

KANSAS FARMER

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The Stock Interest.

About Farmer Flocks of Sheep.

Prof. Craig, of Wisconsin, seems to be in touch with the sheep industry of our best agricultural States when he says: "Sheep to be managed rightly must come into contact with nature. Sheep are more easily influenced than any other domestic animals; by feed and environment you can so change any breed of sheep that they will differ greatly from their progenitors in a few generations. It will hardly pay to raise sheep for wool, but it will pay to raise them for mutton. There is another thing also to be considered. In growing mutton sheep, you are at the same time growing the wool that will sell the best to-day, and this wool is the medium combing. The cloth that is worn by the common people is made largely from this wool. Then, too, that wool cannot be produced in any other country so readily and cheaply as it can be produced in this country. So in going into the production of mutton sheep we attain both of these ends. We make mutton for 3 cents per pound and it will sell for 6 cents per pound, and that of itself leaves a good margin of profit, and then you have the wool extra and some other valuable results of sheep-raising. One way to establish a flock is to start with common sheep and grade up, but this depends much on the man. Buy a good ram and breed up. In using a pure-bred animal you get all the advantages of long and continuous breeding. In the breeding of no animals will you get more the benefit of the work of others than in the breeding of sheep."

R. M. Bell, now of Washington, D. C., and formerly a sheep-breeder of Missouri, and who made an investigation of the sheep industry for the United States Department of Agriculture east of the Mississippi river when Norman J. Coleman was Secretary, in a recent article about sheep husbandry says: "The old idea was, a sheep was current at \$1 a head, as good as a trade dollar. The produce of the flock was a coarse, hairy fleece of two or three pounds and a lamb once a year no better than its mother. Now, a sheep that is worth keeping must give a fleece of eight to twelve pounds, a lamb that will weigh from fifty to seventy-five pounds at six to twelve weeks old, and if possible, a second lamb six months later. Besides these, the value of the manure from a sheep is worth to the fertility of the farm \$1 a year; some estimate it higher. Again, to this account add what it would cost in cash to destroy weeds, briars and brush, say from \$1 to \$2 a head. These figures are not unreasonable, and are verified on many well-managed farms by progressive agriculturists."

Beef Making.

In commenting on an article on "Essentials in Beef Production," by Professor Shaw, J. McLain Smith says: "But again, it is safe to say, there is no yearling steer in the United States east of the Mississippi, that will sell for enough money, or that is worth enough, to pay for the food he has consumed and the keep of his dam a year. If we are to grow beef at all in this section at a profit it must be from the produce of cows that pay their own way in dairy products. If the two qualities cannot be combined in a high degree in the same breed, we are put in this anomalous position—that to make meat production successful, we must have bulls of one character and cows of another. No single pure breed, in this view, will answer the purpose; and in breeding up our herd we are breeding away from essential condition to success. Is this true? Are there any facts developed in any of the feeding trials so far reported which justify such an opinion? If so, I have never seen the record. Whether the form and early maturing quality, essential to successful beef production, are consistent with the highest development of the milking habit, I do not know; nor, I think, does any one else know. The Short-horn, as I have said, is the leading dairy breed in England, and in the hundreds of tests conducted at the London Dairy show in the last ten years, she has outstripped all the strictly dairy breeds in yield of milk and butter, but the yields are far below what is claimed for the latter in private. As a conclusion this much seems certain, that if beef production is to continue in this

section at a profit, it can only be through some general-purpose breed, where the cows pay their way in dairy products. If this is not practicable, growing beef must be abandoned."

Rations for Pigs.

Bulletin 10 of the Virginia experiment station gives the details of experiments with three different rations fed to pigs to determine their relative economy and the comparative amount of fat and lean produced by each. The first ration was corn meal alone, in which the percentage of nitrogen was quite small; the second consisted of ten parts corn meal, four parts bran, and one part beef scrap, and the third of five parts corn meal, two parts bran and two parts beef scrap, which had a large percentage of nitrogen. At the beginning of the experiment the three groups of pigs (three in each group) weighed about the same amount, but it soon became evident the third group, which ate most nitrogenous food, was not gaining as rapidly as the others, and after about two months all three of this group died. An examination showed that they perished from lack of power to assimilate food. The other groups were slaughtered after thirteen weeks' feeding, but no difference in the relative amounts of fat and lean could be discovered. The group fed corn meal alone had gained one pound live weight for 14.79 pounds of dry substance in food eaten, at a cost of 5.3 cents per pound gained. The group fed ten parts corn meal, four parts bran, and one part beef scraps gained one pound live weight for 12.94 pounds dry substance in food eaten, at a cost of 4.8 cents per pound gained. To summarize, it appears: (1.) That a very narrow ration is not fed with economy, and may even cause death through lack of power to assimilate food in so concentrated a form. (2.) That not the slightest difference is made in the proportions of fat and lean meat in hogs fed corn meal alone and corn meal, beef scrap and bran. (3.) That the cost per pound increase of live weight was one-half of 1 cent per pound in favor of the bran-fed lot.

Pertinent Pork Pointers.

A subscriber desires to know how to rid the hogs of lice. A simple and effective remedy is to boil some kerosene with lard so that it may be well mixed, then grease the hogs well and they will soon be rid of the lice. A second application should be given after the nits hatch out to thoroughly eradicate the vermin.

Hog-feeding is as much a matter of business as banking. One requires no more attention than the other to insure success. Farmers do not appear to realize this, for we believe there are more bankers that would make successful swine-feeders than there are farmers that would make bankers, simply because the banker would look upon it as a business transaction and be governed accordingly.

The *National Stockman* advises the following method of caring for fresh pork in summer: "For several years our custom has been during the summer to keep fresh meat submerged in buttermilk and we never lose an ounce of meat when treated in this manner. Last year, however, we sought a test for our practice which placed our method in this line beyond the realm of discussion. During the raging heat of August of last year we butchered a very fat hog for home use to have on hands during a long seige of threshing. As soon as the carcass was dressed we cut off the head and immersed the body in a tank containing buttermilk for twenty-four hours. This removed the blood. We then washed it with water, cut up, and salted. In two or three days put on more salt and filtered the vessel with milk. We changed the milk once in every three or four days, each time throwing in a little salt. No better pork was ever eaten, and the strong hoggish odor was all removed. It was mild and sweet as chicken, every ounce of it, and to which it was compared. Go thou and do likewise with your fresh pork in the summer."

In a late dispatch it is stated by the United States Department of Agriculture that the inauguration of meat inspection by the department under the act of March 3, 1891, has resulted in increasing the value of the hogs marketed 1 per cent. per pound since the removal of foreign restrictions against the importation of American pork, which was the direct outcome of the enforcement of the order.

The department further says: "The efficiency of the inspection is well attested by the increased price in the market, not only in this country but of the world of American meats bearing the inspection certificate of the Department of Agriculture. Meats bearing this certificate command half a cent more per pound on our markets, and although the law in Great Britain does not exact our inspection as a prerequisite to the importation, the packers have advised from their agents in that country that the United States certificates on American pork adds from two to three shillings per 100 to its market value. The packers are in consequence urging the department to increase the inspection facilities so as to enable them to enlarge their shipments of inspected meat to Great Britain."

The *Western Swineherd* says that it may be news to most of our readers to learn that what is supposed to be the largest hog rancho in the world is in Arizona. It is located near Phoenix, and the average number of hogs marketed from it annually is 3,000. The stock hogs and pigs are kept almost exclusively on alfalfa, and barley is fed for the finishing off of the hogs for market. From a gentleman who resides there we learn that the cost of production under the method pursued there is less than anywhere else in the world. It would seem that the various experiment stations of the country ought to test alfalfa and find out if it is not adapted to a much wider growth than it has yet attained in this country. East of the Missouri it is practically unknown. The stories told of its value as a forage plant are almost too wonderful to believe, and if the half that is said is true there should be no delay in introducing it where it can be successfully grown. Will some of our readers who are posted on the subject tell the public through our columns what soil and climate it will stand, and how far north it has been successfully cultivated?

Live Stock Husbandry.

C. F. Gabrielson, an authority, says that Iowa, Illinois, Missouri, Nebraska and Kansas, the five first States of the great corn belt of America, together producing over a billion bushels of corn last year, have less than a million sheep each. It costs much less to pay the railroads for carrying wool east than corn.

A good sheep, says a writer, is one that will pay its own expenses with wool; will pay the money it costs, if shipped to market, and will pay a profit if kept for increase. This applies to all kinds of sheep on farm or range. On one it may take a ten-pound fleece to pay out, and on the other a five-pound fleece will cover the expense. The carcass is the great test of value on ordinary sheep, that the weight should be the first consideration.

By improving our stock we increase our capital as well as our annual profit from sales. To the farmer who makes a careful inventory of his property each year it is a matter of considerable satisfaction to note an increase of 10, 20 or 30 per cent. in the value of his stock. It is so much definite gain in the working capital, to be put to the credit side of the account. And this is what happens to the man who is steadily improving his herd by the introduction of better blood.

Prof. Curtiss, an eminent Iowa authority, says that the cow having a capacity of 350 pounds of butter per year is a creature of artificial creation and it will take artificial treatment to sustain her. Her tastes must be studied and her wants supplied in every detail. She does not make this production on dried-out pasture, and exposed during the day to hot suns and the annoyance of flies without the protection of shade and water. Shade and water are indispensable. Green peas, oats, clover and sweet corn will be a valuable supplement to sun-dried pastures.

"A merciful man is merciful to his beast" is exemplified in a pertinent paragraph from the *Rural Life*, which says: "Never put a horse to work in a collar that does not fit or is otherwise unsuitable. Many young horses are crippled for life by being hitched in an ill-shaped misfit collar that no horse should ever be expected to work in, much less an immature colt. The collar should fit the shoulder snugly and should be well filled when adjusted. No horse can work in a collar large enough to slide up and down and sideways on the shoulder, nor one out of proportion in any other way. Both collar and shoulder

Scrofula in the Neck

The following is from Mrs. J. W. Tillbrook, wife of the Mayor of McKeesport, Penn.:



Willie Tillbrook. Sarsaparilla and he improved very rapidly until the sore healed up. Last winter it broke out again, followed by Erysipelas. We again gave him Hood's Sarsaparilla with most excellent results and he has had no further trouble. His cure is due to

Hood's Sarsaparilla

He has never been very robust, but now seems healthy and daily growing stronger."

HOOD'S PILLS do not weaken, but aid digestion and tone the stomach. Try them. 25c.

should be kept scrupulously clean. The hot months give rise to sore shoulders mainly because of inattention to cleanliness. Bathing the shoulders in cold water on removing the collar, and cleaning the collar before using again is better than patent ointments applied to sores and sprains. Sweat-pads are valuable aids in protecting the shoulders and adjusting the collar.

Texas Stockman and Farmer: A very comprehensive presentation by the Department of Agriculture of the statistics of sheep and wool gives the estimated number of sheep and product of wool for each of twenty years past, the average wool supply by the decades since 1840, the annual importation of wool since 1870, and the average annual importation of woolsens by decades since 1830. It shows that the value of our flocks is greater by \$42,000,000 than in 1870, and the value per head greater than since 1875. From this fact it appears that the domestic supply of wool is six times as great as in 1840, and that both domestic and foreign supplies were only three pounds to each inhabitant, while they are now six and one-half pounds. Then, including imports of woolsens, scarcely four pounds per head were used, whereas we now require over eight pounds. It appears that three-fifths of all the wool used for all purposes is of domestic production, while four-fifths of the requirement is manufactured in this country, leaving only one-fifth to come in the shape of imported goods. It is gratifying to know, also, that for three decades the value per head of imports of woolsens has been regularly declining, and is now only about three-fourths of a dollar per annum for each individual, when in 1850-60 it was considerably more than a dollar.

Say, Mister!

Is it possible you are suffering from catarrh, and have not used Dr. Sage's Catarrh Remedy? All the terrible consequences of catarrh in the head may be averted if you'll but make the effort! You possibly know, if neglected, it invariably goes from bad to worse, and is likely to run into consumption and end in the grave! Here is a way of escape: Its makers are willing to take all the risk, and make a standing offer of \$500 for an incurable case of this loathsome and dangerous disease. You can get \$500, or better—a cure!

The three tallest trees in the world are believed to be a sequoia near Stockton, Cal., which is 325 feet high, and two eucalypti in Victoria, Australia, estimated to be 485 and 450 respectively.

"Feak and Weeble."

A friend of mine had an odd way of mixing her words. Perfectly unconscious of it, she would often make folks laugh. She would speak of feeling "feak and weeble," weak and feeble, and "castor ill pills," for castor oil pills. But she was weak and feeble, until she took that powerful, invigorating tonic, "Favorite Prescription," which so wonderfully imparts strength to the whole system, and to the womb and its appendages in particular. For overworked women, run-down women, and feeble women generally, Dr. Pierce's Favorite Prescription is unequalled. It is invaluable in allaying and subduing nervous excitability, irritability, exhaustion, prostration, hysteria, spasms and other distressing, nervous symptoms, commonly attendant upon functional and organic disease. It induces refreshing sleep and relieves mental anxiety and despondency.

Farm Loans.

Lowest rates and every accommodation to borrowers on good farm loans in eastern Kansas. Special rates on large loans. Write or see us before making your renewal. T. E. BOWMAN & Co., Jones Building, 116 W. Sixth St., Topeka.

Agricultural Matters.

THE CEREALS.

BY PROF. A. E. BLOUNT.

(Continued from last week.)

In nearly every State where wheat is or has been raised for years, a marked decrease has been noticed, insomuch that the average yield now amounts to less than twelve bushels per acre—hardly enough to cover the cost of production. And why? It cannot be the climate and soil have changed naturally to such a degree as to bring about so lamentable a change. The cutting away of forests in some and the growing of forests in other States cannot seriously affect successful wheat-raising. Artificial improvements, buildings, the construction of canals, water-works, lakes, dams in streams, and a hundred other mechanical devices to obstruct the natural flow of water in its channels may conspire to injuriously affect the soil at great distances sometimes. Any obstructions to the natural flow of water is said to "affect the natural drainage of entire basins and even water-sheds."

This would lead us to the conclusion that, under such conditions, perfect drainage is so materially obstructed that wheat-raising is damaged thereby. Such logic may be true in some sections, but they must be comparatively small. One source of a large decrease is, without doubt, the wonderful increase of noxious insects and fungus growths, induced and encouraged, more than in any other way, by heedless and constant production of the cereal on the same land year after year. Greater, and I believe the greatest difficulties and obstructions in the way of raising as much produce and as fine crops as formerly in all sections where it was once made successful, lie with the farmer himself. The fact that he pays little or no attention (1) to the preparation of his soil, drainage, judicious rotation of crops, application of fertilizers at the proper time, and in the proper quantity, and the time and manner of sowing his seed; and (2) to the selection of the best varieties of wheat for his locality and a continual annual selection of the best from them; and, lastly, by not satisfying the demands of his crop, are prolific sources of the small yields and the failures now reported.

The fact that farmers in most States have no more new land on which to raise wheat is another cause, and that they, having lost the productive power of their land due to careless culture, do not take into consideration the altered condition of their soil sufficiently to meet the demands of wheat.

Wheat is a plant that must be bred up all the time like animals to do well, to be kept pure, from running out, poor in quality and quantity. It should never be sown on low land—not even second bottom—but always on high land plateaus, or mesas. Where drainage is naturally good a deeply mellow soil is not the best, as some advocate. A good seed bed is absolutely essential, but the surface in rainy sections should be left quite rough for winter wheat because it prevents the roots from being broken and dried out when the heaving of the soil in the early spring takes place; and the ground should never be rolled where spring wheat is sown, in arid climates especially, because the heavy west winds will cut the crop entirely off. Corn stubble or potato land is by far better suited to the habits and growth of wheat when not replowed than if plowed deep and made mellow before sowing. On land freshly fertilized with barnyard manure, wheat will not make fine grain because the manure has a tendency to make too much stalk and foliage, decidedly to the detriment of the grain. If barnyard manure is applied at all to wheat it should be old and well rotted, or what is far better,

a crop of corn or potatoes the preceding year and then follow it with wheat. If fertilizers must be used directly to stimulate the wheat crop, let them contain elements that make grain, not foliage, such as superphosphates, potash, nitrates, ashes, salt, etc., in proper proportions.

The table below shows the names of a few of the American and foreign wheats, the college number, number of days maturing from the time they came up, average number of heads produced from a single grain, average number of kernels in the heads, and the yield per acre. The large yields noticed come not from fertility or suitability of soil, but from mere improvement of seed by selection and crossing. All these were sown the middle of March and harvested in July and August. The two winter wheats failed, to some extent, to fully mature before the dry hot weather set in, consequently they rusted:

NAME.	Number.	Number days maturing.	Average number heads to the stool.	Average number kernels to the head.	Yield per acre.
Minnesota Fife.....	1	132	38	47	54
White Fife.....	2	140	58	56	49
Eldorado.....	6	126	17	118	55
Defiance.....	8	126	66	32	34
Sonora.....	12	119	56	29	95
Mexican.....	13	126	46	44	73
Improved Fife.....	14	126	41	52	56
Russian.....	15	126	53	58	69
Books.....	16	130	51	54	68
Canada Club.....	18	122	57	56	78
Judkin.....	19	126	42	48	55
Lost Nation.....	20	126	52	49	87
Chill.....	26	122	62	67	91
China Spring.....	27	126	56	61	75
Saxon Fife.....	29	126	47	63	77
Dominton.....	30	126	43	52	69
Prussian.....	31	119	42	47	57
Pringle's No. 4.....	34	122	49	53	57
Pringle's No. 5.....	35	128	46	63	56
* Fultz.....	38	151	32	41	12
Midge Proof.....	39	122	41	63	70
* Centennial.....	40	128	55	22	22
Hedgerow.....	41	121	24	31	60
Granite.....	42	119	36	42	44
Hybrid No 10.....	51	113	69	67	69
Sardonyx.....	56	121	40	39	50
Amethyst.....	57	121	44	39	40
Ruby.....	58	121	37	51	41
Fountain.....	71	117	40	39	42
Dallas.....	100	118	41	37	42
Propoe.....	110	118	52	56	60
Carnelian.....	123	118	39	32	52
Feldspar.....	129	110	52	46	59
Aowse.....	147	113	47	42	52
Nox No 5.....	157	118	44	43	52
Northcote's Amber.....	163	119	46	43	56
Purple Straw.....	182	119	47	51	58
Steinwedel's.....	367	100	53	41	43
Rattling Tom.....	358	108	39	61	43

* Winter wheat.

Another Method of Preparing Wheat Ground.

EDITOR KANSAS FARMER:—In one small neighborhood in central Kansas—perhaps in others—they are practicing a peculiar method of preparing ground for wheat. Just there this new mode is gaining great favor. For at least two years it has been notably successful. One or two farmers are just done harvesting their third big crop in this way.

