

TEXAS FARM AND RANCH

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CUTTING HAY WITH A SELF-BINDER.

Chicago Hay Journal.

I had read about putting up alfalfa and timothy hay with a binder, but the past season several of my neighbors and myself cut and bound all of our hay. I have yet to hear from one who was not well pleased with the results. We easily cut from twelve to fifteen acres a day, while one man, with the aid of a bundle-carrier, did the shocking. There was no bleaching in the sun, curing being done in the shock. All the leaves of the alfalfa stayed in the bundle. When loose, alfalfa hay is in good condition to stack, many of the leaves will remain on the field. The pitching in the field was much easier and more rapid. The bound hay takes up less room in the mow than does the loose, or

and timothy hay away from the sun, but I never found out how till I tried the harvester. So let me modify Patrick Henry's words to, As for me, give me the harvester or give me some other fellow to do the haying.

LABOR AND WEALTH.

American Federationist.

An extra census bulletin, issued April 30, 1895, gives the total number of persons engaged in gainful occupations in 1890 as 22,735,661. The number of persons similarly employed in 1880, according to the census of that year, was 17,392,099.

The bulletin classifies each occupation and gives the number of males and females employed therein. There are many interesting and instructive com-

employed as book-keepers, clerks, stenographers, typewriters and saleswomen. Persons engaged in manufacturing and mechanical industries have increased 49.13 per cent since 1880, the percentage of increase for males being 48.01 per cent, and the percentage of increase for females 52.87 per cent.

A former bulletin from the census department placed the population of the United States and territories in 1890 at 62,622,250; hence, in 1890, our working population was equal, nearly to one person out of every 2.75 persons in our total population.

Truly this is a nation of workers, of wealth creators, and yet, in the face of this strong and convincing governmental evidence of the workers' power and usefulness in adding to the country's wealth and influence, we are con-

secured \$18,715,000,000. The 22,735,661 persons who were engaged in gainful occupations in 1890 should carefully study these figures, and through the joint effort of organization and the ballot, secure to the "hewers of wood and drawers of water" a greater share of the wealth which labor creates.

STICK TO THE FARM.

Ex-Governor Bob Taylor of Tennessee, was a farmer's boy. Read what he has to say about a farmer's life now:

"When as a mere boy on the farm on the banks of the Watauga river, I used to steal an hour occasionally, to sit under the sycamore trees and dream of the future, I thought if I could get off the farm and into a city and be a law-



if stacked out of doors will keep much better. The bundle is much more convenient in feeding. The smooth sickle, which also works well in other cutting, serves the purpose in hay cutting much better than the rough sickle does. Two objections to the harvester will arise in the mind of the reader—the expense for twine and the length of stubble in the field. State twine was bought this year for 7 cents a pound.

The ease and rapidity of work, and the better quality of hay obtained much more than offset the cost of the twine. We ran our harvester as low as would work conveniently, examined the stubble, and came to the conclusion that what was left over and above the cut of the mower would not be of more service to the coming crop of hay than it would be to the stack if we had it in the stack. With our mowers we shave "three days under the skin," thinking that because we have added to the bulk of our hay we have increased the quantity of our fodder. I have heard of curing alfalfa

parlons, as between the two census years of 1880 and 1890, the trend of which has been summarized as follows: There has been an increase since 1880 of 5,343,562 persons engaged in gainful occupations, or 30.72 per cent. There has been an increase of 4,076,008 males engaged in gainful operations, or 27.64 per cent and of females 1,267,554, or 47.88 per cent. Persons engaged in agriculture, fisheries and mining have increased since 1880 to the number of 1,008,577, or 12.60 per cent, the percentage of increase for females exceeding slightly that of males. Persons engaged in professional service have increased 56.55 per cent since 1880, and those in domestic and personal service 24.46 per cent; in both of these classes the percentage of females is largely in excess of males. Persons engaged in trade and transportation have increased 78.19 per cent since 1880, the percentage of increase for females being especially large, or 263.25 per cent, principally due to the large increase in the number of females

fronted by the appalling and shameful fact, that of our country's great wealth, amounting, by careful estimate, to more than 60 billions of dollars, 70 per cent is owned by the rich, who represent only 1.4 per cent of the families within the United States, while the poor and middle class of our people, representing 98.6 per cent of our families, only own 30 per cent of the wealth produced by their skill and brawn.

The founders of this government, with a heroism unparalleled in history, struggled to break the bonds of tyranny and oppression and establish "equal and exact justice among men" and they believed they had succeeded, but what would be their surprise and sorrow could they but for one moment note how their successors have ignored both precept and practice of their predecessors and established a practice that has allowed 182,000 families in the United States to accumulate \$43,367,000,000, while the balance of our people, representing 12,820,000 families have only

yer, my cup of happiness would be full. I went to the city, learned a few legal phrases, and my ambitions were to go into politics. My people sent me to Congress, where I staid for two years with the great men of the country. My dreams were then to be Governor of Tennessee, the greatest State of the Union, and I thought my happiness would be complete. For two terms the people of Tennessee have honored me with the position of their chief executive. My ambitions have all been realized. I have mingled with the great and rich men of the country and have been on high pinnacles of politics, but I say to you after a careful review of the past, I sigh to sit me under the shadow of the old sycamore trees of the Watauga and live again the life of the farmer boy. There alone is perfect peace, joy and contentment. I have no political ambition to satisfy—my greatest desire is to get on a good farm with my wife and children, and there pass the closing years of my life.

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Orchard and Garden

Edited by Dr. A. M. Ragland, Pilot Point, Denton Co., Texas, to whom all communications for this Department should be addressed.

NOTES AND COMMENTS.

This issue of Orchard and Garden will reach our reader after the great meeting of the Texas State Horticultural Society. Not until our issue of August 10th, however, will we be able to give the proceedings in detail. Much that is said and done will never, perhaps, get into print, but the impress for good upon the upper Cross Timber country will be felt for years to come, and the uplift to the development of that splendid region will do much to put its horticultural interests upon an enduring basis.

The long continued and abundant rainfall is injuriously affecting the fruit grower's crops as well as those of the farmer. Although peaches and apples are of greater size than usual, there is a serious reduction in quality. The flavor is not equal to the fruit that ripens in dry seasons, and the watery element predominating makes it more difficult to reach distant markets, so that those near by are flooded at prices below the point of profit to the producers. Doubtless there are compensating features. The subsoil which has, through a series of years, grown continually dryer, will be restored to a condition which will promote healthy growth, and give us better fruit crops in the years to come.

GRAPES IN 1895.

The testing period is at hand, and we have been observing with decided interest the behavior of a number of varieties in our little vineyard, which is more of an experimental plot than a vineyard. We have about 400 vines and about thirty or forty varieties. Our opinions of some of these we give:

Moore's Early—Behaved quite well. bunch medium, berry very large, vine only moderately vigorous; the berries all ripened well together; a good early market grape.

Delaware—In quality superior; vine, a slow growth. bunch and berry small, but its superb quality and freedom from rot entitles it to a place in every vineyard. Our experience this year leads us to believe that this grape will bear fertilizing, and that good results will follow the liberal use of manure.

Concord—So well known and popular with the masses—we are not satisfied with it. It has several grave faults that condemn it in our eyes. 1st. It shells badly; 2d, it ripens unevenly. Some berries are ripe and others green; 3d, the bunches are loose and imperfect. It does not pollinize itself well, we presume.

The Worden—A seedling of the Concord, has all the objectionable qualities of the Concord, and the vine is not so vigorous. We want no more of it.

Peter Wylie—A cross between the Delaware and Halifax, is, in our judgment, the finest of all our American white grapes. The vine is a moderate grower, producing a large crop annually. The bunch is large, shouldered, and the berry medium; when ripe, a clear amber color; skin, tender; pulp, melting and juicy; seed few, quality the best. As a grape for home market it stands high. Vines must be sprayed to keep foliage from being destroyed by mildew.

The Jefferson—Fruited for the first time with us the present year. We are pleased with it, but one season is not enough to test it. We shall try it further.

Walter—A handsome red grape, medium bunch and berry, quality excellent, and a good market grape; vine a grower of fair vigor, and a prolific bearer. We esteem it highly, and shall add to the number already planted.

Brilliant—It is one of Mr. Munson's new grapes, a seedling of the Lindsey, crossed with Delaware. It has the color of the latter, but size of bunch and berry similar to the Lindsey. This is the first year's fruitage, and hardly a fair test of the grape. The bunch is somewhat ragged because of the ravages of the grape curculio, which seems quite fond of this variety. The flavor and table quality is of the first order, and will please the most fastidious taste. The vine is a healthy vigorous grower.

Rommel—Another of Mr. Munson's new creations, a hybrid between Triumph and Elvira. The bunch is large and very compact; the berry also is large; it is clear, greenish white in

color; the flavor is very similar to that of the Elvira, perhaps sweeter, but has the same farewell which we do not altogether like, but it is a much better grape than many of the highly lauded white grapes. The vine is vigorous and foliage healthy.

Triumph—It has been fruiting with us several years, but has never been quite satisfactory; the bunch is ragged and the fruit is specked or spotted; so much so that the fruit is unattractive. The vine is only moderately vigorous.

The present season is testing again the value of the Bordeaux mixture and other copper salts used for spraying against the fungous diseases affecting our grape crops. The experience of the editor strongly confirms the value of the application. Some vines left the present season without spraying, are now almost denuded of foliage by black rot and mildew, while the same varieties that were sprayed three times have healthy foliage and a splendid crop of grapes. The demonstration is complete to our satisfaction, so far as the protection against the fungus goes. But we feel that our later spraying, when the grapes are approaching maturity, should be much weaker than earlier ones, for the reason that the lime sticks to the fruit, and shows upon it when ripe. This we shall avoid hereafter by reducing the mixture one-half to one-fourth the strength of the original formula. The truth is, the greater protection is afforded by the earlier spraying, as the fungus of the fungus first affect the foliage, and if effectively treated the disease is not likely to give any serious trouble at the ripening season.

SOUTHERN HORTICULTURE.

[A paper read before the State Horticultural Society, at Bowie, Texas, by A. M. Ragland, Chairman Gen'l Fruit Committee.]

President and Members State Horticultural Society: In submitting the report of the General Fruit Committee for the consideration of the members of the State Horticultural Society, the writer finds cause for congratulation in the decided progress made in the evolution of a distinctly Southern Horticulture.

Your Committee charged with gathering material, out of which to construct a catalogue of fruits adapted to the climatic conditions of our great state have been surprised to find so large a proportion of the fruits successfully grown are of Southern origin. The conviction has been growing in the minds of our most intelligent nurserymen and fruit growers, that we would be forced to cut loose from varieties originating North, and quit planting Northern grown trees. Along these lines our wide awake nurserymen have been steadily advancing for more than twenty years.

In the beginning of this period of development there was perhaps, no well defined policy. Finding many varieties of all kinds of fruits purchased of Northern and Eastern nurseries did not succeed in our Southern climate, they began to eliminate from their catalogues such as were failures, and to fill up these vacancies. The search for new seedling varieties of local celebrity began, and was prosecuted with varying success, till a Berkman in Georgia, an Onderdonk, a Watson and a Siell, in Texas, began not only to gather up seedlings and propagate them by budding and grafting, but they also began to originate by planting the seed of some of the best seedling varieties in order to obtain varieties suited to their several localities.

P. J. Berkman, of Augusta, Georgia, has probably put the impress of his individuality more strongly upon Southern Horticulture than any other man. Beginning thirty-seven years ago, he has with much research and costly experiments, made possible the present rapidly developing period of progress. In his last year's catalogue he tells us:

"Our venture was considered a hazardous experiment because everything relating to Southern Fruit culture was a problem which must be solved by practical tests.

"There was little of horticultural material here to draw upon, but from what did exist we were satisfied that many fruits and plants from other portions of the world could be grown here with successful results. At large outlay of money and under great difficulties we began the formation of extensive collections of fruit and ornamental trees. After the second year our test grounds contained upwards of 1800 varieties of fruits, 500 varieties of foreign and native

grapes, and more than 1000 varieties of ornamental trees, shrubs and roses.

These experimental collections have been annually enlarged with the addition of new varieties of fruits and plants appearing in this and foreign countries, and while these additions have during some years been very numerous, still the number of varieties retained at this date is less than were planted during 1857-8, doubtful and undesirable sorts having been gradually eliminated."

Speaking of the apple, he says, "Summer and fall varieties of Northern European origin succeed equally as well as Southern seedlings, but the latter are the only reliable varieties for late fall and winter."

In his catalogue of apples of seventy varieties, the cream of thirty-seven years sifting, we find forty-four—nearly two-thirds—are of Southern origin.

Of fifty-two varieties of peaches in his list no less than thirty-two are of Southern origin—these statements of facts are eloquent indices of the rapid progress we are making toward a "Southern horticulture."

Now we come to that period of our history that it would seem we ought to take organized action. So looking toward the same goal, two Societies, that of Florida and Texas, are arranging a joint meeting for 1896, and it is expected that Georgia and Louisiana and perhaps others will be present to take part in the deliberations of these advance workers in the work of building a Southern horticulture.

While Prof. Berkman was thus engaged in Georgia, in the laudable work of laying a foundation for Southern horticulture, there was another enthusiastic student of nature and lover of fruits and flowers, in the far away region of Western Texas, who in a new country undertook independently to do for the Southwest what Berkman was doing for Georgia. This work he began at Mission Valley more than forty years ago. To give an idea of the vast amount of labor, time and treasure expended by these pioneers of Southern horticulture, we quote the following from one of Mr. Onderdonk's catalogues:

"For forty years the writer has been studying the questions which underlie the horticulture of Southern Texas. At first he had scarcely a precedent to guide him. Little was then known of our horticultural resources.

"He who would then suggest that Southern Texas was possessed of even respectable horticultural resources was sure to excite a smile of incredulity.

"For more than a third of a century the writer has done little else than study and experiment for the development of our horticulture. He has planted experimental vineyards, containing all varieties of grapes known to viticulture. He has planted experimental orchards containing every class of fruit that has seemed to hold out any reasonable hope of success. He has patiently waited for the tests of time to reveal the comparative value of varieties for our very peculiar climate. He has produced and collected new seedling varieties in each department of pomology until he has finally obtained a collection of adapted fruits that he can confidently recommend to our people."

Thus wholly unknown to each other, one in the Southeast and the other in the Southwest are working out the same problem.

Only a few years later, in 1860, some thirty-five years ago, Wm. Watson founded Rosedale Nurseries near Brenham in this state. He has been moving on lines parallel to those on which Berkman and Onderdonk have been traveling toward the development of a special Southern horticulture. Following this historic chain of events we find another capable, earnest and progressive worker entering the field at Paris, Texas, in the person of Dr. W. W. Stell, founder of Paris Nurseries. At the close of our internecine strife, he, with a keen insight saw the wants of our impoverished Southern people, and projected a nursery business to supply them with Southern grown trees. He soon saw the need of Southern trees originated here and so adapted to our climate and soil, and so quite a number of new varieties was brought out while he was conducting the Paris Nurseries. A few years later T. V. Munson began to develop the Denison nurseries and he very soon saw the need of developing a special Southern list of fruits. As the result of his painstaking methods he has a list of fruits almost as largely made up of fruits of Southern origin as the catalogue of Mr. Berkman. Quite half of his list of apples and peaches are Southern stock, and a larger proportion of

his list of grapes than of any other catalogue we know are Southern creation, and to Prof. Munson's foresight and scientific hybridization of native Southern varieties we are indebted for a new race of grapes to the manor born, grapes that bear out vicissitudes of climate and give us what we have long needed, a list of grapes that will raise Southern viticulture to a higher plane than it has ever before occupied. Under the lead of these veterans Southern horticulture may reach grander results than we have dreamed of.

And now we are come to that period of our history, it would seem, when we should take organized action. The trend of events seem to decidedly indicate such a course. We witness two of the youngest and most progressive horticultural societies working toward the same goal. We refer to the Florida and Texas, that are arranging for a joint session in 1896. Both societies are preparing to publish catalogues of the fruits of their respective states. It is expected that other Southern state societies will send delegates to our joint session, and perhaps, unite in forming a Southern Horticultural Society, and then will come a Southern horticulture that will cover our beautiful Southland from the Atlantic seaboard to the Rio Grande with a wealth of floral beauty and a fruitage surpassing the golden apples of Hesperides in beauty of form and exquisiteness of flavor, when kissed by Southern suns, the nectar of the gods distilled in Nature's alembic becomes the delight of all lands.

OF LITTLE VALUE.

Enclosed please find vine for name; found growing all over this mesquite country; makes a handsome climber. I prefer it to any climbing vine tried here. It is perennial; covers a trellis densely; blooms a yellowish green; berries form in clusters, become black when ripe; is entirely free from insect pest; easily grown from cuttings; roots have potato-like bulbs from two to six linked together; drouth does not have any effect on it.—F. L. HUEBNER, San Antonio, Texas.

ANSWER.

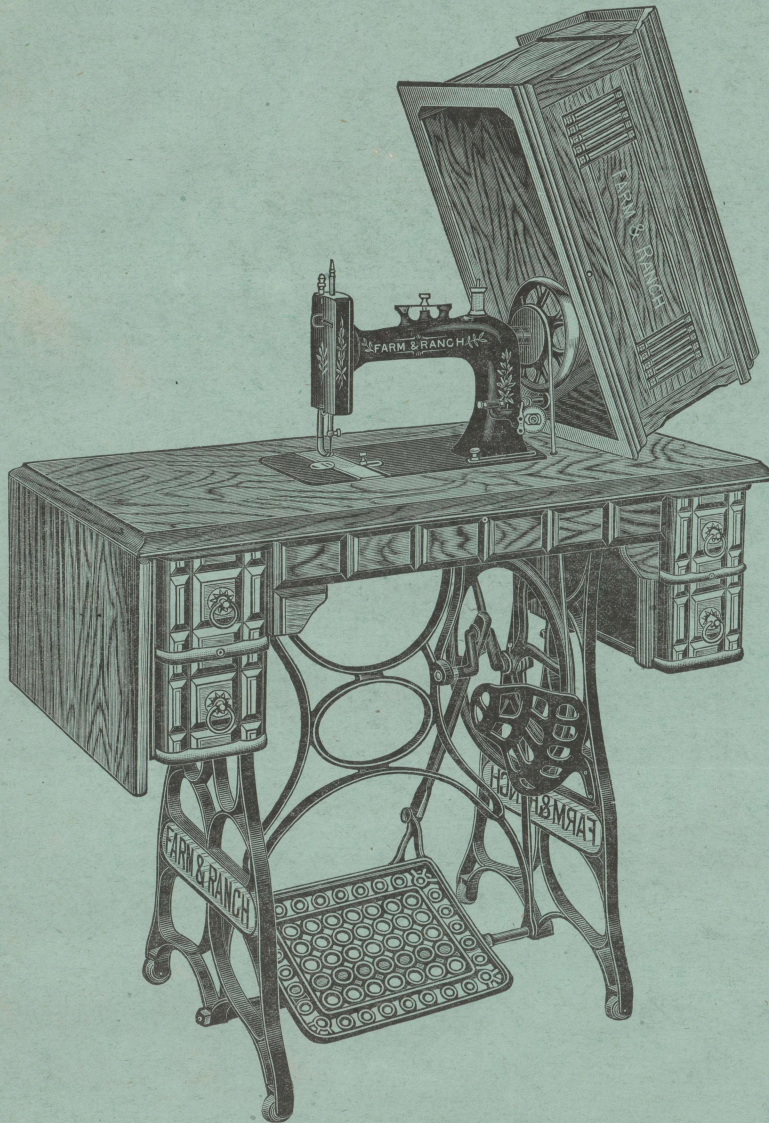
I find plant sent by Mr. F. L. Huebner, on my return from Victoria county. I wish to state that the scientific name of the plant is Cissus incisa. It grows well over a great part of Southwest Texas. The berries, which resemble grapes somewhat, when ripe, are not edible. The leaves are thick and fleshy. The vine makes a very nice climber, but it is not a good idea to have the vines around near the house where children are liable to eat the berries, as they are considered not to be wholesome.—R. H. FRIOR, College Station, Texas.

