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Agricultural Matters.

GREAT VALUE OF GRASS LAND. From a lecture by Prof. William H. Brewer

of Yale University.

During the last twenty-five years, since the Pacific railways placed the great Western grazing grounds in competition with our home farms, the growing, the fattening, and the slaughter of farm animals in this State has so greatly depressed that source of income from our farms, that many have come to fear that our old industry of grazing would never come back. I cannot believe this. We have begun to see the reaction, and I cannot but believe, now that the Western pastures are fully occupied and many nearly exhausted, that, with the increasing population and increasing demands, our hills will be more and more devoted to pasturage and our valleys to hay. Even if only for the dairy, this must be the result. It seems to me inevitable. We cannot hope to ever compete with the easilytilled prairies in grain-growing, but we

England has felt the recent agricultural depression much more severely than we have, suffered a much greater decline in the value of farm lands. But I have noticed that the decline in the production of food grains there has resulted in an increase in grass lands. As the fields are withdrawn from tillage, the acreage of grass continually With the introduction of commercial fertilizers forty or fifty years ago, many old pastures there were plowed up and brought under tillage. Now they are going back to grass again. But it will take a generation or more before some of these regrassed fields will have that superlative excel-Pence which formerly made the pastures of that island so famous. Age is as important a factor in excellence with pasture as it is with wine, or old violins. The comparison with old violins is perhaps the better, as age with use is requisite rather than age with-

Old farm lands, if well kept, differ from new ones in several important characters. The differences as found in meadows are somewhat unlike those found in pastures. Their evolution is analogous, however. In both cases there is a difference in the texture of the turf, in the quality of the product, in the kind and number of varieties of grass of which it is constituted, in the specialized character of these varieties themselves, and in their relations to

To better understand these differences let us glance at the process by which an old pasture or meadow is made, the change it undergoes with age, and wherein it is unlike a new one. It is an evolution which goes on under natural laws, an adaptation of the grass to the condition imposed, and, like all of nature's evolutions, it goes on slowly.

Let us begin with an old field, longtilled in crop rotation, and finally seeded down to be hereafter kept permanently in grass. If the land has been tilled for some years the soil is tolerably uniform in composition and in texture from the surface down to the depth reached by the plow. In seeding down usually seed are used kirds of gra Reveral mixed. Unive

veral kinds sowed together such c able to be successful than

if b ase that the destined use Some of the kinds of is for re better adapted to the grass 's; these have, therefore, soil t nd will ultimately prean adv ut those least adapted. vail ar efore, slowly run out. Some ish best early in the Some g season. themselv spots betw first are g entirely covered. dener's story. surface of t he competition From this to between the u is not for the pa land, but a con. other. The roots: dant near the sur.

soon that becomes richer in organic matter, just where it is needed both for the nourishment of the growing plants and for mollifying the texture and other physical properties of the soil. The texture of the turf becomes closer and makes a more elastic as well as tougher and softer carpet. The turf behaves a little differently when pastured by cattle than when by sheep, and still differs again when hay is the main crop. But in their evolution the process is much the same.

Such old pastures have special characters for dairy use, and regions where they abound have always been noted for the qualities of their butter and cheese, even more than for the quantity produced. This is true of highland and lowland alike. The rich pastures of the lowlands of Holland and Denmark are alike famous with those of Switzerland on the Alps. In fact, the very word "Alps" came originally from the mountain pastures rather than from the mountains themselves. These Alpine pastures, centuries old, the ground has never been plowed nor the land seeded by art, the pastures are such as have developed under the special conditions of climate, soil and grazing which exist there. The butter from them is noted all over Europe, and Swiss cheese all over the world.

It is believed that permanent pas tures, if well handled, continue to grow better for fifty or a hundred years; some say for much longer than that. It is nearly forty years since I was in England, but I well remember that English farmers told me that a pasture or meadow had to be at least twenty-five years old to be good, and was not really excellent until the third or fourth rental (forty-two or sixty-three years) at least. There was no other one feature in English scenery which so impressed me as the English turf, whether seen in either the pastures or the parks and lawns. Many of the "parks" are, in fact, pastures. One sees sheep everywhere. Even on the playgrounds of the colleges and schools one sees flocks of sheep, kept there for the benefit of the turf. When Connecticut public opinion shall protect sheep on the Yale athletic field from the dogs, then will Connecticut be able to grow more of the mutton it consumes and the State be richer by very many millions of dollars. Many a hillside, now half-barren, will then be green with turf, and mutton on our tables will be better and cheaper.

The beauty of the turf on old English lawns excites the admiration of all Americans who go there. When I visited the experiment station carried on by Lawes & Gilbert, the plots of grass used to test the effect of fertilizers on the relative abundance of the different species, were taken from the lawn. We do not know how long it has been established," they told us, "we know, however, that there has been neither plow nor spade in it for over 400 years, and it was, therefore, old enough for our purpose." It is not easy for us Americans to appreciate such a fact. When Columbus started on his voyage of discovery, that lawn was already "long established."

A little story, just now floating the rounds of the press, illustrates my the story. An American millionaire, also probably some clover. admiring a grassy lawn in Oxford, said sor," was the reply, "its werry simple, you cuts it as close as ever you can, and you rolls it, and cuts it and rolls it for 600 years, and then you 'ave it."*

That is in principle just what goes on in the evolution of an old pasture, only it is the cattle or sheep that cut or, and these adjust it as close as ever they can, and their other. The bare trampling rolls it, and in many a pastts that existed at ture in the old world that has gone on led up, until the for more than the 600 years of the gar-

> I was put in a contemplative mood 'inds of grass not long ago by reading an account of

with each more abunbe soil, and widely in turf as trees vary in timber. We by seeds sown or by roots planted in from one to three or four years.

a recent sale of cattle described in an English live stock journal. The sale was on an estate occupied by successive generations of tenants since the twelfth or thirteenth century. And in a speech at the dinner which preceded the sale (as is the custom there) the local clergyman wove in some of the history. The cattle were a local breed, "smokyfaced cattle," and he told how that the ancestors of the present tenant were pasturing the ancestors of the present cattle on those same pastures when Edward I. was crowned. Three hundred or more years later, when the reformation was in progress and the near-by abbey was ruined, the same family were grazing their smoky-faced cattle on the same pastures, men tend-ing their herds heard of the beheading of Charles I. and the wars of Cromwell, and the re-establishment of the monarchy under Charles II., and so on down in their local history. How many empires had risen and fallen What momentous events the world had seen while that industry went on stead ily! The grass lands and the business they supported was more permanent than most nations were.

The kind of business prosperity that comes from old grass lands is just the opposite extreme from that known as a 'real estate boom." One means continuous thrift and comfort, the other speculation and alternate wealth and poverty. Nations with grass and pas-tures and meadows are more continuously prosperous than those without, however rich the latter may be.

Compare Holland or Flanders or Denmark, countries with rich pastures and continued fertility, with Italy or Greece. Compare England with its old turf with any Mediterranean country and note the difference. I do not pretend that this is the one cause of the difference, only that it is a cause, a factor, which has both its material and its moral force.

I have alluded to the investigations our experiment station is making of turf grasses. So far as I know they are unique in their methods. It is an effort to investigate them by scientific methods which are not carried on from the strictly botanical standpoint. They might have been made before there was a science of botany. Mr. Olcott, who has change of this work and who devised the methods, is, as many of you personally know, very enthusiastic, and hopeful in his work. He has also a better knowledge of the foliage and habits of the turf grasses than any other man I know of.

For a better explanation of the methods and the character of the work, let me state a few elementary facts and their relation to the investigation. Botanists have described 3,000 or 4,000 species of grasses, of which a very small relative number have much value It may be that the new variety will in forming the turfs of our climate and in other countries similar to ours. As botanists study grasses, their most important characters are those which relate to flowers and seed. By no other set of characters have grasses been satisfactorily classified, so as to ties that grow true to the seed as is be scientifically studied as a whole or the case with our grains and most of their relations to the rest of the vegetable kingdom understood. The unit plants we often propagate the varieties of classification as used by botanists, is only by non-sexual methods, by cutthe species, but the individuals of a tings, grafts, buds, etc. Such is the probably seen by the original teller of species vary among themselves and practice with most of our larger fruits constitute groups known as varieties. and with many ornamental plants, and Varieties are more changeable than only by such methods could our wonexperience shows that in to the gardener in charge, "I would species and are especially liable to be like to have such a turf as this-tell formed as a result of cultivation, or me, my man, how you manage to get when they grow amid the conditions of it," putting his hand into his pocket as cultivation. Hence we have many vaif to pay for the information. "Well, rieties of each species of cultivated plants. All the immense number of varieties of maize doubtless have arisen from one original wild species, and so of the varieties of potatoes, of wheat, oats, barley, etc.

The tendency which plants have to run to varieties to suit the local conditions shows itself even in the uncultivated weeds that infest the fields and gardens. Special varieties adapt themselves to the local conditions they find in cultivated soil, because thus better adapted to fight their way and maintain a hold against the aggressions of the farmer or gardener who tries to kill them.

Over Thirty Years Without Sickness.

Mr. H. WETTSTEIN, a well-known, enterprising citizen of Byron, Ill., writes: "Before I paid much attention to regulating the bowels, I hardly knew a well day; but since I

learned the evil results of constipation and the efficacy of

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Pills, I have not had one day's sickness for over thirty years - not ne attack

that did not read: yield to this remedy. My wife had been, previous to our marriage, an invalid for years. She had a prejudice against cathartics, but as soon as she began to use Ayer's Pills her health was restored."



Medal and Diploma at World's Fair. To Restore Strength, take Ayer's Sarsaparilla,

ous varieties, some more robust or aggressive, others less so, having different capacities to withstand too wet or too dry periods, to stand droughts or other vicissitudes of climate, or to endure or flourish under the grazing of cattle. Let us keep in mind, also, that while the natural tendency of plants is to produce seed and propagate in that way, in crops of grass, either when cut for hay or grazed for pasture, it is foliage, not seed, that is the aim of the farmer.

In nature and in art there are two ways by which plants are propagated; the "sexual" method, through the production of flowers and seed, and the 'non-sexual" method, which includes many forms, such as underground stems in some species, bulbs, tubers, runners, etc., tillering with grains and grasses, etc. In artificial culture, propagation by means of grafts, buds, cuttings, and similar ways belong to the non-sexual methods, and are very extensively practiced. Gardening and fruit-growing could hardly be carried on without this.

Now, in the production of new varieties by nature, the vast majority come through the seed. Some plants of a new generation differ from the parents. perpetuate itself from the seed, more often it does not, at least with that certainty and completeness that farmers and gardeners wish. Hence, in farm and garden practice, where crops are from annual plants, we seek warieour vegetables. When of long-lived derful success have been achieved. In many cases the value of the variety has increased as the tendency to produce seed is reduced. Many of our best fruits produce seed but sparingly, some not at all. We have a familiar example in bananas, which have been so long cultivated and progagated only by suckers, that all the best varieties are seedless. I question if any of you ever saw a banana with seeds, and a variety of seedless grape, known as the Zante current, has been growing without seeds from ancient times.

We grow various crops for foliage rather than for seed; tobacco is a familiar example. Were it grown primarily for its seed, we would use very different varieties and the leaves would suffer deterioration in the interest of the seed-grower.

Precisely so with the turf grasses. Grasses for use on the farm, either A single species may exist as numer- for hay or pasture, are grown for foli-

age and stalks, that is, for the vegetative portion rather than the seed. They are all of long-lived species. How long an individual grass plant will live in a well-kept, permanent meadow or pasture, no one knows, but we know that it may be, and usually is, very long-lived.

I have already said that in nature most varieties probably originate in seedlings. Sometimes, however, they originate in the vegetative part of the plant itself. The variation may extend but a single branch, and there are examples of varieties or ornamental plants which have so originated, the varying branch being propagated and multiplied by means of cuttings.

Turf and meadow grasses not allowed to seed, spread, and keep the ground covered by non-sexual methods. Varieties arise as abundantly as with other cultivated plants. However they originate, whether from some chance seed or from some vegetative variation, if they spread in a meadow or pasture it must be by non-sexual methods, and because they are better fitted for the conditions. There are places in every old pasture where the plants are not allowed to seed at all, or, if at all, only at very long intervals. If the foliage is especially liked by the grazing stock they keep it eaten off closely. You all know that in those spots in a pasture, where the growth becomes rank enough to blossom and seed, the stock shuns it and crops the shorter portion still closer, which, therefore, is not allowed to seed. It is this closely-cropped portion that usually makes the closest

Now, under such conditions all longestablished grass lands reach their special excellence. The conditions of growth and the varieties themselves are the extreme opposite from those varieties which would be the most profitable to the grower of grass seed. It may be that the turf varieties may not seed readily. I think it very probable, indeed, that this is the case with the most valuable turf varieties.

The number of recognizable varieties that arise in old sod is very large, differing by every shade and in many ways, but these varieties have not heretofore been experimented with as varieties of grain have, and our grains belong to the same batanical family as the grasses. Some thirty to forty varieties of blue grass alone have been experimented with in the grass garden at Mr. Olcott's, at South Manchester, and each turf species is found to exist in several forms.

Now, as to the methods of investigation we practice. Instead of reproducing from the seed he propagates turf non-sexually from old sods. These sods have been gathered in various places in this country, from New England to California and the Gulf, and from Great Britain and the continent of Europe. They have come even from Japan and Corea, and now, as I am speaking to you, he is on the Pacific on his way to Australia to see if that dry climate produces turfs that may aid us here in Connecticut. The drought of last summer and the sorry condition of some of your pastures because of it makes us hope that his mission may be

The branch of modern science which has advanced the most rapidly during the last twenty years, and has also been the most beneficent, is "bacteri-It has so aided sanitary so ence that most pestilences may now be controled or prevented. In nature many kinds of microbes live and develop together, and the separate part each plays cannot be demonstrated by the cultivation. Methods have therefore been devised by means of which even these minute creatures may be separated and each kind grown in "pure cultures" and the nature and effect of each studied by itself.

By an analogous process Mr. Olcott studies turf grasses. A bit of sod is carefully torn into fine shreds, its individual plants separated and set out each by itself and allowed to spread by the sprouts from the root-crowns, until it forms a bit of turf of its own sort. This is essentially the way they spread in a pasture or meadow. Any other sort appearing in its plot is carefully weeded out and the variety is studied bottle of Salvation Oil on hand for as a "pure culture," so to speak. There bruises. It is unrivaled. 25 cents.

is no limit, theoretically, to this method of propagation. It is doing with grass what is extensively done in many branches of horticulture and even in agriculture. It is entirely practicable for lawn purposes, and may be for certain phases of field culture. That, however, is not yet proved. It is not probable that a meadow can be as practicably planted out as a tobacco field, but for certain purposes such planting is probably practicable. It certainly is on as large a scale as has yet been tried. My own door yard has been turfed from one original plant.

In the experimental plats the lawnmower, shaving closely, and the roller, imitate the close cropping and the trampling of animals.

Precisely how the Connecticut farmers are to best use the knowledge we are seeking I do not yet clearly know. That this addition to our knowledge of the habits and nature of many varieties studied and tested there will lead to practical results I have no doubts whatever. We are getting a very much better knowledge of turf and the conditions under which it develops than we have ever had before, and the importance of the study to the industries of this State none will doubt.

In discussing the merits of permanent grass lands I do not wish to be misunderstood as to the line of argument. I do not wish to underrate the other sources of forage or the value of these other forms which are produced in crop rotation. Seeded grass lands, clover, alfalfa, the various other crops grown for forage, have each their own value and will always be largely and profitably used. Connecticut farmers cannot do without them. I am discussing only one phase of the very large subject of forage for farm stock, not the relative value of each. I am discussing the influence of this one of the three ways in which broad acres are devoted to a continuous use for a long series of years. The three ways are by or-chards, wood lands and grass lands. Of the three, probably the last is the most permanent, certainly more so than orchards. In nature and in the countries of our older civilization, grass lands are as enduring as even the forests are, probably more so, and are certainly more closely connected with farming industry. This stability and permanence carries its conservative influence into the business of the people, and its permanence into their prosperity.

The improvement of the many breeds of live stock in Great Britain, particularly of cattle and sheep, is intimately related to the permanent grass lands there. The Short-horns, the Ayrshire, Devonshire and Galloway among cattle, the Southdowns and Shropshires among sheep, each were evolved in connection with the pastures of the several districts.

The colonists to America had to make the pastures; there were no old pastures of tame grasses, and before old kinds could be established the generation had passed away that was familiar with them in the fatherland. The very term "grazier" died out here, although it continued in use abroad.

The competition of late in the West lestroyed our cattle industry here, and the public sentiment in our cities and manufacturing towns prevented our increasing our flocks of sheep, but I believe that both will in time come back. The natural pasture lands of the West are now all occupied. The dairy interests will doubtless continue to grow in the State, and so the matter of permanent grass lands will continue to increase in importance here.

I will conclude this lecture by quoting the words with which I closed the other lecture alluded to, given before this board twenty-eight years ago, only substituting in the quotation grass lands for pastures: "I am convinced that the more it is considered the more important will seem this matter of well-kept and permanent grass lands, clothing our hills, adorning our valleys, beautifying the landscape, furnishing food for the present generation, and promising permanent wealth and prosperity for the future."

A sensible woman will not fail to keep a bottle of Salvation Oil on hand for cuts and

The Stock Interest.

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FEBRUARY 2, 1897.—B. R. Adamson, J. M. Turley and G. Hornaday & Co., Poland-China brood sows, Fort Scott, Kas.

EXPERIENCE WITH HOG CHOLERA

EDITOR KANSAS FARMER:-I have read so much in your valuable paper on hog disease and other interesting subjects, and being a farmer and hograiser in a small way, I thought my experience might interest some one, as I have been interested and benefited by the experience of others. I take but little stock in the cholera germ so much talked about by learned professors, but am more inclined to believe it goes with the wind, if, in fact, it goes at all.

In my neighborhood we are not very thickly settled and each man raises hogs according to his individual convenience, some in large hog lots and some in small ones, but mostly in pens, from one to five years' standing, and there has never been a case of cholera or hog plague in the settlement or within ten or fifteen miles until this season, when some twenty herds were attacked within one week and one-half to three-fourths died within two weeks after the first being taken sick, and no two herds were handled exactly alike, but all died the same. Sick and well ran together and I do not believe that one out of each hundred was buried. They were scattered all around, and on the roadsides as well. The largest and fattest were first to go and then the young stock. Those that recovered or escaped were the mediumsized and in medium condition. Those in the small pens fared worst and fewer recovered. Such as had a run out or were turned out more largely escaped or recovered than the ones remaining in the pens. I think care was generally taken to take the dead far enough away so that those running out would not get to them.

Nearly or quite all were constipated on the start. Some turned to purging and some did not. Some ate tolerably well, others but little, and some none The ones that ate lasted the longest. The more they ate the longer they lived. Few made much fuss about dying when they got ready. My largest died in about one week, the smaller ones from two to three weeks and one nearly a month. The younger ones (six or eight months old) showed lung trouble plainly before they died, and on examination the lungs were badly affected; no gall in any; no blood in the liver. Some were full of wormsthe liver and stomach and in the intestines and in the kidneys. The worms were about the size of a darning needle and smaller. The liver was somewhat discolored in places, lungs badly. Inside of main stomach dark gray or brown, mold or moss-like; large intestines same, and in some were ulcers like small warts. The water passage on the belly of the males were enlarged or some swollen, and the bladders quite large and full. There was no discoloring of the belly or flanks, nor cough until the last day or two of those that

lingered longest. The disease set in immediately on extreme heat, then the wind turned to the east and blew strong and warm for two days. Ten miles east of us was plenty of cholera or plague, and not a herd escaped for ten or twelve miles west of it. Three miles south of the west line there was none. I had made a hog lot of one acre and sowed it with millet, oats, corn and sorghum. It stood a foot or more high, green and growing. I made a brush shade, two feet from the ground, open all round, for a shade. Water in troughs three times a day; none to wallow in. I fed two to three ears of corn twice a day, and my hogs were among the first to get sick. My large brood sow, heavy with pig and fat, suffered most from heat and was the first taken. I took her out and put her in a cool, close pen, but she got worse and seemed deranged

oman's

Is never done, and it is especially wearing and wearisome to those whose blood is impure and unfit properly to tone, sustain and renew the wasting of nerve, muscle and tissue. The only remedy for tired, weak, nervous women is in building up by taking a good nerve tonic, blood purifier and vitalizer like Hood's Sarsaparilla. For troubles Peculiar to Women at change of season, climate or life, great cures are made by

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The One True Blood Purifier. All druggists. \$1. Prepared only by C. I. Hood & Co., Lowell, Mass.