The method is this: The drill attachment is taken off the lister, and with the lister plow the ground is furrowed out just as it would be for planting corn. The ground stands thus till just before seeding time, when the ridges are worked down nearly enough to a level so that they may be driven over. This is done with the corn cultivator and the tooth-harrow usually, though the disc-harrow is sometimes drafted into use. The seed is drilled upon the ground so prepared and the crop is in.

What are the advantages? First has been noted in all cases the conspicuous advantage of a crop increased in quantity and improved quality. There can be little doubt of this. Though the farmer cannot, like the scientific experimenter, control all the conditions, and attempt to say just how many pounds per acre his yield is increased by a particular method of culture, yet he knows when he gets a good crop, and he knows when one crop is better than another. In these special instances it will be quite permissible to attribute the good crops of wheat in part at least to this peculiar method of sowing them. Besides this advantage there is none.

A few have been deluded into thinking that it was less work than plowing the ground all over in the usual way, but by the time the field has been covered with the lister, the corn cultivator—twice perhaps—and the harrow, there is an exceedingly small balance of labor in favor of this method.

Why does this way of putting in the wheat give a better crop? Here is a chance for all the speculation that any one could ask for. Here is a chance for the man of perennial theories to come to the front and explain what nobody seems to understand. The lister seems to give a partial cultivation of the soil, bringing fresh portions out to the action of the elements, where the plant foods may be dissolved out and used by the growing wheat. At the same time a part of the ground is left practically undisturbed, and so furnishes the firm foundation which the roots demand a hold upon that they may bring the wheat plant safely through the winter. Still, thus far, this is a pretty thin theory. It seems more probable that the greatest advantage of this method is in the opportunity which it gives the farmer to get over a large number of acres immediately after harvest, when the ground is in good condition. One is thus enabled to early plow much more territory and to make it hold its moisture.

In examining for the reason why this way of preparing the ground has been successful it must appear, from the difficulty of referring it to any of the ordinary principles of plant growth, that the success in the two or three years where it has been tried has been rather accidental than due to any fundamental superiority of this manner of cultivation. Many farmers are pleased with it and are putting in large areas in central Kansas in this way. But it is hardly time to aver that a better way than the old has been discovered.

F. A. WAUGH.

Manhattan, Kas.

The Hired Man on the Farm.

That the labor question is sure to become an important one in connection with farming, is apparent from the following remarks on the subject which appeared in a recent number of *Field and Farm*: "The great question that just now occupies the mind of the farmers all over this country, and particularly just now in Colorado, Kansas and Nebraska, is that of the hired man. Notwithstanding the fact that in almost every small town in Colorado there are lots of able-bodied young and middle-aged men loafing about doing nothing but jawing politics, whittling sticks and generally filling what would be a useful void, and the chain gangs are full of vags, there is a great difficulty for the farmers to find enough hands to help through the harvest.

"The result is that those men who have hired themselves out to work for the farmers are inclined to be very independent, offensively so in some cases, and yet if they were to stop and think, they would not be so utterly independent. A hired man in Weld county, talking on this subject lately, said: 'No one wants to do business at a loss, but that is what lots of the laborers want the farmers to do. Suppose I hire out for \$20 a month and found. Then suppose I say to myself, I will do \$25 worth of work each month, and no more. Now can the farmer afford to keep me around? Let us look at the matter carefully and see. He pays me \$20 in cash and my board, which probably costs him, if he counts everything, \$10 a month. Then count in what I break and otherwise destroy, and that is no small item for the most of us.

"So we find that I must earn my employer at least \$35 a month to make up for his cash outlay. But no one wants to do business for nothing. So he cannot afford to keep me around unless I

earn enough more to give him some profit besides paying interest on the increased amount of stock and tools which he has to keep to keep me employed. Now if I say I will just earn what I get and no more, the farmer cannot afford to keep me. He may have to do so, however, to keep from losing more than he loses on me, by not getting his crops in. If I work for \$40 and earn \$60, some neighbor will want me next year. So there will be a competition for my service, and thus I will get more pay. But if I merely earn just what I can get, I cannot make my employer believe that he ought to pay me more.

"If I say I can do more, he will say, 'Why don't you do so now?' If we want our employers to look after our interests, we must look after theirs. The man who always puts a rail back on the fence when one is off and who never forgets to shut a door after him is on the road to success. When in doubt as to what course to pursue, take the one that seems to be the most for your employer's benefit. Then he will soon trust you to do things that he would not let the careless man attempt. Another way to succeed is to specialize. That may seem to be queer advice to give a man who is compelled to work at as many different kinds of labor as most farm hands are. But if a hired man takes some branch of his work and tries to do that especially well, he may soon get a position where he will have nothing else to do, and specialists are usually paid better than other laborers."

One ton of hay properly cured is worth twice as much as if improperly cured, and the extra labor required to secure a good article is very slight. Stock will thrive well on good hay with very little grain feed. Besides this saving, it is a satisfaction to the grower to feel that he has a palatable ration for his stock.

Hay stored under cover is worth one-fourth more than the average kept in stack. The best haying weather is when the ground is dry and the sun only reasonably hot. A cold north or easterly breeze is better than a scorching south or west wind. The hay dries out more uniformly and without crisping the finer parts of the hay, causing a loss of these in handling, which are the most valuable parts.

The KANSAS FARMER has received a lengthy communication from Mr. J. C. H. Swann, of Newton, in which he suggests that in his last year's anticipation of prices for grain Mr. C. Wood Davis did not sufficiently take into consideration the inability of European paupers and Russian famine sufferers to buy grain. Mr. Swann says that grain has never sold high in time of famine. He calls attention to the superior quality of this year's wheat crop, and also argues that persistent east winds are generally followed by rain.

A Fight Between Giants.

Both desperate, both determined! The King of Medicines in contest with the King of Maladies! Dr. Pierce's Golden Medical Discovery against "Consumption!" It is not the struggle of a day, but the first blows are the fatal blows! In its early stages, Consumption (which is Lung-scorfula) will yield to this great Remedy! This has been proven beyond a doubt by innumerable successes! Acting directly upon the blood, its scope includes all scrofulous affections, Liver and Lung diseases. As a blood-purifier and vitalizer, it stands unequalled.

Evolution of Army Transportation.

1861—Tiresome tramp along dusty roads, through brush and streams; hard-tack and beans; hard ground to sleep on, no covering but the sky. 1892—For the G. A. R. National Encampment, luxurious trains via Vandalia and Pennsylvania Lines from St. Louis; palatable cuisine of Pullman Vestibule Dining Cars, inviting Sleeping Cars. Side trip to historic Gettysburg if desired. Reduced rates. Address Chas. E. Owen, Traveling Passenger Agent, Kansas City, Mo.

Affiance Department.

THE GRANGE AND SILVER.

The farmers in the Grange have steadily advocated a larger amount of money per capita, since years ago they learned the lesson that scarce money meant dear money, and dear money meant lower prices for all the products they had to exchange for money.

As one step towards more money, the National Grange has, since 1877, down to the present time, persistently and consistently advocated the righting of the wrong of 1873 and the restoration of silver to its birthright—the full equal of gold as the money of the people.

The following is the action of the National Grange at its last session:

WHEREAS, The National Grange does not believe that we now have sufficient currency in the nation for the legitimate purposes of trade, and to meet necessary obligations; therefore be it

Resolved, 1st. That this National Grange declares and expresses its opinion in favor of free and unlimited coinage of both silver and gold, just as it existed from almost the foundation of the government up to 1873, when silver was demonetized.

2d. That we believe that the government alone should issue money, and that we do demand that a sufficiency of legal tender notes be issued.

And not only has the Grange all these years held unflinchingly to this position, but without exception have all the other farmers' organizations, that in these latter years have come to the front, taken the same firm stand, and, if I may be allowed to speak for them also, all the various labor organizations touch elbows with us on this question, and have so declared in their national conventions. And thus we see a grand, unbroken line of toilers reaching all across our continent, insisting upon the legislation that will once more lift up silver to its rightful place by the side of gold, its full "equal before the law," made so by the constitutional right of the people, through Congress, "to coin money and regulate the value thereof."

It is one of the strange departures from first principles, one never contemplated by the fathers in founding our government, that a Congress supposed to represent and carry out the wishes of the people, should, without ever consulting the people, or being asked by them to do so, have destroyed, by legislation, the money of the Republic. The excuse in 1873 was: "We did not know we were doing it." Then why was not the mistake corrected years ago? But what is the excuse now? The people, after suffering for years from the consequences of the shrinking currency, the scarce money, and therefore dear money, realizing the very root of all the evils they endured, elected a Congress of men largely composed of those who, on the stump in their districts, pledged themselves to support and vote for the free and unlimited coinage of silver, and yet, within a few weeks, we have had presented to us the humiliating spectacle of those same men bowing their necks to the yoke, and permitting themselves to be bound by a chain of gold.

Have we not reason to ask, is this "A government of the people, for the people, by the people?" It is, and it will be.

"For God is God, and right is right,
And right the day must win.
To doubt would be disloyalty,
To falter would be sin."

Some Congressmen will indeed have a hard time in making their talk (and sometimes written pledges) before election agree with their votes against the free coinage of silver after election.

The farmers of this country are no longer a great body of unthinking, innocent sort of folk, placing implicit faith in political guardians; no longer like "dumb-driven cattle" under the party whip, rounded up to the polls and voted. They are now organized, thinking, intelligent, hard students of political economy, are learning their rights, and knowing, dare maintain.

While in no sense of the word is the Grange a partisan political organization, and while it permits the utmost freedom of thought and action in that line, still its platform has ever held for every member that it is his "inalienable right and duty, which belongs to every American citizen, to take a proper interest in the politics of his country," "to affiliate with any party that will best carry out his interests;" and it says again, "the principles we teach underlie all true politics, all true statesmanship, and, if properly carried out, will tend to purify the whole political atmosphere of our country." Thus are our farmers

being taught, and on those lines they have broken party "machines" in the past and they will break more in the future. From a thousand rostrums have we taught that our cause is just, and that we will carry out these reforms inside our party if we can, but outside if we must. And it does look just now as if the "must" was very close by us.

Millions of our farmers are at school in their organizations, and with the aid of their own papers are studying this important question. They have learned that a 150-cent dollar is just as "dishonest" as a 70-cent dollar. They have learned that if the silver in a dollar is only worth 70 cents it is because the stealthy demonetizing act took away its money value, and that that same act made the money left—the gold—worth more, and therefore a 150-cent dollar. They have also learned that the silver in a dollar is worth a dollar, it is the silver out of a dollar that is not worth a dollar, and that with free coinage of silver the silver out of a dollar would be worth a dollar, because any one who had the silver could get the dollar for it. They have learned the hard lesson of paying debts on a gold basis, and selling wheat and cotton at the price of silver bullion, made cheap by demonetization.

I have on my New Jersey farm a team of horses and a team of mules. Millions of horses and mules are used all over our country. Suppose Congress should, unknown to the people, pass a law saying that mules should no longer be used for work, would not mules fall in value, and would not horses go up in value? Thus was the money value of silver struck down and the money value of gold put up.

Old Aristotle said: "Gold, silver, and the metals are the product of nature, but money is the product of law."

The people rule in this country, and when the "embattled farmers stood at Concord bridge and fired the shot heard 'round the world," they rang out the old and rung in the new. They marked out new lines and plowed furrows across this continent never marked out by kings; and, as they then threw off the yoke of oppression, so will the "Sons of the Revolution," as many of us are proud to be, now resent the financial dictates of England, who would demonetize our silver so that she can buy cheap wheat and cotton in India, to feed and employ her millions of workmen. — And, as she is the great creditor nation of the world, holding millions of our bonds and other securities, compel us and other debtor nations to pay her both principal and interest in gold, the scarce and dear money. Americans now lead the world in other things, why should we follow in this? We are patriotic and brave enough to lead in this and I believe we will.

Besides believing that demonetizing silver cut off our supply of money, and made what was left scarce and dear, farmers have learned another lesson. They now know that the price of wheat and cotton in Liverpool fixes the price of our wheat and cotton here. And we have further learned what fixes the price in Liverpool. England is not an agricultural, but a manufacturing and commercial nation. She wants cheap wheat to feed her workmen, and cheap cotton for her mills. India, with her low-priced ryot labor, produces vast quantities of wheat and cotton. England demonetized silver in England, and fooled our Congress into doing the same, then she demonetized gold in India, and silver is there the only money. Demonetizing our silver made silver cheap (and we produce about one-half the silver of the world). England takes our cheap silver (made cheap by demonetizing it) and buys India wheat and cotton, and can thus land both in Liverpool at least 30 cents on the dollar cheaper. If we had free coinage, as before, our silver would be worth the dollar, and we would not be, as now, supplying England with cheap silver to break down with her India wheat and cotton the price of two of our greatest staple crops.

If we can't have free coinage of silver, then our government should seal up the silver mines and stop furnishing England silver that becomes money as soon as she uses it in India. Every hour educates more of our Western wheat-growing and Southern cotton-growing farmers on this point. The imports of India wheat into England have increased within a few years from 1,000,000 to 41,000,000 bushels annually, and the same immense increase in cotton is also going on; and, fixing, as

it does, the prices in Liverpool, it has reduced and is continuing to keep down the price of every bushel of wheat and bale of cotton raised upon an American farm.

When they tell you that free coinage of silver means only to enrich the miners, the "silver barons," tell them it will do the same for the farmer barons, wheat barons, cotton barons, corn barons, beef barons, pork barons and the producer barons in every part of our country.

And let it not be forgotten, toilers, producers everywhere, that this is the legislation that has robbed you of the fruits of your labors, has wrecked your hopes and your homes, and that the Congress you elected to right the wrong, has broken its faith with you. Remember, it is a righteous cause in which we are now engaged, an irrepressible conflict that must be won, or the homes of the country are gone forever, for

"A bold yeomanry, their country's pride,
When once destroyed can never be supplied."

MORTIMER WHITEHEAD.

Washington, D. C.

Railroad Assessors and Railroad Commissioners.

EDITOR KANSAS FARMER:—I feel compelled, in the interest of truth and justice, to ask the use of your columns for a few lines on the railroad assessment.

I assume that all are agreed that all taxable property should bear the same rate of assessment in ratio to its actual value, for on any other basis it brings in subjects not considered in our present law on assessment and taxation.

As to the cost of railroad assessment, we find that in ratio to the value of it and other taxable property, it is by far the easiest property to assess, requiring but a board of five officers and perhaps two or three clerks two or three months (and much of the time the officers are engaged in other duties), while the other property requires an army of assessors, averaging about one for each township and ward in the State and employed for about one month's time annually.

We find that the Board of Railroad Assessors reduced the assessment of the railroads this last year; but we find no evidence that it was improperly or unjustly lowered under the law. Remember that with the "stocks and bonds" or the intangible or unseen power of railroads or the power that claims the right to put on all the "tariff that the traffic will bear," the Board of Railroad Assessors have nothing to do; but they have only to do with what money and credits are in the hands of its agents on the 1st of March and with all the tangible property of the roads, as road-bed, right of way, track, buildings and land on which they are situated, etc., telegraph lines, tools, cars, engines, etc., all of which are, like farm property, in plain sight and cannot be hid or covered.

To account for this lowering of assessment, there have been two theories advanced. First, that this lowering was improperly and unjustly done by the Board of Assessors. Second, that they were deceived by the reports of the railroad officers. I hold that neither of these theories are correct. On the first theory we do not have the proof of an unjust assessment, but only the fact that the assessment was lowered, which fact, in the present state of the public mind, is enough to cause great excitement; but all friends of the State should attempt to quiet the public mind until the true facts can be ascertained; and as to the second theory it will not stand an investigation, for this property, all being tangible property that can be weighed or measured, except the money and credits in hands of agents on the 1st of March, it should make no difference to the Board of Assessors what value the railroad officers report, as they are required to know for themselves.

Now, I advance a third theory on this matter that may aid in the true solution of this question, and I claim that this is the only one that is in full harmony with our St. Louis platform. In this platform we set forth that, owing to the demonetization of silver and the withdrawal and destruction of our currency, that the value of all tangible property has been greatly lowered, and this includes the assessable part of railroads, consequently the assessment of railroads should be in harmony with other property. But we have another plank in our platform, that lines of communication and transportation should be owned or controlled by the gov-

ernment, and it is in this part of our doctrine that we are to look for relief, and until we can get this relief from the government we have a State Board of Railroad Commissioners in this State who are the real responsible party for the unjust burdens that the railroads of this State are placing on the people. So my theory is, that the Board of Railroad Commissioners are the ones we should hold responsible for the unjust burdens, for instead of their allowing a passenger and freight rate only sufficient to give ample remuneration to the railroad employees and to keep all the railroads in good and safe condition and enough to give a reasonable profit on the actual money value of the railroads, they are understood to allow a rate greatly in excess of this or a rate sufficient to pay a good interest on the watered or imaginary value as well as the real value. If this theory is the correct one, it would be a travesty on justice to condemn our assessors and promote one of the Commissioners to be a Congressman-at-large.

We are all agreed that the railroads are not bearing their just share of the public burdens in ratio to what they receive, but the trouble lies in their being allowed to receive too much for the service rendered to the public and not in their shirking a fair assessment. In short, to me it looks like we were "barking up the wrong tree" in attacking our Board of Railroad Assessors and railway officers, when the trouble lies with our Railroad Commissioners. I would be glad to hear from the chairman of the House Committee on Railroads as to this view of the rate now allowed by the Railroad Commissioners.

I do not wish to enter into any controversy on this question, but only to call attention to this theory of the case, and if it is found to be true, well, for it is only truth and justice that can win in a question of such magnitude. To help solve this railroad or taxation question, I invite our Attorney General Ives, the only State officer elected by the people, and the second State officer outside of the Republican party in the history of the State.

Ottawa, Kas. A. C. SHINN.

Repeal of the Sherman Silver Act.

Following closely upon the demand made by the national Democratic platform for the repeal of the so-called Sherman act of 1890 for the purchase of silver, came a bill, introduced in the Senate by Mr. Sherman himself, which points practically in the same direction. The repeal of this act is therefore the next step to be taken by the men of both parties who fear the dangers of free coinage or a further agitation of the subject. In the August number of *The Forum* Mr. Louis Windmuller, a well-known merchant of New York, briefly sums up the reasons why, in his opinion, the further agitation of any sort of the free coinage of silver is attended with grave dangers, and why the repeal of the Sherman act is now imperatively demanded by business. He thinks that the failure in a single crop in the United States would precipitate the shipment of gold to Europe, and the sending home of the American securities held there, to such a degree as to endanger our whole commercial organization; and he makes an argument further to show that, practically in proportion as legislative interference is encouraged and tolerated with the commercial value of silver, to that degree is the danger made great of sudden and disastrous price.