LETTER FROM BOWIE.

J. T. MORRIS.

Editor Orchard and Garden: As Bowie and Montague county is only occasionally given a writeup in TEXAS FARM AND RANCH, which we consider the leading organ of horticulture in Texas, it appears strange to a man living here, especially to one interested in horticulture, that such should be the case. We are located in the Upper Cross Timbers and have a soil suited to all fruits that thrive in this latitude. Even the beautiful German prune, that some think can only be grown on or near the Pacific slope, is at home here, or proves to be as far as tested, and I believe the prune can be produced here cheaper than in California, from the fact our land is a great deal cheaper to begin with. Our fruit crop is reasonably good, except American and Chickasaw varieties of plums, which is light. Apriots bore a heavy crop. There is a great interest being taken in horticulture and the country is filled with fruit tree vendors, and we had with us the suave young man who claimed to represent Hoops Bros. & Thomas, of West Chester, Pa., selling his famous 82 anti-pinning grape. We scribble being interested in the welfare of Montague county fruit men, our firm wrote Hoops Bros. & Thomas, inquiring after this wonderful grape. Their answer is about this: That Mr. Woodson, of Tennessee, is their agent for the South, and that he sublet an agency to one Mr. Ramsey, of Texas, who put out the suave young man. They say they find it the most difficult matter to keep agents, in their over zealous efforts to effect a sale, from exaggerating, but that it is the first time they have had a man to manufacture a new variety. They further state they have ordered all orders cancelled. If

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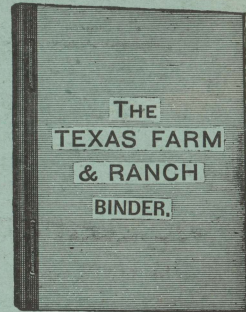
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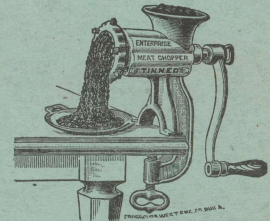
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Correspondence.

HALE COUNTY.

RUNNING WATER, TEXAS.

Editor Texas Farm and Ranch:

I wish to say a few words in regard to Hale county, Texas, which is on the plains of Northwest Texas. I once lived in the Collin county, and have been on the plains five years, and think it quite a healthy country, and a better climate than the country adjacent to Fort Worth and Dallas. This is a smooth country, and one easy to get about over, interspersed with depressions termed basins, or lakes, of which there are from one to two on nearly every section, generally in size from five to thirty acres, and when it rains sufficiently, collect much water. The face of the country is covered with rather a thick coat of very superior grass, which don't grow tall enough to mow but of a very inferior quality, making this a first-class stock country, or, rather, a stock farming country. I made the mistake of taking this for a farming country, is why I write, to tell your readers to not do likewise. Don't come to the plains unless you have cattle. We have water in great quantity and superior quality, except limey; cool and good, from bored wells, at the depth of from 20 to 80 feet except in the lower edge of the county, which, I am told, is 80 to 100 feet to water. The winters here are nearly always dry, and also April or May, and sometimes both. Out time for getting the most rain is in the month of June, but some years not much then. The plains is quite a breezy or windy country in winter, and also spring, and at times much dust, but whenever there is a severe windy day, making one feel like the wind is going to upset everything, there are tornadoes raging in other parts of the state or the Union. The land is fertile and easy to cultivate. We are 75 miles from Amarillo, our nearest railroad point, but with good teams, we make the trip in five days, haul 3000 pounds and more with two horses. The facilities for obtaining wood is 50 miles to the east in the brakes. We are having much rain now, and grass is simply good, but no one should come here to depend exclusively on farming. It is a stock farming country, and if any of your readers wish to change from cheap cotton to \$10 and \$12 yearlings, they can do well on the plains; but I say if you are doing well, and have health, and pure air to breathe, stay where you are. I have written briefly, but if any one wants more information, and will enclose stamp with questions numbered, they will be correctly answered.

SIMON SUGGS.

RETURNED TO HIS FIRST LOVE.

POSTERS, TEXAS.

Editor Texas Farm and Ranch:

After ten years' absence from the farm, I returned to active farm operations last spring a year ago. Here I shall remain and devote the residue of my life to its work. These ten years have not been thrown away altogether, for in some respects they have been profitable ones to me as well as to my family. I enjoy farm life and farm labor. To me they have always been healthful as well as helpful. With the great number of improved implements of husbandry, there is no longer a necessity for the drudgery experienced by our forefathers. But to make the evolution complete we must adopt improved methods of culture—intense culture—of every cereal planted and grown. Slipshod methods may have kept the wolf from the door in the days of high prices, but where competition is so close there is no longer room or place on the farm for the sloven.

I have in my mind two farmers not a great distance from my unpretentious homestead, who illustrate the importance of careful and intelligent culture of all farm products. One, a man past middle age, who cultivates a field of fifty acres. To-day I saw him cutting down the few weeds that grow in his fence corners. I walked over his land planted to corn, cotton, sorghum, and potatoes as field crops, and a few acres of different crops for hogs and cattle, of which he raises a great many. The crops were clear of weeds and grass—and such a crop! The corn will measure fifty barrels to the acre, and every other crop in proportion. The cattle, horses and hogs running at large around the home were sleek and gentle, and about the house there was an air of comfort that made one feel that this was

indeed a home. One hired man only assisted in the crop.

Now to the other: This field contained forty acres. The proprietor is a strong, well built man of forty-five years with a grown son to help him. The gate approaching the house was out of gear, the fences poorly repaired. The fence corners grew up in weeds and brush which almost hid the fence. There was a poor stand of corn and a worse one of cotton. In one corner there was an excuse for a garden, which could not be distinguished from the field, so run over was it with weeds and grass. A few little sickly looking pigs squeaked from a pen near the back way. The crib was empty of corn, and the manure of a dozen poor, unfed cows lay in piles wasting in the barnyard. Around the house was evidence of discontent and unrest; old rags took the place of missing panes in the window frame; the furniture was soot and the wife looked careworn and disheartened.

How different the picture! Yet both of these men enjoyed the same advantages. Both worshipped at the same church, cultivated of the same survey of land, and drew water from the same fountain. One happy and prosperous, the other discontented and sour. One talked of his fine Jersey and Poland Chinas, the other of politics and hard times. Is it not strange that such conditions exist?

The advancement of agricultural science and economy has but little effect on some people. Yet our experiment stations, farmers' institutes and agricultural colleges are doing a great work. But the work is just begun. The old reliable TEXAS FARM AND RANCH is accomplishing a great work for the Texas farmer, and will accomplish more as its circulation is extended.

In some future letters, if Friend Holland will permit, I propose to tell TEXAS FARM AND RANCH readers of this productive South Texas country, where land is cheap, and where abundance abounds. I am not in the coast country proper, but on the fertile hammock lands of old Montgomery county, where fish and game add so much to the pleasure of living here. This section is a wooded section, the fruit man's paradise. The cheapness of land, abundance of water and fuel, and nearness to market combine to make it indeed the Eldorado for the man of small means but large energy and pluck.

SAM H. DIXON.

COTTON BAGGING AGAIN.

DALLAS, TEXAS.

Editor Texas Farm and Ranch:

Noticing several articles in papers of recent date on the bagging question, and feeling an interest in its outcome, beg to say that I have given the said articles my careful consideration. In view of the low prices that all commodities are bringing this year, it is an injustice to the farmer to force him to use a specified wrapping to cover his cotton, especially so when that wrapping is confined to jute, for we all know that there is a strong combine or corner on this goods, and if the farmers allow themselves to be bulldozed into using it exclusively, it will unquestionably leave the feet of the jute people an opportunity to raise the prices on their products, as they have done on similar occasions in the past when no competitor was in the field. I have taken pains to investigate the merits of sugar bag cloth spoken of in the articles mentioned, and find it to be cheaper by some 8 to 12 cents per pattern, and better adapted for covering cotton than the jute. At this time, if behooves the farmer to keep a competitor of jute in the field as a curb on this combine. I have also investigated some of the leading endorsements that I have seen in regard to this goods, and find them true and genuine so far as signatures and statements are concerned.

The circulars that have been sent out over the country alluded to by previous writers, are only tricks practiced by those interested in jute; hence the farmers should investigate for themselves. What we need is the cheapest wrapping in the market, and at the same time an efficient one, and I believe from personal observation that the sugar bag cloth is the cheapest and best covering in the market at the present time, and I hope it will come into use all over the state as it has done in the Carolinas and Georgia where it is very popular and preferred by reason of its superiority.

Furthermore, I believe that if the farmers over the state were to take the matter up and investigate its adaptability as a covering, and publish the result of

such investigations, it would only be a short time before it would become a recognized competitor. D. J. COWEER.

THE BANNER COUNTY.

HASKELL, TEXAS.

Editor Texas Farm and Ranch:

A great many people may have forgotten we won the prize offered to the best county in Texas, Louisiana, Arkansas, Oklahoma or Indian Territory by TEXAS FARM AND RANCH, and we want to remind the people we still have the banner county.

Corn stalks are over twelve feet high and all other crops in proportion. Prospectors are coming in and most of them must not be readers of TEXAS FARM AND RANCH, since they seem to be surprised on arriving here to find our country surpasses their expectations, and even those who did read TEXAS FARM AND RANCH would be surprised to see our country surpasses the write-up. Our farmers raised no wheat, from the fact that last fall was so dry they had no opportunity to plant; but everything else in the way of farm crops and vegetables are in abundance. And cattle were never fatter at this time of the year.

The mosquitoes have arrived and it is their first appearance in the history of this county. JOHNSON.

SOMETHING IN A NAME.

AMARILLO, TEXAS.

Editor Texas Farm and Ranch:

Of late here lately, I've been reading of sum letters wrote you by Uncle Sport, and I notice you publish his, and as I have wrote a good deal for some common county newspapers I feel as if I'm entitled to be heard from in a reel periodicle.

I really do think TEXAS FARM AND RANCH one of the best of edukational periodicles for farmers and stockraisers I've ever red.

At first thort I decided to saive all the apophtham I've got by farming and sent me a good nuzze paper for farmers, but at second thought konkluded to loanate it to you, providin you'da publish it.

I started to farmin' on a farm out here about the 20th day of March, and have been at it ever since, and I want to say right raze pan in the Kornhandle don't no nothing at all about it.

I now hax corn from 6 to 7 1/2 feet by an sum storks has four ful developent years of korn on un, others has frum one to 3—all good korn.

Me an Bob works about 200 akers ov land: about 50 in millet 15 in korn, 2 in sweet petaters, 1 in chufas, 10 in oatz an the baluence in sorghum; also sum Milo maze and K-far corn. I trid plantin' everytther 20 of sorghum with common fede corn, and I want to say it beet everytting I ever saw. The korn don't seem to draw the moisture az has s-zorghum and it also shades more if he result is, it made the biggest stork of korn and the finest sorghum on the place.

Suntime since, I saw a letter from sum feller, tellin how to plant chufas. He saiz sike it an plant white good korn in the ground. I got my seed from Atlanta, Ga., on April 21st. It wuz then the driest time we've had out here, but I thought I'd put it in the ground an let it stay til it rained, an so I did. An inside of 10 days it was all up, and now I've about one akre covered with it. It serinley is the hog fede for this country.

Mr. Eddie Ter: I've hurd of nitz bein on a good many things, but upon my word I was surprized to find em on korn silks.

I noticed the worms wuz a eatin of my korn and I went to work to killum. I soon found they had come the 2nd time on the same year of korn an a close investigation shode the silks to be fu of em. So I rub all the new silks be tweens my hands and kill the worm before he hatches.

Pleze tell Mrs. Mann, of Ok'ahoma City, that 1/2 ounce of gum camphor kut up fine in one gallon of wood ashes an sprinkled over emny young vegetation will keep off June, July, August, or ennyother bugs that may pay their respects to her' owkwalky.

We've got 5 old sows that brot us 54 pigs the other day. Who can beet that? What's become of Uncle Jonas? Dont see ennytthing from him enny more.

If it dont rain too much this country will make the finest crops I ever saw. I It is now rainin an everytthing in fine growin kondition.

If this letter is printed let me no and

I'll try to keep you posted from this section ov the world. Best wishes to the best agricultural paper in the South, I am yours for success.

ALEX. ALLCORN.

A GOOD COUNTRY.

NASHVILLE, ARK.

Editor Texas Farm and Ranch:

My last communication to your valuable journal has brought me a great many inquiries about this country, and with your permission I desire to answer some of the questions in this letter.

First, we have black lands, sandy lands, red sandy lands with red clay foundations, etc. We consider these our best producing lands. They are not subject to drouth, and hence we never have a total failure. One of my neighbors who has been living on his present farm 46 years, and has never used a pound of fertilizer, tells me he has never bought a bushel of corn in all this time except the first year, and has never had a failure. Our lands are all timbered with liveoak, hickory, walnut, mulberry, etc.; good freestone water, plenty of springs, and creeks that run the year 'round. We can grow anything that grows, successfully, except tropical fruits. Lands are very cheap now, but are gradually advancing in price. We have good schools and churches, and society, and I don't believe there is a healthier country anywhere. This is certainly the country for a poor man to come to to own a home in a few years, if he will work. Our crop prospects are very good, considering the vast amount of rain we have had, and our people seem contented and happy.

FRANK PARKER.

A GEORGIAN INTERESTED IN TEXAS.

ATLANTA, GA.

Editor Texas Farm and Ranch:

I have just this morning received your valuable paper as usual. I commenced on first page, and was delighted to read the extra fine article, "Truck Farming in Waller County."

Whoever wrote that article has brought Waller county under obligations that will ease his grey hairs down into the silvial soil from whence the better part of man will come in touch with a better and higher power.

The beauty, the simplicity of the article, is the taking of his text, sticking to it, and finishing upon same lines with little or no embellishment, and he "plows with a deep scooter" but Waller can stand that kind of plowing. I have some knowledge of her beautiful dark loamy soil, with rich grasses. I have a brother buried near H-mstead, and have never passed through or visited that city, but my interest reaches out to the extreme borders of her grand domain. I recommend the article to all. It is food to the hungry young man who stands on the green meadow of life enameled with hope and bounded on every side with mountains whose every peak is bedecked with possibilities in each of every ambitious youth, and canopied with the azure skies of first.

A. J. WALKER.

AN UNSUCCESSFUL DAIRYMAN.

BRANCHESIDE, TEXAS.

Editor Texas Farm and Ranch:

Reading after Mr. Softly and Mr. Parker in your issues of June 1st and July 20th respectively, prompts me to add my mite to the agitation of some scheme that will suppress the fraudulent competition that dairymen have to combat. I notice a good deal in your paper, as well as others, about the glowing prospects for dairying in the South generally, and Texas particularly.

Over these articles I generally smile, as I do when I read Dr. Tolar's encomiums of Arcadia. The writers are generally writing of something they know n-thing about, merely theorizing, or else like the Doctor, have something to sell, I've been there, and believe I am right in stating, that as a general thing, there is no money to be made in dairying in Texas. As a by-product, butter can be made profitably, where the maker can find a family consumption for it, but to make butter as a business one must make more than he can find regular customers for, and when he puts it on the market in competition with imitation butter, he can't get cost of production. The theorizers write us that good butter will always find ready sale at remunerative prices, and it is only the poor stuff that sells low. I can't believe this, for, citing my own case, I have well graded Jersey cows and use a separator and improved imple-

gestion that are known. Thus cheese of good quality and fully ripe, is not only sufficiently alkaline, if this quality is really needed for the digestion of it, but it is itself abundantly provided with the means for its own digestion in the stomach, and it is so well provided in this way that it is a valuable aid to the digestion of other food. In addition to all this in its favor, it is mostly eaten with starchy food, as bread or pastry, and at the end of a meal, when its peptic qualities aid the stomach, and cause the meal to be digested in the most effective manner. It should be made as widely known as possible by all interested in this industry of making cheese, that instead of being indigestible, as is wrongly thought, it is quite the contrary, being easily digested, very nutritious, and a wholesome, cheap and pleasant food, that should be eaten much more than it now is.

New, uncurd cheese is indeed very indigestible, for the process of curdling is nothing more than a sort of predigestion.

TRANSFERS OF JERSEY CATTLE.

The following is a list of Texas transfers of Jersey cattle for the week ending June 25, 1895, taken from report of the Secretary A. J. C. C.

BULLS.

Booth 18172—W M Ferguson to J D Demmet Rockdale.
Charman's Prince 40919—B Andrews to B L Gaither McKinney.
Clancarty's Lott 39479—M O Mason & Sons to Payne and Clatnam, Waco.
Fisher Popl; 34287—J D Gray & Co to J A Martin, Fort Worth.
Huggetta's Dan 39485—M O Mason & Sons to J Oliver, Ryan.
Jumbo of B F 36610—W J Foster to J Q Tabor, Bryan.
Squirrel of B F 36611—W J Foster to J B Lewis, Bellville.
Tormentor C of Lawn 39774—Platter & Foster to A B Mickle, Comanche.
Victor's Commodore 21726—A L Keeter to Bagg, Stone & Co, Sunset.

COWS AND HEIFERS.