Hood's Pills do not cause pain or

eral days and died on one of her cruises. I had shut up my six-months pigs to wean, but let them out. In about a week they began to come down. Five out of the eight died (all males), one got well after a long pull, two sows skipped the disease. Two weighing about 125 pounds, in medium condition, recovered. They were in the lot with the old sow and are there yet. I cleaned out my pen and scattered lime and whitewash thoroughly and shut up the three remaining pigs and they are doing finely.

On first appearance of the sickness I got the prescription published in the FARMER as a cure or preventive, filled out, and fed it regularly every day for two months. Idid not think it did much if any good, but I had bought it and was bound to feed it, kill or cure. I am giving small rations of salt, sulphur and copperas, now, once in two or three days. I think something bred the worms and the worms helped to breed or encourage the disease, assisted by the extreme heat. If there is any contagion about it it came in the east wind that came from the infected district east of us; but strong as it was, I don't think it brought any germs with it.

This disease or fatality was different from any I have ever seen among hogs. Stiffness, lameness and weakness in the back and hind parts of the young hogs, but not so with the older ones. Was more fatal among the pigs and shoats than older ones. Large and fat went first.

This is much longer than I had intended, but a full description was necessary if any, and if you think it worthy, you can publish it. Maybe your learned men (professors) may find some capital in it. Doctors must live out of or by their profession, but I de not see much good in them myself.

W. J. COLVIN. Belpre, Edwards Co., Kas.

Some Experience and Some Inquiries.

EDITOR KANSAS FARMER:-There seems to be some hog cholera around. Some have been cleaned out of hogs almost entirely. Quite a good many are also losing hogs by worms. Some-times, after the hog is dead, a double handful of long, hard worms will crawl out of the hog's nose and mouth, or on examination they will be found strung the heels of a very warm and dry spell. along in the entrails, almost blocking All the hogs suffered badly with the the passage. I think most of the hogs hat have died around here died worms rather than from cholera. In some cases post-mortem examination shows that these worms have gone through and are found near the liver.

Some of the remedies that I have heard proved successful, are, a can of concentrated lye in ten gallons of water, in which put shelled corn to soak, making both drink and grain ration forthem. Another is to put crude petroleum in their slop. Either remedy seems to make unthrifty pigs do enough better to pay for the expense.

I would like to hear, from the KAN-SASFARMER writers and readers, their remedies and experience with worms in hogs. My losses have never been more than a pig now and then.

I would like to know the best way to make the ordinary hedge fence hogand wanted out, and I let her out and tight. My plan has been varied. she wandered round over the farm sevder and sometimes I trim up enough to tack on two or three wires. The latter way is a little more expensive but makes a little more presentable fence.

I would like to know what tariff or embargo we have to pay to Mexicoon corn, wheat, hogs and hog and dairy products; also to other countries to which we ship or would like to ship, if not prevented by such tariff, either active or retaliatory. C. H. TITUS. Dwight, Kas.

The August (1896) number of Modern Mexico contains a schedule of Mexican import duties, from which the following list is taken:

ing list is taken:

2 cents for every kilogram, 2.2 lbs., cattle.
2 cents for every kilogram, 2.2 lbs., hogs.
1 cent for every kilogram, 2.2 lbs., corn,
gross weight.
5 cents for every kilogram, 2.2 lbs., wheat,
gross weight.
15 cents for every kilogram, 2.2 lbs., vegetables, legal weight.
2 cents for every kilogram, 2.2 lbs., green fruit, gross weight.
10 cents for every kilogram, 2.2 lbs., dried fruit, gross weight.
75 cents for every kilogram, 2.2 lbs., preserved fruit, legal weight.
Minister Ransom informed the De-

Minister Ransom informed the Department of State, under date of May 25, 1896, that the President of Mexico has issued three decrees making special exemptions and a reduction of the duties on corn imported into certain States of Mexico. These decrees are:

1. The Board of Beneficencia (charity) of the State of Tamaulipas, established under the auspices of the local government, is exempted from the payment of import duties on 20,000 fanegas (one fanega equals 1.54728 bushels) of corn, which may be introduced through Tampico, Laredo or Porfirio Diaz, and shall be sold at cost price in the towns of the State.

2. The Board of Beneficencia of the State of San Luis Potosi is granted exemption from import duties on 8,000 tons of corn, which shall be sold at cost price in the towns of the State.

3. A reduction of 50 per cent. on import duties is granted on foreign corn which may be introduced into the States of Campeche and Yucatan for consumption of the population, this privilege to continue in effect until December 31, 1896.

Irrigation.

PROGRESS OF IRRIGATION IN THE ARKANSAS VALLEY.

From remarks of John E. Frost, Land Commissioner, A., T. & S. F. railway, at the annual meeting of Kansas State Irrigation Association, at Great Bend, Kas., October

It is now sixteen years since the little mill-race at Garden City, which has since become famous, suggested irrigation farming to the few adventurous spirits who had gone far beyond the region then considered the farming district of Kansas and commenced the first irrigation operations in this State.

In the spring of 1882 I brought out from Illinois a party of gentlemen to inspect the so-called irrigable lands in Finney county. I stopped with them a day in Topeka en route, and while there presented them to one of the leading citizens, who inquired our destination and purposes. When I told him we were going to Garden City to inspect the lands in that region with a view to investing there, he said: "Oh, yes, Garden City. Do you know why that place is so called?" And why that place is when we assured him that we did not his reply was: "In the first place, because there is no garden there, and in the second place because there is no city there." This rather dampened the ardor of our party, but we went on, nevertheless, and these gentlemen were among the earliest investors in that region.

At that time Sequoyah county, now known as Finney, had a population of about 600 people all told, and Garden City a population of about fifty souls, and it was a fact that there was no city there, and with the single exception of the Worrall farm, which had then been started, there was no garden there. Our State reports give no assessed valuation of property in that county at that time, it then being unorganized. I went there again two years later with some of the same gentlemen and we come a little city, and gardens were alfalfa meadow where the delightful Weber Gas & Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.

there, plenty of them. The population had then increased to 2,500, and although not assessed, a fair valuation of the taxable property of the county was not less than \$1,000,000. Ten years afterwards, in 1894, we had, to be sure, been through a boom which left us wiser than before it came, and some of the people of the little metropolis, which had then assumed metropolitan airs, and had buildings which are creditable to a place of 25,000, had lost some of the population which it had at the height of the boom, but the agricultural report of 1895, shows Finney county with a population of over 3,500 permanent residents. Its assessed valuation, although the area of the county had been considerably reduced, had reached \$1,600,000, the total valuation of its farm products for that year was \$400,000, and now we find that while the supply of water in the earlier irrigation ditches had been inadequate, the era of windmill irrigation had arrived, and the Arkansas River valley from the Colorado line to Hutchinson was spotted with windmill irrigation plants, and the reports of the State Board of Irrigation at this time show that there are now 2,600 of these plants in the State, of which, I presume, it is safe to say that 75 per cent. are in the Arkansas River valley.

I use the name Arkansas valley in its broad sense, as covering the immediate valley of the river and its tributary streams.

In this connection it is simple justice to say that these results are due largely to the example set by the irrigation farmers at Garden City, supplemented by the wise and efficient work of the Kansas State Irrigation Association, and especially to the zeal and untiring energy in the work of the promotion of irrigation interests by John H. Churchill, of Dodge City, its President, and E. R. Moses, of this city, Chairman of the National Executive committee of the National Irrigation Congress, and Judge J. S. Emery, of Lawrence, National Lecturer of that

A few years before irrigation was practiced in western Kansas there was a locality where a broad bottom spreads out along the Arkansas in eastern Colorado, about sixty miles this side of Pueblo. It has been known since the old days of the Santa Fe trail as Rocky Ford, on account of the Rock bottom in the river at that point. In the early days of which I speak, even before the construction of the railroad out there, an enterprising, stouthearted farmer from McDonough county, Illinois, strong in his belief in the advantages and possibilities of the great West, had located at this point, and his house was a stopping place and his little store a source of supply on a small scale of the necessaries of life for travelers along the historic trail. The stout-hearted, sagacious man to whom I refer was the Hon. Geo. W. Swink, now a member of the State Senate of Colorado. He took out a small irrigation canal at the point named, and about the same time similar small irri-

gation operations were commenced at Catlin, just above Rocky Ford, and at Las Animas, just below, similar work was in progress, and at the time I speak of, when the town of Garden City was so called because there were no gardens and no city there, not more than twelve to fifteen miles of irrigation ditches were in operation in the Colorado region referred to, and these small ditches were all there were be-tween Pueblo and the Kansas State line, and even up to 1886, when the Lamar United States land district was created, the irrigation operations had increased very little.

I visited Colorado last week and inspected some of the canals in operation there. How changed the scene. There are in the three counties of Prowers, Bent and Otero, including 120 miles in eastern Colorado, about 700 miles of completed main canals in full operation. Extending along them we find farm after farm with their broad alfalfa meadows, their thrifty, branching shade and fruit trees, their flocks of cattle, sheep and swine, and as you ride down the valley from Rocky Ford to the Kansas line it is almost a continuous

fragrance of the purple alfalfa blossom in its season is in one's nostrils for mile after mile, and the countless big stacks of alfalfa hay furnish a constant and incontrovertible evidence of the prosperity of the farmers and of the development of the great valley. And the alfalfa meadow does not cease, nor is the fragrance of its blossom lost, when we cross the Kansas line. We find both all the way down to Dodge City.

At the time when Senator Swink commenced his first crude irrigation operations no farming was being done in that region. The territory which is now included in the three counties of Otero, Bent and Prowers had a population, including the old town of Las Animas, which was the pioneer town, of perhaps 1,000 people, while to-day Otero county alone contains a population of over 8,000 and its assessed valuation for 1896 is \$2,686,310. The shipments of freight at Rocky Ford for the first nine months of this year were over 10,000,000 pounds, showing an increase over the same period of the previous year of about 1,200,000 pounds, while the express business from that point for the same period shows an increase of about 40 per cent. over 1895.

The total assessed valuation of property in Bent and Prowers counties is a little greater than that of Otero. The ratio of increase in population is very little less, while the agricultural out-put is constantly increasing, and the outlook for the settlement of the region named during the coming year is most promising; in fact, I am confident that its growth in 1897 will exceed that of any previous year.

In the last five years, in addition to the actual farming operations, some of the most valuable adjuncts to the business of farming have been added. At Lamar, the largest and best flouring mill in Colorado, with a daily capacity of 500 barrels, was constructed and has been in constant operation for several years back. A creamery is also in successful operation as well as a steam alfalfa-seed cleaning warehouse and also one operated by hand power. Flouring mills of about half the capacity each of the Lamar mill are in successful operation at Las Animas, La Junta and Rocky Ford, while creameries and canning factories are being successfully operated at the last named two points, and at Rocky Ford a box factory has been established this season, rendered necessary by the immensely increased shipments of melons and other fruit from that point.

This irrigation development of the past fifteen years has brought with it useful lessons. It has been a great school for farmers and for us who are keenly interested in their success. We have all been going to school, and there is no teacher whose lessons are so valuable as those of experience. There have been failures, many of them; mistakes, thousands of them; who of us does not make them? but from these mistakes and these failures let us learn wisdom. One great lesson that we have learned is, that the basis of successful farming in this great valley is stock-raising in its various branches and with its concomitants. Every farmer should have a bunch of cattle and hogs. Raise them yourselves. Stock feeders sometimes lose money. Their profits are dependent upon the market, but have any of you farmers ever lost money on a calf that you raised yourself and marketed? Have you ever lost money on a milch cow that you raised yourself? Sometimes your crops of corn, wheat, oats, alfalfa seed and hay are not as good as you would like to have them. Sometimes some of them almost entirely fail, but the calves always come in dry weather or wet weather. The calf crop is sure and your cows give milk whether the wind blows or the rains come or fail. The markets fluctuate; some years are more profitable than others, but so long as grass grows and water rains or can be pumped, you are not going to lose money on the animals that you raise yourselves. Do such ir-



"Cowards die many times before their death; the valiant never taste death but once."

There is such a thing as too much valor when the foe is an insidious one. The bravery that faces death on the battlefield is praiseworthy; that which courts death by a reckless disregard of the slow but sure advances of a deadly disease is the acme of foolishness. Consumption causes one-sixth of all the deaths in the world. In spite of this, thousands are to-day disregarding its insidious approach. Any trifling malady that results in disorders of the digestive organs, causing impure blood, emaciation and lack of vitality, may weaken the respiratory organs and make them susceptible to the assaults of the deadly germs of consumption. Dr. Pierce's Golden Medical Discovery will prevent all that. Moreover, after consumption has gained a foothold, it will cure it. It is the best blood-maker and blood purifier known to science.

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M. I. Lumley, of Salem, Forsyth Co., N. C., writes: "I had La Grippe and it left me in a terribly bad condition. I had a distress in my stomach that constantly grew worse. I was taken with dysentery and nearly died. I finally recovered from that and got on my feet again. I then took Dr. Pierce's Golden Medical Discovery which completely cured me of indigestion. I can now eat anything without its distressing me."

now eat anything without its distressing me."

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rigation as you can. If more or less, it pays. It will increase your crop yields in good years and save the crops in bad ones, but couple with your irrigation operations stock farming in some

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

HIGHLY ENDORSED .- With possibly one exception there is no "domestic" magazine more widely or favorably known than The Housekeeper, of Minneapolis, Minn. From the standpoint of practical helpfulness to the housewife it is excellent. It is published twice a month, each issue comprising twenty or more large pages. The subscription price is only 50 cents a year. Here is what the Syracuse (N. Y.) Herald has to say about it: "No better woman's magazine reaches the Herald's table than The Housekeeper, published at Minneapolis. It is astonishing that the publishers of this excellent semi-monthly can give such good material for the price (50 cents a year). A woman understands a woman's needs better than a man. The Housekeeper is edited by women, and the material given within its columns twice a month is just the quality and quantity the housewife and homemaker desires. Women are interested in their sister housekeepers and The Housekeeper is filled with ideas contributed by its readers-ideas that will smooth the rough and ragged path of housekeeping. Covering every branch of home life as it does, The Housekeeper is an ideal woman's paper. It is ably edited and is easily the best housekeeper's magazine of the present day." The publishers will send a sample copy free to applicants.

Every season brings a new crop of cough remedies, but they cannot compete with that grand old Dr. Bull's Cough Syrup.

Home-Seekers' Excursions.

Very low rates will be made by the Missouri, Kansas & Texas railway, on November 3 and 17, December 1 and 15, to the South. For particulars apply to the near est local agent, or address G. A. McNutt, D. P. A., 1044 Union avenue, Kansas City, Mo.

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GOVERNMENT OROP REPORT FOR NOVEMBER, 1896.

CORN.

The returns to the Department of Agriculture for the month of November as to rates of yield make the average of corn 27.3 bushels, which is above the yield indicated by the condition figures in October.

Last year the preliminary estimate of yield was 26.2 bushels.

The rates of yield in the large and principal corn States are as follows: New York, 31.7; Pennsylvania, 37.1; Ohio, 39.9; Michigan, 37; Indiana, 32.4; Illinois, 40.4; Wisconsin, 33.6; Minnesota, 30.6; Iowa, 37.7; Missouri, 26.3;

Kansas, 27.1; Nebraska, 37.2. In Virginia, Kentucky, Missouri, Kansas and southward the crop appears to be short; this is due partly to insect enemies, but chiefly to drought or untimely rains. Reports are less and less favorable toward the Gulf. North of the States named the yield is very large, though in some States of poor quality, owing to smut, rotting in the shock, etc.

IRISH POTATOES.

Preliminary returns for this crop indicate an average yield of 86.8 bushels per acre, which, although far below the phenomenal average of 1895, is nevertheless considerably above the average for the past ten years. In the New England and middle Western States there are numerous complaints of potato rot, and none of the larger producing States indicate an average yield approaching 100 bushels per acre.

SWEET POTATOES. The average yield is 70.8 bushels per acre, while it was 79 bushels in 1895 and 92.4 in 1894. In the more important States the yield is as follows: Virginia, 103; North Carolina, 80; South Carolina, 63; Georgia, 59; Alabama, 66; M'ssissippi, 65; Texas, 45. The quality of the crop in the principal States ranges from 76 to 103. Drought did much damage in Georgia.

BUCKWHEAT. This crop has the high average yield of 18.7 bushels per acre, which has been exceeded only in 1895 since 1890. The average for 1891 was 15.3 bushels; 1892, 14.1 bushels; 1893, 14.7 bushels; 1894, 16.1 bushels, and 1895, 20.1 bushels. In the chief buckwheat States the average yield per acre is as follows: Maine, 42.3; New York, 18.8; Pennsylvania, 17.3; West Virginia, 19.5; Michigan, 15.3; Wisconsin, 13.5; Minnesota, 10.6; Iowa, 16.2. The quality of the crop in New York and Pennsylvania is 96; in West Virginia, 91; in Michigan, 86; in Wisconsin 94, and in Iowa 92.

HAY. Notwithstanding the numerous reports of damage to the hay crop by drought during the growing season, and wet weather during harvest, the average yield per acre, as indicated by the preliminary returns, is 1.36 tons, against 1.06 a year ago. The largest yields per acre are returned from Idaho, 3.26; Washington, 3.09: New Mexico, 3; Utah, 2.97, and Colorado, 2.37 tons. In these States, however, a large portion of the hay is made up of alfalfa, which with irrigation gives two and even three crops a year, making possible a very much higher average yield than that of the cultivated grasses of other States.

SUGAR CANE.

The returns of product as compared with last year bear out with remarkable consistency returns of condition season. Percentage figures range from 60 in Texas to 87 in Florida. In the leading State, Louisiana, 69 per cent. of last year's crop is indicated. The great damage done to this crop by the extensive drought of the past summer is plainly shown. According to the returns of the United States Weather Bureau the deficiency of moisture was most pronounced in the Gulf States, and the yields there are the lowest returned. As the great bulk of the cane crop of the country is grown in this region, the effect upon the resultant sugar product will be most important.

SORGHUM.

The yield of sirup for the season of 1896 ranged from 36 gallons per acre in Louisiana to 124 gallons in Utah. There were seven States with yields above 90 gallons, and eight above 70

gallons. The range in 1895 was from 50 gallons in Idaho to 175 in Pennsylvania, with yields in eleven States above 90, and in thirteen States above 70 egallons. Excepting the extreme yield in Pennsylvania in 1895, the crop of that year was much more uniform the country over than in the present year, although the yield in Southern regions was considerably better than in the central West. The present season the conditions are reversed, the best outturn being reported from the Ohio valley and the West, while in the South, particularly in the Gulf region, the yields are disappointingly low. FRUIT.

The November returns give comparative yields of apples, pears and grapes, and in the main reflect the returns as to condition made in the preceding months. In the case of apples the standard of comparison has been exceeded in no less than eight of the northern tier of States, which comprises the most important winter apple section of the country. Other States in-this region also report excellent yields. In other sections the crop is at best only mediocre.

The returns for pears are nowhere as high as for apples, but are generally better in those sections where apples gave the best returns.

The grape is one of the most constant of the fruits, and, as usual, the returns show a product more uniform the country over than for either apples or pears. As compared with last year the present season has given generally larger products.

COTTON.

Owing, presumably, to the excitement attending a general election, returns of correspondents as to the comparative and prospective yield of the cotton crop are too meager for a trustworthy report, though such returns as have been received indicate a somewhat greater yield than was promised in last month's report.

Don't Use That Kind.

EDITOR KANSAS FARMER:-In answer to one of your correspondents, asking how to stretch a certain kind of woven wire fence so as to have all the wires tight alike, I would say I don't know, for I use nothing but the Page coiled spring fence and with it nothing of the kind ever occurs. All the wires are stretched at once and stay that way, cold and hot. DAVE HESS. Hutchinson, Kas.

Regarding The Queen Butter-Maker.

