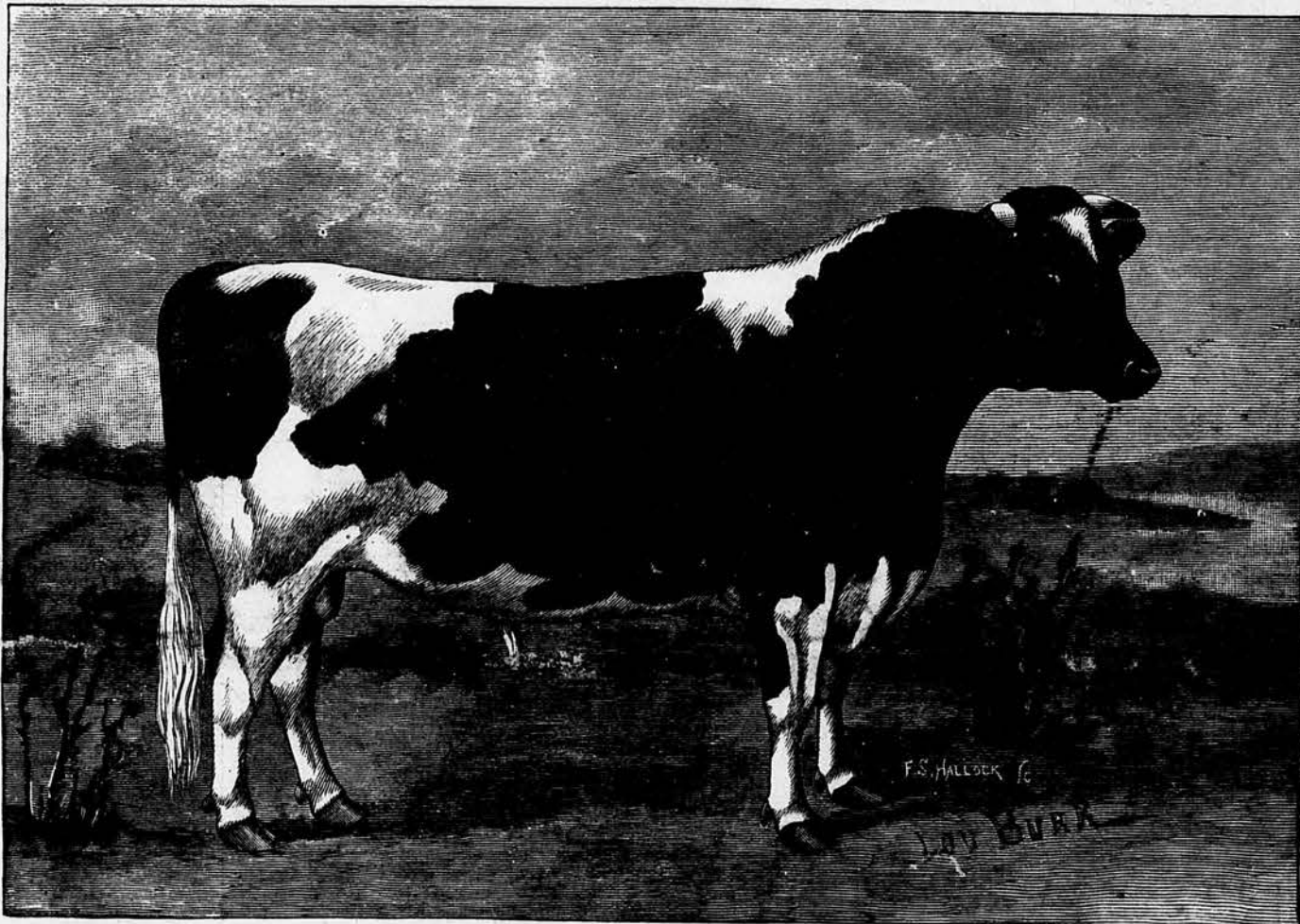


KANSAS FARMER

ESTABLISHED, 1863.
VOL. XXVI, No. 29.

TOPEKA, KANSAS, THURSDAY, JULY 19, 1888.

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(Continued on page 20.)

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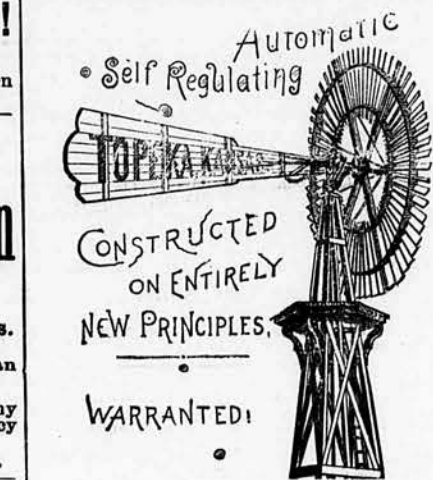
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Agricultural Matters.

FROM TEXAS—LET US JOIN HANDS.

EDITOR KANSAS FARMER:—The great question of the hour is, "How shall we relieve the great mass of producers from the burden of debt, and place them upon a sure road to prosperity?" By the wisdom of God, we are not permitted to see this, all in the same specific light. It is, however, the purpose of this article to lay a basis, upon which if we build wisely, success will be the natural outcome—leaving the detail for future consideration.

Notwithstanding the diversity of products of the different sections of our great country, there is a harmony of interests between the producers—between the Kansas wheat-grower and the Texas cotton-grower; between the deliver in the iron mines of Pennsylvania and the fruit-grower of the Pacific slope. We therefore lay down as a margin that there exists "a close and inseparable interest between the producers of wealth," no matter how contiguous or remote they may live one from the other. This being true in fact, it should be so also in spirit and in practice.

The practice and system of farming, like everything else, has been undergoing some radical changes; and with the ability to and an actual enormous increase in the total wealth of the world, comes poverty, rags, hunger and debt. Behold the man in rags whose toil is building annually thousands of miles of railroad, hundreds of towns and cities, immense factories, producing the iron, cotton, grain, wool, cloth and live stock, and the hundred other things that go to make up the grand total wealth of this great country—that which feeds and clothes their own families, and enriches the balance of mankind. Look again upon the face of the dear creature who has so faithfully clung to the delusive hope that some day the little homestead would be paid for, and that, in the evening of life, she might sing the songs of her childhood to the little one gathered about her knees. Alas! the sad picture! Year by year, while the little farm is yielding abundantly, the net receipts decrease, fade away, are no more, while the interest has increased; and now in the winter of life we see the once happy and hopeful family driven from the little farm to become tenants.

The battle may have been nobly, bravely fought; but friends, was it done in the light of this nineteenth century? Did our hero look about and see why in the face of increased farming facilities, increased acreage, and increased yield, he was yet unable to meet what seemed but a trifling debt? Did he realize that great railway corporations were scheming to rob him of an unjust share of the fruits of his toil? Did he realize that great and favored banking corporations were engaged in schemes to fleece him? Did he realize that every one of the fine-haired gentlemen who stand between the bag of Kansas grain and bale of Texas cotton, had to be fed (stall-fed at that) and clothed in "purple and fine linen"? Did our hero of the small but fruitful farm realize that all the world was organized for "self-interest," and that almost all that "world" in perfect harmony in the effort to fleece the producer? I do not go around to hunt softer words. The whole thing resolves itself into a struggle to get the lion's share of what we produce—amounting in fact in many cases to robbery—robbery that produces gaunt starvation and actual rags, viz., when on account of excessive railroad freight charges the people of one section of our country are starving for bread, while

perhaps the granaries of Kansas are overflowing and her people in rags for lack of a market. Friends, this is no overdrawn picture. You, dear reader, know this condition actually existed within the past few years, and is yet a fact to an extent that is robbing you of your homes year by year.

To relieve ourselves of this condition, to bring the farmers of Kansas and the farmers of Texas face to face in the exchanging of the products of the two sections, is the point I desire to make. If we have battled single-handed against these gigantic combinations of men and money, and have failed, as we know we have, let us now reverse our methods; let us organize. This is the plan that has brought success to every other class. Let us organize. Let us work to get the greatest body of producers into line of battle, into one line, under one banner, under one leader, with one general purpose to ameliorate our mental, moral and financial condition. With one general purpose, one general plan of action, guided by one general head, governed by wisdom and justice, success is within our grasp. Where shall we find such an organization? is the question you would ask, and I would answer, the FARMERS' ALLIANCE AND CO-OPERATIVE UNION.

(To be concluded next week.)

BAILEY TO MOHLER.

EDITOR KANSAS FARMER:—I see that Mohler has come back, but I feel slighted and propose to do a little kicking. Now I do not think it was fair for him to devote a long article to brother Elder and leave me unnoticed. When I wrote the article I expected a "diff" and as I did not get it, it hurts. The only logical conclusion I can come to as to why I am thus treated is that he dared not touch it. It can not be that the article was unworthy of notice, for I have been complimented upon the same by quite a number from different parts of the State. I say that a man who will seriously contend at this day and age that supply and demand regulates prices is off and badly off. I hold as incontrovertible that the volume of money has more to do with prices than any other one element. That if we increase the volume of money prices will increase, and if the volume is contracted prices will contract. If that is not a just conclusion I would like some of the great minds to show wherein it is wrong. But for fear they will continue to treat me with silence I will give a few quotations for them to chew.

John Stuart Mill says: "If the whole volume of money in circulation were doubled, prices would double."

Richards says: "That commodities rise in price in proportion to the increase or diminution of the money, I hold to be a fact that is incontrovertible." Prof. Walker, of Yale, after showing the effects of contraction, says: "We have become so familiar with these periodical revolutions in trade that we look upon them as the natural phenomenon of business, but it is not so." Of course it is not so, and it does not take a man with a very extensive brain to see it unless he is terribly worked by prejudice.

The monetary commission in their report say: "The true and only cause of the stagnation in industry and commerce now everywhere felt is the fact everywhere existing of falling prices, caused by a shrinkage in the volume of money." Yes, they not only say that, but they also say—"An increasing value of money and falling prices have been and are more fruitful of human misery than war, pestilence or famine." Think of it, will you? Yes, think of it three or four times. Then do not forget that the National banks have in their power

to expand or contract the currency at will. A remark of James A. Garfield's comes pat to the purpose here—"Whoever controls the volume of the currency is absolute master of the industry and commerce of the country. No earthly force can withstand the engineering of the principal autocrats."

John Sherman said: "The contraction of the currency is a far more distressing thing than Senators suppose. Our own and other nations have gone through that process before. It is not possible to take that voyage without the sorest distress to every person except a capitalist out of debt, or a salaried officer, or an annuitant. It is a period of loss, danger, lassitude of trade, fall of wages, suspension of enterprise, bankruptcy and disaster."

Yes, we have attempted the voyage and are still on the sea of distress and disaster, and there does not seem to be much prospect of reaching the other shore. I could quote on, but why should I, for it seems to me there is evidence enough to convince any reasonable man that my premises are correct.

But if Mr. Mohler still maintains that supply and demand regulates prices, I would like to have him state why American flour retails at a less price in England than in Chicago. Yes, and we need not go to Europe, but come nearer home. Why does Harper flour retail at 10 cents a sack less in Englewood, one hundred miles west, than here in Harper for the same grade? Yes, and why was it that the farmers paid 15 cents a pound for binding twine when the same material in half-inch rope was retailing over the counter right here in Harper for 11 cents? And why was it that when the Western Union Telegraph company absorbed the Baltimore & Ohio prices advanced 25 per cent. on telegraphic communications? Does he contend that supply and demand is the cause of this? Yes, and I remember that corn at one time in Chicago advanced from 75 cents to \$1.30 in two days, and it did not take half of that time for it to drop to 68 cents. Also, that Phil Armour "bulled" mess pork from less than \$10 per barrel to over \$22. The deal was not confined to the United States, but extended to Europe, and when it was closed he virtually owned all the mess pork in the world. The estimated gain to the manipulator was \$7,000,000. Think of it, fellow farmers! Here one man was carrying all the mess pork in the world; not only that, but adds millions to his wealth without adding a single dollar to the wealth of the nation. And that the farmers of this grand country whose agricultural resources are unlimited are reduced to such a state that they can not carry enough wheat from year to year to reseed their land should there be a failure, but are forced to sell it at less than cost. Mr. Mohler knows that there is not enough wheat in the farmers' hands from the crop of 1887 to re-seed the ground, and if this year's crop had been a failure that they would have starved to death putting it in as far as the wheat supply of this country is concerned.

You know, fellow citizens, that away back in Egypt they stored up their crops to bridge over seven years of famine; but here in what is supposed to be the great agricultural country of the world, we are not able to carry a year's supply; and not only that, but there seems to be those who think the cause of the trouble is an overproduction. I tell you overproduction is not the cause of the depression. Neither does supply and demand rule prices to a very considerable extent at the present time.

Each crop in Illinois (according to State Agricultural reports) raised since

1881 has been raised at an actual loss to the producers, and not only that, but eighty-seven of the best agricultural counties in the State show a decrease in their population. That, too, in a State that raises more wheat, corn, oats and hay than any other State, and I believe only second in hogs and cattle, and it is believed her condition is somewhat better than other Western States. If we keep on at the same rate how long before we will starve to death? I tell you "something is rotten in the state of Denmark." Yes, not only in Denmark, but a "heap sight" nearer home.

This article is already longer than I intended it should be, but I will give a quotation from Lincoln before I close. Near the close of the war, in a letter to a friend in Illinois he said: "Yes, we may all congratulate ourselves that this cruel war is nearing to a close. It has cost a vast amount of treasure and blood. The best blood of the flower of America's youth has been freely offered upon our country's altar, that the nation might live. It has been indeed a trying hour for the republic, but I see in the near future a crisis approaching that unnerves me and causes me to tremble for the safety of my country. As a result of the war corporations have been enthroned and an era of corruption in high places will follow, and the money power of the country will endeavor to prolong its reign by working upon the prejudices of the people until all wealth is aggregated in a few hands, and the republic is destroyed. I feel at this moment more anxiety for the safety of my country than ever before, even in the midst of the war. God grant that my suspicion may prove groundless."

But his suspicion did not prove to be groundless. Think of it, the two great political parties carrying on a campaign and the only issues are sectional prejudice and one is in and the other out. Not only that, but how about the concentration of wealth? It is estimated that 1 per cent. of our population own half of the nation's wealth and that 2 per cent. own half of the other half. What is to be the result? When Rome fell all her wealth was concentrated in a few hands; the same was true of Egypt, Babylon and Persia. What is it about history repeating itself? Daniel Webster said: "Liberty can not long endure in any country where the tendency of legislation is to concentrate wealth in the hands of a few."

I believe if Mr. Mohler and others that are inclined to think with him will lay aside their prejudices, investigate and understand the laws that have been enacted since 1862 in the interest of the classes and against the masses, they will no longer contend that supply and demand govern prices. Nor that the depression now everywhere felt in the United States is caused by an overproduction of farm products.

GEO. T. BAILEY.

Harper, Harper Co., Kas.

Off obscure the road that leads to health,
Unmarked by board or sign;
Wisdom avails not, powerless is wealth
To sooth those aches of thine.
But do not despair, with life there's hope,
The cloud conceals the sun;
With Pierce's Favorite Prescription at hand
You life's full course may run.

More truth than poetry in these lines, as thousands of ladies all over the land now blooming with health, testify to the great curative powers of Dr. Pierce's Favorite Prescription, adapted by much research and careful study to the happy relief of all those weaknesses and ailments peculiar to females. All druggists.

The preparatory department of Campbell Normal University is the most thorough in the West.

Money spent in paint for farm buildings and implements is no loss.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

AUGUST 8.—H. M. Valle, Short-horns, Independence, Mo.

INTERESTING FACTS ABOUT WOOL.

English farmers are among the best, if not the best in the world, and when one of them speaks or writes on subjects connected with agriculture, he usually conveys useful information. Mr. John W. Turner, Bradford, recently prepared an article on "Wool and its Uses," and it was published in the Journal of the Royal Agricultural Society of England. The article was reviewed in *Farming World*, Edinburgh, Scotland, from which we quote what follows:

As a contribution toward a better knowledge of the subject, Mr. Turner briefly describes British wool and its uses, before proceeding to discuss its commercial aspects. The long-wools (Lincoln, Cotswold, and Leicester), he tells us, are subdivided for commercial purposes into lustre and demi-lustre. The pure lustre wools were formerly made chiefly into ladies' dress goods, and twenty years ago commanded a much higher price in proportion to other goods than they do now. Lustre or brightness alone, which entered so largely into the enhancement of the value of these wools for dress purposes, is now of secondary importance. It is, however, still necessary that they should be smooth and straight, and any crossing with rougher breeds for the purpose of obtaining weight, or with broken breeds for the sake of the mutton, reduces their value. Mr. Turner speaks of the unconquerable difficulty of sometimes making the wool-grower understand this point, in connection with the fact that in lustre, as in other wools, the finer the fibre the more valuable is the wool. Hearing that fine wools are the best to sell, the long-wool grower in many cases tries to improve his wool by crossing it with the Down; the result generally being that he loses the lustre and smooth straight hair without obtaining enough of the fineness of the Down to be of any commercial value. This, of course, is not directed against the crossing of breeds, but merely against the erroneous notion that the fineness of wool of one breed can be grafted into another without altering its original characteristics. A colonial farmer under such circumstances as those of the long-wool grower would, Mr. Turner points out, have preserved the character of his breed, but would have continued it by a careful selection of the finest woolled among his sheep.

The demi-lustre wools are made into camlets for men's clothing in China, Japan, and Northern Asia; into lastings for boots and furniture; and into bunting for flags, and some kinds of curtain stuffs. The value of this class of wool consists in its length, strength, and solidity of fibre. Fineness of hair is valuable so long as it is obtained in the right way, but this must be done by selection within the family itself, and not by crossing from the outside. These wools are used for classes of dress goods where a certain "handle" is required, and any interference with the breed removes the wool into other channels of trade.

In Down wools, on the other hand, which are principally used for hosiery, under-garments, flannels, and similar goods, also for some woollen goods where a springy light handle is desired, absence of lustre, the finest possible fibre, and not too much length,

are the desirable qualities. In Mr. Turner's opinion, there will always be, by comparison, a good demand for pure-bred Down wools, because they possess qualities which render them suitable for the uses just mentioned in greater perfection than any other wool. But, as already stated, crossing deprives the breed of its best qualities, from the wool-buyer's point of view. An illustration is given by Mr. Turner of a clip of wool from a Hampshire Down flock, which had been "improved by crossing with the very heaviest Lincoln. "All the good qualities in the two breeds were effectually destroyed. No lustre manufacturer would use the wool as the lustre had disappeared. No maker of buntings or similar goods could use it, as the staple was too short; whilst for the hosiery trade it was both too long and too coarse. The lot was ultimately sold at about 50 per cent. less than the value of Down, and 25 per cent. less than the value of Lincoln at the time."

Half-bred wool occupies, as far as supply goes, the most important position in the market. It is the largest item in the English clip. It is an ever-increasing quantity in the Colonial clip, and probably of the forty million of sheep in America the greater number are half-breds. Mr. Turner uses the name "half-bred" throughout in the same sense as it is generally used in Yorkshire, to signify a cross between a coarse and a fine-wooled sheep. What is required in this class of wool is a moderate length of staple, softness of handle, and the greatest fineness that can be obtained. As there is the keenest competition in this class, it follows that the greatest amount of knowledge on the part of the British farmer is necessary to hold his own in the contests. Yet Mr. Turner is able to show that the growers of half-bred wool in this country have for the last quarter of a century or so been steadily playing into the hands of the Colonists. Twenty-five years ago some of our half-bred wools were celebrated and justly so, for their fineness and softness, and they were very much sought after for certain classes of goods. This was notably true of the Norfolk half-bred wool. But about the time named the Norfolk half-bred wool-growers got dissatisfied with the weight of their fleeces, and carried away, no doubt, by the high-prices which the neighboring farmers of Lincolnshire could make of their much heavier wool, they began to take means for increasing the weight of the fleece. The only thing aimed at appeared to be weight, and very little thought was given to the effect upon the character of the wool. The result has been that the Norfolk half-bred of to-day is a mongrel breed, which is beaten by almost every sort it competes with. The same mistake has been made in other districts, and has been one of the causes of the downward tendency of prices.

Under the head of "mixed breeds," Mr. Turner includes all wools which have in them a cross of the Scotch black-faced, more or less recent, and in various degrees. Throughout the north there are various wools which show all kinds of mixtures. The value of these broken-bred wools is now somewhat higher in proportion to other wools than it formerly was, a good many of them being utilized in the manufacture of so-called home-spuns, cheviots and tweeds of the rougher class.

Mr. Turner shows very conclusively that imported wool is a great and important factor in determining the value of our home clip. In 1861, the total import of wool of all kinds into this country was, in round figures, 150,000,000 of pounds, or about an equal quantity to our own production. In 1886, our own

production had fallen 186,000,000, while the imports had increased to 615,000,000. More than 300,000,000 of this enormous increase is the produce of Australasia. During the whole of the period the Colonial wool has been steadily improving. Everything that attention and business ability can accomplish is done by the Colonials to meet the wants of the trade. The result is that, with the exception of pure lustre wool, every kind of British wool can be matched and beaten in the London sales of Colonial wool. And while all this has been taking place, our own wool in the classes which compete with Colonial has been deteriorating.

The mode of business between wool-growers and wool users is next adverted to, and Mr. Turner's strictures on this part of the home trade are only too well merited. There are many points about the manner in which Colonial wool is sent to market and dealt with, which give it an enormous advantage over our own. The flocks are often very large, and after being shorn, the wool is generally carefully and thoroughly skirted, and also classed into different descriptions, so that on its arrival in London large quantities of it can be taken direct to the comb without any sorting whatever. As the sales generally last from three to six weeks, and as there are seldom less than 100,000 bales offered every night there is plenty of choice. When this style of business is compared with the dilatory and unbusiness-like manner of buying English wool from the farmer, it will be seen what an immense saving of time and trouble there is to the user of Colonial wool as compared with the user of British. A manufacturer can, and often does, purchase as much wool in London in a single night as would take him a month to buy in the country.

To the inquiry as to what can be done to enable our farmers to get more for their wool, or even something like old-time prices, Mr. Turner can only reply that at present he sees very little hope of any substantial rise in prices. An import of more than 600,000,000 of pounds of wool is a factor which effectively removes any of the exclusive conditions which formerly helped to keep up the price of British wool. For though it must be admitted that we do not retain quite half of it for the use of our mills, yet we have to compete with the other half in the shape of the manufactured goods of France and Germany in all the markets of the world. Thus the question is not how home-grown wool can be restored to its old position, for that is impossible, but how it has to hold its own in the competition. Mr. Turner's answer to this is: "Let the wool which is known to suit a district be grown there in all its ancient purity; and let farmers generally take care that their wool is got up for market better than it often is."

Don't Give Up the Sheep.