Mr. Windmuller sums up his article with this warning: "To continue the Sherman act in effect must lead eventually to national bankruptcy, an end to which free coinage can simply bring us more speedily." This conclusion classifies at once the Sherman act as a sort of free coinage measure, the only difference being that free coinage would bring more rapidly what Windmuller holds the Sherman act will surely bring at last if it be left unrepealed long enough. The absurdity of the position that an increase in the quantity of absolute money will enable foreigners to deplete our finances more readily seems not to have penetrated Mr. Windmuller's understanding.

The co-workers of Col. L. L. Polk in his home city are moving to have a monument erected to his memory on account of his services in the cause of reform. The organization recently formed for this purpose invites contributions to be sent to H. W. Ayer, Secretary-Treasurer, Raleigh, N. C.

The Horse.

Diet for Brood Mares.

The best food for a mare in foal, says the *Kentucky Stock Farm*, is oats, bran, some corn, a little oil cake, carrots, corn fodder, and good hay in small quantities. Concentrated food is best where there is a tendency to relaxation of the bowels. A large quantity of feed given at any time, in connection with vigorous exercise, is liable to bring a miscarriage; oats or flax straw in large quantities may produce diarrhea, and abortion may follow. Regular exercise and good, nourishing food in moderate quantities is always the sure road to success with a mare in foal. After the foal is up and around it should have a free operation of the bowels. If it should not you will notice that it is uneasy; it will switch its tail, draw up at the flanks, breathe short, and startle more or less. It is time now to prepare an injection of slippery-elm water, flaxseed water, or even castile soap suds, and inject it into the bowels until the big bowels are emptied; to be repeated if found necessary. But don't resort to physic unless you are compelled to. Better depend on laxative food for the dam than to derange the stomach of the little fellow by medicines that irritate.

Horse Notes.

Margaret S. 2:12½, is wearing aluminum shoes.

Richard Ten Broeck, the famous horseman, died recently at San Mateo, Cal., at an age of over 80 years.

Adlan 17870 will finish his stud season at Minneapolis, having stood the early part of the season at Emporia.

Mike Dwyer's great racer, Longstreet, has broken down, and has been turned out, probably to never race again.

L. M. Swope, Aurora, Kas., has purchased of Beauchamp & Jarvis, Concordia, the bay stallion Yale 12050, by Capoul, dam by Tramp.

There are only twelve trotters in the world with records of 2:12 or better. Palo Alto's death broke the unlucky number, thirteen.

Council Grove will have a good meeting this fall. There are many good horses in that section, and almost all the racers are in training.

The great stallion Allerton has gone lame. The tendons of his right hind leg are badly sprained, and it will be some time before he races again. He went a mile the other day in 2:11½.

Many interesting races have been trotted in the West this summer. Mexico, Mo., Keokuk, Ia., Monmouth, Ill., Paris, Ill., Danville, Ky., and Columbus, O., have all had well-attended meetings.

Robert J. is one of the sensational performers of the year. At Buffalo last Friday he paced a mile in a race in 2:09½, breaking the track record, and establishing a world's record for four-year-old pacers.

Horses in the German artillery and cavalry regiments are now shod with paper. The shoes are made by cementing forms of parchment paper together and hardening them by hydraulic pressure, then rasping to fit the hoof.

The great stallion Sultan, sire of Stamboul and twenty-six others in the 2:30 list, dropped dead at Abdallah Park, Cynthiana, Ky., last Wednesday morning after being driven a mile. He was the property of W. T. Handy and the estate of W. H. Wilson. His owners recently refused \$40,000 for him.

Chicago will have all the crack trotters and pacers in the country in a six days' meeting beginning on the 15th inst. Axtel, Tobacco, Roy Wilkes, Monbars, Nancy Hanks, Direct, Hal Pointer and Belle Hamlin are all entered in races. It is also announced that Sunol 2:08½, the "queen of the turf," will go a fast mile.

O. P. Updegraff, of Topeka, has sold to Dr. S. L. Brooking, of Wellsville, Kas., the handsome three-year-old sire Upright Wilkes 2:26½, the price paid being \$5,000 cash and four highly bred horses valued at \$1,000, which is the highest consideration ever paid for a horse in this State. Upright Wilkes is sired by Honor, the most promising son of Red Wilkes. His dam is Miss Hayden by Mambrino Foster, a son of Mambrino Patchen.

A new kite-shaped mile race track, at Sedalia, Mo., has just been completed at a cost of \$20,000. Horsemen predict that it will be one of the speediest race tracks ever constructed in the United States. The track was built under the supervision of Col. Seth Griffin, of Brooklyn, N. Y., who has the reputation of being the best race track builder in the country. It was first graded on a dead level from start to finish. It was then paved with prairie sod cut twelve inches square, and set on edge. On this is placed five inches of soil finely pulverized and lightly rolled. It is claimed that the sod will give the track elasticity, and the soil a firmness of foothold, two of the most es-

sential requisites for speed. The Sedalia fair will be held August 15 to 20, and the association offers \$25,000 in stakes and purses.

STATE FAIR SPEED PROGRAMME.

The following is the programme of races at the State Fair, September 13-17:

TUESDAY, SEPTEMBER 13.	
1. Trotting, stake. Foals of 1891, mile heats, 2 in 3.....	\$500
2. Trotting, stake. 2:50 class.....	1,000
3. Pacing, stake. Foals of 1890, mile heats, 2 in 3.....	100
Association adds.....	
WEDNESDAY, SEPTEMBER 14.	
4. Trotting, stake. Foals of 1890, mile heats, 2 in 3 (eligible to the 3-minute class).....	\$500
5. Trotting, stake. 2:28 class.....	1,000
6. Pacing, purse. 2:25 class.....	500
7. Pacing, stake. Foals of 1891, mile heats, 2 in 3.....	100
Association adds.....	
THURSDAY, SEPTEMBER 15.	
8. Trotting, stake. Foals of 1889 (eligible to 2:50 class).....	\$500
9. Trotting, purse. 2:35 class.....	500
10. Trotting, stake. 2:30 class.....	1,000
11. Pacing, purse. 2:35 class.....	400
FRIDAY, SEPTEMBER 16.	
12. Trotting, yearling "Baby Stake." Foals of 1891, guaranteed by O. P. Updegraff (closed).....	\$1,000
13. Trotting, purse. 2:40 class.....	600
14. Trotting, purse. 2:28 class.....	600
15. Trotting, stake. 2:20 class.....	1,000
SATURDAY, SEPTEMBER 17.	
16. Trotting, stake. Foals of 1888 (eligible to 2:40 class).....	\$500
17. Pacing, stake. Free for all.....	1,000

CONDITIONS.

Entries to stakes close June 1, when horses and colts must be named and first payments made. Purse races close August 30. Entrance, 5 per cent., with 5 per cent. additional from winners. In stakes Nos. 3 and 7, entrance \$30, payable June 1, \$10; July 1, \$10; August 1, \$10. In stakes Nos. 1, 2, 4, 5, 8, 10, 15, 16 and 17, payments will be: June 1, 1½ per cent.; July 1, 1½ per cent.; August 1, 2 per cent. No nominations will be received unless accompanied by first payment. Money divided 50, 25, 15 and 10 per cent. In purse races, five to enter and three to start. The right reserved to declare off any stake that does not fill satisfactorily to the association; in which case entrance money will be refunded. In each stake the face value will be paid, but no more. No entry liable for more than amount paid in, but a non-payment forfeits previous payments. A horse distancing the field in either stake or purse races will be entitled to first money only, and only first money will be given for a walk-over. Usual weather clause is stipulated. Rules of American Trotting Association to govern.

As a hair dressing and for the prevention of baldness, Ayer's Hair Vigor has no equal in merit and efficiency. It eradicates dandruff, keeps the scalp moist, clean, and healthy, and gives vitality and color to weak, faded, and gray hair. The most popular of toilet articles.

Gossip About Stock.

Our Iowa representative recently called on W. M. McFadden, West Liberty, Secretary of the American Poland-China Record Company, and was informed that Volume 13 was ready for distribution. There is a manifest improvement in the style of this volume and it is in keeping with the neat and carefully managed office of the Secretary.

There was stolen on July 6, from one of our subscribers, A. J. Thompson, Horton, Brown county, Kas., a valuable black horse, 5 years old, showing a few white hairs in forehead, black legs, mane and tail; weighs over 900 pounds; extra traveler; good life; splendid saddle horse, single-foot or pace; fast trotter or walker; never was shod; has no marks or brands, except sore on back. A liberal reward is offered for the recovery of the animal.

Our Chicago manager reports that the sale of range horses held by John S. Cooper at the Union stock yards, Chicago, Ill., on the 3d inst., was a decided success. The horses were not over 900 pounds, and the majority under 3 years old, not halter-broken, and sold for prices averaging about \$30 per head. Five hundred could have been sold as well as 100. Horses, strong 1,000 pounds, 4 years old and halter-broken, would easily sell at an advance of \$10 per head.

Colman's *Rural World* has the following regarding an importation of jacks to that State: "Luke M. Emerson, the well-known jack man of Pike county, Missouri, has just returned from his semi-annual trip to Spain with about 150 head. Men having the experience in this business possessed by Mr. Emerson, are very apt to think twice ere they buy and to cull the offers ere they price them. But Luke M. Emerson has been there before; been there many times, knows the country, is acquainted with the men and the breeders, and they don't fool him very much when he has to put up his money to back his judgment, and pay for the transportation of

stock all the way to Pike county. Here is where Missouri farmers get their jacks."

H. B. Fales & Son, of Cameron, Mo., sent (this season) two fleeces of Merino wool to Buell Manufacturing Company, of St. Joseph, Mo., to be scoured, one buck and one ewe fleece. They report buck fleece 21 pounds 2½ ounces, lost in scouring 63½ per cent., 36½ per cent. clean wool. Ewe fleece, weight 18 pounds 2½ ounces, shrinkage 64 per cent., clean wool 36 per cent. Seven and three-fourths pounds clean wool from buck, 6½ pounds from ewe, total 14½ pounds, for which the mill company allowed 55 cents per pound (no charge for scouring) or \$7.83 for the two fleeces, equal to about 20 cents per pound in dirt.

Wolves are quite prevalent yet in many portions of the State, and their devastations are becoming quite burdensome. The *Bucklin Bulletin* in its last issue says that "wolves are making their appearance in vast numbers in the northern part of Clark and the southern part of Ford counties. Mr. Drake and Mr. Sibley while riding through their pasture the other day discovered the carcasses of a yearling calf and a three-year-old steer which had been killed and almost totally devoured by the savage brutes. Later in the day they ran across five genuine gray wolves fully as large as a yearling calf and of the same species as those that terrorized the cattle men in the strip. Several other parties have informed us that they have seen a number of wolves in this neighborhood, and that they are proving to be a perpetual nuisance. To avoid further annoyance from these ferocious creatures every man in the country who can do so should strive to organize a wolf chase, and thereby rid this county of the dreaded curs."

A Wail From a Garden.

EDITOR KANSAS FARMER:—Among the scores of letters we get every week, some of the most prized ones are those asking information on farm and garden topics. We always answer these personally and sometimes where of general interest through the press. Many questions we cannot answer, not having had experience. We copy one and forward to KANSAS FARMER readers to answer. Now, don't lay this paper aside and say I know all about it, but somebody else may answer. The writer of the letter, we judge, is from the North, like ourselves, and many of these things are new to him, and some of you can help, and if the garden cannot be saved this year perhaps it will be stored up for next year. We met this same "miserable, loud-smelling bug" in Kansas one year, but the extreme drought made it useless for us to fight him, and we have not seen it here this year.

Our Oklahoma City correspondent writes: "I am going to venture to ask you for some advice. I wrote a short time ago to the —, but fear I shall not get an answer in time to save my squash vines, if there is any salvation for them. Then, too, I don't believe up North they ever heard of this miserable, loud-smelling squash bug. I never saw one till I came here. I've had an awful fight over all my vines all spring. Kept them white with lime and sulphur. That did keep the striped bugs from destroying the vines, and the melon vines are looking pretty well, but the striped bugs are still around and ruin lots of the blossoms. The lime seemed to have no effect on the squash bug. Lately I've tried putting London purple on—one heaping teaspoonful to three quarts of water—and still they are as lively as ever. Nothing I've tried kills them but to pick them off by hand and crush them. I've two rows of Sibley squash and some sweet pumpkins that I've 'hand-picked,' and the vines are,

A ROAD WAGON
 \$32.00
 To introduce our goods, we will give one of these elegant Road wagons to any one who will sell six (6) for us. Regular price is \$65.00, we sell it for cash with order for \$32. If you are looking for a bargain in Vehicles or Harness send for our free catalogue. FOSTER BUGGY & CART CO., 11 Pike Bld. Cincinnati, O.



many of them, good-sized and have been blossoming for two weeks or more, but no fruit has set. The bugs attend to that. But, of course, I cannot keep it up all summer, and there is no use if the bugs ruin all the blossoms. Now do you know of anything to drive them off? I'm clear discouraged with my garden. The worms took my Cory sweet corn and not an ear did I get. The cabbage worms are awful bad. I've tried about everything I could hear of and now I am using London purple on my late cabbage. I have a number of rows of Henderson's Bush Lima beans. They have been blossoming real full and have had pods on this long time, but they don't fill and some have dried up, and lately, in the evening, as I walk between the rows, there are such lots of millers fly up from among the beans that I am afraid they are working mischief. Is there anything I can do for them?"

Now there are other questions which with these we answered by mail the best we could, but we are not yet familiar with Southwest insect pests, and we pass them on to your readers who have had greater experience. You ought to help your new neighbors. The letter closes with, "Now I've asked a lot of questions, but do help me if you can."

As to the sweet corn, we have discarded the first early kinds the last two years, as our four years' experience in Kansas and Missouri showed us we had to divide every ear with the worms and they sat at the first table. So we have concluded to wait a little for second table, get a better corn, such as Crosby's or Excelsior, and have the ear all to ourselves, as the worms do not bother medium and late varieties. Now "brotherly kindness" reader, do not forget to give your successful methods, if you have them. J. M. RICE.

Winview, Okla.

Like a ship without a rudder is a man or a woman without health and the necessary strength to perform the ordinary duties of life. When the appetite fails, when debility, and a disordered condition of stomach, liver, kidney and bowels assail you, take Ayer's Sarsaparilla.

Rudy Wheat--The New Wonder.

This excellent variety which has been grown almost exclusively, and with unequalled success for the past five years in the great Miami valley of Ohio, is adapted to either upland or bottom; is very hardy; is of the bearded variety and has a large, long, light colored berry. At the Columbus, Ohio, Experiment Station in 1891, it took first rank, testing heavier than any of the other fifty or more varieties with which it was compared. The "Rudy," guaranteed pure, can be obtained in not less than bushel lots, at the very reasonable price of \$1.35 per bushel, and cost of sacks, which is 20 cents each, of

DAVIS & MIRANDA,

Tippencanoe City, Miami Co., O.

Money must invariably accompany the order. Reference—The Tipp National Bank.

We Sell Live Stock.

Our cash sales for 1890 were \$1,904,199.38 total business exceeded two and one-half million dollars. Established since 1880. Market reports free and consignments solicited from stockmen, by OFFUT, ELMORE & COOPER, Room 14 Exchange Building, Kansas City Stock Yards.

A WELL KNOWN REMEDY THAT HAS STOOD THE TEST OF YEARS

▲ ▲ MEXICAN ▲ ▲

MUSTANG LINIMENT

THE UNIVERSAL PAIN RELIEVER.

It penetrates the muscles, membranes and tissues, thereby reaching the seat of disease. Indispensable to the Housewife, Farmer, Stock Raiser or Mechanic. 25c., 50c. and \$1.



The Home Circle.

To Correspondents.

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

The Drunkard.

On feeble and unsteady legs
He walks as if he trod on eggs.

When'er he has to give or take
His hands, as with the palsy, shake.

To meet your gaze he vainly tries
With dull and bleared and bloodshot eyes.

Compelled to bear the sign, he shows
A swollen, coarse and crimson nose.

His pimpled, blue and bloated face
Of manliness has not a trace.

All people near him shun like death
His permeating, sickening breath.

With ruined health and shattered nerves
He suffers tortures he deserves.

Sad children and heart-broken wife
Through him endure a wretched life.

Abhorred and shunned by friends once known
He wanders through the world alone.

Soon losing self-respect he goes
In seedy, torn and dirty clothes.

With raging, hot, increasing thirst
Which can't be quenched he's ever cursed.

In vain he takes the pledge to stop;
With will power gone he has no prop.

Asylums, drugs, "gold cures" he tries
Make him insane—unless he dies.

Down, down, he sinks until in time
He in the gutter reeks with slime.

From borrowing he begs until
For drink he'll steal or even kill.

Delirium tremens' horrid sights
He sees. With imps and snakes he fights.

At last with tramps his doom is sealed,
And then he goes to Potter's field.

And after that? Alas, who knows
Where any slave of liquor goes?

They have their hell on earth, confessed—
They can't have worse. So let them rest.

—H. C. Dodge, in *Drovers' Journal*.

WILL THE COMING MAN SLEEP?

It by no means appears that sleep is a natural function, the necessity of which inheres in animal life and the constitution of things; there is much reason to regard it as a phenomenon due rather to stress of circumstances—a kind of intermittent disorder incurred by exposure to conditions that are being slowly but surely removed. Precisely as sanitary and medical science and improved methods of living are gradually extending the average length of human life in every civilized country and threatening the king of shadows himself with death ere, in the poet's sense, "Time shall throw a dart" at him, so we may observe already the initial stages of a successful campaign against "his brother Sleep." Civilized people sleep fewer hours than savage ones, and the dwellers in cities fewer than the country folk. The reason is not far to seek; it is a matter of light.

Primitive man, like the savages of today, had at night no other light than that of the moon and that of wood fires. For countless ages our ancestors lived without candles, and when they had learned the trick of burning rushes soaked in the fat of neighboring tribesmen their condition was not greatly better. Beyond primitive man we may venture to survey his ancestors—unmentionable to ears un-Darwinized—who lived for ages even more hopelessly countless with no artificial light at all. In the darkness of the night (and, in case of the remoter progenitors, always that of the forest) what could these ancient worthies do. They had little enough to do at any time, but even their rudest occupations could not be pursued in darkness. They simply did nothing, and naturally assumed the most comfortable posture in which to accomplish it, the earlier sort suspending themselves by their tails, the latter lying down as we do at present, having no tails. It is a law of nature that the moment any organ or member of the body is at rest a kind of torpor ensues. The blood circulates with a more feeble flow, molecular changes take place with less activity—in short, it begins to die, and can be restored to full life only by a renewal of use. With continued inaction it dies altogether. In the case of the brain this torpor means unconsciousness—that is to say, sleep. To put the matter briefly, darkness compelled inaction, inaction begot sleep.