Anna W 47877—J H Pope to C S & B S Pope, Marshall.
Beulah of Bermuda Farm 102203—W J Foster to W E Johnson, Navasota.
Bonnie Pomona 106185—D A Donoho to J S Kerr, Sherman.
Dixie A 103926—J Avriett to W A French, Athens.
Eck St Lambert of Lawn 73546—Platter & Foster to Brenner and Paxson, Sherman.
Gay Rex Pogis 106000—H J Mitchell to T L Bryant, Mt Vernon.
Grace Koans 106233—J W Scott to J D Gray, Terrell.
Heartlet 58813—H J Arledge to H L Gibbs, Bastrop.
Helen Signa of Lawn 103745—Platter & Foster to A B Mickle, Comanche.
Hua Tormentor of Lawn 103394—Platter & Foster to B L Gill, Terrell.
Jennie Jeff 95062—J G Wessendorf to G A Kopisch, Bellville.
Miss Letty 84340—J Avriett to W A French, Athens.
Ora Rex 83333—H J Mitchell to T L Bryant, Mt Vernon.
Our Susie 95779—S Q Stutz to J F Crow, Jefferson.
Rubie Rex Pogis 100326—J F Silvers to H J Mitchell, Winsboro.

FEEDING CATTLE.

Live Stock Indicator.

With good pastures the most economical gain is made on grass, the grass-feeding being continued as long as the pastures are good and the grain period being reduced as much as possible. When they are not good they should be supplemented with a moderate and varied grain ration, for the only sense in which gains made on poor pastures pay, is that which assumes that the grass has no value unless it is fed when the value of the land is considered, the returns from poor pasture cannot be regarded as profitable. Supplement poor pastures with something, even though it be only cut corn; but make the supplementary feed as good and well-balanced as the circumstances will permit. When the grain period arrives, finish and firm up as fast as grain can do it, and however cattle may have been fed, a week or two on corn and dry hay only before shipment will go a long way towards reducing the shrink.

THE SUGAR INDUSTRY OF INDIA.

The Sugar Cane contains a valuable translation from the Austrian consular reports of data concerning the sugar industry in India. Few persons have any

idea of the wonderful capacity of that country in sugar production. It is estimated that even now India is producing 2,120,392 tons of raw sugar on 2,107,200 acres of land. In addition to this a large amount of palm sugar is also produced there. This sugar is practically all consumed at home. It is of low grade, and the natives seem to be content therewith, in fact, preferring it to high grade sugar. The small land holdings interfere with the development of the central factory idea, and the result is that sugar is produced in a very small way and of quite inferior quality by a multitude of people. Should their attention ever be concentrated upon the production of cane sugar, as it has through the labors of the English people in the production of tea, there is no telling how much sugar might be exported from India. The enormous supply of cheap labor there, their climate and soil, are all factors that once availed of, might swamp the rest of the world in sugar production.

HOW LONG TO KEEP A BROOD SOW.

Rural World.

The first litter, as a rule is not so valuable as the following. The second, third and fourth are generally reckoned the most profitable, but I have known sows to have eight or ten litters of good pigs.

While a sow brings a good litter in number, suckles them well, and they are fairly level in size, that sow is a money getter, and a man is foolish to sell her and replace with one he knows nothing about. But immediately after a sow brings small, unweaned litters, and seems in any way deteriorating as a breeder, she should be sold or fattened. Some sows begin to deteriorate after the second and third litter. Some never are any good; the quicker these are got rid of the better. Some think old sows more likely to have the milk fever; in my opinion it is more likely to happen to a sow with her seventh or eighth litter than to one producing her second or third, if care be used. No doubt a four or five-year-old sow, if made into bacon, is a bit hard, but as they make up in the open market as much as one that has suckled one litter only, this is no obstacle to keeping them on while they bring up unprofitable litters.

HOW I FEED AND MANAGE THE PIGS UP TO SIX MONTHS OF AGE.

Wm. Roberts at Des Moines Meeting.

If the topic would allow of it, I would like to take a run and go before I jump—say about two weeks before the pigs see daylight. I do not know but that to get at the subject just right, one would need to go back a good ways and come up to the topic. I will only take up your time for a brief period. For two weeks before farrowing I feed as near the kind of food as possible I intend to feed afterwards. I have well arranged, roomy breeding pens with good fenders in which I put the sow a day before farrowing time. When the time is up for her to travail, I am on hand, but to tell you just what I do, I will not attempt for my doings are various, to suit the case. One may need no attention; another may need all the skill of a breeder. I put water in a clean trough a few hours after the sow has farrowed; that is all the first day. The next day all the feed I give her is a handful of shorts in water, and increase from day to day until she has had shorts five days. I then take mother and pigs to a one-eighth acre lot of grass, in which there is a nice house 8x7 feet, dirt floor. Now is a critical time, and no iron-clad rule will do. Of a dozen sows, no two are exactly alike, hence the necessity of having them in lots to themselves. One may have a voracious appetite and will need holding in, or you will soon have a patient on your hands with dyspepsia. Another may have but little appetite, generally occasioned by fever in bag. She will need close attention. I bathe the belly with cold water, and have a bottle of flax seed oil with a little carbolic acid in it, and with a turkey feather put this over her teats. The washing with water cleans off all the dirt and allays fever; the oil and acid preserves the pigs from sore mouths. I try to coax up an appetite sometimes with little scraps of meat, milk, mush, etc. I now, if they have good appetites, increase the feed, clear, fresh water, shorts and a little oil meal mixed, as feed, and give all they will eat up clean. At this time I commence on one-half ear of dry corn, increasing from day to day until on a full feed; I keep on in this way. At about three weeks old the

pigs will begin to come up to the trough. It is fixed low, so they can eat all they will. Then soak oats and corn and put it in a shut-off corner. Stand and look at them eat and grow, and feel happy. At five weeks of age I open the doors of each pen or lot, and have the sows from six or eight come up to a common feeding place. Of course the pigs come, too. Toss the pigs into a clean-floored house and feed slop as heretofore, and soaked oats and corn, all they will clean up—always sweet. At eight or nine weeks old I turn the sows in back pasture and leave the pigs in their pasture, and keep right on giving same feed and care. When fair times comes we select what we want to exhibit. After the roundup of the fair we separate the sexes, castrate what males appear to be below the standard, put them with such of the sow pigs as we do not want to retain either in our own herd or to ship for breeders, push these as fast as possible and try and have them in Chicago before the first of February, at from 200 to 250 pounds. After selecting what I want to retain, I try to have the rest in other hands by the time they are six months old.

This year I have had the personal care and oversight of 130 pigs. There has not been a single case of scours, but one case of thumps, and only three or four with sore mouths. There is not an unhealthy looking pig in the bunch. They are in good groups and kept separate, could so arrange it, I would prefer smaller groups. I would give you all a personal invitation to come and see my pig town.

A most interesting discussion followed, led by Mr. W. Z. Swallow, of Boonville, who was made a target for a long array of questions bearing on the subject. His plan was to keep each sow and litter separate from the others in a grass lot of not less than one-half acre until six or eight weeks of age, so they would not acquire the habit of robbing. Later a dozen in a lot will bring better results. Feed regularly, three times a day, milk and shorts. The milk should be sweet, as sour milk fed to a sow or pigs is apt to scour. Red shorts are better than white. Feeds not soaked corn, preferring, if corn is fed, to feed it dry, and in small quantities after the other feed. Seldom feeds oil meal. Feed well and give plenty of exercise, but do not overfeed. Keep salt and ashes always where the pigs can get them. Bed with clean sand on ground floor. Yearlings can be made to shed by washing daily with warm water. Best breeding sows are those bred twice a year regularly. He also advocated the feeding of wheat, because of its strengthening influences on bones and muscle.

Mr. F. A. Shafer, of Campbell, feeds ground corn, oats, wheat, rye, and everything a pig will eat, but no shorts. Thinks a bad influence follows advocating the feeding of shorts and slops. He feeds corn because it is cheap and the best pork producer known. Considers bone a result of breeding rather than feeding.

ELECTRIC PLOWING.

The Scientific Monthly has the following interesting item of progressive news from old Germany: "If electric plowing can be made to pay in Germany, it may be made profitable in the great wheat and grain growing districts of the United States.

To Germany belongs the credit of having first demonstrated the practicability and economy of electric plowing. An electric motor is fixed to the plow itself. The shaft of the motor, by means of suitable gearing, drives a shaft fitted with pinion, over which a chain runs from one end of the field to the other. This chain is held taut at both ends by triple ground anchors. When the motor is put in operation it hauls the plow across the field. When the end of the field is reached, the plow is tilted to the other side, and by reversing the motor, the shear starts on its return journey. At a recent test at Halle-on-the-Saale, with a two-furrow tilting plow, two furrows were turned, measuring together twenty-four inches in width by ten inches in depth, and traveling at the rate of thirty-five inches per second. The actual useful effect obtained was equal to eight horse power. A remarkable feature of this system is that guided by the tightened chain, very shallow furrows can be made with great evenness and regularity, and the balance plow can thus be used for turning over stubble land, and other light work. The first cost of an electric plow is said to be much below that of a steam cultivating plant. The entire outfit of such a plow

as that mentioned, dynamo, steam engine, cables, etc., can be had for about \$2000. According to the figures published as to the results of the trial, the working expenses of the system are about half that of steam plowing, and if these results are borne out in practice upon an extensive scale, there seems to be no question of the future of the electric plow.

BIGGEST CORN CROP ON RECORD.

Chicago Hay Journal.

The presidents of the different railroads west of the Alleghenies are to meet in a few days to discuss the ways and means of moving the immense crops, corn especially, which they must make extraordinary preparations to handle. The managers have made particular efforts in the past weeks to get at the plain, unvarnished facts in regard to crops.

The result of this investigation goes to show that the corn crop for 1895 will be far in excess of 1891, when every railroad was taxed to its utmost capacity. The totals are amazing. They show that there is now in sight what promises to be a crop of 2,400,000,000 bushels. That is 200,000,000 bushels more than the largest crop ever made in this country.

This great yield would prove a detriment to farmers if it were not for the fact that unusually large charters for corn shipments to Europe have been signed and others negotiating, which will make 1895 the greatest corn export year in the history of this country.

SELECTING THE YOUNG BROOD SOW.

A Wisconsin Breeder writing to the American Swineherd, says:

"Three years ago I was having lots of trouble with my young sows farrowing very small litters, and a great difficulty in farrowing these. I sought the advice of a breeder who had the benefit of much experience and who had met with excellent success.

"His first remark was: you have been plucking out the style of pig that pleased the eye, instead of giving due consideration to other necessary requirements of a good brood sow." Continuing, he said: "Some would call these sows bred too fine, but it is in reality in the training through improper feeding; too great a preponderance of corn, a fattening food was given them while raising them, causing them to be fat, small, smooth and plump, instead of growing and developing good frames. Milk is first-class growing food; so is bran, shorts, oats linseed cake (old process) and the various grasses. Good pasture and exercise in gathering it is of great importance. Corn should be used sparingly and only in connection with the other named foods. These girls that are raised on the foods giving growth of form with strong bone, great vitality, broad across the hips, may not be quite so pretty and rosebushish to the eye, but when they farrow you will be pleased and profited with good-sized litters of strong pigs. But, young man, your mistake is not an exceptional one, but a very general one."

"Two years has proved the truth of this advice, and I give it for the benefit of other young breeders who have made the same mistake. The information has been of great value to me."

Breeder and Horseman: The Jersey cow is still chewing her cud and returning more for it than any other kind of "chaw-er." Every week brings news of a new butter test, and each shows how wonderfully rich are our Jerseys. The question uppermost in the breeder's mind at present seems to be how to get better milkers and attendants for their cows. It is agitating the minds of dairymen all over the world, and it seems that with all our ingenuity we will first get the solution in a successful milking machine from the old world. Shrewd men have tried for four centuries to perfect a milking machine. The earliest was used by inserting a tube into the teat, and it still so uses on diseased teats, but is not desirable for regular milking. Nearly all the patents have used either the vacuum or a pump. The latest invention combines the two, and this rule for regulating the vacuum has proved successful. This patent is being practically used in a number of large dairies in the old world. What effect these machines will have on the dairying industry, is a question which will soon be seen in England. Milking is a big job in a large herd, and if it proves successful, dairying will be more popular with many who have worried



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TEXAS FARM AND RANCH PUB. CO.,

F. P. HOLLAND, President.

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TEXAS FARM AND RANCH is the official medium of the organizations given below:

State Horticultural Society—E. V. MUMSON, President, Denison; E. L. HUFFMAN, Secretary, Fort Worth.

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Texas Breeding and Pacing Horse Breeders' Association—W. M. C. HILL, President, Dallas; S. B. HOPKINS, Secretary, Dallas.

Texas Jersey Cattle Club—J. D. REDD, President, Waskom; J. O. TERRELL, Secretary, Terrell.

State Farmers Institutes—E. F. BUTLER, Organizer, Waxahatchie.

In 1894 there were more idle men in this country than the total population in 1776.

"FARMERS are not fools." The fool is the man who at the beck of personal aggrandizement endeavors to make the farmer his tool—and fails.

THE St. Louis Grocer and General Merchant says truly that "the wearing of bloomers is a death blow to the theory that women dress to please men."

The revolution in Cuba promises to cut short the sugar crop of the island, and the insurgents and the yellow fever are getting in their work on the Spaniards.

THANKS OF TEXAS FARM AND RANCH are due Yarbrough Brothers, nurserymen and fruit growers, Stephens, Ark., for a box of fine peaches. The fruit was very large and fine, but was probably shipped a little too ripe to reach us in good order.

A SMALL-POX patient at Socorro was given up by the doctors, who declared they could do no more. A nurse bathed the pustules with warm chicken blood, and the patient recovered. Now the question arises, was the cure the result of the warm blood treatment, or of the suspension of medical treatment?

FARMING is free from the annoyances and turmoil incident to every other business, and affecting them so disastrously. There are no strikes or lock-outs on the farm; no walking delegates to breed confusion and entail loss. When a farm laborer becomes dissatisfied and quits work, or is discharged, he walks over to a neighboring farm and goes to work again. The farmer himself feels at all times secure against farm troubles, and knows that if he sows he shall reap; that he is in no danger of being deprived

of his means of subsistence, and that his earnings will always be proportioned to his industry and intelligence.

THE Memphis Commercial Appeal says: "Young people should not be taught to despise the great political organizations, or to estimate them as merely the instrumentalities whereby corrupt men gain public station." Why not teach them this as well as any other great fact of the age?

ONE of the most delightfully located institutions in the country is the Norfolk College for young ladies, at Norfolk, Va., near Old Point Comfort and Hampton Roads. A location noted for its healthfulness, and high tone of its social ethics. The educational facilities are of the best. See advertisement in another column.

ST. EDWARDS College, Austin, Texas, affords every facility for a thorough classical or commercial education, and for thorough instruction in all the branches taught in the best schools; has also preparatory grades in all branches. Healthy location, retired position, and extensive grounds are a few of the superior advantages of this already famous school for young men and boys.

THE Merchant's Sentinel, of Cincinnati states that Mr. John Swietzler, of Oregon, has contracted to deliver to the Portland Canning Company 3000 horses at \$2.90 per head. It is said these horses are to be canned for the export trade, and that most of the output will go to China. However, to make assurance doubly sure, this writer will eat no canned meats for a time.

DURANT, who murdered two young ladies in a church in San Francisco, during his confinement in jail and on his trial now in progress, has been the recipient of many favors at the hands of the ladies of that city, who have called in great numbers to see him, have kept him supplied with alimentary delicacies and costly flowers, and several are said to be desperately in love with him, though they have never seen him. The papers do not tell us whether these women are of the old or the new variety. At any rate they are no credit to the sex.

THE 37th annual report of the State Horticultural Society of Missouri is before us. The volume is well printed and illustrated, and contains 400 pages. It is printed by the state. It contains proceedings of the meetings at Harrisonville in June, and at Trenton in December, 1894. Efforts have been made to prevail upon the great state of Texas to do a similar work for the benefit of the people; but it has been impossible so far to impress the legislature with a sense of its utility. They can't see where or how any political capital is to be made out of it.

FARMERS in every community can greatly add to the pleasures and profitability of rural life, without additional labor or expense, by organizing clubs for social intercourse and mental improvement. It is but little trouble to ride over to the neighborhood schoolhouse, or to a neighbor's house, and spend a few hours in consultation with men similarly situated, and following the same calling. The recreation alone will be a benefit, and it will add vigor of body and elasticity of mind to the following day's labors; and by an interchange of thought each one will become more and more interested in the work of his neighbor, and by comparing it with his own, will be able to detect errors in practice and mistakes in thought. It is the isolation of farm life that in this day of rapid interchange of thought and social privileges makes the farmer tired of the

farm and long for the busy scenes of city life. The farmer, if he wills, can have as many social privileges as he has time to spare for the purpose, if he would only get a move on him, and stir up others who may be like-minded.

THE great dailies, almost to a man, oppose any law in restraint of option dealing, and declare that speculative operations have no effect upon prices other than to equalize them, and that producers are the beneficiaries. This is what appears in the editorial columns. In the commercial comments preceding the market quotations, every issue declares that prices "fluctuate in response to the tricks of the bulls and bears." "The market is being run by a few professionals," etc., showing that the editorial and commercial opinions of these papers do not make connection. The fact is the whole system of produce gambling is a fraud on the producer, in the perpetration of which the gamblers and their organs combine to effect a common purpose.

NEW uses have been found for molasses which has become a burdensome bi-product of the sugar makers. It has been used as a stock feed, for distilling purposes, and now it is being used for the additional purposes of paving, for mortar, and as a lining for furnaces. At a recent meeting of the sugar planters of Louisiana these uses of molasses were fully discussed, and the fact was developed that mixed with clean sand in proper proportions it made a binding material, as adhesive and more elastic than cement; and that several experiments had been made in furnaces by coating common bricks with molasses mortar, and using them for furnaces instead of fire brick, and that all tests were satisfactory. The only thing lacking is a thorough test of durability, which, of course, requires time.

ON account of the demoralization of the railways in the Panhandle, the committee, on their return from the meeting of the American Association of Agricultural Colleges and Experiment Stations, at Denver, did not succeed in locating the Panhandle sub-experiment station. They visited Amarillo, Claude and Goodnight, and found the people fully alive to the importance of the work. They expect to soon make another tour and bring the matter to a conclusion. A number of additional points will be visited and the station located according to natural advantages and the co-operative interest manifested. The station will be a great benefit to the entire region, and especially to the immediate section where located; and the county and people who secure the prize will find it cheap, no matter to what extent they manifest their practical appreciation of the enterprise.