Sheep-raising has not been generally profitable the last two or three years, but that alone is not sufficient justification for abandoning the business or for sacrificing any considerable number of sheep. Wheat-raising has not been profitable, nor has cattle-raising or hog-raising; nor has any department of business been specially profitable. A good many manufacturing establishments have been closed and a large number of railroads have been put into the hands of receivers. Sheep-raising is not exceptionally unprofitable.

Wool may be low in price, but, like wheat and pork and corn and beef, and butter and cheese, it is always salable at some price for cash. Mutton is the best of all summer meats, and sheep for mutton on the farmer's table are

the best animals on the farm, for the reason that the carcass is small and can be used fresh in an ordinary family during warm weather. Where families are small, several of them may be supplied all along during warm weather by slaughtering one or two animals a week, each in turn furnishing the carcass. Besides, mutton is becoming more and more in demand in all the local markets.

The objection which is urged most frequently is the probability of tariff duties being removed from foreign wool, and that will still further reduce the price of American wool. There is force in the objection, but not as much, in our opinion, as many persons suppose. The effect of removing duties will depend largely on the course taken by American farmers. If they should all go to raising wool, that alone would reduce prices, as was done by the stimulus given to sheep husbandry by the high tariff duties of 1867. Wool was cheaper in 1883 than it was in 1868, just as woollen goods and nearly all kinds of manufactures were cheaper. So of wheat and corn and cattle and hogs. But there is no danger of every farmer rushing into sheep-raising. There will doubtless be some large flocks herded on cheap lands, but the ranch dispensation is nearly ended. Population is spreading as well as increasing, and men are occupying the public lands for homes. Small farms are multiplying; while large holdings are diminishing in number and extent. Sheep may be and will be kept in small flocks on small farms, the big men generally going out of the business. Let every farmer have a few good sheep, raising them for the double purpose of wool and mutton, and don't get scared about the market, for, even if the worst anticipations should be realized, sheep of that class will be worth raising even on an American farm.

But the danger is over-estimated in our opinion. It will naturally drive a great many persons out of the business, and whence balances are struck, it will be found that our population has greatly increased and the number of our sheep has greatly decreased. For a year or two, while the changes are taking place, wool will be low, very low; but in the course of three to five years, prices will gradually improve. As fast as foreign wool-growers get certain control of our markets, they will take advantage of the situation in their own interests and raise prices as fast and as high as the condition of the industry here will allow. The wise farmers will reduce their flocks where they are too large, and will go to raising larger-bodied sheep for mutton as well as for wool. Don't give up the sheep.

Western Pork-Packing.

Editor Charles B. Murray, of the Cincinnati *Price Current*, in the thirty-ninth annual report of the pork-packing in the United States, issued by that valuable journal, gives the following review of this great industry:

The important industry of converting swine into product, for food and other uses, has been stimulated not only by the enlarging requirements of our own country, but also by the needs of other countries, where the production of meats has not kept pace with the advance in population. The cheapness, considering the feeding cost of hogs in the corn-growing portions of our country, with the quickness with which swine are brought into marketable condition, and the wholesomeness of meats produced from American hogs, have favored the production of a large surplus available for export to other countries, during late years. The export movement, however, has been quite

variable, under influence of changes in values and home supplies in the receiving countries; and more or less restricted in late years by the attitude of some of the countries of Europe, in prohibiting importations of American meats, which continues to be maintained, under the view of protection to their own meat-producing industries. In France, where the edict of prohibition was issued seven years ago, the importation of American meats was 70,000,000 pounds for twelve months ending June 30, 1881—the meat product of about 500,000 hogs, or over 8 per cent. of the meat exports for that year. In Germany, which has also placed an embargo upon American meats, the imports formerly reached 30,000,000 to 40,000,000 pounds annually—showing 43,000,000 pounds for the year ending July 30, 1881, representing the meat product of over 300,000 hogs. Denmark has taken a similar position with reference to American meats, in order to encourage the hog-raising industry in that country; the importations of our meats into Denmark have not been of important volume, 2,000,000 to 4,000,000 pounds in late years, reaching nearly 7,000,000 pounds in 1883.

In 1860, the total of meats and lard exported from the United States was 107,000,000 pounds, and in 1863 reached 439,000,000 pounds. Then followed a decline to 98,000,000 pounds in 1866; for five years, 1867 to 1871 inclusive, the annual average was 128,000,000 pounds; in 1872 the exports were largely increased, and exceeded any previous year—the annual average for five years, 1872 to 1876 inclusive, being 568,000,000 pounds. The next five years marks the largest exports recorded, reaching 1,233,000,000 pounds in 1881, the preceding year being about an equal quantity, and for the five years ending with 1881 the annual average was 1,076,000,000 pounds. This was also the period of lowest average prices. Since 1881, values have averaged decidedly higher, especially the first part of the period, and the exports have been much reduced, declining to 627,000,000 pounds in 1883, and 754,000,000 pounds as the annual average for six years, 1881 to 1887 inclusive. These exhibits of exports are for years ending June 30.

The extent to which hogs are handled by regular packing establishments in the country is closely determined. It would be interesting if there were also available data as to number of hogs additionally killed, by butchers and farmers, throughout the country. But this cannot be stated, although the reported number of swine in the country, officially estimated, affords a basis for calculations. The Western reported packing in recent years has been 10,000,000 to 12,000,000 hogs annually. Eastern packing, for which returns have been obtained, has been 2,000,000 to 2,500,000 hogs, exclusive of the slaughtering at New York, Philadelphia and Baltimore, which cities have handled 2,500,000 to 30,000,000 hogs yearly, chiefly for product consumed fresh, locally. The annual number killed by regular packing concerns is approximately 15,000,000 hogs, for the entire country, exclusive of the seaboard slaughtering referred to, and the killings of interior butchers and farmers. It is likely that the aggregate killing in the United States closely approximates 30,000,000 hogs, the product of about 40 per cent. of which gets into commercial channels.

Words cannot express the gratitude which people feel for the benefit done them by the use of Ayer's Sarsaparilla. Long-standing cases of rheumatism yield to this remedy, when all others fail to give relief. This medicine thoroughly expels the poison from the blood.

In the Dairy.

JERSEYS VS. HOLSTEINS AS BUTTER-MAKERS.

Dairymen of the present day are, as a rule, men of thought, and a degree of intelligence is associated with their business that a few years ago was not considered essential or important. If a cow gave milk in fair quantities and continued a reasonable time to do so, she was an acceptable animal for at least one season, at the end of which, or when the flow was diminished so much as to render it unprofitable to keep her longer, she was sold to the grazier or to the butcher. Not much attention was given to the breed or to the quality of the milk. All milk contained butter and cream and in the absence of absolute knowledge resulting from practical tests of the comparative richness of the milk—quantity was the standard and the heavy milkers were most sought and considered most valuable. Lately, however, this is all changed—attention is given to the specific wants of the dairyman—by the breeder—and animals are produced exactly suited to his needs, and while the heavy milking cow is desired by the milk-seller and the cheese-maker, and sometimes the milk of such cows is unusually rich in proportion to quantity, yet, as a rule, the business for which they are most profitable and to which the owners will confine their labors, is in the direction which nature has outlined for them.

Occasionally, as stated, great milkers prove to be also great butter-producers, as in the case of the Holstein cow Clothilde and others of her strain, but the enormous amount of milk required to be handled in proportion to amount of butter, points conclusively to the fact that the Holsteins—the best of them—are not designed for profitable butter cows in comparison with the Jersey, the milk of which, on an average, will produce a pound of butter from about 12 pounds of milk, while that from the Holstein requires almost double that amount. The composition of the milk—the elementary parts—readiness with which the cream separates, sizes of butter globules, comparative quality of the butter itself, composition as shown by the analysis and the verdict of the butter-eating public in favor of Jersey butter, all prove unerringly that the two breeds have each a different mission, and it is perpetuating a wrong and misleading to the uninformed in search of the best dairy animal suited for a special line of business to urge great butter claims for the Holsteins as a race. As stated, the milk from all cows will produce butter, and while it is true that some breeds make it in large quantities, it does not follow that all breeds make good butter, which together with a supply in profitable quantities is the aim of every dairyman engaged in butter manufacture.

The Jersey has been bred for centuries specially for butter, the fineness of which is world-famed. The milk is adapted for the purpose, being heavily laden with the fats that produce butter. These are easily separated—much more so than in any other milk. The quantity of the milk is usually comparatively small, but this is no index to the butter yield, for while twelve pounds of milk to the pound of butter is about the average, scores of instances are recorded of three to four pounds only being required.

No well-informed butter-maker, posted about the requirements of this business, will ever employ Holstein cattle in his butter dairy. If he does it will be at the expense of his bank account,

which after all is probably the most convincing route he could strike. The wonderful stories published about butter-making Holsteins are very taking and attractive to the dairyman in search of butter cows, and while there are odd instances of great producers, they are as a race by no means to be depended upon in that line. They are milkers, and to give milk in large quantities is their legitimate mission, and it is not in the order of things that quantity and quality should be combined in the product of a single animal. The report of the butter performances of the Holstein cow Clothilde and some others of her family, published in a Leavenworth (Kas.) paper, wherein it is stated that she and two of her daughters at an average age of four years, averaged 21,215 pounds of milk in a year, is truly wonderful and is calculated to produce enthusiasm in the mind of the milk dairyman, and to lead him to think that his brightest dreams about a profitable milk-giving animal have been realized in the Holstein cow, and while this group and others of the strain have shown very creditable butter yields, all the way from 15 lbs. 6 oz. by a five-year-old, to 23 lbs. by Clothilde herself at eight years old, there is nothing to encourage the butter-maker to employ them in his business, for taking the three animals named—the old matron being considered the very best representative animal known to the breed, and allowing 25 lbs. of milk to produce a pound of butter—a low average for Holstein milk—the showing for them all from this immense volume of milk is a little less than 850 lbs. of butter each per year, which is about 100 lbs. less than the highest Jersey yield covering a similar period, and only barely equals the recorded test of quite a large number of others of the breed.

The same weight of Jersey milk—which can be produced at infinitely less cost—would yield double the amount of butter, greatly superior in quality, and of much greater market value. Other instances of phenomenal butter abilities possessed by this exceptional family of Holsteins are noted by the same paper, and while these all have a tendency to excite a feeling of just pride in the minds of those who esteem the breed for great milking qualities, it does not justify the assumption—that as the Holsteins are as milkers—that they are successful or profitable competitors of the Jerseys as butter-makers. These instances with Holsteins are rare exceptions, while poor butter-makers and poor butter families of the Jersey breed constitute the exceptions. This point is important for the butter dairyman's consideration, and he wants to put his money where it will make him best returns.

Turning to the records of the Jerseys we find there are over 1,400 cows in this country that have tested from 14 lbs. of butter per week all the way to 46 lbs. 12½ oz., the highest record ever made by any cow of any breed, scores of them between 20 and 30 lbs. Bulls of the breed—a great many of them—have fifteen to thirty daughters, and an innumerable aggregation of descendants more remote, that have tested yields embraced between 14 and 36 lbs. of butter per week and the standard is constantly being elevated and advanced. The system of breeding and the care in mating employed by most breeders of Jersey cattle will soon result in the business being reduced almost to a certainty. The universal tendency is in that direction. The quality of the product from this race of animals no one questions. It only remains now to purge the race of that proportion which is weak in butter power, and breed up with the best, and the time has come

when the butter-making dairyman, alive to his own interest, chooses only the Jersey. Facts are "stubborn things," and are incontrovertable, and one of the most stubborn and incontrovertable of them all is that the Jersey cow far excels all other breeds in the production of rich milk and butter. This is amply proven by her works.—George Jackson, in *Jersey Bulletin*.

Advantages of the Creamery System.

There is rarely an enterprise that benefits a town, city, or county as much as an extensive creamery. The country within a radius of seven or eight miles around is reached by the cream-gathering wagons, which pay as much if not more for a gauge of cream, which represents a pound of butter, as the farmer could get for the butter after making it. Besides getting as much or more for the cream as for the butter, the farmers are saved all the work of churning and preparing the butter for market and get one-fourth more butter from the same amount of cream. This one-fourth more which the creamery men pay cash for is a dead loss by the old process. To illustrate, suppose a farmer sold ten pounds of butter a week, which would amount to 520 pounds per year. This would only be four-fifths of the amount he would get paid for had he sold his cream to the creamery, or a loss of 130 pounds in a year. Estimating butter at 20 cents per pound the amount gained in a year by patronizing the creamery would be \$26, besides saving all the labor of making and marketing the butter. So every reader can readily see that a creamery is a mutual benefit and a blessing to any locality. It is the most feasible plan of reaching the large butter districts, besides rendering the grade of butter uniform, and thus abolishing the inferior qualities. In many of the smaller towns and villages in the vicinity of Bloomington, are men who daily collect cream from the neighborhood and ship it to Bloomington on afternoon freight trains. These men who have their regular routes and regular customers, generally calling at the same place three times each week. They have large collecting tanks into which the cream is put. It is paid for by the "gauge," a "gauge" being the amount of that particular cream which will make a pound of butter. A sample of each lot of cream daily collected, is placed in a long glass tube, (properly labeled with the name of the person furnishing it), and each day the contents of these sample tubes is made into butter and carefully weighed and measured. This constitutes the basis for the price of each particular lot of cream. Two creamery wagons are running at Cooksville, one at Hudson, one commencing at Kappa this week and several others will commence in a week or two, all of which will collect for the Bloomington creamery.—*Pantagraph, Bloomington, Ill.*

At the Rio Grande sugar works they feed the horses upon rations of one part of bran to three of sorghum seed; and they make the best of pork by a judicious use of the same material.

Shallenberger's Antidote for Malaria is the cheapest remedy in the world in proportion to the work it does, because it is certain to cure even the worst cases if taken properly. One bottle of thirty pills will cure any ordinary case, and one dose will stop the chills, but a number of doses and a little time are required to drive all Malaria from the system. Sold by Druggists.

Creameries and Dairies.

D. W. Willson, Elgin, Ill., makes a specialty of furnishing plans and specifications for building and operating creameries and dairies on the whole milk or gathered cream systems. Centrifugal separators, setting cans, and all machinery and implements furnished. Correspondence answered. Address, D. W. WILLSON, Elgin, Ill.

Correspondence.

Rainfall, Temperature, Climate.

EDITOR KANSAS FARMER:—Secretary Graham's recently published table of rainfall at Manhattan college for each May, June and July for twenty-nine years is exceedingly interesting. It shows an increase of 30.56 inches in the fourteen years ending with 1886, over the fourteen years ending with 1873; but finds that by comparing the fourteen years ending with 1887 with corresponding number ending with 1873, that the increase is only 18.14 inches. This difference is obtained by merely changing the starting point one year, "and yet," he adds, "there is no better reason for beginning with one year than with any other."

During these twenty-nine years, beginning with 1859 and ending with 1887, there have been five well-defined drouth periods centering about 1860, 1866, 1874, 1880-81, 1886-87, or averaging nearly seven years apart. If we commence with 1859 and divide twenty-eight years following into two equal parts, we have two drouth periods in each division of fourteen years—those of 1860 and 1866 in the first, and of 1874 and 1881 in the second. But if we commence with 1860 and count the twenty-eight years to end of 1887, then in the first fourteen years we have two drouth periods, while in the second fourteen years there are three drouth periods—that of 1887 having been added.

In making a fair comparison is there not a better reason for commencing with 1859 than with 1860? In dividing the records of rainfall into periods, the periodicity of our years of extreme drouth or excessive rains should be kept in mind. I believe a division into seven years will come nearer dividing the cycle of the seasons and making a fair comparison between one period and another, and this Secretary Graham has practically done in his division of the twenty-eight years commencing with 1859.

It would be interesting now to see beside this table one of the average mean temperatures for each May, June and July for the same twenty-nine years, and note if temperatures bear any relation to increase of rainfall in last half of the twenty-eight years over the first half.

In considering the question—"Is the rainfall increasing?" it is well to bear in mind the favorable location of Manhattan at junction of Kansas and Blue rivers, with heavy bodies of timber in the vicinity for catching its full share of the thunder showers of agricultural days. The conditions for attracting rain were almost as favorable before settlement of the country as since. The establishment of stations for taking records of rainfall on our high level lands or divides is essential to a solution of this question. Our Signal Service and State institutions should make and record experiments as to amount of heat radiated from closely-pastured sod; also from meadows on which cattle are not allowed to pasture. There should be a record of surface or soil temperatures on cultivated and uncultivated land, of the capacity of soil to absorb and retain rainfall, especially in counties newly occupied; and especially to note the effect of the removal of large herds of cattle from a given territory, and whether the natural sod does not, after several years of disuse and winter freezing, become more mellow and absorptive. The rain gauge alone will never prove or disprove the question of climatic change. It is possible for the climate to change vastly without increasing the rainfall. If the farmer who can make two blades of grass grow where one grew before is a philanthropist, is he not equally a benefactor if he can accomplish with one inch of rainfall, by retaining it, what two inches failed to do in days of hide-bound, water-shedding prairies? In the eastern half of Kansas the question is not so much "Is the rainfall increasing?" as "Is the rainfall more equable," and "Are the seasons more favorable to crop production from one period of seven years to another?" Do we average more showers in a given period? Does a given amount of rainfall precipitate more slowly? Topeka, Kas. H. R. HILTON.

The Aim of It.

EDITOR KANSAS FARMER:—While England and France warred to destroy each other in Napoleon's day, from 1803 to 1814, they closed the ports of all commercial na-

tions. It was then that our New England factories started, and they flourished. Soon after Bonaparte was overthrown and peace began those factories began to suffer. They were mostly cotton factories. They called for protection. They said that Belgium and other nations were bringing cotton-made goods here and underselling them. Then Congress put a heavy tariff on fabrics made of cotton to protect our home industries. New England rejoiced. But the foreigners laughed at her. They began to import elegant linens, woollens, silks, satins so fine and cheap that they found great and ready sale, and in return they carried off in their fleets so much cotton that our home factories had to pay much more for cotton. Then they called for protection against linens, woollens and silks. They got it. Still trade grew and other articles were imported and cotton kept too high. Then they called for protection against everything and made cotton so low that all the cotton States were nearly ruined. Protection always aims at the imports, and that means ruin to exports. Oregon, Mo. CLARK IRVINE.

Will Mr. Irvine kindly explain why imports and exports from and to this country have increased largely in amount and value from the beginning of our tariff history to the present time with prospects for still further increase even under existing tariff laws?—EDITOR.

An Iron Barn.

EDITOR KANSAS FARMER:—An essential to success in the dairy business is a good barn, and a good barn is one that will keep the cattle cool enough in summer and warm enough in winter; that will not leak in our tremendous thunder storms nor warp its sides off in the hot sun. These conditions are, it seems to me, best met with in the building covered with corrugated iron if properly constructed. Having used one of this kind for several months past I feel safe in saying that the dairymen and, indeed, all our stockmen will find the iron barn of great value in our peculiar climate and will welcome it as a solution to several questions which are likely to vex one at inconvenient times.

This barn is wind-proof, water-proof and fire-proof. It was painted before it was bought and it will neither warp nor shrink. As the material comes in sheets about twenty-five inches wide and six, eight, ten or twelve feet long, and as it is so light that it may be cut with a tinner's shears it will be seen that the material for the covering of a very large barn can all be hauled at one load. It does not absorb paint like wood, and a very small quantity will serve to repaint it when necessary. The first cost is, I think, very nearly the same as good lumber when battened, painted and shingled, and if the manure is not piled against it to cause it to rust out, I think it will last very much longer. It is certainly very nearly perfect as a roofing material for stables, silos, granaries. My barn is framed like a house with a stud for each lap of iron, i. e., about twenty-three inches apart, is covered, roof and sides, with corrugated iron and has all the portion below the hay-mow floor sheeted up with stock boards, thereby forming an air chamber between the iron and the inside sheeting. When built in this manner it is cooler in this hot weather than is the wooden barn of a neighbor built in the ordinary way, though the latter has the advantage in location. I am not attempting to compare this with the stone barn, but when compared with the wooden barn I think it has decidedly the advantage. I. D. GRAHAM. Manhattan, Kas.

Send for a catalogue of Campbell Normal University, Holton, Kas.

Light and ventilation are as essential in the winter stable as food and water.

Ayer's Hair Vigor has long held the first place, as a hair-dressing, in the estimation of the public. Ladies find that this preparation gives a beautiful gloss to the hair, and gentlemen use it to prevent baldness and cure humors in the scalp.

In our announcements of candidates, readers of this paper will notice that E. G. Shull is a candidate for County Superintendent of Shawnee county, a man in every way competent for the position. The KANSAS FARMER gladly indorses men for office when they are clean men and competent like Mr. Shull.

WEATHER PREDICTIONS.

By Prof. C. C. Blake, Topeka.

[Correspondence and remittances for the KANSAS FARMER on account of this Weather Department should be directed to C. C. Blake, Topeka, Kas. See advertisement of Blake's Almanac on another page.]

WHAT SHALL THE HARVEST BE?

The farmers have it in their power to forever settle this vexed tariff question as well as the transportation question. We are doing all in our power to assist the farmers in settling those two great problems. Do you ask how? We will tell. More than two years ago our astronomical calculations showed that a great drouth, or series of drouths, was at hand. We so stated long in advance in our publication, and advised farmers how to plant so as to receive the least damage. We also advised them to store their surplus corn, till it should be needed during the drouth. We took our own medicine in running our two farms near Topeka, and made more money on the farms during the years of drouth than in ordinary years. This year we have all the time stated that it would be a good crop year, and have persistently advised the planting of large crops of corn, wheat and other crops. By thus using both mind and body in raising large crops in good years, and by knowing when the bad years will come, so as to be able to take advantage of circumstances, farmers will make enough money in a few years to not only pay their debts but to have a good bank account, instead of being engaged in constantly "reducing the surplus," as they have been in the habit of doing while "paying tribute to Caesar." They will then use their surplus funds in building boot and shoe factories, tanneries, cotton factories, woolen mills, plow factories, etc., in each county. They will thus afford a home market for nearly all they can raise, and producer and consumer being brought close together, they will get rid of the immense "tribute to Caesar" now paid for transportation, tariff and profits of a horde of useless middlemen. This will settle the tariff and transportation problems, and we do not see anything else that will. What matters it to the Kansas farmer whether he ships his produce to Pennsylvania and Massachusetts to exchange for high tariff goods made there, or whether he pays a little more for transporting his produce to England and exchanges it for goods made in England at sufficiently lower prices to make up for the greater cost of transportation for the longer haul? In either case the farmer gets the worst of it, and is kept poor by either free trade or high tariff, so long as he pays for this double transportation. But it is useless for the farmer to expect the capitalist to come and build the factories for him. Capitalists are as selfish as the rest of us, and only look to their own interest. As long as they can combine with the transportation monopolists and make a football of the tariff question for the delectation of the farmer, who in the end pays all the bills, they will not be troubled with any excessive amount of self-abnegation in building factories in your county or township. What we want is for the farmer to understand what self-interest is and then be as selfish as the capitalists and politicians are. To do this the farmers must know what the weather is to be so that they can raise big crops and accumulate a "surplus" with which to build factories in every county and township. This is the greatest problem of the age.

