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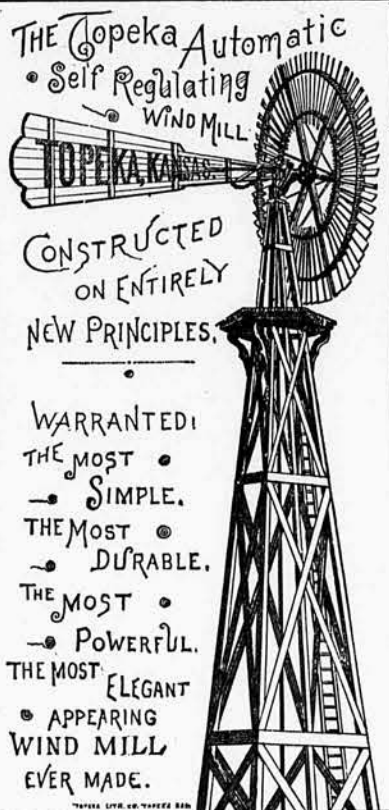
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THE GERMAN MEDICATED STOCK FOOD.

Agricultural Matters.

How to Raise Corn in Kansas.

Below we give the principal portion of a letter written by James A. Hammers, of Harper county (P.O. Athony), to the farmers' convention at Wichita, last week. Mr. Hammers offers two good suggestions, one of which—deep plowing, has been continuously advocated by the KANSAS FARMER, for these many years; but the other—use of varieties of corn which will bloom before or after the hottest weather, is new to most people, and to our minds is worth trying. There seems to be one point of difficulty about this plan, and that is the uncertainty as to the time when the extremely hot weather will be upon us. If that may be ascertained within half a month either way, or indeed, within a month, considering the length of our seasons, this plan could be followed with success, as it appears to our minds. And as to this point we may be aided very much by comparing weather tables of past years with predictions of persons who are pretending to forecast the weather in years to come. Professor Blake, of the KANSAS FARMER weather department, has undertaken to put into figures the temperature, both absolute and relative, for every month in the year, dividing the State into three portions, and halving every one of them; so that if his calculations prove to be reliable, there will be no difficulty in following the suggestion of Mr. Hammers.

In this connection we will say that we expect to prepare an abstract of weather conditions for the region about Lawrence, covering a period of twenty years, so that farmers may be able to apply the theory of Mr. Swann, which is, that seasons are duplicated every twenty years.

Here is Mr. Hammer's letter:

"Just how to prepare the ground and plant corn of the best variety is a stunner to most of us. We venture this assertion, that ground plowed not less than one foot deep early in the fall and planted early to corn of good-sized ninety to one hundred day seed corn, with proper cultivation will reap a bountiful harvest, not less than sixty fold and some a hundred. Forty to sixty acres producing a good and abundant harvest is worth more than twice the amount of acres with but little or no harvest.

"The season has much to do with corn raising; in fact with all crops, but it is especially so with corn raising in this section of Kansas, where we have a season almost long enough to raise two corn crops in one season on the same land. From March 15 to November 15 is sufficient time for two corn crops of eighty to one hundred day varieties. Many seasons we can plant from March 15 to July 1 very successfully, anywhere along the line, but there are some seasons when it won't do so well—we have just passed three of them—but very deep fall plowing will divert much of this disaster.

"One more thought on the season: We who have been here years know that we may always look for abundance of hot sunshine in July and August and must plant corn at the time and variety so that it will bloom one side of this hot sun, as it is the burning or scorching of the pollen that shortens the corn crop more than dry weather.

"Now as to plan and manner of preparing, planting and cultivating corn. Fall plow from twelve to fifteen inches deep as soon as possible after small grain is removed. Cultivate and cross harrow early in March. Plant ninety

to one hundred day variety, or rather drill, one grain in a place, twenty inches apart and near five inches deep the last half of March and in rows about five feet eight inches apart. Don't wait for ground to get foul but proceed to harrow soon and keep at it until the corn is six inches high, going over it about once a week or not less than once in ten days. Then take the cultivator and keep on going over it at above rate, making the first time over the deepest cultivating done, and as the corn grows change the four shovels off for eight small ones about as large as your hand and continue with shallow cultivation just to destroy small weeds and keep the ground loose on top, as ground plowed deep needs no more deep cultivation that season but must be kept clean and loose on top regardless of dry weather; the dryer the oftener it should be cultivated shallow. Deep cultivation of corn often ruins the whole crop, cutting off the braces to the corn and also taking away the source of vitality from the stalks.

"Now, corn of early variety, planted at time as above, will bloom before we get our hot suns of July, and therefore be out of danger of them. The same rule applied to planting the last half of June will doubtless work equally as well, as I have proven by actual experiment this season, and wet seasons you may plant from March to July successfully, and reap a bountiful harvest; but be on the safe side; get some in the last half of March or the very first days of April. Many favor listing, and it has worked well, but to say the least, it looks like a shiftless way unless you first plow the ground.

"The variety of corn to plant depends much on the time it is planted. Commence planting with a variety that will bloom before the hot sun of July, and as the season passes plant still earlier so as to come in before the hot sun, and as it gets later plant a late variety so that it will bloom about September 1, and then keep changing as the season progresses to an earlier variety, up to July 1, or even the 15th.

"Now as to color, I think I have noticed more white corn in this section than of any other color, and it usually is worth more to the miller, but I have no other real grounds for favoring white corn; in fact I favor yellow corn, believing it to be better for stock purposes."

The Cost.

EDITOR KANSAS FARMER:—In all farm operations it pays to calculate as far as possible the probable cost. To spend a dollar to save 10 cents is not good economy, but this is to some extent often due. In attempting to save a very small amount we lose several times the amount saved. A little paint saved may be dollars lost in the wear and tear of the machinery; a little money saved in not providing shelter will add considerably to the cost of wintering the stock; a small amount of feed saved by stinting the stock will often add considerable to the time required to feed and prepare for market by a slower growth. We can often save a little in the purchase of seeds or of machinery by selecting that of a lower quality and at the same time be losing a considerable amount in the growth and yield of the crops. In many ways we can economize at the expense of the stock, the crops or the machinery.

We must invest money in good stock, must breed carefully, must supply plenty of feed and good shelter; good machinery must be purchased to prepare the soil and plant the seed; good seed must be bought and planted in proper season; crops that require it must be cultivated and machinery

bought to harvest at the proper time and in the right manner.

In a majority of cases anything that reduces the cost of labor in doing the work of the farm can nearly always be purchased and used, and in many cases it will be found good economy to invest money in this way, because good profit can be realized. But it is possible to go to extremes. We can pay too high a price for untried varieties in seeds, for machinery that cannot be used sufficiently to return a good profit, or that is not adapted to our line or condition; we can pay too high a price for stock or can spend more work in preparing the soil or cultivating the crop than the crop will warrant, and for this reason it is a good plan to count the cost before investing too largely. Spend money when by so doing a good return can be realized, whether this is for stock, seed, implements or work. The value of the crop or stock when ready for market cannot always be taken as a criterion of the profits; the cost must always be considered and while a false economy often loses the yield, at the same time it is quite an item to reduce the cost as much as possible, as the cost taken from the amount it can be sold for determines the amount of profit.

N. J. SHEPHERD,
Eldon, Miller Co., Mo.

Build Up.

EDITOR KANSAS FARMER:—I attended the Farmers' Congress during its session in the city of Topeka. The members were an intelligent and venerable class of men, but I confess that I failed to discover any points made that will benefit the masses or our common farmer in his calling. All the matter was of that class which demands of the national council to do thus and so, all of which could and can be done by any class of citizens, and should be, thus saving the using of the public money which has to be raised by taxation. But such will be the case until something wakes the farmer up from his Rip Vanwinkle doze.

Again the many addresses delivered before the Congress and National Grange on reception day, did well enough so far as anecdotes and eulogies were and are needed for the advances we as a people and State have made. But while such meetings help to create friendship it will not make bread and butter, meat, corn, oats, wheat, grass, nor potatoes. What I think we want to get at is to learn how to grow crops successfully and at less cost, as well as making cheaper meat, so that all will be able to buy and be consumers of all these products. Mr. Fairchild spoke of the college helping the farmers, but when we accept the education that the student receives there which can be had elsewhere, I will ask what more he gets there, and I will further ask what has ever gone out from there that has benefited the farmers for all the immense outlay of money, State and national. Not one step has been taken in a half century by any college or Experiment Station, so far as I have read, during all these years; nothing new that is or has proved reliable. One point or two are claimed, I believe, but they can be found in the record and writings of others long back of college and Experiment Stations.

Prof. E. M. Shelton's bulletin of April last, respecting grasses speaks of the past fourteen years being duplicated by the next fourteen to come, but fails to notify the farmer when he may expect failures, or expect success. Is it not clearly true that these things can be known beforehand and thus avoid losses and failures in the future years? Yes, it can be proven by the gentleman's own record, but he fails to make it clear. And I will say that if all farmers living west of a line drawn across our country from the west side of the Gulf of Mexico to west end of Lake Superior will ever learn what they can and might, then will they be able to farm successfully enough to justify going west of that line; yes, as far west

as the west line of our State and make most crops without irrigation.

Is it not true that I have told many as well as wrote of it in the KANSAS FARMER that 1880, '81, '86 and '87 would be drouth years? And is it not true that I gave advice as to what crops should be sown to help you soonest at such periods? But too many were selfish and others ignorant to take steps to protect themselves and stay on their lands. And further, I will say that just as long as men who hold high positions as Congressmen, Senators, Governors, Secretaries, Signal Service men, and Commissioners of Agriculture, keep writing and speech-making of these matters while they know nothing about what they talk of, just so long will some people be misled by their nonsense, and I would vote to make it a crime punishable to mislead. There are too many who never think for themselves or experiment for their own benefits. They go it blind.

In the last issue of the FARMER an Observer from Reno county, asks some questions and makes some suggestions, but I fear he would not follow any advice unless it confirmed his opinions. I find many who will admit certain things to be correct, but will not act them out though it be easily done.

I can only say that the farmers, of Kansas especially, have been unjust to themselves in not reading their own State agricultural paper, for it certainly has had articles in it worth hundreds of dollars in one year, as can be proven by many farmers, and the information is abroad in the land and accessible to each and all farmers that will enable them to avoid failures in the future if their desire is so to do.

In the past twenty-five years there has not been a season in Kansas but what the farmer could have grown some half or full crop in any part of the State on land that is worth farming. The same is true of all the States east of the Rocky mountains. Again, do we not have failures and complete ones of some crops, when we have plenty of rain? And its an easy matter to tell when these things will occur. Proof from the records kept by many different persons and in many different States can be furnished to the end. Is it not strange, with all this array of proof at hand, that farmers and others will not investigate and learn when the unfavorable years, wet and dry, will come, and the disastrous years to certain crops?

But we are at a period of weather forecasting by some who must fail within the next eight months, and I will repeat what I said in May 1881, and March 1887, and was sustained by the statistical reports for each year. I now say that wheat as a general crop for 1889 will prove a failure.

And as this is my last article for 1888, I say take and read the KANSAS FARMER for the proof of what I have said. And build your future operations on a solid basis.

As to Messrs Shelton of Missouri, and Shelton of Kansas, I will say that their remarks on the pasturing of wheat come in forty-seven years after I had practiced it, and eight years ago I wrote it in the KANSAS FARMER. Mr. Shepherd is with me on seed corn being grown on the farm. And to the party who advertised seed that has twelve to fifteen hundred kernels to the cob, I will say that I have 50 cents to pay for a fifteen hundred kernel ear sent to the KANSAS FARMER office to my address. Investigate and build up should be the motto. J. C. H. SWANN.

Topeka, Kas.

Milo Maize and Yankee Corn.

EDITOR KANSAS FARMER:—I have been reading many interesting letters in your paper, and here is one more to add to the number. Last spring I procured one head of milo maize from a friend at Great Bend, from it I raised enough to fill a wagon-bed half full of seed.

The fodder is like cane, but the grain is not as bitter. It yields about forty bushels to the acre. Desiring to test the quality of the grain, I had some flour made of it and found it is sweet and good, tasting like buckwheat. I am going to plant a large quantity of it next year, as I believe it will prove a valuable crop for me to harvest.

I have also been testing some Yankee corn and found that it yielded thirty bushels to the acre, while my other corn produced sixty bushels to the acre; so I readily saw that it will not pay to plant Yankee corn in this part of Kansas. Corning, Kas. HANS RASMUS.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

FEBRUARY 8, 1889. — Berridge Bros., English Shire Stallions, Lincoln, Neb.

SHEEP VS. CATTLE.

The ratio of sheep to cattle is too small in this country by far. The British Islands have 29,401,750 sheep and lambs and 10,639,960 cattle, Great Britain having 25,958,768 sheep and 6,411,268 cattle. France has 22,688,230 sheep and lambs and 13,275,021 cattle; Spain, 16,939,288 sheep and lambs and 2,313,244 cattle. All Europe has about two sheep and lambs for one of the cattle kind. The United States has 43,544,735 sheep and lambs and 49,234,777 cattle, so we learn from the government crop report for January, as compiled by that most admirable statistician, Hon. J. R. Dodge. It appears that high agricultural conditions or settled countries find a need for a larger ratio of sheep than we in this country have deemed it desirable to own. The ratio in Great Britain is significant, a country that raises the largest general average of crops of any country in the world. To what are we to attribute the poor showing of this country, compared with other countries of wealth and of good agriculture? It may not be an easy question to answer. The ready answer will doubtless be because the American farmer finds sheep less profitable than other live stock. The well-known double nature of the income from sheep, the small amount of capital required in sheep husbandry, their well-known and hereditary habit of sleeping on high points and enriching the tops of hills and their weed and bush consuming tendencies calculate them for ready distribution and multiplication where good agriculture prevails.

Is the reason to be found in their pooreconomy of food? Let us see; for I believe that the question will reveal interesting facts for the trouble of the inquiry involved. It seems to be a law of animal consumption that the smaller classes of animals on the farm consume the larger percentage of food. The young pig consumes as high as 7 per cent or more of food daily, and makes growth accordingly. The fairly-grown lamb or young sheep will eat 3½ to 4 per cent. of its live weight daily, or, at least, the Merino sheep will, for this smallest of our American sheep consumes the large ratio of food, I judge, from such data as I have at hand. If we make the contrast between the fattening sheep and the fattening ox, we find that Sir John B. Lawes derived 11 pounds growth from 100 pounds of dry food when given to sheep, and 9 pounds when fed to cattle. From some data given by Prof. Brown, of Guelph, it would seem that the difference is not so great in this country. While the demonstration may not be clear, and is not, yet I think we may safely assume that the sheep stands between the ox and pig in its growth from a given amount of food. The recent experiment by Prof. Roberts in sheep-feeding, whereby a gain of 9½ pounds was made upon 1,079 pounds of food, shows a gain for a given amount of food that is fully equal to what we have learned to expect from a like amount of food when given to a steer, so far as we may roughly judge from ordinary farm practice. Assuming, then, that small classes of animals consume heavily and convert a larger ratio of the food into growth than larger classes, we reach the first step in proof of the economy of sheep as a meat-producing animal, but not neces-

sarily a conclusive one. But it is enough to assume that a pound of food given to sheep will make equal growth with a similar amount fed to a steer. This we are warranted in doing.

The character of the growth now concerns us. I conclude that we should get three-fourths of a pound of wool to every 10 pounds of growth of sheep, and even in a select flock it may reach a pound. With wool at 20 cents a pound for unwashed fleeces, we then derive 15 cents' worth of wool for every 10 pounds of sheep, or for every pound of growth 1½ cents' worth of wool. This is not all gain, for a steer will give six-tenths of a pound of dressed meat per pound of live weight where a sheep will give but one-half of a pound. Now, if beef sells for 7 cents a pound, dressed weight, then one-tenth of a pound gain of dressed weight will give seven-tenths of a cent more value in a pound of live weight of steer than in a pound of live weight of sheep. Subtracting this from the gain of 1½ cents' worth of wool, we get a net gain of four-fifths of a cent per pound of growth in favor of sheep. Thus we see that in two directions sheep have probably the advantage over cattle. Thus far I am compelled to believe that sheep are more economical meat-producers than cattle, and that it is the world's interest to use them in preference, so far as the factors considered are concerned. So far as the farmer is concerned, it appears that if he can sell them by the pound at the same price as cattle, by live weight, he saves the 1½ cents gained on the wool per pound of live weight made. The best quality of sheep will not be found far different in value from the best cattle. In a *Mirror* before me I notice that the best cattle and sheep at Watertown sold at nearly identical figures.

But another problem is involved of considerable importance. The steer has to pass through two winters, at least, before he can take the highest market rates for meat. The lamb, if of the right breed, goes readily to market during the first eight months of life, and before winter sets in. The significance of this factor rests in the fact that winter growth costs very much more than summer growth. The cost is four to five-fold the cost of summer or pasture growth. The growth of the lamb being wholly pasture growth, aside from what it gets from its mother, becomes cheap growth. This statement, without explanation, may be misleading. The lamb gets part of its sustenance from its mother, and its mother had to go through winter and meet winter cost. This is true for the East, as it is not for the West. In the East the cow must be wintered that grows the calf, but she pays her way in milk, while in the West we keep cows the year through for the calf, just as we do sheep for lambs, and for lambs alone. In this latter case the sheep has the advantage, as it grows wool, while the cow has no salable product but the calf. In the East the milk of the cow pays her way, while the wool of the sheep will not. But again it must be remembered that good young lambs sell for more a pound, live weight, than do steers. These factors are so complicated by local conditions that it will be impossible to draw a just practical balance for general application. We shall therefore have to approach the subject from another standpoint. We can easily compare the cost of keeping sheep by the side of keeping cows. But the revenue of the cow is complicated with cost of labor in butter-making, and affords ground for disputations. I therefore contrast the lamb and the steer, charging the keep of the mother to the lamb, and justly crediting her fleece to it.

Assuming that at 3 years of age we

make our steer weigh 1,500 pounds, his average weight from calfood up will be near 800 pounds, as he would weigh something at birth. A steer growing at the rate of 500 pounds a year, weighing 800 pounds, will consume some 3 per cent. of his live weight daily on an average—over 3 per cent. at the start and less at the close of his growth. This 24 pounds of hay daily will feed seven sheep consuming 3½ per cent. daily of their live weight of 100 pounds each. Against the annual growth of the steer of 500 pounds we have seven lambs and seven fleeces, and all good—for the steer is likewise bred and fed for a good steer. In this connection it must be borne in mind that every other calf must be expected to be a heifer that will not grow as fast nor bring as much money, cutting down materially the calculated value of the average annual product of the cow. It will be replied that in the East it is not necessary to raise the heifers, as the cow pays her way in milk. For the East, then, we may in part grant the claim, making the reserve statement that if the cow is a butter cow, and from butter her income is to be derived, then she will not produce the class of feeding steers I have in contemplation, and a less valuable steer must result. A small sum must be charged against the lambs for the grass eaten, beyond their mother's nourishment in milk, which will fully suffice, and possibly more than suffice, to offset the drawbacks on the steer. We have virtually seven lambs and seven fleeces against 500 pounds of steer growth yearly. The reader must value the income according to his local conditions. So far as food is concerned, or growth from food given, I must regard sheep as well worth more serious attention. Other factors that are outside of the question of nutrition interested parties must draw their own conclusions. Dogs, says some one. I will venture to add that it has always seemed to me to be a great pity that the rights of dogs cannot be brought down to a level of those of man, who as to his rights is the more unfortunate of the two? Why is this?—Prof. J. W. Sanborn, in *Mirror and Farmer*.

Some practical dairymen have found that to resort to rather violent measures to dry off a cow that is a very persistent milker, lessens the cow's performance the next year, says one. It is also true that very many of the copious milkers, if left to give milk all the time, are worn out earlier in life. On the whole, it has been found that it is best to humor the nature of such cows, even if they are short-lived. They are grand while they last.

During midsummer in northern Alaska, according to a recent traveler, the sun shines twenty-two hours out of the twenty-four, and on the high mountain peaks for a period of several days in June it is not entirely out of sight during the twenty-four hours. In July and August the weather becomes very warm. After this time the days gradually shorten until the sun shines but four hours out of the twenty-four, but at this period the aurora is exceedingly intense, and helps very materially in dispelling the darkness.

A Prominent Merchant in Trouble.