The article in the FARMER of November 12, regarding our scientific churn that makes butter in three minutes, has been largely read and has excited great interest. We expect to sell over five hundred machines to the readers of this paper alone. It is evident that there is a great demand for a churn that will relieve the family of the hard. tiresome duty, and enable people to make a little money these hard times as well.

The Queen Butter-Maker is so entirely unlike any other machine that was ever invented to make butter, both in principle and practice, that it is really a scientific wonder; it is such a novelty, so new, interesting and exciting, that when people hear that there is a machine that will make butter in from three to five minutes, they are wild over it, and money or no money, hard times or no hard times, they will have them. It is the easiest thing in Thos. Slater's advertisement on page 15. the world to sell, and you will find it just so when you go about among the people and make inquiry among your friends of those who would like a quick Butter-Maker; everybody that churns will be glad to lay away the old, antiquated, tiresome dasher churn and get "The Queen, and this is why agents do

so well and make so much money out of the business. Any persons standing by and seeing the butter come to the surface so quickly, gathered in lumps, are fascinated at the sight, and never tire of seeing the wonder repeated again and again. Is it surprising that the Butter-Maker sells, and that agents make big money by taking the agency? For further information write the Queen Butter-Maker Company, 47 East Third Street, Cincinnati.

TO BE HEALTHY AND STRONG Use "Garland" Stoves and Ranges.

A New Shrub That Cures Kidney and Rheumatic Diseases .-- A Free Gift.

A short time ago our readers were made aware of a valuable new botanical discovery, that of the Kava-Kava shrub, or as botanists call it, piper methysticum, found on the banks of the Ganges river in East India. From a medical standpoint this is perhaps the most important discovery of the century. The use of the Kava-Kava shrub, like other valuable medical substances, opium and quinine, was first observed by Christian missionaries among the natives as a sovereign remedy for kidney diseases and other maladies caused by uric acid in the system. Since its general introduction Alkavis (the Kava-Kava compound) has wrought many remarkable cures of kidney and rheumatic diseases.

Mr. R. C. Wood, a prominent attorney of Lowell, Ind., was cured by Alkavis of rheumatism, kidney and bladder trouble of ten years' standing.

He writes:

"I have been treated by our home physicians, all without the least benefit. My bladder trouble became so troublesome that I had to get up from five to twelve times during the night to urinate. In fact, I was in misery the whole time, and was becoming very despondent. * * * I have now used Alkavis and am better than I have been for five years. I know Alkavis will cure bladder and kidney trouble. * * * It is a wonderful and grand, good remedy."

And even more wonderful is the tes-

And even more wonderful is the testimony of Rev. John H. Watson, of Sunset, Texas, a minister of the gospel in thirty years' service, stricken down at his post of duty by kidney disease and cured by Alkavis. Mrs. James Young, of Kent, O., writes that she had tried six doctors in vain, that she was about to give up in despair, when she found Alkavis and was promptly cured of kidney disease and restored to health. Another most remarkable case is that of Rev. Thomas Smith, of Cobden, Ill., who passed nearly one hun-

dred gravel stones under two weeks

use of this great remedy, Alkavis. So far the Church Kidney Cure Co., of No. 420 Fourth avenue, New York, are the only importers of this new remedy, and they are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis prepaid by mail to every reader of KANSAS FARMER who is a sufferer from any form of kidney or bladder disorder, Bright's disease, Rheumatism, dropsy, gravel, pain in back, female com-plaints, or other affliction due to improper action of the kidneys or urinary organs. We advise all sufferers to send their names and address to the company and receive the Alkavis free. It is sent to you entirely free to prove its wonderful curative powers.

THE SHORT-HORN SALE, DECEMBER 10 .-Among the draft of fifty head-thirty bulls and twenty heifers—that have been selected and catalogued by Mr. W. P. Harned, the well-known Missouri Short-horn breeder, for his coming public sale, are seven high-class pure-bred Cruickshank bulls that are good enough to go into anybody's herd. The visitor finds the entire lot belong to the short-legged, broad-backed, easy-keeping kind, and this type is not to be wondered at, as it has been the aim since the herd was founded in 1865 to produce a useful and profitable type of beef cattle. If Scotch blood is wanted, the reader will soon have an opportunity to get it. Read the announcement elsewhere in this issue and send for a free copy of catalogue.

Young men or old should not fail to read

Did You Ever See an Indian?

Expect not, so send a 2-cent stamp to the General Passenger Agent Colorado Midland Railroad, Denver, and he will send you a fine colored picture of one.

Meals on the "Order" Plan

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

All meals will be served a la carte, and at

reasonable prices.

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

John Sebastian, G. P. & T. A.,

Chicago, Ill.

Special Want Column.

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

AGENTS WANTED—To sell to dealers and indi-viduals. \$60 per month and expenses. Quinlan-McKane Co., Times Building, Chicago.

FCR SALE CHEAP — Three choice Wilkes-bred gilts bred for February farrow. Also two top males, same breeding, summer farrow. John Howat Haven, Kas.

FOR SALE—Very fine Black Langshan cockerels.

Also Choice Rose-combed Brown Leghorn cockerels. Bargains. W. V. Church, Marlon, Kas.

FOR SALE—One of the best stock and grain farms in Kansas, on the Arkansas river. Will guaran-tee this farm to rent for cash and pay 6 per cent. and taxes. For description and price address Executor, 426 N. Third St., Arkansas City, Kas. THE LARGEST ONE-YEAR-OLD JACK YOU proportions. Would exchange for ten (10) deep red one-year-old Short-horn helfers, registered or eligible to registration. F. W. Baker, Council Grove, Morris Co., Kas.

FOR SALE—Exchange or to buy, pure-bred White Holland tom turkeys, Also for sale Light Brahma cockerels. E. N. Woodbury, Cawker City, Kas.

WANTED—To purchase, twenty pure-bred Holstein-Friesian cows and heifers. Price must be low to secure sale. Address "H.," care KANSAS FARMER office, Topeka.

SUNFLOWER HERD DUROC-JERSEY SWINE. Choice pure-bred pigs for sale, September farrow. Address A. D. & H. L. Perrin, Prescott, Kas.

FOR SHORT-HORN BULLS—Reds and roans, first-class, and Poland-China boars, address D. P. Norton, Council Grove, Kas.

JOHN HOWAT, BREEDER OF THOROUGHBRED Poland-China hogs of the choicest strains, Haven, Kas.

BARRED PLYMOUTH ROCKS AND MAMMOTH Bronze turkeys, cheap for one month. Also an Ohio Improved Chester boar. D. Trott, Abilene, Kas.

WHITE PLYMOUTH ROCK COCKERELS UNTIL surplus stock is disposed of, at 50 cents, 75 cents and \$1. All are good, healthy stock, well bred, of sufficient age for spring use. Less than \$1 order, coops 25 cents. E. K. Terry, Sunny Slope Poultry Yards, Burlingame, Kas.

TOR SALE—One hundred and sixty acre farm, ne and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$8 per acre. J. B. McAfee, Topeka, Kas.

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

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

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

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

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

SHORT-HORN BULLS—Cruickshank-topped, for Sale. Choice animals of splendid breeding. Ad-dress Peter Sim, Wakarusa, Shawnee Co., Kas.

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

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

A LFALFA SEED—Crop of 1896. Pure and fresh. Write for prices. McBeth & Kinuison, Garden City, Kas.

MOESER ICE AND COLD STORAGE CO.—Topeka, have just completed their new cold storage
building, on the latest modern plan, and now have
the best facilities for storing all kinds of fruits,
butter, eggs, etc. Railroad switch to storage building. Car-load lots unloaded free of charge. Write
for prices.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Mail job printing rooms, 300 North Kansas Ave., North Topeka.

FOR SALE—Eighty-eight acres of the best bottom land in Missouri and in the best stock range; well improved; about fifty acres in cultivation, balance in good timber. Price \$1,850. Address John O'Toole, Fisk, Stoddard Co., Mo.

THOROUGHBRED POLAND-CHINAS.—For sale, twenty young males, Black U. S., Corwin, Wilkes and King Butler strains. Wm. Maguire, Haven, Kas.

FOR SALE—One hundred high-grade Shropshire ewes, choice ones. Also some choice high-grade Jersey cows. E. W. Melville, Eudora, Kas.

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

FREE TO ALL WOMEN.

I have learned of a very simple home treatment which will readily cure all female disorders. It is nature's own remedy and I will gladly send it free to every suffering woman. Address MABEL E. RUSH, Jollet, Ill.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Estab lished in 1884. Calls and correspondence invited.

Commercial Collections a Specialty. H. C. ROOT, Attorney at Law, 104 Sixth Ave. Eas: Topeka, Kas. Practices in all State and federal court

VETERINARY SURGEON.

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

The Some Circle.

THANKSGIVING DAY.

A sacred pause amid the din
And turmoil of a world of care,
The rush of life, the grinding mart—
And lo! a nation bowed in prayer.
Lord, put our worldly fears away,
And grant a true Thanksgiving day,

A silence filled with holy awe,
A consciousness of love divine
That closes every murmuring lip,
And shows how bright our favors shine.
Oh, for a grateful heart to say,
This is indeed Thanksgiving day!

A cool retreat where heated toll
May wear upon his aching breast,
For just one short and tranquil hour,
The soul-reviving flower of Rest.
O pearl of blessings let thy ray
Extend to all Thanksgiving day.

A trysting place at which the past
And present once again unite,
To hold communion, close and sweet,
With olden dreams of fond delight.
Let not a grief-worn memory stay
In sight on this Thanksgiving day.

A mount apart, whose summit gleams
Above the vapors sharp and clear,
Above the poisonous mists of earth,
Within a heavenly atmosphere.
Lord, meet us there, we humbly pray,
In pitying love Thanksgiving day!
—Julia H. Thayer.

WIDOW HEBRON'S THANKSGIVING.

BY MARY ANNABLE FANTON.

[Copyright, 1896.]

Susan Hebron was not a widow when she started for the gold region one spring morning back in the seventies. She left Missouri with her husband, a pair of mules, a cow and two small boys.

Hebron was a man who was always nursing a cold and asking fatuous questions. On the way to the "Promised Land," as the Black Hills country used to be called, he acquired a fatal habit of sitting with his feet to the roaring camp fire and his back to the drafty tent flap.

After the mules were sold to pay the funeral expenses, the widow bowed her head, reflected, and subsequently gathered together the cow, the boys, her little remaining cash, and kept pluckily on towards the Mecca for which she had left the Missouri farm. She made many long visits at various ranches en route, where she cooked and served for her board; and finally, late in November, the mule train with which she was traveling went into camp just at the edge of Palmer's Gulch.

"Faro Jim," the best hand at a deal in all the northwest, was postmaster for the week at Palmer's Gulch; that is to say, it was Jim's week to saddle Jenny and hustle down to meet each of the passing mule trains which constituted the Black Hills mail service in those days.

When on this dull November day Jim dashed up to the wagon, designated by one of the train drivers as the "mail bag," and hastily pulling aside a turkey 1ed curtain, he was greeted with a shrill shriek, and his eyes met, not a rusty old mail bag, but a charming widow in the act of combing a mass of shining brown hair and blushing furiously at the intrusion.

Seeing the confusion of the bronze giant, who seemed too stricken to even drop the red wagon flap, the little woman laughingly bade him to wait and she would pass out the bag, and warned him in the future to ring the bell instead of attempting to crawl through the

"Faro Jim" was not clever at repartee, and his only answer was to seize the bag and flee precipitately in search of the aforesaid driver, whom he only absolved from the "dandiest kind of a licking" on gleaning from him a curt biography of the lovely widow.

The camp was electrified with the news of Mrs. Hebron's proximity. Fully to appreciate their enthusiasm it must be borne in mind that up to this date Palmer's Gulch had lacked two essential features of civilized life-women and a cemetery.

The latter could be safely trusted to Providence, and the expected visit of "Poker Charlie," who was famous for advancing civilization along this particular line; but the woman question had been a serious problem, and the Gulch did not propose to lose a ready-made chance of settling it.

In ten minutes a committee of the best looking men in Palmer's Gulch had been selected to wait on Mrs. Hebron and urge her to pay the camp a visit at her

carliest convenience, and remain permanently if such were her pleasure. Where women have the charm of novelty, chivalry abounds, and Mrs. Hebron's trip on the following day from the mule train to the Gulch took on somewhat of the air of a triumphal pageant. The best cabin in the camp was placed at her disposal, and "Faro Jim" not only appointed himself commissary-in-chief, but actually milked the cow and parted with a box of his best poker chips that the smallest Hebron boy might "play blocks" to his heart's content.

Dave Holzman endeared himself to every man in the camp, except Jim, by suggesting that they indulge in a particular "layout" for the coming Thanksgiving. "Prunes and cove oysters and whisky may be good enough for the camp," he said, "but it ain't no fitten grub for women and children."

Uncomplimentary allusions were rife as to the right to existence of a store that "didn't keep no women's truck, nor playthings for kids, nor even a paper collar on draft!"

But Jim brought about peace and reestablished himself in popular favor by volunteering to do the shopping at the nearest trading post in spite of the brewing storm and camp gossip that the Indians were "on the shoot."

The day before Thanksgiving the mule train that had been pressed into service to deliver "Faro Jim's" various purchases, drove into Palmer's Gulch and deposited at the widow's door a sitting-room carpet of flaming scarlet and yellow, a huge mahogany bedroom set, a box of playthings for the boys, and an assortment of bric-a-brac that would have delighted the soul of a Choctaw chief.

"Faro Jim," the driver said, had waited to bribe the agency cook for the only two chickens at the post. "But he might better not ha' done it," he added, "for the kintry is chuck full of snow drifts, and the redskins are ugly and making it lively where they can.

Thanksgiving dawned bright and stinging cold. It had cleared gloriously at daybreak, and the gorge for miles was a fairy landscape, brilliantly, dazzlingly white from mountain top to river bed.

The trading post was half hidden in the drifts, and Jim wondered, as he started forth with the chickens firmly strapped to his saddle, if the boys had remembered to dig out the widow's cabin, move her wood pile close to the door, and milk the cow. As he cantered briskly away over the stretch of prairie which the gale had left bare of snow, he was conscious of two new and strange sensations; the irritation of a stiff paper collar about his brawny throat, and a peculiar fluttering feeling, as he would have expressed it, "somewhar down below the left shoulder blade."

He flung open his coat, and expanded his chest with a great breath of splendid mountain air, and as he settled back in the saddle his eyes were shining with a sudden rush of happiness. All unconsciously he had come into his birthright.

Self-analysis he was incapable of. The greatest joy of his life had come to him and he accepted it with the unquestioning delight of a child.

As Jim left the prairie road and struck the trail that led through the mountain gorge, the little pony picked her way gingerly from drift to drift and over crusting slopes. Jim did not notice that the snow had rendered an road almost impassable, or that the sun was already making dangerous rifts in the ice-coated stream. Jim was in love. Dangers by land or water, or from the tricky red men, were not worth considering.

A faint, gurgling sound, like the faraway howl of a cayote drifted down the gorge. The pony shivered, slipped, floundered and righted herself in the drift; but Jim only smiled as he patted the frozen fowl and remembered the dandy poker game he had played to win them. The cook couldn't be bribed, but poker was too much for the agent.

A cry, like a wolf in sight of prey fierce, broad, exultant, broke the deathlike stillness, and echoed from mountain top to mountain top. This time the pony quivered convulsively, fell back on her haunches, and neighed as though in pain.

Scotts Emulsion the world over. There is no man, woman or child who is run down emaciated, or has weak lungs, that Scott Emulsion will not be seen to see the second seen and seen will not be seen to see the second seen and seen to see the second seed to second seed to see the second seed to see th Standard

man, woman or child who is run down, or emaciated, or has weak lungs, that Scott's Emulsion will not benefit. When you ask for it you will likely be told by the druggist that he has an emulsion "just as good." It is not true. No emulsion is as good.

50c. and \$1.00 at all druggists.

Jim's face blanched and icy fingers closed over his heart. For the first time in his rough, wild life he cared what the outcome of a fight with the redskins might be.

Again and again, behind him and on both sides, that awful cry rang out, sharp and resonant—a cry thrilling with the eager anticipation of bloody

Choking down a gasp of anguish and age, Jim sent the spurs sharply into Jenny's sides. He would have liked better turning back and downing a half dozen of the skulking rascals; but that meant death, sure and quick, and Jim meant to try for the life and happiness that lay ahead of him up the gorge.

As yet the path seemed open, and the little broncho struggled bravely through drifts and over ice-crusted banks. With her rough shod feet her chances were fifty to a man's one.

The cries had ceased; but in spite of the distance that still lay between him and his pursuers, Jim heard the crackling of the pine branches, the soft, spongy sound a hundred moccasined feet on the snow, and he knew the war party was closing around him.

Jenny was weakening with fright and fatigue, and only the last dangerous slope and the broad icy river remained to be crossed. His only salvation lay in the little exhausted steed he had loved and petted for years. Laying his hand on her quivering, swollen neck, he whispered:

"Jenny, ole girl, don't fail me; pull us through, Jenny, Jenny, don't go back on a feller when he's just found out what livin' means, and who'll live better, so help him, if just once more he kin see her eyes a' laughin and her brown hair a-shining in the sun. That's the girl, brace up; you're the best chum a man ever had.'

Straining every muscle in response to the caresses, the plucky little beast cleared the last drift and struck the trail leading to the river. With a yell of rage the war party swept down the mountain sides, floundering with diffi-culty through the drifts. A bullet whizzed past the flying pony; a second partly severed a wing from one of the frozen chickens; then came another and

The savages would at least kill this juarry, if they were to be defrauded of the chance of torture.

Just as the bank of the stream was reached, Jim's right arm dropped useless at his side. It stung a little, and the blood made a scarlet trail on the road.

In a moment more the fugitives were on the river, and in spite of Jenny's cautious advance, the treacherous ice was quaking and cracking under every footfall.

In the middle of the stream a second shower of bullets greeted them, spattering over the icy expanse-one clipcrown of Jim's hat hole in the while another struck poor little Jenny squarely in the heart. As she lurched heavily forward the ice gave way, and the water, deadly cold, surged over horse and rider.

For a brief moment, as he sank entangled in the stirrups, it occurred to Jim that the fight might be up. But once again at the surface, with the deftness of a man accustomed to desperate emergencies, he extricated himself from the saddle and by the dexterious use of his feet managed to float along the edge of the broken ice, testing the crust, as he drifted, with his one sound hand.

Little by little, exhausted by loss of blood and cold, Jim worked his way along, cautiously drew his body over the crackling edge, and crawled slowly and with great difficulty, to the shore. Once express and postoffice address, and mention there the danger was past, for the In-

dians feared both the treachery of the river, and a possible ambush on land.

Bandaged and freshly dressed, smiling faintely at the attentions pressed upon him, Jim was the hero of the widow's Thanksgiving reception. At ten o'clock that night the light was still streaming through the cabin window, and the whole camp allowed, as it sought consolation over Jake's bar, that "Jim was altogether too precious a critter." Their spirits revived, however, when they reverted to the prestige that would accrue to the gulch from a genuine wedding.

How to Clean Goatskin Rugs.

There are two methods of cleansing white goatskin rugs. If not very much soiled, wet a soft cloth with naphtha and rub the hair vigorously, doing a smell portion at a time; then hang the rug upon the line in the open air that the odor may disappear. Do this work in the daylight and have no fire in the room while using the naphtha. If it is necessary to wash the rug choose a cool, windy day for the purpose. Throw half a pint of household ammonia into a tub containing about four gallons of water. Place the rug in the tub and allow it to remain there about 30 minutes: shake thoroughly in the water, rinse carefully in lukewarm water, and hang it in the shade in the open air. When dry it will be found very stiff, but may be softened by hard rubbing and combing with the fingers.-Chicago Tribune.

From time immemorial eggs have been the resort of the housekeeper surprised by unexpected guests. An excellent way to serve them is with a cream sauce. After the eggs are hard boiled dash cold water over them, and, when cooled, take off the shells. The cream sauce should be seasoned with chopped parsley or with curry powder.

MEDICAL WISDOM.

The Dreaded Consumption Can Be Cured.

T. A. Slocum, M. C., the Great Chemist and Scientist, Offers to Send Free, to the Afflicted, Three Bottles of His Newly Discovered Remedies to Cure Consumption and All Lung Troubles.