The Sweetest Girl in School.

"She's the sweetest girl in school!" enthusiastically exclaimed one young miss to another, as they passed down the street together. "Edith is so kind, and gentle, and unselfish, every one likes her. And she has lovely golden hair and pretty eyes. Isn't it a pity her complexion is so bad; it spoils her looks. And then she has such dreadful headaches!" The girls skipped along, but it happened Edith's mother had heard what they said. It set her thinking. What could be done for those headaches and the rough, muddy complexion, that was such a trial to her gentle daughter. She recalled what she had read of Dr. Pierce's Golden Medical Discovery, and on the spur of the moment she slipped into a drug store and bought a supply. Edith took it faithfully, with the result that it cleared her disordered blood, relieved the headaches, made her skin soft, fair and rosy, and now she is not only the "sweetest girl in school," but the most beautiful.

YOU SUFFER

From Biliousness, Constipation, Piles, Sick Headache, Sour Stomach, Colds, Liver Trouble, Jaundice, Dizziness, Bad taste in the Mouth, etc.—You need Suffer no longer—

Warner's SAFE Pills

will cure you. They have cured tens of thousands. They possess these points of superiority: sugar coated; purely vegetable, contain no calomel, mercury or mineral of any kind; do not gripe; never sicken; easy to take; mild in operation; and for these reasons are especially the favorites of women.

Ask for

WARNER'S SAFE PILLS.

The successful farmer must be a good business man. There is as much in the selling of farm products as in the raising, so far as the profit is concerned; and, in order to sell well, the farmer must understand value, and be reasonably well posted in business matters.

So far as possible keep all the quarters of the stock clean. Filth breeds disease, and the only safe plan is to clean out and keep clean the poultry house, the pig pen, the sheep shed, and the stable; all should be cleaned up before hot weather sets in, and then a reasonable effort be made to keep them clean.

Hardware for Farmers.

D. A. Mulvane & Co., 713 Kansas avenue, Topeka, always keep a full line of hardware, and especially desire the patronage of every farmer, who will find it to his interest to inspect our complete stock of hardware of every description, including the cheapest and best line of gasoline stoves, refrigerators, barbed wire, screen doors, tinware, ladders, wheelbarrows, etc.

Consumption Surely Cured.

TO THE EDITOR:—Please inform your readers that I have a positive remedy for the above named disease. 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., New York.

If land be deeply and thoroughly underdrained snow banks melt away from beneath from the rising of internal heat from the earth under them. No matter how deep or heavy the bank may be this furnishes a space beneath in which air circulates to some extent, and always sufficient to prevent smothering plant life. Where wheat or clover is killed by snow banks lying over it the ground beneath is only partially underdrained or not drained at all.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable 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 fellow-men. 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, 249 Power's Block, Rochester, N. Y.

A correspondent of the Rural New Yorker, who has had experience, says that after all the old hen is the cheapest, safest, most reliable incubator for the farmer, even if she is a little "cranky" sometimes. No incubator yet made, says this correspondent, can run itself and hatch chickens; it requires an infinite amount of watching and tending. The machine can not be kept in the living room unless one's nose is oblivious to smells, and any place where the temperature fluctuates much is fatal to his hopes of chickens.

B. F. Johnson & Co., of Richmond, Va., have an advertisement in another column that may interest you.

EXPERIMENTAL FARMING.

Prof. Sanborn, of the Missouri Agricultural college, is intensely interested in establishing profitable lines of agriculture. He has been in charge of the college farm some years, and in his latest bulletin (No. 34) he reviews the work done, and offers some good suggestions. After describing the farm and its condition when experiments were begun, he says:

"This paper is written because the farm system was itself an experiment believed to be of more moment to our farmers than those the writer has carried forward and reported. It was an attempt to apply science to agriculture in the elaboration of a systematic type of farming for the West, in which the laws involved were to work in harmony to accomplish a given end, and thus achieve commercial success and make it a true school farm. To these purposes there was at once added the functions of an experiment station. These experiments have been continuous from the start and reported in bi-monthly bulletins.

"The value of the trial to our farmers consists in the fact that it was inaugurated under the hardest conditions, unrelieved by the power to borrow capital or by State aid, and opposed to current practices—in fact, a radical revolution of farm methods in vogue. If it succeeded it was, as the conditions above stated will show, in the grasp of every farmer of the State who is willing to apply himself.

"After careful consideration of soil, climate and markets, a six years' fixed rotation of crops was inaugurated (for full statement of philosophic reasons involved, see Report of Missouri Board of Agriculture for 1886-7) upon 108 acres of ground, about all of the available tillage land save orchards and horticultural grounds in use. The balance of field land being bottom land, badly worn, and one and one-half miles by road from the house, was sown to a mixture of eight varieties of pasture grasses. The rotation was (1) corn, (2) oats, (3) clover, (4) wheat, (5) timothy, (6) timothy.

"The ideas involved were the distribution of labor over the season and time for thorough work with each crop; the alternation of crops whose root-feeding areas were at varying depths in the soil; those maturing at varying seasons of the year succeeding each other; broad and narrow-leaved plants alternating; by alternation the dodging of above and underground insect and fungus enemies; the growth of only such amount of straw and corn fodder crops as could be saved, stacked and fed in rations with clover and other nitrogenous diets, and so balance the deficiencies of those coarse foods in albuminoids; the growth of crops adapted to consumption on the farm, in order to increase the fertility of the farm. And the alternation of cover crops and tillage crops in order to get alternately the protection from leaching, washing and volatilization of the soil materials of the one and the soil-decomposing influences of the other, each checking the other from excess of its deleterious influences when pursued as a continuous system.

"All corn fodder or straw was to be saved, stacked and used. The cattle, instead of feeding around stacks in the open air, were brought to a square partly surrounded by a temporary lean-to shed costing the farm \$150, and around which and additional straw sheds all hay, straw and corn fodder were stacked and fed in alternate rations in a rack in the shed by a rear door, quite handily. The manure thus saved has been applied twice in the rotation—to corn and to wheat. Thorough tillage and careful selection of seed were entered upon, while some \$2,000 has been used in clearing for pasture 250 acres of ground from legions of small or buck bushes and small wood growth and the continuous sprouting of the same. This latter work of letting the sun in has with our mixed pasture grass given a quality of pasture that has greatly increased the growth of steers and nearly three-fold increased our pasture capacity, which will be four-fold or more when completed. Beyond the above system we could not go for lack of barns to control other conditions, which it was very desirous to involve in animal nutrition or stock feeding, saving of liquid and more complete saving of solid manure, etc. So far as carried out it will be seen that it involves the saving of the distinguishing wastes of the West, namely, straw, corn fodder, manure and soil waste by excessive

tillage, and involved constant increase of soil fertility, for rich manure-making foods were bought and fed and manure drawn from town, but no more manure than we are forced to waste from lack of well-arranged barns, for saving solid and liquid manure, such as has just been erected here. I was again and again told that it was idle to attempt to save the waste product of the farm under our condition in Missouri, and that elaborate farming would not pay.

THE RESULT.

"The farm will winter and pasture twice to twice and one-half as much stock in better condition than it would six years ago under the system then pursued, or the ordinary system of the State.

"It has an increase of personal property in every direction amounting by the yearly invoice of two farmers to \$1,441. But this is on a greatly reduced range of prices that really represents the stock and material of \$2,500 to \$3,000 at rates it was first invoiced to the farm. Its fences are in much better condition, it has forty acres of pasture sowed in mixed grasses that will carry a steer to the acres, and cost \$150. It has opened 200 acres of land for pasture which it annually sprouts. It has expended \$200 on orchards from which it has derived as yet no fruit. It has cleared its fields of stumps, bushes, trees, race course, filled its draws for cultivation, at a cost of \$700 in round numbers. It has expended \$300 to \$400 yearly in experiment work. Those and other improvements carried out from the profits of the farm amount to \$3,424, to which add \$1,441, increase of invoice, gives \$4,865. To this it would be proper to add shrinkage in values of \$1,200 to \$1,500, if real advance is to be ascertained. This is for five years, as the sixth year is not yet concluded. But the important advance is in the doubled fertility of the farm from which revenues can now easily be derived. It has rich cleared fields and good pastures, good tools and stock, and a system of farming that costs less to handle than at first.

"Its fertility has nearly reached the standard set for it of an average crop of sixty bushels of oats, three tons timothy, four tons clover, eighty bushels corn and forty bushels of wheat yearly.

"This year would have ended the round of the first six years' rotation when the data would have been interesting to have saved. But the government experiment station took forty acres out of the heart of the field lands and deranges the whole farm polity or ability to obtain results per acre.

"I can only give last year's results, which were for wheat, forty-six and one-half bushels per acre (our wheat has been yearly nine and one-half, twenty-two, seventeen, thirty-one and one-half and forty-six and one-half bushels to the acre, and a prospect of forty bushels this year); hay, 295 loads for eighty-one acres, or two and one-half to two and three-fourths tons per acre, estimated, for we had no available scales for hay. The corn was cut for fodder after passing out of the dough state—the time we always cut it—and stacked, one foddering of it being used daily. It was an extraordinary poor corn year and our thick plant gave a dense heavy growth of a fine cattle food and I deemed it best to use it as I did, but the capacity of the farm for corn is now great, and for oats fully up to sixty bushels for the future.

"Exact weights would have been given, but last year we were building a new barn and had not then got our scales located for use.

"I may also explain that this report should have been delayed until next year when the rotation starts its second round and the economy of the new barn could have been shown, but change of location of the writer and absorption of a part of the farm under station management necessitates this fragmentary and premature report. The data given are open to the criticism of this community, who have long known the farm.

"In view of all the above facts I feel authorized in saying to our struggling farmers, who are passing through one of the hardest times our agriculture has known, and who have my profound sympathy in all their efforts to better their condition, that a higher type of farming which seeks not only to give soil fertility but to increase it, and which also saves all present wastes so characteristic of the West, is a most decidedly safe and encouraging one to pursue. The same rate of increase of crop growth for the State as has been secured here outside of the increase

in personal property and other advances on this farm from its own revenues would have an immense influence on the wealth and culture of the State."

Gossip About Stock.

B. E. Dale, Kerrville, Tenn., advertises this week a winter turnip which he thinks the stockmen of this State will appreciate. He invites correspondence.

Remember that we can supply "Haaff's Practical Dehorner," the best book on the subject ever published, for only \$1.25, or we will send it and the KANSAS FARMER one year for only \$2.

The live stock receipts at the Kansas City stock yards from Jan. 1 to July 15, 1888, are 335,624 cattle, 1,182,666 hogs and 153,817 sheep, showing a gain of 77,371 cattle, 93,909 hogs loss and a gain of 46,740 sheep compared with 1887.

We are in receipt of the sale catalogue of the first annual sale from the Fruitland Herd of Bates Short-horn cattle, the property of H. M. Valle, Independence, Mo., to occur August 8. The offering comprises the best lot of in-bred Bates ever offered in the West. Don't fail to send for a catalogue of this remarkable herd and mention the KANSAS FARMER.

Our illustration on the first page of Nierop's Netherland is a good likeness of the bull which has been used as one of the breeding bulls of Buchanan Bros., who have their sale this week at Rockefeller, Ill. The bull was calved June 8, 1885, his dam has a milk record of 116 lbs. in one day and 3,120 1-16 lbs. in thirty days. Smiths, Powell & Lamb purchased his full sister for \$1,000.

An effort is being made to organize the American Association of Breeders' Jacks and Jennets. Its object will be the collection and publication of the pedigrees of well-bred jacks and jennets, under such rules as it may be decided upon. It is believed that such an association can do much to stimulate mule breeding. Charles F. Mills, of Springfield, Ill., and Charles E. Leonard, of Bell Air, Mo., are the leaders in this work, and will be glad to hear from all interested parties. It is hoped to effect a preliminary organization at a meeting to be called during the Fat Stock Show at Chicago in November.

According to the latest statistics the total number of horses, which the leading countries of the world can throw into a field of battle are as follows: Russia, 21,570,000 horses; America, 9,500,000; the Argentine Republic, 4,000,000; Austria, 3,500,000; Germany, 3,500,000; France, 2,800,000 horses and 300,000 mules; England, 2,790,000 horses; Canada, 2,624,000; Spain, 680,000 horses and 2,300,000 mules; Italy, 2,000,000; Belgium, 383,000; Denmark, 317,000; Australia, 301,000; Holland, 125,000; and Portugal, 83,000 horses and 50,000 mules. It will be remarked that Russia heads the list by an enormous majority.

The State Superintendency.

The following resolution was passed unanimously by the Southwestern Kansas Teachers' Association at the meeting held in Wellington, November 24 and 25, 1887:

WHEREAS, The teachers of Kansas believe, and that such is the sentiment of the Southwestern Kansas Teachers' Association, that they should have a voice in the selection from their ranks of members for the highest offices in their profession; that their judgment should be recognized by the political machinery of the commonwealth as coming from a non-partisan and unbiased source; and that they believe in the recognition of experience, fitness, and a true educational spirit, and in support of this feeling we do hereby

Resolve, That, because of his thorough mastery of the needs and benefits of our school system; its perfect exposition of present imperfections of the school laws of Kansas, acquired by the most extended experience and closest study, of any educator in our State; that we extend to John MacDonal, the efficient County Superintendent of Shawnee county for the past ten years, our hearty support, as the coming State Superintendent of Kansas.

The question as to whether nitrates are indispensable for the growth of field crops has been carefully investigated at a German Agricultural Experiment Station. The results seem to show conclusively that barley, oats, beans and wheat can be grown in a soil absolutely free from all nitrifying organisms, but containing nitrogenous manures, such as ammonium sulphate.

REASONS

Why Ayer's Sarsaparilla is preferable to any other for the cure of Blood Diseases.

Because no poisonous or deleterious ingredients enter into the composition of Ayer's Sarsaparilla.

—Ayer's Sarsaparilla contains only the purest and most effective remedial properties.

—Ayer's Sarsaparilla is prepared with extreme care, skill, and cleanliness.

—Ayer's Sarsaparilla is prescribed by leading physicians.

—Ayer's Sarsaparilla is for sale everywhere, and recommended by all first-class druggists.

—Ayer's Sarsaparilla is a medicine, and not a beverage in disguise.

—Ayer's Sarsaparilla never fails to effect a cure, when persistently used, according to directions.

—Ayer's Sarsaparilla is a highly concentrated extract, and therefore the most economical Blood Medicine in the market.

—Ayer's Sarsaparilla has had a successful career of nearly half a century, and was never so popular as at present.

—Thousands of testimonials are on file from those benefited by the use of

Ayer's Sarsaparilla.

PREPARED BY

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

Price \$1; six bottles, \$5. Worth \$5 a bottle.

KANSAS WEEKLY WEATHER REPORT.

Furnished by the Kansas Weather Service.

Abstract for the week ending Thursday, July 12:

Rainfall.—The rainfall has been very unequally distributed this week, 73 per cent. of the amount falling in the eastern half of the State and 27 per cent. in the west half. Little or no rain fell from Osborne to Stafford, thence northwest to Gove. An excess fell in Ellis and Graham, in Barber, thence east to Chautauqua, and generally in the central-eastern counties; the heaviest occurred in Douglas, Johnson and Wyandotte. At Vinland, in Douglas, an exceedingly heavy downpour, beginning at 10 p. m., raising Coal creek out of its banks and flooding the country for half a mile on each side. It was so entirely local that three or four miles out on each side there was hardly sufficient to settle the dust.

Temperature and Sunshine.—In the central and western counties the temperature has been excessive, ranging up to 112 deg. in the afternoons, with hot nights. Sunshine has been the rule.

Results.—The oats and flax harvest is progressing favorably in the central and northern counties. In the northeastern counties the oats have rusted considerably, and in Brown and Doniphan have lodged in many instances. Wheat threshing is in progress in the central and southern counties, and the yield is proving very good. Chinch bugs are in the corn to some extent in the northern counties; they are doing some damage in Rooks and have appeared in Graham.

T. B. JENNINGS,
Signal Corps, Asst. Director.

P. S.—Owing to the failure of a large per cent. of the reports to reach this office last week, no bulletin could be issued. It is hoped that it will not occur again.

T. B. J.

TOPEKA REPORT.

Abstract for the week ending Saturday July 14, 1888:

Temperature.—Highest at 2 p. m., 95° on Thursday the 12th; lowest at same hour, 81° on Monday the 9th. Highest recorded during the week, 97° on the 12th; lowest, 63° on the 11th.

Rainfall.—Rain fell the 8th, 9th and 14th. Total for the week, 1.48 inches.

Hall's Vegetable Sicilian Hair Renewer is becoming a universal favorite for restoring gray hair to its original color, and making hair grow thick and strong.

A sharp plow will save its cost in a season's work. All the farm tools and implements should all be put in proper order for spring work if not already done.

Mr. Josiah Jordan, who is announced as a candidate for County Superintendent, has been a resident of Shawnee county from boyhood and his experience in the country schools will render his services as County Superintendent particularly valuable.

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.

They Come No More.

The glow and glory of a sunset's splendor;
The scent of violets after April rain;
Faint, half-forgotten music, low and tender,
Bringing the past back, with its sweet refrain;
The spicy fragrance of the late wild roses,—
All, all have power, which we oppose in vain,
To reach the sacred place where grief reposes,
And wake it into keener life again.

They come no more! How many a heart has
Broken
With longing for some reconciling word
Which those most fondly loved had left un-
spoken,
Making all life a pang of hope deferred.
It sometimes seems that heaven must kindly
open,
And common air with shining wings be
stirred,
And unto us be given some blessed token
That all our love and longing had been
heard.

But all, alas! in vain! The starry spaces
Are silent, as we listen, night and day.
We turn again, and feel their empty places,
And dream of joys before they went away.
Then let us kiss more tenderly the faces
That bend beside us as we kneel to pray.
And lavish all our richest loves and graces
On those who still within our keeping stay.
—Mrs. L. G. McVean, in *Traveler's Record*.

We Kissed Again With Tears.

As through the land at eve we went,
And plucked the ripened ears,
We fell out, my wife and I;
We fell out—I know not why—
And kissed again with tears.

And blessings on the falling out
That all the more endears—
When we fall out with those we love
And kiss again with tears!

For when we come where lies the child
We lost in other years,
There, above the little grave—
Oh, there, above the little grave,
We kissed again with tears.—Tennyson.

Honor! thou spongy idol of man's mind,
Thou soak'st content away, thou hast confined
Ambitious man, and not his destiny
Within the bounds of forms and ceremony.
—Sir P. Sydney.

BEAUTIFYING THE HOME.

There are many ways in which the home may be beautified at a trifling outlay of either time or money. One of these is the conversion of an old-fashioned chest of drawers into a modern chiffoniere. These old-time, tall bureaus may be picked up for a song at a second-hand dealer's shop, or in out-of-the-way country places. They are generally of hard wood, and are well made, although, as far as external appearances go, they have not much to boast of. Sand-paper the entire surface and finish with mahogany stain, after which sand-paper again and then varnish. Of course a finer finish may be produced by rubbing the first coat of varnish down and applying a second coat. If the bureau be of fine-grained hard wood it would be far better not to put any stain upon it, but finish with repeated coats of varnish well rubbed down. These articles are generally quite plain, but they may be embellished to one's heart's content by ornaments and moldings of Lincrusta-Walton stained the same shade as the wood. Put brass handles on the drawers, and get a mirror long enough to extend across the top; frame it in Lincrusta-Walton, stained, fasten it to the bureau with braces at the sides, and not only a useful, but a very tasteful, chiffoniere will be had.

A LUXURIOUS COUCH.

A wide, low couch of wicker work, or with a woven wire seat, may be made a thing of beauty by laying upon it a rather thick mattress, over which is thrown a Turkish covering, with rich, dark colorings, which falls to the floor. Then get three square pillows, of such a size that when placed side by side they will extend the entire length of the couch, and cover them with tapestry of harmonious colors. Lean these up against the wall, and behind them nail a wall drapery of woven flax, with cross stripes of ecru and brown. Across the top, where the drapery is affixed to the wall, arrange at equal distances five small, round, lacquered plaques. If some short Japanese daggers or swords can be secured, one may be placed on each side of the center plaque with good effect,

but even without them the *tout ensemble* will be artistic in the extreme.

A SIMPLE SIDEBOARD.

A simple and inexpensive sideboard, which does good duty and is very appropriate in the modestly furnished home, is made of a plain deal table about two-thirds the width of the ordinary kitchen table, with a shelf fitted below. Stain this to imitate old oak with a mixture of raw Sienna, burnt Sienna and Vandyke brown thinned to the proper consistency with sizing. Hang some plain shelves above, either stained or covered with felt cloth, to hold ornamental pieces of china and glass. Lay upon the top of the table a scarf of butcher's linen, with knotted fringe, and further ornamented with drawn work or outline designs in washable silks, and then will be had a sideboard of which no one need be ashamed.

TO EMBELLISH THE CORNERS.

Corners are sometimes eye-sores from their very barrenness. One of these may be managed by a very simple arrangement of three-cornered shelves covered with felt or plush, the fronts being finished with a six-inch fringe, or with strips of Lincrusta-Walton. The shelves should be at least twelve inches apart, and there may be two, three or more of them, as desired. An India silk curtain suspended from a slender brass rod from the lower one is a pretty addition. Another corner may have a single shelf upon which is a bust or a handsome vase. Take a sufficient length of soft silk or other drape, draw it through a brass ring, which affix to the picture rail, letting the ends fall in careless folds behind the bust or other ornament, covering the shelf and hanging some distance below it. A pedestal, tall lamp or some other arrangement would fill up the lower part of the corner prettily.

A HOME-MADE SCREEN.

A screen easily made at home at a trifling cost is of jointless, soft green matting tacked to a slender pine wood frame. The frame is then covered with strips of Lincrusta-Walton, which adheres readily to the wood, and are stained a fine cherry wood color with a mixture of yellow ochre, crimson lake, Vandyke brown and a little black. When quite dry give a coat of beeswax and polish. The matting is an agreeable surface to paint upon, and should be ornamented with a bold, free design of popples or some similar flower. The natural color of the matting readily blends with any color. The fine, jointless Japanese matting also makes charming door panels. It may be glued or nailed with small brass nails to the door and afterward painted.

PRETTY STYLE OF TABLE.

An inexpensive and elegant table may be made by any carpenter of any desirable size or shape. A pretty style is of a circular form, with four legs inclining outward. A flat piece of wood about a foot wide is nailed against these legs about six inches from the ground, making a sort of wainscoting around the table. This piece has circular openings in the center of each of the sides, or may have two or even three in each side, in which are fitted pretty china plates of different sizes. The entire table, legs included, is then covered with cloth of any desired color, fitted smoothly in every part and fastened with small tacks.

EASILY MADE VASE PEDESTAL.

An elegant-looking pedestal for a vase is made of a keg about two feet high, which is fastened to a small square of wood, scarcely projecting beyond the edges. Cover the keg with gold-colored cloth, and tie around it near its top a scarf of soft olive silk. The cloth is laid in box-plaits and fastened with brass nails.