Another law of nature—a rather comical

one, by the way—is that acts which we do regularly, from necessity or choice, set up a tendency in us to do them involuntarily when we don't care to and when the original necessity has been replaced by this new and equally imperative one to which, in both its mental and its physical aspect, we give the name of habit. And by still another law of nature, (the term is used here only to denote a universally recurrent phenomenon) habit in both its aspects is hereditary. Because for millions of generations our "rude forefathers," unable by reason of darkness to indulge during the whole twenty-four hours in the one-sided pleasures of the chase and the mutual delight of braining one another in tribal wars, had to go to sleep, we have to go to sleep, although we have (by paying roundly for it) plenty of light to make ourselves objectionable in an infinite variety of ways, both entertaining and profitable.

But little by little we are overcoming the sleep habit without loss of health, if not with positive sanitary advantage. As above mentioned, the people of our lighted cities sleep less than the rural population, and this less than it did before the improvement in lamps. And nothing is more certain, despite popular opinion to the contrary, than that the men of the cities are superior in strength and endurance to those of the country, as is abundantly attested by army life, in camp and field. That this is wholly or even greatly due to their nocturnal activity is not affirmed; only that their addiction to the joys of insomnia has not appreciably counteracted the sanitary advantages of city life—among which we are tempted by the canting of the physicians to give an honorable prominence to defective drainage, sewer gas and drinking water that is largely solution of dog and hydrate of wronged husband.

The electric light has apparently come to stay, but more likely it will in good time be replaced by something that as far exceeds it as it beats the hallowed tallow candle of our grandmothers. Not only will the streets and shops and dwellings of our cities be illuminated all night with a splendor of which we can have hardly a conception, but the country districts as well; for it is now known that plants (which apparently are not creatures of habit) do not need sleep, and that by continuous light the profits of agriculture could be enormously increased. The farmers will no longer retire with the lark, but will work night shifts, as is already done in factories and mines, and eventually work all the time, as most of them would be glad to do now in order to support the rest of us in the style to which we have been accustomed.—*San Francisco Examiner*.

The Great Chicago Fire.

What is said to be the best attraction in the World's Fair city at the present time is the cyclorama of the great Chicago fire, located upon Michigan avenue, near Madison street. No one should fail to see that masterpiece of cyclorama painting, illustrating, as it does, the greatest conflagration of modern times.

This wonderful painting is about fifty feet high and 400 feet long, and there were consumed in its production two and one-half tons of paint. Usually these paintings are executed in Europe, and then exported here; not so with this one. Noted artists of Europe—from London, Munich, Dusseldorf and Paris, were employed to come here, at a cost of from \$20 to \$25 per day each, to paint this cyclorama, where it now hangs. It required about two years to produce this wonderful work. It represents the sum of a quarter of a million dollars as it stands to-day, and the proprietors claim that it is the most expensive work of art in the world, the expense of producing it being three times the amount ever before expended on a production of this nature. The Chicago fire burned up \$1,000,000 worth of property every five minutes on an average, for eighteen hours in succession. It burned over an average of two and one-half acres every minute for that period of time. This will give some idea of what the fire really was. Those who experienced that appalling catastrophe will never forget it. To those who did not see the fire, the next best thing is to see this marvelous painting of it, which is an exact reproduction of the ruins and buildings of Chicago as they appeared on the morning of Monday, October 9, 1871. The business portion of the city is in ruins, and the great north side is a sea of fire.

Testing the Baking Powders.

Comparative Worth Illustrated,

BY PROF. PETER COLLIER, LATE CHEMIST IN CHIEF OF THE DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.

DR. PRICE'S.....	Pure Cream Tartar.
ROYAL.....*	Contains Ammonia.
UNRIVALED.....*	Alum and Ammonia.
Taylor's 1 Spoon.....*	Alum and Ammonia.
MONARCH.....*	Alum and Ammonia.
SNOW BALL.....*	Alum and Ammonia.
CALUMET.....*	Contains Alum.
HOTEL.....*	Contains Alum.
YARNALL'S.....*	Alum and Ammonia.
MILK.....*	Alum and Ammonia.
SHEPARD'S.....*	Alum and Ammonia.
BON BON.....*	Contains Alum.
FOREST CITY.....*	Alum and Ammonia.
CHICAGO YEAST.....*	Alum and Ammonia.
CROWN.....*	Alum and Ammonia.
SILVER STAR.....*	Alum and Ammonia.
DOODSON & HILS.....*	Alum and Ammonia.

Above diagram was drawn and verified in all its details, by Prof. Peter Collier, who is pre-eminent as a Chemist, and Scientist. The illustration is made in accordance with his chemical tests of each brand enumerated.

The Carbonic acid gas was calculated to get the leavening strength and the quantitative analysis to ascertain the comparative wholesomeness, purity, and general usefulness of the leading Powders. The result of Prof. Collier's examination and test, reveals the fact, that, with but one exception, every brand tested contained either Ammonia or Alum, and a number both.

Not one woman in ten thousand would use an Ammonia or Alum Baking Powder if she knew it. Such Powders not only undermine the health, but ammonia imparts a sallow or blotched complexion.

NOTE.—Dr. Price's Cream Baking Powder, as shown by Prof. Collier's examinations, is the only pure Cream Tartar Powder found free from adulteration and the highest in strength. All authorities report Dr. Price's free from Ammonia, Alum, Lime, or any other adulterant. The purity of this ideal Powder has never been questioned.

* Indicates the Powder containing either Ammonia or Alum.
** Indicates the Powder containing both Ammonia and Alum.

While the diagram shows some of these Ammonia or Alum Powders to be of higher strength than others classed below them, it must not be taken that they possess any value. All Ammonia or Alum powders should be avoided as dangerous, no matter how high their strength.

These August Days :

- Are trials to the soul.
- The birds forget to sing.
- Tempt even the ferns to droop.
- We cry, "My kingdom for a tree."
- Suggest rest, while seeming to defy it.
- Remind us that fruit cannot wait for cans.
- How patriotic we are! we all love the country.
- No dinner or lunch is complete without a salad.
- Make us solicitous for the health of the little folks.
- Call for ripe red raspberries, blackberries and—cream.
- Breezes are at a premium, the sun at a big, big discount.
- Make an afternoon siesta, if not a necessity, something nearly akin to it.
- Avoid great day's works, and labor moderately in the hours before noon.

Pickle Your Peaches.

There is no more universally approved pickle than this. Take good, ripe peaches—freestones, if you can get them, if not take the Lemon Cling, whose excellent flavor will in a measure make up for the annoyance of the adhesive pit. Peel the peaches with a small, sharp, bright knife, or remove their skins by the quicker process of soaking them five minutes—not more—in boiling water, then throwing them into cold water, and rubbing with a rough towel. The skin of the fruit will come off by this process with the utmost ease. Have your spiced vinegar ready, well skimmed and boiling. A safe proportion is one quart of vinegar to three

pounds of sugar, into which put in a gauze bag, half an ounce each of stick cinnamon and whole cloves, with two peppercorns and a piece of ginger root as large as your thumb. Put in fruit enough to be quite covered with the liquor—the amount as above directed will take about seven pounds of the peaches—and put a plate over them while cooking to keep the top layer from rising out of the liquor. Then simmer gently till the fruit is quite soft, when it should be carefully taken out and put in a stone jar, and the vinegar poured over it while hot. Seal immediately and put away.—*Good Housekeeping*.

The Cottage Hearth for August.

The demand of the general reader seems to be for short stories. In none of the current magazines is this tendency more fully recognized and better met than in the August number of *The Cottage Hearth*. In "The End of a Love Story," by Dora Reed Goodale, we are given an episode in the life of a plain New England girl.

Herbert H. Smith recounts a very novel experience with "Some Formidable Fishes" commonly found in the rivers and lakes of Brazil.

In the story of "Will," by Whitmarsh Seabrook, the author presents the true name and history of the negro who is immortalized in the poem, "How He Saved St. Michael's." One of Daudet's best short stories, "The Child Spy," which has never been presented to American readers before, is translated for *The Cottage Hearth* by Gustave Ferrier. The regular departments offer unusual attractions, and are filled with just the practical suggestions that housekeepers like. Handsome illustrations add interest to the stories and articles. (W. A. Wilde & Co., Boston, Mass.)

The Young Folks.

Jap Miller.

Jap Miller down at Martinsville's the blamedest feller yit!
 When he starts in a-talkin' other folks is apt to quit—
 'Pears like that mouth o' his'n' wus'n made for nuthin' else
 But jes' to argify 'em down and gether in their pelts.
 He'll talk you down on tariff er he'll talk you down on tax,
 And prove the pore man pays 'em all—and them's about the fac's!
 Rellgen, law er politics, prize-fightin' er base ball—
 Jes' teach Jap up a little and he'll post you 'bout 'em all.

And the comicalist feller ever tilted back a cheer
 And tuok a chew tobacco kinder like he didn't keer.
 There's where the feller's stren'th lays—he's so common-like and plain
 There hain't no dude about old Jap, you bet you, rary grain!
 They 'lected him to Council and it never turned his head,
 And didn't make no difference what anybody said;
 He didn't dress no finer, ner rag out in fancy clothes;
 But his voice in Council meetin' is a turrer to his foes.

He's fer the pore man ever' time, and in the last campaign
 He stumped old Morgan county, through the sunshine and the rain,
 And helt the banner upwards from a-trailin' in the dust,
 And cut loose on monopolies and cuss'd and cuss'd and cuss'd!
 He'd tell some funny story ever' now and then, you know,
 Tell, blame it! it wuz better'n a jack-o'-lantern show!
 And I'd go furdur yit, to-day, to hear old Jap orate
 Than any high-toned orator 'at ever stumped the State!

W'y, that air blamed Jap Miller, with his keen, sarcastic fun,
 Has got more friends than any candidate 'at ever run.
 Don't matter what his views is, when he states the same to you,
 They allus coincide with your'n, the same as two and two.
 You can't take issue with him—er at least they hain't no sense
 In startin' in to down him, so you better not commence—
 The best way's jes' to listen, like your humble servant does,
 And jes' concede Jap Miller is the best man ever wuz.

ABRAHAM LINCOLN IN NEW ORLEANS.

Denton Offut, merchant, of Springfield, Ill., in the summer of 1831, wanted to send a lot of corn, pork, and live pigs to market. He could load a flat-boat on the Sangamon, float it to the Illinois, down that stream to the Mississippi, and thence to New Orleans. He could not go himself, but must have somebody whom he could trust. Just how it came about we do not know, but in some way he learned that Abraham Lincoln, who had just driven an ox team from Indiana, and who was living near Decatur, had already made a successful trip down the Mississippi, and that he was honest and could be trusted. Offut had no boat, and must build one. Lincoln was just the man, for he had worked with his father as carpenter, could hew timber, and make mortises.

A few weeks later Lincoln and John Hanks were at work on the banks of the Sangamon, cutting down trees, sawing planks, and building the boat. They were so diligent that in four weeks from felling the first tree it was completed, launched, loaded with barrels of pork and bags filled with corn, and floating down the Sangamon. It was supposed that the boat would glide over the dam at New Salem, but it grounded instead, and they were obliged to obtain a canoe, carry the corn to the shore, and reload it after getting the boat below the dam. Farther down stream they were to take a herd of pigs. But the animals had no intention of being driven on board. They could not be coaxed by corn strewn on the ground. Lincoln was not to be fooled, and by main strength carried them in his arms one by one upon the boat. The cargo completed, they floated into the Illinois, and upon the current of that river to the Mississippi, and thence to New Orleans.

Planters are there from Mississippi and Louisiana to obtain slaves to work in the cotton fields. The two boatmen saunter into the mart, and behold negro men, women, boys and girls standing on a bench around the walls of the room, the planters looking into their mouths, as they would look at the teeth of a horse. The auctioneer proclaims their good qualities as he would those of a horse or mule. Maybe they are members of a church—Christians—therefore regarded as more valuable than irreligious slaves. His hammer falls. A husband and wife are forever separated. Children never again will behold their

father and mother. Abraham Lincoln goes out from the auction room with his blood on fire. There is a choking in his throat, a quivering of his lips, as he turns to his fellow boatman, "If I ever get a chance to hit that thing, I'll hit it hard, by the eternal God!"

Who is he to hit the "thing" a blow? He is a boatman, splitter of rails, teamster, backwoodsman. Nothing more. His poverty is so deep that his clothes were in tatters, and he could hardly appear in public till Nancy Miller made him a pair of trousers. What position of influence or power is he likely to attain to enable him to strike a blow? The "thing" which he would like to hit is incorporated into the frame-work of society, and legalized in half of the States composing the republic. It is entrenched in church and state alike, accepted by doctors of divinity as beneficent to the human race, as authorized and blessed by Almighty God. It is a political force, recognized in the constitution, entering into the basis of representation. Is there the remotest probability that he ever will be able to smite such an institution? Why utter the words? Why raise the right hand toward heaven and swear a solemn oath? Was it some dim vision of what might come to him through divine Providence in the unfolding years? Was it an illumination of spirit that for the moment forecast an impending conflict between right and wrong in which he would take a conspicuous part? Was it the whispering to him by a divine messenger of the unseen realm that he was to be a chosen one to wipe the "thing" from the earth, and give deliverance from bonds to millions of his fellow men? If we conclude that the words only fell from his lips by chance, their utterance, taken in connection with what he did in giving freedom to 4,000,000 of slaves, is very wonderful.

The pigs, pork and corn sold and the boat disposed of, Lincoln and Hanks took passage for St. Louis on a steamboat. There were slaves on board. As he saw their abject condition and recalled the scene he had witnessed at New Orleans, he became silent, thoughtful and sad. Through life he remembered it.—Harper's Young People.

He Was Full of Nails.

James Kennedy, the "human ostrich," who has made his living for the past eight years in museums by the playful diversion of swallowing broken glass, carpet tacks, nails, screws and miscellaneous bits of hardware, is lying at the city hospital in a precarious condition. A full account was given in the *Republic* several days ago of this anatomical freak whose internal apparatus had, after years of abuse, gone back on him.

Yesterday evening the operation of laparotomy was performed as a last resort, in order to save the patient's life, by the physician in charge, in the presence of a number of physicians of the city, drawn thither by the remarkable case. The result is doubtful, as the patient's life is trembling in the balance.

Dr. Marks, the Superintendent, kindly gave a *Republic* reporter this history of the case: "The young man came here the 21st inst., and complained of a dull, aching pain in his stomach. He told me of the manner in which he had made his living, and I treated him liberally with emetics in order to induce him to vomit. In this way he freed himself of a couple of dozen shingle nails, some tacks, several screws a half inch in length, and bits of broken and pulverized glass. He showed no improvement, in fact showed tendencies of collapse, and the operation of laparotomy was decided upon. He was very emaciated and broken in health when he entered the hospital, and I feared for the result of a dangerous operation, and hence postponed it as long as possible.

"Here is what we found," added the Superintendent, producing fully a pound of shingle nails, sharp-pointed tacks, several screws and a number of bits of broken glass, evidently of lamp chimneys or very thin tumblers. One miscellaneous bunch of shingle nails and tacks was tied together with a white cotton thread, and had evidently been taken at one dose.

"He tells me," continued the Doctor, "that he has followed this sort of thing ever since he was 13 years old; he is now 21. He actually swallowed those things. It was no 'fake,' for here is the hardware to prove his assertions. I want to say right here that his stomach was just like

any other person's. He told me that the Bellevue Medical college of New York had made him a standing offer to pay \$5,000 for his body whenever he should die, so firmly did the college authorities believe that his stomach was unlike that of other persons. I can't say whether Kennedy will live or die. He was very weak when the operation was performed, but death was sure to result if it had not been performed, and as it is he has a fighting chance to recover."—*St. Louis Republic*.

"August Flower"

Mrs. Sarah M. Black of Seneca, Mo., during the past two years has been affected with Neuralgia of the Head, Stomach and Womb, and writes: "My food did not seem to strengthen me at all and my appetite was very variable. My face was yellow, my head dull, and I had such pains in my left side. In the morning when I got up I would have a flow of mucus in the mouth, and a bad, bitter taste. Sometimes my breath became short, and I had such queer, tumbling, palpitating sensations around the heart. I ached all day under the shoulder blades, in the left side, and down the back of my limbs. It seemed to be worse in the wet, cold weather of Winter and Spring; and whenever the spells came on, my feet and hands would turn cold, and I could get no sleep at all. I tried everywhere, and got no relief before using August Flower. Then the change came. It has done me a wonderful deal of good during the time I have taken it and is working a complete cure." © G. & GREEN, Sole Man'fr, Woodbury, N.J.

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Copious rains are reported to have fallen throughout Kansas on the evening of August 9. In a few localities the injury to late corn had proceeded so far as to seriously decrease the yield which had been expected, but throughout most of the State a good crop is now assured.

A press dispatch says: "The statement of the Chicago, Milwaukee & St. Paul railroad for the fiscal year ending June 30, shows gross earnings to be \$32,283,508; net earnings, \$11,468,503." What would be the reduction in freight and passenger rates on this road under a system of government ownership and operation without profit?

Electricity is rapidly displacing horses for the propulsion of street cars in Topeka. The electric and the horse car company were consolidated several weeks ago, and as rapidly as the tracks can be changed to the proper width and otherwise arranged for the electric cars the horses are disappearing. This will relieve about sixty horses of hard monotonous work.

Farmers should entrust their boys with business, and see to it that they perform it properly. No farm boy is ready to begin farming for himself until he has been taught to use his brain as well as his muscle. The farmer who permits his children to own stock or a small patch of ground and handle the proceeds is indeed wise. He is giving them the most vivid and effective kind of instruction.

President Gompers of the American Federation of Labor is reported to have said that it is more than likely that the American Federation of Labor, 600,000 strong, would boycott the steel made by the Carnegies at Homestead and other places. This, if it actually comes to pass, will practically paralyze the big building operations all over the country. It will also stop railroad and government boat building. Is it possible that the statesmanship of this age can only bid capitalists and laborers to fight out their differences?

Col. D. Rogers, editor of the St. Paul Market Record, after a thorough canvass of the situation in Minnesota and the Dakotas, puts the total yield of wheat in the three States at 130,000,000 bushels, as against 160,000,000 last year. The yield in Minnesota and South Dakota will almost equal the phenomenal crops of last year, but the outlook in North Dakota is disappointing. Col. Rogers places it at 60 per cent. of last year's yield, but Mr. Cordin, of the Northern Pacific Elevator Company, talks very dejectedly about the situation, and says the crop will not exceed 40 per cent. It has been greatly injured by the hail storms and the intense heat of the past ten days.

HAD BETTER REMAINED ON THE FARM.

The latest number of the Ohio Farmer contains two inquiries from young farmers in that State desiring information as to leaving the farm. Their complaints are that they are able only to make a living and that the end of each year finds them no further along the road to fortune than they were twelve months before. Such inquiries are not infrequent, and it is probable that no question is more frequently considered by the young man on the farm than that as to remaining a tiller of the soil or seeking a livelihood at some other occupation.