Nothing could be fairer, more philanthropic, or carry more joy in its wake than the offer of T. A. Slocum, M. C., of 183 Pearl street, New York city.

Confident that he has discovered an absolute cure for consumption and all pul-monary complaints, and to make its great merits known, he will send, free, three bottles to any reader of Kansas Farmer who is suffering from chest, bronchial, throat and lung troubles, or consumption.

Already this "new scientific course of medicine" has permanently cured thousands of apparently hopeless cases.

The Doctor considers it his religious duty -a duty which he owes to humanity—to donate his infallible cure.

Offered freely, apart from its inherent strength, is enough to commend it, and more so is the perfect confidence of the great chemist making the proposition.

He has proved consumption to be a curable disease beyond any doubt.

There will be no mistake in sending-the mistake will be in overlooking the generous invitation. He has on file in his American and European laboratories testimonials of experience from those cured in all parts of the world.

Delays are dangerous. Address T. A. Slocum, M. C., 183 Pearl street, New York, and when writing the Doctor, please give

The Houng Folks.

THE FARMER'S THANKSGIVING.

The earth is brown, and skies are gray,
And the windy woods are bare,
And the first white flakes of the coming

Are affoat in the frosty air; But the sparks fly up from the hickory

On the homestead's broad stone hearth, And the windows shake, and the rafters

To the lads' and lassies' mirth.

The farmer's face is furrowed and worn, The farmer's face is furrowed and worn, And his locks are thin and white; But his hand is steady, his voice is clear, And his eye is blue and bright, As he turns to look at his sweet old wife, Who sits in her gown of gray, With the cobweb 'kerchief, and creamy frills

frills She wore on her wedding day.

He bows his head to the laden board, And the guests they are silent all.

"Thanksgiving, Lord, for the sun and rain,
And the fruit on the orchard wall.
For the silver wheat, and the golden corn,
And the crown of a peaceful life—

The greatest blessing that Thou canst

A true and a loving wife!"

This white-haired lover he bends to kiss Her hand in its frill of lace,
And the faded rose on her wrinkled cheek,
With a proud and a courtly grace;
And the snowflakes click on the window-

pane, And the rafters ring above, And the angels sing at the gates of God
The words of the farmer's love.
—Minnie Irving. in N. Y. Independent.

A THANKSGIVING SERMON.

It was the forenoon of the day be fore Thanksgiving that Mrs. Jack Hoven stood gazing out of the window. Not that she saw any of the beauties that lay outside in the glittering, frost-ornamented world, or the beautiful picture of the white fields set in the rich framing of a dark green pine forest. Her stare was wholly mechanical, for her vision was turned inward and she was moodily thinking of their troubles, both the real and imaginary.

The day before one of the farm horses died. A few days before that a cow died. Potatoes were only a few cents a bushel, and this year they had ventured largely in that crop. Grain was low in value. The price of hogs was going steadily down, down, down. These were some of the real troubles. It seemed surely that the bottom was knocked out of their prosperity.

Then her soul was equally harrowed, for she had that way of fretting over minor ills, over a long array of imaginary woes. A new carpet had just come home from the weaver's with the stripes woven an inch nearer together than she had ordered. This little trifle she had worried over until it was magnified into a great calamity. She was unable to get her a new cloak this fall, as she had intended. Her fall house cleaning was still unfinished. There were actually fly specks on the very window before her now, which fretted her cleanly soul into peevish unhappiness. These, and a score of similar weighty evils, chafed her nerves on this beautiful morning until she was powerless to see that life held one charm or blessing.

Added to the above woes the children had been clamoring for days for an observance of Thanksgiving. But their mother had told them emphatically that they would not have any Thanksgiving this year. That they had been so afflicted by misfortunes they had little to be thankful for. That not a turkey or even a pie would grace their table on that day; every turkey must be sold to

buy necessities. She predicted a dark outlook for their future, filling the infantile minds with visions of ghastly want. Such words coming from their mother were deeply impressive on all the children except Davy, the little seven-year rebel of the camp. Davy had no appreciation of the ethics of such an unheard-of doctrine. Davy liked a good dinner. And not to have a Thanksgiving dinner! not have a turkey! not have a pie! not have any company! Why, it was the vilest heresy to all that was worth liv-

ing for. Unlike his mother, there was not one drop of melancholy blood in little Davy's swift-flowing veins. He was the very embodiment of joy and sunshine. He saw life through a mirror which reflected back only pictures of bright-ness. His eager, vivacious, joy-loving

little soul was proof against despondent infection.

As Mrs. Hoven stood looking out the window in brooding blueness, her husband came in from the barn and took a seat by the fire to warm.

"John Marsh passed just now," he said: "He says another one of the Green children died last night of diphtheria. How terribly afflicted they are! I hope to God it won't get in this neighborhood."

The door into an adjoining room where the children were playing was slightly ajar. A numerous little regiment were the Hoven children, and crowded close together in years. There were six of them, from 12-year-old Katie to year and a half baby Roy. They had all gathered in the big kitchen on this morning where they loved so to play. And, as usual, Davy was the life and leader of the party.

"Say, Katie," he cried, "let's play Thanksgivin.' If we can't have a truly Thanksgivin' let's have a play one. I guess mamma won't care if we just play Thanksgivin' That won't make us any poorer, will it, Katie?"

"How shall we play Thanksgivin', Davy?" asked Helen, who was just his

"Oh, we'll have a sermon, an' then go home an' have dinner. Katie can fix us up a nice Thanksgivin' dinner. You can take some bread an' apples, Katie, an' cut 'em up an' give 'em some nice names. An' I'll run get one of my little sweet pumpkins, an' we'll make a turkey of it. An' we'll stuff it, too."

"What will we stuff it with?" asked Helen.

"Oh, anything," returned the fertile master of ceremonies. "Katie can stuff it with her handkerchief if she can't find nothin' else."

"Will you preach the sermon, Davy?" "Yes, I'll preach the sermon. An' I'll try to preach a good one, too."

"But, Davy, dere ain't nussin' to preach erbout," said solemn little five-year Susie. "Mamma said dere wasn't nussin' to be sankful for dis year.'

"You just wait an' see, Susie. I'll bet a dollar I'll find lots of things to be thankful for."

Davy had often accompanied his father to Grange lectures and to church, and he had heard Thanksgiving sermons. He early became imbued with oratorical tendencies, and frequently took the platform as preacher or lecturer in their sports.

The little company were soon in active preparation for their imaginary celebration. A pulpit was formed in one corner of the room by a circle of chairs, while a chair was placed inside for the speaker to stand on. When the audience was in readness a signal was given, and the young clergyman emerged from an outer room, dressed in some of his father's old work clothes. A church-like gravity pervaded the congregation, Katie checking baby Roy's irreverent crowing with kisses. The young preacher walked in with clerical dignity, and entering the sacred inclosure climbed upon the chair.

"My frien's," he began, diving at once into his discourse in unceremonious disregard of preliminaries, "we're goin' to have a Thanksgivin' sermon. We ought to be thankful for lots o' good things we've got, say nothin' bout what we haven't got. The goodest way to be thankful is to have a good dinner an' have comp'ny an' have a good time. But we can't do that this year. We've got just lots to be thankful for, though, thout the dinner. We've got papa, an' we ought to be awful thankful for pa An' we've got mamma, an' we ought to be awful thankful for mamma. An' we've got grandpa an' grandma, an' we ought to be jus' dreadful thankful for them 'cause they are so old. An' they're goin' to spend a lonesome Thanksgivin' all aione, cause nobody don't invite 'em, an' they're too old to fix up for comp'ny. An' we've got Mr. Snowdon for a neighbor. An' Mrs. Snowdon went an' died an' lef' him all alone an' he ain't got nobody to spend Thanksgivin' with. An' we've got us kidses, an' we ought to be so thankful for us kids, 'cause ain't none of us got the dipthery like the Green kids. An' the Green kids won't have no Thanksgivin', may be not a mouthful. An' we've got three good horses to be thankful for."

"Davy," interrupted Susie, "you mus' 'member one of de horses died."

"Well, Susie, I ain't sayn' nothin' bout dead horses. It's the live horses I'm talkin' bout. Three live horses is good deal more 'count than one dead I'm thankful we've got three good, live horses 'sted of two or one or not any 'tall, same's some folks. An' we've got seven milk cows, an' twelve slick little baby pigs, an' twenty-three just awful big turkeys."

Here this grateful minister halted in dead silence for an instant, as if a change of feeling had suddenly crossed his spirits. And as he looked out over his listeners, the benign expression that emanates from a heart filled with gratitude fled from his countenance, and a look of unministerial defiance came over his face.

"An' I tell you, my frien's," he continued with a new animation, "I don't care one cent if half of them turkeys die of hog cholera, same's Uncle John's hogs did. No, I don't care a cent."

"Why, Davy," cried Kate, "it's dreadful wicked for you to say that. Not care if our turkeys die!"

"No, it ain't wicked, Katie. You don't like turkey good's I do, or you wouldn't think 'twas wicked. Jus' think! We can't have jus' one turkey when we've got 23. An' we've got our farm to be thankful for. An' it's all our own farm an' it ain't nobody else's. An' we all love it so good we wouldn't want no other farm in the world, an' we kidses have such nice times here. An' we've got Cousin Myra an' her children to be thankful for. An Cousin Myra is a widder an' ain't got not one turkey. An 'twould be awful nice if we could have her an' the kids come to Thanksgivin', so we kids could have some kids to play with."

Here the orator paused. "Katie," he said, "is there anything else we've got to be thankful for?"

"Dere's our baby kitties," piped in little Susie.

"Oh, yes, I forgot the kitties," re-

turned the informal preacher.
"An Uncle John's 'ittle new baby," suggested Susie.

"Yes, I forgot the baby, too." "An' our cellar full of apples an' good

things," said Helen. "Yes. Goodness! I ought to a thought of them. An' now what is there

we ain't thankful for?" "Why, Romy an' the cow died, you know," said Katie.

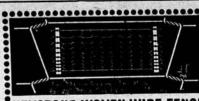
"Yes, but that ain't but two things, an' we've got as many as 40 to be thankful for. I know what's the worst thing we ain't got to be thankful for. That's cause we ain't goin' to have any 'really truly' Thanksgivin'. But now we'll take our play Thanksgivin' dinner over to Miss Katie Hoven's house."

The minister bounced down from the chair and the appreciative audience repaired to dinner.

The parents had been attracted to the play from the first, and had listened intently to every word of the sermon. The mother still stood looking out the window. The father sat by the fire, and occasionally a broad smile would pass over his face as the sermon progressed. At its conclusion he turned to his wife and said:

"Mary, what do you think of that ser-

mon?" "I think," she returned, her face illumined with both laughter and tears, 'that it is true 'a little child shall lead them.' You and I have been enveloped in a cloud of late. We've been living in the morbid delusion that our afflictions are greater than our blessings. But Davy has shown us that they In thinking of the animals that died we completely lost sight of those we have left. And bemoaning the low prices this year we have forgotten the many



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have. What do you say, shall we have

a Thanksgiving, Jack? "Yes, indeed, we will," he returned, springing from his chair with new alac-"I'll kill the biggest turkey on rity. the place, and we'll have father and mother, and Mr. Snowdon, and Cousin Myra's family. Our little folks shall have a happy surprise for once. Now you just hustle around, little woman, and we'll have the most thankful

Thanksgiving we ever had." "And, Jack, we'll send the Greens a basket of things. Only think how hard it must be for them to get any cooking done. And some good food will no doubt do Mr. and Mrs. Green both good, worn out as they are nursing their sick children."

Fifteen minutes later the whole house was in happy excitement and all hands busy in the work of preparation. And the next day a score of hearts beat in happy enjoyment who would have known no such pleasure had hopeful little Davy not preached his thankful sermon.-Nellie Burns, in Ohio Farmer.

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Published every Thursday by the

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who are well known to the publishers, or when acceptable references are given.

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

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Address all orders—

KANSAS FARMER CO., Topeka, Kas.

If our friends whose subscriptions will expire January 1 will bear in mind that the labors of our subscription department at that time may be lightened by early renewals, and take the first opportunity to send in their dollar bills, they will confer favors which will be greatly appreciated.

Reports of horses dying from "staggers" suggest that great care should be taken to avoid feeding wormy corn. Dr. Mayo will have an article on this subject in the FARMER next week.

The coincident liberal prices of wheat and low prices of corn are reported as having the effect of enlarging the consumption of corn and correspondingly reducing the consumption of wheat.

The volume of business in the United States for last week shows an increase of nearly 10 per cent. over the corresponding week last year and 9 per cent. over the corresponding week in 1892.

It is reported that the American nail trust has gone to pieces because it proved too expensive to buy up all of the outside manufacturers. A big re-duction in the price of wire nails is

The foreign demand for American apples is this year a great one. Shipments to November 14 were:

The publisher of the Kansas Sunflower, the now famous "Becky Sharp's paper," has made arrangements with us whereby we can offer it and KANSAS FARMER one year for \$1.50, which is the price of the Sunflower alone. Send in your subscriptions to this office.

The Youth's Companion is one of the finest publications for young and also for older people. We can furnish KANSAS FARMER and Youth's Companion for \$2.35 for one year to new subscribers to \$2.35 for one year to new subscribers to increase of \$2 per cent., against an increase of 36 per cent. in the bread-eating subscriptions, with KANSAS FARMER populations of European lineage. With subscriptions, at \$1.65, if sent direct to cottonseed displacing corn and corn prod-

Leslie's Illustrated Weekly has always been and is now a \$4 paper, and worth the money if any illustrated paper is worth \$4 per year. But in order to accommodate our subscribers we have made arrangements with the publishing company whereby we are able to offer Leslie's Weekly and KANSAS FARMER both for one year for \$3.

The thirty-ninth annual meeting of the Missouri State Horticultural Society will be held in the opera house, Marceline, Mo., December 8, 9 and 10, 1896. One hundred dollars will be given in premiums. The Randolph and Alhambra hotels will give rates of \$1 per day to delegates. Railroads will give rates, providing 100 hold certificates.

A MUCH-MENTIONED LETTER.

Since the publication, recently, of the letter of Mr. C. Wood Davis, we have received a large number of letters with reference to it. A few of these have objected to the publication as too political. One has thought it of too little value for the space occupied. The great majority have ordered copies for friends or have otherwise commended the letter. We fully agree with those who object to the political features and have decided that for the future correspondents will be required to avoid all political allusions, and that political articles will be rejected, however much of other valuable matter they may contain.

The letter has attracted attention outside of Kansas, not so much on account of its politics as on account of its economic showing. Perhaps a fair consensus of comment on the important matters presented in Mr. Davis' letter is contained in the following, from the American Elevator and Grain Trade, of Chicago, the ablest journal of its kind published:

"Our old friend, C. Wood Davis, of Peoone, Kas., has been writing a letter to a Detroit man, which the Kansas Farmer has been publishing in installments of six columns. It is chock-full of politics as well as of economics, and Mr. Davis evidently feels like bolting both parties. He denies that either side has told the truth about the cause of low prices, especially the truth about the low price of wheat; and he denies with characteristic vigor that the policies advocated by either party would help matters any; least of all the farmer, with whom prosperity must begin. And then he tells at length why prices of farm products have been low and why they must necessarily be high in the near future.

"We always like to read what Mr. Davis writes. He is tart as a lemon and yet his views are optimistic, from the farmer's standpoint. He believes the time is near at hand when farmers, as a class, will be the most prosperous part of the community, and, in fact, about the only prosperous part. And further, the farmer is to blossom out as a monopolist, because acres cannot be mul-tiplied. In fact, Mr. Davis has been called the 'apostle of prosperity through starvation,' because he believes that the abundance of the past few years is only the result of fortuitous circumstances which have given an unusual amount of good crop weather. Were it not for this we would already be starving, or precious near it, Mr. Davis thinks. And he gives the fig-

"We cannot give the voluminous data in full on which the Kansas statistician bases his views. Briefly summarized, the world's wheat acres have increased about 1½ per cent. since 1884, while the consumers of wheat have increased 18 per cent. Meanwhile the world's rye fields have shrunk nearly 4,000,000 acres. In the last fourteen years the world has seen ten phenomenal wheat crops, showing an aggregate excess of 1,259,000,000 bushels over what the normal production would have been. The four under-average crops averaged a deficit of only 65,000,000 bushels. The last four crops of the world's wheat have given an aggregate product of 663,000,000 bushels greater than it would have been had the yields since 1891 been no greater than the average of the last twenty-five harvests. He figures that the over-average product of wheat and rye in the three crops of 1893-94-95 has aggregated 1,090,000,000 bushels. Had it not been for this annual over-average of 863,800,000 bushels of wheat and rye the world would now be starving.

"And with corn. Twenty-five years ago Europe, with the Americas and Australasia, bad 63,000,000 acres in maize. In 1895 the same regions had 115,000,000 acres, an ucts, is it any wonder corn is low? But the world's requirements of wheat and rye will soon take acreage from corn, and, in Mr. Davis' view, the bicycle and trolley have come none too soon, for all food products, such as wheat, rye, corn, pork, beef,

etc., must of necessity be much higher.
"Perhaps Mr. Davis is right, but there is a chance for him to be wrong. He was mistaken three years ago and he may be foiled again by meteorological conditions which will continue to produce over-average crops. Anyhow, we hope he won't insist on starving the rest of us in order to even up things with the farmer. We want him to relent when he gets wheat up to \$1.10 and corn up to 70 cents."

The Michigan Agricultural college is conducting a "Farm Home Reading Circle." The object is to furnish to the farmer, at his home, at moderate cost, such courses of reading as will be beneficial to him in his occupation and of Thos. Slater on page 15 of this paper.

at less cost than he can otherwise obtain it. The advantages of systematic reading are too well understood to need any argument on that point. The Michigan college has made a success of its work in this direction and has a continually growing circle. Membership in the circle is free to farmers residing in that State. To all others the fee is \$1. Full information can be had on application to Herbert W. Mumford, Secretary, Agricultural College P. O., Michigan.

WHAT THE GRANGE DESIRES.

The National Grange, after a session of ten days, at Washington, D. C., completed its work November 19. A very elaborate report from the Committee on Transportation was presented and adopted. It detailed many of the complaints against carriers, among them: "Elevator charges, manipulation of rates through 'milling in transit privileges,' cutting of export rates, so that the middleman can ship from the interior to the seaboard cheaper than the producers; the unintelligibility of rate sheets posted at railroad stations," etc. The report recommended several amendments to the interstate commerce law. Among them were

First-That the procedure in the courts to enforce the orders of the commission should be confined to the record made up of the testimony taken before the commission, and the order of the commission should be enforced unless the court shall find in such proceedings some material error prejudicial to the carrier which furnishes sufficient reason to refusing to enforce it.

Second-That the commissioners should have power to requre, after investigation and inquiry, that the rates, facilities or practices involved in the case shall be changed, modified or corrected as specified in the order, so that when the commission has determined what is unlawful, it shall be its duty to prescribe what is lawful in respect to such rates, facilities or prac-

Third-That uniform classifications of freight articles should be established without delay and the commissioners required to conform to such classifications.

Fourth—That the commission should have power to require connecting carriers to establish through route for continuous carriage of freights, and make reasonable through rates for shipments over such routes, and in case of disagreement between carriers in regard to division of rate between them the commission should have power to determine the apportionment of through rate between several car-

Fifth—That the commission should have authority to determine and prescribe the form, contents and arrangement of the schedule and joint tariffs of rates required by the act, to be published and filed, and from time to time to change such prescribed form as may be found expedient.

Sixth-That the charge of higher rates on domestic tariff than on like service for through export traffic should be distinctly prohibited.

Seventh — That the commission should have authority to require the prompt filing of annual and monthly reports by carriers. The committee recommends the discussion of transportation matters generally, and particularly those arising from time to quality of cows was advocated to get time in various localities in the local granges, and that our Senators and Representatives in Congress be asked. as occasion may demand, to take necessary action for removal of transportation abuses by suitable legislation.

A reciprocity resolution was discussed and tabled because it trenched on politics.

Notice the fine advertisement of the Youth's Companion in this and the three succeeding issues of KANSAS FARMER.

"Brown's Bronchial Troches" are a simple and convenient remedy for Bronchial Affections and Coughs. Carry them in your pocket.