SOMETHING ABOUT WALLS AND CEILINGS.

And now a few words about walls and ceilings. The annual house-cleaning discloses cracks in the ceiling and a general dinginess of paper which were not obtrusive in the subdued winter light. Of course, if the cracks be deep nothing can be done but pointing up the plaster and either painting or papering. If, however, they be merely surface cracks, they may be outlined with liquid bronze or gold, making other irregular lines in order to distribute the decoration evenly. A small star-shaped ornament may be placed at the intersection of the lines with good effect. Papered walls or ceilings of harsh pattern, or that have become dingy, may be improved by washing over them a thin coat of water-color paint. The pattern will show through, but only enough to be agreeable. Paper that is clean and whole-

some, but dull and monotonous in effect, may be lighted up wonderfully by painting a frieze in some plain water color and then stenciling a pattern upon it. The ceiling, if unpapered, might be tinted the same color, and the stenciling of the frieze repeated upon the border. These are only a few suggestions, but they may lead up to others in fertile minds to fit a special place or occasion.—*Philadelphia Record*.

Domestic Service--New Lines of Work--Woman Suffrage in England--Self-Help for Women.

Under the above title T. W. Higginson, in *Harper's Bazar*, writes:

Side by side with the greater facilities for making money in this country, there exists the opportunity for greater changes and calamities in this direction than the world ever saw before. This is seen in the history of almost every family, but it is still better illustrated by the career of great institutions, because these are usually conducted in a peculiarly cautious and conservative manner, and their funds would seem safe from all but direct dishonesty. Yet how unavailing is all human wisdom to protect them! Some twenty years ago a Boston merchant, Benjamin Bussey, created in his will certain trusts for the benefit of Harvard university, leaving money to the amount of nearly half a million dollars, whose income, after payment of certain annuities, was to be used, one-quarter for the law school, one-quarter for the divinity school, and one-half for an agricultural and horticultural school, now known as the Bussey Institution. In his will Mr. Bussey stated in substance that having long observed the fluctuations of real estate in Boston he had taken pains to invest this property in a manner approaching absolute certainty, &c., in improved real estate in the very heart of Boston. This was all that could be done for safety, it then seemed, by the most experienced investor; and after this a great stone building with ample green-houses was erected in 1871, and when the Bussey Institution went into operation it was believed that it would be independent of students' fees. Then came the great Boston fire and swept away the very buildings which had been chosen as the one safe investment. When they were rebuilt the expense was so much greater as instantly to cause a vast shrinkage of income, and the half share of this income available for the Bussey Institution, which in 1872 was \$16,447.53, is now but some 4,000 or \$5,000, not much more than enough to cover the salary of a single professor. Thus difficult is it for the utmost caution and experience to discern what method will keep wealth together even when it is obtained. The wheel of fortune in these days is more disguised than formerly—covered with gilding, veiled by roses; but it is the same old wheel after all.

Others of the great educational institutions of the country—Harvard college proper, Johns Hopkins, Boston university—have gone through some similar diversities of fortune within the last twenty years. If now it is thus hard to preserve the property of a college, how much harder to preserve that of a woman, from loss or disappearance? It is subject to a thousand risks, not merely fires and failures, water in mines and strikes on railways, but it is also at the mercy of her own ignorance, her impulses, her generosity—of unfaithful guardians, spendthrift brothers, mercenary lovers. Every father wishes to guarantee a life of comfort, or at least of safety, to his daughter. But which is the better guarantee, a property invested in what seems the very safest manner, like that of the Bussey Institution, or the firmer investment of good health, good abilities, and good education? I once knew a young lady who, having suddenly lost a large property, was utterly broken down by it, and remained a helpless invalid for the rest of her days. I know at this moment a young lady, accustomed to all the habits of wealth, who has seen her expectations of property suddenly vanish, and who, having just completed her college course, has already with indomitable energy found a place in journalism, while her spirits and energies seem utterly unimpaired. Of course both these are individual cases, but they indicate in some degree the difference between the old days and the new. Women are outgrowing the old habit of complete and graceful dependence; they are learning the lesson of self-help. The num-

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ber of employments open to women is steadily increasing, and it is impossible to say that the future may not see as great changes as the immediate past has seen. The tendency of modern society is, in Napoleon Bonaparte's phrase, "to convert all trades into arts," and just so fast as this process goes on, rude strength becomes less essential and fineness of touch is more needed. Among the higher occupations there are some gaps which will soon be filled. The tenth census of the United States gives 2,432 women as physicians and surgeons, and only forty-eight as "chemists, assayers and metallurgists," whereas the latter vocation would seem to follow easily on the former. It gives only seventeen women as architects, whereas domestic architecture would seem employment peculiarly fitted, at least in its in-door aspects, to that sex. It certainly seems absurd that they should forever go on calling in male advisers to tell them how many shelves to have in a pantry, or where to set the wash-tubs in the laundry. But it is needless to give details of employment; just as far as the demand for an intelligent self-support exists, so far the opportunities will be equalized between the sexes, and more and more places will be found "higher up" for women. The great thing to secure is a feeling of genuine self-respect among women who earn their own living; to convert the class to be found even among those laboriously industrious who sincerely hold that no woman who earns her daily bread can be a lady. This will be outgrown; and with a greater ability to earn money will come better judgment in the use of it, so that it shall no longer be true, as the delightful old yeoman says in Hardy's "Under the Greenwood Tree"—when the bride announces that she shall have put her bonnet on in five minutes—that "'tis a talent of the female race that low numbers should stand for high, more especially in matters of waiting, matters of age, and matters of money."

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The Young Folks.

The Boy For Me.

His cap is old but his hair is gold.
And his face is as clear as the sky,
And whoever he meets, on lanes or streets,
He looks them straight in the eye.
With a fearless pride that has naught to hide,
Though he bows like a little knight,
Quite debonair, to a lady fair,
With a smile that is swift as light.

Does his mother call? Not a kite or ball
Or the prettiest game can stay
His eager feet as he hastens to greet
Whatever she means to say.
And the teachers depend on the little friend
At school in his place at nine,
With his lesson learned and his good marks
earned.
All ready to toe the line.

wonder if you have seen him too,
This boy, who is not too big
For a morning kiss from mother and sis,
Who isn't a bit of a prig.
But gentle and strong, and the whole day long
As happy as happy can be,
A gentleman, dears, in the coming years,
And at present the boy for me.

A German Lullaby.

Sleep, baby, sleep!
Thy Father watches the sheep,
Thy mother is shaking the dreamland tree,
And down falls a little dream on thee,
Sleep, baby, sleep!

Sleep, baby, sleep!
The large stars are the sheep,
The little stars are the lambs, I guess,
The fair moon is the shepherdess.
Sleep, baby, sleep!

True happiness
Consists not in the multitude of friends
But in the worth and choice; nor would I have
Virtue a popular regard pursue;
Let them be good that love, although but few.
—Ben Jonson.

Glory is like a circle in the water
Which never ceases to enlarge itself
Till by broad spreading it disperse to nought.
—Shakespeare.

The Forces at Gettysburg.

The battle of Gettysburg is remarkable not only for its results, but for the fierce and stubborn nature of the conflict itself. The armies on both sides were large, though not so large perhaps as to make the battle pre-eminent on that account. The figures on this point are interesting. Those given by the Comte de Paris may be accepted as obtained by careful investigation. The Army of the Potomac, without French's division, which had remained at Frederick, numbered 167,251 men, but nearly 28,000 were in the hospitals, and more than 21,000 were on detached service. The number of men present with their corps was 112,988, and that of men under arms 99,455. About 5,000 men came as reinforcements under Stannard and Lockwood, making a total of effective forces of 105,000 men and 352 pieces of artillery. But 2,750 troops were on duty at headquarters; the cavalry, numbering 10,500, were not seriously engaged; 3,000 to 4,000 were serving as additional guards near supply trains, batteries, etc., and there were probably 4,000 to 5,000 stragglers. The Comte de Paris therefore estimates the Union force seriously engaged at from 83,000 to 84,000 men. According to the official reports the Union loss was 2,834 killed, 13,709 wounded, including 10 generals, and 6,645 prisoners, or 25,186 in all. But these figures do not tell the whole story. The hospital records show the burial of 3,576 Union corpses, and it is estimated that 1,000 or 1,100 died of their wounds. It is estimated that Lee brought on the battlefield for actual service 68,000 to 69,000 men and 250 guns. The Confederates had 2,635 killed, 12,599 wounded, including 13 generals, and 7,464 missing, or 22,728 in all, making their losses almost exactly the same as those of the Union forces, though the latter army was the larger by one-fourth. These losses were enormous, being 27 per cent. of the Union army and 36 per cent. of the Confederate army. They are proofs of the stubborn bravery of both the blue and the gray, which the survivors of to-day can recall with pride as well as with sorrow.—*New York Tribune.*

Along South America's West Coast.

The products of the country are sugar, coffee, cocoa and cotton, while those of the towns are "Panama hats" and fleas. In each of the ports the natives are busy braiding hats from vegetable fibers, and the results of their labor find a market at Panama and in the cities of the coast, where, as in Mexico, a man's wealth is judged by what he wears on his head. The hats are usually made of toquilla, or pita, an arborescent

plant of the cactus family, the leaves of which are often several yards long. When cut, the leaf is dried, and then whipped into shreds almost as fine and tough as silk. Some hats are made of single fibers, without a splice or an end from the center of the crown to the rim. It often requires two or three months to make them, and the best ones are braided under water, as the fiber is more pliable when immersed. The cost of a single hat is sometimes \$250, but such last a lifetime, and can be packed in a vest pocket, or worn inside out, each side being as smooth and well finished as the other.

The natives make beautiful cigar cases, too, but it is difficult for a stranger to purchase either these or the hats, because they have an idea that all travelers are rich, and will pay any price that is asked. One old lady produced a cigar case, such as is sold in Japanese stores for \$1 or \$2, and politely offered to sell it for \$20. When I told her I could get a silver one for that price, she came down to \$18, then to \$12, and finally to \$1. They have no idea of the value of money, and are habitually imposed upon by local traders, who exchange food for their work at merely nominal rates, and then sell the hats at enormous figures.—*William Elroy Curtis, in American Magazine.*

Every Animal His Own Doctor.

Golden Days tells how every animal is his own doctor. Animals get rid of parasites by using dust, mud and clay. For that reason pigs wallow and birds take a dust bath in the road. Those suffering from fever restrict their diet, seek dark and airy places, drink water and sometimes plunge in it. When a dog has lost its appetite it eats that species of grass known as "dog grass," which acts as an emetic or purgative. Cats also eat grass, and sheep and cows when ill seek out certain herbs. Animals suffering from chronic rheumatism always keep, as far as possible, in the sun.

Animals suffering from traumatic fevers (that is, fevers arising from wounds) treat themselves by the continued application of cold water. When an animal has a wounded leg, hanging on by a few ligaments or bones, it completes the amputation by means of its teeth.

These are general rules; specific instances are even more singular. A chimpanzee has been known to dress a wound with leaves and grass. Latrelle cut the antennae of an ant, and other ants came and covered the wounded part with a transparent fluid secreted in their mouths. A dog, on being stung on the nose by a viper, was observed to plunge his head repeatedly for several days into running water, and he soon recovered. A terrier hurt its right eye. It remained under a counter, avoiding light and heat, although it habitually kept close to the fire, like most terriers. It adopted a general treatment—rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which it applied to the wounded eye. It recovered in six days.

The Island of Labuan and Its Lizards.

The Island of Labuan, ceded to Great Britain in the year 1848, when entirely without inhabitants, lies just off the mouth of the Borneo river. The country is flat, well wooded and watered, but the climate is too unhealthy for a prosperous future to be before it. Some fifteen or sixteen reptiles are found on the island, of which six are lizards. Two of these are no larger than English butterflies, and, being winged, flit about in much the same way. They are viewed with dread by the Malays, who believe them capable of causing a man's death by biting him upon the back of the neck, although, in reality, they are perfectly harmless. In contrast to these, another kind of lizard found on the island sometimes reaches a length of six feet, and is therefore known as the laud alligator. Its flesh is much praised by the natives, who assign to it several medicinal properties. The dried skin finds a ready sale with the Chinese, who make it one of the ingredients of a gelatinous soup. At Manilla, too, it is a stock article in the markets.

Roman Catholics in the United States.

The Roman Catholic church does not publish the numbers of its members, but as its adherents are principally foreign born, or the children of foreign-born citizens and inhabitants, and as the number of immigrants

has greatly increased of recent years, it is only fair to assume that the Roman Catholics have increased also. There are now supposed to be about 7,000,000 Roman Catholics to 12,000,000 Protestants. In 1895 there were about 1,250,000 out of 17,000,000 inhabitants; now there are 7,000,000 out of say 60,000,000.

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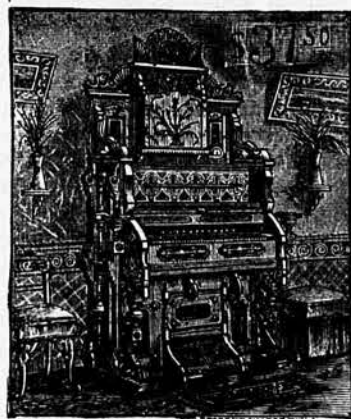
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Copper ore mines have been discovered in Montana, in the Sweet Grass region.

Kansas stands at the head of the crop columns this year in the department reports.

The House refuses to put sugar on the free list, only thirty-seven votes in favor of the motion.

A great many fields of corn in Kansas are now so far matured there is no doubt about a good crop so far as they are concerned.

The President has vetoed a number of private pension bills the last two or three weeks. He examined every bill personally, it is said.

Some members of the Brotherhood of Locomotive Engineers are charged with criminal conspiracy to injure the property of the C. B. and Q. railroad company.

The House agreed to Senator Plumb's amendment to the Agricultural bill, appropriating \$100,000 for further sorghum sugar experiments. Mr. Ryan argued strongly in favor of it.

The House refused to strike the free wool clause from the tariff bill by a vote of 120 to 102. Three Democrats, Sowden, of Pennsylvania, and Wilkins and Foran, of Ohio, voted with the Republicans against the motion to strike out, and Anderson of Iowa, Republican, voted with the Democrats for the motion.

PEPPER'S TARIFF MANUAL.

The "tariff question" is made the leading issue of the campaign by both the great parties, and the people need reliable information concerning foundation facts. There is no one book within the range of our knowledge which gives or professes to give facts that cover the whole ground. The subject, as a proposition in economics, is easily understood, but there are a great many details connected with a careful and satisfying study of it. Not more than one campaign speech in a hundred is altogether satisfactory to an inquiring mind free from prejudice. People want to study the whole subject, and they must consult a thousand sources for facts, and they want facts only to begin with, not what somebody believes.

In order to supply the general demand for a reliable, non-partisan statement of facts about the tariff, the editor of the *KANSAS FARMER* has undertaken the preparation of a *TARIFF MANUAL*, giving the origin, history, use, object and effect of tariff legislation in the United States, together with much historical and statistical information useful in studying and discussing the tariff. The plan is to present such facts as will truthfully show what the tariff is, how it came to be established in this country, how it operates in practice—explaining terms, showing differences as to the object of tariff laws, and giving figures and tables relating to foreign and domestic commerce, labor, prices home and foreign, etc., etc., so as that any person may, by the aid of this little book, thoroughly inform himself upon all the leading facts upon which tariff laws are based. After studying the book, the reader will not know what the author's opinions are touching any department of the subject; but having mastered the facts, he is free to form his own conclusions. It also gives the tariff planks in all the Democratic, Whig and Republican platforms since 1840.

The Manual will be a little book, about three by five inches, convenient for the pocket, and will contain about seventy-five pages—the exact number not yet known. The work is in press now, and will be ready for sale in about ten days. It will be sold at 25 cents a single copy, five copies one dollar; sixteen copies to one address, two dollars; one hundred copies to one address, ten dollars. Postage paid in all cases. Persons wishing the book should order early, for the edition is not large, only 5,000 copies. Direct to H. A. Heath, *KANSAS FARMER* office, Topeka.

Partisan Folly.

The tariff debate in Congress is developing some phases of partisanship which are not creditable, to say the least. If a man cannot rise above his party when his country's interests are at stake, he is blind and wholly unfit to lead.

A few days ago, on a motion to place sugar on the free list, Mr. Peters, of Kansas, without saying what his remarks do fairly imply—that he really believes sugar ought to be relieved from all taxes, said, or was reported as saying that in order to be a consistent Republican he must vote against the amendment. Mr. Funston also opposed the amendment, but he did not do it on party grounds. A day or two later, when the wool schedule was under consideration, on an amendment to strike out the free wool clause, Mr. Lanham, of Texas, said that the bill had the endorsement and sanction of the Democratic party and had become essentially a party measure. He had some doubt as to the propriety of the wool schedule, but he had resolved that in favor of the duty which he owed to the party to

which he belonged, and in deference to its councils he would yield his own feelings and decline to break the ranks.

These are the words of at least two members of Congress who regard the interests of their parties as paramount to the interests of their country. That is bad doctrine; it has nothing to commend it, and the sooner it is repudiated by the people the better for the common interests of all the people.

STREETER AND CUNNINGHAM.

These are the names at the head of National Union Labor ticket for President and Vice President of the United States: Alson J. Streeter, of Illinois; and Charles E. Cunningham, of Arkansas. The following is the

NATIONAL UNION LABOR PLATFORM:

General discontent prevails on the part of the wealth producers. Farmers are suffering from a poverty which has forced most of them to mortgage their estates, and the prices for products are so low as to offer no relief except through bankruptcy. Laborers are resorted to without bringing relief, because of the inability of employers in many cases to pay living wages, while more and more people are driven into the streets. Business men find collections almost impossible, and meantime hundreds of millions of idle public money which is needed for relief is locked up in the United States Treasury or placed without interest in favored banks in grim mockery of the public distress. Land monopoly flourishes as never before, and more owners of the soil are daily becoming tenants. Great transportation corporations still succeed in extorting their profits on watered stock through unjust charges. The United States Senate has become an open scandal, its membership being purchased by the rich in open defiance of the public will. Various efforts are made to squander the public money, which are designed to empty the Treasury without paying the public debt. Under these and other alarming conditions we appeal to the people of our country to come out of the old party organizations, whose indifference to the public welfare is responsible for this distress, and aid the Union Labor party to repeal existing class legislation and relieve the distress of our industries by establishing the following principles:

LAND.

While we believe that the proper solution of the financial distress will greatly relieve those now in danger of losing their homes by mortgage foreclosures, and enable every industrious person to secure a home as the highest result of civilization, we oppose land monopoly in every form, demand the forfeiture of unearned grants, the limitation of land ownership, and such other legislation as will stop speculation in lands, holding it unused from those whose necessities require it. We believe that the earth was meant for the people and not to make an idle aristocracy to subsist through rents upon the toils of the industrious, and that corners in land are as bad as corners in food, and that those who are not residents or citizens should not be allowed to own lands in the United States. A homestead should be exempt to a limited extent from execution or taxation.

TRANSPORTATION.

The means of communication and transportation shall be owned by the people as is the United States postal service.

MONEY.

The establishment of a national monetary system in the interest of the producer, instead of the speculator and usurer, by which the circulating medium in necessary quantity and full legal tender shall be issued directly to the people without intervention of banks, or loaned to citizens upon land security at the low rate of interest to relieve them from extortion or usury and enable them to control the money supply. Postal savings banks should be established, and, while we have free coinage of gold, we should have free coinage of silver. We demand the immediate application of all the moneys in the United States Treasury to the payment of the bonded debt and condemn the further issue of interest-bearing bonds, either by the national government, or by states, territories or municipalities.

LABOR.

Arbitration should take the place of strikes and other injurious methods of settling labor disputes. The letting of convict labor to contractors should be prohibited; the contract system should be abolished on public works, the hours of labor in industrial establishments should be reduced commensurate with the increased production by labor-saving machinery, employees protected from bodily injury, equal pay for equal work for both sexes; and labor, agricultural and co-operative associations be fostered and encouraged by law. The foundation of a republic is in the intelligence of its citizens, and children who are driven into workshops, mines and factories, are deprived of the education which should be secured to all by proper legislation.

PENSIONS.

We demand the passage of a service pension bill to every honorably discharged soldier and sailor of the United States.

INCOME TAX.

A graduated income tax is the most equitable system of taxation, placing the burdens of government on those who can best afford to pay, instead of laying it on the farmers and producers, and exempting millionaires, bondholders and corporations.

UNITED STATES SENATE.

We demand a constitutional amendment making United States Senators elective by a direct vote of the people.

CONTRACT LABOR.

We demand the strict enforcement of laws

prohibiting the importation of subjects of foreign countries under contracts.

CHINESE.

We demand the passage and enforcement of such legislation as will absolutely exclude the Chinese from the United States.

WOMAN SUFFRAGE.

The right to vote is inherent in citizenship irrespective of sex, and is properly within the province of state legislation.

PARAMOUNT ISSUES.

The paramount issues to be solved in the interest of humanity are the abolition of usury, monopoly and trusts, and we denounce the Democratic and Republican parties for creating and perpetuating these monstrous evils.

Mr. Streeter's Letter of Acceptance.

Hon. A. J. Streeter, candidate of the Union Labor party for the Presidency, comes out very strong against combinations, trusts, etc. We give a few extracts from his letter of acceptance:

"I hold to this principle: The prosperity of a nation is measured by the prosperity of its industrial people. If they are prosperous, then the nation is prosperous indeed; but, if its production people are struggling with poverty, taxes and debt, then the nation is poor, though its treasury, like ours, be overflowing with idle money. Such is the condition of our nation to-day. They tell us the country is growing rich, but the farmers and other working people are growing poor.

"Did our fathers ordain and establish this government to be a machine to enrich the few at the expense of the many? I trust not. But on the contrary, the true intent of law and of government should be to protect the weaker members in society from the encroachments of the stronger. The stronger are better able to care for themselves, but the weaker need the fostering care of the government, and hence governments are instituted among men. This fundamental principle has been subverted and in lieu of it we have a government of the capital class now merged into a money aristocracy.

"If elected, no recommendation will be made to demonetize silver again, nor will the Secretary of the Treasury advise the destruction of the remaining greenbacks in circulation. The law for the coinage of silver will be enforced in the interest of the people, and instead of coming the minimum amount \$2,000,000 per month, the maximum amount of \$400,000 per month will be coined. * * * The bonds shall be called in, the money paid out, and the interest stopped.

"There is something wrong, and we all know it. We have tried a change of administration from one old party to the other, but it gave the people no relief. We are even worse off now than when the change was made. Still interest, taxes, high rates for transportation, and other combinations take nearly all we annually produce, and leave but little on which to live and less to pay debt.

"The tariff is a minor issue when compared with the greater issues involved, and so complex as to be difficult for many to understand it. No legislation whatever on the tariff will give cheaper rates for interest on money, nor protect the people against the increasing combinations, monopolies and trusts now sapping the prosperity of the people. Owing to the great diversity of opinion on the tariff and among all parties, the Cincinnati convention thought it best at this time to leave that question out of the platform. I believe, however, that there should be a revision of the tariff laws, and that protection should be given where needed, and the tax reduced whenever it can be safely done.