Old moneybags mopes in his office all day,
As snappish and cross as a bear;
The clerks knew enough to keep out of his way,
Lest the merchant should grumble and swear.
Even Tabby, the cat, is in fear of a cuff,
Or a kick, if she ventures too near;
They all know the master is apt to be rough,
And his freaks unexpected and queer.
What makes the old fellow so surly and grim,
And behave so confoundedly mean?
There's certainly something the matter with him—
Is it stomach, or liver, or spleen?
We've guessed it—his liver is sluggish and bad,
His blood is disordered and foul.
It's enough to make any one hopelessly mad,
And greet his best friend with a growl.
The world-wide remedy, Dr. Pierce's
Golden Medical Discovery, will correct a
disordered liver and purify the blood, tone
your system and build up your flesh and
strength.

The Poultry Yard.

ABOUT THE BREEDS.

The November *Poultry-Keeper* has an extended article discussing the breeds of poultry, with their points of excellence. It is too long for one issue of the *FARMER*, but we will reprint it in parts from week to week until it has all been given to our readers. The *Poultry-Keeper* is good authority.

DARK BRAHMAS.

To describe them it may be stated that the cock has a silvery white head, with beak yellow on sides and dark horn on top. The comb is pea-shaped, that is, three small combs together, the center one being slightly higher than the others. The wattles are large and pendant, the color of the comb and wattles being red. The hackle should be silvery white, and abundant, the feathers having a distinct black stripe down the center. The breast is full, and may be black or slightly mottled with white, under part of the body black. The back is silvery white, the saddle feathers being striped like the hackle feathers. The wings are small, in the secondaries the upper web being black, while the primaries are black with a narrow edging of white in the lower web. Silvery white is the color of the wing bows and shoulder coverts, the wing coverts being greenish black. The tail is full, rather upright, and filled with curling feathers underneath, the color of the several parts of the tail being black or greenish black. The cock is well fluffed behind with black or slightly black feathers, while the legs are yellow, heavily feathered, including also the outer and middle toes. The hen also has a silvery-gray head, but horn-colored beak. The comb is also pea-combed, but small. The hackle is black edged with white, the back being grayish white, with dark penciling. The general plumage of the breast and body is grayish white with also the dark penciling. The tail is small and black, with penciled upper feathers, with gray fluff underneath. The legs are yellow, with feathering on thighs and outer and middle toes. An English writer describes them as follows: The plumage of the cock is—breast and body black, or black slightly and evenly mottled with white; neck and back silvery white, with black stripe down center of feather. The color of the hen—body grayish-white ground (called steel gray), with very distinct and dark penciling on feather, neck silver white, each feather distinctly striped with black. Both male and female have heavy leg and middle toe feathering. Weight, at maturity, twenty pounds per pair. The breeding of Dark Brahmas is quite a nice thing when done to perfection. They are, from their fancy penciling and varied markings, rather harder to breed true to standard requirements than Lights. This is due in part, doubtless, to their having been made up of different blood entirely, too. This would also appear to account for the approach to the Cochins in shape, the Partridge Cochins forming a part of their composite origin. But when one once becomes acquainted with them a very respectable looking flock can be raised of both male and female from the same matings. In mating Dark Brahmas many breeders make separate matings for the different sexes. They mate cocks or cockerels showing splashes of red or brown in breasts and sometimes chestnut-brown in wings or tail, with hens light to medium gray for pullets, and cock with solid black breast, to hens or pullets of dark gray color for cockerels. With such matings one can usually get good birds of one sex at the sacrifice of the other altogether. But we believe many good Darks are now annually raised from a single mating for both sexes. This

mode has the advantage of giving us fowls of fixed blood, and that is quite a point. Many a beginner has been sadly disappointed in these parti-colored fowls from this very cause. They know nothing of separate matings, and had not the fowls to make the matings from, even had they a thorough knowledge of it, and as a natural sequence they raised a motly-colored flock. Make the most of single matings, unless you can devote a great amount of time and study to one breed, and will be satisfied with small results, and are most concerned about the fowls and chicks sold as breeders. The Partridge Cochins belong to the family of Asiatics and are large, compact, stately fowls. In the cock the eyes are bright, the beak well curved, stout at the base, rather short, and of a yellowish or horn color, with the head rather short and small, and of a brilliant red color. The comb is red, single, rather small, possessing well defined serrations, and perfectly straight, with brilliant red wattles, which are of medium length and well rounded. The ear-lobes red, large, pendant, and in texture fine. The plumage of the neck is red, with a distinct black stripe down the middle of each feather, and should be neatly curved and short, with a full hackle flowing liberally over the shoulders, while the breast should be of a deep black, broad, full and deep, with deep, broad body, which has deep black under plumage, the back being in color a brilliant red, with black stripe down the middle of each feather, broad, rising gently from the middle to the tail, the saddle feathers being very abundant. The plumage of the wings should be such as to have a bay edging on the outside web, and dark on the inside web of the primaries, with a rich bay on the outside web of the secondaries, black on the inside web, with a greenish-black end to each feather. The wing coverts should be of a greenish-black, forming a wide bar across the wings, being small, while the primaries should be well folded under the secondaries, so that when the wings are folded they cannot be seen. The tail of the Partridge Cochins is of a glossy black, being entirely free from white, though such is not necessarily a disqualification, the lesser tail coverts being black, or black edged with red, while the greater tail coverts are black. The tail should be soft, short, broad and full, with the coverts abundant and carried rather horizontally than upright. The fluffs are abundant and soft, covering the posterior portions well, being prominent about the thighs, and in color black. The legs should be plentifully covered with soft feathers, which should curve inward around the hock on the lower part, so as to partially hide the joint, the shanks should be yellow, short, wide apart, heavily feathered down the outsides, to extremities of the outer toes, with black feathers, while the toes should be well spread and strong, the middle and outer toes being well feathered.

The head of the hen should be a rich brown, with beak yellow or horn color, while the comb should be single, red, small, straight and well defined serrations, wattles and ear-lobes red and fine in texture. The neck should be of a brilliant reddish gold, with a broad, black stripe down the middle of the feather, though the stripe may be slightly penciled. The neck should be short, carried forward, the lower part broad, with hackle feathers reaching well over the shoulders. The body should be broad and deep behind, the general plumage being brown, and distinctly penciled with a deeper brown, the breast being broad, full, and carried rather low, the back flat and short, with the cushion rising from the middle

thereof and partially covering the tail. The plumage of the breast and body should be of a rich brown, and distinctly penciled with a darker brown, the penciling being well developed over the breast, and well up to the throat. Of the wings the primaries should be very dark or blackish brown, the inner web of the secondaries a blackish brown, and the outer web the same but penciled with a lighter brown. The color and penciling of the wing coverts should resemble the breast. The wing should be small, the primaries well under the secondaries when folded, so as to be concealed, wing bows neatly covered by the breast feathers and the points well concealed in the fluff. The main feathers of the tail should be black, and the tail should be short, small, and carried rather horizontally, being partially concealed by the cushion, while the fluff should be brown, abundant, soft, standing well out from the thighs, thereby giving a deep broad appearance behind. The legs and toes are similar to the description given of the cock. A Partridge Cochins cock should weigh eleven pounds, a cockerel nine pounds, a hen nine pounds, and a pullet seven and one-half pounds. The disqualifications are birds not matching in the show pen, falling or twisted comb, legs not feathered to ends of toes, legs any color but yellow or dusky yellow, cocks with mottled breasts, hens with pale buff or clay-colored breasts, cockerels with white in web of tail feathers, wry tails, crooked backs, vulture hocks, cocks under nine pounds, hens under seven and one-half pounds, cockerels under seven and one-half pounds, pullets under six pounds. For every pound under weight two points must be forfeited. The points are 100, divided to symmetry ten, weight twelve, condition eight, head four, comb seven, wattles and ear-lobes three, neck ten, back ten, breast and body ten, wings seven, tail seven, fluff five, legs and toes seven. The shape and color of the neck of a Partridge Cochins cock, to a standard one, should appear "short and neatly curved." The size of the specimen must be considered in determining whether or not the neck possesses the required shortness. It must be short in comparison with the size, says *Fancier's Gazette*. Then again, the hackle must be full, abundant, and flowing well over the shoulders. The phrase "neatly curved" refers to the arching of the neck. In cocks the arching should be more apparent than in cockerels, since the feathering on an adult bird is more profuse than on a cockerel. The base of the neck at its juncture with the back, shoulders and breast, should appear large and broad, rendered so by the abundance of hackle, and also by its being of sufficient length to "flow well over the shoulders." The color of the upper one-half of hackle, or thereabouts, should appear red, or orange-red with a distinct black stripe down the center of each feather, and to be more perfect, as in that of a Light Brahma hackle, it might properly read, "the stripe running nearly parallel with the edge of the feather, and tapering to a point near its extremity." The red facing on the edges of the feather should be clear, and should have no smutty appearance, or fringing or mottling of black near the tips; neither should the shafts or quills of the hackle feathers be light or yellow in color, but black. Positive white should not appear in the fluffy portion of the hackle feathers—bluish white gradually shading into the black stripe being the desirable under-color. The feathers up the neck in front, and under the beak and wattles exposed to view by the spreading of the hackle to either side, should be of the same character as

those on the breast, and in color, black, but in good pullet-breeding males more or less redness appears, intermixed with the black, and can not be cut as a standard defect in color. A neck should be discounted from one to two points for each of the following defects, viz.: Carried too far forward; too long; too narrow at base; too straight; hackle too short; failure in black stripe; white under-color; too light or too dark red in general color of neck. White appearing on the outside of neck, two to four outs. Light or yellow quills or feather shafts in hackle, two to three outs. The back must be broad at shoulders, and while the Standard fails to give the proper color of that portion of the back which is between the shoulders, hackle and saddle, we will state that it should be the same as that on the back of a Standard B. B. Red Game cock, viz.: Rich, velvety, dark red, except under the hackle in that portion of back known as "cape" in Light Brahmas, which should be black. The Standard says the back should have "a gentle rise from the middle thereof to the tail" (3). This phraseology is very tame and convinces us that the committee who framed the Cochins Standard were not awake to the importance of making the description such as to demand a true Cochins—one possessing the quality to produce females with backs "broad, flat and short, with the cushion rising from the middle thereof and partially covering the tail." The saddle of a Cochins cock should not only rise gently to the tail, but, as we view it, it should rise in something of a convex shape, and resting well up on the tail. The saddle feathers should be red or orange-red in color, with a black stripe down the middle of each, very abundant, standing well out from the back, giving a broad and massive appearance, and reaching down to the fluff at the points of the wings. The backs should be cut for the following defects, from one to two points each, viz.: Too long; too narrow; too straight; deficiency in saddle; defective color of saddle feathers; defect in color of back between neck and saddle; light or yellow shafts in saddle; too much white in under-color of saddle.

On page 17 of the Standard, the color of the plumage on the back of the females of this variety was omitted by mistake, and to the clause on back, as therein stated, should be added, "and in color, rich brown, distinctly and handsomely penciled with a darker brown." So far as this penciling is concerned, we do not think the phrase "penciled with a darker brown" carries the contrast between the ground color of the feathers and their penciling quite far enough, and would prefer it to read, "with darker brown or black." A hen penciled with black, from the nature of things, will prove to be a better cockerel breeder than one where the penciling retains the reddish brown. Males must be solid black in breast and body to be fully standard, and in case their dams run down throughout, and possess no element of black in them, the chances for mottled and brown-breasted cockerels are much increased. The same may also be said of Dark Brahmas; the stronger the black in the penciling of females the more black-breasted cockerels result in the progeny, hence the great care, experience and skill requisite in mating penciled varieties. The element of black must be strong in the female if good breasts are sought in the male progeny. Our observation for years has forced upon us this conclusion, having often noticed that in yards where females have shown clearly defined, black penciling up the breast, and even to the throat, the percentage of good colored cockerels was much

Best Cough Cure.

For all diseases of the Throat and Lungs, no remedy is so safe, speedy, and certain as Ayer's Cherry Pectoral. An indispensable family medicine.

"I find Ayer's Cherry Pectoral an invaluable remedy for colds, coughs, and other ailments of the throat and lungs."—M. S. Randall, 204 Broadway, Albany, N. Y.

"I have used Ayer's Cherry Pectoral for bronchitis and

Lung Diseases,

for which I believe it to be the greatest medicine in the world."—James Miller, Caraway, N. C.

"My wife had a distressing cough, with pains in the side and breast. We tried various medicines, but none did her any good until I got a bottle of Ayer's Cherry Pectoral which has cured her. A neighbor, Mrs. Glenn, had the measles, and the cough was relieved by the use of Ayer's Cherry Pectoral. I have no hesitation in recommending this medicine."—Robert Horton, Foreman Headlight, Morrilton, Ark.

"Ayer's Cherry Pectoral cured me of a severe cold which had settled on my lungs. My wife says the Pectoral helps her more than any other medicine she ever used."—Enos Clark, Mt. Liberty, Kansas.

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greater. Then again, the more clearly defined the penciling is from the ground color, the more beautiful the specimen; the hackle feathers have a better stripe, the tail coverts in females are better penciled, a richer color of black appears in the breasts and fluffs of males. And herein is the reason why some penciled strains of both Partridge Cochins and Dark Brahmas produce a greater percentage of fine specimens than others. A decidedly broad, black stripe in penciling is not desirable, as too much black causes the specimen to appear too dark in general, and very broad, black penciling induces the ground color to be too dark and smutty. There is as we have often remarked, a "happy medium," which, if a breeder, through much trial and tribulation, perhaps, finally reaches, he will be well repaid for his care, skill and attention.

The "cash" used as coin all over China are made from an alloy of copper and zinc, nearly the same as the well-known Muntz metal. It takes about 1,000 of them to make change for a dollar.

The spooks and goblins that delight
To fill with terror all the night;
That stalk abroad in hideous dreams
With which dyspepsia's fancy teems,
Will never trouble with their ill
The man who trusts in Pierce's Pills.

Dr. Pierce's Pleasant Purgative Pellets:—
vegetable, harmless, painless, sure!

The season of 1888 has been the most disastrous bee-keepers have ever known in Great Britain. Colonies, as early as the last of August, were starving or approaching that condition. Thousands of colonies belonging to poor cottagers who can not afford the expense of feeding, will be lost during the winter.

A Philadelphia man has invented a machine that, with the help of six hands, will turn out as many barrels in a day as sixty men can make. The machine has been successfully operated, and coopers are taking a good deal of interest in it. If it proves financially successful it will probably revolutionize the cooper's trade.

What it Means.

To the man or woman who has never been ill, the word "health" is meaningless. But to the one who has suffered and despaired, health appears as a priceless boon. To the thousands of unfortunate women who are suffering from some of the many forms of weaknesses or irregularities peculiar to their sex, Dr. Pierce's Favorite Prescription holds forth the promise of a speedy restoration of this "priceless boon."

Correspondence.

Kansas State Grange.

Special correspondence Kansas Farmer:

The Kansas State Grange met in its seventeenth annual session in the commodious hall of Olathe Grange, Olathe, Kas. The Master's annual address was given in the last issue. Other reports were made as follows: The Lecturer reported that but little had been accomplished in the organization of new Granges, more for the want of time and means; but everywhere in the State was felt the need of organization and the practicability of the order of Patrons of Husbandry. He recommended that more money be used and efficient organizing talent be employed in the State. The Secretary's report showed a good financial condition of affairs, and that for 1888 the State had forty-seven Granges with a membership of 1,911. The Committee on Education presented a careful and complete report that showed much research and a clear knowledge of the practical wants of farmer's children in our public schools. It was recommended that the use of tools, manual training, a more practical knowledge of botany, domestic economy, etc., be given in the country schools.

The following resolutions were adopted:

Resolved, That where the fees of any county officer exceeds the sum of \$500 per quarter, such excess ought to be paid into the county treasury, and we request our incoming Legislature to so amend the law.

Resolved, That all beef cattle and fat hogs intended for slaughter and the dressed meat to be offered for sale in cities of the first, second or third class, shall be inspected by the local inspector prior to being killed and the meat exposed for sale. We request our Legislature to pass such a law.

Resolved, That we urge upon our next Legislature as well as Congress the importance of speedy action in controlling the gigantic trusts and combinations that have already and are now forming all over our country to control the market price of staple commodities in the interest of a few persons or companies, to the utter ruin of the producers and the manifest injury of the consumer of these products, and which in the end can only result in danger to our permanent peace and prosperity as a republic; also that any corporation that shall be found guilty of engaging in any trust or combination as herein specified, shall forfeit its charter.

J. G. Otis, of Topeka, offered the following, which was adopted:

WHEREAS, The farmers of Kansas ought not to accept a less price for the products of the farm than the cost of production, allowing \$1.50 per day for labor, \$1 for use of team and tools, and \$3 annual rental for land, therefore

Resolved, That we request subordinate Granges in each county of the State during the coming year to make out a complete list showing the actual cost of production of all our staple products, taking the average crop yield of a series of ten successive years. The different Granges to send their consolidated reports of their action through their delegates to the State Grange, which shall prepare a schedule of minimum prices for all staple farm products and recommend its general adoption by all patrons and farmers of the State. And that the Master of this Grange confer with the State Grange of other States to take similar action.

Recognizing the benefits already accrued from the work of the Kansas Weather Service during the past season, and believing that these benefits could be greatly augmented by judicious legislation, be it

Resolved, That our legislators be requested to establish a weather service station in every county of the State, and provide each of them the necessary appliances to properly record the meteorological conditions, said stations to be under the supervision of a State director, appointed by the Governor, and that for equipment and maintenance of said Kansas Weather Service a suitable appropriation be made.

The Committee on Needed Legislation further reported in favor of asking our next Legislature to provide by law a uniform series of school books to be furnished to all pupils at cost, and that this series be continued unchanged for five years. Also a law prohibiting the sale, manufacture or importation of all lardines, oleos, imitations or substitutes of butter, by whatever name called. That trusts and combines are a conspiracy against trade and should be prohibited by law. That we brand "dealing in futures," so-called, as iniquitous gambling and should be subjected to severe penal punishment. That the position of Commissioner of Agriculture be made a Cabinet officer. That United States Senators be elected by a vote of the people. The foregoing were unanimously adopted.

Resolutions were adopted asking promissory notes in the hands of third parties be subject to all the equities between the original maker and payee. That the law of interest be fixed at 6 per cent., and parties not allowed to contract for more than 10 or forfeit all interest.

After other routine work and initiation of fifth and sixth degree members, the following officers were installed: Master, Wm.

Sims, Topeka; Overseer, E. St. John, Manhattan; Lecturer, J. G. Otis, Topeka; Steward, A. P. Reardon, McLouth; Assistant Steward, Jas. Carroll, Perth; Chaplain, C. F. Worthington, Wea; Treasurer, Capt. Thos. White, Topeka; Secretary, George Black, Olathe; Gate-keeper, T. F. Marshall, Gardner; Pomona, Mrs. George Black, Olathe; Ceres, Mrs. J. O. Henry, Olathe; Flora, Mrs. E. St. John, Manhattan; Lady Assistant Steward, Mrs. J. Nichols, Olathe; Executive Committee, Henry Rhoades, Gardner, two years, and D. S. Fairchild, Overbrook, three years. Adj.ourned.

HEATH.

Where the Loss Comes in.