Every man should read the advertisement

DAIRYMEN MEET.

The tenth annual session of the Kansas State Dairy Association convened at Abilene, on Wednesday morning, November 18. An attendance of seventy-five at the opening and 150 later in the day, presaged the best meeting in the history of the association. The Reception committee met the delegates, and comfortable quarters were found at the Pacific and Central hotels, where talk of separators, breeds, butter fat, dairy salt, and the prospect of an anti-oleo bill filled the lobbies.

So far there are eighty-eight entries of butter and cheese, and the different prizes offered amount to about \$500. Never has there been greater interest taken in this department.

Secretary Hoffman called the convention to order and read a letter from President Brandt, regretting that illness in his family prevented his attending. J. E. Nissley, ex-President, was chosen chairman, and M. L. Hoffman offered the invocation.

Hon. J. R. Burton, on behalf of the Abilene citizens, welcomed the visitors. He lauded the association's work in giving the people pure butter and in developing a great industry that had done so much for Dickinson county. Mr. Burton stated that butter from this county could be laid down in a foreign market at a transportation charge of 2 cents a pound, whereas twenty-five years ago it would cost 6 cents a pound to transport the same to Kansas City. He also stated that Abilene had been very much depleted after the boom subsided, but at the present time there was only one empty store in the city, and the credit for this change must be given to the dairy business, that has been developed in the last few years. Mr. Burton believes that we should have not only pure butter but pure food of all kinds, and that the people should inform their representatives what sort of legislation is demanded.

In the absence of Mr. Fuller, of Atchison, the response was given by Mr. Hill, of Kansas City, who said some nice things about the delegates present and also the people of Abilene.

PRESIDENT BRANDT'S ADDRESS. President Brandt's annual address was then read by the Secretary, Mr. Hoffman. In substance he said:

We are here to confer as to mistakes, errors, successes, etc., and crystalize our theories. The milk business was a few years ago considered a small, dabbling affair. Yet in the United States, the milk industry amounts to one-seventh the value of farm products and is preceded only by meat, corn and hay; wheat has the fifth place. The total value of milk products in 1889 was \$411,-976, 532, an increase of 200 per cent. in thirty years. Kansas in twenty years has, however, advanced only 2 per cent.

Trained dairymen is one of the great needs of the State, men and women who understand the business from the bottom. To secure these we should have a State Dairy school and a committee should be appointed by the Association to work to that end.

He called attention to the need of legislation against oleomargarine. At the last session of the Legislature a bill in favor of the butter-makers "passed the Senate and was lost in the House." Mr. Brandt hoped that Mr. Leedy, the Governor-elect, would work in harmony with the dairymen.

More hearty co-operation between patrons and proprietors of creameries was urged and an improvement in the better results. He predicted that the increased prosperity coming to the nation will bring better prices for butter and that an era of better returns is ahead.

Mr. Brandt has been Secretary two years and President one and has made a most estimable and capable officer of the association.

The first paper of the session was read by Mr. C. O. Musser, of Abilene, on the practical use of artificial refrigeration in the average creamery. Many points were brought out by Mr. Musser, showing that refrigeration without ice has many advantages, the chief ones being dry air and a saving of room, also it is easier to regulate the temperature and maintain it near the freezing point, and even below, than

benefit from this system the room should be well insulated. Anhydrous ammonia is the agent used.

An important subject to Kansas dairymen was advanced in a paper by Mr. Frank Trauger, of Herington, on the question, "Can Kansas Compete Successfully With Eastern States in the Production of Cheese?" Mr. Trauger stated that with the same care of cows, and intelligence on the part of the cheese-maker, as good an article can be made here as in New York or Wisconsin. Mr. Trauger said that at his factory he made one pound of cheese from 8.41 pounds of milk, and that Mr. John Bull, of Ravanna, had made one pound from eight pounds of milk on buffalo grass. He stated that the cheese made by Mr. C. B. Merry, of Nortonville, from cheap feed and on land valued at only one-half as much as that in the older cheese States, had sold nearly as high as cheese made east of the Mississippi river. With these points in our favor, the question of quality is the principal factor. With a reputation for honest goods, Kansas should be a competitor in the markets for a good share of the cheese trade, of at least our own country. Mr. Monrad, of Chicago, stated that we would be handicapped somewhat on account of dry atmosphere, although by supplying artificial moisture to our curing-rooms we might compete successfully with other dairy States. Mrs. Parvin, of Larned, thought there was a future for cheese-makers in this State, from the fact that we were protected in marketing largely by home consumption, thereby saving transportation charges. Mr. Monrad said, further, that our grasses would make as good cheese as made anywhere in the world. Mr. A. G. Eyth, of Enterprise, says he has as good curing-rooms as can be found in the most modern cheese fac-

"Mottles in Butter," was a subject presented by Mr. F. S. Hurd, of Meriden. This is one of the most serious questions in the manufacture of perfect butter. Unequal distribution of salt was one of the prime causes. Salt should be thoroughly dissolved before the working is finished. Freezing butter does not produce mottles. Mr. Eisenhouer thought the temperature of the water used in washing the butter was one of the principal causes. Dr. Eyth stated that two workings would do away with mottles. Mr. Erb said he had been troubled with mottles and could not find the cause. A general discussion brought out the fact that lack of working caused mottles, and also by not thoroughly dissolving the salt.

"Have We Derived Any Benefit From the Use of Butter Cultures" was opened by E. C. Lewellen, of Newton. The only culture I have experimented with was "B 41," and we were supposed to make butter from it which would sell on the market for at least 2 cents a pound more. It did not do it. Dr. Eyth said he preferred to use starters or cultures made by himself. Mr. Hoffman said he did not believe they had received any benefit from the advertised butter cultures. A general discussion showed a good deal of difference of opinion. Some were heartily in favor of cultures, others preferred starters made by themselves. Mr. Monrad said benefits had been received from commercial cultures. Commercial starters are more uniform, and if we ever expect to get a good export tsade we will have to use pure cultures, a very difficult matter with home-made cultures. Eighty-five per cent. of Danish creameries use commercial cultures. J. L. Hoffman stated that American butter was better than Danish butter, and received his information from an Englishman who is importing butter.

Prof. Haecker, of Minnesota, said that the one thing needful in many of the Western States was good dairy knowledge among the producers of milk, as well as in butter-making. His idea was that each State should appropriate some money for that purpose.

"Comparative Profits of Milk Production With the Agricultural Prod-

by any other method. To get the most olis. It depends considerably on location. In some places, where grain crops are abundant, it may show a different proportion. But on an improved Kansas farm there was no question that the milk product is the best paying. By selection he had nearly doubled the capacity of his herd. One instance: From April 1, 1896, to October 1, 1896, fourteen cows furnished 42,687 pounds of milk. Time will not increase the production of wheat per acre, but the outlook for the bettering of creamery cows is first-class His paper closed with the following, which was highly applauded:

"Corn in the corn crib, Chickens in the yard, Meat in the smoke-house, A tub full of lard;

"Milk in the dairy, Butter by the load, Coffee in the box And sugar in the gourd;

"Cream in the cream pitcher, Molasses in the mug, Honey on the buckwheats— And cider in the jug."

"Are Skimming Stations a Success?" was the subject of J. K. Forney's paper. He held that it had been a most successful and practical plan in connection with the Belle Springs company's plant, and advised it as a feature of all creameries which are conducted on a large

Prof. T. L. Haecker, of the Minnesota Experiment Station, gave a long address on "Cost of Producing a Pound of Butter." He is one of the most skillful butter experts of the West and his words were listened to with interest. He showed how the cost varies with good or bad management and presented one of the best papers of the

Geo. Morgan, of Oak Hill, handled "Dairying for Profit." He said many cows, through the winter, had no other feed except what they picked up in the stalk field. One farmer was referred to who had 2,500 bushels of corn, but had no time to give it to his cows. A few years ago another farmer said that corn was too high to feed to cows. And in either case, with many dairymen the cow was obliged to hunt her own feed and still furnish a good yield of milk. Cows were cited that only produced \$1.50 worth of milk per month when sold to the creamery, and all for the lack of proper care.

Mr. D. S. Brandt, of Newton, talked on condition of milk delivered at the creamery, insisting on cleanlines and good care. Mr. Brandt said he had known milk to be sour when delivered to the factory, in three hours after being drawn from the cow. He gave some good advice in regard to cooling The main cause of bad milk was in closing the can over night and in mixing warm milk with cold.

Prof. Haecker stated that he raised good heifer calves by feeding three weeks on fresh milk, and then gave only separator milk, with the addition of from a teaspoonful to a tablespoonful of ground flaxseed at each feed. The milk was given warm from the machine and the flax meal added without scalding.

The afternoon session of Thursday was devoted to three addresses by exparts from three States. They were: Prof. Curtis, of Ames, Iowa; Prof. Georgeson, of the State Agricultural college, and Prof. Haecker, of Minneapolis, Minn. The first talked on the best breed of cows; the second on work in the college on dairying, and the last on "To What Extent Can Butter Fat Be Influenced by Feeding?" The addresses were able and helpful through-

Mr. J. E. Nissley read one of the best papers offered at the convention, entitled "Looking Backward," and Mr. J. H. Monrad read a similar one on "Looking Forward." We hope to give both of them entire at some future time.

Secretary Coburn, of the State Board of Agriculture, gave a very interesting paper, which he was pleased to call "Let Us Get Better Acquainted With the Cow." Mr. Coburn said, among other good things: "I claim that the cow is a vastly better institution than most of us give her credit for; that it is in her power and is her pleasure to do much more for us than we as yet ucts," was the subject opened with a permit her to do, through doing a little paper by Mr. E. O. Adee, of Minneap- more for her. If she, with the care we county of the State, and viewing the

might well bestow on her, and the feeds we raise in a profusion unsurpassed anywhere else on earth, can yield us milk containing 200 or 300 pounds of butter fat in a year, it is a folly well-nigh wicked to be satisfied with a yield only half as great; if by churning her cream with brains the product will sell for 12 instead of 6 cents per pound, or 20 cents instead of 10, we owe it to ourselves to put in the requisite brains. Here and there men are doing this, and wherever and whoever they are they have money; their conditions are improving and they are not talking of emigrating. They are here to stay, and will build up the country by building up themselves. Free coinage, 16 to 1, will be the medium; free coinage of golden butter and cheese, at the ratio of six-teen ounces to one pound. The people of this county of Dickinson more than those of any other in the State have caught the inspiration, as the assessors' returns show 21 per cent. more milch cows here than its closest competitor in dairying has, and a dairy output 241 per cent. greater in value the past year than any other county in Kansas. Furthermore, while there has been a slight decrease in the number of cows (probably gone to do missionary work elsewhere) the value of the county's cow products, spite of falling prices, has shown an increase of about \$110,000, or 65 per cent. Neither crop failure nor the 'crime of '73' have prevented the cow-owners of this county from jingling in their pockets more than a quarter million of good 100-cent dollras received for milk during these 365 days of depression. I am loyal enough to Kansas and to those who have been my fellow citizens during all the years of my manhood to maintain that any good thing in an agricultural way that the Danes can do in Denmark, the Canadians in Canada, or the Norwegians in Minnesota we can do in Kansas-not only as well but a good deal better. What Dickinson county is doing other counties can do, I and believe ought to do. We want to get out of the slough and into the sunshine. Our horses and our oxen have not taken us there as we hoped and my suggestion is that we now try hitching the cow on in front. The fact that the sworn assessors' statistics show that during the past ten years the average value of the Kansas milch cow's annual dairy product-making no account of her calf-has been but \$7.70, persuades me that we are not on such terms of profitable intimacy with her as our hard-up condition warrants."

Mr. C. O. Musser secured the gold medal offered by Wells, Richardson & Co. on their butter color; score 98. The second prize went to Messrs. Brandt & Essley, of Canton; score 971. Mr. Henry Van Leemven, of Effingham, scored 99 on cheese, as did A. G. Eyth, who scored 99 on his two exhibits of Brie and Minster cheeses. Mrs. E. H. Parvin took second prize on her cheese; score 98. There was one exhibit of dairy butter furnished by Mrs. D. Hall, of Ellinwood; score 941. Altogether there were 104 entries of butter and seven of cheese. The average score of all the butter was 93.91, which is somewhat better than in former vears.

The prize butter was made from cream that tested 32 per cent. of fat and was churned at 520 and finished at

Mr. A. W. Patch, of Boston, expert judge on butter, and Mr. C. W. Stephenson, of Chicago, on cheese.

The prizes which went to the Belle Springs company were: From Creamery Package Co., 250 butter tubs, \$62.50; cash to C. O. Musser, \$12. From Wells, Richardson & Co., gold medal to C. O. Musser, \$50. From Genesee Salt Co., cash, \$25. From De Laval Separator Co., cash, \$15. From Standard Oil Co., twenty gallons oil, \$6.40. From Hutchinson Packing Co., gold, \$10; fifteen sacks salt, \$20.

Officers were chosen as follows: President, J. L. Hoffman, Newton; Secretary and Treasurer, J. K. Forney, Abilene; Assistant Secretary, F. S. Hurd, Meriden.

The resolutions adopted say the association has met in the leading dairy

prosperity the members are inspired in pushing the work. They extend hearty thanks to Abilene for the entertainment given; to Dr. Hewitt, C. H. Pattison and J. K. Forney and the committees for their work, also to the professors from Iowa and Minnesota: thank Secretary Coburn for his book on "Cow Culture" and endorse his work; favor an anti-oleomargarine bill; ask a State dairy school at the Agricultural college; commend the State Board of Agriculture and pledge the association's effort to prevent its being used as a political machine.

A resolution endorsing ex-Gov. Hoard, of Wisconsin, for Secretary of Agriculture, was adopted, and J. R. Burton requested to present it to Pres-

ident-elect McKinley.

HALTING.

It is important that farmers as well as other business men keep well informed as to developments likely to affect values. In the following brief excerpts from Henry Clews' circular of last Saturday will be found his serial statement of the situation. His reasoning on these several points is necessarily omitted on account of length. But with the statements of fact before them our readers will be able to do the reasoning act about as well as it can be done for them. Mr. Clews opens his circular with this statement:

"In the investment and speculative departments of Wall street, the past week has been one of partial reaction."

Following some comment upon this, there are six numbered statements, each of which is amplified at considerable length. We give here only the bare statements:

"(1) There has been already a quite considerable advance in prices.

"(2) The realizing has been quite important in amount and of a somewhat unusual nature.

"(3) There has been no spurt in the volume of general trade corresponding to what had been somewhat prematurely expected as an immediate result of a sound money victory.

"(4) For the reasons just referred to, there has so far been no material for any striking increase in the earnings of the railroads.

"(5) The interruption of imports of gold has continued longer than was expected by not a few of the habitues of Wall street.

"(6) This gold question, however, has a doubtful side as to the foreign markets for our securities. Further advances in the Bank of England rate of interest are expected and intimations come from London of a possible 6 per cent. rate for a few weeks, while Kaffir stocks are again making trouble."

How to Make a Little Money!

Send eleven (11) 2-cent stamps to the Watt Manufacturing Co., 47 E. Third St., Cincinnati, O., who will send you by mail a "Morris Towel Rack," a wonderful dainty household article that is screwed into the wall, and by a button fastens the towel securely so it cannot be pulled out or fall out. It is nickel-plated and very ornamental. With this sample go around and take orders, and you will be surprised to see how many people want just such a useful thing. Most families will buy five or six of them, so every person can have his own towel and towel rack; saves washing as the towels do not lie on the floor. Any lady or gentleman can easily make from \$6 to \$8 a day by canvassing with this little wonder. The stores will buy them as well as the families. It is much easier to sell an article like this that does not cost much, as everybody will buy. Our readers should secure the agency for the "Morris" at once.

Ho! for Oripple Oreek.

Remember that the Chicago, Rock Island & Pacific is the only line running directly from the East to Colorado Springs, the natural gateway to the Cripple Creek District. Colorado Springs lies at the foot of Pike's Peak at its eastern base, and Cripple Creek is part way down the southwest slope of Pike's Peak and near its western base.

Two all rail routes from Colorado Springs are offered you. One by the Midland railway up Ute Pass, via Summit, to Cripple Creek. Another over the Denver & Rio Grande, via Pueblo and Florence, to Cripple Creek. Take the great Rock Island Route to this wonderful gold mining camp.
Maps, folders and rates on application.
Address

JNO. SEBASTIAN, Gen'l. Pass. Ag't., Chicago,

Borticulture.

OBSERVATIONS ON THE CARE OF FRUIT TREES.

By Prof. L. H. Bailey, in Bulletin 102, Cornell University Experiment Station. (Continued.)

Tillage should generally be stopped in late summer or very early fall. The tree has completed its growth. It must now ripen and prepare for winter. It can spare some of the moisture which comes with the fall rains. We may, therefore, sow some catch or cover crop. This crop will, if properly plowed under, greatly improve the mechanical condition of the soil; its roots will catch some of the leaching nitrates, of which the roots of the trees are now in little need; it will catch the rains and snows of fall and winter and hold them until they gradually percolate into the earth; it will prevent the puddling and cementing of the soil during winter; it will dry out the soil quickly in the spring, if the plant is one which survives the winter and starts early into growth, thereby making very early tillage possible. What this cover crop shall be must be determined by local conditions. It is probable that better results will be attained if different crops are used in different years, in a rough sort of rotation. Crimson clover is certainly one of the best. This is an annual. If sown too early, it becomes too mature in the fall and kills out; if sown too late, it secures insufficient root-hold the soil is in congenial mechanical and is killed by the winter. We now think that about the middle of July or the first of August is the safest time to applied. The better the tillage, the sow it, under normal conditions, in this latitude. Other good cover crops are peas, vetch, and possibly, now and then a year's crop of field clover. Oats, sowed corn, rape, spurry, buckwheat, rye, may be used occasionally.

Begin to till when the orchard is trees are properly set and if cultivation is begun the first year, the roots will go deep enough to escape the plow. The roots of trees spread much farther than the tops. I will give some examples from trees of which we have carefully measured the tops and roots. We have a standard Howell pear tree set in 1889. It grows on a hard clay knoll. The full spread of the top is seven feet. Two roots were laid bare, and they ran off in one direction to a distance of twenty-one feet. Assuming that they ran an equal distance in the other direction, the spread of roots was forty-two feet, or just six times that of the top. And yet it is commonly said that the spread of roots and tops is about equal! Now, these roots were long and whip-like. The soil was so poor that they were obliged to search far and wide for pasture. Compare with this a Fall Orange apple, set in 1889, in rich, well tilled soil. Here the roots are in good pasture and they remain at home; yet their spread is twice that of the top. The top of this tree had a diameter of eight feet, and we were able to follow the roots eight feet upon the side in which we dug. These object lessons enforce the importance of tilling all the land between the trees.

But these figures teach another lesson. Even at their highest point, the roots of the pear are eight inches below the surface. They escape the plow. A like remark applies to the Fall clay, and these are the ones which Orange apple. Now compare with a soonest suffer under unwise treatments. tree the same age as the others, The nursery land is kept under clean which has always stood in sod. The culture and it is therefore deeply pulroots ran ten feet in one direction verized. There is practically no herband the total spread of the top was six feet; but the roots lie just winter. When the crop is removed, underneath the surface. This land even the roots are taken out of the could not be plowed without great in- soil. For four or five years, the land jury to the tree. Let us consider the receives practically no herbage which relation of this tree to moisture; the can rot and pass into humus. And roots are in the dryest part of the soil; the grass is pumping out the water and locking it up in its own tissues and sending it into the atmosphere with great rapidity; the soil is baked and soil over the earth. If one were to right to continuous allows nature—if man grants her the sink a well under this tree and were to allows nature—if man grants her the Exhibits of fruits, vegetables, flow- Many a bright boy may receive his Exhibits of fruits, vegetables, flowerect a windmill and pump, he could privilege-to replace the fiber in the

Cultivate in such manner that the land will be in uniform fine tilth. Every good farmer knows that the value of his crop depends more upon the tilth of the soil than upon the richness of it. Fertility is largely locked up in poorly tilled lands. Orchards which are plowed late in spring are usually in bad condition all the season, especially if the soil is clay. Fall plowing upon stiff and bare lands is apt to result in the puddling of the soil by the rain and snow; if there is sod on the land, this injury is less likely to of experience have not been wasted follow. In general, it is best to let among such progressive people. We orchard lands pass the winter under a catch crop.