"We are a temperance party in favor of good government, better morality and higher Christian civilization. Believing, as I do, that cheap tobacco and whisky are not in the interest of better morals and a higher civilization, but the reverse of it, I am opposed to the removal of the government tax on these commodities."

A Prohibitory Tariff.

Last week's Peabody Gazette had a long editorial article advocating a prohibitory tariff law not only as to foreign commerce, but, as to some things, to domestic commerce as well. We quote a few paragraphs, not to indorse the suggestions contained in them, but by way of showing the views of persons who occupy one of the extreme positions in the tariff discussion. Mr. W. H. Morgan is the writer of the article.

Some well-meaning people have endeavored to fortify themselves in free trade ideas by saying that it is not Christ-like, is unchristian, to prevent any person or people from having absolutely free trade with all. In refutation we may say that the Bible and all history prove that compulsion is largely used by the Creator in the education and government of his creatures. If they can be led through their reason, to do what is right and best for themselves and the world, that is the way He adopts. If their innate selfishness overpowers or warps their reason and they refuse to do right, then He compels and we must obey. The late civil war in our land is a frightful example. * * * We assume that it would be the best and wisest policy of our government to make the tariff so high that it would be almost prohibitory on all articles which can be produced in this country. * * *

OUR TARIFF PLATFORM.

1. A very high tariff on all productions which may be obtained at home with even a possibility of a reasonable price. In this we include coal, salt, iron and other metals, staple articles of food of most kinds, and all manufactured articles. [Whether it would be policy to include lumber should be considered in connection with the depletion of our forests.]

2. Admit all necessary articles which cannot be produced here free of duty—tea, coffee, etc.

3. Admit some matters free which are educational.

4. Place a reasonable tariff on all articles of luxury.

5. If it were constitutional, we would desire a State tariff on all articles which could be profitably produced in each State, to keep out all competitors, and make manufacturers come closer to the farmers who feed them and use their wares. * * *

Let us call your attention to the greatest extravagance in the world—unnecessary transportation. What immense fortunes are invested in our great transportation companies—railroads, ships and steamboats carrying our goods to all parts of the world and bringing the merchandise of other nations to us. Yet three-quarters of the long hauls is absolute waste. In fact, if we did not spend so much money paying for dead hauls we might have ourselves hauled about the world and learn more than we now do with all our boasted intercourse with the world at large. Let us cite some facts:

A few weeks ago the writer was in a Michigan town where he learned that a furniture factory there had orders for \$50,000 worth of common furniture to be shipped to California and Oregon. * * *

We buy wagons in Indiana, furniture in Michigan, reapers in Ohio—and send our grain and cattle east to feed the operatives who make them; then pay freight on the manufactured goods—the freight both ways a dead loss. How much worse it would be if we bought English goods and fed English operatives.

On the other hand, we might get our lumber in the forests of Missouri and Arkansas, and make all these goods here and save all freight except on the lumber—and feed the mechanics here who make our implements. If we had something to compel us, it would be done.

The final result of a prohibitory tariff would be that we would produce all that we used at home, and when our skill enabled us to produce for less than other nations we would export.

Samples of Farm Products.

Secretary Mohler, of the State Board of Agriculture, addressed the following to Secretaries of county and district fair associations in Kansas:

GENTLEMEN:—The National Grange and National Farmers' Congress meet in Topeka, November 14, next, and this board is especially desirous to have the best possible display of farm and horticultural products of our State on exhibition in the agricultural rooms of this board at that time, and to assist in this matter the citizens of Topeka have very generously contributed a special fund of \$200 (special class B), to be paid in premiums as set forth in the list given below, at the State Fair in Topeka, commencing September 17. At the close of the fair all entries in this class are to be donated to the State Board of Agriculture and be on exhibition in the agricultural rooms at the meeting aforesaid, after which the choicest will remain permanently on exhibition here, duly accredited to the counties contributing them.

In counties in which fairs are held previous to the time of the State Fair, choice selections from exhibits on hand then should be made and sent directly to this board and at the expense of the board. These will be placed on exhibition at the State Fair in competition with all other products in the same class and the premiums duly paid over to the parties entitled to them. Counties in which fairs are held after the time of the State Fair should, in like manner, make selections of products and send directly to this board. These will be placed on exhibition at the agricultural rooms at the time of the meeting referred to, but of course cannot compete for premiums.

If, however, in such counties some live, energetic parties wish to compete for premiums in this class at the State Fair, they can do so by gathering up specimens and sending them to us. We will be glad to place them on exhibition.

The relation of county and district fair associations to this board is such that we trust all Secretaries and other officials of these soci-

ties will take pride in making this display on this rare occasion the best ever witnessed in the State of Kansas.

Scarcely in the next quarter of a century will Kansas have another equal opportunity to show to representative men and women from every State in the Union the wealth of her agricultural resources. M. MOHLER, Secretary Kansas State Board of Agriculture.

National Farmers' Alliance.

Mr. Secretary August Post, Moulton, Iowa, recently issued a circular letter, as follows:

There will be a delegate convention held at Lyons, Rice county, Kansas, August 2, 1888, at 10 o'clock a. m., for the purpose of organizing a State Farmers' Alliance, under the auspices of the National Farmers' Alliance. The ratio of representation will be two delegates from each local Alliance having paid its dues to the National Alliance. President J. Burrows will be present and direct the order of the meeting.

In issuing this call we wish to direct the attention of the Alliances to the fact that this meeting will be one of very great importance. The Alliance in Kansas has, during the past year, made remarkable success. Farmers have realized its importance and value to a greater extent than ever before. Every effort should, therefore, be made to have the meeting one that will adequately represent the agricultural interests, both in number and in the quality of the material.

It is earnestly desired that every Alliance should be represented in the meeting, and that it should be represented by the ablest and best men; members of the soundest judgment and ripest experience; who have the full confidence of the members; and whose opinions will give weight and character to the conclusions of the convention, and be accepted as the wisest and best thing by the farmers all over the State.

No cause is so strong in itself that it can afford to be represented by any but the ablest men. The Alliance is unknown to very many farmers in Kansas; it is regarded with jealousy and suspicion by others. Its power and influence in the future will depend largely upon the firmness, the moderation, and the wisdom of its conclusions at the coming meeting.

The way to the widest field of usefulness is now plainly open; let it be entered with courage and wisdom. This can be done by sending the best men to the convention to represent the local Alliances.

By order of the President.
AUGUST POST, Secretary.

Political Economy

This is not a text for a sermon on an abstruse subject; it is merely introductory to a wayside remark in response to a list of authorities, with quotations from their writings, sent to us from a friend in Missouri for our information and by way of dissent from an editorial assertion in a recent issue of the KANSAS FARMER.

Our wayside remark is this: Authority is useful only when it accords with the truth. If paying balances with money is barter, then the economists who say imports are paid for with exports is true; otherwise not. Opinion never amounts to authority unless it accords with facts. In the tariff discussion facts are worth more than theory.

Bismarck Fair.

We are in receipt of the ninth annual premium list of the Western National Fair Association, to be held at Bismarck Grove, Lawrence, September 3 to 11, 1888.

The premiums are the most liberal ever offered and the directory of the association is the very best that could be selected, and the management propose to make this fair eclipse all former efforts.

The KANSAS FARMER wishes them the fullest success. There is no reason why this association should not hold a fair that will reflect credit to the banner agricultural State. Send for premium list to Secretary, I. N. Van Hoesen, Lawrence, Kansas.

Buckwheat on Wheat Stubble.

In cases where wheat stubble ground is reasonably clear of weeds, and the soil in fair condition, the land may profitably be plowed and smoothed well, then sowed to buckwheat. This may be done any time this month, if the soil is sufficiently moist to hasten germination of the seed.

Buckwheat is excellent grain for family use, as everybody knows; the plant in flower is good food for bees, and when plowed under it is next to clover and rye as a green fertilizer.

A small area will produce enough

grain for one family, leaving seed to carry over. Old ground is better for buckwheat than new. Sow about one bushel of seed to the acre, and cover about the same depth as wheat and rye seed are covered.

St. Louis Wool Market.

The wool circular of Hagey & Wilhelm, under date of July 10, says:

"The same activity and heavy demand for wools which has characterized our market since the opening of the season is increased, and actual orders now in the hands of mill agents and brokers are far beyond the current receipts, thus enabling us to sell quickly on arrival and make prompt returns. Our shipments from Montana, Utah, Wyoming, and other Western States and Territories have all been received, sold and remitted for inside of twenty days from date of shipment, and at prices higher than can be obtained in any other American market, thus showing our advantage in the sale of wools. Although Congress promises to vote, in the lower house, on the tariff bill inside of two weeks, yet the State of Oregon having gone Republican in the last election, on the strength of the bill, has caused general consternation among the supporters of the bill, and they are doing all they can to so alter and patch it up as to make it acceptable to the Democratic party without compromising the platform. It is now the general opinion that the bill is further from final and favorable action than ever, and that Congress will adjourn without taking any action, and the tariff will be a party issue in the coming Presidential election.

"From a late issue of the *Boston Commercial Bulletin* we copy the following: 'The stock of wool here is small, but it seems to be as large as dealers are inclined to wish, as any old wool left to sell now means a heavy loss to the seller. Market steadily declining in price during the past three months.' From the *American Wool Reporter* of the 5th inst., we copy the following: 'Prices in the interior still continue to be higher than on the seaboard; in fact, while there is weakness to be noted in prices at the seaboard, the reverse is true of the interior markets.' Speculators here have loaded up at current prices, and will not suffer prices to go lower, as they cannot afford to in protecting the selling prices of their stocks on hand. The constant heavy arrival of foreign wools, held in America in bond, will prevent any advance in prices of America wools. We cannot see any profit in holding wools, and urge prompt shipment with orders to sell on arrival, as any change that may take place will be for the worse.

TUB-WASHED.

Fancy.....	37
Choice.....	36
Fair.....	35
Common.....	33
Low coarse.....	28
TEXAS AND INDIAN TERRITORY UNWASHED.	
Medium 12 mos.....	20a22
6 to 8 mos.....	18a21
Fine 12 mos.....	17a20
6 to 8 mos.....	14a18
Fall medium.....	15a17
fine.....	14a17
Short, Sandy, Heavy.....	9a12
Burry 2 to 5 cents per pound less.	

MISSOURI, ILLINOIS, IOWA AND EASTERN UNWASHED.

Medium Fancy.....	23
Medium.....	21a22
Fine.....	17a20
Braid.....	15a18
Common.....	15a18
Cotted.....	14a16
Burry 2 to 5 cents per pound less.	

KANSAS AND NEBRASKA UNWASHED.

Fancy medium.....	23
Choice medium.....	18a21
Fine medium.....	17a20
Low medium.....	16a18
Light fine.....	15a18
Heavy fine.....	12a16

"The above prices are for classified wools of light shrinkage, bright color and good staple. Dark, earthy, mixed grades, unclassified, sell all round at 12 to 20 cents per pound, according to condition, etc."

Raise Turnips.

Any time in July, when the ground is fit, will do to sow turnip seed. Clean, rich, well pulverized ground is needed. After a crop of early potatoes has been removed, and the ground well leveled, the soil is just right for turnips. The seed ought to be sown just before a rain and the ground simply rolled; but when rain is not expected for a few days, the seed should be well-covered and the ground then rolled. One pound of seed to the acre is enough.

A correspondent of one of our exchanges, as we see in an uncredited clipping says one should endeavor to secure quick germination by sowing just before a rain, immediately after the fresh earth has been turned again. As a catch crop, the turnips are usually sown broadcast and brushed in. Firming the soil by a roller, or by other means, is essential, if the weather is dry. Late sown turnips, as well as those sown on newly-cleared lands, are more sweet and crisp than the early sown. If sown in drills, let the rows be eighteen inches apart, and when the turnips are the size of robins' eggs, thin out to six inches apart in the rows. The Purple-Top Strap-Leaf is one of the best varieties, and may be sown in Ohio as late as the 15th of August, and at least a month later in the cotton-growing states.

An experienced Illinois farmer says: "Broadcast sowing is the only way I know of, either by mixing with sand, dust or ashes, or the naked seed. I never mix. I sow the seed as I find them. After sowing, harrow thoroughly both ways with a heavy harrow, putting the seed down where the moisture will stay with them and make them grow. Away with the old foggy brush. It has cost the farmers of this country hundreds of thousands of dollars, not only in the loss of expected turnip crops, but of timothy and other small seed crops as well. That old brush is older than the Pharaohs of Egypt, older than the shepherd kings of Persia. The Egyptians abandoned it early in their history and trampled their seeds in with their sheep and goats, which is far, far better. No living man can give a sensible argument in favor of using it, only 'because daddy did.' Throw the old thing on the brush heap and burn it up, or send it to the man in the moon. Let no sensible man ever recommend its use again. If you wish to level the surface, use a good drag. If you wish to cover any kind of seeds use a good harrow or some implement that will answer the same purpose. Excuse my severity. It is honest, and comes from a thorough knowledge that thousands of persons have been humbugged into the belief that that small seeds must lie close to the surface to be successfully germinated, by their own neglect to investigate or look into the matter. Cover turnip seeds with a brush and you will fail at least three times in five. Cover with a good heavy harrow and you will succeed nine times in ten."

A Through Sleeper to Chicago.

Every afternoon at 3:55 o'clock, upon arrival of trains from the West, a magnificent Pullman Sleeping Car leaves Topeka for Chicago via the GREAT ROCK ISLAND ROUTE, making close connection with the famous "limited flyer" running through without change, arriving at Chicago the following morning. This is certainly the quickest and most convenient means of transportation between points in Kansas and the city of Chicago.

For accommodations in this car, please notify your local agent, and he will be glad to make such reservations as you may require by telegraph.

Regular subscription price of the KANSAS FARMER is now \$1 a year, within reach of all.

Horticulture.

THE APPLE-TWIG BORER.

(*Amphicerus bicaudatus* SAY).

Bulletin No. 3, just issued by the Kansas Experiment Station. The matter prepared by Prof. E. A. Popenoe, Entomologist.

Boring in twigs of the apple, pear, peach, sumac, and grape: A cylindrical, dark brown beetle, about three-eighths inch long, the head concealed from above by the projecting prothorax, which is more or less roughened in front; the wing covers, at tip, sloping downward, and, in the males, beset with a pair of short, blunt spines, inclined inward. The larvæ and pupæ, as found in dead stems of tamarix, and in dead grape vines, are figured and described below.

Among the numerous insects concerning which information has been asked during the season past, none, seemingly, has attracted more general attention than the apple-twig borer. Specimens of the insect, and its work in grape vines and apple twigs, have reached us from various points in eastern and central Kansas, Norton and Lane being the western-most counties from which complaints are noted. The following extracts from letters indicate the nature and extent of the injury caused by this beetle in our orchards and vineyards, and give some hint as to its distribution in our State: Mr. R. Robertson, under date of May 26, 1888, writes from Nemaha county: "I send you, for name, some grape vine destroyers. In a lot of fifty old Concord vines, they have destroyed about 10 per cent. of the young, or bearing wood. The vines were trimmed last fall; I did not notice the insect or its work then. In large numbers it would be very destructive." Mr. J. R. Bell writes from Rice county, May 19: "I mail you, today, a box containing specimens of a fly, or borer, that is working in our apple trees, and doing some damage. I find them working in grape vines as well, and hear much complaint of vines being entirely killed. I have lost a few large ones myself. * * * The sumac bush seems to be particularly their choice, as I found them very numerous in it this spring." Mr. M. A. Carleton, Mitchell county, May 28, sending specimens in grape vines, writes: "It is a most destructive pest in this county, having, so far as I have obtained information, destroyed almost all vines nearly to the roots, and all hopes of any grapes this year. I found the specimens in the heart of the vine. They have bored their way there, feeding on the soft tissue, and have, seemingly, in all cases entered at the joint." Mr. H. C. Davis, Norton county, May 21: "Enclosed find cuttings of apple branches infested by a borer new to this country; also others showing the deposit of the larvæ on the branches.* They (the borers) kill every branch that shows a burrow. I have lost fifteen 4-year-old trees this spring, and have had many more damaged."

Others, of the same tenor, from intermediate points leave no doubt that the presence of this beetle was general, and that its work was unusually evident and noteworthy the past spring.† In the vicinity of the college, for instance, vines were very commonly infested, often several insects being found to a small vine, and two or more in the same cane.

In examining accessible literature for recorded observations upon this insect, it was found that little is known of its life history, and nothing certainly known of its preparatory stages.

[Here follow several pages of extracts touching the life history of the insect,

which we omit because our space is limited.—EDITOR KANSAS FARMER.]

HABITS.

September 8, 1887, an examination of dead stems of *Tamarix*, a flowering shrub of strong growth, but in this locality killing to the ground in severe winters, revealed the work of two beetle larvæ unknown to us. The burrows extended lengthwise through the stems, for the most part through the center, following the line of the slender pith. The larger of the two larvæ proved to be the young of the twig-borer under consideration. Those burrows in which the larvæ remained, or in which the pupæ were found, were as shown in our Fig. 1, *h*, nearly of the same diameter throughout, packed

the place of the egg and the beginning of the larval burrow were not made out to a certainty. Indeed, the larval track, to all appearance, had doubled upon itself, and the whole length had been traversed anew by the nearly full-grown larva, the width of the burrow being thus left nearly uniform. This interpretation is strengthened by the finding, in one case, of a partial overlapping of earlier and later-made portions of the same burrow.

Certain old vines in the college vineyard, nearly dead from the effects of the summer and winter of 1886-87, were allowed to remain through the summer of 1887, but in most cases failed to recover. On pruning the vineyard these vines were found, January 26, 1888, to

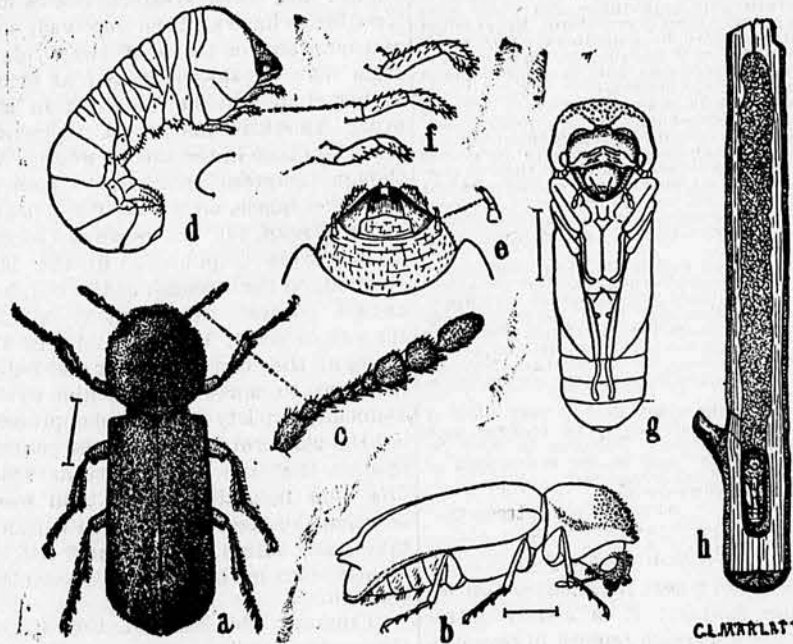


FIG. 1. TRANSFORMATIONS OF THE APPLE-TWIG BORER (*Amphicerus bicaudatus* SAY).

The figures, excepting *h*, which is natural size, are enlarged, the hair lines at the side, in *a*, *b*, *d*, and *g*, showing the actual size; *a*, the female beetle from above; *b*, outline side view of male beetle; *c*, antenna, showing structure; *d*, full-grown larva; *e*, head and antenna, and *f*, the right leg of the larva; *g*, front view of pupa, in outline; *h*, twig, showing, above, the larval burrow packed with castings, and below, the pupa in its cell.

closely with the sawdust-like castings of the larvæ, and usually about three and one-half or four inches in extent. The pupa was found in a cell at one end of the burrow; and in one case the adult, alive, was found in the same situation, before the outward passage had been made. Many of the burrows had been already deserted by the beetles, and, in such cases, an opening had been made outward, near the upper end of the pupal cell. This must have been

be literally riddled by beetle larvæ of several kinds. An examination showed among them three specimens of the larva of *Amphicerus*. The beetles themselves were found alive in numbers in the same vines. Later, during the warm and bright days in early spring, beetles of this species were frequently taken flying. During April and May many specimens were brought in by neighboring grape-growers whose vines they were attacking. As late as the 21st of

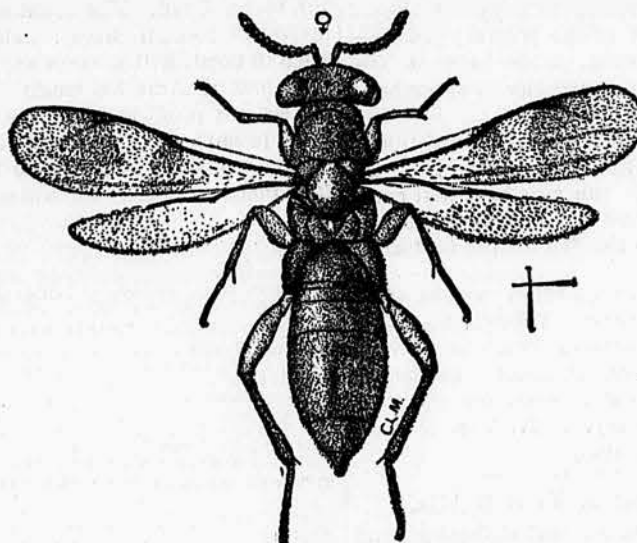


FIGURE 2. *Charitopus magnificus* Ashmead.

done by the beetle itself, and not by the larva, as the cells containing pupæ had no such openings. The usual relation of this opening to the empty pupal cell is indicated by the dotted lines just above the base of the side shoot (Fig. 1, *h*). These openings may be found on any part of the infested stem, and the position in the figured burrow, at the base of the twig, is, of course, accidental.

In the twigs examined at this time

June they were found, alive, in grape canes.

On the 23d of June, examination of the dead stem of *Tamarix* showed the larvæ, about one-fifth grown, in narrow burrows, some of which had reached the pith, but others being still in the outer layers of the wood. These burrows could be traced backward to their initial point in the bark, but nothing could be discovered as to the probable situation of the egg. From the size and

position of these larvæ it is probable that the eggs from which they hatched were deposited early the past spring.

DESCRIPTION OF LARVA AND PUPA.

