27219 O. Young boars ready for service and bred gilts for sale.  
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The breeding herd consists of the best strains of blood, properly mated to secure individual excellence. Stock for sale. Visitors welcome. Correspondence invited.

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130 head, all ages. 100 spring pigs, sired by Young Competition 15052 S., Kansas Chip 15083 S. and a grandson of J. H. Sanders. Write or come.  
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Herd headed by Upright Wilkes 13246 S. and J. H. Sanders Jr. 13739 S. 25 brood sows, 100 spring pigs; 10 young boars, 6 Sanders and 4 Wilkes, ready for service. Orders for youngsters being booked. Write or come.

**GET READY FOR THE FAIRS.**  
Send for description of the famous **O. I. C. hog.**  
2 weighed 2806 lbs. Sold 1129 first 6 Months this year for breeding purposes.  
First applicant in each locality gets pair on time and agency.  
**L. B. Silver Co., Cleveland, O.**

**WINDMILL OWNERS,** stop the jerking, breaking with a perfect spring. No good, no pay. Agents wanted. **Egis Mfg. Co., Marshalltown, Iowa.**

## J. G. Peppard

1400-2 Union Avenue,  
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**MILLET CANE CLOVERS TIMOTHY GRASS SEEDS.**

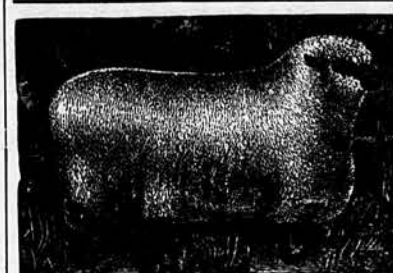
## SEEDS

## R. S. COOK, WICHITA, KAS., Poland-China Swine

•• BREEDER OF ••  
The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28603, World Beater and King Hadley. For sale an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly bred sows. Inspection or correspondence invited.

## ELM BEACH FARM POLAND-CHINA SWINE

The home of the great breeding boar, **SIR CHARLES CORWIN 33095**. Our 1896 crop of pigs are by six different boars and out of fashionably bred sows, including such grand individuals as the prize-winning \$500 Lady Longfellow 34099 (S.), that has eight pigs by the prize boar, **King Hadley**. **STOCK FOR SALE** at all times and at very reasonable prices. We also breed Short-horn cattle. Write or come and see us.  
**IRWIN & DUNCAN, Wichita, Sedgwick Co., Kas.**



## SHROPSHIRE RAMS!

A choice lot of yearling and two-year-old rams, sired by **Rector 94** and **Grand Delight 2d** and other noted rams, and a grand lot of imported and American-bred ewes. Prices in keeping with the hard times and the quality.

**KIRKPATRICK & SON,**  
Connors, Wyandotte Co., Kas.

## POULTRY.

**VALLEY FALLS POULTRY YARDS**—The most extensive and best equipped yards in the State. Thirty-five varieties of chickens. Breeding pens scoring from 90 to 96. Eggs \$1.50 from pen No. 1 and \$1 from pen No. 2. All kinds of Cockerels, Brahmas, Langshans, P. Rocks, Leghorns, Minorcas, Wyandottes, Hamburgs, Javas, Games, Sherwoods, Red-caps and Bantams. **W. B. McCoy, Proprietor, the Kansas Poultryman.**

## Barred Plymouth Rocks.

All the leading strains. Thirty young cockerels and twenty-five pullets for sale. A 93-point bird at head of the hatch. Eggs \$2 per setting of thirteen.  
**S. McCullough, Ottawa, Franklin Co., Kas.**

## 1896 HATCH!

**READY TO SHIP.**  
From now until the last of September we will sell gilt-edge birds from 50 cents to \$1 each. Partridge Cockerels, Silver-spangled Hamburgs, Brown Leghorns, White Leghorns, White Plymouth Rocks, Barred Plymouth Rocks, Buff Plymouth Rocks and Buff Leghorns. Now is the time to lay in good stock cheap.  
**A. H. DUFF, Larned, Kas.**

## POULTRY.

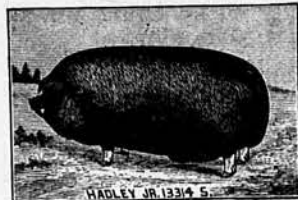


## Round Top Farm

**PRAIRIE STATE INCUBATORS.**  
Plymouth Rocks, Light Brahmas, Langshans, Indian Games, Buff Leghorns, Bantams. Eggs \$2 per fifteen; \$3.50 per thirty. Forty-page catalogue, 10 cents, treats on artificial hatching, diseases, etc.  
**Fred B. Glover, Parkville, Mo.**

**DO YOU DIP OR DO YOU POWDER?**  
Have you heard of the new method of killing all kinds of vermin on poultry by simply painting roosts, etc. with **LEE'S LICE KILLER**. 1000 agents. More wanted. Book free, treating on vermin of all kinds with remedies therefor. **J. GEO. H. LEE CO., Exeter, Neb., or 178 Michigan Street, Chicago, Ill.**  
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**Commercial Collections a Specialty.**  
**H. C. ROOT, Attorney at Law, 104 Sixth Ave. East, Topeka, Kas.** Practices in all State and federal courts.