THE A. & M. College of Oklahoma Territory, if no good as far as the proper functions of such colleges are concerned, may still be utilized as a "terrible example" of the deadly effect of rings and cliques when they gain control—well, anything. At the June meeting of the Board of Directors the president was removed and replaced by a member of the board; the director of the Station was removed and replaced by a former member of the Board; the horticulturist was removed and replaced by another member of the Board; the manager of the farm was discharged and re-employed as "overseer," at half his former salary, and the master mechanic was discharged on the ground that the position was unnecessary. If the farmers and fruit growers of the territory should go en masse and wipe the thing out, and begin anew, and a jury should convict them of cruelty to

animals (hogs), we would not swap knives with a member of that jury if we knew him.

THE Boston Herald says that grasshoppers can be manufactured into the very best of bogus butter. This will prove a bonanza for Colorado, where the surest crop on unirrigated land is grasshoppers.

SEVERAL states have tried convict labor in road-making and in every case the result has been entirely satisfactory. Why every other state does not make the same experiment is hard to determine. Here in Texas, for instance, needing better roads more than any other state, and having more bad ones; and there is no law to aid or encourage road improvement. The Legislature has, it is true, graciously permitted a few counties to make a limited number of good roads—but that's all. We have an unusually large number of prisoners, who, when they do any productive work come in direct competition with honest labor, and the state authorities are now worrying over the problem of what to do with them.

QUESTIONS AND ANSWERS.

Will you please give me the name of some breeder of mutton sheep? I am not familiar with mutton sheep and want the name of the best breeds. I want the name of some breeder in Texas. I don't see any ad. in your paper of such breeder. I wish to buy a few ewes and a buck.—THOS. McNEAL, Gonzales, Texas.

ANS.—We cannot cite you to a Texas breeder of mutton sheep. If there are any such, they do not let it be known. Cassius M. Clay, Whitehall, Ky., is a prominent breeder of Southdowns, a fine mutton breed, and good for wool also. Sheep breeders do not advertise to any extent and we have no other way of finding them.

Enclosed find sample of grain. What is it? Is there any market for it, and what the price paid for it? I see an ad. in your paper of the Climax dish washer. Is it any good? Is the firm responsible? Please answer through your columns and oblige one who is proud of your paper.—A. SUBSCRIBER, Yoakum, Texas.

ANS.—It is Jerusalem corn, or Egyptian corn, a variety of sorghum vulgare, largely grown in Western Texas and New Mexico. For market and prices write Southern seed-men advertising in this paper. It is an excellent food for stock, either the seed, or as fodder. It also makes good bread. The Climax washes dishes and does it well—saves much labor. We believe the firm to be sound.

I presume, from what I can learn from some of your subscribers, that you can give me some information in regard to the cultivation and marketing of Canaigre root. It is a natural product on in this county, and I intend to commence planting it as soon as I can get my crop laid by.—L. HUDSON, Acton, Greer, county, Texas.

ANS.—Canaigre is planted and cultivated much as Irish potatoes are, and the roots may be harvested when one or two years old. The roots should be cut on a cutting machine and dried before sacking or barreling for shipment. When there is enough of it produced in any locality, there will be a local market established—provided the facts are properly advertised. It is mostly shipped to tanneries in the North and Europe. We would recommend an extensive correspondence with dealers and tanners before getting a crop ready for market. It is probable that before you have a crop ready to sell, there will be purchasers at every important railroad station in the Canaigre belt.

Is green corn tops good to make a cow give milk? I have been told it would make them dry up.—L. L. WOOD, Wickland, Texas.

ANS.—There is hardly anything better than green corn, tops, stalks, blades and ears—all are good.

Will you tell me through the columns of your valuable paper how to make apple vinegar? We would like to make about four or five barrels.—L. E. HALTER, Conway, Ark.

ANS.—Express the juice, put in a wooden vessel, cover with cloth and set in warm place. To a barrel full, add a gallon of scalded corn meal. When skum rises do not skim it off.

1. Will you please state in your paper where I can get the history of Rome; and (2) would you advise a young minister to read it for instructions?—YOUNG PREB, Polver, Texas.

ANS.—1. At any bookstore. 2. We would. Why should not a young minister be informed regarding Roman, or any other history.

VETERINARY.

When veterinary advice is desired by mail and without delay, Dr. Follester should be addressed directly, and one dollar enclosed to secure prompt attention. Good addresses on TEXAS FARM AND RANCH for publication will be an added benefit.

What is the best time of the year for dehorning cattle, and can old cows be dehorned as safely as young stock? Is it necessary to apply anything after the operation, or simply cut off the horns and turn the animal loose?—W. A. BAIKES, Mission Valley, Texas.

ANS.—In the months of December, January and February, or any time when flies are not troublesome. 2 Yes 3 No; not necessary to apply anything.

I have a mule colt ten days old which is weak in its ankle joints of fore legs, and seems to get worse when it walks; its feet bend under up to its joints; it is lively every other way. What can I do for it?—J. C. DROBINSKI, Ohio, Texas.

ANS.—You will have to use a starch bandage on the parts, such as is applied to a fractured limb; or you can take sole leather and soak it till it is soft, and add and mould it to the shape of the pastern. Apply it while soft and keep the pastern in a natural position till it dries, when it will act as a brace. Or you can take splits made of some strong wood, as hickory, and cut them or steam them, and bend to shape of the leg and cover with muslin, and then return in position with a bandage. Or you can have your blacksmith make shoes to fit the feet with a spur extending out in front about an inch in length. Any of these arrangements, if applied with a little skill, will remedy the evil complained of. They should be kept up till the defect is cured.

I lost a young pig so active ago, and will be glad if you will tell me what was the matter I got sore all over; skin cracked open and began to peel off before it died. It seemed to rally well just before it died and would nurse with the others as though it had a good appetite. Its bowels seemed a little constipated and sections of a grayish color. It died before it was three weeks old.—JNO. P. WEAVER, Jacksonville, Ala.

ANS.—Indigestion and catarrh of the bowels, acting on the nerves and preventing the skin from being properly supplied with blood and nourished.

I have a horse that has blood spavin; have had veterinary attention in my own country the knife four times, but he don't seem to get any better. I think what caused it, he ran away in the snow last spring. What can I do for him?—J. T. SMITH, Lincoln, Texas.

ANS.—Your veterinarian, no doubt, did the best he knew how, but treating a blood spavin with the knife would not be considered good practice by the profession once, let alone four times. If your animal is not lame let it alone; if lame, if you can get it fire, have it done. If you cannot do so, blister it with cerate of cantharides once every two weeks till lameness disappears.

Many thanks for the wart remedy, for it has taken out numerous warts of my own horse. It troubled a bad horse for three years, for I tried different remedies, but of no use. This wart was as big as a goose egg, a gray and bleeding. Five applications cured him. I went according to directions; tied a horse hair around the wart, then a black pine needle and put in as much salt as it would take up, then put it on a rag and tied the rag around his leg. I did this five times and the wart dropped off. Tell me through your columns what ails my cow? She is poor and looks bad, been lame a long time, but that is not it, for we borra a hole in one of her horns and a stream of blood came out. So I bled her the next again. Her skin is tight. It may be hidde hound. If so please tell me what is good for it. She is a young cow, five years old.—WM. DEBBLE, Cleland, Texas.

ANS.—Give your cow one pound and a-half of sulphate of magnesia dissolved in a quart and a-half of hot water and follow with one drachm of dried sulphate of iron, two drachms of powdered gentian, and two drachms of powdered ginger, given in a half-pint of water, twice a day for ten days.

What causes fistula on horses, and what is the best treatment for the same? Or give way to determine when horses have the swelly and how to cure it. Is there such a disease as loin distemper among horses? Also, what are the symptoms of a liver distemper, a thing until recently.—J. W. SIMS, Mt. Vernon, Texas.

ANS.—Fistula in the horse is caused by a bruise, often from a badly fitting saddle, but often from a bite by another horse. In the first stages it is best treated by constant application of hot or cold water. When puss is secreted it should be opened at the lowest point, so it will drain out thoroughly, and it will soon heal of itself. Any antiseptic wash will aid its cure. In the case of abscess there is a large hollow on the side of shoulder after the entire length of the shoulder blade. The application of any stimulating liniment, as equal parts of turpentine, ammonia and sweet oil, rubbed in twice a day, and rest, will effect a cure. Never heard of loin distemper before. It will only be found in

the fertile brain of some illiterate who wants to pose as a "hoss" doctor. The woods are full of them.

Three weeks ago my horse received a blow on the eye which burst the eyeball. It has healed up all but one small place what can I do to keep it from scabbing and stop it from matting.—A. D. JOHNSON, Levers, Liberty county, Texas.

ANS.—Touch the raw part with nitrate of silver—just enough to burn the raw spot, and wash two or three times a day with warm water, and afterward use the following lotion, applied with a camel hair brush: Sulphate of zinc, 6 grains; morphine, 4 grains; cocaine, 10 grains; distilled water, one ounce.

I had a well graded heifer to die with a disease our local veterinarians call bloody urine. At first his urine seemed to have a dark bloody tinge, and the amount of blood seemed to increase as the disease advanced. They lose their appetite after a day or so. They seem to be weak in the limbs and seem to have a wild or uneasy look out of their eyes. Please name the disease and give remedy. Also same for blood-murder—suscriber, Nashville, Arkansas.

ANS.—Your cow died of bloody murrain, or Texas fever. They are very much alike in many respects. There is no remedy, only in a general way of careful feeding and water, shade and such like. If the bowels are constipated, give salts in one to two pound doses; nursing according to temperature.

Please answer through your columns two questions which many in this county are very much interested in at this time. 1. The milk cows in this section are going blind from some cause. First, one eye becomes weak, runs water, and finally the ball turns perfectly white. Soon the disease goes to the other eye and the animal is as blind as bat. Both eyes become perfectly white. It is said the milk will set over in a few months. Is this disease epidemic among stock, or is it a poison in their system from a weed eaten by them? Is it visible or prudent to continue using milk from a cow so affected? Can you give a cure for the disease? 2. What is it in young sorghum second growth sorghum that will kill a calf or a cow so soon after eating it? What is the treatment for an animal so affected?—D. L., Fairfield, Texas.

ANS.—The disease is common and is seen every summer in some locality; it is known as purulent ophthalmia. It appears as an epidemic in localities. The contagion is spread by flies. Bath the eyes well in hot water three times a day. Apply with a camel hair brush corate of soda, 6 grains; morphine, 4 grains; atropia 5 grains; cocaine, 15 grains; distilled water, one ounce, and keep the eyes covered with a dark cloth. The milk is not particularly affected by the disease, but owing to the feverish and disturbed condition of the animal's system the milk would be somewhat in sympathy. Young fresh sorghum when eaten in quantities and ravenously is apt to ferment and swell the animal up to an enormous size and cause death if not relieved. The best way to treat it is to stick the animal in the left side, using a trocar and canula.

Will you tell me through your paper what is the matter with my mare and suggest a remedy for her? She is affected something like she has colic which lasts at times three or four days. She will stand still for quite a while stretched out, and then squat slightly and lay down. Doesn't eat anything and drinks very sparingly of water while sick. Her pulses usually come on immediately after riding.—K. G. HIGH, Gloungrove, Texas.

ANS.—Probably some abnormal condition of the bowels which will likely prove fatal sooner or later. Feed her carefully on the best quality of feed and give one of the following powders twice a day: Barbadoes aloes, one and a half ounces; nitrate of potash, three ounces; tartar emetic, two drachms; nux vomica, three drachms. Make twelve powders and give as directed.

Will you be so kind as to give me a remedy through your paper for my horse? He seems weak in the legs and sometimes stumbles and falls down. I have given him rest, but he don't seem to get better nor mend up any. Young horse, 3 years old. I think it is his loin. Any information will be thankfully received.—J. H. FITCH, Austin, Texas.

ANS.—Take 2 ounces iodine potassa, 2 drachms of gentian, and 3 drachms of nux vomica; make into 12 powders. Give one once a day, along with plenty of green feed. Take off shoes and poultice feet, or stand in mud.

ANSWERS TO QUESTIONS ABOUT GRASSES.

GEO. H. HOGAN.

Mr. Geo. H. Hogan: I send you a sample of grass taken from a valley on Mountain Creek, Dallas county, Texas. Please tell me through TEXAS FARM AND RANCH what it is, and if it makes a good hay. If as good as grass used for the Forney, Texas, hay.—W. H. FOKY, Shreveport, La.

The grass is Stipa setigera, commonly called needle grass, or Spanish nuttans. This, combined with Sorghum nutans

and Andropogon furcatus constitute the great bulk of the Forney hay. This grass contains among these three about 60 per cent of the nutrition found in Forney hay, and being a perennial, can be cut earlier than most any annual grass.

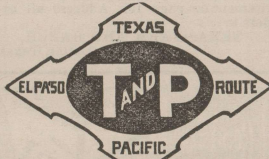
There will be a great many heaves fed in Texas the coming fall, but where are the stock hogs to follow them; or will feeders lose all this valuable waste. One thing is certain, the hogs are not here for the purpose. Notwithstanding the large increase in hogs, there are not more than can be conveniently fed on the farms; so that if any are used by cattle feeders they will be taken from the farms where abundant food awaits them. Texas wants more hogs.

The Farm and Ranch machine arrived all O. K., and gives splendid satisfaction. I think it is fully as good as any machine at double the price.—B. RETZLAFF, Lexington, Texas.

A Reprieve of Ten Years.

An average man's life can easily be lengthened ten years by the occasional use of Ripans Tablets. Do you know any one who wants those ten years.

Ripans Tablets: Sold by druggists, or by mail if the price (50 cents a box) is sent to The Ripans Chemical Company, No. 10 Spruce St., New York. Sample vial 10 cents.



OFFERS THE PUBLIC THE BEST PASSENGER SERVICE BETWEEN TEXAS AND THE EAST AND SOUTHEAST.

Cannon Ball Train

SHORTENED ONE HOUR IN TIME.

Leaves Fort Worth, 7:05 a. m.; Dallas, 8:05 a. m.; Union Depot, 8:15 a. m. Arrives at St. Louis, 7:25 a. m. next day.

LIMITED EVENING EXPRESS

HAS BEEN QUICKENED

8 HOURS TO ST. LOUIS AND THE EAST

4 HOURS TO MEMPHIS. 1 HOUR TO NEW ORLEANS.

ONLY TWO DAYS

BETWEEN

TEXAS AND NEW YORK.

Pullman Buffet Sleeping Cars to St. Louis, Chicago and New Orleans.

For tickets, rates and further information, call on or address your nearest ticket agent.

L. S. THORNE, GASTON WESLER, Vice-Pres. & Gen'l Mgr. Gen. Pass. & Ticket Agent DALLAS, TEXAS.

PILES Instant relief, final cure in a few days, and never returns; no purges; no anal; no suppository. Remedy mailed free. Address: C. J. MASON, Box 619, New York City, N. Y.

LUCKY PIN.

Gold or Oxidized Silver with Emerald or Ruby Eyes. This is a perfect imitation of a skull and cross-bones. Sample 25 cts. \$1.50 per dozen. GULLIN & LAWRENCE, Successors to Queen City Watch Co., 225 Dearborn St., Chicago, Ill.

WELL MACHINERY advertisement with illustration of a well pump and text describing various well tools and machinery.

WELL MACHINERY advertisement with illustration of a well pump and text describing various well tools and machinery.

WELL DRILLING MACHINERY advertisement with illustration of a well pump and text describing various well tools and machinery.

Utter Manufacturing Company advertisement with illustration of a well pump and text describing various well tools and machinery.

Advertisement for a windmill with text describing its features and availability.

Advertisement for a windmill with text describing its features and availability.

Advertisement for Eureka Springs Crescent Hotel with text describing its location and amenities.

Advertisement for Santa Fe Limited train with text describing its route and services.

Poultry.

"Now is the time" to get rid of chicken lice. So is every other time. All the time would express it better.

A poultry journal says: "What one man can do another can do." We used to think that way, but have learned better. Some men can succeed with poultry; others can't.

Many flocks are unprofitable on account of the drones. Superannuated cocks and hens, and male birds that are not needed, should be rooted out. Why feed a lot of non-producers? Fatten and sell them, and give the remainder better attention, and there will not be so much complaint of unprofitable fowls.

Farmers who don't want the trouble involved in maintaining a flock of thoroughbreds should improve their common stock by buying every year a thoroughbred male, or as many thoroughbred males as the number of hens will justify, and destroying all other male birds. Always buy cocks of the same breed, so that the improvement will be all in one direction.

A dozen good hens, well managed and cared for can be made to produce a revenue of about \$40 a year, besides furnishing the family with a sufficiency of poultry and eggs for home use. A dozen hens will not do this well for everybody and anybody. There are some people that hens will not do their best for, and we do not blame them. Good master, good hen—that's the idea. "Do you catch on?"

The most appropriate motto we have seen for many days tops the editorial columns of the Southern Fancier. Here it is:

"A little nonsense now and then,
Is relished by the wisest men."

The editor loyally adheres to the spirit of the couplet, except in an unimportant particular. It declares that "a little nonsense," etc. The editor gives us a great deal of it.

The poultry editor of the Texas Stockman gives himself away about once a week. In the last issue he asks: "Where are your eggs in midsummer when the hotels are clamoring for them and your old dunghills have in a measure suspended laying until next spring?" It is just about midsummer now, and every grocery store is burdened with eggs. Who laid all these eggs? Perhaps one in a hundred, or less, were laid by pure bred hens. The pure bred are all right as far as they go, but there are not enough of them. We would like to be able to publish, for the benefit of a curious public, how many hungry men the editor above referred to feeds with eggs, for he keeps none but thoroughbred fowls. The fact is, the common fowls have been improved by care and breeding until they lay about as well as the pure bred, and have shouldered the burden of furnishing more than 90 per cent of the eggs for market.

DOCTORING THE SICK.

The editor of this department has recently received a number of applications verbal and oral, for remedies for a variety of obscure poultry diseases, and still they come. Now, we would say that 90 per cent of poultry diseases originate from neglect of proper sanitation, or prevention, and it is in most cases impossible to diagnose a case properly without a personal inspection, and in many cases it is impossible to do it with inspection. The cause of disease is often so obscure as to evade the keenest eye. The safest plan is to attribute all cases to one or more of the following causes: Vermin, bad food or water, access to filth or exposure to damp. Then it follows that, the first thing to do is to investigate the question of vermin; then see to it that the fowls, or chicks get only sound food and clean water; then inspect their runs for some hidden source of filth contamination, and lastly, see that they are properly sheltered in a dry house, and for chicks this is doubly important.

The remedy for most diseases consists in simply letting the patient get well. This applies to persons as well as fowls. Meddlesome medical interference generally does more harm than good. Remove the cause of disease, and feed and water judiciously and all curable cases will recover, and the doctor could not save the others. This is often best done by removing the fowls from their

surroundings, change of diet, and a little extra care. The fountain of the disease must be avoided.