The larvæ, found in connection with pupæ and numerous living beetles in the dead stems of *Tamarix* may be described as follows: Fleshly, curved, whitish, grubs (Fig. 1, *d*), measuring, in length, about nine to ten millimeters (0.4 inch). Head 1.5 mm. in width. Thoracic region much thickened. Lateral breathing pores minute, and with difficulty seen. Mandibles black, other mouth parts reddish brown; labrum, labium, and maxillæ thickly set with brownish hairs; maxillary and labial palpi apparently three-jointed (basal tubercle two joints?) Antennæ reddish brown, four-jointed, basal joint (or basal tubercle?) stout, second joint small, and when (as in Fig. 1, *e*) not fully extended, projecting about one-half the length of the third joint, which is darker colored, and furnished at tip with a long bristle; last joint short, one-half the diameter of the third.

The pupæ (Fig. 1, *g*), of which three perfect and several parasitized specimens were found, all unmistakably referable by form and details of structure to the present species, measure in length 9 mm., in width 2.3 mm. In general color they are reddish brown, the eyes and mandibles black, the tubercles on the projecting front and sides of prothorax dark brown.

PARASITES.

From the parasitized pupæ were bred specimens of two hymenopterous parasites which, being not heretofore known, are described as new by Mr. Wm. H. Ashmead, a specialist in this group. The larger of these two flies is a somewhat stout form (Fig. 2) measuring about .3 inch in length, metallic green in color, changing into rich golden green and peacock blue along the sides and base of the thorax, the abdomen blackish toward the tip; the wings, except two smoky bands on each fore wing, perfectly clear and transparent; the legs, excepting their bases, yellowish red. This species merits the specific name applied to it by Mr. Ashmead, for greater magnificence in coloration in so small an insect would be difficult to find. The second form (Fig. 3) is more slender, but slightly longer, if the short ovipositor be included in the length of the body. This insect is also brightly colored, being generally metallic green, this color shaded with purplish blue across the face, and along the sides of the thorax, the abdomen above suffused with wine purple, the legs yellow. These two species are nearly allied, and belong to the family *Chalcididae*, a most important group, including a great number of beneficial parasitic insects.

Associated in the *tamarix* stems with the larvæ of the twig-borer, with more numerous larvæ of a smaller size, and with different characteristic features. These were reared in quantity, and proved to be the larvæ of a beetle quite different from the *Amphicerus*, belonging indeed to a family widely separated from that of the grape vine pest. These smaller larvæ (Fig. 4, *a*) are less thickened in the anterior part of the body, have larger heads and shorter legs, and are otherwise readily distinguishable from their less numerous but more important associates, the larvæ of the twig-borer. The pupa is also quite distinct (Fig. 4, *b*, front, and *c*, side view,) though occupying a cell at the end of a burrow very much like that of the *Amphicerus* pupa. The perfect beetle (Fig. 5) measures rather less than one-fourth inch in length, is grayish-brown in color, with a broad blotch of cream-white upon the middle of the back. This insect is not yet

known to be injurious, but its association with the twig-borer in this instance makes its history worth noting, as of possible economic interest.

CONCLUSIONS.

It seems to us safe to conclude from the above that the beetle is single-brooded, most of the individuals reaching maturity in the fall and winter, remaining through the latter season in the vines where they were bred,

those twigs whose dying points out the insect at work, is good, but by no means sufficient; and while we may not be able to compass the complete suppression of this pest by the careful collection and destruction of all prunings, diseased or dead vines, or their stumps, yet this practice, it seems reasonable, will assist us materially in the attainment of our object. As the beetle is found on the vines, pairing, in warm, bright, spring weather,** the grape-grower may then find it profitable to attempt the collection and destruction of the insects, knowing that the destruction of a single pair at this time means the reduction of the summer's brood by many.

*This "deposit of the larvæ" proves to be the cases of the "rascal leaf-crampler" (*Phylla indigella* ZELLER).
†Messrs. Holsinger and Espenlaub, of Rosedale, state that this insect has attracted no attention in their vicinity, and that they have not seen a case of its work.
‡*Charitopus magnificus* Ashmead.
§*Ratzburgia amphi-cerovora* Ashmead.
||*Anthrribus cornutus* Say.
**As observed by Mr. J. C. Van Everen, of this place.

A New Apple Insect.

In his "First Annual Report on the Injurious and Other Insects of the State of New York," Prof. J. A. Lintner has given (page 327) a list of insect depredators upon the apple tree, the number of species reported reaching 176. This number included not only those seriously injurious to the apple tree or its fruit, but also all then known to subsist in part upon it, and but occasionally troublesome. About one-fifth of the entire number given may be named as species actually and noticeably injurious; and while we are solicitous to

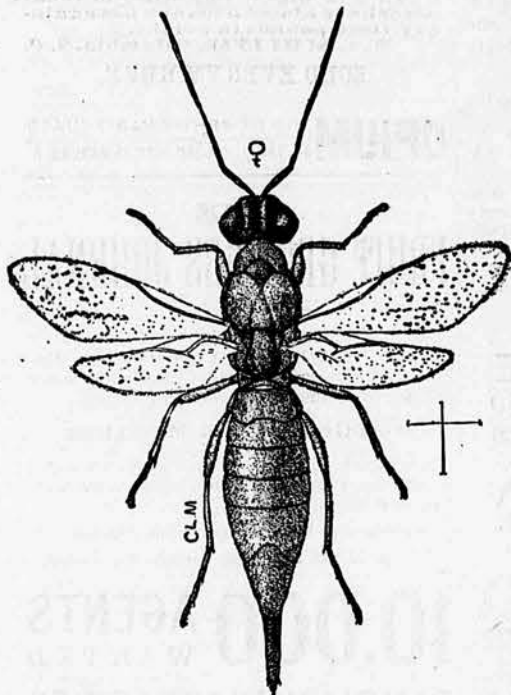


FIGURE 3. *Ratzburgia amphi-cerovora* Ashmead.

emerging in the spring, and soon after depositing eggs in unhealthy or dead wood in the vineyard and elsewhere, at least two shrubs being known as its food plants. It may also breed in the prunings of the grape which remain un-

fruit, but also all then known to subsist in part upon it, and but occasionally troublesome. About one-fifth of the entire number given may be named as species actually and noticeably injurious; and while we are solicitous to

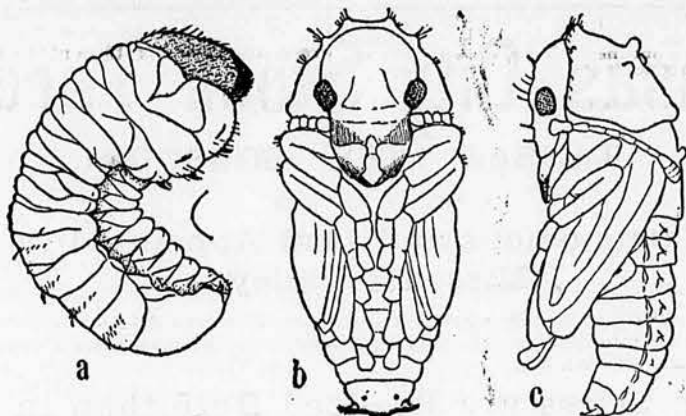


FIGURE 4. Larva and Pupa of *Anthrribus cornutus* Say.

burned over summer, as we have taken the adults in such material under conditions which render this explanation of their presence a most probable one.

The recommendation of Prof. Uhler, as before cited, is inapplicable in the

diminish rather than to increase this number, it is yet necessary that we pay due attention to all notable additions to the catalogue. One of these we have found in Kansas in the green leaf-eating flea-beetle, known to entomologists as *Graptodera foliacea*, which we may call the apple flea-beetle. This beetle is generally distributed throughout the State, and from personal observation we know it to extend at least to the foothills in Colorado.

Throughout its range, so far as noted, it usually occurs upon plants of the evening primrose family (*Onagraceae*), being especially partial to the silky gauras (*Gaura parviflora* and others), the leaves of which are often riddled by it. We have not learned the place and character of the preparatory stages of this insect, it being the adult or beetle stage in which it has proven injurious in our orchards and nurseries.*

For several years past, the beetle in question has attracted attention on the college grounds by its attack during May and June upon the apple tree, the leaves being the portions injured. In orchard trees the lower branches only, near the ground, have suffered, and these but slightly. The greatest injury has been done in the nursery, where the

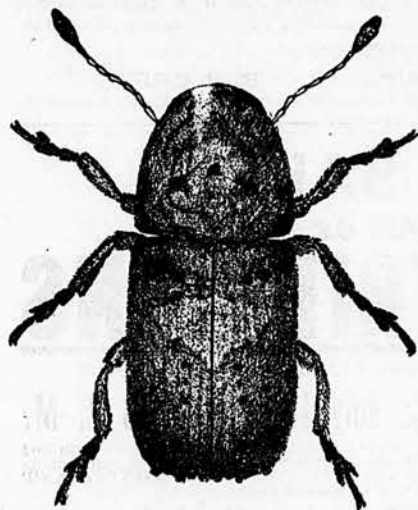


FIGURE 5. Adult *Anthrribus cornutus* Say.

light of our observations on the habits of this insect, and seems, indeed, to have been based upon a misapprehension of the real method of injury. The usual recommendation, to collect and burn

beetle has often completely defoliated the spring-set root-grafts, and the yearling trees, and has seriously injured even 2-year-old trees. The insects are most active in bright, warm weather, and are then attracted to the trees in great abundance, where they feed upon the parenchyma of the leaf (Fig. 6), avoiding the veins and midrib, these being sometimes all that remains after a few days' presence of the beetle. It



FIGURE 6.



FIGURE 7.

is on the young shoots of the root-grafts that their work is most injurious. In these they keep the new growth cut so close that the graft sometimes fails to recover. While the injury to yearlings is considerable, yet the trees, though denuded, usually recover, and throw out new leaves after the season of the attack is past.

Like its near ally, the steel-blue grape beetle, this species is easily alarmed, and on being approached, springs off the leaf, afterward seeking safety in flight, but only to return and again occupy its feeding ground, after the danger is past.

Upon the college grounds we have checked the advances of this beetle, without much trouble, by the timely application by spraying of the mixture of arsenical poison (Paris green or London purple) in water, as used against the codlin moth. As the beetles fly well, and as they may come in, from time to time, through three weeks or more, from other localities, it may be necessary to repeat the application, the more if heavy rains have fallen. Our use of these poisons so far has been with the purpose of saving the trees, and we have not made trial to find the minimum effective strength of the mixture. In the strength employed, about six ounces of London purple to the barrel of water, we found that some injury to the tender leaf-growth followed, the plants suffering less from this, however, than they would have suffered from the unchecked attacks of the flea-beetle.

To assist in the identification of the insect, the following brief description is given: The apple flea-beetle (Fig. 7) measures from 4 mm. to 5 mm. (.15 to .19 inch) in length, is ovate in general outline, and, except as noted below, is in all parts highly polished, and brassy green in color. The antennae are usually dark-brownish black, the color obscured by a short gray pubescence, except that the first three joints are of the same color as the body, and are but sparsely pubescent. The feet are dull brownish, or reddish brown, and, with the legs and under parts generally, are thinly clothed with short gray pubescence. In other details the species is well represented in the figure.

For careful observation upon the insects above described, and for the excellent drawings from which our illustrations were engraved, acknowledgements are due to Assistant C. L. Marlatt.

*A number of these beetles received from Dighton, Lane county, have been kept for a fortnight in a small jar, and fed with apple leaves. They have fed voraciously upon the leaves, have coupled, and some of the females have deposited eggs upon the leaves, and also on the sides and bottom of the jar under the fragments of the food and excreta. The eggs are orange in color, rather less than a millimeter in length, long oval in form, and, under a high magnifying power, the shells are seen to be minutely granulated.

About Budding Trees.

It is budding time now, and for the benefit of beginners we reprint an article which appeared in KANSAS FARMER, July 1, 1885.

It is a simple operation and consists merely of placing a bud from one variety on the stem or branch of another variety. If the object is to change the character of the whole tree, the budding must be done near the ground, and the old stem above the bud cut away the

next year. If the object is to merely get a different kind of fruit on one or more branches, the work is done on the upper side and pretty near the inner end. The operation consists of cutting a long slit, say an inch and a quarter long, and a short cut across the long one at the upper end, both deep enough to reach the wood and so that the bark may be raised without injury to either bark or wood. The cuts will look like a capital letter T without any points. The bud is taken from a healthy branch of this year's growth, by slipping a sharp knife-blade under it toward the inner part of the tree, beginning just a little above or beyond the bud, and running about three-fourths of an inch, taking a very thin slice of the wood. The bud, when removed, ought to be about three-fourths of an inch long. Cut off the upper end under the bud proper, to a neat, square shoulder; then open the incision, raising the bark carefully on both sides of the long slit, and slip the bud under the lips, dropping the bud in so that the shoulder will fit neatly against the edge of the cross cut. Tie with wool yarn, or a rag, or anything that will be a little yielding, and yet hold the bark firmly on the bud. If a little grafting wax, or other soft substance is plastered over the wound it will be serviceable, but is not necessary. July is generally the best month for budding. "The time for cutting the buds should be when they are sufficiently matured as to be rather firm and hard in texture, and they are as a rule in the best condition when the terminal bud has formed. The leaves should be immediately removed, to prevent withering. Leave about a quarter of an inch of the foot-stalks of the leaves, so that they may be used for handling when inserting the buds."

Stocks that are in the best condition need not have the bark raised any further than to admit the lower part of the bud, for as the bud is pushed downward it will perform the operation itself; and as a matter of fact, when the bark does not peel freely enough for this, there is no certainty of success. If for any reason there should be a failure at first, repeat the operation. The essential requisites for success in budding, says a well-known authority, are first, a rapidly-growing stock so that the bark will peel very freely; second, a proper time; not so early that there will be too little cambium or mucilaginous cement between the bark and wood, for the adhesion of the wood; nor so late that the bark will not peel, nor the subsequent growth sufficiently cement the bud to the stock; third, buds sufficiently mature; fourthly, a keen, flat knife for shaving off the bud that it may lay close in contact upon the wood of the stock; fifthly, the application of a ligature with moderate pressure, causing the bud to fit the stock closely.

The Bulletins and Annual Reports of the Kansas Experiment Station will be sent free to residents of the State on application to Director of Experiment Station, Manhattan, Kansas.

The Poultry Yard.

Egg-Eating by Fowls.

This is a vice of not very frequent occurrence among well-kept poultry. Every one knows how greedily egg shells will be devoured by hens. They are fond of the inner lining and the shell. It is well enough to feed laying fowls with the empty shells that come from the kitchen. The lime will furnish material for future shells; but they should always be crushed and mixed with the soft food. If thrown out carelessly, the eating of them may be only the first lesson of a vicious course. The shell-eater may quickly become an egg-eater. One vigorous thrust of the beak into a perfect egg, in the nest, and the mischief is done. This is nectar. Other fowls approach for a taste; and they all appreciate the food, carking in loud tones, calling it a superior tonic, easy to take.

Another accident that causes fowls to get this bad habit is the dropping of an occasional egg from the roost. It may become broken by the fall, and when daylight comes, the eyes of the fowls are open to the fact that an egg contains sweet meat, and they get a notion into their head that was never there before. But the cause of egg-eating in the nest, that operates most frequently, is the deposit of thin-shelled eggs. A scant supply of lime, and a long period of laying, will result in this condition, even when fowls are quite healthy. A neglect to supply lime in the form of bone, or sea shells, is sometimes the primary cause of egg-eating, but there is an occasional instance of thin-shelled eggs that is owing to some disease or deformity in the oviduct where the shell is formed by secretion. The fowl may be, to all appearance, perfectly healthy, and have a full supply of lime, but one side of each egg she lays will be flattened, and the shell on the flat side very thin. Of course, if her eggs are not removed from the nest, soon as laid, there will sooner or later occur breaking, with its sure consequences. If eggs are gathered often, this evil may be avoided, but we have seen a fowl, the layer of such imperfect eggs, turn round immediately after laying and partake of a warm breakfast. The fancier who has a flock of valuable fowls may well keep watch, and ascertain for a certainty which fowl lays thin-shelled eggs, and remove her at once, for her usefulness is at an end, so far as egg-production is concerned. She must be short-lived, else unprofitable.

There are precautions and preventives that have been recommended, and practiced with success, thus avoiding this vicious habit. The nest should be so made and arranged that the eggs will not be in full light and in plain sight. If the nest box is open only on one side, and the entrance is turned away from the light and approached through a partially darkened passageway, the fowls will not enter it, ordinarily, except when ready to deposit an egg. It is also advisable to keep in each nest two or three false eggs made of plaster, wood or porcelain; also a nest-full scattered about the pen, on the ground. They will sometimes peck at these, and will shortly ascertain that they do not make any headway with the decoys, and be convinced that eggs do not contain anything that may be appropriated. That makes a good feature in their education, for when they have given up the attempt to break artificial eggs, they

will not be likely to try their beaks on real ones, especially if they are only found in a partially darkened and secluded nest.

One of our correspondents, who had some very valuable fancy fowls with the propensity of egg-eating fixed upon them, writes as follows: "My fowls would gobble up every egg as soon as laid. It would not pay to keep an attendant on watch all the time, though the eggs were quite valuable. So I contrived a nest, the bottom of which sloped to the rear, and when an egg was dropped it rolled away, out of sight. I tried another method to disgust the fowls. An egg with the meat blown out, and the shell filled with mustard and cayenne pepper, almost convinced them that eggs were not good to eat." Another method of circumventing valuable fowls, and saving their eggs, is credited to Mr. J. S. A. Baker: "I adopted the following plan: Place a strong nail keg bottom up; saw a hole large enough for a fowl to enter. Make a diaphragm of any stout fabric, such as sacking, old carpet or leather, leaving a hole in the middle just large enough for an egg to pass down on to some soft substance that will break the fall. Tack a hoop around on the platform, for the open end of the keg to fit over to prevent the eggs from rolling away when the keg is raised to secure them." Ordinary fowls are not worth the trouble, but eggs of high-priced ones may be saved by such a device.—*American Poultry Yard.*

Colors in Poultry.

Many new varieties of poultry are claiming attention, particularly the new white varieties, as the White Plymouth Rocks and White Wyandottes. They are no doubt as valuable varieties as the colored, but nothing more is claimed for them than for the colored, further than the fact that they are more easily bred true to color. This is of little consequence to the farmer who does not breed for the show pen. There is one thing in favor of colored varieties—an impurity of the blood or a cross is more easily detected. Only their forms, combs and legs distinguish the white varieties and their progeny when crossed with white mongrels, from each other, and one must be quite familiar with the breeds to detect the difference, and especially in case of the White Plymouth Rocks. When they get the least out of symmetry, they need a ticket on their tails to tell what they are: "This is a White Plymouth Rock," or "this is a White Wyandotte."

White Javas and White Minorcas are now extensively advertised. I know of no special advantages claimed for these white breeds over the colored ones of the same name. For my part I would rather have the colored ones, especially the Black Minorcas; for the brilliant sheen of purple and green over the entire plumage form a conspicuous feature of these beautiful fowls. White Minorcas are only new to this country so far as I remember.

As the rigors of winter advance increase the supply of animal food and green food to poultry. To do so prevents feather-eating and soft-shelled eggs.—*Rural New Yorker.*

Poultry Notes.

Gather the droppings around under the roosts every two or three days if you would have your poultry free from the scourge of scaly legs.

A correspondent of the *Poultry Monthly* says he killed a fine lot of valuable chicks

by use of a remedy for lice consisting of lard, snuff and sulphur, and warns others to keep sulphur away from young chickens.

A generous feed of corn in the evening will induce turkeys and ducks to come home to roost. Let them go off in the morning with a light breakfast.

There are about 102,272,000 fowls in the United States, yet the value of eggs brought to this country from abroad is considerably over \$1,000,000 annually.

The Black Cochins are thoroughbred fowls whose merits are numerous. Notwithstanding the fact that they have been bred and exhibited for years, they are comparatively unknown outside the fraternity or fancy.

Any kind of straw, chopped into lengths of about six inches, which is done by passing it through a fodder cutter, makes excellent litter in which the fowls can scratch. Leaves are not easily obtained now, and straw is the next best material. Use plenty of it, placing at least two inches thickness of it on the floor, and if a handful of grain is thrown therein the hens will keep busy.



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KANSAS FAIRS.

A complete list of the fairs to be held in Kansas this year:

Kansas State Fair Association—Topeka, September 17-22.
Western National Fair Association—Lawrence, September 3-8.
Anderson County Fair Association—Garnett, August 28-31.
Bourbon County Fair Association—Fort Scott, September 11-14.
Brown County Exposition Association—Hiawatha, September 4-7.
Cane Valley Fair Association—Grenola, September 26-29.
Chase County Agricultural Society—(Cottonwood Falls), Elm Dale, September 26-28.
Cherokee County Agricultural and Stock Association—Columbus, October 11-14.
Cheyenne County Agricultural Association—Wano, September 15-18.
Clay County Fair Association—Clay Center, September 4-7.
Coffee County Fair Association—Burlington, September 10-14.
Cewley County Fair and Driving Park Association—Winfield, September 8-7.
Kansas Central Agricultural Society—Junction City, September 21-23.
Ellis County Agricultural Society—Hays City, October 2-4.
Franklin County Agricultural Society—Ottawa, September 17-21.
Harvey County Fair Association—Newton, September 11-14.
Jefferson County Agricultural and Mechanical Association—Oskaloosa, September 11-14.
Jewell County Agricultural and Industrial Society—Mankato, September 18-21.
LaCygne District Fair Association—LaCygne, September 4-7.
Linn County Fair Association—Mound City, September 17-21.
Pleasanton Fair Association—Pleasanton, September 18-21.
Marion County Agricultural Society—Peabody, September 5-7.
Montgomery County Agricultural Society—Independence, September 4-8.
Morris County Exposition Company—Council Grove, September 25-28.
Nemaha Fair Association—Seneca, September 18-21.
Sabetha District Fair Association—Sabetha, August 28-31.
Osage County Fair Association—Burlingame, September 11-14.
Osborne County Fair Association—Osborne, September 11-14.
Ottawa County Fair Association and Mechanics' Institute—Minneapolis, September 25-28.
Phillips County Agricultural and Mechanical Association—Phillipsburg, September 18-21.
Pratt County Agricultural Society—Pratt City, September 4-7.
Hutchinson Fair Association—Hutchinson, October 2-5.
Blue and Kansas Valley Agricultural Society—Manhattan, September 18-21.
Plainville Fair Association—Plainville, September 25-28.
Rush County Industrial Fair Association—LaCrosse, September 19-21.
Saline County Agricultural, Horticultural and Mechanical Association—Salina, September 11-14.
Smith County Agricultural Society—Smith Center, September 19-21.
Washington County Live Stock, Agricultural and Mechanical Association—Greenleaf, September 12-14.
Neosho Valley District Fair Association—Neosho Falls, September 24-28.

Book Notices.

PANSY.—The Pansy for July is as fresh and entertaining as ever. It is a most excellent magazine for young folks from 8 to 14. Especially suitable for Sunday reading. \$1 a year. The publishers, D. Lothrop company, Boston, will send a specimen on receipt of 5 cents in stamps.