EDITOR KANSAS FARMER:—Will you permit me again a little space in your paper? I wish to say a few words to P. M. H., of Republic county. My friend P. M. H. did not understand me in my article to Mr. Clinton a few weeks ago. I did not say what per cent. I was making on my investment. I said the average per cent. of the agricultural investment throughout the United States was from 2½ to 3 per cent. P. M. H. says any farmer that owns a farm ought to be ashamed to say he had only the bone to nibble. Well, perhaps he ought. But I believe it is always good policy to admit facts, especially when everybody that thinks can see. P. M. H. further says: "How many of the farmers have bothered their brains and strained their muscles to raise paying crops?"; he says only one in ten. I do not think it is more of a shame to say that farmers have only the bone to nibble, through rings, trusts, monopolies, etc., than it is to say that only one out of ten farmers in Kansas is void of ingenuity and ambition as to managing his farm for the best results. As I have lived in Kansas sixteen years I have seen a great many Kansas farmers, and by what I was able to judge the greater number were industrious and economical, especially those of my own community. Now, by the way P. M. H. says it, I suppose he is one of the small number that bothers his brains and exerts his muscle, therefore I suppose he is a successful farmer and can live on the best. I would be glad if P. M. H. would give us a plan by which we could farm more successfully than we do we will gladly discard our mode and follow his. Perhaps P. M. H. does not figure the way I do. In regard to making money I think if P. M. H. calculated aright he will find himself with the great majority of the Kansas farmers. For an illustration, I will take my own circumstances to prove how the great majority of farmers have been making money in the last five years. I live on a well-improved farm of 120 acres; the stock I carry on an average for five years are about eight head of colts and I would perhaps average fifteen head of cows, and I raised a few over 100 head of hogs annually. I have been making money with my hogs because I have been fortunate enough not to have the hog cholera, while hundreds of my fellow farmers lost their hogs. In the last five years I made a fair living for my family, which consists of nine, kept up the improvements, made a few small ones and have accumulated in money and other property about \$1,000 or on an average \$200 a year. We have been industrious, lived on common farmers' diet, all wore plain, comfortable clothing. I think I hear some one ask, "What are you growing about? You are doing well enough; you are making a great deal more than 3 per cent. on your investment." Remember I have been paying very little interest. Well, let us see how I made money. The farm has depreciated in value with the improvements fully as good or better than they were five years ago, and not half as ready sale today at \$5,000 as a few years ago at \$8,000. I will ask my fellow farmers, Are we to blame individually for such losses? The eight head of horses and colts will bring \$200 less than they would have brought four or five years ago; the fifteen cows, such as I keep—say good grades, would sell for \$250 less than they would five, four or even three years ago. There you will see is \$1,000 depreciation on the farm, which should be worth a small per cent. more in the same condition for the reason of the increase in population. A loss of \$200 on horses and \$250 on cows which are carried on the farm, while I made a living and accumulated \$1,000, I lost through depreciation of property \$1,450. So you will see I managed hard for five years for a living and am out of

pocket \$450. I believe the great majority of the property holders have suffered similar losses. Now the great question is, What is the cause? Some say it is contraction of money, others say it is trusts, still others over-production. I can't believe it is over-production, because we have too many hungry people in our country, and I do not believe there was much land produced in the last five years, and I know that there was no speculative land boom three or four years ago all over the State of Kansas. Generally speaking, I do not think agricultural lands ought to decrease in value, for the reason that our population is on the increase; farms should increase in value according to improvements and population, the more people the more demand for farms. Some tell us we have plenty of money in the United States. I do not doubt that in the least. What good to the business of the country is it if I have \$1,000 and keep it in my pocket or keep it locked up? No more good than a pound of shot. No doubt our trust system is one of the causes of the depression of the farmer. Still another cause: There is too wide a space between the producer and the consumer, too many middle men that neither toil or spin but live on the best, smoke perhaps \$100 in cigars, in place of wearing a \$10 or \$12 suit of clothing they have a tailor-made suit for \$35 or \$40; in place of wearing a \$3 cowhide boot or shoe they go to the shoemaker and have them made for from \$7 to \$12, so we can see the farmer has to pay for about all of the extravagances of the so-called middlemen, while he has to practice economy from an 8-penny nail up. I would like to see every farmer subscribe for the KANSAS FARMER, that through it we could correspond with one another and all find out the main causes of our depression, and after we know we are right organize ourselves into a Grange, Farmers' Alliance, or some other organization for the same purpose. I have no doubt if we will go to work in the right way and combine together, in a short time we can have more pay for our twelve and sixteen hours labor per day. Under the present system we are worn out at about 40 years, and if we have been successful in building a home in that time, we have about exhausted nature and are full of aches and pains by overwork, so that we can not enjoy a home, let it be ever so pleasant. We would feel just as good at 60 years as we do at 40 if we could have justice done for our labor; and if we are to live the allotted time of three-score and ten we ought to live the last ten years in joy and peace. It looks to me as though somebody gets twenty years of our labor out of sixty years that does not deserve it.

P. P. FADELY.

Coulter to Smith.

[Mr. John F. Coulter, Russell Spring, Logan county, some time ago sent in a communication, replying to the last letter of Mr. Smith on tariff matters. We have taken the liberty to use only a few points made by Mr. Coulter, omitting the rest. Our columns are crowded now with matter of more immediate interest to our readers—EDITOR.]

[EXTRACTS.]

The United States differ from any nation existing, so it is not necessary to cite any other nation to prove what is best for us. If natural resources do all, then we must have been very prosperous when the Aborigines had possession of our country, for we have been exporting our fertility ever since. There must be an incentive to action. Our fertile soil would avail us but little if there were no demand for our products. The increase of our industrial institutions raised up an army of consumers that are not producers, and raised the value of their products four fold since 1860. We will give supply and demand all they merit, but must not lose sight of the primary cause. The tariff has nothing to do with alleged inflated prices for bread. Law only can reach them. Equilibrium of prices. What would our prices be if we seek the markets of the world? India can put down wheat in the European market cheaper than we can transport it there. Our home market is best and should be guarded. We export about 100,000,000 bushels of wheat annually; if other nations place an equal amount upon our market, we would have twice the amount to export, which would depreciate the price, as all must be bought low enough to transport, and the farmer must be the loser. When our tariff was low

—on a revenue basis alone—we made no such strides as Mr. S. refers to. When we increased the tariff new life and energy were infused into everything and labor is better paid. If we reduce the tariff we have no assurance that things will become cheaper. We will no doubt import more largely; and that will not benefit the laboring class. Mr. S. admits protection was proper at one time. Yes, and it will be so long as foreign nations pay labor from one-third to one-half as much as we do. Eighty thousand women to-day are working in the cotton mills of Manchester at 30 to 35 cents per day.

Trust the People.

EDITOR KANSAS FARMER:—The timely remarks of Observer are very good. But how could we know that such calamities were about to befall the country if Mr. Frisbie's remarks had been excluded? Or that there were so many doomed Republicans and bomb throwers if Mr. Wilson Keys' paper had been suppressed? Or that the patriotism of the people was about to die out if the President's message had not been printed? Let us be glad that we live in a country where the people do the voting and the children go to school, and that it is possible for more than one party to elect our public servants; then if they violate public trust we have the privilege of trusting other hands. If the people have decided wrong they will have a rehearing. There can be no great calamity befall us if the majority are happy. If Mr. Frisbie or any man thinks there are special privileges offered to some, he should remember that he is not excluded from those special privileges.

E. D. MOSHER.

Hartford, Lyon Co., Kan.

From San Antonio, Texas.

EDITOR KANSAS FARMER:—The San Antonio fair closes to-day substantially a failure in many respects owing to continued bad weather, the worst experienced here at this season in many years. The roads have been muddy for three weeks, many days it rained steadily all day. The train loads of people from Mexico and West Texas seldom remained here over twenty-four hours, but took early trains for home without coming near the grounds. It is safe to say that every man who exhibited stock here lost money, even Texas breeders say they will never bring stock to this fair again for sale. It is also to be regretted that the officers of the society took little interest in the stock exhibits further than to induce them to come; no cattle sheds were commenced till three days before the fair opened and no water supply till several days later, except drive to a river. They may hire some fake as general manager next year and thus insure success.

The fair was a success in calling together a splendid collection of horses and cattle, a genuine source of wonder to most of the fair visitors—three exhibits of Shorthorns, four of Herefords, four of Holsteins, two of Jerseys, six of Devons, two of Red Polls—most of it fine stock. Only sixteen sheep shown, seven hogs, twenty-five Angora goats, and no buyers for any of these exhibits. The majority of the would-be buyers seemed to imagine they could buy fine stock nearly as low as wild scrubs sell.

The Exposition building contained the usual track exhibits, but Monterey, Mexico, made an exhibit that was of peculiar interest to Northern strangers. Ores from numerous mines, native pottery and wicker work; elegant embroideries, manufactured goods of all kinds, especially excelling in their fine flagree work in silver; broad brim, cone top hats valued at \$6 to \$200, the latter covered with gold and silver embroidery, weighing perhaps ten pounds; cotton plants eight feet high, etc.; but there was no such exhibits of Texas products as at Dallas, not one county exhibit.

San Antonio should be seen to be appreciated, the winding streets following ancient cow-paths, side-walks too narrow for two persons to pass, ancient adobe dwellings and churches, a cool-looking little river shaded by canes, bananas, figs and pecan trees, flowing through the centre of the city detracts nothing from its charms; comfortable residences shaded to the roof with vines, and surrounded with a profusion of semi-tropical plants give evidence of wealth. It is certainly a cosmopolitan place with all nationalities represented,

gambling houses on every hand running day and night seven days in the week, theatres and saloons the same. The Mexicans attend mass at the cathedral in the morning, spending the remainder of the day around the cock pit and monte table. In fact San Antonio contains a large minority of the same elements that give to the Western mining camps their hard name.

Cattle business here is very dull, 4 and 5-year-old steers worth about \$13, younger stock in proportion. For blooded stock there is no demand; and breeders desiring to ship stock here had better contract it in advance with a payment down. If the enterprise was here this might be made quite a winter resort; but with the lovely San Pedro springs occupied by a saloon and dance hall, the resort largely of the more vicious elements, the visitor must content himself with a hotel in the city. LEX, San Antonio, Nov. 30.

The Public Schools.

EDITOR KANSAS FARMER:—Kansas is noted for its good schools, and with nearly 8,000 of them, at times they are so crowded that it is hard to do justice to all of the pupils. It is worse in town than the country where there are so many to send. Most of the towns in this part of the State have either built new school houses or added large additions within the last year or two. But it still seems impossible to keep them from being overcrowded at certain seasons of the year. School boards have studied the question a good deal to remedy the matter and it seems that a good many think our school laws should be changed so as to give the school board power to exclude the smaller children whenever thought best—say under 6 years. I presume it would be as well for the child if not one of them was confined in a school room till they were six or seven. Some States have put the time at six, others limit the time for primary to half a day. Years ago in the country little children in the summer season were merely called in to read and then allowed to go out and play again, much better for their health every one will admit, than sitting on a hard bench two hours at a time.

From one to two a year is about as many counties as adopt the law of county uniformity in school books. It seems hard for farmers to see how much they are losing every year. At 40 per cent. every year, and that is about as often as new books are worn out or changed, would soon make the 100 per cent. So we wait, always hoping that the next year will find them on the right side. Last year our district bought our books and sold them to the scholars at cost and saved 50 per cent.

E. W. BROWN.

Interest on Money in Western Kansas.

EDITOR KANSAS FARMER:—I fully concur with Mr. W. J. Colvin, of Larned, Pawnee county, as to Mr. Clinton's incorrect statement of interest in southwestern Kansas, for I know there are several loan agencies in our county town, Coldwater, and they are and have been for some time charging 10 per cent. interest and 3 per cent. commission, the borrower paying all charges of making papers and recording, and for short time loans they get from 5 to 15 per cent., and there appears to be a demand for all the money they can get. But Kansas is an agricultural State, made up principally of farmers and very poor laborers, and she is the banner State in the vote for high protection; it naturally follows as they grow poorer their security is poorer and they must expect rates of interest to still advance; for the first thing one of them does when he wants to make a loan is to commence to tell the capitalist how devilishly hard up he is, and as a matter of barter and trade the money shark sizes him up and asks all the interest and commission he thinks he can possibly get. Should the poor cuss take him up suddenly you will see the shark make some excuse to go where he can get out of sight, and then he will kick himself for not having had gall to ask him more. So I for one say put her on.

I think Maxwell Phillips is advancing a very good plan to cheapen our sugar by getting up a trade with Mexico, but I think a better plan would be for the government instead of taking off the duty on sugar to take the import duty for one year of \$50,000,000 and build sugar factories in Kansas, and the

next year Kansas will make sugar enough to supply the demand, and that will shut out both Cuba and Spain and stop poor Kansas farmers from paying this high rate of interest. Now, Mr. Editor, if you haven't the time to spare to go up to Washington and see Congress about this matter, you can just file this away until after the inauguration and the new President-elect has called the extra session of Congress, and then you can just hand it to some one who is going up to see about getting a postoffice, as there will be plenty of them.

This is from one who reads the KANSAS FARMER because he thinks it the best paper in America for the money, and is taking Prof. C. C. Blake's weather predictions and is raising lots of good wheat and corn and don't want to borrow. A. D. LEE.

Coldwater, Comanche Co., Kas.

Gossip About Stock.

C. R. Turner, Millersburg, Ky., advertises ten extra Kentucky bred black jacks, from his celebrated premium stock. Write him for prices.

Breeders who want the KANSAS FARMER, Breeder's Gazette and Blake's Weather Tables for 1889 can secure them all by ordering at once for \$3.25. The total single price amounts to \$4.75. Save \$1.50 by ordering now, as this is a limited offer.

Minneapolis Messenger: Nearly 5,000 head of cattle have been shipped into this county this fall. The natives raised here added to that number make this county almost the leading one in the State; at any rate we have the reputation of shipping more cattle out than any other county.

McPherson Republican: McPherson county is now raising horses, and this will, in the future, be a source of profit. But to get good prices horses must be heavy. Light horses are not wanted in Eastern markets at any price. Buyers will not even make an offer. But heavy horses, from 1,300 to 1,600 pounds, are quick sale and at good figures.

Henry H. Miller, breeder of Poland-China swine at Rossville, Kas., writes as follows: "Numerous inquiries from the advertiser in the FARMER. Stock nearly all sold, except breeding stock. Never had such a demand for good stock before, and if a person wants to sell out all they have for sale, my advice is, advertise in KANSAS FARMER, and then do all of your business honestly and right. Do not misrepresent your stock as to age, breeding or individual merit, and if you don't succeed, I am mistaken."

That veteran Kansas swine-breeder, I. L. Whipple, Ottawa, Kas., pays a high tribute to this paper as an advertising medium in the following: "The FARMER sells me more stock than all other advertisements put together. I have sold all the males fit for service at present. Have a fine lot of fall pigs coming on in good shape; they are sired by Ottawa Gilt Edge 1974 and the grand breeder and show hog that took first at Ottawa over the first prize and sweepstakes hog at State Fair this year, Bruce 2058, Standard record. I have a fine lot of Gilts that I am breeding to as fine a yearling hog as there is in the State, will not except anybody's hog; his name is Ottawa Chief 2464. He is a grand show pig and an excellent breeder. He was bred by D. F. Risk, Weston, Mo. The Gilts are all well bred. Also sired by Whipple's Stemwinder 2065 and Bruce 2058, S. R., and will sell them at reasonable prices. We also have two yards of Light Brahmas for sale of six birds each. They are fine birds and of the best strain. Also have Bronze turkeys and Toulouse geese that are as fine as can be produced by any breeder—very large, fine style and beautiful plumage."

Nearly all colds are slight, at first, but their tendency is to so lower the system that the sufferer becomes a ready victim to any prevalent disease. The use of Ayer's Cherry Pectoral, in the beginning of a cold, would guard against this danger.

There was recently cut out from the Pilkington quarry, Horwich, in one piece, without crack or flaw, a large stone, weighing upward of thirty-five tons. The dimensions are 14½ feet in length, 6 feet high, and 5 feet 3 inches wide. The London Engineer remarks, it is said to be the largest stone ever quarried in England.

WEATHER PREDICTIONS.

By Prof. C. C. Blake, Topeka.

[Correspondence on account of this Weather Department should be directed to C. C. Blake, Topeka, Kas. See advertisement of Blake's Weather Tables on another page.]

WINTER WEATHER.

The Signal Service reports show that thus far the temperature and precipitation for December have been almost exactly as predicted at all points from the Atlantic to the Pacific. While the nice weather is about over, yet we do not expect extremely cold weather for the rest of the month, especially in the latitude of Kansas. But as there will be a good deal of stormy weather with a large fall of snow and rain the last of December and in January, it will be well to provide plenty of fuel as soon as possible, and also to provide good shelter for stock. As there is not much for farmers to do now except to care for stock and get ready for spring work, we advise them to study the long columns of figures in our "Tables," that they may know what the crops will be next year in all parts of the world and thus be able to make their plans for next year so as to raise those crops which will pay the best. In many parts of the United States success will not be attained by raising such crops as the farmers have been accustomed to. They should send now for such seed as may be needed, as indicated in the Tables. Then abundant success will be assured in many localities, with fair success in many of the remaining sections.

For \$1.50 we will send one of Blake's Weather Tables for 1889 and the KANSAS FARMER for one year.

One of the greatest problems confronting the farmers of this day is "How shall we construct a fence that will not be only cheap and effective, but also free from the necessity of using steel points or barbs?" We believe that the invention of steel stay guards goes a long way toward solving the problem. Such an improvement was on exhibition at the Fat Stock Show recently held in Chicago, and attracted the attention of thousands of farmers, who pronounced it the best fence ever made of wire and steel. A close investigation shows it to be based on strictly scientific principles. The fence-strands used are common steel wire, the patent resting on the stays only. These stays are about twelve inches in length, made of rolled steel, double-jointed in a rubber paint specially prepared, thus averting the possibility of corrosion and strengthened by steel wire of high quality. The steel wires are stapled firmly only at the end posts, so that, in a stretch of say forty rods, there would be but two posts on which the strands would be immovably stapled, the intermediate posts holding the wires by staples, permitting the free longitudinal motion of the wires. What is gained by this may be readily seen—a longitudinal strain on both stays and strands. The patentees of this invention are the Wire Fence Improvement Co., of Chicago.—Farmer's Review (Chicago), December 5, 1888.

The fabric known as Chinese grass-cloth is made from the fiber of nettles. The cloth is peculiarly glossy and transparent, and as belting for machinery has double the strength of leather.

For Sale.

A mixed herd of Ayrshire cattle, nine in all—yearlings, cows, etc. Herd at Kingman, Kas. For information address Dr. E. F. Butterfield, Syracuse, N. Y.

Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought. T. E. BOWMAN & Co., Jones Building, 116 West Sixth Street, Topeka, Kas.

Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for Consumption. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Express and P. O. Address. Respectfully, T. A. SLOCUM, M. C., 181 Pearl St., N. Y.

FLORIDA EXCURSIONS -- LOWER THAN EVER.

If you have any idea of ever visiting Florida, you should not neglect an opportunity which will soon be offered by the management of the Memphis Route (Kansas City, Fort Scott & Memphis R. R.). When a round trip rate of \$29.15, Kansas City to Jacksonville, Fla., with proportionate rates to nearly all other points in the State, is announced, we are sure it will be appreciated. Tickets will be sold December 18, January 15 and 29, and February 12 and 26, good going fifteen days from date of sale and valid for return passage at any time within sixty (60) days; these rates will apply not only from Kansas City, but from Fort Scott, Lamar, Springfield, Clinton and intermediate points; rates from principal stations on Joplin and Cherryvale Divisions proportionately low. Excursion trains will have Palace Reclining Chair Car (seats free) and Pullman Buffet Sleeping Cars. For map, time-card and full information, address

J. E. LOCKWOOD,
Gen. Pass. Agt., Kansas City, Mo.

Special Opportunity at the State Agricultural College.

The college will organize at the beginning of the winter term—January 7—classes in common branches of various grades of advancement suited to the wants of students at district schools who want the advantages of the college training. The requirements for admission will be the same as at the beginning of the year in September. Students over 18 years of age may be received upon special conditions, where for lack of opportunity they are deficient in one or more of the branches named. The examination will be held on Monday, January 7, but admission will be possible at any time upon showing sufficient advancement to enter classes already in progress.

The education offered at the college is of the best for all ordinary purposes of life. Farmer's sons and daughters have special consideration of their wants in the sciences directly related to agriculture; household economy and mechanic arts are also provided for. An able corps of teachers and excellent equipments make the teaching in every way superior. Tuition is free. For further information address

PRES. GEO. T. FAIRCHILD,
Manhattan, Kas.

No successful method of growing stock without liberal feeding has been discovered. Liberal grazing is a good equivalent.

Cream should have a uniform consistency, as well as being of uniform ripeness when it goes to the churn, says a writer.

Hull's Hotel and Restaurant.

The only restaurant with special parlor for ladies; the finest in the city. 723 Kansas avenue.

An ingenious inventor has devised a new screw—half nail and half screw; two blows of the hammer, two turns of the screw-driver, and it is in. Its holding power in white pine is said to be 332 pounds against 298 pounds, the holding power of the present screw.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Power's Block, Rochester, N. Y.

Half-rate Holiday Excursions.

On Monday and Tuesday, December 24 and 25, and December 31 and January 1, tickets will be sold between all points on the Kansas City, Ft. Scott & Memphis R. R., Kansas City, Clinton & Springfield Ry., and Current River R. R. at half rate (one fare for the round trip), except that no round trip tickets will be sold under this arrangement for a less rate than 50 cents. Tickets will be sold only on the dates mentioned above, good for return passage until and including January 3, 1889.

J. E. LOCKWOOD,
Gen. Pass. and Ticket Agent,
Kansas City.

The Home Circle.

To Correspondents.

The matter for the Home Circle is selected Wednesday of the week before the paper is printed. Manuscript received after that, almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

The Stove in the Village Store.

When the twilight had deepened to darkness
They gathered from far and near,
Old farmers who plodded the distance
As pilgrims their shrines to revere;
At the shabby old store at the "corners"
They met and they entered the door,
For the Mecca of all these old cronies
Was the stove in the old village store.