Lack of available plant food is unquestionably the cause of much of the failure of orchards. This fact is strongly emphasized in Bulletin 103, which shows that apple trees on a single acre may use, in the course of the twenty most productive years, over \$400 worth of nitrogen, potassium and phosphorus; and if the owner wants large crops, the trees must have a still larger amount of food. The soil itself is a great storehouse of plant food, and this treasure is unlocked by the judicious tillage which I have recommended; but plant food must also be added to the soil if the best results are desired. It should be said, however, that no amount of fertilizer can atone for neglect of cultivation, for unless condition the plant is incapable of greater the benefit which comes from the use of fertilizers.

There is much yet to be learned respecting the fertilizing of orchard lands. In general, nitrogen can be supplied in sufficient quantity by thorough tillage and the use of occasional planted, and till the entire surface. If cover crops of crimson clover, peas or vetch. In fact, it seems to be easy to apply too much nitrogen on some lands, causing the trees to make a too heavy growth. Young trees make light drafts of potash and phosphoric acid, and it is probable that apples and pears do not need much fertilizing on good soils for the first three or four years, if they are given good cultivation, unless other crops are grown with them. But just as soon as the trees show an inclination to bear, judicious applications of mineral fertilizers may be made. If this fertilizing is begun thus early in the life of the orchard, and if the tillage is good, the applications need not be very heavy, but they should be applied every year. Two or three hundred pounds of high-grade muriate of potash, and an equal weight of some high-grade phosphate (as Florida or South Carolina rock or fossil bone) may be considered to be good dressings. Stable manures are excellent, but they are so seldom to be had in sufficient quantity that they are practically be-yond reach. A leading virtue of the stable manures is the vegetable matter which they contain and which puts the soil into good mechanical condition; but this fiber can also be had by the use of cover crops.

In nursery lands, the soil is injured in its mechanical texture by the methods of cultivation and treatment. The best nursery lands are the "strong" lands, or those which contain a basis of age on the soil to protect it during the then, the trees are dug in the fall often when the soil is in unfit condition, and this fall digging amounts to a fall plowing. The soil, deeply broken and robbed of its humus, runs together pulls up the water by capillary attrac- and cements itself before the following tion and discharges it into the air; summer; and it then requires three or there is no tillage to stop this waste by four years of "rest" in clover or other spreading a mulch of loose and dry herbage crop to bring it back into its soil over the earth. If one were to rightful condition. This resting period able prices. Inquire of the Acting

not so completely deprive the tree of soil and to make it once more so open moisture! And the less moisture, the and warm and kindly that plants can find a congenial roothold in it.

THIRTIETH ANNUAL MEETING.

Kansas State Horticultural Society--De cember 9, 10, 11, 1896.

The following address and program of this old and useful society will be read with interest: To Kansas Farmers and Horticulturists:

Horticulture in Kansas has entered a new era and our horticulturists have gotten down to business. Thirty years think this a business program. It contains no reminiscences, no "looking backward." The six day sessions will be given entirely to business, and the three evenings to instructive entertainment. The society now occupies three beautiful rooms in the capitol, and takes its rightful place as one of the leading educational and industrial bureaus of the West. Our meeting at Lawrence, a year ago, and the summer meetings at Iola and Oswego, being so largely attended, show the larger interest our horticulturists have in increasing their horticultural knowledge. We expect a still larger attendance and greater interest and satisfaction in this annual for 1896. No progressive horticulturist in Kansas can afford to neglect this great opportunity fostered by the State for his benefit. Come, everybody, and make the annual meeting of 1896 memorable in the "annals of Kansas."

Wednesday, December 9, 1896. MORNING SESSION, 9 O'CLOCK.

Prayer, by Chaplain G. W. Burge, of
Lincoln Post, G. A. R.

Reading of communications. Appointment of temporary committees.

County fruit reports. AFTERNOON SESSION, 1:30 O'CLOCK. County fruit reports (continued). Revision of fruit lists.

EVENING SESSION, 7:80 O'CLOCK. Address of welcome, Hon. C. A. Fellows, Mayor of Topeka.

"A Practical Fruit Farm," A. Chandler, rgentine.

"Co-operative Marketing," W. D. Cellar, Edwardsville.

Reports of officers. "Forestry for Western Kansas," S. T. Kelsey, Kawana, N. C.

Thursday, December 10, 1896. MORNING SESSION, 9 O'CLOCK. Reports of standing committees. Revision of constitution. Election of officers. Business discussion-"Good of the So-

AFTERNOON SESSION, 1:80 O'CLOCK. Revision of fruit lists (concluded). Revision of fruit manual. Horticultural discussions on planting cultivating. spraying, etc.

EVENING SESSION, 7:30 O'CLOCK.
"Glass in Horticulture," William H. Barnes, Topeka. "The Monster in Horticulture," Hon. Ed-

win Taylor, Edwardsville. "Good Times for Everybody," Miss Lucy

D. Kingman, Topeka.
"Hardy Garden Flowers," Prof. E. A.
Popenoe, State Agricultural college.

Friday, December 11, 1896. MORNING SESSION, 9 O'CLOCK. Revision of fruit manual (concluded). Horticultural discussion on evaporating, marketing, storing, etc.

AFTERNOON SESSION, 1:30 O'CLOCK. General horticultural discussion (contin-

EVENING SESSION, 7:30 O'CLOCK. "Grapes and Apricots."

enworth. "Birds in Horticulture," Prof. L. L.

Dyche, State University.
"Pear Culture," B. F. Smith, Lawrence Adieux.

All railroads interested have agreed upon a uniform rate of one and onethird fares for round trips, on the certificate plan, provided 100 are in attendance by rail. Be sure to get a certificate from the agent when buying your ticket, and hand it to the Secretary on arrival.

Topeka has ample accommodations for everybody. Board and lodging may be had at its hotels at from 70 cents to \$2 per day. Restaurants furnish good meals at from 15 to 25 cents, and lodgings at 25 to 50 cents. Board at private houses can be had at reason-



The papers are full of deaths from

Heart Failure

the heart fails to act when a man dies,

but "Heart Failure," so called, nine times out of ten is caused by Uric Acid in the blood which the Kidneys fail to remove, and which corrodes the heart until it becomes unable to perform its functions.

Health Officers in many cities very properly refuse to accept "Heart Failure," as a cause of death. It is frequently a sign of ignorance in the physician, or may be given to cover up the real cause.



A Medicine with 20 Years of . Success behind it .

will remove the poisonous Uric Acid by putting the Kidneys in a healthy condition so that they will naturally eliminate it.

ers, roots, bulbs, seeds, trees, traps, pickers, pruners, sorters, dryers, sprayers or other articles of use in horticulture will be welcomed, especially such as can be made at home by the people. While circulars and advertising matter may be distributed, yet none of the society's time can be allowed to advertisers. The society will have a quantity of fruit on exhibition from cold storage, having taken special care to place many varieties in cold storage for exhibition at this meeting.

Thayer's Berry Bulletin for December.

Who should grow berries? First of all, farmers everywhere, for family use. Farmers must grow berries or do without. No one can grow them so cheaply as he. They may be produced ready for picking at 2 cents per quart. The farmer saves cost of picking, packing, boxing, crating, freight, express and profits of growers. He gets them at first cost, fresh from the vines, and to the extent of his own family, has the best market in the world-a home market. He can select the best land and location on his own farm, and is sure of a profit with half a crop.

Farmers can never have ideal homes without the fruit garden. It teaches the lessons of intensified farming, and results in better tillage, larger crops, better stock and improved methods in every way. Good gardens and poor farms never keep company long.

The growing of berries for family use is easily done. The growing of berries largely, and selling them in good market, requires considerable skill and a special business tact. Only those who have good location, good market and a taste for the business should attempt it. Many small farmers so sit-"Cold Storage," George Richardson, pro-prietor of a successful cold storage at Leav-commencing moderately and increasing acreage from season to season as experience warrants.

Berries should be grown by owners of all village homes, and acreage property in city and village may be profitably used for that purpose.

The market gardener selling his own products can often make an acre or two of berries very profitable. They are suitable companions for their vegetable friends, and sell well together.

The business or professional man, almost broken with care, may recover health and strength in the pleasant walk of horticulture. It is restful to both mind and body.

Many women dependent on their own efforts are securing substantial aid from their garden; berries and flowers thrive best under the gentle touch of

690.0

first incentive to business and earn his first money by growing berries or vegetables. Give them a patch of ground and encourage them in this work.

The amateur growing berries for pleasure also gets close to the heart of nature, and in common with every worker of the soil may receive her

In the Dairy.

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

CHOOSING A DAIRY COW.

"Among the points to which attention should be given in making choice of suitable cows for a butter dairy, the digestive organs are important. Where these are defective good milch cows are rarely met with, since these organs have a powerful influence, not merely on all the functions of the body, but more especially on the secretion of the milk gland," says Farm and Home. "A good state of the digestive organs is shown by a moderate-sized belly, with yielding sides; a large mouth, thick and strong lips, a good appetite, easy and quick digestion, glossy hair, supple skin, with a kind of unctious touch. The constitution should be sound, and this is implied by large lungs, a broad and prominent chest, a somewhat slow respiration, and a great inclination to drink-an inclination stimulated by an abundant secretion of milk. Preference should be given to a cow with small bones, fine and slender limbs, and tail fine at the base; head small but long, narrowing toward the horns, the horns themselves of a bright color, tapering finely; small neck and shoulder, slender, especially near the head; prominent eye, and a gentle, feminine expression.

"Good milkers allow themselves to be easily milked-often while ruminating they look with pleased eye at the person who milks them; they like to be caressed, and caress in return. The udder is formed principally by the glands which secrete the milk, and are called the milk glands. In all cows the abundance of milk is in proportion to the size of the milk glands. The marks indicating that these glands are constituted so as to produce much milk are, a very large development of the hind quarters, a wide and strong lumbar region, a long rump, haunches and hind legs wide apart, a large space for lodg-ing the udder, milk glands well de-veloped, and causing the udder to be of considerable size. In good cows the glands constitute a large part of the udder, and accordingly after milking it shrinks much and appears flabby and wrinkled. The teats should be equally thick throughout their length and set well apart, as in the Ayrshire cow, thus indicating that the milk vessels are spacious. The teats of many cows are cone-shaped, and the junction with the udder not well defined, and the older the cow gets the more unshapely do the teats become. There should be only four teats or outlets, one to each quarter; sometimes there are one or more small extra teats—usually behind—which would contain milk, but these should be removed with a pair of scissors at birth. The teats are hairless, but in good cows the udder is well covered with soft, woolly hair and very fine skin. Fleshy udders, which are hard and large, often contain fat in addition to the proper structure of the glands, which presses upon the smaller ramifications of the milk ducts, preventing secretions; this is one reason why milking cows should not be kept in too high condition. Of all the marks for ascertaining good cows, the best are afforded by the blood vessels; if the veins which surround the udder are large. varicose, and winding, they show that the milk glands receive much blood, and, consequently, that their functions are active and the milk is abundant. The veins on the lateral part of the belly are easily observed. These veins issue from the udder in front and at the outer angle, where they form in good cows a considerable varicose swelling. They proceed toward the front part of the body, forming angles more or less

distinct, often divide toward their anterior extremity and sink into the body

by several openings."

Alfalfa (Lucerne) for Butter Production.

A winter feeding experiment with dairy cows is reported in detail in bulletin No. 43 of the Utah Experiment Station, by F. B. Linfield. Tests were made to determine the value of Utah fodders in feeding dairy cows; also as to how much grain it would pay to feed with the fodders used; and, third, to determine the effect of feed on the per cent. of fat in the milk. The experiment was conducted during the winter of 1894-95. Full details are given in the bulletin, and the results, as far as can yet be determined, are summarized as follows:

1. This test adds but another item to the fairly well established fact that an increase in the quantity of concentrated food in the ration of a cow, does not increase the richness of the milk, provided the cows are well fed to start with.

2. Any increase in the grain fed over six pounds per day increased the cost of the dairy products almost without exception; and the test indicates that, with the fodders used, eight pounds of grain is the highest limit for the greatest profit.

3. Considered from the point of price, lucerne hay and grain seem to be a more economic ration than one of mixed hay and grain, but considering the weight of food, there is very little difference, though the results are slightly in favor of lucerne.

4. It is evident from these tests that, with the price of lucerne as reported (\$3.75 per ton), cows may be fed at a food cost in winter of less than 9 cents a day per 1,000 pounds live weight, even with cows that will produce one pound of butter or more a day.

5. The test also shows that, with the right kind of cows, butter fat may be produced during the winter at a cost of not more than 9 cents per pound.

6. The cows which were the largest eaters per 1,000 pounds live weight, were, without exception, the largest and most economic producers.

Any one interested in this experiment can obtain the bulletin, free of cost, by applying to Luther Foster, Director Utah Experiment Station, Logan, Utah.

Some farmers seem willing to sell their best cows because they can sell them for a little more money and can sell them more easily, and then continue to breed from their inferior cows, thereby breeding down instead of up. No man will ever get to the front in the dairy business who pursues such a course. When you have a cow to dispose of, sell it from the other end of the herd.

Farmers' Institutes.

The following dates and appointments for farmers' institutes in this State, under the auspices of and to be attended by representatives from the Agricultural college, have so far been made:

Russell, Russell county-December 4 and Prof. Georgeson.

Oneida, Nemaha county—December 10 and 11; Profs. Hitchcock and Willard.

Nortonville, Jefferson county-December 17 and 18; Prof. Olin and Mrs. Kedzie.

Oak Grange, Shawnee county—Decem-ber 17 and 18; Profs. Georgeson and Win-

Hackney, Cowley county—December 29 and 30; Profs. Failyer and Mason. Hiawatha, Brown county-December 30

Overbrook, Osage county-January 21

and 22; Profs. Mayo and White. Berryton, Shawnee county-February 11 and 12; Profs. Graham and Walters. Haven, Reno county—February 11 and 12; Profs. Popence and Lantz.

A cup of muddy coffee is not wholesome neither is a bottle of muddy medicine. One way to know a reliable and skillfully-prepared blood purifier is by its freedom from sediment. Ayer's Sarsaparilla is always

"Among the Ozarks."

bright and sparkling, because it is an ex

tract and not a decoction.

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

J. E. LOCKWOOD, Kansas City, Mo.



MRS. BURTON HARRISON ONE OF THE POPULAR WRITERS FOR 1897

Celebrating in 1897 its seventy-first birthday, THE COMPANION offers its readers many excep-tionally brilliant features. The two hemispheres have been explored in search of attractive matter.

The Youth's ompanion

For the Whole Family.

In addition to twenty-five staff writers fully two hundred of the most famous men and women of both the Old and the New World, including the most popular writers of fiction and some of the most eminent statesmen, scientists, travellers and musicians, are contributors to The Companion.

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As a special offer The Youth's Companion will be sent free, for the remainder of the year 1896, to all new subscribers. One of the most beautiful Calendars issued this year will also be given to each new subscriber. It is made up of Four Charming Pictures in color, beautifully executed. Its size is 10 by 24 inches. The subjects are delightfully attractive. This Calendar is published exclusively by The Youth's Companion and could not be sold in Art Stores for less than one dollar.

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12-Color

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Great Rock Island Route Playing Cards. Send 12 cents in stamps to John Sebastian, General Passenger Agent C., R. I. & P. railway, Chicago, for the slickest pack of playing cards you ever handled, and on receipt of such remittance for one or more packs they will be sent you postpaid.

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Burlington Route to the West and Northwest, November 3, 17, December 1 and 15 round trip, twenty days limit, to Nebraska Kansas, Wyoming, Utah, Black Hills, and certain parts of Colorado. Splendid through trains of chair cars (seats free), and handtrains of chair cars (seats free), and handsome compartment observation vestibule
sleepers. Only dining car line to Denver
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Take the shortest and most desirable line to the far West; complete trains from the Missouri river. Daily train leaves Kansas City at 10:40 a.m., arrives Billings, Montona, 1,050 miles distant, 6:45 next evening; free chair cars Kansas City to Billings; sleepers Kansas City to Lincoln; through sleepers Lincoln to Billings. Connects with fast train beyond to Montana and Puget Sound. Ten to twenty-five hours shorter

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Through sleepers and chair cars Missouri river to Denver; Rio Grande scenic line beyond for Colorado, Utah and California. Ask agent for tickets over the established through lines of the Burlington Route.

L. W. Wakeley, Gen. Pass. Agt.,

St. Louis, Mo.

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

MITH'S SMALL FRUITS FOR SPRING 1897

100 varieties old and new Strawberries, including Wm. Belt, Brandywine, Paris King, Bissel, Isabel, Barton, Marshall. New Raspberries—Egyptian, Miller, Bishop, Columbian. If you want plants I have two millions for sale.

B. F. SMITH, Box 6, LAWRENCE, KAS.

Carnahan's Tree Wash and Insect Destroyer

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

CHOICE SEED POTATOES

COBURN No. 1.—A new seedling of great vigor; pinkish; short but very bushy vines; white bloom; extra early; eyes shallow; very prolific, indeed; good table potato and a good keeper. Price \$1.25 per bushel, or three bushels for \$3.

els for \$3.

EARLY KANSAS.—A large medium variety; russet straw color; medium vines; purple bloom; eyes rather deep, but a great yielder of very large potatoes, and an extra good table potato. Price \$1 per bushel, or three bushels for \$2.25.

OARMAN No. 1.—Same as the Early Kansas, except it has white bloom and does not grow so large tubers. Price \$1 per bushel, or three bushels for \$2.25.

KANSAS FARMER.—A new seedling of

three bushels for \$2.25.

KANSAS FARMER.—A new seedling of great vigor. A late variety, oval, flattened; eyes very shallow; straw color; very prollific; vines medium and spreading, completely covering the row; white bloom; very best of all keepers and a good eater. Surely worthy of its name and a grand potato. Price \$1.25 per bushel, or three bushels for \$3.

Three pecks of each of the above four kinds

Three pecks of each of the above four kinds. \$2.50; packed in lined barrels and delivered at depot free. Write your name, postoffice county and express office very plainly, and send money with order. I can furnish most all of the leading new kinds.

Address CLARENCE J. NORTON,

When writing to advertisers please mention KANSAS FARMER.

Rose Registered Jersey Cattle and Poland-China Swine are unrivaled. JERSEYS are rich in the blood of Coomassie and Stoke Pogis. Service bull, Calvin S. Brice 37820—grandson of Pedro and Marjoram 2d—won first premium New Jersey State fair, 1894, when a calf. Herd boars fashlonably bred and high-class individuals. Head herd boar Rosewood Medium 16453 by Woodburn Medium, he by Happy Medium; dam Fantasy by One Price. Assisted by Tecumseh the Great by Chief Tecumseh 2d; dam Mooss Wilkes by Geo. Wilkes. Second assistant Domino 16734 by What's Wanted Jr.; dam Bonnie Z. by Gold Coin, he by Short Stop. Domino won first, pig under 6 months, Nebraska State fair, 1896. Our SILVER WYAN-DOTTES are high scorers. We have the best equipped dairy farm and most complete breeding establishment in northern Kansas. Farm in Republic county, near Nebraska State line. Take U. P. or Rock Island raliroad to Belleville, or write.

A Successful Combination Sale.

The first annual combination public sale of registered Poland-Chinas from the Tower Hill herd of B. R. Adamson, of Fort Scott, the Clover Leaf herds owned by G. Hornaday & Co., of Fort Scott, and the Vernon County herd, owned by J. M. Tur-ley, Stotesbury, Mo., was held at Fort Scott, last Thursday, November 19, 1896, and it was a decided success in every way and the breeders were well pleased with their first sale, and the combination sale will be continued hereafter annually, also a bred sow sale will be held February 2, 1897.

The stock offered at this sale was in splendid condition and the quality and breeding attracted a large attendance of leading breeders and farmers, who promptly bid off the stock under the seductive guidance of the auctioneers, [Cols. S. A. Sawyer

and J. W. Sparks.