The pig must be kept growing. Early maturity is always an important item, with pigs especially, and if we expect to have the pigs ready for market in December, they must be pushed along, and it is quite an item to give them a start now; with plenty of grass, and a light feed of bran slop night and morn'g, a good growth can be secured. Corn is not necessary; in fact it adds to the expense, without giving a sufficiently better increase in the stock to make the expense profitable.

Humors run riot in the blood at this season. Hood's Sarsaparilla expels every impurity and vitalizes and enriches the blood.

Make a set of harness fit properly and a horse can wear it without distress, provided that it is also kept decently clean and comfortably soft.

Send for a circular of the music department of Campbell Normal University, Holton, Kas.

\$110 will pay for board, room and tuition for forty weeks at Campbell Normal University. Board in the family of the President.

For Sale.

For the benefit of the parties who circulate the story that I am out of the Hereford business, I now offer registered bulls at \$50 to \$100. E. S. SHOCKEY, Topeka, Kas.

Farm Loans.

Ready money, lowest rates, and every accommodation on real estate loans; one to five years time as best suits borrower.

T. E. BOWMAN & Co.,
116 W. Sixth street, Topeka, Kas.

This paper is now a twenty-page weekly and only costs \$1 a year. Compare it with any farm journal in America.

THE MARKETS.

By Telegraph, July 16, 1888.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 400, shipments 1,400. Market quoted firmer and steady. Choice heavy native steers \$5 05a5 50, fair to good native steers \$4 40a5 00, medium to choice butchers' steers \$3 90a4 35, fair to good stockers and feeders \$3 40a3 75, common to good rangiers \$2 00a3 75.

HOGS—Receipts 1,200, shipments 600. Market steady and firm. Choice heavy and butchers' selections \$5 70a5 80, medium to prime packing \$5 60a5 75, ordinary to best light grades \$4 90a5 80.

SHEEP—Receipts 500, shipments 1,000. Market firm. Clipped sheep, \$2 00a4 00.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 10,500, shipments 4,000. Undesirable grades 10c lower; tops at \$6 20; rangiers \$2 40a4 00. Choice steers, \$5 80a6 20; good, \$5 25a5 75; medium, \$4 80a5 20; common, \$4 25a4 75; stockers, \$2 50a3 25; feeders, \$3 25a 3 90; bulls, \$1 75a3 50; cows, \$1 25a3 40; range steers, \$2 40a4 00.

HOGS—Receipts 20,000. Market 5c lower. Mixed, \$5 60a5 85; heavy, \$5 65a5 95; light, \$5 50a 5 70; skips, \$4 00a5 40.

SHEEP—Receipts 5,000. Market steady. Native muttons, \$2 75a4 50; Texan, \$2 65a3 75; lambs, per cwt., \$5 00a5 50.

Kansas City.

CATTLE—Receipts 5,500, shipments 1,700. Bulk of supply good rangiers. Market slow and 5a10c lower for shipping steers. Good to choice corn-fed \$5 25a5 50, common to medium \$3 50a5 00, stockers and feeders \$1 50a3 75, grass range steers \$2 00a3 70, cows \$1 40a3 00.

HOGS—Receipts 1,400. Fresh receipts very light and market strong to 5c higher. Good to choice \$5 50a5 65, common to medium \$5 10a 5 40, skips and pigs \$3 00a5 00.

SHEEP—Receipts 1,800, shipments 185. Market steady. Good to choice muttons \$3 00a3 50, common to medium \$1 50a2 50.

PRODUCE MARKETS.

New York.

WHEAT—1c higher. No. 2 red, 89 $\frac{1}{2}$ a89 $\frac{1}{4}$ c elevator, 90 $\frac{1}{2}$ a90c delivered.
CORN—Quiet but firm. No. 2, 54 $\frac{1}{2}$ a55c delivered.

St. Louis.

FLOUR—More active and firm.
WHEAT—No. 2 red, cash, 78 $\frac{1}{2}$ c; July, 78 $\frac{1}{2}$ a 79c.

CORN—Cash, 45a45 $\frac{1}{2}$ c; July, 45 $\frac{1}{2}$ c.
OATS—Cash, 33; July, 32a27 $\frac{1}{2}$ c.
RYE—No market.
BARLEY—No market.

Chicago.

Cash quotations were as follows:
FLOUR—Quiet and unchanged.
WHEAT—No. 2 spring, 81a81 $\frac{1}{2}$ c; No. 2 red, 81c.

CORN—No. 2, 48 $\frac{1}{2}$ c.
OATS—No. 2, 30 $\frac{1}{2}$ a31c.
RYE—No. 2, 53c.
BARLEY—No. 2, 62a63c.
FLAXSEED—No. 1, \$1 05a1 10.
TIMOTHY—Prime, \$2 40.
PORK—\$13 35a13 45.
LARD—\$8 80.
BUTTER—Fair. Creamery, 15 $\frac{1}{2}$ a19c; dairy, 13a17 $\frac{1}{2}$ c.
EGGS—Higher and wanted. Canded, 14 $\frac{1}{2}$ a 15c.

Kansas City.

WHEAT—Receipts at regular elevators since last report bushels; withdrawals, bushels, leaving stock in store as reported to the Board of Trade to-day, 23,062 bushels. There was a very quiet market on 'change to-day, with no sales on the call of any of the different grades, either for cash or future delivery. No. 2 red winter, cash, no bids nor offerings; July, 68 $\frac{1}{2}$ c bid, 69c asked. No. 3 red winter, cash, no bids nor offerings; July, 63c bid, 64c asked.

CORN—Receipts at regular elevators since last report bushels; withdrawals, 4,657 bushels, leaving stock in store as reported to the Board of Trade to-day, 63,040 bushels. Market steady but merely nominal on 'change; no sales on the call of any of the different grades either for cash or future delivery. No. 2 cash, no bids, 42c asked; July, 41c bid, 42c asked.

OATS—No. 2 cash, no bids nor offerings.

RYE—No. 2 cash, no bids nor offerings.

FLOUR—Quiet. Quotations are for unestablished brands in car lots, per 1/4 bbl. in sacks, as follows: XX, 90c; XXX, \$1 00a1 05; family, \$1 05a1 15; choice, \$1 40a1 45; fancy, \$1 55a1 60; extra fancy, \$1 65a1 70; patent, \$2 10a2 15; rye, \$1 40a1 60. New is 50c per bbl. less.

OIL-CAKE—Per 100 lbs. sacked, f. o. b., \$1 25; \$1 10 per 1,000 lbs.; \$21 00 per ton; car lots, \$19 00 per ton.

SEEDS—We quote: Flaxseed, 93a95c per bu. on a basis of pure; castor beans, \$1 00 for prime.

HAY—Receipts, old, ... cars; new, 33 cars. Market weak. New, \$6 50a7 00; old, fancy, \$8 00 for small baled; large baled, \$7 50; wire-bound 50c less; medium, \$4 50a5 00; poor stock, \$1 00a2 00.

BUTTER—Firm. We quote: Creamery, fancy, 18a20c; good, 16c; dairy, 14c; good to choice, 12a13c; store-packed, choice, 11c.

CHEESE—We quote: Full cream, twins, 10c; full cream, Young America, 10 $\frac{1}{2}$ c.

EGGS—Receipts light and market strong at 10 $\frac{1}{2}$ c per dozen for strictly fresh.

PROVISIONS—Following quotations are for round lots. Job lots usually 1/2c higher. Sugar-cured meats (canned or plain): Hams 11 $\frac{1}{2}$ c, breakfast bacon 10c, dried beef 9c. Dry salt meats: clear rib sides \$7 55, long clear sides \$7 45, shoulders \$6 00, short clear sides \$7 90. Smoked meats: clear rib sides \$8 25, long clear sides \$8 10, shoulders \$6 75, short clear sides \$8 55. Barrel meats: mess pork \$13 50. Choice tierce lard, \$7 25.

Topeka Markets.

PRODUCE AND PROVISIONS—Corrected weekly by W. W. Manspeaker & Co., 711 Kansas avenue. (Wholesale price).

Butter, per lb.	9 a	11
Eggs (fresh) per doz.	10	10
Beans, white navy, H. P.	2	65
Potatoes (new)	"	65
Beets	"	25 a

THE STATE NORMAL SCHOOL

ENROLLS 875 PUPILS FOR THE YEAR.

82 Kansas Counties and 15 States and Territories Represented!

Teachers seeking a school in which to prepare themselves more fully for their work, will find unequalled opportunities at the State Normal School. Young men and women who may intend to teach can find no such facilities for obtaining a knowledge of all that is latest and best in appliances and methods, anywhere else in the State.

Parents desiring a school in which their children will receive a liberal education, and at the same time become thoroughly fitted for the honorable profession of teaching, are reminded that it can be accomplished here with less expense than at any other school in Kansas.

Railroad fare in excess of \$3 is refunded to all Kansas students. TUITION FREE.

Diploma, a life certificate to teach in Kansas.

For Catalogue and circulars, address

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EMPORIA, KANSAS.

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MEDLEY & HALL, Oden, Ia.

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400 ACRES OF GOOD GRASS, FOUR miles from Railroad Depot at Paxico, Wabaunsee Co.

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Holstein - Friesian Cattle

Of European Herd Book Registry.



The sweepstakes bull PRINCE OF ALTJUDWERK (61 M. R.) at head of herd, has no superior. Cows and heifers in this herd with weekly butter records from 14 pounds to 19 pounds 10 $\frac{1}{2}$ ounces; milk records, 50 to 80 pounds daily. The sweepstakes herd. Write for catalogue. M. E. MOORE, Cameron, Mo. [Mention this paper.]

Consolidated Barb Wire COMPANY,

MANUFACTURERS OF BARB WIRE

Fencing Staples, ETC.

Sold more largely in Kansas than all other kinds together, because it is the

MOST POPULAR COMMON-SENSE, EVERY-DAY WIRE MADE.

Ask your dealer for Lawrence Wire. Every spool warranted.

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If you want a FINE QUALITY OF CHEWING TOBACCO JOLLY TAR will suit you.

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Louisville, Ky.

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The Prettiest Young City of the Smoky Valley.

Beautiful Springs, Lake, and also, what the name implies,

RIVER VIEW.

Buy a home in or farm adjoining Riverview. Call on or address

THOS. E. FULGHUM,
Hays City, Kansas.

HUGH E. THOMPSON, BROOMCORN

Commission and Dealer in Broom-Makers' Supplies. Reference:—National Bank of Commerce. 1412 & 1414 Liberty St., Kansas City, Mo.

The Veterinarian.

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

SWEENEY.—What is good for atrophy of the muscles of the shoulders, commonly called sweeny? Should an animal be worked when afflicted with it? [For atrophy of the muscles there is nothing better than Jennings' Veterin-Liniment.]

LICE ON CATTLE.—Please tell us what will kill lice on cattle? [A safe and sure remedy is one part of flower of sulphur and five parts of fresh lard well mixed, and applied by rubbing thoroughly in. If the cattle are properly stabled, no harm will come from applying to the whole body at a single application, otherwise the ointment should be applied to only a portion of the body and so from day to day until the lice have been removed.]

CONDITION POWDER.—Please give a recipe for making condition powders that will give horses with the epizootic or pink eye an appetite, and be safe to feed to mares with foal. [The following powders may be given with safety: Pulverized sulphate of soda, 6 ounces; pulverized gentian root, 6 ounces; pulverized pimento berries, 4 ounces; pulverized nitrate of potassium, 6 ounces; pulverized sulphate of iron, 8 ounces; pulverized ginger root, 4 ounces; mix well together and give tablespoonful in soft feed night and morning.]

DIARRHEA IN A COW.—I have a cow that has the scours. She began to get in this condition last February while wintering on corn fodder. She had a calf about the first of April and continued to run down so she is very poor now. She runs on grass and gets three quarts red shorts twice a day. She has a good appetite and an unnatural desire for salt. She uses a great deal of it. [Considerable care must be exercised in feeding the cow. We think it would be best to feed her on hay, which must not be coarse. The quantity of shorts might be reduced by one-half, and the chaff taken off all the water she drinks. Take of powdered galls six ounces and divide into twelve powders, one of which should be given to cow twice a day in her feed. If the effect does not appear to be sufficient, give the medicine three times a day. When the cow's bowels seem to have regained their natural condition then she may be turned on pasture, but at first only for two hours a day, so as to gradually accustom her to the change of diet.]

DISEASE OF THE LARYNX.—I would like to ask your veterinarian's opinion about my stallion. I bought him a little over a month ago. He is a large, fine looking horse, six years old. In three weeks after I got him I rode him six miles. I noticed when he would hurry up hill that he would breathe hard and short, but he was full of life, and had but little exercise, and I thought perhaps it was excitement which caused it. That day I started for home about 5 o'clock, but in spite of all I could do to keep him cool and quiet he danced for about a half mile, and got very much excited and might have been heard breathing a long ways off; then he cooled down and seemed to breathe all right until he got home, and until he was rode and excited again. Now, I would like to know if he has got the heaves. If he has not the heaves what makes him breathe so hard. [We are of opinion that your horse is what is commonly called a "roarer," a condition due to disease of the upper part of the windpipe. Of course it would take a personal examination to confirm this opinion, and if

CHICAGO.

KANSAS CITY.

ST. LOUIS.

JAMES H. CAMPBELL & CO..

Live Stock Commission Merchants,

FOR THE SALE OF CATTLE, HOGS AND SHEEP.

Rooms 23 and 24, Exchange Building, } Unequaled facilities for handling consignments of stock in either of the above cities. Cor-

KANSAS CITY STOCK YARDS. } response invited. Market reports furnished free. Refer to Publishers KANSAS FARMER.

there is a competent veterinary surgeon near you, we would advise you to consult him. If he is suffering from this disease he will transmit it to his progeny.]

Manure that is "fire-fanging" (as it will sometimes do when the heap is very large) should be turned over, as the heating process, if allowed to continue, may cause a loss of ammonia.

O-h-o-o! O-h-o-o! O-h-o-o!!!

Don't sneeze, sneeze, hawk, hawk, spit, blow, and disgust everybody with your offensive breath. If you have acrid, watery discharges from the nose and eyes, throat disease, causing choking sensations, cough, ringing noises in head, splitting headache and other symptoms of nasal catarrh, remember that the manufacturers of Dr. Sage's Catarrh Remedy offer, in good faith, \$500 reward for a case of catarrh which they cannot cure. The Remedy is sold by druggists at only 50 cents.

Sex Controlled.

To prove it, will ship to any one, from stock farm, Poland-China sow, bred to bring pigs all one sex, for \$12 with order. Will name sex of pigs at time of shipment of sows. My plan is a mechanical contrivance, absolutely accurate in results—cannot fail. Plan offered after proving. Result of ten years trial. Guarantee results as stated. Price of plan \$25,—sold by subscription. Money returned if not as represented. For character, refer to Editor *Columbian* or *Rural World*. Address W. H. GARRETT, Box 553, St. Louis, Mo.

Maple Grove Duroc-Jerseys.

We use only the choicest animals of the most approved pedigree, hence our herd is bred to a very high state of perfection. Pigs in pairs not akin. Stock of all ages and sows bred for sale at all seasons. Prices reasonable and quality of stock second to none.

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POLAND - CHINA PIGS!

135 FOR SALE.

Sired by six first-class boars, for season's trade. My herd is headed by STEWART WINDY 7971.

Address F. M. LAIL, Marshall, Mo.

[Mention KANSAS FARMER.]

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GREEN RIDGE, MISSOURI.

THOROUGHbred

POLAND - CHINA HOGS

FOR SALE.

No poor pigs sent out. [Mention KANSAS FARMER.]

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Thoroughbred Poland-Chinas

This herd comprises the richest blood to be found in the United States, and in uniformity and style has no superior in this country. Choice animals of all ages and either sex for sale. Stock shipped from here over either the A. T. & S. F. Mo. Pacific or St. Louis & San Francisco R. R. All breeders registered in American P.-C. Record. Pedigree with each sale. F. W. TRUEDELL, Lyons, Kas.

Gold Dust Herd of Poland-Chinas.

J. M. MOORE, WELLINGTON, KANSAS.

Tom Corwin 3d 5293 A. P. C. R. at head of herd. Strains representing Model, Give or Take, Gold Dust, Black Bess and Black Beauty. Have some choice male pigs for sale. Also eggs of P. Rock, Brown Leghorn and Light Brahma, \$1.25 per 13; Toulouse Geese, 15c.; Pekin Duck 10c. each. Write; no catalogue.

KANSAS CITY.

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OF POLAND-CHINA and DUROC-JERSEY Hogs. Twenty head of first-class boars from four to nine months old. Also seventy-five head of sows of same age, sired by Bruce 4695, C. R., Leek's Gilt Edge 2887, C. R., Whipple's Stemwinder 4701, Daisy's Corwin 4697. Dams—Mazy 2d 6214, Zella 3d 8250, Maggie's Perfection 8210, Vone's Perfection 9424, Fay's Gold Drop 11876, Jay's Dimple 12172, Eureka Mayo 12176, and many other equally as well bred, and fine as can be produced by any one. Part of sows bred to gilt-edge boars of the most popular strains. Will sell at prices to suit the times. Never had any cholera in the herd. Write for prices.

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100 PIGS FOR SALE!

NEW BOARS:—Young America 3811, C. R., noted show hog and breeder; nine sweepstakes; sire of sweepstakes hog at Chicago fat stock show. Lord Corwin 4th, 1861; daisy show hog, of the highest premium blood. Lampe's Tom Corwin 6207; gilt-edge premium pedigree. SOWS:—Black Rosas, Gold Dust, Double Corwins, Black Bess, Black Beautys, Buckeyes, Dimples, Stemwinders, etc. Royal blood, gilt-edge pedigrees.

Shipped to fifteen States and thirty-three counties in Kansas.

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Mains' Herd of Poland-Chinas.

Jas. Mains, Oskaloosa, (Jefferson Co.), Kas., is located two and a half miles southeast of Oskaloosa, on Maple Hill Stock Farm. All hogs eligible to Ohio Poland-China Record. A fine lot of spring pigs now ready, for sale at prices that will suit the times. Also some fall sows now ready to breed or will be bred if desired. Personal inspection solicited.

For Berkshire Swine and Southdown Sheep that are first-class, or money refunded, call on or address J. M. & F. A. SCOTT, Box 11, Huntsville, Mo.

[Mention KANSAS FARMER.]

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The best BERKSHIRE boar ever owned at "HAW HILL," and several other first-class sires. Enclose stamp for catalogue and prices.

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We are breeding Poland-Chinas, the Improved Chester Whites, Berkshires, Small Yorkshires and Duroc-Jersey Swine, and have secured more premiums than any other breeder in the State—last season getting 120 first and sweepstakes and 15 second. We breed from the very best strains, hence our remarkable satisfaction. Of Poultry we breed ten leading varieties, the best to be found in the West; also Toulouse Geese, Bronze and White Holland Turkeys. Eggs in season. Hogs all eligible to record. Reasonable prices. Write your wants. Address H. G. FARMER & SONS, Garnett, Kas.

PLEASANT VALLEY HERD OF

Pure-bred Berkshire Swine.

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

ENGLISH BERKSHIRES.

THE WELLINGTON HERD consists of twenty matured brood sows of the best families of home-bred and imported stock, headed by the celebrated HOPFUL JOE 4889, and has no superior in size and quality nor in strain of Berkshire blood. Also Plymouth Rock Chickens. Your patronage solicited. Write. [Mention this paper.]

M. B. KEAGY, Wellington, Kas.

P. S.—Yearling sows, already bred, for sale.

LOCUST & GROVE & HERD

OF LARGE ENGLISH BERKSHIRE SWINE.

Nothing sent out but what is a credit to Locust Grove Herd. Individual excellence combined with purity of breeding, is my motto. Prices to suit the quality of stock offered. Correspondence and inspection solicited. Orders booked now for spring pigs. Address as below, or better, come and see.

JAMES HOUK, Prop'r,

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SELECT HERD OF LARGE BERKSHIRES!

G. W. BERRY,

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My sows represent the Royal Duchess, Sallie, Hillside Belle, Charmer, Stumpy, and other families. These Swanwick and Humfrey families are larger, thicker-fleshed, set on shorter legs, and possess finer qualities than other hogs. Herd headed by British Champion III. 13481 and Dauntless 17417. My aim is to produce a type of Berkshires honorable to the Select Herd and the breed. Correspondence in regard to spring pigs invited.

BERRYTON is located nine miles southeast of Topeka, on the K., N. & D. R. R. Farm adjoins station.

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I have used two bottles of Ely's Cream Balm and consider myself cured. I suffered twenty years from catarrh and catarrhal headache, and this is the first remedy that afforded lasting relief.—D. T. Higginson, 145 Lake St., Chicago, Ill.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists; by mail, registered, 60 cts. ELY BROS., 55 Warren St., New York.

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Devon Cattle!

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Stock for sale. Also FIFTEEN VARIETIES OF LAND AND WATER FOWLS of the very choicest strains. Send for Price Lists.

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DUKE OF WELLWOOD 14919—Three years old; solid color; black points. First prize at the St. Louis Fair, 1886; first prize and sweepstakes at Iowa State Fair, 1886; first prize at Kansas State Fair, 1887, and sweepstakes over all dairy bulls at Nebraska State Fair in 1887. He is the only bull known to his owner whose blood lines close up trace to the three greatest of all Jersey bulls—judged by the better records of their daughters, viz.: Mercury, Stoke Pogis 3d and Rex. Price \$100.

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Will take one-half cash down, balance in six months.
Also, a few Yearling Heifers in Calv, at \$75 to \$100. Must be sold.

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Breeds and has for sale Bates and Bates-topped

SHORT-HORNS

Including representatives of

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The Grand Bates Bulls,

8th Duke of Kirklevington No. 41798,
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At head of herd.

Fifteen choice young Bulls for sale now.

Correspondence and inspection of herd solicited, as we have just what you want and at fair prices.



The Imported CLYDESDALE Stallion

KNIGHT OF HARRIS 995

(2811),

The property of H. W. McAFEE, will make the season at Prospect Farm, three miles west of Topeka, Sixth street road.

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Horns of HASSLEMAN'S BROWNIE 28777.
Tested on Island of Jersey at rate of 88 pounds 12 ounces in seven days.

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Offer a few choice-bred Bull Calves by such noted sires as the St. Lambert Duke 76 bull, ST. VAL-
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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.

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Substance, flesh, early maturity and good feeding quality the objects sought. The largest herd of Scotch Short-horns in the West, consisting of *Crutcher's* Victorias, *Lavenders*, *Villees*, *Secrets*, *Bravith 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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AN IMPORTATION OF 125 HEAD,

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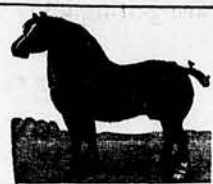
ENGLISH SHIRE AND SUFFOLK PUNCH HORES

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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.

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Imported and home-bred, of different ages—the farmer's general-purpose sheep. Spring crop of lambs, both breeds, very promising.
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Means of inter-communication between all points in the States of KANSAS and NEBRASKA.