Not long since the writer enjoyed a visit from a friend of former years whom he had known intimately on the farm and with whom his most vividly remembered association had been in a Kansas hay field in which we waged a sometimes doubtful warfare with the wind in the effort to secure the crop of prairie hay. Our friend, who has scarcely reached middle age, left the farm and became a civil engineer, climbing by hard work from the subordinate post of rodman to the higher position. He finally was able to command a salary of \$250 per month and his expenses, having passed from engineering to the work of railroad construction. He has been in almost every part of the republic of Mexico and to-day enjoys the reputation of the most efficient track-layer in that country. This naturally led him to contracting, at which he has been engaged for a few years, sometimes making money rapidly and sometimes losing heavily.

Now boys, don't go wild over this young man's success (?) in life, but hear what he, as an honest man, said about it: "I often think," said he to the writer, "that it would have been better for me never to have left the farm. I have been without anybody to look after me and have had nobody to care for. I have lived in that wild country, among its shiftless people, most of the time in camp. When track-laying I was up at 4 in the morning, and often found no time to eat from that until 10 at night." We cannot repeat here the full story of our friend who feels that no money consideration can compensate for the sacrifices he has made, sacrifices of personal comfort and health, of social enjoyment, of opportunities to keep abreast of the advances of civilized society. True, he has had leading American periodicals sent to him wherever he has journeyed, and has found resting hours in which to read them, but for all this he feels somewhat out of joint with the age. Had this young man remained on the farm his energy and the sacrifices he has made should by this time have made him as well off financially as he is to-day, he would have been better read, doubtless have had a home and home surroundings, and instead of now feeling that he has lost a number of years of his life in a struggle against deserts, swamps, boiling suns, disease, hunger, and drunken and half savage men, making of himself a railroad-building machine, would now feel that each year had added to his development into manhood and useful citizenship.

But, boys, you of course are not mapping out any such career as that of the writer's friend. Your picture of a career away from the farm has the rough places all left out; it probably is more modest as to the successes than the above, but it presents also less arduous efforts, fewer hardships, and a nice, easy career, with good and certain pay, and amid all the influences of civilization.

Many have sought such a career. Do you know any who has found it?

But the KANSAS FARMER is far from believing that every boy who is reared on the farm should make farming his life work. It is really difficult to see where sufficient supplies of strong and diligent men for other exacting avocations could be obtained were the farmer boys all locked within their gates. But it is not the farmer boy, who wants to have it easy, who goes to the front in other pursuits, but rather he who is able and willing to do heavy work and make sacrifices, and this editorial, it is hoped, will tend to prevent rashness in rushing into unknown fields.

Again, in no department of human activity is more development now in progress and in sight than in farming. The government experiment stations throughout the country are developing and sending out valuable information on

every subject connected with agriculture. The inventors of the age are perfecting year by year the machinery which lightens the muscular drudgery of the farm and calls for more intelligence and skill. It is not the man who undertakes to apply all of the methods described by the experimenters or to use all of the machines urged by the agents and builders who succeeds, but it is the careful, studious, energetic man who is to be the successful farmer of the future, who is to hold an enviable position in the fierce competition which is to be met.

As land grows scarcer competition for its ownership will increase and eventually only he who can use it to the greatest advantage will be able to hold it. In the struggle which has already reduced the vast majority of those engaged in other pursuits to wage-earners—the struggle for existence and for possession of the opportunities of life—only the well-equipped, the strong, the energetic, will be able to command the situation and stem the tide which will sweep all mediocre into subordinate positions. Young man, if you love the farm, if you understand the practical work of the farm, if you are competent, if you are energetic, if you desire work with mind as well as body, read much, study well your business, put your energies into it, and you will probably say by the time you have reached middle age: "It was better for me that I remained on the farm."

INCREASE OF FARM RENTERS IN MAINE.

The study of statistics where conscientiously pursued often leads to surprises. In the spread-eagle, 4th of July style of laudatory gratulation common to demagogues, the farmers of the United States have been assured that they are the wisest, best looking, most honest, and most to be envied people upon the face of the earth, and that they are continually increasing in wealth and prosperity. The laborers of this country have been equally well assured of their enviable lot; but their case is not to be considered in the present article.

Movements affecting vast bodies of men are usually slow in their action, especially at their inception, and it is only by comparing statistics of considerable periods that the most important changes are, in many cases, to be detected. Our census investigations, occurring, as they do, every ten years, furnish reliable basis for economic studies.

It will not be disputed that the most desirable situation for the farmer is that of ownership of the land which he cultivates. If it were shown by each succeeding census that a larger proportion of the tillers of the soil than formerly were owners of the land the fact would be hailed as an indisputable evidence of prosperity.

The United States Census office has just issued a bulletin of "Statistics of Farms, Homes and Mortgages and Ownership and Debt in Maine." Now Maine is well understood to be situated in the land of steady habits, and to be tolerably free from speculative influences likely to disturb the regular order and natural development of her institutions and economics. In 1880 the number of farms in Maine owned by the occupants was 61,528, and the number of hired farms was 2,781, or 4.32 per cent. were hired. In 1890 the number of owned farms was 57,391, and the number of hired farms was 4,731, or 7.62 per cent. were hired. There were 1.78 times as many hired farms in proportion to the number of owned farms in 1890 as in 1880, or the increase was 78 per cent. Dividing this number by ten to get the yearly rate we find that in the staid old State of Maine the proportion of hired farms has increased at the rate of 7.8 per cent. It is but a simple question in arithmetic to estimate that in no great number of years, at this rate, the happy, thrifty farmer of Maine who cultivates his own acres will have disappeared. This movement is indeed less rapid and has proceeded less far than in some of the leading agricultural States. Thus, it was shown in the KANSAS FARMER of April 20 that the census report gives the percentage of rented farms to owned farms as 33.25 in Kansas and 37.10 in Ohio, and that at the rate of increase in these States from 1880 to 1890 less than fifty years will be required to reduce the last Buckeye and Jawhawker farmer to a renter. The latest census bulletin shows that the force

which is operating so rapidly in the great agricultural States is at work less rapidly but nevertheless surely in Maine.

The habit of mortgaging farms has also prevailed somewhat in Maine, and the farms of that State have this kind of ornaments to the amount of \$6,741,922, on which the farmers pay interest amounting to \$422,116 annually. The average rate of interest on Maine farm mortgages is 6.26 per cent.

OFFICIAL REPORT OF KANSAS CROPS.

The July report of Secretary Mohler, of the Kansas State Board of Agriculture, was issued August 5. It is as follows:

The abstracts of assessors' returns have been received at this office from all the counties with the exception of Mitchell. Estimating the wheat, corn and oats of Mitchell county the same as that of last year, the official returns of the State make areas of these crops for this year respectively as follows:

The winter wheat area of Kansas this year is 3,808,791 acres, an increase of 226,785 acres, or 6.33 per cent. The spring wheat area is 309,873 acres, an increase of 157,069 acres, or 70.4 per cent.

The corn area is 5,594,807 acres, an increase of 385,573 acres, or 7.4 per cent.

The area sown to oats last spring, as returned, is 1,613,798 acres, an increase of 315,052 acres, or 24.26 per cent.

The yield of wheat, so far as threshing has been done, indicates: First—That the estimate per acre in the eastern belt, as represented a month ago, is fully sustained, but will probably not be raised. Second—That the estimate of yield per acre in the central belt, as reported by our correspondents, is too low, but how much it should be raised cannot be determined until a larger proportion of the crop is threshed. The yield so far as reported, however, would seem to warrant an average yield per acre of 18 bushels, or 1½ bushels more than a month ago. Third—That the estimated yield per acre as reported a month ago, for the western belt, is also too low and would seem to warrant an average yield per acre of 15.2 bushels, or 1 bushel higher than reported before. Since 81 per cent. of the total winter wheat area of the State is in the central and western belts, the total winter wheat product for the State will be raised considerably above the estimate of a month ago.

Including spring wheat, the total aggregate wheat product of the State will reach 65,000,000 bushels and probably more. About 75 per cent. of the wheat of the State is reported in the stack August 1, and the entire crop of the State is saved in excellent condition, and the quality as reported by thresher and miller is very superior.

An average yield of oats per acre for the State of 25.3 bushels, which, on the acreage reported, gives a total oats product for the State of 40,927,515 bushels.

CONDITION OF THE CORN.

The north half of the eastern belt reports that the condition of corn July 31 is 82 per cent. The south half 80 per cent. The north half of the central belt reports the condition of corn 72 per cent. The south half 71.5 per cent. The north half of the western belt reports the condition of corn 80.5 per cent. The south half 65 per cent. The area planted to corn in the eastern belt as reported is 2,917,359 acres. The area planted to corn in the central belt as returned is 2,320,800 acres. The area of corn as reported for the western belt is 355,648 acres, of which 295,874 acres are in the north half of the belt, and 59,774 in the south half.

The condition of corn for the entire State is reported 77 per cent. of a full average, or a loss of four points since the report of a month ago, with the exception of the southwest portion of the State, embracing eighteen or twenty counties, in which the corn area is very small. The corn condition of the State is fairly good—in some counties it is excellent—and since the fields are generally well cultivated and clean of weeds, with favorable conditions from this on the outlook is good for a fair average crop.

Summary of crop conditions, compared with full average: Corn, 77 per cent.; broomcorn, 80.4; tame grasses, 81.6; prairie grass, 83; castor beans, 78; barley, 81.6; sorghum, 86; potatoes, 70; millet, 80.6; apples, 32; grapes, 82.

The rainfall during the month of July was quite light and the heat was intense for much of the time, threatening serious damage to the corn crop of the State, especially in the central and western belts. On July 27 and 28, however, a general rain fell, extending to all portions of the State. While some localities were missed, crop conditions in the State, as a whole, were vastly improved, and being succeeded by lower temperature, both plant and animal life were very greatly relieved.

Chinch bugs are reported in all portions of the State. In some places they are numerous, but up to the present time no great damage has been done. Corn adjacent to wheat fields has suffered most. If timely rains and cooler weather come, damage to the crops by the bugs will probably not be serious. Many farmers of the State are testing Prof. Snow's process of exterminating bugs by artificially spreading a fatal disease among them, and generally the experiment is pronounced a success.

With favorable crop conditions during August, the output of Kansas farms for the year will probably not fall below that of any previous year.

TO OUR CROP REPORTERS.

The KANSAS FARMER reports will be delayed until our issue of August 31, in order that something definite may be given regarding the corn crop. It is important that our readers may have this compiled information as well as the speculators, who are sparing no expense to secure accurate information for their benefit.

We want the actual facts regarding the points named below, and ask each of our reporters, as well as any of our readers who will do so, to give briefly information concerning the following: (1) Average, yield per acre and quality of wheat, oats, rye, barley. (2) State the condition and prospects for corn. (3) How will the hay crop compare with last year? (4) What is the condition of fall pastures? (5) What are the prospects for apples, potatoes and broomcorn?

Be sure to prepare and mail report not later than August 26 or 27. We want reports from every county. Our subscribers are requested to help out our regular reporters this time. Send postal-card reports, giving county and postoffice, and sign your name to the report.

RECIPROCIITY.

The "summary statement of the imports and exports of the United States for the month of June, 1892, and for the twelve months ending the same, compared with the corresponding period of 1891," contains official statements of the trade of the United States with countries with which reciprocity treaties are in force. Similar statements contained in the May summary were noticed in these columns, and showed results somewhat disappointing to the friends of the scheme with the horrible name. The June showing is in the same direction as that of May. Since reciprocity went into effect with the countries with which we have these trade treaties we have made an increase of our exports to those countries over corresponding periods without reciprocity amounting to \$8,132,329, and during the same periods have increased our imports from those countries by \$68,163,857, so that for every dollar we have added to our sales under reciprocity we have added over eight dollars to our purchases in the countries affected, and have increased the balance of trade with those countries against us by \$60,024,237. The increase of exports scarcely exceeds the increase in exports of breadstuffs, which may have resulted from the shortage in the wheat crops of countries from which these reciprocity countries have formerly drawn their supplies, so that it is uncertain whether the increase of our exports can be referred to any but natural causes. This increase may disappear when foreign wheat-growing countries shall have recovered from their famines.

A GREAT AGRICULTURAL STATE.

None of Kansas' numberless friends keeps a more careful outlook upon all that pertains to her prosperity than does the Kansas City Star. In reviewing the latest crop report of Secretary Mohler, that paper says: "The great increase in the area of all grain crops in Kansas as reported by the Secretary of the State Board of Agriculture yesterday shows a progress in agricultural development that is positively marvelous. It will be remembered that drouth last fall stood in the way of seasonable planting of wheat and unprecedented rains all through the spring delayed corn planting to such an extent that it was feared that farmers would be unable to get a full area of crops planted. Certainly there were thousands of acres which remained unplanted because of the unfavorableness of the seasons. Yet so active and arduous were the farmers of the State that the winter wheat area last fall was increased by 226,000 acres and the spring wheat 157,969 acres, raising the total wheat area of the State to 4,118,664 acres, which exceeds by almost a million acres the wheat area of any other State in the Union. In two years the increase in the Kansas wheat acreage has been more than doubled. This marvelous transformation in the agricultural character of the State has been accomplished so quietly that the world has hardly discovered that Kansas is far and away the chief wheat State in the Union.

"This great increase in wheat area has not been accomplished at the expense of other crops. On the other hand, the corn

acreage this year was increased by 385,573 acres and the oats area by 315,052 acres.

"Here is an increase of more than a million acres in three crops in a single year of extraordinarily unfavorable weather during the planting season of every crop. It is evident that farmers have not neglected their work to attend Alliance meetings this year. All the reports from Kansas indicate that vast areas of ground are being broken for planting in wheat this fall, and it is among the possibilities for the Kansas wheat area in 1893 to reach close to 5,000,000 acres.

"Kansas is right now passing through the era of her most marvelous progress in agricultural development. And she is not making any noise about it, either."

HOW TO OBTAIN PROF. SNOW'S DISEASED CHINCH BUGS.

THE UNIVERSITY OF KANSAS,
LAWRENCE, August 3, 1892.

EDITOR KANSAS FARMER:—Replying to your esteemed favor with enclosure, of the 1st inst., I am engaged in sending out inoculated bugs and have been for the past two months. For a while in July we were sending out almost one hundred lots of infected bugs a day. We are now sending out about twenty-five lots a day. Reports have not come in in sufficient numbers to say definitely of the success of the workings this year. My field agent, however, reports about the usual percentage of successes, viz., 75 per cent. The demand for infected bugs was so great that the laboratory supply of bugs affected with the fungus (*Sporotrichum*) has been almost entirely exhausted. We are at present sending out no fungus-infected bugs. We hope soon to be in condition to renew the sending out. We are, however, sending out bugs from our bacterial infection cages and shall be greatly interested to hear the reports of the results of the field experiments with this infected material. I shall be glad to send infected bugs to Nebraska on application. There is, of course, no expense whatever connected with the application for bugs; all that I ask is that the experimenter shall make a careful detailed report of the work. The field work is called experimental still. I do not at all insure a successful experiment, though the large percentage of successful results continues my great confidence in the work.

I return you herewith letter from Nebraska Farmer Co., as requested.
Lawrence, Kas. F. H. SNOW.

BENEFITS OF THE FAIR TO ENGLAND.

The Liverpool (England) *Journal of Commerce* thinks that one of the most important movements of late years making for freedom of trade is the Chicago Exhibition of 1893. The very *raison d'être* of a general show of the manufactures of the world is to advertise the countries in which particular classes of goods can be more cheaply and more ably produced than anywhere else, and it is only these classes of goods that rise to any importance in the list of exports. The *Journal* thinks that when the English manufacturers place upon cottons, woollens and machinery the prices at which these articles can be produced and sold, a very decided stroke will be scored for freedom of trade. The English paper continues: "We can scarcely think that the hard-headed clear-thinking Americans will fail to be impressed with the significance of these figures when attached to actual objects. The farming classes of America, who are prevented from multiplying their exports to this country by many times even the present large figures, surely cannot help realizing the wonderful advantages which they would receive if the purchasing power of their money were increased, as it would be by the adoption of free trade. It is to the farmers we look as the ultimate settlers of this great question, and the growing power and influence of the Farmers' Alliance is one of the best signs of a complete victory. Hitherto the towns have had all their own way, and the millionaires of New York have simply jerrymandered the tariff to suit their pockets. Every penny of their gains has been wrung from the suffering farming class, and we look forward with impatience to the time when the agriculturists of America will assert themselves, and insist on the proposition that the one living and healthy industry of the country shall not be kept from its due development to fill the pockets of speculators."

KANSAS WEATHER-CROP BULLETIN.

Bulletin of the Weather Service of the Kansas State Board of Agriculture, in co-operation with the United States Weather Bureau, for the week ending August 8, 1892:

The rainfall is about normal in Phillips and Norton counties, but over the rest of the State it is practically nil, being confined to light local showers. Atchison reports .33 inches, Kiowa .31, Colby .12, Minneapolis .10, and Abilene and Sedan .04 each.

The temperature has been excessive throughout the State, there being a departure of 6° from the normal at the central station. The maximum reached at Manhattan was 105°; at Offerle, Edwards county, 106°; at Oswego, 108°; at Abilene, 100°; and at the central station, 98°. The week has given more than the average amount of sunshine over the greater part of the State.

Corn is rapidly pushing forward, and in some localities the early-planted fields are nearly past the need of rain. Over the greater portion of the State no serious damage has yet been done by the absence of rain, but it is proving unfavorable to corn, pastures and fodder crops, and good rains would now be beneficial in all localities.

Threshing is rapidly progressing, and haying is in full blast, the weather being favorable for securing the crop in good condition.

Plowing for wheat has begun in many localities, but is retarded by the heat and unfavorable condition of the soil.

THE SUGAR BOUNTY.

The sugar bounty law requires that all sugar planters applying for bounty under the law shall file their application with the internal revenue bureau in July. These applications are in and number only 611, against 701 last year, or a decrease of 13 per cent. on the number of sugar manufacturers, showing that the disposition continues towards the consolidation of the plantations into larger ones. As usual, planters own two, three and even more plantations. The actual number of individuals or firms receiving the bounty will be only 450.

The planters' estimates last year were for a crop of 50,000,000 pounds, the bounty on which would have been \$11,000,000. The crop, however, proved a partial failure, and the amount actually received in Louisiana was only \$7,500,000. The bounty paid this year will be larger—between \$8,000,000 and \$9,000,000. If the weather continues as favorable as it has been it will reach the latter figures.

FROM STAFFORD COUNTY.