THE PIGEON FANCY.

Breeding and raising pigeons is the highest branch of the poultry fancy. Other fowls and birds are bred for profit only. It is true there are breeders of pigeons for profit, but this is a sordid degradation of the fancy, perfectly excusable in this money making age. The true fancier breeds his pigeons solely to gratify his taste for the beautiful, the elegant, the artistic in nature and art; and as such the fancy is elevating and ennobling. The fancy pigeons of today, and all the numerous host of them are descended from the rock pigeon or wild pigeon, so abundant in Asia, Europe and America. All our doves belong to the same genus (Columba) and all have strong family traits. The dove has, from time immemorial, been used as an emblem of meekness, innocence, and purity, and these characteristics, with strongly developed family affection manifested by all the species, have commended them to man's better nature, and made them pets in all civilized nations of ancient and modern times.

The highly developed and wonderfully specialized forms which pigeons have taken under the plastic hand of man, is a source of unending interest and pleasure to persons having a well developed taste for the beautiful, and is a marvelous manifestation of the power of man over the forms of nature—of mind over matter. In Europe and America the exercise of the pigeon fancy is the favorite pastime of the highly cultivated. The perfection to which some varieties are bred is remarkable, and requires the utmost skill as well as the highest cultivated taste. The prices of fancy pigeons are low, considering the time and talent required to produce them, and yet single pairs often bring \$50 or \$100, and especially fine ones have brought, in cash, many times those figures.

To breed pigeons successfully, an aviary is necessary. This should be a wire-netted space, large or small, according to the extent of the operations. A single pair can be handled in a wire dove cote, filling not more than twenty cubic feet, but room for flying is desirable, and for some varieties indispensable. Some attempt pigeon raising out of doors, but total loss of birds and the results of breeding generally results. A netted area eight feet wide, eight feet high, and as long as desirable—at least longer than the width, with a comfortable house at one end, suitably divided by partitions and supplied with cigar boxes attached to the walls for nests and good, sound food and clean water, are the prime necessities for successful pigeon breeding. As with all poultry, the great enemy of pigeons is vermin, and special care must be taken to keep the pigeons and their surroundings free from them.

The pigeon fancy has been too much neglected in the South, and especially in the Southwest. The few breeders and fanciers have been content to enjoy their achievements alone. Very little is written and published on the subject. Our fairs and poultry shows always have liberal and beautiful displays of pigeons, and they are greatly admired; but there the matter seems to stop. Many people would keep pigeons if they knew there was no great mystery about it. We would be pleased to publish an article or series of articles giving all needed instructions for breeding and caring for fancy pigeons, from some competent breeder. It would undoubtedly be the means of inducing many people to indulge the fancy.

DUCKLINGS AND CHICKS.

By way of comparison, says the Poultry Keeper, we feed a few ducklings and chicks, all hatched at one time, weighing the best duckling and the best chick, with the following result:

At one week old the duckling weighed four ounces, while the chick only reached two ounces.

At two weeks old the duckling reached nine ounces, and the chick got up to four ounces.

At three weeks, duckling, one pound; chick, six and a quarter ounces.

At four weeks, duckling, one pound and nine ounces; chick, ten ounces.

At five weeks, duckling, two pounds and two ounces; chick, fourteen ounces.

At six weeks old, duckling, two pounds and eleven ounces; chick, one pound and two and a half ounces.

At seven weeks old, duckling, three

and a half pounds; chick, one pound and seven and a half ounces.

At eight weeks old, duckling, four pounds; chick, one pound and twelve ounces.

At nine weeks old, duckling, four pounds and eight ounces; chick, two pounds.

It will be noticed that the duckling "ran away" from the chick in growth, although the chick weighed heavily for a chick, which was a Light Brahma, and the duckling being a Pekin. At the same time the duckling ate nearly two and a half times as much as the chick. We had one duckling, specially fed, when seven weeks old, to gain fifteen ounces in one week.

AN INDISPENSABLE HEN.

Southern Live Stock Journal.

Our real American bird is the turkey, and a lordly fellow he is when arrayed in all his pride. But, though he has not lacked advocates he is not likely to take the place of the eagle in our national devices.

When it comes to merit of the highest order, the first of all birds beyond comparison is the hen. It adds to the wealth of the country every year in eggs alone \$135,000,000, or about the combined value of our output of iron and wool. The hen in England is a great institution, and yet that country imported \$22,000,000 worth of eggs and poultry last year.

Nobody ever complains of an overproduction of eggs, and they are a cash article. But no political economist has ever thought the hen worthy of his scientific consideration.

The world could easily survive the loss of all political economists, but what a stir there would be if the hen should be threatened with extermination!

SUMMER VACATION TOURS VIA THE BURLINGTON ROUTE.

Special car parties personally conducted to Colorado, Utah, Montana, Yellowstone Park, Black Hills, Hot Springs, S. D., and Minnesota.

The "Burlington Route" announces two more personally conducted Summer Vacation Tours for the season of 1905 to the West and Northwest. The first one was given June 26th, and was a great success. These tours include nearly all the scenery and places of interest in Colorado, Utah, Wyoming, Montana and the Black Hills, as well as a trip through Dakota and Minnesota. They are personally conducted because experience has shown that vacationists desiring to make a comprehensive tour in the best company and at the most moderate expense may thus be relieved of all worry and trouble by the manager, who attends to every detail.

SECOND TOUR.

Seventeen days; cost \$160. Leaving St. Louis, Wednesday, August 7th. To the Yellowstone Park, by way of Kansas City and Lincoln, Neb., through the Black Hills, by way of Hot Springs, Deadwood, Spearfish, Lead City, Custer Battlefield, six days' circuit of Yellowstone Park, returning via Northern Pacific railroad, Minneapolis, Lake Minnesota.

THIRD TOUR.

Fourteen days; cost \$130. Leaving St. Louis, Wednesday, August 14th. Through Colorado, via Denver, Manitou, Pike's Peak, Colorado Springs, Royal Gorge, Marshall Pass—around the circle—Mt. Ouray stage ridge, Rio Grande Southern, Rico, Durango, Glenwood Springs, Leadville.

WHAT THE COST INCLUDES.

The cost of tickets for these tours includes all necessary expenses en route—railroad transportation, sleeping car fares, meals en route, lodging at hotels and on car, carriage drives and side trips as specified.

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From all leading varieties of thoroughbred poultry. Fitz Gwyn's special. Price list on application. Stamp, if convenient. B. F. CARROLL, Blooming Grove, Texas.

R. A. DAVIS, Merit, Texas,
Breeder of Light Brahms, Buff Cochins, Black Langshans, S. Wyandottes, B. P. Rocks, White Crested Black Polish, Brown Leghorns, S. S. Hamburgs, E. B. Game Santams. Satisfaction Guaranteed. Correspondence solicited.

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S. C. Br. Leghorns—Stock bred from birds bought of Jas. Forsythe, the noted N. Y. Leghorn man. Black Langshans—Cory & Smith strain. White Plymouth Rocks, Barred P. Rocks. Next season Light Brahms and Indian Games. Eggs any time. Satisfaction guaranteed.

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Every pipe stamped
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2 OZ. PACKAGES 5¢

Rough Coated Scotch Collie (Shepherd) Dogs. Available to farmers and stockmen. Pups for sale from trained and registered parents. Address Frytown Poultry Farm and Kennels, Hannibal, Mo.

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Black Breasted Red Game Bantams. Chicks, \$1 pair. Eggs \$1 for seven. Mention Texas Farm and Ranch. RUTH DOWNARD, Franklin, Texas.

THE TRAGEDIAN'S DISAPPOINTMENT.



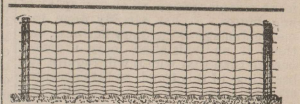
1—Macbeth Hamlet Brown: "A two shilling piece! 'Pon me s'ull 'tis a novel and a welcome spectacle!"

Uncle Snort's Poultry Yards.

Two pens extra fine Black Langshans, one pen White Langshans, one pen Brown Leghorns. Eggs, \$1.50 per sitting. White Langshans, \$2 per sitting. Address UNCLE SNORT, Waxahachie, Texas.

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The largest Poultry Yard in Western Texas. Have won more first premiums at the Dallas State Fair than any other breeder in the State. Have eggs for hatching at \$2 for 13 from the following breeds: Silver Spangled Hamburgs, White and Brown Leghorns, White Minorcas, Plymouth Rocks and Langshans. R. A. CORBERT, Baird, Texas.



There Must Be Something In It

remarked a frisky young horse as he picked himself up after a brief argument with our COILED SPRING FENCE. Every investigator comes to the same conclusion and admits the truth of our claim for Elasticity.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

THE FAULTS OF THE PLOW.

Louisiana Planter.

The primitive Egyptian and Assyrian plow consisted of a forked branch of a tree, one arm of which served as a share loosening the soil, the other as a beam, drawn by human or by animal power. This was the original double moldboard or lister plow throwing the soil both ways. An improvement was made by so shaping the wooden moldboard as to form a twisted wedge, which elevated, inverted and carried the soil to one side only of the plow. A further improvement was made by making the point of the share of iron. Simple as it seems, it was not until April, 1831, that center draft was given to the plow by Meares, who inclined the beam inward. In 1797, Newbold patented a cast iron plow, and commenced its manufacture, but abandoned it, for the farmers said the iron plow poisoned the land. The steel and wrought iron plow was not invented until 1808. In 1788, Thomas Jefferson improved the plow by showing its proper principles of construction and in 1836 and 1837, Daniel Webster experimented in plow manufacture, and said that none of his successes in public life had given him so much pleasure as seeing the improved plow of his own construction drawn by six yoke of oxen of his own raising, cut broad and deep furrows through brush and saplings. In 1845, Governor Holbrook invented a method of shaping plow moldboards symmetrically, either convex or concave.

All of the improvements which have been made in the plow, from the earliest agriculture until now, are simply modifications of the original idea: a wedge drawn through the soil, pulverizing and displacing it. No better method has been found.

The faults of the plow are serious ones. The bicycle may be credited with having brought ball bearings into general notice and showing the striking decrease of friction when sliding friction is converted into rolling friction. All of the wearing surfaces of the plow are sliding frictional surfaces, and the loss of power occasioned by friction of sticky earth upon the plow of this broad domain of ours is past computation. The plows of the day are rigid and indistensible in form. In stony or in loose or light soils, and in lumpy or clayey soils, in shallow or in deep plowing, in plowing at slow or at fast speed, no adjustments or change of form can be made to suit the special conditions of the work, yet these different conditions are often found in one plantation, and the plow should be capable of being modified to suit these conditions.

If a perpendicular line is drawn from the point of attachment of the harness tug and hame to the ground, and another line from the same point to the center of work in the moldboard of the plow, and a horizontal line connecting the center of work with perpendicular line, then the hypotenuse of the triangle thus represents the total tractive effort, the horizontal line, or base of the triangle represents the useful tractive effect, and the perpendicular line represents the part of the traction which is expended in pulling the horse down upon the ground. In some cases one-third of the tractive effort of the horse is expended in increasing the pressure of the horse's feet upon the ground instead of advancing the plow.

In a 14 inch plow the earth is elevated say 14 inches, carried sideways 14 inches and deposited, inverted, in the preceding furrow. It is easy to see that each inch of unnecessary elevation represents a great amount of unnecessary labor during the lifetime of a plow, and that the carrying of all the surface soil sideways to the preceding furrow represents a great aggregate travel of soil; that is, effort in plowing large fields.

The share of the plow, like the fluke of a ship's anchor, is shaped so as to draw down into the soil. The line of traction, from the center of the moldboard to the center of the horse collar, tends to draw the plow out of the ground. The plow advances horizontally as a sort of compromise between these divergent lines, and there clearly results a loss of power occasioned by the line of draft being in one plane while the line of traction is in another plane.

When the total weight of all the surface soil which is elevated, and also carried sideways, in plowing all the cultivated area of this country is calculated, it is clearly seen that the agriculturists of the country waste each year in incidental, but not in useful work, in excessive sliding friction, in indirect lines of traction, in unnecessary resist-

ances caused by imperfect forms and by inadjustability of form of the plow, a greater amount of labor than was wasted by the builders of the great pyramid in Egypt, or in the building of the Chinese wall. If all the soil thus removed were transported to the aggregate distance which it is transported and elevated to the aggregate height which it is elevated, in one heap, no one would dare attempt the removal of the heap with no better implement than the plow.

The inventor who will furnish a superior substitute for the plow will probably not be a plowman. He will almost surely be poor, for rich men cannot invent. When an inventor becomes rich, which happens but rarely, his attempts at further inventions are passing queer. He will meet opposition. Others will develop his invention and reap the reward, and long after he is dead a statue will be raised to his memory, and his name will appear in the list of benefactors of the race, though but few of the millions benefited by his work will know of him or his work, or will care to know.

If the statesmen of the present time, trained as they are in the acute political methods of the times, should imitate Jefferson and Webster, their illustrious predecessors their names might go down to distant posterity in the list of those benefactors of the world—the "Improvers of the Plow."

THE COMING CENTURY.

GEO. T. ANGELL.

Only five years more and we enter the twentieth century. What will it bring to our nation? Peace, prosperity, happiness, or civil war, chaos, ruin?

See the enormous concentrations of capital in few hands.

See the millions poured into our universities and colleges to educate the intellect, and how little is done there to educate the heart.

See how even our Sunday schools are being armed with swords, guns and bayonets, and taught military tactics.

See the want of reverence in our institutions of learning and elsewhere.

See the wonderful discoveries in methods of destroying life.

See the growth of vivisection and dissection of animals in our colleges, high, normal, and grammar schools.

See the dishonesty which enters so largely into politics, speculation and trade.

See the growth of prisons and penitentiaries, and the increase of crime.

See the almost constant succession of conflicts between capital and labor.

And then on the other hand, consider our great charitable institutions, our peace societies, temperance societies, young people's Christian associations and unions, both Protestant and Catholic, Christian Endeavorers, Epworth Leagues, King's Daughters, Sisters of Mercy and Charity, Red Cross Associations, societies to protect dumb animals, and our American Humane Education Society, (first of its kind in the world), with its over 22,000 Bands of Mercy, whose mottoes are, "Glory to God," "Peace on Earth," "Kindness Justice and Mercy to Every Living Creature."

Consider all these, and how in the coming century this country of ours is sure to be the great battle ground between the powers of good and evil, and then let every good man and woman throughout our land, who reads these words, determine to say and do all that can be said and done for the preservation of our native land, and the triumph of God and humanity.

Atlanta Constitution: "I've caught you at last," said the enraged farmer, as he stumbled over the old dandy who was enjoying himself in the green middle of the watermelon patch; "I've caught you at last, you old thief!"

"Boss," said the culprit as he gulped down the red heart of a fat Kolb Gem, "Boss, 'fo' de Lawd hit wuz all a axcerdent how I come heah. I wuz walkin' 'long de railroad dese ez hones' ez could be, when 'long come a freight train, an' 'fo' I could 'ol ar de track de engine hit me en throwed me clean over de fence whar I is now, en when I landed ker-bam! on dese heah melons, en busted em all ter pieces; en when I come to I wuz so hungry dat I dese pitched in en eat up what I dese busted.

Tommy—"Pa, what is the board of education?" Mr. Flagg—"In the days I went to school it was a pine shingle."—Indianapolis Journal.

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and Bicycles, at Factory Prices. Work guaranteed and 20 to 40 per cent saved. Our goods received the highest awards at the World's Fair. Our 1886 Mammoth Illustrated Catalogue is free to all. It shows all the latest styles and improvements and reduced prices. It has 200 pages and is the largest and most complete catalogue ever issued. Send for it. 25¢ free. Alliance Carriage Co., Grand Rapids, Mich. Write to-day.

DOWAGIAC GRAIN DRILLS.
The Dowagiac Shoe Drill was the first seeding machine having runners to form the furrows. It has created a revolution in wheat sowing. Does not clog, but presses trash into the ground, and passes over it. Insures uniformity of depth and even distribution. Secures for the seed air and moisture, and for the farmer an increased yield. Either chain covers or press wheels (shown in cut). It is 26 inches, 5 or 6 inches apart.
Dowagiac Hoe Drills have a perfect suction point, spring pressure, simplest and best of all spring breaks. Force feed sows beans, peas, and small seed.
DOWAGIAC MFG. CO., DOWAGIAC, MICH.

OUR NEW NO. 1
The Best COMBINATION Hand and Power FEED CUTTER ON EARTH.
As a Hand Cutter, has two large fly wheels, can be operated by one or two persons. When arranged for Power, Horse, Wind or Steam, has Pulley in place of large fly wheel, and is sufficiently strong to stand strain of 10 or 12 horse-power engine. Is also furnished with iron improvements of our latest cutters—Patent Safety Fly Wheel and Pulley, Safety Lever for Controlling Feed Rolls, Drop Leaf Table, Improved Roller Gear Drive, Perfection Feed Rollers, Reversible Steel Cutting Plate. Get our 50 introduction prices before you buy. Our 50c Essing Book (HOW TO BEAT A DROUTH) a very valuable handbook for Stock Feeders, mailed free. Also Catalogues and Price Lists if you name this paper. **SMALLEY MFG. CO., Manitowoc, Wis.**



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SUPERIOR SINGLE DISC DRILL.
The Disc Drill is an improvement in drills that will be appreciated by every grain raiser in the Blackland District of Texas, as it practically sets forever at rest all objections heretofore urged against grain drills. No more choking in weeds and trash. Light draft. Especially adapted for hard ground; works equally well in black or sandy land; runs shallow or deep, as desired. The feed on the Superior sows any seed from Millet to Corn with absolute certainty. The only reliable feed for Texas Red Oats on the market. Has Steel Frame, Steel Wheels and Seat. The most perfect drill ever put on the market. Made in sizes ranging from 8 to 14 discs, 8 inches apart. Circulars free. Write for prices.
PARLIN & ORENDORFF CO., DALLAS, TEX.

Silos, Silage and Cattle Feeding.
This is the title of a book issued by TEXAS FARM AND RANCH, fully covering the subject. Read more about it on page 19.

Household.

Address all letters for this Department to Mrs. S. M. Buchanan, Dallas, Texas.

MY KIDGOS.

Helen A. Saxon, in Ladies' Home Journal.