It was guileless of beauty or polish,
And its door was unskillfully hung,
But they made a glad circle around it,
And the genial warmth loosened each tongue;
And they talked of the crops and the weather,
Twin subjects to gossip most dear,
And the smoke from their pipes, as it blended,
Gave a tinge to the whole atmosphere.

Full many the tales they related,
And wondrous the yarns that they spun,
And doubtful the facts that they stated,
And harmless the wit and the fun;
But if ever discussion grew heated
It was all without tumult or din,
And they gave their respectful attention
When a customer chanced to come in.

When the evening was spent and the hour
For the time of their parting had come,
They rapped from their pipes the warm ashes,
And reluctantly started for home;
Agreeing to meet on the morrow,
When the day, with its labors, was o'er,
For the Mecca of all the old cronies
Was the stove in the old village store.
—Mrs. E. A. Treat.

And, as in sparkling majesty a star
Gilds the bright summit of some gloomy cloud,
Bright'ning the half-veiled face of heaven afar,
So, when dark thoughts my boding spirit shroud,
Sweet Hope! celestial influence round me shed,
Waving thy silver pinions o'er my head!
—Keats.

He was not born to shame;
Upon his brow shame is ashamed to sit;
For 'tis a throne where honor may be crowned
Sole monarch of the universal earth.
—Shakespeare.

CONFEDERATE DRESS.

How the People of the South Clothed Themselves.

"Costly thy habit as thy purse can buy" was a maxim of necessity in the hard times; for there was no raiment the subject of barter or sale which was inexpensive. Sporadic instances taken at random prove the general rule. In August, 1864, a private citizen's coat and vest, made of five yards of coarse homespun cloth, cost \$230 exclusive of the price paid for the making. The trimmings consisted of old cravats; and for the cutting and putting together, a country tailor charged \$50. It is safe to say that the private citizen looked a veritable guy in his new suit, in spite of its heavy drain upon his pocketbook.

In January, 1865, the material for a lady's dress which before the war would have cost \$10 could not be bought for less than \$500. The masculine mind is unequal to the task of guessing how great a sum might have been had for bonnets "brought through the lines;" for in spite of patient self-sacrifice and unfaltering devotion at the bedsides of the wounded in the hospital, or in ministering to the needs of relatives and dependents at home, the Southern women of those days are credited with as keen an interest in the fashions as women everywhere in civilized lands are apt to be in time of peace. It was natural that they should be so interested, even though that interest could in the main not reach beyond theory. Without it they often would have had a charm the less and a pang the more. Any feminine garment in the shape of cloak or bonnet or dress which chanced to come from the North was readily awarded its need of praise, and reproduced by sharp-eyed observers, so far as the scarcity of materials would admit.

But fashion's rules were necessarily much relaxed in the Southern Confederacy; so far as practice went when even such articles as pins brought through the blockade sold for \$12 a paper, and needles for \$10, with not enough of either.

The superstition expressed in the couplet,
See a pin, and pick it up,
All the day you'll have good luck,
gained its converts by the score; more, however, as can be readily imagined, for the sake of the pin itself, which it was a stroke of happy fortune to find and seize, than of

any other good luck that was to accompany the finding. The broken needle of Confederate times did not go into the fire or out of the window, but was carefully laid aside until the red sealing wax of the ransacked desks and secretaries lent it a head wherewith to appear as a handsome and useful pin. To obtain the bare materials out of which to fashion garments for the family and for the servants soon became a serious question. The house carpenter and the blacksmith were called into service to this end, and cotton once more became king, though of a greatly diminished sovereignty. Carding combs of a rough pattern were constructed for the purpose of converting the raw cotton into batting, and thence into rolls of uniform length and size for spinning. The hum of the spindle and the clank of the loom treadle were the martial music with which the women at home met the fierce attacks of the legions of cold and nakedness.

Spinning-wheels, reels, bobbins, looms, and all the appurtenances for the weaving of cloth were made and used at home; and the tollers in the cotton fields and the spinners in the loom shed worked on contentedly, with a seemingly sublime indifference to the mighty struggle that was convulsing a continent for their sakes. Of this dusky people it may here be said that, no matter what philanthropists, politicians or philosophers have said of them in the past or shall prophesy of them in the future, they were true to every trust reposed in them; and with a most tremendous power for direct evil in their possession, the negroes of the South in the days of the civil war did naught but good. If the "colored troops" of the Union army "fought nobly," the slaves of the Southern plantation so bore themselves in those stirring times as to merit no smaller meed of praise.

Cotton and woolen fabrics of firm and substantial texture were woven, cut and fashioned into garments for whites and blacks. Plentiful crops of flax re-enforced the array of wool and cotton, and many a little flax wheel which in the days of peace has since moved North to adorn in its newly gilded and beribboned state the boudoir of some æsthetic girl might tell pathetic tales of its former place of residence if the tongue of its tiny spindle had but speech.

The dyes of the forest wood barks, of the sumac, of the Carolina indigo and of the copperas from the numerous copperas wells were utilized to color the cloth thus woven. We read in the current newspapers that "a handsome brown dye" is made by a combination of red oak bark and blue stone in boiling water; and that "a brilliant yellow" may be obtained by pouring boiling water upon other component parts of "sassafras, swamp bay and butterfly root." The same authorities tell us that "vivid purples, reds and greens" were produced from a composition of coal oil and sorghum, tinted with the appropriate tree bark; though of coal oil for other purposes there was all too little. If a great similarity of quality and texture existed in the homespun cloth, the enumeration of the foregoing means of dyeing clearly demonstrates that there was at least opportunity for as great diversity of color as distinguished the famous coat of Joseph; though the reader of to-day is apt to look with some suspicion on the conspicuous forwardness of the adjectives "vivid," "brilliant," "splendid," which always accompanied these talismanic recipes.

Strong thread for sewing was evolved from the little flax wheels. For any unusually handsome work, if by any odd chance such work should happen to be demanded, sewing silk was procured in an emergency by raveling the fringes of old silk shawls or picking to pieces silk scraps which had survived time's touch, and carding, combing, and twisting them into fine threads. These little silken "hanks" were sometimes so prettily colored by means of the dyes that have been described, as to become in the eyes of the womankind of that generation almost as beautiful as the many-shaded, dainty flosses of the present are to the women of to-day.—A. C. Gordon, in the Century.

Benefits of a Merry Mind.

But who gains through any one's grieving and crying for months over anything? Is it pleasant to visit the friend who is always doing the doleful and pumping from lachrymal fount and treating you to tears. The same strength that pumps up tears can pump

up smiles. If the boiler bursts and I am blown up sky high and come down in small pieces, and you can stick me together again and put me on a bed, don't stand around it crying and sobbing and wringing your hands as if your hearts would break. I don't want your hearts to break. But call in a fiddler and set him to work on the "Arkansas Traveler," "Yankee Doodle" and "The Girl I Left Behind Me," or the girl who left me behind in the cold. That'll do me some good.

"A merry heart," saith the Scripture, "doeth good like a medicine." Why? Because a cheerful, merry mind sends from it to you a current of life, health-giving element—thought as different from a thought current of gloom as champagne differs from tar. It's a current as real as a current of water—as real as the current of invisible water that in warm weather runs just above the visible water and along with it is drawn from it by the heat of the sun.—Prentice Mulford, in New York Star.

Notes and Recipes.

The residuum after the effervescence of love is common sense, which is the groundwork of well-regulated matrimony.

Cheese cloth makes a pretty and durable covering for a new comforter, and knotted with pink or blue twine, the cream-white covering is very attractive.

Vanderbilt became the great communist of the time when he reduced the cost of moving a year's supply of food a thousand miles to the measure of a day's wages of an ordinary mechanic.

Look out for the stoves in sleeping rooms, and never on any condition close all the dampers when there is a fire in them, for fear of some defect in the draught, and the danger from coal gas.

No set of circumstances that does not include a perfect enthusiasm of the soul for universal good, can ever enable men to overcome the slothfulness of their animal nature and do their human best.

I have two ways of canning pumpkin. One is to pare and cut the slices in little block shapes, steam until thoroughly done, then fill into the cans like any fruit. When wanted for use, heat and rub through the colander.

If the baby is creeping or is much on the floor, keep it from the door, for, unless extra tight fitting, there is draft enough comes from under doors in cold weather to bring on a disease from which the little one may never recover.

In sincerity of passion and aspiration, as well as in woefulness and humiliation that attended its downfall, the history of the Confederacy stands pre-eminent in human epochs. Everything about it was on a grand scale. The man who fights and wins is only common in human esteem. The downfall of empire is always the epoch of romance.

Many mothers are opposed to flannel night-dresses, claiming that if white they grow yellow in a short while; yet if they are washed properly this will not occur, and certainly they are more comfortable for children during the winter than cotton. By using a good quality of Shaker flannel this objection is overcome, for these goods with very little care grow whiter each time they are washed, which is more than can be said of the cotton flannel used so much for the same purpose, which grows gray when used for any length of time, despite good washings.

A Shaker flannel night-dress is just the thing for a mother with little ones, who is supposed to get out of a warm bed at any hour in the night to attend to the children when called. To be sure, a warm wrapper should be always at hand for use, but there are times of sudden illness that require such prompt treatment that even this cannot be immediately put on, consequently if the night-dress is warm, unless she remains too long, there is no chance of either cold or discomfort. Across the shoulders and breast place two thicknesses of the flannel.

Cleaning Furs.—Now that the season has arrived for getting out fur garments, some of our readers will doubtless be glad to hear how such garments are cleaned and renovated in Russia, the country of furs. Some rye flour is put into a pot and heated upon a stove, with constant stirring as long as the hand can bear the heat. The flour is then spread over the fur and rubbed into it.

After this, the fur is brushed with a very clean brush, or, better, is gently beaten until all the flour is removed. The fur thus resumes its natural luster and appears absolutely as if new.

A thorough overhauling of the bed coverings, if not already attended to, should be made as soon as possible. Repair comforters and blankets. Old comforters that need much mending will last much longer and look much better if after mending they are re-covered with new material. When blankets are much worn they can be made to last longer by running the pair together and covering with calico, knotting or running together on the outside.

Information for Lamp Owners.

The portion of the wick which is in the oil reservoir should be enclosed in a tube of thin sheet metal, open at the bottom; or in a cylinder of fine wire gauze, such as is used in miners' safety lamps (twenty-eight meshes to the inch).

The oil reservoir should be of metal, rather than of china or glass.

The oil reservoir should have no feeding place nor opening other than the opening into which the upper part of the lamp is screwed.

Every lamp should have a proper extinguishing apparatus.

Every lamp should have a broad and heavy base.

Wicks should be soft—not too tightly plaited.

Wicks should be dried at the fire before put into the lamps.

Wicks should be only just long enough to reach the bottom of the oil reservoir.

Wicks should be so wide that they quite fill the wick-holder without having to be squeezed into it.

Wicks should be soaked with oil before being lit.

The reservoir should be quite filled with oil every time before using the lamp.

The lamp should be kept thoroughly clean; all oil should be carefully wiped off, and all charred wick and dirt removed before lighting.

When the lamp is lit the wick should be at first turned down, and then slowly raised.

Lamps which have no extinguishing apparatus should be put out as follows: The wick should be turned down until there is only a small flickering flame, and a sharp puff or breath should then be sent across the top of the chimney, but not down it.

Cans or bottles used for oil should be free from water and dirt, and should be kept thoroughly closed.—Good Housekeeping.

Juan A. Pizzini, editor and publisher of the *Catholic Visitor*, Richmond, Va., says: Having tried Shallenberger's Antidote for Malaria, we do not hesitate to say, from personal experience, that in our case it acted like a charm, and did all the doctor claims for it, and we would assuredly have recourse to it again if exposed to Malaria. Sold by druggists.

The manufacture of paper bottles is to be begun on a very extensive scale.

It is estimated that one-half of all the drugs imported into the United States are consumed in the manufacture of patent medicine.

In 1751 the dress of a French dandy consisted of a black velvet coat, green and silver waistcoat, yellow velvet breeches and blue stockings.

It is said by some one curious in these matters, that there is not a chimney nor a cooking stove in Havana; not a carpeted room nor a feather pillow.

According to Prof. Potter, asphalt, the article of prominent commercial importance of the present day, was used in the building of the tower of Babel and other ancient structures.

To harden plaster of Paris add 5 or 10 per cent. of hydraulic cement to the plaster before wetting. Five per cent. of finely-ground sulphate of potassium will give even a greater degree of hardness.

No remedy for blood disorders can equal Ayer's Sarsaparilla. Though concentrated and powerful, this medicine is perfectly safe, and may be taken by children as well as adults. Physicians recommend it in preference to any other. Price \$1. Worth \$5 a bottle.

KANSAS FARMER.

ESTABLISHED IN 1863.

A TWENTY-PAGE WEEKLY,

Published Every Thursday by the

KANSAS FARMER COMPANY.

OFFICE:
KANSAS FARMER BUILDING,
Corner Fifth and Jackson Sts.S. J. CRAWFORD, - - - - - PRESIDENT.
J. B. McAFEE, - - - - - VICE PRESIDENT.
H. A. HEATH, - - - - - BUSINESS MANAGER.
W. A. PEPPER, - - - - - MANAGING EDITOR.SUBSCRIPTION PRICE:
ONE DOLLAR A YEAR.

An extra copy free one year for a Club of six, at \$1.00 each.

Address KANSAS FARMER CO.,
Topeka, Kansas.

ADVERTISING RATES.

Display advertising, 15 cents per line, agate, (fourteen lines to the inch).
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.
Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of the *KANSAS FARMER* free.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send the cash with the order, however monthly or quarterly payments may be arranged by parties who are well known to the publishers or when acceptable references are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free during the publication of the advertisement.
Address all orders.

KANSAS FARMER CO.,
Topeka, Kas.

The people in Ness City propose to have a sugar factory next year.

An interesting Farmers' Institute was held at Sterling, Rice county, last week.

The KANSAS FARMER one year would be a useful Christmas present to a friend.

The thirty-first annual meeting of the Missouri State Horticultural Society was held at Nevada, Missouri, last week. A synopsis of proceedings will appear in KANSAS FARMER next week.

The Governor-general of Canada recently ordered that the export duty on pine logs shall be increased to \$3 per 1,000 feet board measure, which is about equal to \$1 a thousand feet of sawed lumber.

A company has been organized in Atchison for the manufacture of vitrified brick, terra cotta and sewer pipe in this city. The excellent quality of clay found in the vicinity of Atchison makes good paving brick.

People East and South like to hear from Kansas often. Let us send the KANSAS FARMER a year to our friends. It will be better than all the letters we can write during the year. It represents Kansas better than any other paper.

The Prohibitionists at the late election did not poll a vote in South Carolina, had only 127 votes in Louisiana, 403 in Florida, 218 in Mississippi, and 583 in Alabama. Very properly the Prohibition committee decided to give more attention to the South.

A bloody encounter between black and white citizens was reported last Saturday at a place about forty miles south of West Point, in Mississippi. Twelve white men and "over a hundred and fifty negroes" reported killed. Quarrel originated in a fight between a white man and a negro when the latter was killed. Later reports differ as to cause and number of persons killed, but all agree as to the bloody character of the affair.

CHRISTMAS GREETING.

Before another number of the KANSAS FARMER is issued the glorious Christmas season will have been passed by all its readers. We say *glorious* Christmas season, because of all times which the human heart feels this is the harvest time, when the holiest influences are at work, when the best deeds are performed, and when the best thoughts are garnered. Greatness in men's estimation is hardly large enough to measure with standards set up by the Omnipotent One. Men have marshalled armies, conquered enemies and set up kingdoms, and these things are written out in history as grand achievements wrought by intellectual skill, wise statecraft and personal heroism. But take the Master's weighing scales and place in one the whole army of Xerxes, then pile upon it the conquests of Alexander and the wars of Napoleon, and in the other place the simple gift of a friend on Christmas morn—a gift valueless in the world's coinage, but freighted with the love and confidence of one whose heart sanctifies the gift, and the heart's tribute of friendship outweighs the deeds of warriors reputed great.

It seems like a little thing, and so it is, gauged by ordinary standards of human measurement, to pass a gift over to a friend; but when we consider what the gift has cost in the purest and best mintage of the heart, a trifle becomes a pearl, because with it goes the love of a friend. The most valuable gifts are those which come from moneyless hands. A father, a mother, a child, a lover, poor in this world's goods, grows rich when Christmas approaches; the spirit of Him in whose memory we celebrate the time, fills up the hearts of men and women with good thoughts and holy aspirations, equalizing rich and poor during a temporary citizenship in the Master's kingdom, making a penny worth more than a pound. In this glorious season the gospel is preached to the poor, the gospel of love and peace, when all men are made better, when the sunshine of christianity glows in every home and mortals are brought nearer to Christly perfection.

The KANSAS FARMER wishes all its readers and friends a merry Christmas, hoping that every one will receive and give some token of friendship, some reminder of the good things stored deep down in human souls, something which will make two hearts happier. If our stores were as large as our hearts, how we would all be overwhelmed with gifts. But this cannot be; it ought not to be, for then, all there is good in giving and receiving gifts would be lost to us. If the heart is right the soul is rich. The best are the poor. "Better is a dinner of herbs where love is than a stalled ox and hatred therewith."

A gentleman, canvassing among mechanics and laboring people of Topeka for poor children to be entertained at a Christmas dinner in Library Hall, says he found very few poor children. The district canvassed is largely occupied by employes of the Santa Fe shops and these men are so well fixed that in some entire blocks not a child was found who could be called poor. Occasionally a widow accepted with tears of gratitude the tickets which would enable her children to have a pleasant evening in beautiful Library Hall, or a father, whose sickness prevented him from working, accepted thankfully the tickets so generously donated, says Mr. Barber, that after asking at several houses near the shops and getting no trace of a poor family he asked a grocer near Second and Madison streets if he could direct him to some needy family and after

thinking a moment and asking his wife he said that the only very poor family he knew near that corner had no large children. The grocer attributed the almost entire lack of abject poverty to the prohibitory law and said that the shop men now paid for groceries, rent and children's clothing much of the money formerly worse than wasted in drinking.

SUGAR-MAKING—IS THIS A NEW IDEA?

We are in receipt of a letter from Mr. A. J. Adamson, Sabetha, Nemaha county, containing a fact and statement which, on first thought, appear to be of great importance. Mr. Adamson incloses for our inspection a sample of sugar crystals which are one-sixteenth to one-eighth of an inch in length and half as much in width, of a light golden color, very sweet and grind between the teeth like bits of rock candy. These crystals, Mr. A. says he took from sirup which he made four years ago—took them out just before sending them to us. He roasted the cane before crushing in the mill, but he does not say how the operation of roasting was performed. He says the juice, when it comes from the cane is "clear as water, and the sugar is "clear as rock candy." He says "roasting the cane before it is ground takes all the greenness out of it." The important feature about this proceeding is the effect which "roasting" has on the juice. Does that destroy, or modify, or neutralize the effect of glucose? Does it to any extent relieve the difficulties experienced with "certain gummy substances" of which chemists speak when discussing sorghum sugar as to quality of product?

Further, Mr. Adamson says a plant for making sugar according to the roasting method—though he does not attempt even a general description of it—would not cost more than \$5,000. He says it gets all the sugar the cane will yield. There is no question about the beautiful crystals which he sends having been formed in the sirup made four years ago from cane that was "roasted" before "grinding" in the "mill;" but is there anything in the effect of "roasting?" And if so, is it sufficient to justify attempts at sugar-making with factories costing not more than \$5,000? If this be true, every school district can have its sugar factory, and the expensive plants already in place would be dead property. It would be equal to an avalanche of good things.

We will refer Mr. Adamson's letter to Prof. Cowgill, State Sugar Inspector, a competent chemist, with request that he give our readers the benefit of his opinion about it, and in the meantime, we respectfully request Mr. Adamson to write us a letter more in detail, showing how the "roasting" was done, stating whether any sugar was made then and saved, separate from the sirup; in short, a brief history of the work done. We feel very much interested in this case, for if there is anything in it, there is a great deal, and the farmers of Kansas will profit largely by it.

Later.—Just before going to press, Prof. Cowgill's comments were received as follows:

STERLING, KAS., December 17, 1888.

EDITOR KANSAS FARMER:—Mr. Adamson's letter is very interesting, to say the least. But to form an intelligent opinion of the merits of his appliances and processes requires further information. The sample of sugar sent shows that it has been a very long time forming the crystals. Let me suggest that Mr. Adamson state (1) how much cane will be worked per day with his \$5,000 plant? (2) How much sugar and sirup does he obtain per ton of cane worked? (3) What is the cost per ton of cane worked? Even should the answers to these questions not show the fullest success, it should not be concluded that Mr. Adamson's plan is without value. It is quite

within the range of possibility that it be made a part of a sugar-making process.