EDITOR KANSAS FARMER:—Wheat is being threshed in this county at a lively rate and it is averaging about fifteen bushels per acre in this vicinity. The average last year was about seventeen bushels per acre. The quality is considerably better than last year. It will test sixty-two pounds per bushel. Last year fifty-four pounds was about the average of most of the wheat in this county. Oats is fair in quality but will not make over twenty-five bushels per acre. Straw very short. Last year oats made an average of forty-five bushels per acre. Our old corn is all gone and the new crop is very short. Unless it rains in the next three days corn will be an entire failure in this county. We are having hot, dry winds from the southwest and one-half of the crop is killed at present writing. Our hay crop is very short on account of dry weather; not much alfalfa sown in this county; the prairie grass is dry enough at present to burn and has caught fire from the threshing engine and made big fires for the boys before it could be put out.

S. W. McCOMB.

Stafford, Kas., August 8, 1892.

It was thought that the very wet spring of this year had disconcerted the alleged rain-makers, but men built as they are are not so easily driven away from their game. They are back in Kansas, and with their apparatuses, their incantations and their wonderful nerve, are canvassing among the farmers in the western part of the State, securing orders for waterfalls. It seems ridiculous that these men should succeed in their very funny and frivolous business, for to sensible people the idea of an ordinary man having a pull on the weather, is very ludicrous. But they are succeeding, and, being occasionally as-

sisted by Jupiter Pluvius, very cleverly convince the unwary sons of the soil that they are running things just to suit themselves.—*Topeka Lance*.

Commercial Orchardring Pays Well.

EDITOR KANSAS FARMER:—We have read the article on "Commercial Orchardring," by H. C. Raymond, in your issue of the 27th ult., and are surprised at the bold and unjustifiable assertion that fruit-growing, in the future, will pay only just about the same as corn and potatoes.

It is a well-known fact, so far as Kansas is concerned, that only early potatoes succeed, unless heavily mulched, and as to corn, forty bushels per acre is a good average crop.

The best test of the net value of grain crops, is the rental which land commands for general crops, which, in southeast Kansas and southwest Missouri, will not exceed \$2 per acre. We have read the original article, published by Hon. G. Y. Stone, to which Mr. Raymond refers, and will send printed copies of it to any parties desiring it, upon application. It is too long to ask you to publish. Suffice to say that Mr. Stone has been Attorney General of Iowa, and besides being a lawyer, is conceded to be one of the best posted horticulturists in the country, whose reliability is unquestioned. In that article, Mr. Stone shows a net profit of over \$200 per acre on an orchard running for a period of thirty years. But Mr. Stone says, "While these results are fairly attainable, if a high state of the art is practiced, they never can be reached by a man who never cultivates his trees in their early life, or never wages war on insect enemies, or who pastures his orchard with heavy stock, or permits the grounds to remain compactly sodded, or takes annual crops of hay therefrom." But to come directly at Mr. Raymond's assertions, we challenge him to name a single commercial orchard in either Kansas or Missouri eight years from planting, that has had even half decent care, which has netted the owner as low as \$25 per acre, and from our observation and information, as gathered from the horticultural reports of the two States, the average is at least \$35 per acre, while good cultivators, like Mr. Wellhouse, get much better results. Of course, we do not know personally about Mills county, Iowa, but from all we can learn, it is fully as good as our States. Now, as to cost of growing a commercial orchard, will say: In orchards of 160 acres or over, the total cost of trees and care up to eight years from planting, will not exceed 50 cents per tree, or on land planted forty feet east and west and twenty feet north and south, giving fifty-four trees, \$27 per acre.

We have known the Missouri Pippin apple to net \$40 per acre at six years from planting. The truth is, that an apple tree eight years from planting, will average to pay 10 per cent. interest on \$8 per tree, while the cost is but 50 cents. But another fact is equally true, that ninety-nine out of every one hundred farmers will insist on planting crops from which they can get returns the same year, hence, the planting is never overdone.

The apple belt of this country is comparatively small, and good winter apples have always been worth \$1 per barrel in the largest crop years for export to foreign countries, and doubtless will continue to be.

In conclusion, we consider the article of Mr. Raymond an uncalled for attack on commercial orcharding, which cannot be substantiated by the facts in the case. It is true, we are large producers of fruit trees for sale, but we also have an orchard of 240 acres just coming into bearing, and the size of our orchard is only limited by the capital which we can spare from our business. HART PIONEER NURSERIES.
Ft. Scott, Kas., August 4, 1892.

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Horticulture.

EXPERIMENTS IN ROOT-PRUNING.

By Thos. L. Brunk, Professor of Botany and Horticulture, Maryland Agricultural College and Experiment Station.

It has long been the belief that in removing a tree from the nursery, the ideal operation would be to save every root and rootlet intact, that the shock of transplanting may be reduced to the minimum. Downing states: "A transplant should never forget that it is by the delicate and tender points or extremities of the root that trees take up their food, and that the chance of complete success is lessened by every one of these points that is bruised and destroyed. If we could remove trees with every fiber entire, as we do a plant in a pot, they would scarcely show any sign of their change of position. In most cases, especially in that of trees taken from nurseries, this is by the operation of removal nearly impossible. But, although we may not hope to get every root entire, we may, with proper care, preserve by far the larger portion of them, and more particularly the small and delicate fibers."

Thomas says: "If a tree could be removed with all its roots, including the numerous thread-like radicals and all the spongetlets, and placed compactly in the soil, precisely as it stood before, it would suffer no check in growth. The nearer we can approach this condition, therefore, the greater will be our success."—*American Fruit Culturist*, page 59.

Numerous citations could be made similar to the above; in fact I do not find that any of our highest authorities vary from the ideas expressed in them. They all advocate transplanting a tree with as many roots attached as it is practicable to remove it with. It would seem at first that there is overwhelming evidence against any other course of reasoning that may be applied to this subject. The roots are the absorbing organs which take up from the food-stored soil all the water and the larger part of the mineral and solid foods which enter into the composition of a tree. It seems irrefutable that if any of the absorbing area is removed the tree is thereby shortened in its food-supply in the same direct proportion. It must be admitted that this is true if done during the growing season, when the "sap" (protoplasm) of a tree is in a state of activity; but is it the case during the period of rest, when the "sap" is in a thickened, inactive, non-transferable condition? It is the conditions a plant takes on during its inactive stage that do not seem to have been considered by our older writers on practical horticulture. Plant physiologists have understood these conditions well, and have shown that "sap" does not "go down to the roots" in fall and return to the parts above ground in spring, as is so commonly believed. They tell us (and common observation proves it) that the "sap" toward fall gradually thickens and ripens as growth above lessens, till finally it becomes completely immobile; but during this inactive stage it does not lose its powers to return to active life when the warmth of spring returns.

In this stage of a woody plant parts of it may be removed that may become new individuals if placed under proper conditions of heat and moisture. Most of our fruit trees may be propagated from either cuttings of shoots or of the roots. If a piece of a tree (cutting) will start to grow without roots, what must that argue as to the condition and nature of the sap within such cuttings? Microscopic sections of such cuttings show that the young wood cells are stored full of starch and other concentrated food materials. When spring comes, with plenty of heat and moisture, this stored food is transformed into those simpler and easily transferred food materials which a plant can use in growth.

This requires but a slight amount of water, which is readily absorbed through the bark of young shoots and through the thin-walled cells at the cut end. This starts growth and activity. But before growth can proceed to any appreciable extent, the cutting must make provision for a specialized absorbing surface in the soil. This is done by throwing out at first a set of delicate, multiplying cells from the layer of young, growing and dividing cells just beneath the bark at the lower end. This white ring of protruding cells is known technically as the "callous." Nurserymen usually assist cuttings to

form this callous early in the season and before placing them in the nursery row, so that root growth may be sure to precede leaf growth, as leaf growth before the initial steps of root formation takes place usually proves fatal to the cutting.

From this callous the young rootlets proceed rapidly, and as they operate in an area so near the cutting it is fed with less effort and more rapidly by a few roots than it could be by a greater number located farther away. Moreover, it is learned from a rooted cutting that it forms a set of roots that take a direction in the soil similar to those of a seedling of the same variety; or, in other words, forms its roots both in point of direction and penetration into the soil, and in a uniform radiation about the trunk compatible to its nature and habits of growth.

Some authorities state that a cutting makes a "duck-footed" set of roots. Observation over a wide field of kinds of cuttings, and of latitude and climate in which they have been grown, thoroughly disproves to my mind any such statement. I have seen Le Conte pear cuttings grown upon the heaviest clay subsoil of the coast region near Galveston, Tex., that had sent down vertical roots, penetrating that soil over four feet in the first season. Piece-root grafted trees also send out new roots deep or shallow, according to the nature of the variety.

From these facts and observations, and from the promiscuous accidental tests made by several growers in various parts of our country of planting trees whose badly-mutilated roots had nearly all been removed, and such trees proving to be more vigorous and uniform in growth than those planted with plenty of roots, I was led to make some inquiry into this seemingly contra-physiological condition.

Accordingly, in 1889, some tests were made in a small way with nursery trees and stock, which gave results conclusive enough to show that an important subject had been undertaken, and that it would justify a test on a larger scale. In April, 1890, 170 Reeves Favorite peach trees, ninety-five Lawrence pear trees, budded on Japan stock, ninety-five Ben Davis and ninety-five Red Astrachan apple trees—all budded maiden trees—were procured for this test. One-third of each of these kinds were root and top pruned, leaving only prongs of roots one to three inches long; one-third were pruned so that the roots were from five to seven inches long, and the remaining third were not root-pruned, except that the ends of badly-mutilated roots were removed. The tops were in every case removed, leaving the apples about two and a half feet long, peaches twenty inches and pears about sixteen inches. No selection was made from the total number of trees for each lot, except that the poorest rooted ones, when otherwise of the same vigor, were selected to be pruned, thus giving a seeming advantage to the unpruned trees. I might say here that the top was not cut uniformly at just a certain distance from the roots, but about the distances mentioned above, and with special reference to five or six good buds to be used as the basis of future limb growth.

The trees were all set side by side in a uniform soil, about six inches deep, in a common plow-furrow. Those that were root-pruned were set with three or four times the speed of those with a mass of roots, to be carefully placed and arranged as they were in the nursery. They all received fair culture with a common Iron Age cultivator, such as would be given by any good orchardist. Notes were taken several times during the growing season, and at intervals a few of each set were taken up and the growth and character of the roots noted. Photography was freely used to record the features of growth.

By July 11 the unpruned peach trees had made a considerable more growth than the root-pruned trees. The apples and pear trees showed at that time only slight differences of growth in favor of the unpruned trees. The first few months the root-pruned trees do not start a very rapid growth, but by fall overtake or exceed the growth of the unroot-pruned. We did not lose a single tree from any of the sets.

By fall the unpruned peach trees had made a little more growth than the root-pruned, but they were not of as even a growth as the root-pruned.

In case of the pears, the root-pruned were far more uniform in growth, and any one could see that they had outgrown

those that had started the season with a full set of roots.

The apples showed about the same growth in both cases; no one could have told which was which by fall without the map. The examinations of the roots during the summer developed some interesting facts. The first thing noticed on removing the trees from the soil was that the old roots had retained all their malformations, twistings and horizontal positions they had acquired some way in the nursery or in packing. At least they were just the same as they would have been if set out by the most careful planters. Nearly all the young feeding roots grew from the tip-ends of the old roots, leaving them bare even when over a foot long. Only an occasional new lateral root was found. This threw all the absorbing surface some distance from the trunk. Plant physiology gives us a general law which states that the farther sap has to travel and the more devious its path of transfer from the root absorbents (root hairs) to the leaves, the less the growth and vigor of that plant in a given period of time. Sap is retarded in its circulation, and wood formation cannot go on as rapidly as in cases where the sap travels short, direct paths. In all young trees, wood is the first and indispensable product of growth to form a proper basis for future fruitfulness. After a tree is well developed and supplied with strong, stocky branches, it is then time to retard the sap flow and cause fruit buds to form.

In the root-pruned trees the young rootlets sprang as readily from the large circle of cambium at the ends of the short root stubs as from the ends of the longer roots. They came out, too, in greater numbers than on the old roots on unpruned trees, the ratio being ten to three. These young roots clustered close about the trunk of the tree, making the least possible distance for the sap to travel. It seemed evident, also, that new roots developed much faster where the sap traveled short distances. The cut ends by fall had, in most cases, completely healed over, leaving no place for rot to start.

Another very important feature in the growth of the young rootlets noted is that those on the unpruned roots took about the same direction of growth in the soil as the old root was placed when planted. If horizontal, the young roots grew off horizontally; if inclined downward at an angle, the young roots assumed about the same angle. In the root-pruned trees the young roots had very little to guide their growth, leaving them to take such angles as are found in seedling roots of the same variety. In other words, they were put into such a condition by a removal of nearly all the roots back to the collar that they could take on a new root system compatible with their nature, needs, and seedling habits of growth. By the old method, an unnatural system of roots are forced upon a tree. This system of roots is usually irregular, one-sided, and poorly directed in its growth. Such trees are usually surface-rooted, having but few, if any, deep penetrating roots with which to supply the tree with an abundance of water. Drouth and deep freezing are agents that act upon and shorten the lives of such trees.

The newly-formed roots on the root-pruned peach trees were found to penetrate the soil at an average angle of about 40°. Those on unpruned trees were mostly horizontal and surface-feeding. The pear was about the same as the peach, with perhaps more that penetrated deeper from the root-pruned trees.

The Ben Davis apple followed its old record of holding its roots rather close to the surface. The cramped and irregular condition of the unpruned trees is in contrast with the symmetrical condition and position of those on the root-pruned.

(To be continued.)

Wild Goose Plum.

EDITOR KANSAS FARMER:—Five years ago the papers were publishing such glowing accounts of this wonderful plum. By paying 75 cents for one-year-old trees, some parties got some of them and they turned out to be the largest, sweetest and most prolific small fruit ever seen; good for pies, preserves, jellies, and canning. It is a sight to see the loaded limbs bending down to the ground with such delicious fruit, which begins bearing in three years from seed, requiring no grafting, as they reproduce themselves from seed, and at five years will furnish several bushels.

I am 65 years old, and never saw anything to equal them; have proved to be the best selling fruit on the market at big prices; have never failed or been bothered with insects; do well North or South. They should be planted twenty feet each way to give them room, as the trees are said to grow very large.

Now, in order that you and friends may get a start, I send by mail some seeds and sample of fruit. If any of your subscribers wish to try them, I will send seeds if stamps are sent to cover packing and mailing.

They make an excellent hog food, answering for both food and water, as they come in at a season when water is scarce; and many think they keep off hog cholera. An acre orchard will fatten more hogs than ten acres of corn, besides saving the expense of cultivating, gathering and feeding, which is no small item. As there are two kinds, late and early, the plum season may be extended to two or three months.

Buckner, Mo.

C. E. COLE.

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Wilson's Fall Catalogue for 1892 containing price list and description of new and most productive varieties of Seed Wheat, White Rye and Winter Rust-proof Oats, Fruit Trees, Small Fruits, Strawberry plants, Apparatus roots, &c., for Fall planting. Also thoroughbred land and water fowls, mammoth bronze Turkeys, registered Pigs, German Hares, &c. Catalogue with five samples of best kinds of Winter Wheat sent FREE on application. Address SAMUEL WILSON, Mechanicsville, Pa.

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In the Dairy.

The Greater Food Producer.

Aside from the extra care required to obtain, prepare and care for the food products of the cow, there is scarcely a comparison to be made between the desirability of the cow and steer as farm animals. The superiority of the cow over her brother in this respect is forcibly set forth by Prof. Henry, in the *Breeder's Gazette*, as follows:

"The dairy cow is a far more economical producer of food than the fattening steer. A steer which has produced a pound of meat net a day for the whole year through has done very well indeed, and for this result it is necessary to supply a large amount of concentrated feed as well as pasture and roughage. A dairy cow of the same rank as this steer would produce not less than 300 pounds of butter a year, for which there would be required not less than 250 pounds of pure fat. But fat is only one of the three leading constituents of milk, and our cow gives in addition about as many pounds each of milk, sugar and caseine as there are pounds of fat. Besides this there are a good many pounds of phosphate, useful in building up bone. A good cow will give about three times as many pounds of water-free substance in her milk in a year as the steer will of flesh and fat during the same length of time.

"And the cow continues to do this year after year, while the steer is killed at about two years of age and another one grown to take his place. Then, in the matter of feed, the steer requires a much larger life ration than the cow and this adds to the cost of the meat he is making. On the other hand, the cow requires more attention than the steer, as she must be milked twice a day for nearly, or quite, eleven months of the year. Prof. Henry concludes: 'Compared with our best steers what a wonderful machine for the production of human food is such an animal as Signal's Lily Flagg. Besides the thousand pounds of butter, this animal must have manufactured during the year not less than 350 pounds of milk sugar, 350 pounds of caseine and 75 pounds of bone material. No wonder that our dairymen become enthusiastic and are lost in amazement in contemplating these phenomenal creatures.' Truly, a good cow is a wonderful machine for the production of human food."

Firm Butter Without Ice.

Most housewives know how difficult it is to keep their butter firm during the hot weather, and how unpleasant it is to find the butter almost like oil. Well, here is a cooler described by our contemporary, *Work*, which has four advantages: (1) It costs practically nothing—a great consideration in these struggling days. (2) It is perfectly equal to any refrigerator. (3) It is quite simple, and capable of being cleansed easily. (4) It is based upon sound scientific and hygienic principles. To make it, get an ordinary flower-pot (unglazed, of course), a saucer and a glazed plate or dish. These are all that are necessary. Thoroughly clean the flower-pot inside and out, and dry it in a current of air, or the sun; then soak it well in clear, cold water. Place the butter upon the inverted saucer; stand the saucer in the dish, which you must fill with cold water, taking care that the water is not high enough to reach over the top of the saucer; and then place the flower-pot over the saucer, and your cooler is made. It will keep your butter hard in the hottest weather; the hole at the top will allow free access of air, and the porous sides of the pot will hold the water, and yet permit the air to percolate through. This kind of cooler has been tried during a severe run of hot weather, and has been found to act beautifully.

"A recent decision of the United States Supreme court, on appeal from the United States Circuit court of Massachusetts, greatly weakens the force of the national oleomargarine law, and may, perhaps, render it practically inoperative," says the *Rural New Yorker*. "The law provides that dealers in artificial butter shall keep book accounts and make such returns as shall be required by the Commissioner of Internal Revenue, but no penalty is provided for a failure to do so, so that the door is left open for an evasion of the law. Under the late decision, manufacturers need not keep records of sales or of the amounts of oleomargarine they make, and the internal revenue officers will therefore find it practically impossible to secure information on which to base their demands for taxes. Thus the decision practically almost nullifies the law, and unless needed amendments are promptly made, it must become a dead letter. Farmers should take prompt action in this matter and write at once, individually and through their various organizations, to their Representatives and Senators, urging them to make without delay the needed amendments."

Put Not Your Faith in Princes,

But rely implicitly upon the power to cure of Hostetter's Stomach Bitters, the third of a century old remedy for malaria, dyspepsia, debility, constipation, liver and kidney inactivity, rheumatism and nervousness. To make you eat, sleep and digest well this is the tonic. The delicate, the aged and convalescent use it with advantage. A wineglassful thrice a day.