Very likely, if you saw me
As I sit alone to-night
In the shabby little den,
Where I always go to write
You would think me unattractive,
Plain of figure, plain of face;
Just a common little woman,
Hardly one redeeming grace.
And you'd never know—how could you?
With your careless, stranger eyes—
You would never guess—how should you?
I'm a princess in disguise!
Though my realm is not a country,
And I wear no golden crown,
Though I have no serfs nor vassals,
And am not of great renown,
Yet my right is undisputed,
Unconditional my sway!
I will tell you how I know it,
How 'twas proved this every day,
Some one watched a chance to kiss me.
Scarcely one short hour ago,
Some one held me proudly, tightly,
And was loth to let me go;
Some one thinks me very clever,
Thinks me just exactly right,
And would love to be beside me
As I sit alone to-night.
Some one made me once a princess,
And lest I should doubt my part,
Should dispute my lawful title,
Gave me for my realm a heart!
Oh my fancy flies unimpeded
Far across the peaceful sea,
Where the Queen of England reigns,
Never even heard of me.
And I wonder if the guesses
How much richer is a queen
Reigning here in humble cottage,
Never heard of seldom seen,
Than is she who dwells in castles,
Nations kneeling at her feet,
But no one to love her
Just to tell her she is sweet!
Many nights I'll sit alone here
And the tale of my life tell,
Many times from yonder window
Watch apart the setting sun;
But I never shall be sad!
And I never shall be discontented,
Never anything but glad,
That I'm just a plain-faced woman,
In my quiet little nest,
For this so I won my kingdom,
And this so I'll hold it best.

CHAT.

Many thanks Agicola, for coming to the rescue. At the time of writing we could only remember one or two novelists who were notably pious men. We might have cited General Wallace as a remarkable case, he having become a convert to Christianity through his researches while writing Ben Hur. May we not hope for further contributions from your pen? We feel sure, that with yourself, the Household will gladly welcome you into our circle.

Two of our young friends timidly ask admittance to the Household this week. We are so glad to have the girls come among us. Ettie Ernestine Burke, and Olga Lewis, who wrote and failed to send their letters, both express themselves as being in love with us, yet afraid to venture in. We need the infusion of your youthful ideas and fancies to keep us staid matrons in touch with youth. Amid the many and varied cares of our very real life, we sometimes almost forget we once were young. And when a woman forgets she was once a girl, she is by no means a pleasant companion to a young girl. We must remember the joys and pleasures of youth, its ambitions, efforts, failures and successes if we hope to win the sympathy and confidence of our maidens or be able to influence them for good.

It is pleasant to note Ernestine's admiration for the Bible as a book, and her devotion to its teachings as a guide and comfort in life. There is nothing more beautiful in life than a young man or woman devotedly, cheerfully pious.

Ruth Heriot chats delightfully this week on books and people. She, too, delights in the beauty and grandeur of the inspired writings of the prophets, poets and chroniclers of the Bible. No need to ask pardon of yourself. You are by no means an intruder, but a welcome guest whom we hope to have with us often.

Enter Minnie Gilmore Wells, with your just criticisms as to whose fault it is, that man and woman seem to drift apart after matrimony. It is only seeming in the great majority of cases. It is the fault of both parties. We expect too much of each other, perhaps, and expecting so much we demand more, forgetting sometimes to give all that we should. We received a card from Mrs. Mills, of June 15th, asking us to make a correction. The card came in our absence and consequently was too late for this issue, but we make the correction now. In issue of May 15th, she was made to say that the freeze that destroyed the Florida orange groves occurred in February, 1898. It should

have been 95. While we are making corrections we wish to exonerate our own. In chat we wrote "in one family where a New York weekly was taken," it read "in our family." We are glad to say that it was not in our family, but somebody else's family.

Fannie S., another young girl asks admission. It seems that the girls have suddenly thrown off their timidity and come to call at once, seeking courage in company. Well, as we have frequently welcomed the girls, Fanny, we can only reiterate, and bid you welcome and come again.

Mrs. J. C. Dyer, sends quite a helpful little chapter on sweet pickle making. We will be glad to have other items on this and kindred subjects from her pen.

Minnehaha must also be an admirer of Longfellow, as she has chosen as her nom de plume the name of one of his charming characters. "Laughing Water," has led us over the hills and far away in a charming country ramble, and we have enjoyed it with her. Nothing so soothing when tired and worn with everyday care as a sight of the distant purple hills, beyond whose softened outlines glow clouds gloriously brilliant with the sun-set's coloring. By all means, come again with the ripple of your native waters, graceful, pure and sweet, flowing from your pen.

BOOKS AND PEOPLE.

RUTH HERIOT.

Dear Mrs. Buchanan and Household: Although our department seems full of good writers; yet I cannot refrain from writing, if only to tell you how I have enjoyed reading the bright breezy letters; some very edifying and—shall I say it—some very amusing. Some of the sisters ailments and afflictions, and the various remedies suggested, were they not enough to make the most sedate smile?

Those letters from Japan were very interesting to me.

And I want to say to Matron, she cannot write too often to suit me. On the subject of books for the young, I would like to say to all mothers, do not be afraid to place Louisa M. Alcott's works in the hands of the children. Her Little Women, especially, is a book that can be read with profit even by the old. And Mrs. Whitney's books are also good. Read her Real Folks and see if you will not say that I am correct.

I might possibly tell what novel I liked the best. I expect I should say Ben Hur. The Prince of the House of David, by Ingraham, is almost equal to Ben Hur. I have never read A Fair God, but I am going to at my earliest opportunity. Miss Mulock's John Halifax and George Elliot's Middlemarch are good, but not as good as the best.

I fear the Household will think me stupid, but I do not enjoy Dickens. Take Dickens wholly and he is very tiresome to me, but in parts he is grand.

I do not think that I ever read a book but that I found some good—some thoughts worth remembering. I must differ with those who believe novel reading takes away all relish for the reading of the Bible. I think that we all should be governed by a sense of duty, and we certainly agree that it is our duty to read the Bible. Some one has said that

"Curved is the line of Beauty,
Straight is the line of Duty,
And the line of Duty and then shall see
Beauty ever following thee."

Who can read the 19th Psalm and not feel the grandness and sublimity therein spoken, and the 23d and 47th, or the 121; but why try to discriminate when all are grand and glorious. And the New Testament, verily, all must agree that it is a lamp to our feet and our guide to righteousness. It was not the Bible that was forbidden, but our various creeds or denominational beliefs that we were not to discuss in the Household. I am glad that we can agree, yet disagree at times, and though our opinions often conflict, yet we can dwell together in unity. Variety is natural law yet how harmonious all nature.

I could write a long letter on what our lives ought to be, but I fear that I would take up too much room, and some of you might think I was preaching.

I pity that man that Zeb Joe spoke of, that had lost all faith in his mother's teaching, and was hastening to an early grave without the consolation of an abiding trust in God.

I hope Sharlot M. Hall will write again soon.

Will S. W. asks "do I not think St. Elmo a Catholic?" No! I think he was an Episcopalian.

I was so sorry to hear of Stella's

death. She was one among the best of our Household.

Thanks, Leo Janway, you shall have the photograph soon.

Wandering Bachelor says to Carroll Cone, "many a man has unwittingly married a woman that needed reformation as badly as St. Elmo." Well might we retort how many a woman has unwittingly married a man that she thought pure, learning only too late of his lecherous conduct after she was linked to him for life. But the question is not what one does unwittingly, but knowingly. We all know that there are marriages (and they are legion) when the mother and father know that the man is not what they should demand. Many is the time where there is no reformation implied—oh, the pity of it! Yet, they will give their daughter to such men.

Dear Mrs. Buchanan, pardon me, but oh, if I could only lead the young of both sexes to see and know that plane of purity to which they all might attain. I will close with a quotation from Goldsmith:

"In ourselves the sunshine dwells,
From ourselves the music swells,
By ourselves our lives are fed
With sweet or bitter daily bread."

With love to all, good bye.
Dallas, Texas.

THOUGHTS ON MATRIMONY.

MINNIE GILMORE MILLS.

As neighbors drop in to chat most frequently at homes where the inmates are well bred, and always agreeable, so I notice we all like to call on the Household.

I was just about to offer a little assistance to Wandering Bachelor in his dilemma, when Carroll Cone stepped forward and gave substantially the explanation I think he needed, and much better than I could have done. But she scarcely lays stress enough on one point

We grow too careless ourselves—we wives—yet we expect much of husbands and feel disappointed if we do not receive the attentions that were bestowed on us when we were bonny, blithe and fair. Down in our hearts our devotion for them is just as tender and true; yet we do not appear to appreciate the attentions when they offer them. Is it that the spirit of the woman is made up of little contradictions? There is a variety of dispositions in the human family. The masculine portion has its share, and I do not gloss over man's failings or peculiarities—but let us give them no more blame than properly belongs to them. Some men like to be encouraged in their protestations of affection, and few women, after they have been married over half a dozen years seem to meet them half way. I was reminded no longer ago than this evening of woman's deficiency in regard to this, when meeting Jack on the road not far from our gate. He politely took my umbrella with his disengaged hand, at the same time twirling a bundle of mail under his own, while the other held a heavy basket of vegetables. My manner, as I happened to remember afterwards, was scarcely that of the young lady walking with her twenty year old gallant, though Jack is fully aware that I appreciate all his attentions (and I admit, it is a good thing he knows it so well). Now, is it any wonder men become in time careless in their own manner toward their wives, when we accept them in a cool, matter of fact way, as being our just dues only—which of course they are.

Some of us have always been accustomed to see fathers, husbands, brothers and sons more deferential to the women composing their Household than to the casual visitor or stranger, rough-spoken though they may occasionally be to those they love best.

People are governed too much by their moods. The man who insists on his wife always being neatly dressed, and talks of the meet-me-with-a-smile way of managing a husband, is not the one most willing to wait ten minutes for his wife to drop her soiled wrapper and don a flush ribbon—even though she may lay at his plate her faintest rose as a peace offering.

Samantha Allen is right in saying that a good, digestible square meal is more to a hungry man (the average one, mind you) than graceful costumes, be witching smiles or all the "luring and charming" ways his wife may assume—no matter what he may at times say to the contrary—which reminds me that my cookies will burn if I don't attend to them this moment, and Jack has a sweet tooth.

Wandering Bachelor may think me

inconsistent in my explanations of the matter of fact my husbands and wives have in their intercourse with each other; but no, it is the man who is inconsistent this time.

Some one may ask how is the wife to know just when her husband would be pleased to have her sit back in her rocking chair and pose "a la Samantha" as the "luring and charming, and just when he wants fried chicken and coffee. Ah, my young friend, this is one of the mysteries that only experience can teach. Don't get nervous over the matter, but study his likes; yet he need not know you are making a study of him. It is better he should not. "Every time woman should have grit enough to stand her own ground," as some one in this Household expresses it, yet quarrels should be avoided, and it is not every wife who possesses the tact—a much abused word—to avoid them.

I find myself giving advice to young wives. Well, some bride (prospective at least) may profit by these random thoughts.

Doesn't W. B.'s letter in issue of April 6th, show whether his mind is drifting? "In spring a young man's fancy lightly turns to thoughts of love." The "golden chains of Hymen" do not change to "galling fetters," as frequently as one who observes outside appearances only, might suppose. There is often an unsuspected depth of affection that is never revealed to an outsider unless some terrible accident occurs—a serious illness brings one of them to the gates of death, or all their worldly fortune is swept away. There is, sometimes, a revelation to themselves, that proves their misfortunes to be their greatest blessing.

I cannot close my already too lengthy letter without saying how much I enjoyed Mrs. J. B. Gray's entertaining letter in issue of May 15th. None of the books she mentions has ever been in my possession, though I have tried to get some. Will she be kind enough to say where Count Tolstoy's Kreutzer Sonata can be obtained? Believing it to have been written for a good purpose, am glad to hear a good word for it, and would like to read it—even though it has been so roughly handled by the reviewers. If Mrs. G. has a cheap copy and would exchange it for flower seeds, or something I possess I would be glad. St. Thomas, Fla.

WHAT PROCASTINATION DOES.

OLGA LEWIS.

Dear Household: Looking through my writing desk this morning I came across a letter addressed to the Household, dated December 16, 1891. After I had written the letter I never had the courage to post it. Thus time has carried us onward till three years have passed its golden bars since that bleak December evening. Many changes have come about since then, but through them all I've been a constant reader of the Household department. I am truly glad to note the best improvement, with the permission of the kind editors, I'll step in for a few moments this morning and thank the members for the pleasure they have given me through these columns. Not only have their letters contributed to my pleasure, but they have been quite beneficial, as well. Oftentimes I've thought of writing (since that December evening) just to express my gratitude, but it always ended in procrastination. Hence, delay murders our very best intentions.

I too am a dear lover of books, and spend a great deal of my time reading, so the subject now under discussion has been of great interest to me. Having read nearly all the books discussed made it all the more interesting. Aside from books, I'm very fond of reading good magazines. They keep one abreast of the times. Demorest's is one of my favorites. As I dabble quite a good deal in paint I enjoy the little art studies which accompany each copy.

The girls why dont more of you write to the Household? I'm sure we are welcome, for our kind editors has repeatedly assured that we were. But there, I haven't a word to say, as I've acted like the "bashful young man"—got as far as the door and then didn't have the courage to go in.

Mabel Clair, come again. Your letters are always interesting.

Wandering Bachelor is one of my favorites. I'm always delighted to see a piece bearing his signature.

Mrs. Vanderhoef, Old Cotton Planter and Mrs. Nellie E. Jones are also favorites, besides many others.

What a shock poor Stella's death must have been to the entire Household. How sad it is to think one who was a

About Bees.

TO PREVENT BEES FROM SWARMING.

Rural Northwest.
I would destroy all but one queen if there is more than one, but I would never clix a queen when there is more than one with a swarm, for when such is the case the queen is nearly always a virgin, and must have the full use of her wings in order to become fertilized, which is necessary for the population of the hive. The queen bee mates with the drone while on the wing, therefore you can see the error of clipping her wings until you have evidence that she is a laying queen. I would advise caging the queen by setting a glass or goblet over her until you ascertain if there is more than one queen. We had a neighbor once that found a swarm on a tree in their orchard and they had heard somewhere of clipping the queens wings, so to make sure of the swarm stopping where they put them, they clipped the queen. In due time they thought they would take some honey from the hive, but found their swarm was nearly all drones. They called my husband to tell them what was the matter with their bees and on examination he found a drone laying queen. A virgin queen can lay eggs but they produce nothing but drones, and you all know that drones do no labor. After a queen mates with a drone she can at will lay both drone and worker eggs. A worker bee is nothing but an immature female bee. The drone is the male bee. There is so much to be learned about bees that I would advise anyone that has one or more, to get the A. B. C. on Bee Culture, and read it over and over, and get a smoker, and watch the bees, and you won't have to ask many questions.

LOCATING AN APIARY.

J. P. Brown, in American Bee Journal.
There are very few places in our Southern country where there are no honey yielding plants. The location should, if possible, be near the forage. The best forage is found along the water-courses and in the swamps and bottoms, but on account of malaria that usually abounds in such low places, it would be best to locate the apiary on higher ground. One or two miles is not far for bees to go for forage. I have known them to go four miles, but this distance is too great to enable them to store much surplus.
In our climate hives should be arranged with special reference to shade. I prefer the shade of fruit trees. An arbor of the Scuppernon grape vine makes a grand and dense shade. Other varieties of grapes often shed their leaves so soon that they answer a poor purpose. For a shade tree that does not get overly large, and has a close, compact foliage, I can recommend the Caradenc plum. While it is a shy bearer, the fruit is very delicious. Some varieties of the Japan plums also make good shade. The mimosa, china-berry tree or pride of India, and the Sterculia platanifolia, or varnish tree, are fine for shade and very ornamental. These trees are only suited for culture in the Southern states. Where natural shade cannot be had the next best shade is obtained by using pieces of boards for extra cover. The hives should be arranged with reference to avoid having the hot afternoon sun glaring upon the entrance. In fact, it is not best to allow the sun to strike the hive at all, for nearly all the damage to combs by melting is caused by the sun pouring on the hive between the hours of 12 m. and 3 p. m.

BEST TIME TO ITALIANIZE.

A correspondent of Gleanings asks when is the best time to Italianize an apiary of 52 colonies without interfering with the honey flow, without buying queens for every hive? and when the queen cells should be started for doing this? To which G. M. Doolittle replies as follows: "There is no time of the year in which queens are so generally superceded as immediately after the general honey flow; and we can always rest assured that when the bees are willing to do such work, then is our best time. With me, fully three-fourths of all the queens which are superceded by the bees, are so superceded during the three weeks immediately following the bass wood bloom, as that gives our main honey flow. Knowing this fact, I have for years done the most of my re-queening at this time of the year, and with success which has always pleased me, without interfering with my crop of

honey in the least. To this end I start a greater number of queen cells than usual, from five to eight days before the expected close of the basswood honey harvest, and when these cells mature, hunt out the old queen and dispose of her, giving a mature cell twenty-four hours after having removed the old queen. If cell protectors are used, the cell can be given at the time of removing the old queen, thus saving one opening of the hive; for, as a rule, the bees allow a queen to hatch all right where a cell protector is used.

If the young queen hatches in an hour or so after given the cell, or before they become aware that their mother is gone, they will sometimes kill her and start cells from their own brood; but if the cells do not hatch in less than from twelve to twenty-four hours after the old queen was removed, nearly every queen will be accepted all right. A plan which I often use at such times is to raise a lot of cells from my best queen; and twenty-four to forty-eight hours before they will mature, give one to each colony having a queen more than one-year old, using a cell protector for each one, and placing this cell in the sections, or anywhere I best can where the bees can cluster about it, without hunting out the old queens at all; when, if the bees have any notion to supercede their queen, they will accept of this young queen, and destroy the old one. If they destroy the young queen, I allow the old one to remain, thinking that the bees know what is right; and nineteen cases out of twenty, where the bees decide on keeping the old queen, I find she proves far excellence till after the honey flow of the next year is over. This is something that does not cost much labor, and one which I have practiced often to my satisfaction.

Mother—"What is the baby crying about?" Frank—"I guess because I took his cake and showed him how to eat it."—Journal of Agriculture.

Tramp—"Please, sir, will ve give me enough ter help me ter git ter Idle City?" There's a big strike there and the manufacturers is advertisin' for more men.

Big Manufacturer—"Certainly; here's a dollar. You can easily get the place of some union man.

Tramp—"Thankee. But it isn't that I'm after. I'm goin to join th' strike.

Sign in front of a clothing store in Texas town:

"Owing to the low price of cotton all wool suits marked down to \$7.98."—Life.

Bridget—"Soy, Pat. for why it they calls this our tin widdin'?"

Patrick—"Faith an' it's because we've bin married tin years—Credit Lost.

A Macon girl is just back from the country. While there she asked of the farmer: "Why dont you milk that cow?" pointing to one in an adjoining lot.

"Because she is dry, Miss."

"Dry?"

"Yes, Miss. She's been dry for two weeks."