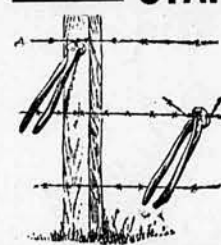
## THE AUCTION SALE OF THE SEASON 75 POLAND-CHINA SWINE.

AT CONNORS, WYANDOTTE CO., KANSAS, TUESDAY, SEPTEMBER 29, 1896.

Twenty young sows—Chief Tecumseh 2d, Black U. S., King Perfection and Hoosier Boy families—bred and safe in pig to the peerless **HADLEY JR. 13314**, whose get has won more prizes and sold for more money than the get of any other boar of the breed at his age. Five March pigs by him. These are for herd-headers and the show ring. Fifty spring pigs by Wilkes Sanders 14222, King Perfection 22087 and Clay Dee 25877. Wilkes Sanders is one of the greatest sons of the old world's winner, J. H. Sanders, and the richest breeding on his dam's side, going through Queen Wilkes to Black Wilkes, to Guy Wilkes, to Geo. Wilkes and to Black U. S. through A. A. on dam's side. **King Perfection** is the first and only boar sold from Kansas at \$1,000. **Clay Dee** won first in class and sweepstakes at Kansas State fair in 1895. Breeders of all breeds invited to this sale. If you want to be in the front in this business, order catalogue, mark it and come to this sale.  
**COL. J. W. SPARKS, Auctioneer.**

**KIRKPATRICK & SON, Connors, Wyandotte Co., Kas.**

## RUSSELL'S STAPLE PULLER



## AND WIRE SPLICER

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

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

When you write mention Kansas Farmer.

## THE COMING PUBLIC SALE OF REGISTERED POLAND-CHINAS

At Fair Grounds, St. Joseph, Mo., Thursday, September 17, 1896.

When will be offered a draft of sixty head from the Cherry Orchard Herd, consisting of yearling boars, thirty bred sows and fall gilts, with about thirty youngsters spring of 1896 farrow. Three yearling boars are good ones. Hadley M. Washington 15544 S., sired by the noted \$555 boar, Hadley Jr. 13314 S., and out of Martha Washington 8th (29803). Sir Charles 16005 S. by Sir Charles Corwin 33095 O. Also a grandson of J. H. Sanders 27219 O. The thirty bred sows are a smooth lot, fashionably bred and worthy a place in any herd, having for sires Wren's Medium 12387 S., Corwin Whiteface 9924 S. and Black Corwin 16136 S. Their dams belong to the Corwin and Tecumseh families. Twenty of them are safe in pig by the yearling boars above mentioned. I have made these selections from my herd of 150 head, and take pride in calling the attention of my fellow breeders to their worth individually and their merits from noted ancestry.

**Terms of Sale:**—All sums under \$20, cash; over \$20, six months time on approved notes bearing 8 per cent. interest; 4 per cent. off for cash. Sale to open at 1 o'clock p. m. Usual sales day lunch at noon. Send for free copy of sale catalogue.

**COL. S. A. SAWYER, Auctioneers.**

**COL. JAS. W. SPARKS.**

**W. H. WREN, Marion, Kansas.**



WILD TOM 51592.

Sweepstakes bull Wild Tom 51592. Weight when thirty-four months old 2,205 pounds in show condition. He is the best living son of Beau Real 11055. Dam Wild Mary 21238. **Winings:**—Iowa State Fair, 1895, first in class, first in special, first in sweepstakes, and Silver Medal; Kansas State Fair, first in class, first and special at head of herd, first bull and four of his get.

**FARM**—Two and a half miles northwest of city. We furnish transportation to and from the farm if notified.

## SUNNY SLOPE FARM

♦♦♦♦♦ EMPORIA, KANSAS, ♦♦♦♦♦

## Hereford Cattle Headquarters

Sunny Slope Farm is one of the largest breeding establishments in the United States. Three sweepstakes bulls in service—Wild Tom 51592, Climax 60942, Archibald VI. 60921, also the great breeding bull, Archibald V. 54433, who was the sire of two sweepstakes animals (Archibald VI., sweepstakes under one year of age, and Miss Wellington 5th, sweepstakes heifer over all beef breeds when twelve months and twenty days old. We have thirteen serviceable bulls for sale, ranging from eight to twenty months old. We also have forty bulls for sale, ranging from five to eight months old. Also a choice lot of heifers and cows. We combine the blood of Anxiety, Lord Wilton and Grove 3d. Breeders are invited to inspect our herd.

**C. S. CROSS,**

**H. L. LEIBFRIED, Manager.**

**EMPORIA, KANSAS.**