The Poultry Yard.

Chicken Cholera.

We receive letters every day asking for a reliable cure for chicken cholera. To answer all these letters would occupy our entire time. We should be serving as a veterinary physician for the grandeur of the thing. We have no license for the purpose, no diploma authorizing us to practice, and no particular ability in that direction, if we had.

We know, however, a sure recipe for the disease in question. It is no secret, and its use will trench on nobody's vested rights. We take this method of answering the many questions asked us, by stating that the only reliable cure for this disease is to prevent it.

Chicken cholera proper is caused by indigestion, and the malady is not discovered till it becomes practically incurable; but as almost every ailment affecting the internal arrangement of our domestic fowls is denominated cholera, we propose to show what produces it and what will prevent it—we confess that we know of no way to cure it, except by chopping off the fowl's head.

This and kindred diseases are produced in some of the following ways:

1. By allowing fowls to become very hungry and then suffering them to gorge themselves on sour or fermenting food.
2. By allowing them to drink stagnant or filthy water.
3. By suffering them to roost in damp and filthy localities.
4. By confining them in large numbers within limited space.
5. By allowing them to gorge themselves upon carrion or other putrid substances.
6. By neglecting to provide pure water, to be drunk whenever nature demands.
7. By feeding uncooked corn meal, wet up with a little water and eaten before the water has all been absorbed.
8. By neglecting to provide proper shelter from drenching rains and chilling winds.
9. By feeding unsound grain, unwholesome seeds or decaying vegetables.
10. By confining them or suffering them to roost in unventilated quarters.

These items do not cover the whole category of causes, but the inquiring housewife can, doubtless, find a reason for her misfortunes. A hen is a hardy fowl. She will endure much hardship and be little the worse for wear, but wholesome food, pure water and clean quarters she must have, or disease will surely result. Can

Barb-wire Cuts.

Apply Phénol Sodique before inflammation sets in. He will hardly know he is hurt. Better late than never. For man and all animals.

If not at your druggist's, send for circular.

HANCE BROTHERS & WHITE, Pharmaceutical Chemists, Philadelphia.

Look out for counterfeits. There is but one genuine. Better cut the advertisement out and have it to refer to.

we reasonably expect a fowl to bear what would kill a human being?

The preventive is obvious. It costs nothing but a little attention to details.

The disease is not contagious, as many suppose, but the same cause which produces it in a single fowl will produce it in a hundred. There is no need of buying empirical "dead-shots," for they are worse than useless, and the money paid for them is thrown away. Give your fowls a dry yard, food at regular periods, water in abundance, comfortable shelter with perfect ventilation, and they will laugh at the disease to which neglected and badly-treated fowls fall easy victims. —Our Home Journal.

Whitewash.

The making or mixing up of whitewash is not fully understood by every person. The following methods have proved themselves good. By all means, if you have not already, make a whitewash and go on the inside of your poultry-house.

1. Slack in boiling water, one-half bushel of lime, keeping it just fairly covered with water during the process. Strain it to remove the sediment, that will fall to the bottom, and add to it a pound of salt dissolved in warm water; three pounds of ground rice boiled in water to a thin paste; one-half pound powdered Spanish whiting, and a pound of clear glue dissolved in warm water. Mix the different ingredients thoroughly and let the mixture stand for several days. When ready to use, apply it hot. If a less quantity is desired, use the same proportions.

2. A good whitewash for use upon outside work may be prepared as follows: Slack in boiling water one-half bushel of lime and strain as before. Add to this two pounds of sulphate of zinc and one pound of salt dissolved in water. If any color but white is desired add about three pounds of the desired coloring matter, such as painters use in preparing their paints. Yellow ochre will make a beautiful cream color, and browns, reds, and various shades of green are equally easily obtained.

3. Another excellent wash, lasting almost as well as ordinary paint may be prepared for outside work as follows: Slack in boiling water one-half bushel of lime. Strain so as to remove all sediment. Add two pounds sulphate of zinc, one pound common salt, and one-half pound whiting, thoroughly dissolved. Mix to proper consistency with skimmed milk and apply hot. If white is not desired, add enough coloring matter to produce the desired shade. Those who have tried this recipe consider it much superior, both in appearance and durability, to ordinary washes, and some have not hesitated to declare that it compares very favorably with good lead paints. It is much cheaper than paint, and gives the houses and yards to which it is applied a very attractive appearance. —Fanciers' Gazette.

No other Sarsaparilla has the merit by which Hood's Sarsaparilla has won such a firm hold upon the confidence of the people.



"WORTH A GUINEA A BOX."
In the family are more often the result of disordered digestion than most people know.
BEECHAM'S PILLS will keep peace in a family, by curing Sick Headache, Weak Stomach, Impaired Digestion, Disordered Liver, Constipation and all Bilious and Nervous Disorders arising from these causes.
Covered with a Tasteless & Soluble Coating.
Of all druggists. Price 25 cents a box. New York Depot, 365 Canal St.

The increase of population in France during the last five years amounted to only one-half of 1 per cent.

BUTTER AND CHEESE MAKERS' MANUAL, advertising Chr. Hansen's Danish Butter Color and Rennet Preparations, sent free by J. H. MONRAD, 58 N. Clinton street, Chicago, Ill.

MAKE YOUR OWN CHEESE.—Send \$1.00 to C. E. Kittinger, Powell, Edmunds Co., S. Dakota, for ten rennets and complete instruction for making cheese at home. Simple process. Failure impossible.

Hay-Fever Sufferers

Should read our new 112-page book on the treatment and cure of Hay-Fever and Asthma. Sent free on application.

"I have been a sufferer from Hay-Fever and Asthma from birth—26 years. I have tried all remedies that came to my notice without permanent relief. I am pleased to say that your medicines certainly cured me to stay cured."
W. L. WEDGAR, Roslindale, Boston, Mass."

P. Harold Hayes, M. D.,
716 Main St., Buffalo, N. Y.

The smallest Pill in the World!

Tutt's Tiny Pills

To purge the bowels does not make them regular; it leaves them in worse condition than before. The liver is the seat of trouble and the remedy must act on it. Tutt's Tiny Liver Pills act directly on that organ, causing a free flow of bile, without which the bowels are always constipated. Price, 25c.

USE TUTT'S HAIR DYE;
a perfect imitation of nature; impossible to detect it. Price, 51 per box. Office, 39 & 41 Park Place, New York.

"ACTINA,"

The Great Restorer!

ONLY CATARRH CURE. THROW AWAY YOUR SPECTACLES.

ACTINA is the marvel of the Nineteenth Century, for by its use the **Blind See, the Deaf Hear, and Catarrh is impossible.** Actina is an absolute certainty in the cure of **Cataracts, Pterygiums, Granulated Lids, Glaucoma, Amaurosis, Myopia, Presbyopia, Common Sore Eyes, or weakened vision from any cause.** No animal except man wears spectacles. **THESE NEED NOT BE A SPECTACLE USED ON THE STREETS OF THE WORLD, AND RARELY TO BE SEEN WITH STREET GLASSES ABANDONED.** Actina also cures **Neuralgia, Headaches, Colds, Sore Throat, Bronchitis and Weak Lungs.** Actina is not a snuff or lotion, but a **Perfect ELECTRIC POCKET BATTERY**, usable at all times and in all places by young or old. The one instrument will cure a whole family of any of the above forms of disease. **A VALUABLE BOOK FREE** on application. Contains Treatise on the Human System, its diseases and cure, and thousands of References and Testimonials. Beware of fraudulent imitations. See that the name **W. C. Wilson, Inventor, Patent No. 341,713**, is stamped on each instrument. None genuine without. **AGENTS WANTED TO CONTROL TERRITORY FOR TERM OF PATENT. LARGE INCOME CAN BE MADE. WRITE FOR TERMS.**
New York & London Electric Assn.
1021 MAIN ST., KANSAS CITY, MO.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER.

FARCY.—I have a horse that I think has the farcy. I would be pleased to know whether I can cure him or not.

ANSWER.—If your horse has the farcy there is no cure for him and there is danger that he may communicate the disease to other horses.

SORE HEEL.—I have a mare that has had a sore on her heel for four years. There is a knot about half as large as a hen's egg.

ANSWER.—If caustic will not remove the knot it may have to be removed with the knife before it will heal.

The Farmer in Politics.

Among the men in this country who are able to take a broad and liberal view of subjects of public importance, none are better informed or more correct in their estimates of men and movements than Hon. J. M. Rusk, Secretary of Agriculture.

"The new organizations of the farmers are an indication of the growth of their intellectual life. They are thinking for themselves, and their ideas show that they are awake and that they are studying their own interests.

The Secretary of the Illinois State Board of Agriculture publishes estimates of this year's crops, placing the winter wheat crop at 32,830,718 bushels, most of which will grade No. 2.

We learn that in a recent decision of the United States Circuit Court of Appeals, in New York city, the Whitman Agricultural Co., of St. Louis, Mo., won a final victory over P. K. Dederick, of Albany, on balling press patent.

The Southwick Balling Press, for sale by the Sandwich Mfg. Co., Kansas City, Mo., Station "A."

A CASE OF CHILLS AND FEVER Of Long Standing Finds a Cure.

Extract from a Medical Lecture by Dr. S. B. Hartman.

Several years ago a man forty-five years of age, from a malarious district, came a long distance to consult me for a chronic malarious affection for which he had doctored without intermission for over ten years.

His complexion was of that dirty yellow so characteristic of old ague patients, and his sunken, lusterless eyes, surrounded by dark circles, indicated how completely his health had been undermined.

For this man I prescribed Pe-ru-na and Man-a-lin as directed on the bottles, the Man-a-lin to be used until the bowels became regular and digestion good.

This case is one of which there are thousands in every malarious district who have been many years and still are searching for something to bring relief to their miserable condition.

For a complete treatise on Malaria, Chills, and Fever and Ague, send for The Family Physician No. 1. Sent free by The Pe-ru-na Drug Manufacturing Co., Columbus, O.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City, August 8, 1892. CATTLE—Receipts for forty-eight hours, 5,182 cattle, 1,402 calves. Market steady.

St. Louis, August 8, 1892. CATTLE—Receipts, 4,582. Market not strong. Native steers, \$4 00@4 85; Texans, \$2 50@3 30.

Chicago, August 8, 1892. CATTLE—Receipts, 17,000. Market steady. Natives, \$3 50@5 50; cows, \$1 50@3 25; Texans, \$2 50@3 50; westerns, \$2 90@4 20; stockers and feeders, \$1 50@3 50.

GRAIN AND PRODUCE MARKETS.

Kansas City, August 8, 1892.

WHEAT—Receipts in forty-eight hours, 264,000 bushels. There was a general upward movement in this grain. Better cables and more bullish feeling in Chicago caused buyers to bid prices up all around.

HARNESS FROM \$5.00 UPWARDS. This cut shows our \$5.50 Harness which we make a specialty of and DEFY COMPETITION. BARKLEY \$10.00 ROAD CARTS and upwards.

bushels. A sharp advance was had in this grain, continued hot and dry weather making the "shorts" anxious and encouraging and increased demand from this quarter; and what offering was soon placed.

St. Louis, August 8, 1892. WHEAT—Receipts, 327,000 bushels; shipments, 98,000 bushels. Market opened stronger, closing 1@1 1/4c higher than Saturday.

Chicago, August 8, 1892. WHEAT—Receipts, 253,000 bushels; shipments, 389,000 bushels. No. 2 spring 79c; No. 3 spring, nominal; No. 2 red, 79c.

Wool—Receipts, 226,000 pounds; shipments, 67,400 pounds. Market steady. Missouri and Illinois—Medium, 20a22c; coarse and braid, 18a 19c.

TYLER BROTHERS, GRAIN COMMISSION, Kansas City, Mo. Usual advances on consignments. Daily official Market Report furnished on application.

HALE & McINTOSH Successors to Hale & Painter, LIVE STOCK COMMISSION MERCHANTS, Kansas City Stock Yards, Kansas City.

HARVEST EXCURSIONS!

Will be run on AUGUST 30 and SEPTEMBER 27

The Pecos Valley

The Fruit Belt of New Mexico. Tickets may be bought at any important railway station, in the Northern or Eastern States, to EDDY, NEW MEXICO, and return, GOOD TWENTY DAYS, at ONE FARE FOR THE ROUND TRIP.

ENGINES

UNION LABEL. If you want to buy a strictly first-class outfit at low figures, address The W. C. LEFFEL CO. Greenmount Av. SPRINGFIELD, O.

MORGAN Spading Harrow. The Best all around Rotary Harrow and Pulverizer. NO EQUAL for Fall plowed land, Stubble, Vineyards and Peach Orchards.

WOOL SHERMAN HALL & CO. COMMISSION MERCHANTS, 122 MICHIGAN ST., CHICAGO, ILL. Warehouse, Nos. 122 to 128 Michigan St., Nos. 45 to 53 La Salle Avenue.

WOOL HAGEY BROS. COM. CO. ST. LOUIS, MO. Office, Cor. Main and Olive Streets. Warehouses, 222-224 North Main Street, 223 and 225 N. Commercial Street.

The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. This department is intended to help its readers acquire a better knowledge of how to live long and well. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

Eating in Hot Weather.

"What shall I eat in hot weather?" is a question that asks itself to many a thinking man and woman. But the asking does not answer the question. "Their meat in due season," is the physical right of every human being. Much attention is paid to the matter of "summer drinks," but who ever heard any discussion of "summer foods?" Yet the need for summer foods is quite as great as that for "summer drinks." In winter, we must eat for two purposes—to nourish the body and to warm it. In the physiological world as in physical, carbon is required to produce heat through chemical action. Coal or wood in the stove and oxygen from the air are the prime requisites for combustion and heat. Carbonaceous food digested and brought into contact with the air in the lungs and capillaries is the prime requisite for calorification of the body. In cold weather the temperature of the atmosphere is many degrees lower than the normal temperature of the body, and for that reason mostly, there is a much more rapid waste of heat from the body than in weather where the atmosphere is much nearer the temperature of the body. In these days, when the thermometer ranges from 90° to 100°, comparatively little carbon is required in the food to maintain the 5° to 8° of heat difference between the atmosphere and standard bodily temperature of 98½°. If more caloric is produced in the system than is needed to maintain 98½°, then the surplus must be thrown off by a more vigorous respiration and transpiration through the sweat glands, and that taxes the body needlessly. Nature will only appropriate enough of either kind of food to maintain the standard equilibrium of nutrition or calorification. All surplus of food is rejected from the economy unused, mostly by the chemical process of decomposition, which converts the surplus into primary gases, which escape from the body in various ways.

It will be readily seen that nearly all fat foods, which are largely carbonaceous, should be avoided in hot weather, and that the nutrient foods, the grains and fruits and vegetables, should largely preponderate in the summer dietary.

People in the tropics live largely on fruits and vegetables the year round, adding somewhat of fish and oysters, etc., which contain but small quantities of fat.

Let this be your guide, as the weather grows hotter: Eat less and less of fat meat and butter, less of all starchy food, such as potatoes, white bread, rice and corn bread. But return gradually to them in the autumn as the weather cools down. Eat in hot weather not over two-thirds as much of any kind of food as in cold weather, and eat largely of vegetables and fruits, with bread made from entire or whole wheat flour, and a small quantity of lean meat, fish, game, etc. Leave off all fat gravies and greasy compounds.

A thousand people, probably, die from eating too much where one dies from eating too little in the ordinary conditions of life in this country. At all seasons, one may safely eat an abundance of milk and eggs, for they are the two only foods in market containing all the chemical and nutritive elements of the body, and in the proper proportion for perfect nutrition.

Towards the close of his life Thomas Jefferson said that he had no regret for ever having eaten too little, but had many regrets for having eaten too much on many occasions. As a rule people eat too much and thereby lay on themselves a serious tax. But that tax is only partly payable in money, representing the unnecessary cost of the surplus food, but the balance of the tax is the added labor imposed on the system of getting rid of the surplus. And that very tax is a good many times the cause of the premature funeral. If a man's physical frame is over-worked he must break down prematurely. If his physiological organization is over-worked, it of necessity breaks down before its allotted time.

Well Machinery Send for illus. cat'g. Peck Mfg. Co., 60 4th St., Sioux City, Iowa.

Stomach and Longevity.

Find a well preserved old man and you will generally find him with a pet theory as to how longevity can be encouraged. The Treasurer of a Connecticut railroad who died a few years ago in his 101st year, and who worked in his office every day up to his 100th birthday, said he attributed his long life to the fact that he had never allowed a pound of bolted flour in his house, and had never in his long life tasted bread made from bolted flour. Another old gentleman who had reached the ripe age of 90 years thought he owed his long life to the fact that during the last 40 years of it he had taken his toddy regularly three times a day. Another said his long life was due to his regular hours, and when told that Peter Cooper was irregular in his hours, ate late suppers, etc., and still lived to within a few years of 100 replied: "Well if he'd been regular he might have lingered over into his second century." Gladstone insists that he owes his long life and hearty old age to perfect digestion, and his perfect digestion to the fact that he never swallows a bolus of food before he has chewed it thirty-two times. Think of that, you human ostrich, as you stand before a railroad lunch counter and swallow thirty-two boluses with one chew. Think of it and then, as dyspepsia, biliousness, headache, neurasthenia and bad temper and paresis, too, come rolling in on you, wishing in vain that you, too, had done as the g. o. m. has.—Cincinnati Times-Star.

Are You Anxious

To better your condition by seeking a new location for a home in a rich, healthy and productive section? If so, take advantage of the Home-Seekers' Excursion on August 30 and visit what is now commonly called the Aransas Pass country, located in south Texas. Lands are cheap, rich and productive. Climate, which is an important factor in selecting a home, very healthy. The first bale of cotton marketed in the last five years came from this section. All kinds of small grain do well. Vegetables of all kinds ripen and are marketed weeks in advance of any other section, thereby realizing to the producer the highest cash prices. Orchards are being planted, and vineyards now producing grapes equal in quantity and quality to those raised anywhere, many of the vineyards realizing as high as \$400 to the acre. One need only visit and inspect this country to be convinced of its desirability as a farming country. By purchasing tickets to Rockport, Corpus Christi, Beeville or Kerrville, one has an opportunity of seeing nearly all of Texas. If you will write to J. H. Littlefield, 105 North Broadway, St. Louis, Mo., or to R. W. Andrews, San Antonio, Texas, you can obtain free maps and descriptive pamphlets.