But those who will engage in the manufacture of sugar as a business will do well to adhere to processes and appliances which are known to succeed in practical application and to adopt innovations only when their experience shall have rendered them competent judges, and when their profits from sugar-making shall have enabled them to spend money on experimental work without expecting its immediate return. Successful sugar-making depends upon the intelligent application of scientific methods by means of machinery which has been brought to great perfection under the most careful scientific supervision, and while accidental improvements are not impossible, we must look for advances chiefly through such means as have brought us thus far.

Sugar-making from sorghum is now an established and profitable industry by well-defined methods and with standard machinery, and is practically free from patented processes or appliances. There is room for much improvement in methods and cheapening in machinery, and if Mr. Adamson shall demonstrate that he has done either of these things, his suggestions will be rapidly adopted by sugar-makers, notwithstanding his patent.

Very respectfully, E. B. COWGILL.

The Exodus of Mortgagors.

A great deal has been said recently in certain quarters about the depopulation of western Kansas by reason of men flying from their mortgages. We have not paid any attention to it, because it did not seem necessary; but silence seems to signify assent, which is not and has not been given. A friend calls our attention to a communication in the *New York Times* from Frank Wilkeson, whose lingual exuberance we several times took occasion to refer to in past years. Next week we will devote a column or two to Mr. Wilkeson's last defamation of Kansas.

The Trust Investigation.

During the last days session of the Senate committee investigating trusts, several witnesses stated that the law made last winter, reducing and fixing grain elevator charges, was a dead letter and not obeyed. One witness swore there were forty elevators between Buffalo and New York and Jersey City and Brooklyn included, in the elevator trust. Those which are closed received a percentage of the profits made by those in operation. The closed elevators are known to the trade as "dead-houses."

John B. Searles, Secretary of the Sugar Trust, was the last witness to be examined. He admitted that the increase in price of sugar was due to the formation of the trust, but he said it was not in excess of the prices that prevailed for the past ten years. Six refineries were running and ten had been closed.

Broomcorn Culture.

The letter of H. S. Graves, of Sherman county, printed in these columns two weeks ago, has justly attracted a good deal of attention, and the only way for him to relieve the situation is to give us more on the same subject, showing how he performed the work in the various stages of culture and care of the plant. Here is a sample letter which will aid him by way of suggestion:

HAVILAND, KIOWA CO., KAS.,
December 17, 1888.

EDITOR KANSAS FARMER:—In your issue of December 13, I see H. S. Graves, of Sherman county, has successfully raised broomcorn on sod. For the benefit of southwest Kansas, I would ask him to kindly inform us through the KANSAS FARMER his mode of curing, and oblige many farmers.

D. E. WINTERS.

Pres't Southwestern Kansas Farmers' Association.

For \$1.50 we will send Blake's Weather Tables for 1889 and the KANSAS FARMER one year.

FARMERS' CONVENTION AT WICHITA.

In pursuance of announcement, a large number of farmers from the southwestern counties met at Wichita last week and took counsel of one another in relation to the best crop to raise and how to raise them. Mr. Clement, welcoming the members of the convention, urged the formation of Farmers' Institutes all over the State for the purpose of exchanging ideas. The present convention, he thought, should form the nucleus for a permanent association. Daniel Winters, Kiowa county, was chosen permanent Chairman, and Senator John Kelly, of Sedgwick, Secretary. Several addresses were delivered on corn-raising, and the subject was pretty thoroughly discussed. Sugar-making and silk culture received considerable attention, and cotton-growing received some attention. Irrigation, also, was discussed. The following resolutions were adopted:

Resolved, That it is the judgment and recommendation of the convention that the farmers in all the different counties of southwestern Kansas form in their respective counties associations to be known as "Farmers' Institutes," which shall hold annual meetings in the interest of agriculture and the general advancement of all matters pertaining to the welfare of the farmers, and it shall be the duty of the Vice Presidents of this convention to take charge of this business and organize these associations in their respective counties, and that this convention become a permanent organization, to be known as the Southern Kansas Farmers' Association.

Resolved, That it is the sense of this convention that the Legislature of Kansas this winter shall make some arrangements for supplying seed corn to any farmer in western Kansas, who may have failed to raise a corn crop this past year, and who may be unable to furnish himself with the same.

Resolved, Third, That this convention urge upon our Legislature the necessity of passing an equity redemption law of two years after judgment, to reach such cases as those who are living on their farms and endeavoring to make for themselves permanent homes on the same.

Resolved, That we heartily approve the action of Congress in extending aid to the sorghum sugar industry and earnestly request a continuance of said aid until the industry is thoroughly established.

Resolved, That the Legislature of Kansas be requested to make sufficient appropriation of State funds to continue the payment of bounty of 2 cents per pound for the manufacture of sorghum sugar in Kansas.

Resolved, That the Secretary of this association be authorized to forward copies of these resolutions to members of the Kansas delegation in Congress and to the members of both branches of the Kansas Legislature.

On the subject of corn culture the following points were discussed:

1. Is corn planted upon fall plowing less liable to be affected by drouth?
2. Is deep plowing essential and important in guarding against drouth?
3. Is listing and deep planting any advantage?
4. Is deep cultivation or shallow the better way?
5. How early should corn be planted? Is there danger in this soil of its rotting if the ground is too cold?
6. If planted early is there much to be feared from late spring frosts?
7. Does late culture not make late corn? When should cultivation cease?
8. If we would have the ground retain the moisture how soon should one plowing follow another?
9. Does a moist soil produce a moist atmosphere, and if so will corn growing upon a moist soil be as liable to be blasted by the hot winds?
10. Is not the blight from hot winds (as they are called) not more owing to the dryness of the atmosphere than the heat?
11. How early should corn be matured to escape the injurious effects of the hot dry winds?
12. How much earlier would the same variety of corn brought from the interior of Iowa or southern Minnesota be than that which had been raised here?
13. Could the earliest varieties of corn though yielding less at times, be made more profitable than the larger and later kinds being so much less liable to injury from drouth and hot winds than the later?
14. What varieties of early corn will be best suited to this part of the State?
15. Does not harrowing and thorough

pulverizing of the ground before planting corn give a much healthier growth to the young plant and thus facilitate its maturity.

Nothing was decided by the convention touching any of the methods of culture recommended by different members, but a committee was appointed to act in connection with the Wichita Board of Trade to secure northern seed corn for such persons as desire it.

MORE BRAN-FED STEERS.

Monday of this week, the writer hereof saw a lot of thirty-six 2 year-old steers belonging to Colonel Guilford Dudley, whose farm is a mile or two south of Topeka. The cattle were to be driven to the stock yards that evening for shipment to Kansas City. They were all grade Herefords—half breeds, except three or four which had a little Short-horn blood in them—just enough to show. They were all purchased about two years ago and were then about five months old, so that they are very nearly the same age. They were roughed through the first winter with other cattle on the farm, and put on grass during the following summer, with similar treatment the second winter and summer, none of them ever having been fed any corn until last month. When taken off grass this year, they were fed wheat bran with hay, and the last thirty days they have had a little corn with the bran. Before that time, however, nothing except bran in the way of "grain feed" was ever fed to them, so that they may be called bran-fed steers. Their gain has been about two pounds a day since the bran-feeding was begun, and there has been no increase of grain since corn was added to the ration.

These steers were weighed the last time on the first day of this month, the Herefords averaging 1,415 pounds, the others ranging from 120 pounds to 200 pounds more. A fair average of these latter—a red steer, with short but rather clumsy horns, was weighed for our information Monday and raised the beam at 1,590 pounds. Allowing a daily increase of two pounds since the last weighing, just what was gained the last two months, the average weight of the Herefords, Monday which was the 17th day of the month, was 1,449 pounds, or 140 pounds less than that of an average low grade Short-horn.

These figures are given to show that Colonel Dudley still makes good beef with bran, and to show further that in this case, as in one before reported from the same farm, the Short-horns are the heavier animals, same age, same feed, and in this case inferior breeding. Next week we will be able to report the weights more exactly.

Subscribe now for 1889. The KANSAS FARMER the best dollar farm weekly in America. No farmer can afford to be without this paper for 1889. We propose to make every one of the fifty-two issues worth at least \$1 each—in other words \$52 worth of information for only \$1. Invest now.

Mr. James W. Bouk, proprietor Greenwood Seed farm, near Greenwood, Cass county, Nebraska, forwarded to this office last week some specimens of corn and potatoes raised this year on his grounds. Of potatoes the following varieties: Pride of Nebraska, Rose's Beauty of Beauties, New Queen Vic's Ohio Junior, Peachblow Seedling. Of the last named variety, Mr. Bouk says he has potatoes so large that fifteen of them weigh a bushel, and we do not doubt, looking at those he sent us. Of corn, the varieties sent are—Early California, King of the Earliest, Mammoth Cuban corn. He says the Mammoth

Cuban this season yielded eighty-eight bushels per acre. He also sent a sample of Vick's American Banner oats, "which yielded this season with ordinary cultivation 110 bushels per acre, quality like sample sent. These samples give evidence of careful selection and culture. We would advise our readers—those of them who want fresh seed corn and potatoes, to correspond with Mr. Bouk and get his catalogue. See his card in the KANSAS FARMER next week.

The Wool Market.

A special dispatch from Boston last week stated that it is gradually being developed that the situation throughout the world was never more favorable, and that the future is full of promise of profitable business and hardening markets. Where the advance will cease and a retrograde movement commence can not now be determined. Many large lots of California and Territory wools have been sold during the week at full prices, and some other large sales could have been made had the dealers been willing to accept the buyers' bids. As a rule, however, it has been a quiet week and a majority of the dealers report only a fair inquiry and comparatively small sales. Manufacturers in many cases have been taking account of stock, doing so a month earlier than is customary in order to be better prepared for the opening of heavy-weight goods in January. This fact serves to keep the market quiet, but undoubtedly the principal cause of the falling off in the output is due to the limited amount of wool now available here, which has been made smaller than ever before at this season of the year by the enormous sales during the past few months.

SPECIAL CLUB OFFER.

In order to accommodate a large number of our subscribers who want a representative State newspaper which will give all the State and telegraphic news, and full reports of the Legislature, we have concluded to offer the *Weekly Capital Commonwealth* and the KANSAS FARMER one year for only \$1.50. This offer holds good only till February 1, 1889.

Referring to corn culture, Mr. J. A. Hopkins, of Miami county (Postoffice, Paola), writes: "I have a field of about fifty acres, which has been in clover pasture three years. The subsoil is a stiff clay. I expect to plant this ground with corn next spring. My idea of this ground is that it should be plowed to the depth of about seven inches and thoroughly subsoil plowed to the depth of seven inches, making fourteen inches in all. But it would be almost impossible to do this work with horse power. To do it as it should be done would require steam power, and I doubt if there is an engine in Kansas properly equipped to do the work as I have described. This kind of cultivation will go far towards solving the problem of drouth and wet in Kansas."

OUR "d-52" SUBSCRIBERS.

No doubt many of our subscribers have noticed "d-52" on the printed label of their paper. It means that the time of your subscription expires with the year 1888. RENEW NOW FOR 1889. You can send in a club of only six subscribers for one year and get your paper free. We want every subscriber to renew and send in as many more subscribers as possible. We want to make a better paper every year, and we will do it if every reader will help us just a little. Let us get ready now for a prosperous year in 1889.

Restoring Soil Fertility.

Discussing this subject generally, our Boston contemporary, the *American Cultivator*, suggests that through a larger part of the country than the advocates of the great West will admit, the means of improving worn-out or impoverished land are the most practical questions in farming. It is almost certain that in large portions of Dakota, even before it is admitted to Statehood, successive wheat cropping has seriously diminished the yield. In Minnesota this failure of the soil occurred several years ago, and so suddenly that it is recognized as an era by farmers and other business men. Talking with a farmer recently from that State, he remarked that it was a common thing to hear events dated from the year of the wheat failure. It was at the time thought to be a temporary affair, the result of bad season, drought and insects, but experience has shown that the diminution in the wheat yield then experienced was due to more serious causes, as it has continued ever since.

This condition of affairs is not an unmixed evil. It makes impossible the spendthrift extravagance of fertility which has marked Western farming, and has put the Eastern farmers at so great a disadvantage. The greatly improved machinery for harvesting grain crops has not only enabled Western farmers to exhaust their farms more rapidly, but has also obliged farmers in the East to pursue the same system. Less stock has been kept in localities where grain can be grown, and the deficiency in barnyard manure has been made up by the purchase of commercial fertilizers, good in themselves, but not furnishing a lasting manure for the improvement of the soil.

The unsymmetrical character of much modern farming is shown by the smaller proportion of land devoted to grass and hay. These do not give the immediate profit that grain crops do to average farmers, but they are better for the permanence of the business. If a farm is plowed every year, and the product sold at low prices, as it has been of late years, it is scarcely possible for the farmer to avoid financial ruin. The fertility of his land, which is his capital, is being exhausted, and when that is gone he has no way to easily replace it.

The best of all restoratives of fertility is clover. The farmer who sows clover seed liberally can hardly make a mistake. On the great majority of farms the distance from market is so great that clover hay does not pay at the comparatively low price it brings to draw away. If fed on the farm it makes a valuable manure, and at the same time the hay crop is growing the clover roots are deepening the soil for future crops. The farmer who grows clover largely can afford to try the commercial fertilizers, for the clover roots fasten the mineral fertility in the soil, instead of allowing it to become inert and worthless.

Inquiries Answered.

The address of Mr. English is J. W. English, Cimarron, Gray Co., Kas.

ICE HOUSE.—Will you please give a method for the preservation of ice without the use of sawdust.

—Cut straw or hay, or dry sand will do as well as sawdust.

SUGAR MAKERS.—Mr. C. D. Baxter, Ford, Ford county, wants correspondence with persons who desire to invest money in Kansas sugar-making. Farmers in western Kansas are getting to be quite anxious to establish works of that kind, taking stock themselves to a reasonable extent, payable in cane.

Patents to Kansas People.

The following list is prepared from the official records (through Washington office) by J. C. Higdon, solicitor of patents, Hall Building, Kansas City, Mo., from whom information relating to patents may be obtained. A printed copy of any patent here named can be had for 25 cents:

Force-pump—Stephen F. Farrow, Rago, Washburn machine—Erasmus W. Allen, Seneca.

Draft attachment for harness—Jacob Bloodel, Kansas City, Kas.

Carpenter's trestle—Henry C. Smith, Lawrence.

It is said that the cheese factory has developed rapidly in Dakota during the last two years. Factories are scattered all over the provinces.

Horticulture.

STATE HORTICULTURE.

Special Correspondence Kansas Farmer:

The twenty-second annual session of the Kansas State Horticultural Society convened in the city of Hutchinson, at 10 a. m., Tuesday, December 4, 1888, with Judge L. Houk President, and Geo. C. Brackett Secretary.

After prayer the President made a few appropriate remarks and then announced the following committees: On Credentials—Capt. G. F. Hayden, S. F. Taft, J. W. Byram; Program—Mrs. E. H. Richardson, A. M. Switzer; Arrangement of Exhibited Products—S. F. Taft, D. M. Wright, G. F. Hayden; Constitution—Judge L. A. Simmons, F. Wellhouse, B. P. Hanan; Obituary—Horace J. Newberry, Capt. E. P. Deihl, Capt. F. L. Mintie; Exhibited Products—A. M. Switzer, A. Willis, M. Allen; Auditing—C. L. Easley, T. T. Taylor, G. Bohrer; Final Resolutions—Samuel Reynolds, George Olivant, W. Marlatt.

The remaining of morning exercise was devoted to county reports on condition of fruits, etc. The reports were continued during most of the afternoon, and being from all parts of the State a fair epitome was had, showing favorable condition everything considered.

At this juncture a motion prevailed providing for a committee on membership—Judge L. A. Simmons, C. G. McNeal, W. Marlatt, were appointed, after which the report of Committee on Orchards was presented by Geo. Olivant, of McPherson county. It contained many valuable thoughts which should be practically applied by every one engaged in fruit culture, especially in west-central Kansas; yet, with due regard for the committee, a few salient points appeared which were readily detected by the argus ears of Judge Simmons and Dr. Bohrer, whose criticisms the society fully appreciated.

The evening meeting was of more than ordinary interest, being opened with a choice selection of music, finely rendered, by a quartette of male voices, followed by the President introducing Gen. Taylor, of Hutchinson, who in language sweet as the morning, pure as the air and true as steel, welcomed the society as guests of the city and its freedom. A response was tendered by Will T. Walker, of Wellington, which demonstrated beyond doubt, that for aptness to the occasion and fitness of words he was the right man in the right place—a bright future awaits him.

SECOND DAY.

The society met at 9:20 a. m., and after prayer, a motion prevailed resuming county reports, which was indulged in for a while to good results, then a committee—B. P. Hanan, W. H. Mears, John Mentch, was appointed to investigate and report on the Comanche currant, a wild blackberry grown in Pratt county, a new blackberry found in Marion county, and a native blackberry of Cowley county. Said report to be made at the next annual meeting.

At this point a local committee invited the society to a drive through the city during the afternoon. On motion of Capt. Deihl the invitation was promptly accepted and 1:30 o'clock the time designated. After which a motion prevailed referring President's annual address to Committee on Constitution. A Committee on Nomination was appointed—J. W. Byram, Samuel Reynolds, W. H. Mears; also on Transportation—Geo. C. Brackett, Judge F. Wellhouse, Frank Holsinger.

Mr. Schlichter, of Rice county, reported a case of blight in an orchard in his county which aroused a lengthy

discussion, and it finally simmered down to the fact that the trees were dying from exhaustion and not from blight. The trees had been planted too close together. J. W. Byram, of Chase county, corroborated this conclusion by a statement of a personal examination, and said that wherever they are crowded with other trees they almost always die. On motion a committee consisting of Geo. C. Brackett, Dr. G. Bohrer and J. B. Schlichter, was appointed to investigate this supposed blight and report at an ensuing session.

The report of Committee on Meteorology was next in order, and ably presented by Prof. T. B. Jennings, of the Kansas Weather Service, from which it is learned that during the years of 1886-87, one hundred signal stations have been organized in the State.

The service having no funds to establish them, it has simply been a labor of love, relying upon the future of our people, as a State, to open the way whereby the stations may become permanent, their value having already been determined beyond a shadow of doubt.

The question of next annual meeting arose and Dr. G. Bohrer moved that it be held at McPherson, in which were several hearty seconds, but on query from Judge Wellhouse, the Secretary answered that six or eight applications were already pending, some of them dating back three years. There being so many desiring the honor, Judge Wellhouse moved that the subject be referred to the Executive Board, and the same prevailed.

The Committee on Constitution reported as follows: That article V. of the constitution be amended so as to read: "It shall hold an annual meeting in December and may hold a semi-annual meeting in the growing season of each year at such time and place as the society or Board of Trustees may direct." After slight discussion the report was adopted.

Next came the report of Committee on Entomology, by Prof. E. A. Popenoe, which was very concise and to the point; however, questions arose regarding benefits derived from spraying, and his answers were promptly given. Interested persons can write the Professor at Manhattan, Kansas, and have him send a report on experiments.

At the time appointed the members were seated in elegant carriages and at once wended hither and thither through one of the most beautiful and progressive cities of the universe. Much has been said of happy Hutchinson and her boundless resources, but to understand the full import and meaning, and to appreciate the possibilities of the future one must see for himself, as the half can never be told. I have visited eighty-one counties in the State of Kansas, besides many points in adjoining States, and find that but few cities have made as rapid and substantial development as that of happy Hutchinson. Only a short time ago this city, now known the world over, was but a hamlet of uncertain existence—a venture, as it were, upon the possibilities of the unknown future. But the change from a possible hamlet to that of a city containing over 15,000 people, has been marvelous, indeed a miracle of magical wonder. And now possessing an overwhelming majority of facilities—railways, telegraphs, telephones, gas, electric light, street railways, water works, etc., she becomes one of the foremost cities of our country and mayhap of the universe. You may ask what has caused such conclusions? I simply answer—salt. It has been, of a truth, said that Kansas is destined to be the nation's "sugar bowl." I would

add that she is already the nation's salt barrel, and Hutchinson its opening.

On re-convening, President Houk read the following telegram from Hon. Geo. Y. Johnson, a former President of the society: "Hearty greetings. I hope your meeting is successful."

By prevailing motion the Secretary was instructed to send friendly greetings to the horticultural society of our sister State, in session at Nevada, Mo.