"You cruel wretch," she exclaimed, "why dont you give her some water?" and the man turned his face toward the cow house and shook with emotions he could not express. Macon News.

THE INTERNATIONAL ROUTE.

The International & Great Northern R. R. is the shortest and best line between points in Texas and Mexico and the principal cities of the North, East and Southeast.

Double daily train service and Pullman sleepers on night train between Galveston, Houston and St. Louis; Laredo, San Antonio and St. Louis, and between San Antonio, Austin, Taylor and Fort Worth and Kansas City, via Hearne. As a live stock route to Northern markets it is the quickest and best. Lots of ten cars or over will be taken through in solid train and in the quickest possible time.

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Facilities for feed, water and rest in transit are provided at San Antonio, Taylor, Palestine, Longview, Texarkana, Little Rock, Poplar Bluff, Cairo and St. Louis.

For further information call on nearest agent or address,
J. E. GALBRAITH, G. F. & P. A.,
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Palestine, Texas.

GOLD DUST.



Some women who live in the country, at some seasons have to depend on hard water for cleaning purposes. As soap has very little effect in making it soft, the work of keeping things clean is made harder than ever. Over a million women know now and more ought to know that

GOLD DUST

Washing Powder

can be used successfully with the hardest water. It is a time saver, labor saver, and money saver, and especially in the dairy. Nothing cuts the grease on milk pails, pans, etc., so thoroughly and keeps the milk room so sweet and clean. Sold everywhere in large packages at 25 cents.

GOLD DUST WASHING POWDER has an additional value to the farmer for destroying insects. Send us your name and address and we will mail you an important booklet containing recipes for making kerosene emulsions, for spraying crops and trees and live stock.

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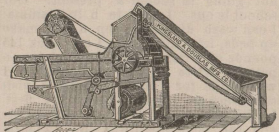
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Buy from dealers, or write for price, terms and freights.

A. H. PATCH, Clarksville, Tenn.

**Kingsland &
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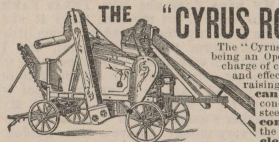
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Shuck Shellers.

Well and favorably known in Texas as the only Shellers made that successfully shell corn with or without the shuck.

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Mention this paper.



The "Cyrus Roberts" Shuck Sheller is unlike any other, being an Open End Cylinder, which, while permitting a free discharge of cobs, husks, silks, etc., at the same time, by a simple and effective arrangement, that of the screw adjustment for raising and lowering the discharge end of cylinder, the flow can be accelerated or retarded, to suit the varying conditions of the corn. The sliding or telescopic of the steel casing or hull, also enables the operator to further control the discharge by increasing or diminishing the length of the cylinder hull or casing. Our Sheller cleans ready for market and does not crack the corn. Open end cylinder. Easy running. Shells in husk with husks and silks. Adjustable, Inserted Steel Shelling Teeth; each tooth giving eight wearing surfaces; easily placed, replaced and adjusted with ordinary wrench on outer surface of cylinder. This Sheller has no equal in doing good work. Each complete with Cob Carrier, Feeder, 8 foot Elevator and W. F. Beard, Howe, Texas, says: "It is the best that ever Shelled Shuck Corn in this market." Wells & Bishop, Renner, Tex., say: "It is without an equal in Collins Co." B. M. Godfrey & Co., Whitesboro, Tex., say: "I have never seen a shuck sheller that will compare with it." Write them. We also carry a full line of Hand Shellers, also Powers and Engines for running Shellers. Write us for your wants.

PARLIN & ORENDORFF CO., Dallas, Tex.



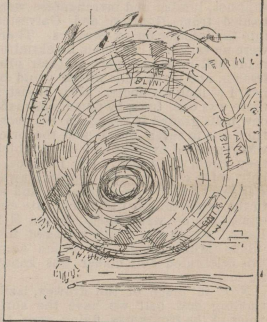
2—"Let it lie there for the moment. I would fain analyze me strange emotions."

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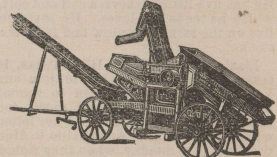
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DALLAS, TEXAS.

Complete stock of machines always on hand.

Home Office and Factory address:
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Cousins' League.

The Cousins League will heretofore be merged in the Household Department. The cousins should address their letters to Mrs. S. K. Buchanan, care of TEXAS FARM AND RANCH, Dallas, Texas.

THREE SHIPS.

Harriet F. Blodgett, in St. Nicholas.
Three ships there be a sailing
Betwixt the sea and sky;
And one is Now, and one is Then,
And one is By and By.

The first little ship is all for you—
It masts are red, its sails are blue,
And this is the cargo: 'Tis Caring;
Joyful days with sunlight glowing,
Nights where dreams, like stars are growing;
Take them, sweet, or they'll be going!
For they every one have wings.

The second ship is all for me—
A-sailing on a misty sea—
And out across the twilight gray,
What it brought of it and by-sailing
Would not stay for my caressing—
Was to dear for my possessing,
So it sails and sails away.

The last ship, riding fair and high
Up on the sea, is By and By.
O Wind be kind and gently blow!
Not too swiftly hasten hither.
When she turns, sweet, you'll go with her—
Sailing, fast or slow, hither—
To what port I may not know.

COW BELLS.

The poem, "When the Cows Come Home," in the issue of July 27th, called forth reminiscences from an old Texan, which I am sure will entertain the cousins as it did me. In the early days in Texas, every farmer had a bell on his oxen, and frequently at some favorite camping place there would be gathered from twenty to perhaps one hundred yoke of oxen, and every man tried to hear the sound of his own bell, that he might easily find his oxen. In those days every thing in the way of family supplies, lumber and merchandise were hauled from Houston and Galveston into the interior on ox wagons. There were no railroads. The blacksmiths made bell-making a part of their profession, and made bells which could be heard at long distances. Near Houston there was one, Lang by name, who made cow bells graded in sound, to be heard from one to seven miles, and the price was regulated by the distance at which they could be heard. For instance, a bell which could be heard one mile away was valued at \$1; two miles, \$2, and so to the seven-mile bell. From this circumstance he was called "Seven Mile Lang," which was finally changed into "Seve-Miles Long," by which name this celebrated bell maker was known far and near.

[I haven't seen any whortleberries since I left Georgia, Bessie. If they grow in Texas I have never seen them, and I think they are a delicious berry. The other berry you mention I do not know at all. I am glad you enjoy TEXAS FARM AND RANCH so much.—AUNT SALLIE.]

Dear Aunt Sallie and the Cousins: Here comes a little boy, nine years of age, and can chop corn and cotton, and pick 265 pounds of cotton in one day. Papa takes TEXAS FARM AND RANCH and I like it very much, but like the Cousins League best of all. I have no pet but a little calf. I am not going to school now. If this escapes the wastebasket I will write again. With love to Aunt Sallie and the cousins—CARLTON TAYLOR, Waxahachie, Texas.

[My! What a little boy, to be able to do so much work? Why our town boys would think it dreadful to have to do so much work; but many of them work harder, with less profit, playing ball. It is no object to playing ball in moderation, but it is carried to excess, usually.—AUNT SALLIE.]

Dear Aunt Sallie and the Cousins: I am a Texas girl, eleven years of age. Papa takes TEXAS FARM AND RANCH, and I think it is a good paper. I like the Cousins' League best of all. I am not going to school at present. Our school is out. I love to help mamma. I can wash dishes, sweep floors, make up beds, iron and cook. I can pick 145 pounds of cotton in one day. I have no pets to write about. Aunt Sallie, I would like for you to make us a visit this summer. Well, as this is my first. I will close, with love to Aunt Sallie and the cousins.—LULA B. TAYLOR, Waxahachie, Texas.

[Still another invitation! If I only could accept them all, I would have such a fine time—nothing to do but travel around, be feasted and entertained. But I am afraid I would grow to be lazy and selfish. Are not you?—AUNT SALLIE.]

Dear Aunt Sallie: I thought I would write to you and the Cousins' League. My papa does not take TEXAS FARM AND RANCH, but my aunt takes it and she gives it to me to read the nice little letters from your department, and I like them very much. I am not going to school; our school was out the 24th of May, and I am so sorry my school is out, for I love to go to school. My teacher's name is Mrs. Cox, and I like her very much. I have a little garden, with beans, tomatoes, cabbages, peas, beets, radishes, onions, pumpkins and squashes. Aunt Sallie, you must come up and eat dinner with me. Mamma has lots of little chickens. We have had a nice little rain, and everything is looking green and smelling sweet this morning, and we are going to have lots of fruit this year. We have peaches and

lots of flowers. Come down and I will give you some flowers to pin on your dress. I will close, and write again. With love to Aunt Sallie—DELLA PETERS, Granbury, Texas.

William Rutledge, Paester, Texas, is thirteen years of age. He can pick 287 pounds of cotton in a day; goes to school now. He had lots of fun Christmas.

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do all kinds of housework and field work too. She would like to correspond with some of the cousins.

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Here's a Chance to Make Money!

I have worked hard all my life and never had a streak of good luck till the past year, and I think my experience may be beneficial to many others. I have cleared more than \$20 a day for over a year selling Climax Fish Washers, and I think any man or woman can do as well as I have, if they only will, as I had no experience. I don't take long to get 'ch clearing \$20 a day. Every family wants a Dish Washer, and you can sell them at home, no canvassing. That is why a lady can do as well as a man. I put a notice in the papers and people send after the Washers. The Climax is far superior to any other Dish Washer. Everybody knows of the Climax now. For particulars address the Climax Mfg. Co., Columbus, Ohio, and they will start you in business, if you will only push. A READER.

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MISS R. JENNIE DE VORE, President.



"Ah, well, let the calf retain the paltry bauble."

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general favorite with all will never more contribute to these pages. She has made a vacancy which will be hard to fill.
Sprinkle, Texas.

AN EARNEST GIRL.

ETHEL ERNESTINE BURKE.

Dear Household: Will you admit a new member into your charming circle? I have been a silent admirer for quite a long while, longing to say one little word, yet quite afraid to launch my girlish ideas out on the sea with such a host of intelligent, well read and cultivated minds; and you know girls at the age of eighteen are naturally very timid. But here I am, and I fear Mrs. B. will just give me one of those sweet assuring smiles we all love so well. I will proceed without further hesitation.

Isn't it strange what different ideas we all have about books? Now take Trixy, for instance. "Trash—not fit to read," I heard some sister say. But do you know, although I think it is quite over-drawn (and too severely criticised sometimes, also) that I actually shed tears over poor Trixy more than once! And dear Little Billee was my favorite. Have you all heard the song, Tri by and little Billee, by Powers, and did you not think it very sweet and touching? I sing nearly all the late songs, but that is my favorite. I have read all of Mrs. Evans Wilson's works, but I like Infelice best of all. St. Elme was second choice, and I like it very much; but oh, how some of our dear members are giving it "fits!"

I think if all the boys would read Black Beauty, it would increase their kindness toward the poor dumb animals.

Do you ever say to any one, "Oh, I don't know what to do with myself these July days; it's too warm to work, and I have nothing to read?" Dear friend, did you ever try reading the much neglected Bible? I have been trying to live for Christ for two years, and I cannot conceive now how I ever lived without Him. Who ever read a more interesting book than the Gospel? Matthew, Mark, Luke and John, Proverbs, and the grand book of Revelations are my favorite books of the Bible, and I know that no one could read them and not be purer and better for it.

I attended Baylor College, and to my mind there is no college in our grand old Lone Star State that can surpass it. I am very lonely these days, and would like very much to correspond with some of the TEXAS FARM AND RANCH readers (either sex).

Hoping you will pardon my long stay, I will desist.

Dear Stella! We all miss her cheery letters. Let us live so we will all join her in our home above.
Reagan, Texas.

SOME GOOD MEN WHO WRITE NOVELS.

AGRICOLA.

Dear Mrs. Buchanan: May I come into that happy circle over which you preside with such charming grace, even if I am a "horrid man" and a bachelor to boot? I won't intrude any more if you will only let me stay long enough to give Sister Alice Milner a little slap. Such a question as the one she asks, "Can any one tell me of a single author who is a devout Christian?" can only be the outcome of a very limited acquaintance with the realm of fiction. It is entitled to an answer only because it is asked in all sincerity and with a boldness that challenges refutation. The name of but one is required, and that has already been given by Mrs. Buchanan. To that familiar name (E. P. Roe), almost a household word, permit me to add two or three others: Geo. McDonald, author of Donald Grant, Malcolm's Marquis of Lossie, Alec Forbes of Howgler, Robert Falconer, David Elginbrod, Sir Gibber, etc.—books replete with high teaching and forceful sympathy. Chas. Kingsley, author of Iton Locke, Hypatia, Yeast, Westward Ho! Ten Years Ago, The Water Babies—a man "who loved God and truth above everything," yet alas! he was guilty of writing fiction. Edna Lyall (Miss Bayly), author of Won by Waiting, Donovan, We Two, A Knight Errant, In the Golden Days, To Right the Wrong—novels that should do as much good, if not more, than the best sermon ever written. The author of John Halifax, Gentleman (I cannot recall her name), also a dozen other excellent books, wholesome, instructive, elevating, full of good sense, good taste and tender feeling. Many others might

be mentioned, but why pile proof upon proof to show what we already know—that there is absolutely no foundation for the sad, unhealthy and extremely unjust opinion that a man or woman cannot write fiction and be a devout Christian. Admitting that good characters are represented in some novels, Mrs. Milner puts another question: "Are there not good characters represented in good books that are real, in which there are no bad characters represented?" Undoubtedly there are, but by no means follows that this class of books is therefore more elevating and instructive than any other. Let us apply this presumptive standard of excellence to the Book of Books, written by the greatest of all authors, and what do we find? No fiction about that, but all real characters, taken from real life, good and bad together. Not only do we have the histories of bad men held up to us for warning and example, but also the sins and disobediences, the faults and the weaknesses of what we call good men—men that infidels scoff at because they can justly apply such epithets as cheat, liar, drunkard, idolater, adulterer, murderer, etc. Because God tells the truth about men, must we also sit in judgment upon Him and say such a book would be more productive of good to the world at large if the records of existing wickedness were omitted? Rather let us say that a book which points out the faults and failings of those who wrote it, and which says "There is none righteous; no, not one," bears upon its face the stamp and impress of a true book.
Burton, Texas.

OVER THE HILLS AND FAR AWAY.

MINNEHARA.

Dear Household: Here I come, a mountain maid, bringing a laurel leaf to place in the crown which rests on Mrs. Buchanan's brow. How much pleasure and profit her cheery and loving chats bring to so many, as do the many nice letters from the sisters, which through her instrumentality are sent to me. Some of them come as the very breathings of pure and noble hearts. Is it not strange how we come to love those with whom we never come in contact? We may never see those eyes expressing thought, or their changing expression when we present our views. We may never hear the cadence of those voices, but when sentiment of soul agrees with sentiment of soul, there is a silent love which grows and grows until we come to feel ourselves one sisterhood indeed.

Oh, you who are lovers of nature, come with me to my mountain home; roam with me over these purple mountains. Although not high, they are picturesque and altogether lovely. As we leave our door, going to the hills, we pass the town of prairie dogs. They are charming, saucy little creatures, standing like sentinels about the doors, guarding their homes from all danger. When you come nearer they vanish, and are seen no more. As we ascend we must make our way through shrubs, over rocks, up a winding path which takes us past great rocks, standing out as if they might fall and crush us as our own heel might crush an ant. We must be as we pass to gather those beautiful little flowers which nature has placed there for us—daisies, lilacs, bluebells and clover. Now wear at the top, with our arms full of these beauties, and our faces full of the ruddy glow of health and God's clear sunshine, gazing out over the beautiful fertile valley, on the other side of which the large trees, waving in the breeze, whisper to the murmuring river by their side, tossing a leaf now and then at her beautiful face, over which the dimples play at hide and seek as she smiles at his sauciness. We wander there and throw ourselves down on the green grass, leaving all our care on the mountain top to be blown away, for how could we bring that here, enjoying the beauties of nature? After awhile we bring forth from our pocket our favorite poem, and as we read that for the twentieth time it becomes associated with the sound of softest zephyrs, moving by their gentlest touch the lacy ripples on the bosom of the river. We hear the chime of bells as the patient cows pass on their way home, which rouses us and reminds us that we cannot forever associate with this one mind, no matter how much we love it. So laying that aside, we wander in the little path by the river's edge until we spy a little boat, which we cannot pass by. Into this we step and are soon gliding over the smooth waters until we reach our favorite retreat. Here we float, watching the beautiful

water to the last rays glancing over the clouds above us, thus surrounding us with a halo of beauty, until the king of day passes from our sight. Then it is with reluctance that we wend our way homeward. The night bird passes us as he comes out for his frolic and the frogs bid us adieu in a chorus, and as we near home my lovely shepherd bounds down the path to meet us. Oh, how many beautiful things God has placed in the great mechanism of the universe to make it lovely and for us to love.

When I came it was to talk about my favorites—books—but I have tarried so long I dare not say more. If I do not talk too much to be welcome, I should like to come again and have a little book chat. If I may sit where I can see Mrs. Buchanan, I'd like that little stool between Mrs. Vanderhoef and Carroll Come, because I admire them so much; I am so young and timid, and they are so motherly and kind. Best wishes to the Household.
Milburn, Texas.

A NEW COMER.

FANNIE S.

Dear Household: Will you allow a Collin county girl in your circle, just for a few moments? Pardon me, please, and allow me to sit by dear Trixy. I am a great lover of good books and novels, too.

Come again, Tenderfoot, for I enjoy your letters so much.

How many of the sisters love flowers? I for one love them dearly, and I delight in cultivating them, and will exchange flower seed with any of the sisters who wish new flower seed.

Mrs. W. J. S., I am sure that is a beautiful center-piece for the table, and looks like a poem. Come again, and tell us something about your home. I know it is beautiful.

Mrs. J. E. Gay's plea for the little ones was good.

Come again, Wandering Bachelor, for I enjoy your letters very much indeed.

Oh, what a delightful band the Household is, and that is why I want to join them, though I am only a girl of seventeen years. Dear Mrs. Buchanan, I do not wish to make my first call a long one. I will close. Wishing you much success, I bid you all adieu.
Rhea Mills, Texas.

SWEET PEACH PICKLE.

MRS. J. C. DYER.

Mrs. S. E. Buchanan: As I have never written to the Household, I will venture to do so at last. I enjoy the letters so much. Am sorry that one of our best writers has been called away to a better world above. We have longed TEXAS FARM AND RANCH for four years, and think it is a splendid paper.