The result of the sale was as follows The consignment of G. Hornaday & Co. consisted of three boars, sold for \$41, average \$13.66; nine females, sold for \$248, average, \$26.87; twelve head, \$289, average \$24. J. M. Turley's sold as follows: fourteen boars, \$230, average \$16.42; eleven sows, \$286, average \$26; twenty-five head, \$516, average \$20.64. B. R. Adamson's seventeen boars sold for \$330, average \$19.41; eighteen sows, \$520, average \$28.89. The total result of the combination sale was seventy-two head, which brought \$1,655.50, a general average of \$23.

The following comprise a complete list of the purchasers: Irwin & Duncan, Elm Beach farm, Wichita, Kas.; Joe Young, Richards, Kas.; Frank Gonsalus, Ham-mond; Thos. D. Hubbard, Kimball; Sam'l Pettit, Uniontown; A. M. Illias, Stotesbury, Mo.; H. H. Officer, Hillsdale, Kas.; W. H. Kirker, Uniontown; J.W. Redmond, Fort Scott; J. M. Cole, Fort Scott; Hugo Fort Scott; J. M. Cole, Fort Scott; Hugo Mitchener, Godfrey; A. Kerr, Neal; C. H. Goodrich, Columbus; E. E. Wait, Altona; J. S. Penny, Devon; J. D. Kale, Fort Scott; L. L. Thomas, Fort Scott; H. W. Hughes, Fort Scott; E. W. Wagner, Erie; Kreetch Bros., Drexel, Mo.; W. P. Goode, Lenexa; G. G. Council, Williamsville, Ill.; G. Heiser, Deerfield, Mo.; R. M. Henderson, Natchez, Miss.; C. M. Lindquist, Fort, Scott; Wm. Poorman, Barclay, quist, Fort Scott; Wm. Poorman, Barclay, Ill.; Geo. Collins, Marmaton, Kas.; W. D. Pope, Fort Scott, Kas.; John Morewood, Mulberry, Mo.; Clifton George, Lathrop, Mo.; J. T. Bell, St. Paul, Kas.; R. E. Singer, Coalvale, Kas.

"I escaped being a confirmed dyspeptic by taking Ayer's Pills in time." This is the experience of many. Ayer's Pills, whether as an after-dinner pill or as a remedy for liver complaint, indigestion, flatulency, water brash and nausea are invaluable.

Publishers' Paragraphs.

One of the most useful pocket references for the stockman is the "Red Book," published the first of each year. It is a little cyclopedia of transactions on the live stock markets. The regular price of the book is 25 cents. We will furnish the "Red Book" free to every subscriber who will send another yearly subscription with his own.

LIFE AND WORK AT WASHINGTON.-When he was Secretary of State, Mr. Blaine contributed to The Youth's Companion, as did Mr. Gladstone when he was Prime Minister. During the coming year the Secretary of the Navy, the Postmaster General and the Attorney General of the United States will describe in the same periodical features of the national work with which they are identified. "What the Attorney General Does" will be explained in a valuable arti-cle by Hon. Judson Harmon. "How a War Ship is Planned and Built" will be described by Secretary Herbert, while the Postmaster General has chosen for his subject, "Early Days of the Postoffice." In 1790,

the first year of Washington's administration, there were in the United States seventy-five postoffices and 1,875 miles of postal routes. In 1805 there were over 70,000 postoffices and nearly half a million miles of postal routes. The primitive postal service is sketched by Mr. Wilson in a remarkably entertaining article.

We have received from Warner's Safe Cure Co., of Rochester, N. Y., whose advertisement may be found in another column, their attractive pamphlet for 1897, of which 5,000,000 copies, it is stated, are being distributed free by mail and through druggists. It contains, besides advertising matter, biographical sketches and portraits of all the Presidents of the United States, including President-elect McKinley. The perusal of the pamphlet affords abundant proof that Warner's Safe Cure Co., which has twenty years of success back of it, is as active and enterprising as ever.

The New York World, thrice-a-week edition. Eighteen pages a week, 156 papers a year. It stands first among "weekly" papers in size, frequency of publication and freshness, and variety of contents. It is splendidly illustrated and among its special features are a humor page, exhaustive mar ket reports, all the latest fashions for women and a long series of stories by the women and a long series of stories by the greatest living American and English authors, Conan Doyle, Jerome K. Jerome, Stanley Weyman, Mary E. Wilkins, Anthony Hope, Bret Harte, Brander Matthews, etc. We offer this great newspaper and Kansas Farmer together, one year for

BEECHER AS A SLAVE AUCTIONEER.— Even people of mature years whose memory is clear about matters before and during the war have practically forgotten that Henry Ward Beecher used his pulpit in Plymouth church, Brooklyn, as an auction block for slaves. The most famous of his 'slave sales" was that of the beautiful girl, Sarah, and it was upon this occasion that the most exciting scenes ever witnessed in Plymouth church, or in any other American church for that matter occurred. Mr. Beecher was unusually dramatic; he put a fire into his words, as he stood the slave girl on the platform beside him, which fairly burned into the hearts of his auditors. It was not long before the people became almost hysterical with excitement. But Beecher kept on until he was ready to pass the collection baskets. Then the auditors gave vent to their feelings, and not only heaps of money was put into the baskets, but men and women took off their rings, unfastened their watches and threw them in the baskets and on the platform. It was a remarkable scene, and such a one as probably will never be equaled in this country. Mrs. Beecher recalls the event with wonderful vividness in her article in the Christmas Ladies' Home Journal, when she tells the whole story of "When Mr. Beecher Sold Slaves in Plymouth Pulpit." The scene itself is remarkably well brought to the eye of the reader by a striking illustration made by De Thulstrup from material furnished the artist by Mrs. Beecher.

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

THE STRAY LIST.

FOR WEEK ENDING NOV'R 12, 1896. Cowley county-S. J. Neer, clerk.

COWIEY COUNTY—S. J. Neer, CIEFK.

FOUR MARES—Taken up by S. S. Hoard, in Windsor tp. (P. O. Grand Summit), October 20, 1896, one bay mare, 7 years old, white hind feet and colar marks, valued at \$12; one black mare, 10 years old, blazed face, valued at \$10; one bay mare, 8 years old, white hind feet and star in forehead, valued at \$18; one bay mare, 8 years old, white hind feet and star in forehead, valued at \$12.

FOUR GELDINGS—By same, one brown gelding, 6 years old, branded on right shoulder with diamond

J. G. Peppard

1400-2 Union Avenue, KANSAS CITY, MO. CRASS SEEDS.

MILLET CLOVERS TIMOTHY

R.S. COOK, WICHITA, KAS., Poland=China Swine



The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28608, World Beater and King Hadley. For sale an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly bred sows. Inspection or correspondence invited.

ELM BEACH FARM POLAND=CHINA SWINE



The home of the great breeding boar, SIR CHARLES CORWIN 33095. Our 1896 crop of pigs are by six different boars and out of fashionably bred sows, including such grand individuals as the prize-winning \$500 Lady Longfellow 34099 (S.), that has eight pigs by the prize boar, King Hadley. STOCK FOR SALE at all times and at very reasonable prices. We also breed Short-horn cattle. Write or come and see us. SR CHARLES CORNEY 33059. 6. IRWIN & DUNCAN, Wichita, Sedgwick Co., Kas.

PUBLIC SALE OF SHORT-HORN CATTLE!

AT BUNCETON, COOPER CO., MO., DECEMBER 10, 1896. SO BULLS-80 HEIFERS-MAINLY YEARLINGS.

A choice selection from my herd of over one hundred and fifty head of high-class Short-horns, containing Cruickshanks, Butterfiles, Victorias, Aconites, Wood Violets, Scotch-topped Young Marys, Young Phillis and other standard families, sired principally by Ambassador 110311, Col. Aberdeen 79502 and Britisher 106627. This is not a cull sale, but contains all the bulls on the farm old enough for early service and about all the yearling helfers. I wish to call special attention to the nicely-bred Scotch yearling, Golden Knight, by the great Godoy 115675 and out of Golden Violet; the robust Silverheel by Col. Aberdeen; the thick, stylish Orange Duke by Col. Aberdeen; the red, massive Howard, by Red Butterfiy and out of Kate Sharon by Imp. Burgomaster 90813. Of the more attractive helfers is Phillipena by Prince Byron 159513 and out of Phillisia, a massive 1,700-pound cow; Lady Goodness by Golden Prince 115698, and Angelica 2d by the old premier bull, Britisher 106627. You will not be disappointed when you see the stock.

Send for catalogue to COL. J. W. JUDY, Auctioneer. W. P. HARNED, Bunceton, Mo.

GREAT COMBINATION SALE

BERKSHIRE HOGS!

The Best of Breeding and Quality.

Berkshire breeders who wish to introduce into their herds the popular strains of blood to be found in the great prize-winners at the leading State Fairs of 1896, are invited to attend the

Missouri Breeders' Sale

SEDALIA, MO., DECEMBER 9, 1896. Sale will be held in MENEFEE'S STABLE. East Main street, near central part of the city of Sedalia.

The tops of the following well-known herds have been placed in this sale, viz.: N. H. GENTRY, Sedalia, Mo.; HARRIS & McMAHAN, LaMine. Mo.; JUNE K. KING, Marshall, Mo.; W. N. BRISKY, Independence. Mo.; JAMES HOUK, Hartwell, Mo. All of the stock offered is registered in the Record of the American Berkshire Association. For catalogue or other information, address either of the parties named above, or

Auctioneer, JAMES W. SPARKS, Marshall, Mo.

under a bar, valued at \$14; one bay gelding, 9 years old, star in forehead, valued at \$12; one brown gelding, 3 years old, star in forehead, valued at \$12; one gray gelding, 3 years old, slit in front of left ear, valued at \$10.

COLT—By same, one sorrel yearling horse colt, flaxen mane and tail; valued at \$10.

FOR WEEK ENDING NOV'R 19, 1896.

Edwards county-A. G. Aderhold, clerk. MULE—Taken up by J. M. McCarter, in Franklin tp. (P. O. Fellsburg), October 14, 1896, one mouse-colored male mule, line on back, fifteen hands high;

valued at \$15. FOR WEEK ENDING NOV'R 26, 1896.

Linn county-William H. Ward, clerk. MARE—Taken up by V. W. Brice, in Blue Mound tp., October 30, 1895, one bay mare, about 4 years old, fifteen hands high, weight about 1,050 pounds, black mane and tail, both hind feet white, star in fore-head, lump on left hind ankle; valued at \$20.

Comanche county - J. E. Harbaugh, clerk. STEER-Taken up by M. Schoub, in Rumsey tp. (P. O. Coldwater), October 24, 1896, one red and white spotted Western steer, 3 years old, medium size, branded A enclosing f; valued at \$12.50.

Bourbon county-H. Frankenburger, clerk. PONY—Taken up by C. G. Beaman, in Marion tp., November 2, 1895, one chestnut sorrel horse pony, supposed to be 7 or 8 years old; valued at \$10. PONY—By same, one clay-bank horse pony, white

strip on face, supposed to be 7 or 8 years old; val-ued at \$5.

Labette county-J. F. Thompson, clerk. HORSE—Taken up by E. F. Ferril, in Mt. Pleasant tp. (near Altamont), October 22, 1896, one bay horse, fifteen hands high, white spot in forehead.
HORSE—By same, one black horse, fifteen and a half hands high, wire cut on left front foot.

Shawnee county—Chas. T. McCabe, clerk.

COLT—Taken up by C. W. Edson (P. O. Silver Lake), one sorrel mare colt, 1 year old past, two white hind feet.
COLT—By same, one black horse colt, 1 year old past, white face, one white hind foot.

Pottawatomie county—Frank Davis, clerk. STEER—Taken up by C. J. Reed, in Lincoln tp., October 23, 1895, one black and white yearling steer, square crop off left ear, plece of rope in dewlap, indistinct brand on left hip, has horns; valued at \$15. STEER—By same, one red and white yearling steer, branded A on left shoulder and 1 on left hip; valued at \$15.

Wabaunsee county-J. R. Henderson, clerk. STEER—Taken up by Wm. Breymyer, in Newbury tp. (P. O. Paxico), November 3, 1896, one red and white spotted two-year-old steer, small hole in right

Wyandotte county—Leonard Daniels, clerk. STEER-Taken up by L. E. Scott, in Prairie tp, on or about October 15, 1895, one dark red steer, no white, 1 year old past, split in right ear, seems to have been dehorned; valued at \$16.

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

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

SUNNY SLOPE

****** EMPORIA, KANSAS, *******

Hereford Cattle Headquarters

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

H. L. LEIBFRIED, Manager.

CROSS, EMPORIA, KANSAS.

The Beterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. N. S. MAYO, Professor of Veterinary Science, Kansas State Agricultural college, Manhattan, Kas.

I have a mare that got her leg burned on a picket rope. It is all healed up but that leg swells when she stands in the stable. She is not lame. Kinsley, Kas. C. W. J. Kinsley, Kas.

Answer.-The trouble is that the blood supply to the part is interfered with. It will return to its normal condition all right without treatment.

CEREBRITIS.—Three of my neighbors have lost horses recently, all affected the same way. They refuse their feed and in thirty-six hours lose their sight and become deranged, running into obstacles of all kinds. They lose control of their legs and often fall.

They usually die within six hours after falling. All were work horses used in gathering corn.

Webber, Kas.

Answer.-The horses probably died from cerebritis, or inflammation of the brain, caused by eating wormy or mouldy corn. Treatment of cerebritis is very unsatisfactory. A good physic should be given the horse, such as a quart of raw linseed oil or a ball of about seven drachms of aloes, enemas (injections) of warm water, should also be given, to empty the bowels. It is well known that mouldy or wormy corn will cause cerebritis, and care should be exercised to prevent horses from eating it. An ounce of prevention is worth many pounds of cure.

Gossip About Stock.

A new advertiser of Poland-Chinas this week is E.W. Reynolds, of Madison, Greenwood county, Kansas. His World's Fair herd have obtained considerable notoriety and his stock is recognized as of the best in the State. Notice his advertisement among the swine breeders' cards and write him for catalogue and prices.

J. R. Killough & Sons, Richmond, Kas. report that their recent cattle sale was a success. Fifty-two head of cows, heifers, yearling steers and calves sold for \$1,104. They now offer a fine line of brood sows at prices in keeping with the times. See their advertisement. They offer a rare opportunity to get something good at low prices.

The greatest opportunity to secure "toppy" Berkshire swine will be at the breeders' combination sale to be held at Sedalia, Mo., December 9, 1896. The offering advertised this week is the first of a series of annual and semi-annual sales to be held by the best Berkshire breeders in the State of Missouri, of which N. H. Gentry is the recognized head. As the sale stock is intended to make reputations for the breeders and the breed, it will certainly be a rare opportunity for Berkshire breeders to get some new blood at this sale at other than private sale terms and at the same time get stock "bred in the purple."

A representative of the FARMER took a look at the Chester Whites owned by our advertiser, W. S. Attebury, of Rossville, Kas., and found them in fine trim. He has for sale a few fine young sows, sired by Free Silver, which are bred and ready to go out, some May and June boars, some July, August and November pigs, and he also wishes to dispose of one of his herd boars, Kaw Valley Pride 6601 (Vol. V. Standard). This is a grand boar and would be a credit to any herd. Kaw Valley Pride took first premium at the State fair in 1898, and has been used in Mr. Attebury's herd since. Mr. Attebury's advertisement appears on another page.

Mr. F. W. Baker, proprietor of the Richland stock farm, Council Grove, Kas., knows how to build up a good herd, and has succeeded so well that his report is that his sales have been immense. New additions recently made to the Richland herd indicate no abatement of the efforts which have brought success. Among these additions may be mentioned a sow by Hadley Jr., two by Sir Charles Corwin, two by a litter brother of Samboline, one-by Model Boy (by Klever's Model, who sold lately for \$1,500), one by J. H. Sanders 2d, the great \$1,200 boar. Mr. Baker has also purchased Boss Hadley at a long price and regards him the best Hadley he ever saw. No doubt he will be heard from later on. Another addition is Klever's Model, of which KANSAS FARMER readers will hear more before long. It is the purpose to maintain the Richland herd one of the richest bred herds in the West, and by judicious mating for individuality no doubt winners will be produced for the show ring.

Caustic

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

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Nov. 23.—Cattle—Receipts
sturday, 10,961: calves, 448: shipped
Saturday, 1,879 cattle, 850 calves. The market
was active and strong on best grades and lower on western cows. The following are repre-

SHIPPING AND	DRESSED BEEF STEERS.
No. Ave. Pri 23 1,209 84. 2 1,321 4. 31 1,437 4. 40 1,533 4.	75 691,513 84.65 40 801,238 4.25 20 211,225 4.15
TEXAS AN	
4 Ind 957 83. 173 759 2: 8 Ind 756 2:	85 31 mix 935 2.70
NATI	VE HEIFERS.
1 780 3.	25 1
NA'	TIVE COWS.
4 952 2.	00 15
NATI	VE TEEDERS.
2 905 3.	95 7
NATI	VE STOCKERS.
87 6)5 3 3 583 3 5 394 3 Hogs—Receipts	
market was 50 high	ner and in some cases more.

arket w	78.9 50 I	nigher ar	id in so	me cases	more.
he follo	wing a	re repres	entativ	e sales:	
67243	83.40	54271			83.3716
59203	8.8714	70226	8.3714	76259	3.3714
78241	3.3714	74247	3.3714	72214	3.3714
69188	3.3714	78250	3.35	76222	3.35
84209	3.35	265222	3.35	9241	3.35
64230	3.35	63310	3.35	71235	3.35
77219	3.35	80216	3.35	82225	3.35
66255	3.35	72197	3.3214	6175	3.3214
53286	3.3214	58292	3.30	49212	3.30
35285	3.80	74254	3.30	21218	3.30
58306	3.30	20176	3.30	75175	3.30
56291	3.30	69222	3.25	39 301	3.25
5176	3.25	6168	3.25	40197	8 35
57312	3.25	50352	8.25	108337	3.25
72178	3.2214	54354	3.2214	20355	3.20
74162	3.20	4425	3.20	4377	8.20
58347	3.20	10124	8.10	7162	3.00
47112	2.90	18102	2.85	2170	2.50

Sheep — Receipts since Saturday, 1,040; shipped Saturday, 2,075 The market was strong and active. The following are to-day's

fair demand and are coming in in good shape. The prices are steady.

Chicago Live Stock.

CHICAGO, Nov. 28.—Cattle—Receipts, 16,000; market steady for good, others weak; fair to best beeves, \$8.40@5.15; stockers and feeders, \$2.70 @ 3.80; mixed cows and bulls, \$1.40@ 3.90;

Hogs-Receipts, 22,000; market 5 to higher: light, \$3.20@3.45; rough packing, \$3.00@3.15; mixed and butchers, \$3.20@3.50; heavy packing and shipping, \$3.20@3.50; pigs,

Sheep—Receipts, 14,000; market strong; native, \$2,00@3.50; western,\$2.50@3.10; lambs, \$3.00@5.10.

St. Louis Live Stock. ST. LOUIS, Nov. 23.—Cattle—Receipts, 3,000;

market strong. Hogs—Receipts, 3,000; market 10c higher; Yorkers, \$3.20@3.35; packers, \$3.10@3.35; heavy,

\$3.00 @ 3.4214. Sheep-Receipts, 2,000: market 10c higher.

Chicago Grain and Produce.

Nov. 23.	Opened	High'st	Low'st	Closing
Wh't-Nov Dec May	75%	76% 80%	75¾ 78¾	801/
Corn — Nov Dec May	231/4	23¾ 27¼	28% 26%	231/4 235/4 271/4
Oats — Nov Dec May	18%		18% 21%	22
Pork—Nov Jan May	7 62%	7 75 8 071/4	7 6214 7 95	6 6214 6 6214 7 7214
Lard —Nov Jan May	4 00	4 05 4 25	4 00	3 85 3 85 4 05
Ribs - Nov Jan May	3 80	3 82¼ 4 02¼	3 80	8 7714 8 7714 8 85

Kansas City Grain. Kansas City, Nov. 23.—The trade in wheat was rather slow this morning, with no appre-ciable change in prices. The milling demand was only fair and buyers held off until toward the close being influenced in a great measure by the course of the speculative market.

Receipts of wheat here to-day, 84 cars; a year ago, 92 cars.

Sales were as follows on track: Hard, No. 2.

Horse Owners! Use BROOMCORNF. JELKE & SON Established 1850.

REFER TO ANY CINCINNATI BANK.