The report of Committee on Small Fruits, by B. F. Smith, of Lawrence, was next in order. It was full of timely suggestions and good advice to the fruit-grower; and at close elicited quite a discussion in which many participated, followed by adoption of same without material change.

The Committee on Nominations reported as follows: For President, Judge L. Houk, of Hutchinson; Vice President, Martin Allen, of Hays City; Secretary, Geo. C. Brackett, of Lawrence; Treasurer, Frank Holsinger, of Rosedale; Trustee, Southern district, Judge L. A. Simmons, of Wellington.

The rules were suspended and the Secretary instructed to cast vote of society for the nominees, save himself, for whom the society vote was cast by Miles Taylor, of the Daily News.

The President responded briefly to a call for a speech, and at conclusion the following resolution, offered by Dr. G. Bohrer, was adopted:

Resolved, That we as a State organization ask the railway companies of the State to make as liberal a reduction of passenger rates as they grant other organizations, and thereby render to the interests of horticulture that aid which we feel confident will very materially advance the fruit interests of the State.

Horace J. Newberry introduced the following resolution which prevailed:

Recognizing the benefits already accrued from the work of the Kansas Weather Service during the past season, and believing that these benefits could be greatly augmented by judicious legislation, be it

Resolved, That our legislators be requested to establish a weather service station in every county of the State, and provide each of them with necessary appliances to properly record the meteorological conditions. Said stations to be under the supervision of a State director, appointed by the Governor, and that for equipment and maintenance of said Kansas weather service a suitable appropriation be made.

The Secretary was granted further time in which to make his report on account of hoarseness. Judge Wellhouse, the Treasurer, made his report which was received and referred to Auditing Committee. Next came report of Committee on Experimental Horticulture, by Prof. E. A. Popenoe. It was good, and brought out many queries, to which the Professor responded freely.

The evening exercises opened with song, followed by report of Committee on Horticulture as connected with farming, by Samuel Reynolds, of Lawrence, who acquitted himself well and gave much good thought for the society to consider. Judge L. A. Simmons, of Wellington, next gave an able address, using for his text a quotation from Lincoln, which was applicable to his speech—a history of the society from its inception. Discussions followed this forcible address, in which Judge Wellhouse led, and at close Capt. Deihl offered the following, which was adopted:

Resolved, That the Kansas State Horticultural Society tender to Judge Wellhouse a vote of thanks for his valuable and untiring efforts as Treasurer of this society for the past fifteen years.

The report of Committee on Obituary, by Horace J. Newberry, was read and adopted, as follows:

Resolved, That in the death of Hon. H. A. Stiles, for many years Vice President from Wabaunsee county, which took place at San Diego, California, in April, 1888, this society deeply feels the loss of an esteemed friend and co-worker in Kansas horticulture.

Resolved, That through the demise of Hon. J. C. Lang, Vice President from Reno county, which occurred at Nickerson, March 10, 1888, our society is bereft of an earnest, faithful worker in the advancement of horticulture and kindred matters.

Resolved, That this society hereby tender its heartfelt condolence to the family and friends of the foregoing deceased, and does assure them that in this affliction it is our sorrow commingled with theirs and in deepest sympathy.

Resolved, That a certified transcript of these

resolutions be sent to the family of each deceased.

THIRD DAY.

The society was called to order at 9:30 a. m. and prayer offered by Rev. D. M. Moore, after which the Committee on Botany reported through Prof. Kellerman, of Manhattan. Next came report of Secretary, the financial part of which was referred to Auditing Committee.

Prof. J. D. Walters, of Manhattan, followed with a report on landscape gardening, which showed that its author was a specialist on the subject. It was instructive throughout and embodied a history of the origin, growth and perfection of landscape gardening in the United States and England.

On opening afternoon meeting, Mr. Leach, of Kingman county, was granted opportunity to make fruit report; then followed a resolution from the Committee on Nomenclature, viz.:

Resolved, That the original pear exhibited before this society by Hon. Jas. F. Martin, of Winfield, Cowley county, be given the nomenclature of "Martin pear."

After some discussion the resolution was adopted.

Next came report of Committee on Ornithology, by Prof. D. E. Lantz. In the absence of Prof. Lantz the paper was read by Prof. Kellerman, followed by the President reading telegram just received from the State Horticultural Society of Missouri—"To the State Horticultural Society greeting: The enthusiasm of our society is overflowing and trust some of it will even reach as far as Hutchinson."

The Committee on Forestry reported through Hon. M. Allen, of Hays City. He reviewed the work done on the timber claims in the West and the condition of forest trees over the western part of the State. C. J. Carpenter, of Fairbury, Neb., led the discussion, and being an enthusiast on the question, gave many interesting points on forest trees. A further report was made by J. B. Schlichter, of Sterling, and which he devoted to the forest trees adapted to Southwest Kansas, and the manner of planting and growing them. An interesting discussion followed, at close of which the Auditing Committee reported Secretary and Treasurer's accounts correct. At this point General Taylor exhibited specimens of grapes of one year's growth that astonished the society. They were from the sand hills on J. B. Tuttle's farm, and their immense growth shows how well adapted are the sand hills to prolific grape culture.

Prof. Hay, of Junction City, submitted a report on geology, which was read by Leo H. Allbright. It was replete with valuable information and lack of space only forbids me from giving a synopsis. The Committee on Exhibited Products made their report which was adopted.

The evening meeting was called to order by Judge Houk, who spoke of the success of the meetings and the good they had accomplished. Then music was rendered by Miss Nellie Houk, Miss Bessie Whitelaw and Mrs. Hart, the former playing banjos, and the latter a guitar. The music was delightful. Mr. E. H. Richardson then favored the audience with an essay on "Adornment of the Home." The essay was characteristic of the writer. It contained from beginning to end valuable suggestions as to how the home should be properly adorned, and advised in a forcible manner how the husband could aid and assist his wife in beautifying the home in which her life is spent.

Mrs. N. W. Houk next followed with an article, entitled "A Buffalo Hunt," written by herself for the Hutchinson News in 1872. Mr. Shaver, of Newton, accompanied with the autoharp, did

excellent singing at this time, after which Judge Ricksicker read a paper on the early settlement of Reno county, in which he spoke of the camp-fire made by a party of pioneers, who killed their first buffalo in the river south of town; gave a history of the first house built, which was erected where the First National Bank now stands. The people of the new town did not put their light under a bushel, but sent out to the world that a new town had been founded. Men came in wagons, singly, in pairs, on foot and in crowds, too. Soon the town was booming. The little town received a wonderful impetus when the Santa Fe road built into the city. About that time Mr. Ricksicker came, and took charge of the agency for the sale of the railroad lands in this county and in fourteen months they sold 50,000 acres of land.

Miss King, daughter of the Rev. C. A. King, favored the society with an admirable recitation, which was highly appreciated. While this young lady was delivering her recitation Mr. A. Willis, of Ottawa, a member of the society, entered the church and informed the President that Judge L. A. Simmons, an honored member, had died at the Santa Fe depot, preparatory to starting home. The following resolutions were passed, and the meeting adjourned:

We, your Committee on Final Resolutions beg leave to report as follows:

Resolved, That the members of the Kansas State Horticultural Society hereby express our earnest thanks to the Reno County Horticultural Society and to the citizens of Hutchinson for the very kind reception and friendly treatment of the society during this, our twenty-second annual session.

Resolved, That we tender our earnest thanks to the citizens and hotel management of the city of Hutchinson, and for the courteous hospitality and bounteous entertainment provided for the members of this society.

Resolved, That we sincerely appreciate the kindness of the officers and members of this beautiful church for the use of the same during our deliberations, and hereby express our grateful feelings.

Resolved, That we return our sincere thanks to Messrs. F. P. and J. Hettlinger, C. H. Slack, Dr. McCandless and W. H. Shaver, also Mrs. Dunn, also the Misses Whitelaw and Nellie Houk for furnishing such excellent and enlivening music during our evening sessions, also to the essayists and others who have entertained our society during the closing hours of our session, and the members of this society will ever cherish a pleasant remembrance of the same.

Resolved, That to the Committee on Arrangements we return our hearty thanks for furnishing the plants, and express our gratitude for the taste displayed by the following ladies: Mrs. W. H. Lewis and the Misses Barbara and Anna Cole in decorating the room with the same.

Resolved, That the thanks of this society be extended to the Hutchinson Daily News for the very full reports contained therein, and for other courtesies granted members of this society by the said progressive paper.

GEO. OLIVANT,
SAM REYNOLDS,
WM. MARLATT,
Committee.

Regarding the death of Judge L. A. Simmons I will have more to say in a separate article. HORACE.

A BIG APPLE ORCHARD.

Special Correspondence Kansas Farmer.

Hon. F. Wellhouse, of Fairmount, Leavenworth county, Kansas, is without doubt the most successful apple orchardist in the West. His orchards consist of three plantings. The first covering 117 acres and planted in 1876, —seventy-two acres of Ben Davis, thirty of Missouri Pippins, and fifteen of Winesaps. The second was planted in 1878 and covered an area of 160 acres, —eighty of Ben Davis, forty of Missouri Pippins, twenty-seven of Winesaps, eight of Cooper's Early White, and five of Maiden Blush. In 1879 the third was made, covering 160 acres, in which are eighty acres of Ben Davis, forty of Jonathans, twenty-seven of Winesaps, eight of Cooper's Early White, and five of Maiden Blush. From these three plantings there has been harvested 145,000 bushels of apples, netting 35 cents

a bushel, or the munificent sum of \$50,750. The fruitage obtained this year numbered 20,000 bushels—less eleven, and brought on the market an average of \$1.80 a barrel, or a net of \$1.10 clear of all expense—a barrel containing three bushels.

This gentleman, the apple king of Kansas, is not content to stop with the acreage and fruiting of apple trees already planted, for which your correspondent is glad, but will this ensuing spring put out 320 acres more of apple trees, one-half to be Ben Davis, and the balance Jonathans, Missouri Pippins and York Imperials—about equally divided as to number. Said orchard will be fourteen miles south of Topeka and near Wakarusa so as to afford shipping facilities and other advantages. And this is not yet the full extent of his orcharding, as there is still 320 acres more to plant along side of the last named tract, which will be attended to during the spring of 1890, and to consist of Ben Davis, York Imperials, Missouri Pippins and Jonathans, mostly Ben Davis, making altogether 640 acres in one body, and a grand total of 1,077 acres, or allowing 100 trees to the acre, a treeage of 107,700. This gives a tree to every one and three-fifths square rods, which if in one row would reach 172,320 rods, making a distance of 538½ miles, and if they were inclined to be peeled or barked by the rabbits, giving each rabbit ten hours to bark a tree twelve inches in diameter, it would require 107,700 of the cotton-tail quadrupeds one day to kill the orchard, or two of them, beginning at opposite end of row, just 53,850 days to get in their last chew and come together. Should these trees all escape rabbit blight and become old enough to produce three bushels to the tree there would in one season be a yield of 323,100 bushels, which at \$1 a barrel clear of all expenses, leaves the owner \$107,700, and yet people persist in showing by their indifference to horticulture that it don't pay to grow fruit. Ignorance is bliss.

HORACE.



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Signals For Use on Farms.

A correspondent of the Chautauqua Vineyard discusses farm signals thus:

A code of signals for use on the farm may be made very useful for communication between persons out of speaking distance. The writer has long used a loud whistle for making signals to his hired men and others about the farm, which have been found quite intelligible and useful after a little training. The common "mill whistles" sold under the claim that they can be heard a mile off are frauds and fit only for children's playthings; but a loud whistle can be made of a brass tube half an inch in diameter, plugged and cut with a file in the required manner. The best whistle, however, is made of the half shell of a common filbert or Barcelona nut sawn lengthwise or across the middle. This is placed between the third and fourth fingers inside the hand, at the space between the knuckle and the next joint, with the opening in the shell between the fingers. The hand is then closed so that an orifice is left between the fingers opening into the nutshell. Then by placing the bent joints of the fingers between the lips and blowing forcibly into the nutshell, a very shrill and loud whistle may be given that can be heard half a mile with ease, and further when a gentle wind is blowing in the direction the sound is to be sent.

It seems that this system of whistle signals or language is by no means a novelty, for a regular vocabulary, so to speak, of whistling sounds has been in use in an island of the Canary group. The inhabitants of this island (Gomera, which consists mostly of precipitous rocks and deep ravines through which rivers flow,) make use of this code of whistling signals to communicate with each other across the rough country, which can only be traversed by long, circuitous routes, on account of the deep ravines. These people use both fingers and lips when whistling, and can carry on a conversation with neighbors a mile distant by the use of this peculiar language.

This useful addition to the faculty of speech may be made available in many ways by adopting a similar code or key of sounds to that which is used in telegraphy. Thus, in our system three short, sharp whistles blown quickly mean that the man or men at work in a distant place are to come to the house or quit work. One long whistle, gradually tapering off to a finish, means that the foreman must send a man to the barn; one short, sharp whistle, followed by a long, tapering one, calls the team home; two short whistles and the long one call the foreman and announce meal time. Thus by the use of long and short sounds differently disposed all sorts of directions may be given and information conveyed. Each man employed is provided with a whistle, if he cannot use his fingers in the usual way, which makes a loud, piercing sound, and a card of signals; but this is not of much use except at rare intervals.

Flags are usually employed as signals when the house or barn can be seen from all parts of the farm. A pole with arms such as make up the old-fashioned "semaphore" telegraph may also be used when it can be seen or the persons are too far apart to hear a sound. A triangle made of a steel bar bent with the ends free, and struck with another piece of steel, can be heard more than a mile away. But this and the bell are not sufficiently various in sound for ordinary use. The whistle, on the other hand, may be made to vary quite sufficiently to afford all necessary means of communication over the area of an ordinary farm, and the signals may be so confided as to give intelligent meanings as in the case of the islanders above referred to.

But it will be most convenient to condense as much as possible the code of signals. Thus the signal come to the house or barn when repeated quickly will mean there is something wrong and haste is required. This will answer for all emergencies. Each man, too, should have his signal, to which he only will answer in person when the men are together or scattered. Some such method of communication will be found very useful, and it will tend to save time in the work of the farm, and as time is money, it will be found a means of economy, and therefore worthy of adoption.

An industry in artificial sponges is in process of creation. M. Oscar Schmidt, professor at the University of Gratz, in Styria,

has invented a method by which pieces of living sponge are broken off and planted in a favorable spot. From very small cuttings of this kind Prof. Schmidt has obtained large sponges in the course of three years at a very small expense. One of his experiments gave the result that the cultivation of 4,000 sponges had not cost more than 225 francs, including the interest for three years on the capital expended. The Austro-Hungarian government has been so much struck with the importance of these experiments that it has officially authorized the protection of this new industry on the coast of Dalmatia.

Mammoth or Pea-vine Clover.

There is some prejudice against Mammoth clover on account of its rank growth and coarseness, yet it will furnish as much feed per acre if not more than the smaller varieties, besides a considerable bulk of refuse stalks that make excellent bedding. To the farmer who raises a large annual acreage of clover, and is liable to be caught with part of it uncut when he has to stop haying to harvest his wheat, it is an excellent plan to have part of it Pea-vine, as it may be left standing until after the wheat is secured. In fact, it is too succulent to cut until just before the oat harvest. If cut when about half the heads are brown, there will be considerable mature seed; and if the manure from feeding is not allowed to ferment and heat and is used as top dressing on wheat, or corn, it will generally re-seed the land heavily. I once top-dressed a strip of poor ground for sweet corn with manure made in feeding a crop of second growth clover, cut when the seed was maturing, and the next spring found the ground nicely stocked with young clover.

Mammoth clover is not adapted for plowing under; as, to obtain the best results, heavy green crops should be plowed under in June. Farmers are able to do it better then than later, as getting out manure and stubble-plowing occupy the time after harvest. But in June the Mammoth clover is only partly grown, and is watery and without substance. To the fruit-grower who desires an occasional crop of clover the Mammoth or Sapling is the kind to grow, as he can mow it after his raspberries are marketed, whereas the earliest varieties must be cut in the busy strawberry season.—*American Agriculturist*.

Topeka Weather Report.

For week ending Saturday, December 15, 1888: Temperature.—Highest at 2 p. m., 61 deg. on Friday, the 14th; lowest at same hour, 31 deg. on Tuesday, the 11th.

Rainfall.—There was no rain this week except a trace on Saturday, the 15th.

A successful grower of trees claims never to fail to dispose of the black knot finally, if it is cut off in an early stage and turpentine applied.

The largest known flower is the rafflesia, a native of Sumatra. It measures three feet in diameter, weighs fifteen pounds and has a calyx holding six quarts. The odor is offensive.

A manuscript diary of a courtier of Queen Elizabeth has this item, written just after her death: "The queen caused the ring wherewith she was wedded to the crown to be cut from her finger some six weeks before her death, but wore a ring which the Earl of Essex gave her unto the day of her death."

A monster elm, recently felled in Langdon, R. I., was 100 feet high, and sixteen feet in circumference two feet from the ground. At sixty feet from the ground six limbs branched out, each measuring six feet in circumference. A section of the trunk twelve feet long required nine yoke of oxen to draw it.

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A writer in the *Atlantic*, speaking of the malleousness of the mocking bird, states that if young birds are placed in cages where the parent birds can have access to them, they will feed their offspring regularly for two or three days, and then, as if in despair, will poison them, giving them the berry of the black ash.

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No man who owns a cow can afford to have her afraid of him, for it would be a loss to the owner every time the cow should be in any way frightened, while to run a cow to pasture is like throwing money away. The cow is simply a milk-making machine, and should be kept in the best working condition, and for her this condition is one of quiet. A cow that should be in any way worried will not do her best. Make pets of the cows, and they will make money for the owner.

Raising forest trees for fuel bids fair to become a profitable enterprise in Southern California. The Eucalyptus tree, on account of its fast growth and adaptation to any soil, is fast taking the lead. Three years after planting the trees are large enough to cut down for wood, and from actual estimates will yield from \$200 to \$800, or an average of over \$70 per year for each acre planted. It is well known that their very existence induces precipitation, and it goes without saying that all the lands not held for cultivation, should be planted, especially when it can be made a source of profit in itself.

The following mode of storing grapes is that formerly practiced and recommended by the late E. P. Roe, and is a remarkably successful one, as the writer can testify, having eaten grapes so preserved and in excellent condition, as late as February in the following spring. The fruit should be gathered during clear dry weather and of course must be fully ripened. Procure large earthen or stone jars or crocks, such as butter is packed in, with close-fitting lid, and wipe them thoroughly clean and dry. Cover the bottom with a sheet of dry paper and put in a layer of clusters of the fruit after first removing with scissors all imperfect and unripe berries from the bunch. Upon the first layer again place a sheet of paper and so fill up the jar, separating each layer of fruit with a sheet of paper from the next. Put on the stone lid and taking a sufficiently large piece of stout unbleached muslin, paste it entirely over the top of the jar. Select a high gravelly knoll or other dry suitable location where the water will run freely away, and bury the jar sufficiently deep as to be beneath the action of frost, marking the exact spot of burial with a stake as a guide in digging.

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D. H. SCOTT, Topeka, Kansas.

The Veterinarian.

[This department of the KANSAS FARMER is in charge of Dr. F. H. Armstrong, V. S., Topeka, a graduate of Toronto Veterinary college, who will answer all inquiries addressed to the KANSAS FARMER concerning diseases or accidents to horses and cattle. For this there is no charge. Persons wishing to address him privately by mail on professional business will please enclose one dollar, to insure attention. Address F. H. Armstrong, V. S., No. 114 Fifth St. West, Topeka, Kas.]

—In the treatment of fistulous withers in last week's FARMER, a mistake was made. Chloride of lime should read chloride of zinc.

J. McM.—Your horse has thrush, which from the time it has been existing has become somewhat constitutional. Thrush signifies a foul and fetid discharge issuing from the clefts of the frog, and when allowed to run along without attention spreads over considerable surface, detaching the horn from the heels to point of frog. It is more commonly met with in the hind, yet may occur in the front feet if the causes that induce it are present, and that is filth in any of its forms. Thrush yields quite readily to treatment if thorough cleanliness is observed at all times with the occasional use of calomel dusted into the crevices after first paring away all loose shreds of horn. When it becomes constitutional, as when legs swell, heels become greasy, it is then that tonics, regular exercise and good feeding become necessary.

LOCAL PARALYSIS.—My horse got cast during the night, found him down in the morning. After pulling him around he got up himself. Saw no marks on him except that the side of his head and lips are swollen. He looks funny; his upper lip seems twisted to one side. It seems to be in eating some.