Fiber Report No. 4, just issued by the United States Department of Agriculture, is a report on flax culture for fiber in the United States and was prepared by Charles Richards Dodge, special agent in charge of fiber investigations. It contains a very full report on the field experiments made during the season of 1891, especially those conducted under the auspices of the experiment stations of several States, and a chapter on methods of culture, including preparation of the soil, quantity of seed sown, harvesting of the crop, etc., with instructions in regard to the retting and cleaning of flax. Mr. Eugene Bosse, a practical Belgian flax-grower, now a citizen of the United States, who served for some time last year as a special agent of the department in the Northwest, contributes an interesting report on his observations in Wisconsin, Minnesota, Iowa, and South Dakota, concluding with a special report on flax culture in Wisconsin and Minnesota. A chapter on flax culture in Ireland and Belgium is contributed by Mr. Henry Wallace, of Des Moines, Iowa. There is also a chapter on flax culture in Austria, and another on flax culture in Russia. Statistics of flax culture in the United States based upon the results of the eleventh census are included in an appendix. The publication will be mailed to those applying for it to the Secretary of Agriculture, Washington, D. C.

Lyon & Healy, the music firm of Chicago, now publish and mail free upon application, fifty-four different catalogues which describe and illustrate everything from a fife to a church organ. And it pays them, too, for great is the power of printer's ink.

A School Girl's Composition.

Miss Ella Potts, a Chicago teacher, told her pupils one "composition day" that they might each write a letter to her making an excuse for not inviting her to an imaginary birthday party. The scholars were called upon in turn to read their letters aloud. One little girl made her excuse as follows: "Dear Miss Potts: I want to apologize for not asking you to come to my birthday party yesterday. I fully intended to do so, but—as I always do in everything—I put it off until the last minute. When at last I started, and reached your gate, I saw the doctor's buggy standing there, and, thinking some one was very ill, I did not go in. What was my consternation the next day to learn that the doctor was courting your sister!"

The North Dakota Bureau of Immigration, with office at Jamestown, N. D., desires to correspond with farmers who want cheap lands in the Northwest; colonies preferred. Send address and we will forward valuable information free.

Gem City Business College, Quincy, Ill. Shorthand and Typewriting, Bookkeeping and Penmanship thoroughly taught; twelve experienced teachers, 700 students, cheap board, and the finest commercial college building in America. Graduates readily secure situations.

Beautiful illustrated catalogue, giving full particulars of all departments, will be mailed free. Address

D. L. MUSSELMAN, Principal.

G. A. R. Line of March to the National Encampment at Washington.

The directness of the route, facilities for rapid and comfortable advance, make the Vandalla and Pennsylvania lines the desirable avenues of travel to Washington. The train service is characteristic of the Standard Railway of America: Pullman Vestibule Dining and Sleeping Cars and Modern Day Coaches, marking the highest conception of railway equipment. Connecting lines from the West and Southwest enable passengers to take fast through express trains at St. Louis. Pleasures anticipated by a visit to Washington begin as soon as passage is taken on the luxurious trains of the Vandalla and Pennsylvania lines. Side trip to historic Gettysburg, if desired. Low rates. For details address Chas. E. Owen, Traveling Passenger Agent, Kansas City, Mo.

Better Than a Gold Mine,

Are the rich farming and grazing lands in the fertile Arkansas River valley in south-central and western Kansas now offered for sale by the Atchison, Topeka & Santa Fe Railroad Company on easy terms and at reasonable prices.

These lands are all valuable, being original selections which have reverted to the company on canceled sales. None better can be found, either for stock and general farming or investment.

Fine irrigable fruit lands in the wonderful Mesilla valley, near Las Cruces, in southern New Mexico, equal (except for citrus fruits) to any California fruit lands, are also offered at much less prices than this class of soil usually commands.

For information, apply to John E. Frost, Land Commissioner, A. T. & S. F., Topeka, Kansas.

Half Rate Excursions to all Southwestern States.

The popular "HARVEST EXCURSIONS," for the season of 1892 will be resumed by the MISSOURI PACIFIC RAILWAY, and tickets will be on sale August 30th to September 27th from points in Kansas to Tennessee, Mississippi, Alabama and Louisiana, at ONE LOWEST FIRST-CLASS FARE FOR THE ROUND TRIP, good for 20 days to return, with stop-over privileges for the inspection of lands. On October 25th, the third Grand Excursion will be run under the same conditions to Arkansas, Indian Territory, Texas and a portion of Oklahoma, and to certain points in Tennessee, Mississippi, Alabama and Louisiana. For further information in regard to the purchase of tickets, time-tables, land-folders, maps, etc., address the nearest ticket agent of the MISSOURI PACIFIC RAILWAY, or H. C. Townsend, G. P. and T. Agent, St. Louis, Mo.

A veritable family medicine box, BEECHAM'S PILLS.

Special Club List!

In order that we may save our regular subscribers some money, and at the same time supply the very best newspapers and magazines, we have selected a few representative journals, such as are most in demand, which we offer at a very low combination rate, exclusively for subscribers of the KANSAS FARMER. If more than one paper or magazine is desired, in each case subtract one dollar from the combination rate, the remainder representing the amount to remit for that particular one. We can only supply sample copies of the KANSAS FARMER.

	Regular price.	Clubbed with Farmer.
Breeder's Gazette.....	\$2.00	\$3.50
Globe-Democrat.....	1.00	1.75
Farm, Field and Stockman.....	1.00	1.75
Kansas City Times.....	1.00	1.75
Western Agriculturist.....	1.00	1.25
Daily Kansas Democrat.....	3.00	3.00
Topeka State Journal.....	1.00	1.50
Daily Kansas State Journal.....	4.00	4.00
Topeka Capital.....	1.00	1.50
The Advocate.....	1.00	1.75
Nonconformist.....	1.50	1.75
Kansas City Weekly Star.....	1.00	1.20
Kansas City Daily Star.....	4.00	4.00
Western Poultry Breeder.....	.25	1.20
Fanciers' Review.....	.35	1.20
Alliance Tribune.....	1.00	1.50
American Swineherd.....	.50	1.25
Omaha Bee.....	1.00	1.75
Leavenworth Daily Times.....	3.00	3.00
Leavenworth Standard.....	1.00	1.50
Western Swineherd.....	.50	1.20
Chicago Daily Herald.....	6.00	6.00
Chicago Saturday Herald.....	1.50	2.25
Chicago Horseman.....	4.00	4.00
Clark's Horse Review.....	2.00	2.50
Western Horseman.....	2.00	2.50
Western School Journal.....	1.00	1.75
St. Louis Daily Republic.....	10.00	10.00
St. Louis Republic, Tues & Fri.....	1.00	1.75
Smith's Small Fruit Grower.....	.50	1.25
The Arena with Art Portfolio.....	9.00	5.20
American Agriculturist.....	1.50	2.00
Harper's Magazine.....	4.00	4.00
Harper's Weekly.....	4.00	4.25
Harper's Young Folks.....	2.00	2.50
American Sheep Breeder.....	1.00	1.65
Clark's Horse Review.....	2.00	2.50

Where Will You Spend Your Vacation?

The BURLINGTON ROUTE has on sale round trip tickets at greatly reduced rates to Denver, Colorado Springs, Salt Lake, San Francisco, Portland, Yellowstone Park, St. Paul, Minneapolis, Spirit Lake, the Black Hills, Puget Sound points, and to all tourist points in Colorado, Utah, Idaho, Montana, Wyoming, Dakota, Minnesota, Alaska and California.

For rates and further information, address, A. C. DAWES, Gen'l Pass. and Ticket Agt., St. Louis, Mo.

Java has thunder storms on the average 97 days in the year; Sumatra, 86; Hindostan, 56; Borneo, 54; the Gold Coast, 52; Rio de Janeiro, 51; Italy, 38; West Indies, 36; South Guinea, 32; Buenos Ayres, Canada and Austria, 23; Baden, Wertenburg and Hungary, 22; Silesia, Bavaria and Belgium, 21; Holland, 18; Saxony and Brandenburg, 17; France, Austria and South Russia, 16; Spain and Portugal, 15; Sweden and Finland, 8; England and the high Swiss mountains, 7; Norway, 4; Cairo, 3. In East Turkestan, as well as in the extreme north, there are almost no thunder storms. The northern limits of the thunder storms are Cape Ogle, northern part of North America, Iceland, Novaja Semelja, and the coast of the Siberia ice sea.

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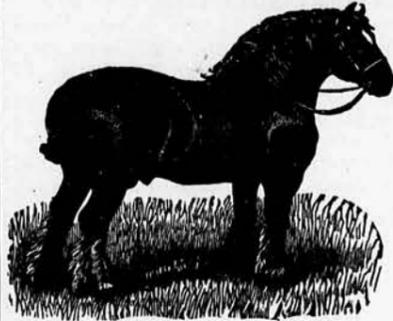
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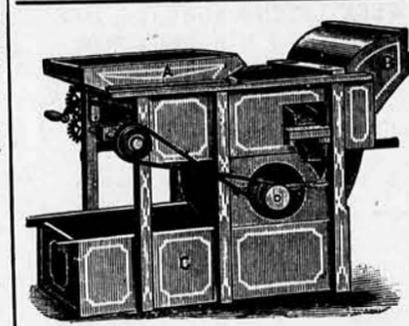
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 [First publication August 3, 1892.]
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 H. H. Parker, Plaintiff, vs. W. H. Warren, Defendant. Case No. 13,974.
 Mark L. Hambridge, Plaintiff, vs. James T. Best, Vesta C. Best, Henry Schlaudt and Martha L. Campbell, Defendants. Case No. 13,778.
 BY VIRTUE of an order of sale, issued out of the District court, in the above entitled case, to me directed and delivered, I will on Monday, the 22d day of August, 1892, at a sale to begin at 10 o'clock a. m. of said day, at the front door of the court house, in the city of Topeka, in Shawnee county, State of Kansas, offer for sale at public auction and sell to the highest bidder for cash in hand, the following described real estate and appurtenances belonging thereto, to-wit:
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 The purchaser will be required to pay cash for said property at the time of sale.
 Given under my hand, at my office, in the city of Topeka, Shawnee county, Kansas, this 29th day of July, 1892.
J. M. WILKERSON, Sheriff.

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WANTED, TO EXCHANGE—A fine registered English Shire stallion for milch cows, Jerseys or Holsteins preferred. Also wanted a man to put fifty to seventy-five cows on a farm and run butter dairy. Farm joins this city and finely fitted up for that purpose. Good offer to competent man with small family who will put on the cows himself. Hog-tight fences, 150-ton silo, all buildings, tools, engine, etc. W. E. Hutchinson, Hutchinson, Kas.

65,000 SHEEP—Of all ages and grades for sale at market prices, from Utah, Colorado and New Mexico ranches. Address H. L. Wells, Room 19, 1638 Curtis St., Denver, Colo.

A FINE 160 ACRE FARM—In southern Kansas, four miles from county seat, two and one-half miles from railroad station and large elevator; all fine farming land; good house, five rooms and good cellar, house newly painted; good barn with hay-mow, will stack two five head of horses; two granaries; all shingled. Eighty-five acres under cultivation; 60 acres fine pasture, fenced with two boards and two wires; 8 acres in timothy, fenced; fine young orchard; two wells; corral; hog lot, 1/2 acres, fenced with three boards and two wires. For price address J. R. Matthews, Newton, Kas.

200 CANVASSERS WANTED—To sell Kansas-grown fruit trees and all other nursery stock for the Seneca Nursery. S. J. Baldwin, proprietor, Seneca, Kas.

FOR SALE—Desirable residence of seven rooms, cellar, cistern, city water, barn, small fruit, shade and fruit trees. Lot 100x150 feet. One block from State Agricultural college. Stone walk to town and college. Address "Gid," care KANSAS FARMER.

STRAYED—June 10, 1892, from ten miles south of Wichita, Kas., one red (sorrel) mare mule, 15 1/2 hands high, 8 years old, in good flesh. Finder please notify Riley & Scarth, 117 South Market street, Wichita, Kas.

\$100 REWARD.—Stolen, on the night of July 2, from my barn in Frontenac, Kas., a black mare, 4 years old, half French Norman, weighs about 1,000 pounds, had a white stripe from top of head to the nose, white spot on one hind leg to the hoof, little white spot on one side of the neck. Taken at the same time a cherry-red saddle, horn broken off and set back on, has sheepskin stitched on inside of skirt. I will pay \$50 for return of mare and \$50 for the arrest and conviction of the thief. Chas. Wagoner, Box 76, Frontenac, Kas. N. Skinner, City Marshal, Pittsburg, Kas.

WANTED—Timothy, clover and English blue grass seeds. F. Barteldes & Co., Lawrence, Kas.

FOR SALE—New crop turnip seeds; twelve varieties. Send for price list. F. Barteldes & Co., Lawrence, Kas.

FOR SALE—Pedigree seed wheats; ten varieties. Send for price list. F. Barteldes & Co., Lawrence, Kas.

TO SELL OR TRADE—Homestead improvement, near Salem, Fulton Co., Arkansas. Say what you have and address R. L. Hankins, Salem, Fulton Co., Ark.

FOR SALE—Holstein-Friesian bull Heptagon No. 9219, certificate of registry the Holstein-Friesian Association of America. Four years old June, 1892. Postoffice address, Berryton, Shawnee Co., Kas.; residence one and a half miles southwest. Purchase can have a bargain. R. V. Sutherland, Berryton, Kas.

FENCE.—The best is the cheapest. In this case the cheapest is the best. Send us 10 cents for full instructions how to build the best fence on earth for 12 cents per rod. (Mention this paper.) Reliance Manufacturing Co., 719-720 American Bank Building, Kansas City, Mo.

FOR SALE OR TRADE—Farm of 230 acres in Elk county, Kansas. For particulars address S. D. Lewis, Howard, Elk Co., Kas.

IMPROVED KANSAS FARMS FOR SALE OR RENT.—For term of years. Well improved Kansas farms of from 100 to 1,500 acres each, all located in the northeast part of Kansas, the garden spot of the State, will be sold or rented for a term of years at reasonable prices. These farms are very choice and are bargains. Address D. R. Anthony, Leavenworth, Kas.

EGGS—Choice Light Brahmas, \$1 per 13, \$1.50 per 28. Wm. Plummer, Osage City, Kas.

FOR SALE CHEAP ON EASY TERMS—One of the nicest located and best improved farms in eastern Kansas. Also a full section under cultivation. For particulars and terms address the owner, C. H. Pratt, Humboldt, Kas.

FOR SALE OR TRADE—Good residences, good farms, good business property, good survey, light road wagon and top buggy. Want good farm near Topeka. Dr. Roby, Topeka, Kas.

MODELS—For patents and experimental machinery. Also brass castings. Joseph Gerdorn & Sons, 1012 Kansas Ave., Topeka, Kas.

FOR SALE—First-class farmers' spring wagons of our own make, very cheap. Kinley & Lannan, 424 and 426 Jackson St., Topeka, Kas.

FOR SALE OR TRADE—One complete Nichols & Shepherd threshing outfit. Will sell for part cash, balance to suit purchaser. Or I will trade for young stock. T. F. Stice, Oswego, Kas.

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THE STRAY LIST.

FOR WEEK ENDING JULY 27, 1892.

Coffey county—O. P. Mauck, clerk. HORSE—Taken up by Job Hulise, in Pottawatomie tp., June 11, 1892, one bay horse, white hind legs, blind in one eye, a little white in forehead, collar marks on neck and shoulder; valued at \$25.

Sumner county—Wm. H. Carnes, clerk. MULE—Taken up by Floyd Smith, of Caldwell, June 20, 1892, one dark bay horse mule, 14 hands high, scar on right hind leg; valued at \$50. MULE—By same, one blue-roan horse mule, 13 hands high; valued at \$50.

Pottawatomie county—T. J. Ryan, clerk. FILLY—Taken up by Geo. P. Morse, in Louisville tp., P. O. Louisville, June 24, 1892, one dark brown filly, 2 years old, a small white spot in forehead, no other marks or brands; valued at \$35.

Chautauqua county—G. W. Arnold, clerk. HORSE—Taken up by James Wilson, of Peru, June 26, 1892, one roan gelding, 15 hands high, 8 years old; valued at \$30. HORSE—By same, one bay gelding, 15 hands high, 8 years old; valued at \$50.

FOR WEEK ENDING AUGUST 3, 1892.

Cowley county—J. B. Fishback, clerk. PONY—Taken up by John B. Collins, of Arkansas City, July 6, 1892, one blue horse pony, 12 1/2 hands high, branded N. C. on left hip, B. on left jaw, bob tail, about 5 years old; valued at \$7.

Hamilton county—Ben A. Wood, clerk. HORSE—Taken up by H. S. Crittenden, of Coolidge, July 12, 1892, one bay horse, 6 years old, 16 1/2 hands high, collar marks, weight 1,100 pounds; valued at \$75.

Morton county—W. L. Harris, clerk. HORSE—Taken up by Chas. A. Wiley, in Taloga tp., P. O. Taloga, July 4, 1892, one bay horse, 15 hands high, branded K on left thigh; valued at \$40. HORSE—By same, one bay horse, 14 1/2 hands high, branded K on left thigh; valued at \$40.

Cherokee county—P. M. Humphrey, clerk. HORSE—Taken up by N. Chestnut, three-fourths mile north of Messer, Shawnee tp., June 30, 1892, one brown or black horse, 7 years old, 15 1/2 hands high, right eye hurt, no marks or brands, shod all around.

Montgomery county—G. E. Evans Jr., clerk. MARE—Taken up by D. C. Jones, in Fawn Creek tp., P. O. Dearing, July 16, 1892, one bay mare, 7 years old, branded N B on left shoulder and T on left jaw; valued at \$20.

HORSE—By same, one gray horse, 4 years old, branded N B on left shoulder and T on left jaw; valued at \$20. HORSE—By same, one brown horse, 3 years old, branded N B on left shoulder and T on left jaw; valued at \$20.

Crawford county—Peter McDonnel, clerk. MARE—Taken up by Wm. Brooks, in Lincoln tp., P. O. Arcadia, July 19, 1892, one black mare, 6 years old, blind in left eye; valued at \$35.

FOR WEEK ENDING AUGUST 10, 1892.

Decatur county—J. C. Frewen, clerk. PONY—Taken up by Jacob Stroup, Allison P. O., one wild bay pony mare, weight 800 pounds, brand on left shoulder, bloated, star in forehead, legs dark, leather halter on.

Atchison county—Chas. H. Krebs, clerk. HORSE—Taken up by F. Prohaska, of Shannon tp., Atchison P. O., July 8, 1892, one dark brown horse, 9 years old; valued at \$50.

Wichita county—H. T. Trovillo, clerk. PONY—Taken up by E. D. Westafer, about July 20, 1892, one bright bay mare pony, star in forehead, branded U on left shoulder, under-bit in right ear, leather halter on.

PONY—By same, one bright bay horse pony, star in forehead, white hind feet, branded U on left shoulder, under-bit in left ear, leather halter on. Shawnee county—John M. Brown, clerk. MARE—Taken up by H. A. Hodgins, in Topeka tp., P. O. Topeka, July 11, 1892, one iron gray mare, about 4 or 5 years old, no marks or brands, weight about 950 pounds; valued at \$45.

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