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The Kansas City Stock Yards

are the most complete and commodious in the West,

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

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895	922,167	2,457,697 2,170,827 1,876	864,718 567,015 111,445	52,607	103,368
Bold to shippers Total Sold in Kansas City, 1895	218,805	273,999	748,244	41,588	

CHARCES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; Bran, \$1 per 100 lbs.; Corn, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST, V. Pres. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintendent. W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

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TOPEKA, • • • KANSAS.

1 car choice 75%c, 1 car choice 75c; No. 3, 1 car fancy 72%c, 1 car 71%c, 1 car 71c, 5 cars 70c, 1 car 68c; No. 4, 3 cars 65c, 2 cars 64c, 12 cars 68c; 1 car 68c; No. 4, 3 cars 65c, 2 cars 64c, 12 cars 68c; rejected, nominally 50 ₹58c; no grade, nominally 40@50c. Soft, No. 2 red, 1 car fancy 87½c; No. 3 red, 3 cars choice 85c, 3 cars choice 84c, 1 car 83½c, 1 car 83c, 1 car 80c; No. 4 red, 1 car 75c, 1 car 71c; rejected, 1 car 55c, 1 car 52c, 1 car 51c, 1 car weevily 55c. Spring, No. 2, nominally 72@74c; No. 3, 2 cars 71c, 1 car 72½c.

Corn found rather better sale than Saturday at prices in some instances a shade higher, but there was an absence of new bids. The majority of sales were applied on old purchases. Toward the close the market weakened a shade.

Receipts of corn to-day, 150 cars; a year ago, 60 cars.

60 cars.

Sales by sample on track: No. 2 mixed, 3 cars yellow 18%0, 5 cars mixed 18%0, 3 cars 18%0, 2 cars 18%0, 10 car yellow, 18%0, 11 cars 180, 2 cars 17%0, 1 car 170: No. 4 mixed, 2 cars 17%0, 4 cars 170; no grade, nominally 160: No. 2 white, 12 cars 18%0; No. 3 white, 1 car 17%0: No. 4, nominally 170.

There was no change in prices of cats. Depared was fall and offenings not unusually

mand was fair and offerings not unusually

Receipts of oats to-day, 32 cars: a year

Receipts of Gats co-Gay, as called ago, 27 cars.
Sales by sample on track, Kansas City: No. 2 mixed, 1 car fancy red 18½c, nominally 18c; No. 3 mixed, 1 car 16c, 1 car 16½c: No. 4 mixed, nominally 14c; No. 2 white, old, nominally 22½c: new, 1 car fancy 22c; No. 3, 1 car 19c, 1 car 18%c, 1 car 18c, 1 car 17%c; No. 4, nominally

Hay—Receipts, 74 cars; the market is higher. Choice timothy. \$8.0029.00; No. 1, \$8.00 @8.50; No. 2, \$7.00@7.50; clover, mixed, No. 1, \$6.00@6.50; No. 2, \$5.00@5.50; choice prairie, \$5.00@5.50; No. 1, \$4.50@5.00; No. 2, \$4.00@4.50; No. 3, \$2.00@8.00.

Kansas City Produce. Kansas City Produce.

Kansas City, Nov. 22.—Butter—Creamery, extra fancy separator, 180; firsts, 170; dairy, fancy, 120; fair, 100: store packed, fancy, 80; packing stock, 60; country roll, neatly packed and sweet, 120; choice, 8@100.

Eggs—Strictly candled stock, 17½0 per doz.; cold storage stock, 13½@140.

Poultry—Hens, 40; roosters, 12½0 each; parkings for coarse springs and roosters.

Foutry—Hens, 40: roosters, 12%0 each; springs, 50: coarse springs and roosters, 4%c; broilers, from 1% to 2 lbs., 60; turkeys, over 7 lbs., 80; under 7 lbs. not wanted: ducks, 6%c; geese, 50: pigeons, 750 per doz.
Apples—Choice eating stock sells from 40 & 600 a bu; inferior, 30@350 a bu; cooking stock,

20@35c: Ben Davis, 20@40c; Wine Saps, 40@65c, according to quality; Huntsman's Favorite, 50 @60c per bu. for fancy stock in a small way; shippers are paying for Northern Spy \$1.00 a bbl. in car lots: for fancy fall and winter varieties, \$1.00@1.25 a bbl.; Jonathans, \$1.50 a bbl. for fancy and 75c@\$1.00 for No. 2 stock; New

York and Michigan stock, \$1.00@1.50 per bbl. Potatoes—In a small way prices ruled 200; in round lots, 17@19c; in car lots, 16@1716c; Colorado fancy stock, 60c; sweet potatoes, new stock, 20@25c per bu in a small way.

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Feeders and stockers purchased on orders. Personal attention given to all consignments. Correspondence invited. Market reports furnished.

References:—National Bank of Commerce, Kansas City, Mo.; Citizans' State Bank, Harper, Kas.; Bank of Kiowa, Kiowa, Kas. Booms 67-68 Live Stock Exch'ge, Kansas City, Mo.

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The Apiary.

Conducted by A. H. Duff, Larned, Kas., to whom inquiries relating to this department should be addressed.

Hybrid Bees.

A cross of the Italian and native bee is termed a "hybrid." The hybrid bee has some peculiar traits, some good and some bad ones. An Italian queen crossed with a native drone will produce bees that are almost equal to the pure Italian bees as honey-gatherers, and in some instances they are preferred as comb honey producers, or at least they have been given the credit of building the most beautiful comb honey. This is due to the fact that the Italian bees fill their cells full of honey, and when capped over the cappings come directly against the honey, or partially so, and the comb's beautihybrid, but more especially the native bee, and from which is instilled in the hybrid, do not fill their cells thus so full, and when sealed over the comb presents a beautiful whiteness.

One peculiarity about the hybrid bees is their vindictiveness. They are very cross, and in this respect exceed all their ancestors. This is true in almost every case, and without an exception. It seems that the irritable nervousness of the old black or native bee, thus mingled with the energy and determination of the Italian bee, breeds into the hybrid a warlike disposition to such an extent that no one now thinks of retaining them in the apiary, any more than they would the common black bees.

A pure Italian queen thus crossed with a native drone, while she produces hybrid bees, also produces pure Italian drones. This is true, from the hive carefully, so as not to jar them: fact that the drone egg does not receive fertilization, and hence is as pure as the queen. On the other hand, if a nothing gained by rapid manipulation; native queen is fertilized with an Italian drone, and produces hybrids just the same, her drones will be pure native. Hence it will be seen how much more progress we will make in reaching the purity of either race by crossing in the right direction. By using a pure Italian queen to breed from an apiary may be rapidly brought up to a pretty fair state of purity, even if originally black bees.

Usually, we determine the purity of Italian bees by their color. In a colony of hybrids this cannot be done, unless we take the colony as a whole. In a colony of hybrid bees, we usually have all colors, from a bee with three or more yellow bands, characteristic of or brown. It is very unusual that a colony of hybrids shows a uniform color of one or two bands to each bee, and I have never yet seen this to occur. It is very different in the pure Italians, as they are very uniformly marked, and have never less than three yellow bands, and sometimes as many as four or five.

According to my observation, I believe the hybrid bees are more inclined to rob than any other. I am also inclined to believe that they are not the best to protect their own stores against robbers, and are no improvement over the native or black bees in this respect.

Bee Stings, and How to Avoid Them.

In handling bees, the object constantly in mind with most people is to avoid stings. Fear, coupled with imagination, which always go together in this particular, is the principal cause of the greater portion of the trouble in regard to bee stings. Practice greatly lessens this fear, and with apiarists generally it is considered but a trivial matter. As a defense against bee stings smoke is used. If smoke is applied properly it is an absolute defense and an insurance against stings. With practice and proper manipulation bees may be handled without smoke to a great extent, and it is always better to handle them thus when it can be done. At certain seasons of the year bees can be handled much better than at others, and with much less danger of being stung. During the honey season, when they are gathering stores, they are very gentle and made by their firm.

West & Truax, Wholesale Druggists, Toledo, O.

Walding, Kinnan & Marvin, Wholesale Druggists, Toledo, O.

Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75 cents per bottle. Sold by all Druggists. Testimonials free.

will allow themselves to be knocked around and handled roughly without attempting to resent it. At other times, with but very little interference on our part, they will at once resent with stings. This is more especially so during the autumn months,

There is no way that bees can be driven into submission except by smoke, and this depends upon the manner of using it. Smoke improperly applied may be the means of arousing them to a fighting pitch and produces more harm than good. When bees are to be smoked into submission, they should be smoked thoroughly, or until the bees have all filled themselves with honey. It is thus filling themselves with honey that makes them docile, and the smoke produces this effect. This is only necessary in some cases, and we may say extreme cases. A few very slight puffs of smoke will subdue most colonies, and only in cases where heavy smoking ful white surface is thus colored. The is required should we use it. The only manner in which we can apply smoke properly is with a bee-smoker. By opening a hive of bees and noting their actions, we can tell if smoke is required. If the bees come boiling up out of the hive like hornets out of their nest, they require smoke enough to drive them back, and if they repeat this after being smoked, they require more, and so on until they remain down in the hive, after which the combs may be removed and the bees changed around in almost any conceivable shape without any molestation on their part.

Experience will teach any one that the best way to handle bees is to do it without smoke when it is possible, and with Italian bees it is seldom impossible. The most successful apiarist is the one that uses the least smoke. The secret of handling bees without smoke, is careful manipulation. Open the remove the frames likewise: don't kill any bees; don't be in a hurry; there is treat your bees as friends, such as they are, and not enemies. As we have said above, fear is the prime cause of most stings. If bees are flying about your head threateningly, give them no attention whatever. If you strike at them, or try to dodge them they will sting you. If a bee lights on your face or hands, give it no more attention than you would a fly, and it will not sting you. If you jerk away your hand or try to drive it away, it is sure to sting you if possible. If a bee leaves its sting in your flesh, which they almost always do, with poison sac attached, remove it with a blade of a knife, or your finger nail, by scraping it off close to the flesh. If caught by the thumb and the Italian bee, to a bee of solid black finger, as is often the case, the contents of the poison sac is squeezed into the flesh. A sting thus should be removed at once, as the muscular contractions will rapidly work the sting in deeper and deeper.

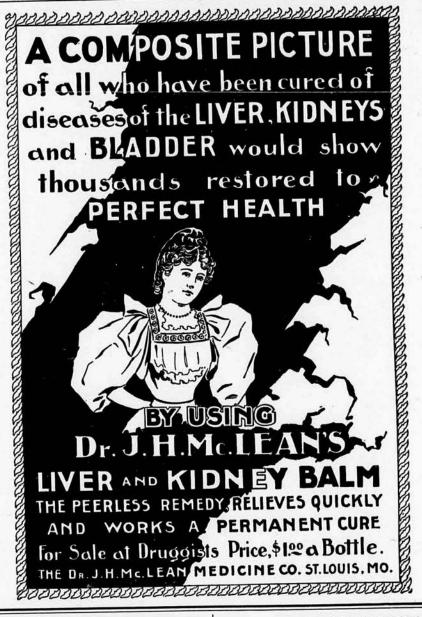
Below I give a clipping from the Kansas City Times, copied from the New York Journal. To avoid stings this is an exceedingly "short cut" route, and our readers may try it and report. I should be glad, too, if the editors of those two leading publications would test this and report also. I believe this much, that if you hold your breath long enough you will not feel the sting:

"Here is the way to rob a bee-hive of honey and avoid being stung: Just hold your breath. Simple and easy enough, and the only reason it hasn't been tried more often is that few peo-ple know of it. Even the bullet-like hornet cannot injure you if you just stop breathing for a moment. In fact, you can pick him up and watch his sting apparatus vainly work, for he can't puncture your skin any more than he can sheet-iron."

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We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's

Catarrh Cure. F. J. CHENEY & CO., Props., Toledo, O. We, the undersigned, have known F. J Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligations made by their firm.



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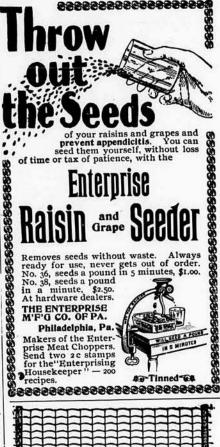
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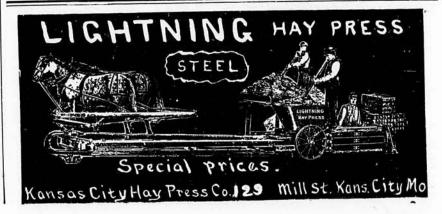
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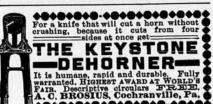


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New Style 14-Quart Milk Pail EUREKA BOILER or STEAM FEED GOOKER MILK SCALES.



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Ideal Hand Babcock Tester.

THE EUREKA BOILER is made from Boiler Steel, and has regular lap-welded boiler flues, making it durable, rigid and strong in all its parts, and will last, with ordinary care, a lifetime. They are well riveted and corked and are tested to 100 pounds hydraulic

are well riveted and corked and are tested to 100 pounds hydraulic pressure.

The Eureka Steam Boller will cook or steam any kind of feed placed in a barrel or vat. with but little care and without danger of burning, thus overcoming the objections to a kettle or cauldron. It will steam moldy hay and corn perfectly sweet; steam dry corn stalks and straw so they will become soft and palatable, and cook potatoes so as to render them digestible and valuable for feed. It will also enable a farmer to save one-third to one-half of his corn and other feed. and at the same time make his stock thrive better. It will save labor in feeding rather than increase it, as stock fatten much faster when their feed is cooked.

In addition to the above the Eureka Boller can be used for heating water for a variety of purposes—for steaming casks and milk cans, steaming wood for bending, heating cheese vats, etc.

Diameter of Height of No. of Length of boller Size No.

Shell. 2-inch fues. over all.

1 19 inch. 40 inch. 9 54 inch.
2 19 inch. 41 inch. 13 58 inch.

The trimmings include two gauge cocks, blow off cock, pump for supplying the boller with water, safety valve, two feet six-inch suction hose, three feet steam pipe with valve to convey steam to barrel or vat, for cooking feed or boiling water.



CREAM SEPARATOR.

THE "MIKADO."

For those who have never looked into the matter of centrifugal creaming on the farm or dairy and who may not yet be convinced of the advantage and economy of using a cream separator, we will briefly state, in general, the advantages and profits to be derived from the use of a cream separator, which are stellows: as follows:

as follows:

1. A greater yield of butter, due to more thorough creaming of the milk. It has been proven over and over again that the separator will increase the yield of butter anywhere from 10 to 25 per cent. over any setting system, depending upon the season, whether ice is employed, etc. This, for a cow producing 200 pounds of butter per year (and no dairyman can afford to keep cows producing any less), would mean an increase of twenty to fifty pounds of butter per cow per year.

2. The increased value of the fresh, warm

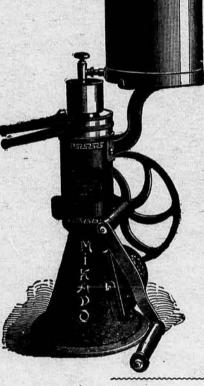
2. The increased value of the fresh, warm skimmed milk, as food for stock—calves or hogs. This is quite a considerable item. Fresh skimmed milk has been variously estimated to be worth from 30 to 40 cents per hundred pounds, when judiciously fed, which is at least double what the sour and old skimmed milk from pan setting is worth.

3. The increased value of the butter itself, due to the more perfect and uniform cream produced by the separator, and the removal of impurities, dirt, etc.

For more information, send for our Catalogue of "Hand Separators."



Price of Mikado, net cash, \$75.



MILK JARS.

How much do you guess your cows are worth? How much butter do you guess you lose in skim-milk? How much do you guess you lose in butter-milk? Stop guessing and know by using the BABCOOK TEST. It gives the exact butter value of any sample of milk or cream. Our Ideal machine is the best for your use.

Two-bottle machine. \$3.00
Four-bottle machine. 4.00
All complete.



BEST FLINT CLASS.

	100			
	Per do	zen. I	Per gro	88.
Half pint		1.00	8	9.00
One pint		1.25	i	1.00
One quart		1.40		2.00
Two quart		1.75		6.00
Have the Lightning opened in an instant.			can	be

No. 2 CLIMAX JARS.

		Half gross.	Gross
Half pint	\$.75	\$4.50	\$8.5
One pint	1.00	5.00	9.5
One quart	1.25	6.00	11.5
Two quart	1.50	9.00	16.0
The Climax J	ar does no	t have the	Light
ning Cover, usin	g instead a	pulp cap t	hat fit
into the neck of	the jar air	-tight.	

MILK JAR CAPS.

Power Engine and Boiler

PILLING'S COIN SILVER MILKING TUBES.

For sore and obstructed teats and hard-milking cows. These tubes will be sent, postagaid, to any part of the United States or Canada on receipt of price.

This cut illustrates a spedal scale we have designed for weighing milk in the pail, so as to determine the yield of each cow. There is placed on the dial of this scale a loose indicator that can be adjusted and set by a thumbscrew at the 0 mark, so as to balance the weight of the pail. This same indicator would thus show the net weight of the milk after milking. The capacity of this scale is thirty pounds; the face shows ten pounds, and the pounds are divided by tenths, which makes it much easier to keep the records. With each scale we furnish free ten blanks that will contain the record for two milkings a day for one week for thirteen cows. The balances can be used also for general purposes. Price, \$5.00 CHURNS



Prices of Barrel Churns.

No. 0, 5 gallon churn, churns from 1 to 2 gallons of cream	2.40
No. 1, 9 gallon churn, churns from 1 to 4 gallons of cream	2.55
No. 2, 15 gallon churn, churns from 2 to 7 gallons of cream	2.70
No. 3, 20 gallon churn, churns from 3 to 9 gallons of cream	3.00
No. 4, 25 gallon churn, churns from 4 to 12 gallons of cream	3.60
No. 5, 35 gallon churn, churns from 5 to 16 gallons of cream	4.80

DAIRYMEN'S SUPPLIES.

BUTTER TUBS.														
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"		44	**								.,		.20	ĺ
ound	Vermo	nt S	pruce,	::	:::								.21	١
**	**		41	**									.19	ĺ

	pou	nd	Vermo	nt	Spi	ruce	,	**	•••				.09	
10 20	"		**						:::				.19	
		В	RAD	LE	Y	BU	T	TF	R	BO	XE	s.		
1-	pou	nd	Boxes	in	cra	tes,	48	bo	xes	per	crat	e\$	1.40	
3 5	**		**	**		**	16		**	44	**	1.1	.85	-
5	**		**	"		"	12		**	"	**		.75	
10	"		"	"	0.00		6		"	"	**		.75	
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CX.			1	BU	TT	EF	. 1	PA	PI	CR.				
8x	11 1	Par	chmer	t I	Pap	er f	or	1-	pou	nd	brick	s, per		

1,000 800000		
RENNET EXTRACT.		
HANSEN'S DANISH.		
Subject to market changes. 1-gal. Bottles or Jugs, original pkgs., per "Cases of 6 or 12 bottles, p	gal. er gal	. \$1.7
5-gal. Kegs		1.8

RENNET TABLETS (HANSEN'S).

100	FOR CHEESE-MAKING.	
ge	Carta non Na O (montage fo owtro)	2 20
.85	By the dozen Sample box, 50 No. 2, by mail prepaid Small sample box, 24 No. 2, by mail prepaid	21.12 .90

Our large 280-page Catalogue we will send to any Dairyman or Farmer on receipt of 10 cents in stamps for postage. When you are in the market for butter tubs, butter boxes, butter pails, egg cases, egg case fillers, egg-testers, boilers and engines, creamery outfits, cheese factory outfits, dog-powers, iron pipe and fittings, force pumps, gasoline engines, grape baskets, grate bars, hose, heaters, ice cream freezers, injectors, inspirators, lace leather, lubricators, milk coolers, milk jars, milk jar baskets, milk-testers, milking tubes, milkmen's tinware and supplies.

Remember that we are the people to buy from. We carry a tremendous stock of everything appertaining to the Dairy, Creamery or Cheese Factory business, and we always guarantee our prices to be the lowest. Remit cash, money order, postal order or bank draft with orders, and please mention this paper.

CREAMERY PACKAGE MFG. CO., Department 0, KANSAS CITY, MO.

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