H. W.—Paralysis of lips due to the pounding he received on side of his head. Remove some of the swelling and soreness by means of fomentations, hot or cold; after which apply a smart blister over side of face opposite to side towards which the lips are drawn. Powd. cantharides, ½ drachm; biniodide of mercury, ½ drachm; lard, 1 ounce; mix and make ointment. Rub in thoroughly for two or three inches square over region of molar teeth. Wash off in twenty-four hours and keep parts greased. One or two applications will be sufficient to overcome the local paralysis.

H. Bros., Yates Center.—We do not think that you have any contagious disease among your sheep; on the contrary, think it due to the feed, and that the cases are those of impaction. A dry baked state of the contents of the manfolds is found in all feverish conditions, in torpid and inactive conditions of the paunch when impaired or suppressed rumination occurs, as the result of feeding on dry, fibrous and indigestible food. If the disease has lasted several days, the fist pressed into the left side may detect the contents of the paunch collected in a hard mass. As to treatment, give animal 4 to 6 ounces of Glauber or Epsom salts, 2 drachms of ginger in ½ pint of water. If animal appears weak give some alcoholic stimulant, or carbonate of ammonia in ½ drach doses two or three times a day. If the salts fail to act in a couple of days give ½ pint of linseed oil. Make some alteration in your feeding.

J. A. H., Syracuse, Kas.—It is impossible for us to give the cause of the trouble among your stock from the description in letter. The symptoms you present are to be found in a variety of disorders. What we need is a history of the cases. What has been the nature of the food? and water supply? Their surroundings and any detail that possibly might throw a little more light as to the probable cause of trouble. It is evident that there is some exciting cause. Direct your attention to a critical examination of the food used, smut on corn or oats. Examine hay for the presence of ergotized rye. This ergot is found on wild rye, a large wild grass frequently cut for hay in this State. Ergot has been found on the common blue grass, with same shape as upon rye but smaller. If this is present in considerable quantities it is capable of producing a convulsive disorder attended with death. The loco weed is found more particularly along the Missouri river bottoms, yet it is possible for it to live and grow in any locality. Are you of the opinion it is to be found in your neighborhood? The effects of the loco weed differ in many particulars from what you have stated. Again, may not the stock in question have gained access to food, although palatable, yet bulky and indigestible

and unfit for digestion. As the attack seems very severe, medicinal treatment would be useless. As a preventive, alter the condition of diet. Look carefully into all details and let us hear the result, and we may be able to say what is the trouble with more certainty.

THE MARKETS.

By Telegraph, December 17, 1888.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 1,700, shipments 1,000. Market slow. Choice heavy native steers \$5 00a5 60, fair to good native steers \$4 40a5 10, medium to choice butchers steers \$3 30a4 40, fair to good stockers and feeders \$2 00a3 10, corn-fed rangers \$3 00a4 20.

HOGS—Receipts 4,000, shipments 1,200. Market steady. Choice heavy and butcher's selections \$5 15a5 25, medium to prime packing \$5 00a5 15, ordinary to best light grades \$4 90a5 05.

SHEEP—Receipts 650, shipments 200. Market steady. Fair to choice \$2 00a3 15.

Chicago.

CATTLE—Receipts 16,000. Market 15a25c lower. Top natives, \$5 25; choice, \$4 50a5 25; good, \$3 90a4 30; medium, \$3 40a3 80; common, \$2 75a3 30; stockers, \$2 00a2 50; feeders, \$2 75a3 25; bulls, \$1 50a2 90; cows, \$1 15a2 90; Texas steers, \$2 10a2 75; Texas cows, \$1 40a2 10.

HOGS—Receipts 19,000. Market 5c higher. Mixed, \$4 95a5 20; heavy, \$5 05a5 30; light, \$4 95a5 20; skips, \$4 90a5 00.

SHEEP—Receipts 5,000. Market slow. Natives, \$2 75a4 75; Texas, \$2 25a3 25; lambs, per cwt., \$3 75a5 75.

Kansas City.

CATTLE—The supply of cattle to-day was light compared with the usual Monday's supply. The offerings were under 4,000, including 600 or 700 stale. A pretty fair business had been done at noon, sales reaching over 1,700. Shipping and dressed beef steers were lower. Sales ranged \$3 40a4 75.

HOGS—The supply was about 6,000, including 750 stale. Seven out of the eight packers bought, some of them very lightly, expecting cheaper hogs to-morrow. Some fancy light and medium weights sold at \$5 10. Nearly everything sold at even \$5 00, same as Saturday.

SHEEP—The receipts were moderate and too light for the local trade. Anything good, if heavy weight, would have sold readily at steady prices, but the lighter grades were slow and weak. 108 sheep, 80 lbs., at \$3 00.

HORSES—

Draft—Extra.....5 to 7 years.....\$145 to \$180
Draft—Good.....5 to 7 years.....110 to 140
Saddlers.....5 to 7 years.....110 to 200
Mares—Extra.....5 to 7 years.....145 to 170
Mares—Good.....5 to 7 years.....75 to 115
Drivers.....5 to 7 years.....115 to 170
Drivers—Good.....5 to 7 years.....75 to 110
Streeters—Extra.....5 to 7 years.....115 to 130
Streeters—Good.....5 to 7 years.....70 to 105

MULES—

14 hands.....4 to 7 years.....\$ 65 to \$ 75
14½.....4 to 7 years.....80 to 90
15.....4 to 7 years.....95 to 110
15½, medium.....4 to 7 years.....110 to 120
15½, extra.....4 to 7 years.....130 to 150
16 to 18½.....4 to 7 years.....150 to 185

PRODUCE MARKETS.

New York.

WHEAT—No. 2 red, \$1 05a1 06½.
CORN—No. 2, 40½a47c.

St. Louis.

FLOUR—Unchanged.
WHEAT—No. 2 red, cash, \$1 01½.
CORN—No. 2 mixed, cash, 30½a31c.
OATS—No. 2 mixed, cash, 25c.
RYE—No. 3, 47½c bid.

Chicago.

Cash quotations were as follows:
FLOUR—Firm and unchanged.
WHEAT—No. 2 spring, \$1 04½a1 04¾; No. 3 spring, 94c; No. 2 red, \$1 04½a1 04¾.
CORN—No. 2, 33½c.
OATS—No. 2, 25½a25¾c.
RYE—No. 2, 51c.
BARLEY—No. 2, 74c.
FLAXSEED—No. 1, \$1 58.
TIMOTHY—Prime, \$1 50

Kansas City.

WHEAT—Receipts at regular elevators since last report 1,200 bushels; withdrawals, 12,717 bushels, leaving stock in store as reported to the Board of Trade to-day, 268,038 bushels. There was a steady market to-day on 'change. On the call No. 2 soft, February, sold at \$1 02. No. 2 red winter, cash, 97c bid, \$1 00 asked. No. 3 red winter, cash, 85c bid, no offerings. No. 2 soft winter, cash, 98½c bid, \$1 00 asked.

CORN—Receipts at regular elevators since last report, 26,439 bushels; withdrawals, 28,082 bushels, leaving stock in store as reported to the Board of Trade to-day, 70,998 bushels. No. 2 cash, 20½c bid, 20¾c asked.

OATS—No. 2 cash, no bids nor offerings. On track by sample: No. 3 white, 25½c; No. 3 mixed, 24c.

RYE—No. 2 cash, no bids nor offerings.
HAY—Receipts 20 cars. Market weak. Fancy prairie, \$7 00; good medium, \$5 00a5 50.

SEEDS—We quote: Flaxseed, \$1 30 per bu.

on a basis of pure. Castor beans, \$1 60 per bu. for prime.

OIL-CAKE—Per 100 lbs. sacked, f. o. b., \$1 25; \$12 00 per 1,000 lbs.; \$22 00 per ton; car lots, \$21 00 per ten.

FLOUR—Dull but firm. 1 car by sample at \$2 30. Quotations are for unestablished brands in car lots, per ¼ bbl. in sacks, as follows: XX, \$1 00; XXX, \$1 10; family, \$1 30; choice, \$1 65; fancy, \$1 90; extra fancy, \$2 10a 2 20; patent, \$2 40a2 50.

BUTTER—Receipts large and market weak for creamery and roll. We quote: Creamery, fancy, 29c; good, 24c; dairy, fancy, 22c; fancy roll, 16a17c; good to choice store-packed, 13a 16c; poor, 10c.

CHEESE—We quote: Full cream, twins, 12a 12½c; full cream, Young America, 12a12½c.

EGGS—Receipts light but stock large; market steady at 20c per dozen.

APPLES—Supply large; \$1 25a2 00 per bbl.

POTATOES—Irish—Market well supplied; home-grown, 30a35c per bus.; Colorado and Utah, 60a65c per bus.; Iowa and Nebraska, choice, 30a35c per bus. Sweet potatoes, white and red, 50c; yellow, 65a75c per bus.

BROOMCORN—Green, self working, 4c; green hurl, 4½c; green inside and covers, 2½a 3c; red tipped and common, self working, 2c; crooked, 1c.

PROVISIONS—Following quotations are for round lots. Job lots usually ¼c higher. Sugar-cured meats (canned or plain): Hams 10½c, breakfast bacon 10½c, dried beef 8c. Dry salt meats: clear rib sides \$7 25, long clear sides \$7 00, shoulders \$6 50, short clear sides \$7 00. Smoked meats: clear rib sides \$8 25, long clear sides \$8 00, shoulders \$7 25, short clear sides \$8 00. Barrel meats: mess pork \$13 75. Choice tierce lard, \$7 75.

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REFERENCES:—KANSAS FARMER CO., Topeka, Kas.; Boatmen's Bank, St. Louis; Dunn's Mercantile Reporter, St. Louis; First National Bank, Beloit, Kas.

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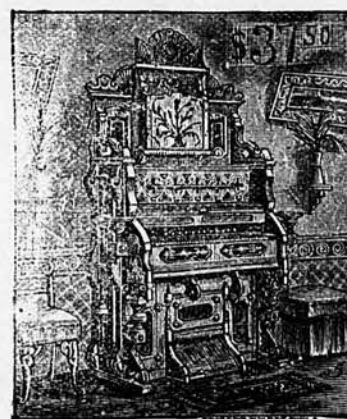
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Beaver Falls, Pa., U. S. A.

The Busy Bee.

Grading and Disposing of Section Honey.

All who have had experience in taking off section honey, know that very often it is very irregularly filled. Dr. C. C. Miller, of Marengo, Ill., has something of interest upon this subject in *Gleanings in Bee Culture* for October. He says the sections when taken off vary all the way from those perfectly finished to those upon which the bees have not worked at all. After the perfectly finished, come those full of honey, but having a few cells uncapped. If these uncapped cells are on the margin adjoining the wood, I should class them with the best. If there are uncapped cells away from the wood, ranging from half a dozen cells to a full side of the section, then it is a little difficult to decide just what is best to do. It depends a little upon what may be expected further in the way of a honey-flow, and also somewhat upon the market. If a few cells are filled out with dark honey, and then capped, they will in some, if not all markets, be just as unsalable as if left uncapped and pure white. For it must be remembered that, after a comb is what is called full but unsealed, it is really not full, but will weigh considerably more after it is sealed. These sections under consideration may be finished up by feeding back white, extracted honey; but after a good deal of experience in that line, I am getting more and more away from feeding back, and I think, on the whole, I would sell these sections with a few cells uncapped, just as they are, at a small reduction in price. If, after the clover crop, there comes shortly, cucumber or some other honey nearly as light as clover, then it may be best to allow the bees to finish up the sections, especially if a fourth or more of one or both sides are unsealed. As a general rule, I would make a second class of all sections apparently full, but lacking the sealing. Then come those not full of honey, and not sealed. They may be filled out by the fall crop, if that is a pretty sure thing, or they may be extracted. If they have not proceeded to the capping stage, and are kept clean, they will, after being extracted, come into play nicely the next season; and if it is profitable to raise extracted honey by extracting from full frames, why may it not be profitable to extract from sections? *

CLEAN THE SECTIONS.

Then come those sections which are not as much as one-fourth full. If it is very desirable to have more extracted honey, or if time is not valuable, these may be classed with the last lot, and extracted. I prefer, however, generally, to let the bees clean out all such sections as have in them only a few drops of honey, and from that up to a quarter of a pound; so these sections are put with those that have been extracted. I set down as an important rule, that no section in which there has been the least drop of honey, and which is intended to be used again, shall ever go into winter without being first thoroughly cleaned out, and that by the bees. This for more than one reason. It is easier to keep them free from mice, if no particle of honey is on them. They will look brighter for next season, if cleaned perfectly dry this fall. And, most of all, if not cleaned bone dry, the little particles of honey left in the cells will, sometimes at least, injure the quality of the honey stored in them next season. The earlier they are cleaned by the bees, the better. They may be put on the hives of colonies which are a little short of stores, and left for the bees to carry down. This is

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probably the best disposal so far as saving the honey is concerned. But that is a secondary matter, compared with getting the sections cleaned, and sometimes the bees are slow about taking down the honey from above, so I prefer a different plan. At a distance of five rods or more from the apiary, place a super filled with the sections in question upon a super cover or other flat surface, letting the super project over just enough at one corner so that a single bee can get in from below, and having it bee-tight at all other points; then cover the top with a super cover so that it will be kept dry if a shower comes. Instead of a single, I have had as many as six piled up, but only the entrance for a single bee at the bottom of the lower super. Now, don't allow an opening large enough for several bees to enter, and then grumble because the bees gnaw great holes in the comb, and even tear down entire sections. They'll surely do it if they can enter fast enough. After the honey seems all emptied out—and this may be in half a day, or it may be in three days—take from the pile one or all except the lower one, and put them in another pile close by, making the pile in every respect as before, only allow free entrance for a number of bees. The opening is from below merely to keep all rain-proof. I said take all from the first pile except the lower one. That keeps your old entrance as before, and you can now put on supers of fresh sections to be cleaned; and, as fast as emptied, pile them up on the second or other piles, allowing the bees free access, and have them thus a good many days, so that you may be sure the bees have licked off from them the least vestige of honey. A foot-note may and ought to tell you to beware of robbing; but follow my instructions literally in detail and no robbing will occur.—*Farm, Field and Stockman.*

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Pigs from three first-class boars for sale. Am taking orders for fall pigs, to be delivered at from eight to ten weeks old, at \$4 per head, or in pairs \$15. Sows in pig or with litters, for sale. A few choice males on hand. My stock is of the best strains in America. Inspection desired. Stock recorded in Ohio Poland-China Record. Pigs from twelve exceeding fine sows. Took six first and two second premiums at Topeka and Ottawa, only places shown, including grand sweepstakes at Ottawa. V. B. HOWEY, Box 108, Topeka, Kas.

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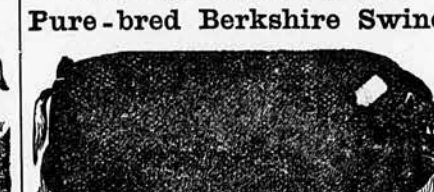
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Carbondale, Osage Co., Kansas.



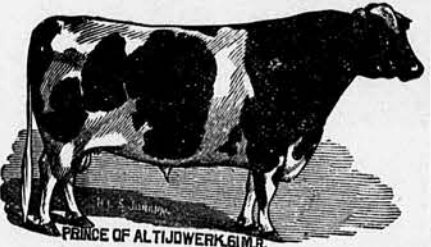
Importer and breeder of Glydesdale and Percheron Horses. I have a choice collection of registered horses on hand from 2 to 5 years old, unsurpassed for quality and breeding, every animal recorded with pedigree in the recognized stud book of Europe and America and guaranteed breeders. Terms, prices and horses that induce people to buy of me. Write for illustrated catalogue. Carbondale is eighteen miles south of Topeka, on A. T. & S. F. R. R. Farm and stable three miles northwest of Carbondale.

MORGAN HORSES Western Headquarters for Stallions of high breeding, and Grade Fillies.

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Of European Herd Book Registry.



The sweepstakes bull PRINCE OF ALTIJDWERK (61 M. B.) at head of herd, has no superior. Cows and heifers in this herd with weekly butter records from 14 pounds to 19 pounds 10½ ounces; milk records, 50 to 80 pounds daily. The sweepstakes herd. Write for catalogue. **M. E. MOORE, Cameron, Mo.**
(Mention this paper.)

Holstein - Friesian Cattle.

I have a choice herd of these justly-celebrated cattle of all ages. Also some nice grades, for sale at reasonable prices. Personal inspection invited. Call on or address
JNO. D. PRYOR,
Winfield, Cowley Co., Kas.

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RIX & GOODENOUGH,

TOPEKA, KANSAS,

Importers and Breeders of English Shire, Clydesdale, Percheron and Cleveland Bay Horses.

Our horses are selected by a member of the firm from the most noted breeding districts of Europe. The lot now on hand have won fifty-four prizes in the old country, which is a guaranty of their superior qualities and soundness. Every animal recorded, with pedigree, in the recognized stud books of Europe and America and guaranteed breeders. Terms, prices and horses that induce people to buy of us. Write for Illustrated Catalogue.

Farm and stables four miles southeast of city.

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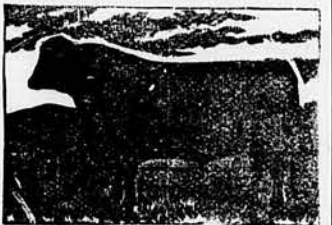


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We have on hand a very choice collection, including a recent importation of horses, several of which have won many prizes in England, which is a special guarantee of their soundness and superiority of form and action. Our stock is selected with great care by G. M. SEXTON, Auctioneer to the Shire Horse Society of England. Prices low and terms easy. Send for catalogues to

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HANCOCK COUNTY IMPORTING COMPANY, WARSAW, ILLINOIS, IMPORTERS AND BREEDERS OF

Percheron and English Shire HORSES.



We have a choice collection of Registered horses on hand, from two to five years old, unsurpassed for quality and breeding. Our importation this year numbers thirty head, making in all fifty head, which we now offer to the trade. We have a large lot of two and three-year-old stallions, imported last year, which are now fully acclimated. Customers will find it to their interest to call and examine our stock before purchasing. Prices low. Terms to suit.

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And French Coach Horses.

Over FOUR HUNDRED imported STALLIONS ready for service actually ON HAND, embracing all the leading Prize Winners at both the Percheron and French Coach Fairs of France, for 1888. We challenge the world to a comparison as to number, quality, price and terms. An investigation will demonstrate that we are prepared to maintain our present leading position in the trade. We have not only the largest importing establishment, but the largest Breeding Establishment in the United States, embracing 4,000 acres of well improved land, upon which is constantly kept from one to two hundred imported mares selected from the choicest strains. FRENCH COACHES—Owing to the extraordinary demand for this popular breed of Coach Horses, our importation for 1888 consists of double the number brought out by any other individual or firm, all of which are the produce of Government stallions for which the French Government certificate will be furnished with each and every horse, and also the American Stud Book Certificate. Catalogue Free.

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The Leading Western Importers of

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French Coach Horses.

AN IMPORTATION OF 125 HEAD,
Selected by a member of the firm, just received.

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W. A. HARRIS, PROP'R, LINWOOD, LEAVENWORTH CO., KAS.

Substance, flesh, early maturity and good feeding quality the objects sought. The largest herd of Scotch Short-horns in the West, consisting of Cruickshank Victorias, Lavenders, Vilets, Secrets, Braith Buds, Kinellar Golden Drops, etc., headed by Imp. Baron Victor 42824, a prize-winner and sire of prize-winners.

LINWOOD—Is twenty-seven miles from Kansas City, on Kansas Division Union Pacific R. R. Farm joins station. Inspection invited. Catalogue on application.

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A Private Adviser for those contemplating marriage and for men suffering from Private, Nervous or Chronic Diseases. Send 6c. for sealed copy.

Consult the old Doctor confidentially.
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68 Randolph St., Chicago

ON 30 DAYS' TRIAL.

THIS NEW ELASTIC TRUSS
Has a Pad different from all others, is cup shape, with Self-adjusting Ball in center, adapts itself to all positions of the body, while the ball in the cup presses back the intestines, just as a person does with the finger. With light pressure Hernia is held securely day and night, and a radical cure is certain. It is easy, durable and cheap. Sent by mail—cure free.
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A new and sure method for the relief and cure of rupture. Every case guaranteed. Recommended by leading physicians and hundreds of patients from all parts of the Union as far superior to all other methods of treatment. Patient is made comfortable and strengthened for work at once, and an early and permanent cure assured. No operation, pain or hindrance. Send 4 cents in stamps for 80-page pamphlet on Rupture and its Treatment, with numerous statements from physicians and patients.