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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, 1888, 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 affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the 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 an estray, 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 his 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 a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

FOR WEEK ENDING JULY 5, 1888.

Marshall county—J. F. Wright, clerk.

STEER—Taken up by Peter Carney, in Noble tp., (P. O. Vermillion), May 24, 1888, one red steer with white strip on right hip, white front feet, white on sides of legs and star in forehead; valued at \$15.

Wichita county—H. A. Platt, clerk.

PONY—Taken up by Watson Beeman, in Edwards tp., May 25, 1888, one bay mare pony colt, star in forehead; valued at \$18.

COLT—By same, one 1-year-old bay mare colt, one white foot; valued at \$13.

Hamilton county—Thos. H. Ford, clerk.

HEIFER—Taken up by A. A. Rogers, in Greeley tp., June 25, 1888, one red 1-year-old heifer, tip of tail off; valued at \$5.

HEIFER—By same, one red 1-year-old heifer, no marks or brands; valued at \$5.

HEIFER—By same, one red and white 1-year-old heifer, no marks; valued at \$5.

COW AND CALF—By same, one roan cow, 8 years old, no marks, calf at side; valued at \$14.

COW AND CALF—By same, one roan cow, 7 years old, no marks, calf at side; valued at \$15.

Shawnee county—D. N. Burdige, clerk.

STEER—Taken up by Peter Sim, in Mission tp., June 26, 1888, one red and white steer, branded with letter C on left hip and 99 on left side, indistinct brand on right hip; valued at \$20.

Johnson county—W. M. Adams, clerk.

MULE—Taken up by J. W. Williams, in Olathe tp., (P. O. Olathe), June 18, 1888, one mare mule, supposed to be 14 years old, thin in flesh, two shoes behind and one in front; valued at \$20.

FOR WEEK ENDING JULY 12, 1888.

Butler county—T. O. Castle, clerk.

2 COLTS—Taken up by C. F. Ayres, in Fairmount tp., May 9, 1888, two bay mare colts, 2 years old, no marks or brands; valued at \$20 each.

FOR WEEK ENDING JULY 19, 1888.

Davis county—P. V. Trovinger, clerk.

MARE—Taken up by R. Waters, in Liberty tp., May 17, 1888, one sorrel mare, 13 hands high, 3 years old, weight about 750 pounds, small blaze in face, no marks or brands; valued at \$30.

MARE—Taken up by R. B. Hampton, in Liberty tp., June 6, 1888, one roan mare, 13 hands high, 6 years old, one white front foot, white face, Spanish brand on left hip; valued at \$40.

Pratt county—J. J. Waggoner, clerk.

MULE—Taken up by A. P. Ome, in Richland tp., May 11, 1888, one iron gray horse mule, 14 hands high, no marks or brands; valued at \$35.

Johnson county—W. M. Adams, clerk.

MARE—Taken up by A. L. Grass, in Shawnee tp., (P. O. Shawnee), June 21, 1888, one black mare, 16½ hands high, heavy mane and tail, no shoes on, travels very lame, scar on right hip near the tail, left hook cut; valued at \$80.

Crawford county—J. C. Gove, clerk.

HEIFER—Taken up by J. A. Briggs, in Washington tp., May 18, 1888, one dark red heifer, branded C on right hip; valued at \$10.

Nemaha county—W. E. Young, clerk.

STEER—Taken up by Conrad Meyer, in Washington tp., (P. O. Bazel), April 27, 1888, one red and white spotted steer, some white in forehead, no other marks or brands; valued at \$16.

Marion county—E. J. Walton, clerk.

COLT—Taken up by Jacob Funk, Jr., (P. O. Hillsboro), May 9, 1888, one 1-year-old black colt, medium size, no marks or brands.

Washington county—John E. Pickard, clerk.

STEER—Taken up by R. Pruitt, in Grant tp., one pale red 1-year-old steer, split in right ear; valued at \$10.

SMALL FRUIT PLANTS FOR SALE

Forty acres in Small Fruits, 100,000 plants sold this year. 900,000 to sell in fall of 1888 and spring of 1889. To those who desire to plant small fruits, my 1888 Small Fruit Manual will be sent free. B. F. SMITH, Box 6, Lawrence, Kas.

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BEST HOME-GROWN TREES. Choice Fruit and Ornamental Trees of real merit for the Western Tree-Planters. Also best Fruit and Flower Plants. Water-proof. Samples by mail, 10 cents each; \$6 per 100, by express. A. H. GRIESA, Drawer 28, Lawrence, Kas.

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Offer for Spring of 1888, Fruit and Ornamental Trees, Grape Vines, Small Fruit and Shrubbery. All the old established sorts, and the desirable new ones. Red-rock prices. Quality of stock unsurpassed. We solicit club orders and by the carload. Shipping facilities best in the State. We are not publishing prices, but send us a list of your wants and we will price them to your satisfaction. A. C. GRIESA & BRO., Drawer 13, Lawrence, Kansas.

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Dealers and Nurserymen supplied at lowest wholesale rates.

Parties desiring to buy in large or small quantities will save money by purchasing our stock.

We have Apple, Peach, Pear, Plum, Cherry and Evergreen Trees. Grape Vines in all varieties, and FOREST TREES a specialty. Osage Hedge Plants and Russian Mulberry in any quantity.

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Fruit Trees, Shade Trees, Small Fruits.

Vines, Ornamental Trees, Etc.

TEN MILLION FOREST TREE SEEDLINGS.

ONE MILLION HEDGE PLANTS.

ONE HUNDRED THOUSAND TWO-YEAR APPLE TREES—Grown from whole root grafts.

FIVE THOUSAND IRISH JUNIPERS—Two-foot, SLENDID WALNUTS, and other forest tree seeds and nuts, prime and fresh.

Full instructions sent with every order, and perfect satisfaction guaranteed. Send for full list and prices. Address

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Large white, 4 to 8 pounds, fine table or stock turnip. Will stand all winter in patch and guaranteed not to freeze or spoil if ground freezes five feet deep. Extra early fine spring salad. Now is the time to prepare wall, rich soil, to sow July to October—earlier the better. \$1 per pound; ½ pound, 50 cents; ¼ pound, 25 cents. Postage prepaid. LARGE QUANTITY AT REDUCED RATE.

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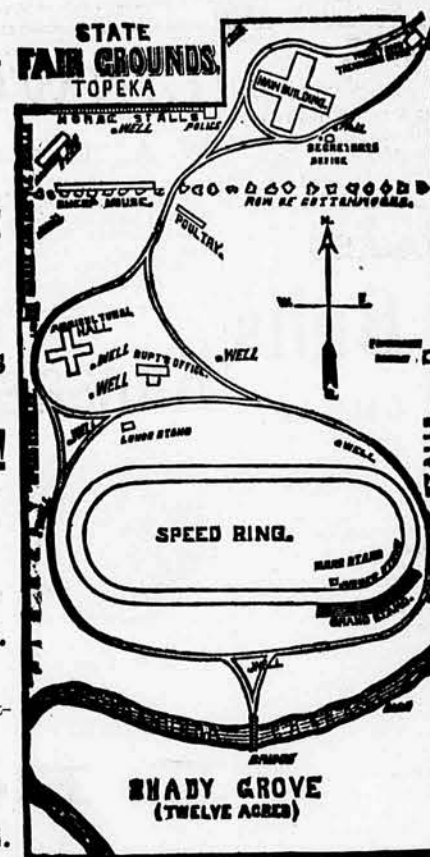
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Kansas Creamery Butter

to-day is selling at the highest market prices in Denver and the West, but there is not enough butter made in Kansas to supply this great Western demand. Colorado has to buy her creamery butter in Iowa and Illinois, and these States are getting all of this good money that should go to our

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Every town of six hundred inhabitants and upwards should have a CREAMERY, which they can procure at a VERY SMALL COST.

We are so situated that we can furnish all necessary Machinery and Apparatus, and give full instructions for erecting the building, which we will be glad to do at any time.

Let some enterprising farmer take hold of this, and work up a small stock company, and correspond with us.

We will be very glad to hear from anybody regarding this great industry.

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CHEAPEST & BEST MILL
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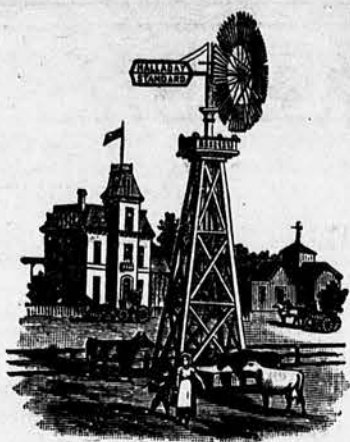
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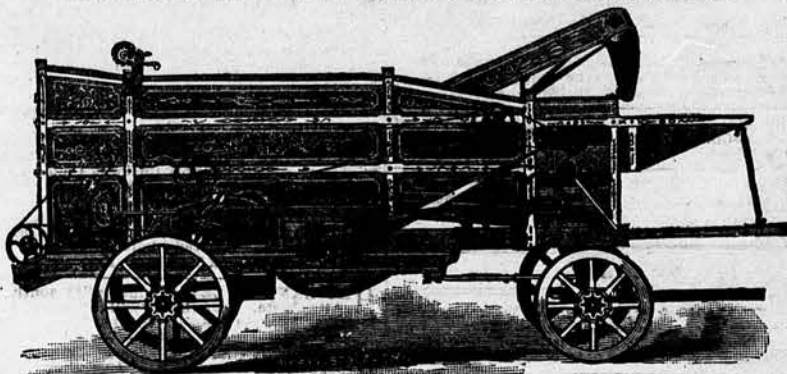
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LARGE CAPACITY, PERFECT CLEANING, UNEQUALED SEPARATION.



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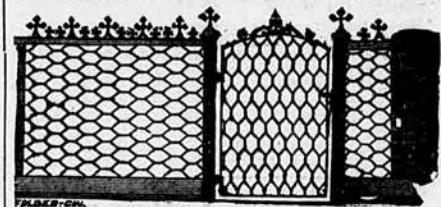
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WILL SAVE MORE MONEY AND MORE HARD LABOR THAN ANY FARM MACHINERY EVER INTRODUCED.

It is simple and well made.
 It will outlast any three stackers of other makes.
 Only Stacker operated and moved from place to place on an ordinary farm wagon.
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 The DAIN is the only Stacker that will answer for loading upon wagons, as it is mounted and can be moved quickly, and the hay can be thrown directly upon the wagons.

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BREEDERS' DIRECTORY.

(Continued from page 1.)

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EUREKA POULTRY YARDS.—L. E. Pixley, Eureka, Kas., breeder of Wyandottes, B. B. R. Games, P. Rocks, B. and W. Leghorns, Buff Cochins and Pekin Ducks. Eggs and birds in season. Write for what you want.

OAKLAND GROVE POULTRY YARDS.—F. A. A'Neals, Topeka, Kas., breeder of Brown Leghorns, exclusively. Eggs \$1.50 per 13.

HENRY DAVIS, Dyer, Indiana, breeder of high-class poultry. Twelve varieties. Prices reasonable. Stock for sale at all times. Eggs in season. Send stamp for circular. Mention Kansas Farmer.

SHAWNEE POULTRY YARDS.—Jno. G. Hewitt, Prop'r, Topeka, Kas., breeder of leading varieties of Poultry, Pigeons and Rabbits. Wyandottes and P. Cochins a specialty. Eggs and fowls for sale.

JOHN C. SNYDER, Constant, Cowley Co., Kansas, breeds *PLYMOUTH ROCKS* exclusively. No stock for sale. Eggs in season. Write for wants or send for circular, and mention this paper.

I. H. SHANNON, Girard, Kas., breeder of Wyandottes, P. Rocks, S. C. Brown Leghorns, Black Cochins. Eggs, \$2 for 15; \$3.50 for 30. Toulouse Geese eggs, \$2 for 7; Pekin Duck eggs, \$2 for 10.

PLYMOUTH ROCK COCKERELS.—Two dollars each; three for \$5. Plymouth Rock and Pekin Duck eggs, \$1 per 13. Mark S. Salisbury, Independence, Mo.

CHAS. H. HARTUNG, Van Horn, Iowa, breeder of Silver Wyandottes, Plymouth Rocks, Light Brahmas, Partridge Cochins and S. C. Brown Leghorns. Express charges paid on eggs for hatching to all points in the U. S. Send for circular—sent free.

MISCELLANEOUS.

FOR SALE—English Ferrets. Price, white, \$5 each or \$9 per pair; brown, \$1.50 each or \$8 per pair. W. J. Conner, M. D., Labette City, Kas.

F. H. ARMSTRONG, VETERINARY SURGEON. Graduate of Ontario Veterinary College. All surgical operations scientifically performed. Charges reasonable. Office—214 6th Ave. W., Topeka, Kas.

S. A. SAWYER, Fine Stock Auctioneer, Manhattan, Kas. Have Coats' English, Short horn, Hereford, N. A. Galloway, American Aberdeen-Angus, Holstein-Friesian and A. J. C. C. H. R. Herd Books. Compiles catalogues.

TWO-CENT COLUMN.

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

Special.—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates—cash with the order. It will pay you! Try it!!

RED CEDARS A SPECIALTY. G. W. Tinscher, Topeka, Kas.

I. S. BARNES—Blue Mound, Kas. has for sale registered Holsteins. Terms to suit.

TWO-CENT COLUMN—(Continued.)

YOUR NAME—Nicely printed on 100 fine cards, sent postpaid for 10 cents. Chas. Worrell, 715 Polk St., Topeka, Kas.

WILL PAY ONE DOLLAR—To first person sending me address of the persons who on July 4th boarded car at Rapid Transit station, Topeka, about 4:30 o'clock, riding to Oakland Grove, child losing fan out car window. They possess information valuable to me. Harvey Worrall, 715 Polk St., Topeka, Kas.

WANTED—All farmer boys who are thinking of attending some good business college this fall or winter, to write to Pond's Business College, Topeka, Kas., for circulars. Fall term begins September 3.

FARM FOR SALE—160 acres, with 50 acres under cultivation. Has grove, orchard, houses and other improvements. Located eight miles from Council Grove. Address Box 26, Belling, Kas.

HAY LAND TO LET.—Nine miles southeast of Alta Vista. Two-thirds will be given for harvesting. Address S. S. Cartwright, Topeka, Kas.

DEHORNING CATTLE.—Tools \$1.50 prepaid. 28-page book particulars 10c. I. J. Wicks, Colorado Springs, Colorado

FOR SALE—Jersey and Holstein-Friesian registered Bulls, 1 year old, or will exchange for saddle mare, color chestnut or black, 15½ hands high. Address John Milburn, Fort Scott, Kas.

FOR SALE—Great bargains in Boynton's addition to Topeka. Parties are doubling their money buying lots in this addition. The cotton factory is going up fast. Call on D. S. Boynton, 626 Kansas avenue, room 5.

FOR SALE—A five-room house at slaughter prices, for half what it is worth. If you wish to make money, call on D. J. Boynton, 626 Kansas avenue, room 5.

WILL TRADE—House and lots in Topeka for young cows and steers. Property worth \$900, with \$250 incumbrances. Address L. T. Rice, Hallfax, Kas.

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

STRAYED—On March 31, 1888, from Pinkerton place, south of Elevator school house, one bay three-year-old filly, a scar on left hind leg, and had halter on. Also a one-year-old brown horse colt. A liberal reward for their recovery. S. W. McKnight, Topeka, Kas.

100,000 THIRD-CLASS HEDGE PLANTS for sale. Nice, healthy plants. Fifty cents per 1,000. 10,000 Catalpa, 12 to 24 inches, \$2.25 per 1,000. Boxed free. Douglas County Nurseries, Box 33, Lawrence, Kas.

100,000 THREE BEST SORTS TIMBER.—Claim Trees for sale by Martin Allen, Hays City, Kas.

FOR TRADE FOR STOCK—Two good Improved Creek Bottom Farms, with timber and water. Address A. M. Mason, Neodesha, Wilson Co., Kas.

FOR TRADE—Farm of 159 acres; 50 acres under cultivation; 145 acres tillable; in Cowley Co., Kas. Will trade for blooded horses—Norman or Cleveland Bays preferred. Address B. L. Wilson, Atlanta, Kas.

CHOICE LOTS—In Boynton's addition to Topeka to exchange for a farm. West Side circle railway runs through the addition. Convenient to cotton factory, sugar mill and creamery. D. J. Boynton, 626 Kansas avenue, room 5, Topeka.

FOR SALE—A fine young Holstein Bull, 16 months old, from imported dam; finely marked. Address C. A. Tyler, Burrton, Kas.

J. M. SLONAKER—Garnett, Kas., has for sale one J. Renick Rose of Sharon and one Bloom Bull, both richly bred. Write for pedigree and terms.

COMMON-SENSE CALF-WEANER—Endorsed by stockmen and farmers. 150,000 sold in three months. Large profits. Small capital secures monopoly. Sample 25 cents. Reed & Co., 1123 Arch St., Philadelphia, Pa.

FOR SALE OR TRADE—Eighty acres of land in Woodson county, within ten and a half miles of Toronto; sixty-five acres under cultivation. For particulars address Robert Ritchie, Peabody, Kas.

WE SELL—Only warranted goods. Any society badge, 62 cents; charm, 87 cents; collar-button, 28 cents. Standard gold plate. Charles H. Williams & Co., Manufacturing Jewelers, Attleboro, Mass.

STRAYED—From Martin Finney, Fourth and Jefferson streets, Topeka, a light roan mare, with silver tail and mane, shod in front and branded on left hip. Liberal reward.

FOR SALE—Pure Plymouth Rock eggs. J. D. Jencks, 411 Polk street, North Topeka.

FOR SALE—Light Brahma, Langshan and Wyandotte Cockerels and Pullets. Cheap for quality of stock. Express rates low. M. D. Mulford, Guide Rock, Neb.

WANTED—To crop with some farmer to raise Broomcorn and manufacture into brooms, or will rent small farm; everything furnished; no crop will pay as well. S. Pottenger, Kankakee, Ill.

HOLSTEIN-FRIESIAN—Registered Cattle for sale. Wm. A. Travis & Co., North Topeka, Kas.

FOR SALE—160 Acres; all fenced and cross-fenced; two good barns, horse stable, granary will hold 2,000 bushels, carriage house, corn crib; a large variety of fruit trees in bearing; six-room house, nearly new. Four and a half miles from Stafford. Price \$4,500—\$700 four years at 7 per cent. C. G. McNeil, Stafford, Kas.

STOLEN—On Friday evening, June 1, from Topeka avenue, between Sixth and Seventh streets, Topeka, a bay mare, 7 years old, and a new open business spindle buggy and harness. \$50 reward for horse and thief. Address Jas. Seery, Topeka, Kas.

FOR SALE AT A BARGAIN—The best improved 320-acre farm in Rawlins county, Kansas, together with stock, crops and machinery, on account of health of owner. Address H. J. Browne, Atwood, Kas.

FANCY BOX OF FINE NOTE PAPER AND ENVELOPES, gold plate ring, collar-button and scarf-pin, one sheet scrap-book pictures, sample of latest cards, and picture of Mrs. Cleveland, all 10 cents. Card Works, Grand Island, Nebraska.

LOOK HERE!—The Topeka Woman's Exchange is located at 114 Seventh street west. The organization is serving hot meals and lunch, which for excellence cannot be equalled in the city. Ladies and gentlemen from city and country invited to call. Pleasant rooms, home cooking, prompt service. The object of the organization is to aid all classes in finding a home market for their products.

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J. G. PEPPARD, 1220 UNION AVENUE, (One block from Union Depot) KANSAS CITY, MO.
MILLET A SPECIALTY.
Red, White, Alfalfa & Alsike Clovers,
Timothy, Blue Grass, Orchard Grass, Red Top,
Onion Sets, Tree Seeds, Cane Seed, Etc.

TWO-CENT COLUMN—(Continued.)

FOR SALE—About 1,200 head of good Grade Merino Sheep, all young and in good condition, and thirteen thoroughbred Bucks. Price per head, \$1.75 for sheep, \$5.00 for bucks. Address J. Simon, Newton, Kas.

PATENTS.—J. C. Higdon, Solicitor of Patents, Kansas City, Mo. Sample copy patent, instructions, references, free. Reliable associate at Washington.

FOR SALE.—Four high-grade Holstein Milch Cows and eleven two-year-old Holstein Heifers. Price low if sold in a bunch. Address J. Simon, Newton, Kas.

FOR SALE—A six-horse-power Engine. Price \$125. Good as new. Address Geo. H. McMillan, 505 Kansas Ave., Topeka.

FOR SALE OR EXCHANGE—A stock of Millinery in first-class order and fresh new goods, with all fixtures, very low, for cash, or unincumbered land in good locality, or lots in Topeka. Owner wishes to go out of business on account of health. Address E. C. M., Kansas Farmer office, Topeka.

FOR TRADE—Farm of 160 acres, close to county seat of Kiowa county, Kas., to trade for stock—steers preferred. Address Box 996, Greensburg, Kas.

WANTED—Live Agents to sell "The History of Tariff Laws," by R. W. Thompson, (Ex-Secretary U. S. Navy). The only complete work on this great subject. Address R. S. Pease & Co., Chicago, Ill.

A. WHITCOMB & SON, FLORISTS—Lawrence, Kas. Catalogues free; send for one.

FOR SALE OR TRADE—A two-horse Sorghum Mill, L. Squire's No. 2 Pearl, with Smouse's self-skinning evaporator. Address H. D. Rice, Topeka, Kas.

WILL EXCHANGE—Extra fine Bull Calf, registered Short-horn. Also two for sale. C. V. N. House, Spring Hill, Johnson Co., Kas.

WRITE US FOR PRICES—Of Seed Buckwheat, Rye, Turnip Seed, and anything in the seed line. Trumbull, Reynolds & Allen, Kansas City, Mo.

FOR SALE—All kinds of Turnip Seed. Raise turnips to feed your stock. Trumbull, Reynolds & Allen, Kansas City, Mo.

WANTED—To lease a good furnished farm, by one who understands farming. Good reference given. Geo. F. Myer, Parsons, Kas.

NINTH ANNUAL

Western National Fair!

—AT—

Bismarck Grove, Lawrence, Kas.,
SEPTEMBER 3, 4, 5, 6, 7 and 8, 1888.

\$20,000 IN PREMIUMS!

The **LARGEST** and **BEST FAIR** ever held on the grounds. Attractions of every kind. Everything to interest and amuse the people. A fine display of Cattle, Horses, Hogs and Sheep, and special show of Poultry. Splendid **TROT-TING** and **PACING**.

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A Grand Public Sale of Short-horn Cattle!

AT INDEPENDENCE, MO., WEDNESDAY, AUGUST 8, 1888,

By **H. M. VAILE**, who will sell thirty-seven head of Bates-bred Short-horns—twenty-one Waterloos and Wild Eyes, five Peris, ten Gazelles and one Princess. For catalogues address

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Highest market prices realized and satisfaction guaranteed. Market reports furnished free to shippers and feeders. Correspondence solicited. Reference:—The National Bank of Commerce, Kansas City.

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