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I CURE FITS!

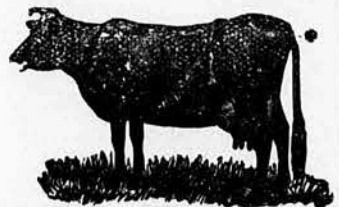
When I say cure I do not mean merely to stop them for a time and then have them return again. I mean a radical cure. I have made the disease of FITS, EPILPSY or FALLING SICKNESS a life-long study. I warrant my remedy to cure the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a Free Bottle of my infallible remedy. Give Express and Post Office. **H. G. ROOT, M. C., 183 Pearl St. New York.**

Blake's Weather Tables for 1889 and this paper one year for \$1.50.

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BREEDERS OF

A. J. C. C. JERSEY CATTLE,



Offer a few choice-bred Bull Calves by such noted sires as the St. Lambert Duke 76 bull, ST. VAL-ENTINE'S DAY 15278, whose sire was a son of Stoke Pogis 3d 2233, and a grandson of Victor Hugo 197; dam a daughter of the great prize bull, Duke P. 76 C.; and the in-bred Coomassie bull, HAPPY GOLD COAST 14713.

Several of these Bulls are old enough for service, and are out of tested cows. To responsible parties, will give time or exchange for cows or heifers.

SHERWOOD & ROHRER, WICHITA, KANSAS.

Home of HASSELMAN'S BROWNIE 28777.
Tested on Island of Jersey at rate of 83 pounds 12 ounces in seven days.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the Kansas Farmer, together with the sum of fifty cents for each animal contained in said notice.

And such notice shall be published in the Farmer in three successive issues of the paper. It is made the duty of the proprietors of the Kansas Farmer to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of all persons interested as strays. A penalty of from \$5.00 to \$50.00 is imposed on any failure of a Justice of the Peace, a County Clerk, or the proprietors of the Kansas Farmer for a violation of this law.

Broken animals can be taken up at any time in the year.

Unbroken animals can only be taken up between the first day of November and the first day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken up, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up a stray, must immediately advertise the same by posting three written notices in as many places in the township giving a correct description of such stray, and he must at the same time deliver a copy of said notice to the County Clerk of this county, who shall post the same on a bill-board in his office thirty days.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered; also he shall give a full description of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting), make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars, it shall be advertised in the Kansas Farmer in three successive numbers.

The owner of any stray may, within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker-up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker-up; said appraisers, or two of them, shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker-up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the State before the title shall have vested in him, shall be guilty of misdemeanor, and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

FOR WEEK ENDING DEC'R 6, 1888.

Coffee county—H. B. Cheney, clerk.

STEER—Taken up by L. H. Draper, in Spring Creek tp., one red and white speckled steer, 1 year old; valued at \$15.

COW—Taken up by G. F. Reinhardt, in Hampden tp., one white cow, 3 years old, branded W. H. on left hip; white calf; valued at \$18.

STEER—Taken up by M. A. Reed, in Liberty tp., one light roan 2-year-old steer, branded C on left shoulder; valued at \$20.

Osage county—R. H. McClair, clerk.

STEER—Taken up by David J. Davis, in Burlingame tp., November 19, 1888, one red 1-year-old steer, white spot in forehead shape of a heart, white on each shoulder blade, piece out of right ear; value at \$14.50.

COW—Taken up by Wm. Culver, in Fairfax tp., November 3, 1888, one brown or black-gray 1-year-old colt, black legs, small body and legs; valued at \$25.

HEIFER—Taken up by Sylvester Campbell, in Olive vet tp., November 10, 1888, one red 1-year-old steer, white spot in forehead; valued at \$8.

HEIFER—By same, one red 2-year-old heifer, white spot in forehead; valued at \$12.

HEIFER—By same, one red and white spotted 1-year-old steer; valued at \$6.

Nemaha county—W. E. Young, clerk.

COW—Taken up by W. H. Leighty, in Wetmore tp., November 15, 1888, one light roan cow, 6 or 7 years old, brand on left hip, both horns drooped, a little off point of left horn; valued at \$15.

COW—Taken up by Hugh Ross, in Illinois tp., November 14, 1888, one red cow, about 10 years old; valued at \$10.

STEER—Taken up by L. E. Ellis, in Illinois tp., November 10, 1888, one dark red 1-year-old steer, small white spot on left shoulder and one on left hip, one on right side and one in face; valued at \$10.

HEIFER—Taken up by F. A. Stickel, in Illinois tp., November 10, 1888, one light red 1-year-old heifer, white hind feet, no marks or brands visible; valued at \$10.

Johnson county—W. M. Adams, clerk.

HORSE—Taken up by J. Stephenson, in Gardner tp., November 18, 1888, one sorrel horse, 15½ hands high, 15 years old, blind in right eye; valued at \$15.

Crawford county—J. C. Gove, clerk.

FILLY—Taken up by W. A. Cole, Mulberry Grove, November 5, 1888, one gray-roan filly, star in face, little white on left hind foot, dark mane and tail; valued at \$30.

Lyon county—Roland Lakin, clerk.

STEER—Taken up by Wm. F. Kurzen, in Fremont tp., November 1, 1888, one white yearling steer, medium size, under-bit in right ear, no other marks or brands visible; valued at \$15.

STEER—Taken up by W. B. Vandivort, in Agnes City tp., November 2, 1888, one 3-year-old red-roan steer, white face and hind back, indistinguishable brand on left hip; valued at \$30.

STEER—Taken up by John Slesher, in Jackson tp., November 28, 1888, one 3-year-old red steer, branded H on right hip; valued at \$25.

Cowley county—S. J. Smock, clerk.

HEIFER—Taken up by Wm. Beckman, in Richland

tp., October 20, 1888, one dark red heifer with white stripe between the fore legs.

Franklin county—T. F. Ankeny, clerk.

STEER—Taken up by Joseph Rublok, in Home-wood tp., November 16, 1888, one small red 2-year-old steer, branded S on right hip; valued at \$10.

Butler county—T. O. Castle, clerk.

STEER—Taken up by J. F. Smith, in Rosalia tp., October 22, 1888, one red long yearling or short 2-year-old steer, no marks or brands.

Atchison county—Chas. H. Krebs, clerk.

COW—Taken up by S. E. Hood, in Benton tp., October 7, 1888, one pale red cow with white spots, cloth with No. 53 painted on it pasted on right hip, 6 years old; valued at \$13.

COW—Taken up by John B. Terry, in Grasshopper tp., October 16, 1888, one dark red cow, branded V on left side, right ear cropped, hole in left ear, right horn broken off, 7 years old; valued at \$17.

Montgomery county—G. W. Fulmer, clerk.

STEER—Taken up by L. Glatfelder, in Caney tp., one white and red 2-year-old steer, branded O on left side, right ear cropped close to head; valued at \$8.

HEIFER—By same, one 2-year-old dim heifer, three white spots across back, branded 5 on left hip; valued at \$10.

CALF—By same, one dun calf, crop and two slits in right ear, crop and slit in left ear; valued at \$3.

MARE—Taken up by E. M. Frichard, in Caney tp., October 27, 1888, one brown mare, 2 years old, white spot in forehead, dim brand on left shoulder; valued at \$20.

COLT—By same, one bay horse colt, 1 year old; valued at \$15.

Wabaunsee county—G. W. French, clerk.

STEER—Taken up by Wm. Mass, in Washington tp., one roan steer, 2 years old; valued at \$22.

COW—Taken up by Peter Thoes, in Fannin tp., one light roan cow, about 5 years old, right horn off, dim brand on left hip.

Sherman county—O. H. Smith, clerk.

HORSE—Taken up by D. C. King, (P. O. Topland), October 23, 1888, one gray horse, 16 hands high, collar marks; valued at \$25.

Jackson county—E. E. Birkett, clerk.

STEER—Taken up by M. E. Mulanax, in Cedar tp., November 1, 1888, one red 8-year-old steer, some white in forehead, flanks and on belly, no marks or brands visible; valued at \$22.

FOR WEEK ENDING DEC'R 13, 1888.

Miami county—H. A. Floyd, clerk.

6 PIGS—Taken up by A. C. Nichols, in Sugar Creek tp., six white and black spotted pigs; valued at \$12.

Coffee county—H. B. Cheney, clerk.

STEER—Taken up by J. A. Scott, in Lincoln tp., one black steer, 1 year old, no marks or brands; valued at \$12.

Pottawatomie county—L. D. Hart, clerk.

STEER—Taken up by E. E. Sims, in Union tp., November 30, 1888, one red and white 2-year-old steer, square crop off right ear and under-bit in left ear; valued at \$10.

COLT—Taken up by Caloway O'Day, in Emmet tp., November 30, 1888, one brown 2-year-old horse colt; valued at \$35.

Montgomery county—G. W. Fulmer, clerk.

HEIFER—Taken up by R. L. Mason, in Caney tp., November 29, 1888, one red and white heifer, crop off right ear; valued at \$6.

HEIFER—By same, one red and white heifer, crop off right ear; valued at \$6.

Neosho county—T. B. Limbocker, clerk.

STEER—Taken up by T. D. Barnett, (P. O. Stark), one 2-year-old red-roan steer, some white on belly; valued at \$18.

Johnson county—W. M. Adams, clerk.

COW—Taken up by John Marty, in Shawnee tp., November 10, 1888, one red and white cow, about 9 years old; valued at \$12.50.

Dickinson county—M. H. Bert, clerk.

HORSE—Taken up by Fred Klaybaker, in Noble tp., October 9, 1888, one sorrel horse, about 13 hands high, branded H on left shoulder; valued at \$15.

Riley county—O. C. Barner, clerk.

STEER—Taken up by Tate Scott, in Ashland tp., P. O. Manhattan, one roan or red and white speckled yearling steer, half crop off right ear.

STEER—Taken up by Gustav Spohr, one 2-year-old red and white spotted steer, no marks or brands.

Wabaunsee county—G. W. French, clerk.

MARE—Taken up by Christian Knerryto, in Mill Creek tp., P. O. Alma, November 10, 1888, one sorrel mare, 7 years old, light mane and tail, no marks or brands; valued at \$30.

Cowley county—S. J. Smock, clerk.

COW—Taken up by Levi Bowker, in Bolton tp., P. O. Arkansas City, November —, 1888, one brindie cow, brand similar to A-D on left side, D on left hip and A-D on right side.

Greenwood county—J. W. Kenner, clerk.

PONY—Taken up by L. D. Groom, in Janesville tp., November 13, 1888, one bay pony, about 10 or 12 years old, four feet two inches high, blaze face, saddle marks, branded with a four-sided square on left shoulder and an indistinguishable brand similar to a four-pronged rake on left hip.

STEER—Taken up by J. E. Freeman, in Pleasant Grove tp., November 15, 1888, one dark red 3-year-old steer, some white under belly, branded X W on left hip.

STEER—By same, one red and white spotted 3-year-old steer, branded ty on left hip.

STEER—Taken up by W. C. Means, in Pleasant Grove tp., November 17, 1888, one deep red steer, white spot in forehead and bush of tail white, 2 years old, branded with G on left hip.

2 STEERS—Taken up by W. C. Dudgeon, in Salt Springs tp., November 21, 1888, two 3-year-old steers, red and white spotted, one of which has a white face, branded with indistinct brand on left side near shoulder.

STEER—Taken up by W. B. Worford, in Janesville tp., November 24, 1888, one red and white 1-year-old steer, end of right ear off, no brand visible.

STEER—Taken up by S. H. Winters, in Janesville tp., November 21, 1888, one red 2-year-old steer, scar brand on right hip.

COW—Taken up by I. T. Gillespie, in Lane tp., November 23, 1888, one roan cow, aged about 6 years; valued at \$15.

Woodson county—R. M. Phillips, clerk.

STEER—Taken up by Chris Herold, in Center tp., November 10, 1888, one red 2-year-old steer, some white spots, branded O. C. on left hip; valued at \$21.

HEIFER—Taken up by Jacob Carroll, in Liberty tp., November 13, 1888, one 2-year-old red heifer, white on belly and flanks, white spot across hips, some white in face, hole in left ear; valued at \$12.

HEIFER—Taken up by A. Rose, in Liberty tp., November 18, 1888, one 2-year-old red heifer, some white on belly, notch out of right ear; valued at \$12.

STEER—Taken up by Andrew Clark, in Owl Creek tp., November 1, 1888, one 1-year-old red and white steer, white spot on rump, both hind feet and one front foot white, star in forehead and bush of tail white; valued at \$12.

COW AND CALF—Taken up by David Askren, in North tp., November 28, 1888, one white cow and calf,

cow marked with under-slope in right ear, speckled roan heifer calf; valued at \$20.

STEER—Taken up by J. C. Culver, in Perry tp., November 9, 1888, one yearling steer, body white, head, neck and lower part of legs red, marked in left ear; valued at \$13.

Chase county—J. S. Stanley, clerk.

HEIFER—Taken up by Geo. W. Yeager, in Bazaar tp., December 5, 1888, one yearling heifer, red with some white on belly, no marks or brands; valued at \$15.

FOR WEEK ENDING DEC'R 20, 1888.

Pottawatomie county—L. D. Hart, clerk.

STEER—Taken up by C. H. E. Daniels, in Louisville tp., December 1, 1888, one red and white steer, 1 year old past, weight about 700 pounds, under-bit and ring in left ear; valued at \$15.

Montgomery county—G. W. Fulmer, clerk.

HEIFER—Taken up by Joseph Wishert, in Caney tp., November 24, 1888, one dark brown heifer, 3 years old, no marks or brands; valued at \$10.

HEIFER—By same, one red and white heifer, 3 years old, no marks or brands; valued at \$10.

HEIFER—By same, one red and white heifer, 3 years old, no marks or brands; valued at \$10.

HEIFER—By same, one red and white heifer, 3 years old, no marks or brands; valued at \$10.

Labette county—W. J. Millikin, clerk.

COLT—Taken up by Annie Hayden, in Hackberry tp., November 25, 1888, one mare colt, 2 years old, star in forehead, white hind feet, no brands; valued at \$20.

COLT—By same, one dun mare colt, 2 years old, black mane and tail, star in forehead; valued at \$20.

Cloud county—Chas. Proctor, clerk.

MARE—Taken up by Harrison Bates, in Meredith tp., one yellow mare with black mane and tail, branded 3D on left shoulder, supposed to be 6 years old; valued at \$15.

MARE—By same, one yellow mare with white mane and tail, white strip in face, branded 3D and HC on left shoulder, supposed to be 5 years old; valued at \$15.

HORSE—By same, one sorrel horse, supposed to be 2 years old, branded CE on left shoulder; valued at \$10.

HORSE—By same, one bay horse, supposed to be 2 years old, white spot in face, branded 3D on left shoulder; valued at \$10.

Chautauque county—W. F. Wade, clerk.

PONY—Taken up by S. H. Furshall, in Belleville tp., one pony mare, 13 hands high, two white feet, 13 years old, no marks or brands; valued at \$15.

COLT—By same, one sorrel white-faced horse colt, 1 year old, feet all white to knees, no brands; valued at \$15.

STEER—Taken up by J. W. Winnigar, in Salt Creek tp., one red and white 3-year-old steer, no marks or brands; valued at \$15.

Cherokee county—J. C. Atkinson, clerk.

COLT—Taken up by William Anderson, November 19, 1888, one bay horse colt, 1 year old, small size, white spot on nose, blind in left eye. (P. O. Waco, Mo.)

Anderson county—S. Durall, clerk.

STEER—Taken up by J. N. Caldwell, of Jackson tp., November 8, 1888, one roan yearling steer, slit in each ear; valued at \$12.

Chase county—J. S. Stanley, clerk.

COW AND CALF—Taken up by James Austin, in Cottonwood Falls tp., November 26, 1888, one roan 4-year-old cow, under-bit in right ear, swallow-fork in left ear, left horn broken off; red calf 6 months old; valued at \$20.

STEER—By same, one 2-year-old roan steer, no marks; valued at \$15.

COW—Taken up by John Hammond, in Emporia tp., one 12-year-old cow, yellow and white spots, head inclined to brindle, half of left horn gone; valued at \$12.

COW—Taken up by G. W. Lester, in Agnes City tp., December 7, 1888, one 3-year-old roan cow, branded C. B. on left hip; valued at \$12.

COW—By same, one 3-year-old red and white cow, no marks or brands; valued at \$12.

COW—Taken up by Daniel Richards, in Center tp., P. O. Ope, one 4-year-old roan cow, branded [on right hip and X on right loin, split in right ear; valued at \$15].

STEER—Taken up by Geo. E. Bodine, in Center tp., P. O. Ope, November 20, 1888, one red and white yearling steer, branded 40 on right hip; valued at \$12.

COW—Taken up by Tim Conway, in Cen er tp., November 22, 1888, one roan cow, 6 years old, red neck and indistinguishable brand on left hip; valued at \$14.

STEER—By same, one red yearling steer, some white split in left ear; valued at \$12.

STEER—Taken up by H. P. Davis, in Center tp., November 19, 1888, P. O. Emporia, one red yearling steer, part of tail off; valued at \$10.50.

MARE—Taken up by Marshall Leslie, in Emporia tp., November 12, 1888, one 12-year-old gray Texas mare, thin in flesh, brands unknown; valued at \$25.

Leavenworth county—J. W. Niehaus, clerk.

HEIFER—Taken up by Geo. E. Conrad, in Reno tp., December 1, 1888, one roan heifer, 2 years old, bit out of right ear; valued at \$13.

STEER—Taken up by Emitt Gwartyne, in Easton tp., November 15, 1888, one light red steer with a white spots on flank and white spot in forehead, 2 years old; valued at \$20.

Sherman county—O. H. Smith, clerk.

2 COWS—Taken up by Tracksell Bros., of Topland, October 29, 1888, two cows, one white and one red, 3 and 5 years old, both red necks, both have slit in right ear.

2 TEERS—By same, two steers, one 1 and one 2 years old, yearling has slit in right ear, 2-year-old no marks.

HEIFER—By same, one roan 2-year-old heifer, red neck, right ear split.

Shawnee county—D. N. Burdge, clerk.

HEIFER—Taken up by S. C. Hedrick, in Monmouth tp., December 3, 1888, one red-roan heifer, 3 years old; valued at \$15.

HORSE—Taken up by W. J. Allen, in Williamsport tp., November 26, 1888, one sorrel horse, 4 years old, white spot in forehead and 1 ft. hind foot white, harness marks, had on new halter when taken up.

Coffee county—H. B. Cheney, clerk.

STEER—Taken up by Stephen Ogden, in Lincoln tp., one red and white steer, 1 year old, dim brand on left hip; valued at \$12.

Johnson county—W. M. Adams, clerk.

HORSE—Taken up by H. B. Ackley, in Gardner tp., December 1, 1888, one bay horse, 14 hands high, 12 years old, blind in right eye; valued at \$15.

Cowley county—S. J. Smock, clerk.

2 STEERS—Taken up by R. B. Wate, in Vernon tp., November 13, 1888, two red steers; valued at \$18 each.

Crawford county—J. C. Gove, clerk.

MARE—Taken up by G. S. Davison, of Pittsburg, October 31, 1888, one brown mare, 18 hands high, collar marks; valued at \$20.

Davis county—P. V. Trovinger, clerk.

STEER—Taken up by W. R. Wood, in Winfield tp.,

November 14, 1888, one red yearling steer, white spot in forehead, no marks or brands; valued at \$13.

Miami county—H. A. Floyd, clerk.

COW—Taken up by James Wilson of Miami tp., P. O. New Lancaster, November 19, 1888, one red-roan cow, 4 years old past, smooth crop off end of right ear; valued at \$14.

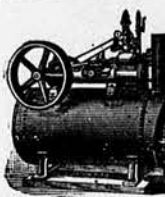
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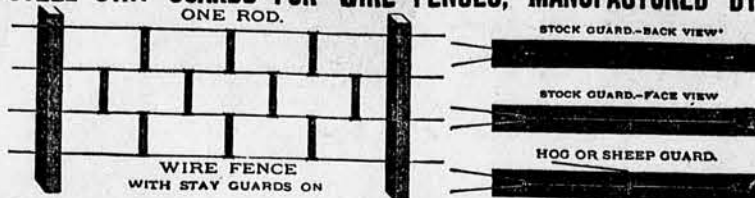
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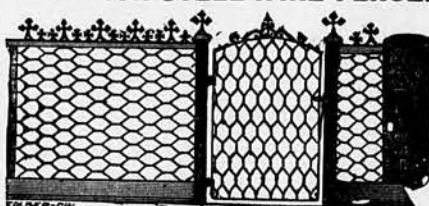
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