I will tell the sisters, as some one wanted to know, how to put up sweet pickled peaches so they wouldn't turn dark. It depends on the kind of peaches you use. If the fruit is red the pickles will be dark, and if the peaches are white the pickles will be nice and white. The cinnamon and cloves help to color them, and they should be cooked very fast, for if they are cooked slow it makes them turn dark. I tried both last year, and the red peaches make dark pickles, the white very white. I like the red pickles best.

Will Mrs. Mittie B. Jones be kind enough to send me the recipe for putting up cucumber pickles in glass jars?

Well, thanking you for my chair, I'll bid you adieu.
Henrietta, Texas.

The Farm and Ranch machine arrived all O K, and gives splendid satisfaction. I think it is fully as good as any machine at double the price.—B. BRETZLAFF, Lexington, Texas.

Dr. Hugh L. McLaurin, Specialist. Diseases of Women. Trust Building, Dallas, Texas.

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D. O. Ives, Gen. Pass. Agt. "Burlington Route," St. Louis, Mo.

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(From U. S. Journal of Medicine.)

Prof. W. H. Pecke, who makes a specialty of Epilepsy, has without doubt treated and cured more cases than any living Physician; his success is astonishing. We have heard of cases of 20 years' standing cured by him. He publishes a valuable work on this disease which he sends with a large bottle of his absolute cure, free to any sufferer who may send their P. O. and Express address. We advise anyone wishing a cure to address, Prof. W. H. PECKE, P. O., 4 Cedar St., New York.



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The only successful one ever invented. Practical, Economical, Safe. Cost less than cent a week. Sells on "light." Lady and Gent agents make \$3 to \$4 a day.
Price, 50 Cents. If you can't find it with your dealer, we will order it for you. Deliver you one free, on receipt of 25c to pay transportation and postage. THE MAGIC MFG. CO., Dallas, Texas.

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with poor and unreliable milkers. A few years ago the fine stock world went crazy over pedigrees and bought many worthless animals that looked grand on paper, but had no individuality. Now we are in danger of running into the other extreme and ignore pedigree in our chase for fine individuals. There is no question but that the fine individual is the one to buy, provided you get the lines of breeding strong enough to reproduce the good quality.

Nebraska Farmer: An Iowa farmer who has had some experience with the Russian mulberry as a tree for wind breaks, speaks very favorably of it for that purpose. He has set them in rows eight feet apart, and two feet apart in the row, though he thinks this too close in the row as many of the trees are dying. He will thin them out. Other mulberry trees, planted in the same way some ten years ago are now model wind-breaks. This tree is said to stand a great deal of cutting back, and in this way it is made to form a very close wind-break. We would advise at least three feet apart in the row for best permanent effect, and to keep well out back.

Home and Farm: During the past year, Missouri, North Carolina, Alabama and Tennessee have passed laws to prevent the sale and manufacture of oleomargarine in imitation of genuine butter. It is to be hoped the other Southern States will soon join the procession. No one need oppose the manufacture and sale of oleo, provided it goes on the market for just what it is. It is the fraud in it alone that we oppose. Give men the broadest liberty to manufacture and sell, but not to counterfeit. Not alone it the farmer to be protected against this fraud, but the consumer also. If he wants oleo let him have it, but sell it to him as oleo, not as butter. The South is the great dumping ground for this stuff, and should be the first to protect itself. Oleo has no merits of its own. It is a pure negative without taste or smell when well made and a little butter is added to it to give it the semblance of a genuine article to deceive. Should not such a palpable fraud be choked off?

TYPHOID FEVER FROM BAD MILK.

Two milk epidemics of typhoid fever engaged the attention of the sanitary authorities in Connecticut—one in Stamford, and the other in New Milford. The Stamford epidemic has been characterized by the Connecticut board of health as the worst which has occurred in the state. There have been about 200 cases, and a number of deaths have been reported. The agent of infection was the milk supplies to customers by one dealer. Near his barns are two or three shallow wells, the water of which was found to be very badly polluted. It is known that he washed his milk cans with water taken from these wells. It has been shown that the water was so contaminated that it ought not to have been used. Dr. T. M. Prudden, the eminent bacteriologist of this city, has found typhoid bacilli in both the water and milk, and it has been ascertained that the water was infected from a case or cases of typhoid fever in a little settlement of Italians who were living very near the wells.

DESTROYING THE HESSIAN FLY.

Purdue Experiment Station, Bulletin No. 11. Owing to the prevalence and destructiveness of the Hessian fly this year, concerted efforts should be put forth to prevent a recurrence of its ravages upon the next wheat crop. In order to prevent a serious attack of "the fly" the following measures should be adopted:

1. Thoroughly burn all fly-infested wheat stubble in which there is not a stand of young clover or grass.
2. Prepare very early a border, one or two rods wide, around each field of wheat, and sow the same to wheat in August.
3. Turn this border under very late, using a jointer, following with roll and harrow, and then sow the entire field.

By taking this course many of the insects which escape the fire will be buried when the early-sown border is turned under, and the late sowing of the general crop will avoid the earlier attacks of any remaining fly.

If these precautions are carefully and generally observed by farmers the Hessian fly will not seriously damage the next wheat crop. United effort is necessary to be effective.

DO YOU WANT WATER?

An adequate supply of water is the greatest necessity that farmers have to look after, and the most economical, safe and convenient way of securing it is a subject for much thought and care.

The safety and simplicity of Hot Air Pumping Engines has speedily brought them into great prominence, and they are taking the place of wind mills and all other devices for supplying water on farms.

We make two styles—the De Lamater Hider for large and heavy work, and the De Lamater Ericsson for both light and heavy work. It is impossible to go into details in an advertisement, and we have illustrated catalogues which give full descriptions, with letters from many who have used the Engines with great success, securing a supply of from 1,500 to 30,000 gallons of water per day. Send your address for catalogue to

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TWO PEDIGREED MERINO RAMS, four years old, for \$25.
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Large English Berkshire Swine and Mammoth B. Turkeys. Address W. S. KASD, Hordville, Tex.

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Must be sold at Once—150 Delaine Sheep. Will also sell a few Choice Hereford Cattle. Write for catalogue and prices. S. W. ANDERSON, Asbury, W. Va.

W. J. COOPER, Holland, Bell county, Texas, breeder of registered English Berkshire swine, milk Durham cattle. Pigs in pairs not related. Correspondence solicited.

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Blanco herd A. J. C. C. Jerseys. Prices reasonable. Write for what you want.

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A. J. C. C. Jersey cattle for sale. Also English Berkshire swine. W. A. PONDER, Denton, Texas.

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FRAZIER & ANSELL, Kopper, Texas, breeders of REGISTERED Duroc-Jersey swine. Young stock for sale. Correspondence solicited.

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Berkshire boar pigs, entitled to registration, for eight dollars apiece. J. E. WILLIAMSON, Marshall, Texas.

HOLIDAY BEGS of Poland China Swine. Have for sale pigs sired by Free Trade's Model No. 2199 and two other fine boars. Prices very reasonable. Write for one. W. B. BACHMAN, Bowman, Archer Co., Texas.

"LAWN FARM" Jersey Cattle, Berkshire Hogs.
All stock acclimated and of the very best breeding. Write for what you want.
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Fairview Stock Farm
Of thoroughbred Holstein-Friesian cattle, Poland China swine, Barred Plymouth Rock chickens B F WEDLER, Heidencheim, Tex.

FOR SALE.
Two 3 month Scotch Collie pups. One male; black, white feet. The other female; sable, white collar and feet. Iowa bred. Eligible to record. For price address W. D. ALLEN, Kosse, Tex.

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Bell County Herd of POLAND CHINA swine. Pigs for sale at all seasons. Stock the best. Come and see me and be convinced.
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A position as manager or overseer on a stock farm where breeding and feeding is the most important part. Have had fifteen years experience in breeding and feeding cattle, hogs and sheep, and can serve in any capacity on a stock farm. Address E E HORNBY, Dallas, Tex.

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MILL CREEK STOCK FARM.
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Registered Berkshire hogs and Light Brahmas fowls of best breeding. Prices reasonable.
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DAIRY STOCK FOR SALE.
About seventy head heifers and cows, 1/2 to 1 1/2 Jersey. Will sell in lots to suit purchaser and at bottom prices. If you want good milk cows cheap, write now to
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FOR SALE AND FOR EXCHANGE.
Lands, town property, live stock for exchange. \$250 in vendor's stock and \$200, \$700 or \$600 in lands for goods. Everything exchanged. What have you? Wanted: Stocks of good's, oil launch, ice machine, live stock—everything. Send for list. Jersey cattle, fast pair, Standard stallion, Shetland ponies for sale. R. L. JENNINGS, Marshall, Texas.

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The great prize winning and breeding boar, IDEAL BLACK U. S., 029505, A2737, the highest priced hog ever sold.
Fifty-one brood sows. 250 pigs now farrowed for the season's trade, sired by eight different boars, all offered without reserve. This herd has no equal; show animals now ready to ship.
T. J. HARRIS, West Liberty, Iowa.

Gold Medal Herd Berkshires, '93, '94.
And all the English Champions of late years. Young sows in farrow. Boars and spring pigs for sale, as well as a few choice fitted animals suitable for show. Prices low, to make room for new importation of English winners for '05 on the way.
Champion Hook Dorset sheep. St. Louis and Springfield, Ill., '94. METCALF BROS., 114 East Elma, Erie Co., New York.

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LITTLE HARRY 8808, heads the Clover Hook herd. He was used on the World's Fair herd. Took a ribbon in the show ring. Had two daughters in the great tests. Alteration stock third, and Little Goldie thirteenth, out of 75 cows in the test. Every daughter in milk, but one, is in the 14-b list. Choice young stock available at fair prices.
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Write for Market Information.
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We have tested 3 remedies advertised in Hoard's Dairyman, for protecting animals against the ferment of Flies, and Vermitt. Verdict, enclosed find in favor of 12 gallons "Shoo-Fly."
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Mares, cows and gip-dogs with Howsley's Spaying Mixtures. No knife—no no deaths. Easy to use, and absolutely sure. Price, large bottle with syringe, \$3; small bottle \$1, syringe 20c. extra. Large bottle spays 30 to 50 head of sows. Write us for testimonials and particulars.
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of fancy bred and registered Poland China swine. Can furnish pigs in pairs not related. My breeding stock was bought of the very best herds and experienced breeders of Indiana, Illinois, Kentucky and Texas, regardless of cost, knowing that the best was none to good. I also have a spaying and stockman's needle invented by me. Best thing out. Satisfaction guaranteed.
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Herd of Poland China Swine.
Choice stock for sale in pairs and trios not akin. Correspondence solicited. Satisfaction guaranteed.
Last Look, Jr., No. 1, O. R., at head of herd.
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LAKE CITY AUTOMATIC STOCK FOUNTAIN
Water 50 to 150 Pigs Daily. Governed by gravity weight valve. No pump or fringes to run, or floats to stick in the mud and let out tank of water. Has the right kind of drinking cup—fresh supply of double drip—ing cup to hold a lot of hot, filthy water before a fresh supply comes down. Valve seat is in body of water and acts as a lock-out. Can be set to work or two p.m. at once, and can be attached to a tank or barrel in ten minutes. Works successfully in winter. Best price \$3. We pay express. Fountains sent to any address on trial. Price to be remitted by express agent's satisfactory. It costs nothing to try. Send for one. Agents wanted in every locality. Write through Importer Dealer or
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SHIP YOUR HOGS AND CATTLE TO YOUR HOME MARKET.
Write for Market Information.
G. W. SIMPSON, President. W. E. SKINNER, General Manager.

ments making a good deal of butter. I have a good many regular customers that I supply, and some of them for a period of six or seven years, who pay their own express charges and pay a very fair price for the butter. But I make a good deal more than they consume and have a weekly surplus of 50 to 100 pounds; this I ship each week wherever I can do the best with it, and at present realize from 8 to 13 cents a pound for it. This is identically the same butter that wealthy and fastidious families are willing to pay a good price for, and the difference is, that shipped on the open market, comes in competition with bogus butter. In Texas, like some other states, had some law, by which imitation butter should be of different color, so that the buyer would know if he was buying butter or an imitation, dairying might be more remunerative, but until then it will hardly pay. Can't TEXAS FARM AND RANCH help us work the subject up by the time the next legisla-ture meets, and have them pass some laws? Let others interested in eating, as well as making sure enough but er, take the matter up, and by writing and talking bring it before our law-makers.

BUTTER MAKER.

ABOUT COTTON SEED BUTTER.

COLLEGE STATION, TEXAS.
Editor Texas Farm and Ranch:
J. C. P. Alameda, Harris Co., Texas, writes as follows: "I have read your articles of recent date, on the effects of cotton seed and its products in the dairy rations. As I am all attention in regard to anything that concerns the dairy, I would like to ask a few questions upon this all-important subject that are in it made quite plain in the articles referred to. You say it lessens the oleic oils, which in part gives butter a delicate aroma and flavor, and increases the palmitin and stearine, thus destroying, etc. Now suppose cotton seed was fed in connection with bran and clover hay and green pasture. Would the cotton seed have the same effect, as when fed entirely alone with dry hay? What is considered a ration for a cow in cotton seed or the meal, fed either alone or in connection with other grain or grass only? Do not the different breeds of cattle give a different quality of butter, or some of them at least, regardless of feed? What do you think of rog butter finally destroying our home market for butter, unless something is done by law to save us?"

ANSWER.

The use of cotton seed in moderate quantity, in connection with bran or clover hay or pasture would not injure your butter, but rather be beneficial, as the foods mentioned would tend to make it soft and oily and the addition of cotton seed would counteract this effect and give it a firm consistence and good grain without injuring the flavor perceptibly. At the College we feed our milk cows a ration consisting of four to six pounds of cotton seed meal, two to four pounds of bran (or corn meal), 20 pounds of corn silage and hay ad libitum, through the winter months, or eight to ten pounds of seed may constitute the whole grain ration. When the cows are in good pasture they need but little meal. As they become dried up two pounds of meal and two pounds of bran may be fed with good advantage. The admirers of each particular breed claim their particular favorite to be the best for butter making purposes. It is doubtless true that some of the dairy breeds produce butter of better flavor than others. This we may naturally expect, as such breeds as the Jerseys and Guernseys have been bred for that purpose for many years. You doubtless mean oleomargarine when you speak of rog butter. It has already done immense damage to the dairy business, and there is no legislation more urgently needed than that which will require the branding of this fraud, so that consumers may know what they are buying and the honest dairyman be protected in his business. A. M. SOULE.

SHORT CORRESPONDENCE.

TEXAS FARM AND RANCH: I was in no hurry to make a statement as to what I thought of the mill, but I will say this much, as far as I have tried the mill I fully believe it is all you have recommended it to be. As to corn meal I can positively say it makes the best bread I have eaten since leaving N. in Alabama 22 years ago. As a matter of fact it grinds slow when grinding fine for bread. Would one with reasonable thought expect a little five dollar mill

run by the power of a man, to grind as fast as a pair of runners hitched on to a 40-horse-power engine? I am very well satisfied with the mill; think it is a blessing to any family who has one.—H. J. MAPLES, Aberfoyle, Texas.

TEXAS FARM AND RANCH: Yes, have received our stove; was at the depot some time before we got it home. We are well pleased with it. Came through all right, except one of the pots was broken.—H. D. POTTER, Fairfield, Texas.

We received the set of Dawson knives—three in number—and take great pleasure in saying they are much better than we expected to find them; are very cheap at the price you sell them, and my good wife says they are just what she has always needed. We are both highly pleased with them, for they are first-class. Yours truly.—T. J. CHAMBERS, Liberty, Texas.

The single-barrel gun I ordered with one year's subscription for TEXAS FARM AND RANCH was received in good order. I am well pleased with the gun, it being light, but of good make, and shoots well; all one could wish for considering the low price. I have been reading reading TEXAS FARM AND RANCH for a number of years, and obtained a great deal of valuable information from it, which I could apply practically on my small farm and orchard. Besides, I regard it as a good and pure family paper, which ought to be found in every Texas farmer's home.—E. BRETSCHNEIDER, Bernardo, Texas.

DOG SKIN GLOVES.

Wisconsin Farmer.

The reader will wonder what this heading has to do with sheep breeding and management. For some unaccountable reason the sheep breeder has been brought into partnership with the keeper of goats, and most of the legislative bodies of the United States place him in connection with the keeper of dogs. Nearly every sheep man is contributing to the dog industry in this locality, and is a direct competitor of the breeder of goats, since a professor of agriculture alleges that goats' flesh, well fattened, is as good as mutton. Now, a glovier in Des Moines informs us that dogs' skins make the very best quality of gloves, and he has many hundreds of dog skins undergoing the process of tanning. We wish it were thousands instead of hundreds. He also informs us that goat skins make very good gloves, and that sheep skins are not good for gloves. In view of the above facts we feel like asking our sheep breeders to encourage the dog skin glove industry by wearing gloves of this material since it will encourage their slaughter, and this appears to be the only way we can get satisfaction out of the canine race. Wear these gloves, and ask your neighbor to wear them, and thus increase the demand, and confer a benefit upon the sheep industry, which has heretofore suffered greatly by reason of these dog skin gloves in their "raw material" state doing injury to the flocks. Please remember that dog skins make good gloves. A sponge soaked in lard will get the dog.

The Minnesota State Entomologist says that in Chicago county there are four hundred grasshopper killing machines in operation, and they are killing 8000 bushels of grasshoppers a day. Kansas and Colorado will have to look to their laurels.

Nebraska Farmer: Bad, sad and mercenary. Mayor Dalmagro, of Spring Valley, Ill., in answer to an inquiry as to the truthfulness of a report sent out that many coal miners of that district had volunteered to become slaves on condition that they should be guaranteed the necessities of life by the mine owners, says he firmly believes that one-half of them would be willing to sign such a contract.

R. L. G.—Yes, the McCormick corn harvester is built by the manufacturers of the McCormick grain and grass cutting machines. From what we have been able to learn regarding the corn machine, it does surprisingly good work. The conception is novel, the stalks of corn being conveyed to the binder in an upright position, and bound standing, which results in an easily handled bundle, square at the butt. It picks up and handles "down" corn in a very satisfactory manner, and is probably ahead of anything yet invented in the way of a corn harvester.

THE OK HAY PRESS.
THE BEST STEEL
FULL CIRCLE.
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SCOTT HAY PRESS CO.
801 West 8th St. Kansas City Mo.

IMPROVED HUNTER HAY PRESS
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PRICE LISTS, but Press guaranteed to do as much or more work than any other horse-power full circle press made. For position, etc., see upon the merits, write manufacturer.
MERIDIAN MACHINE SHOPS, P. O. Box 4, Meridian, Miss.

"SELF-TRAMPING" Cotton Press
Saves man tramping in the box. Requires but one hand to pack 10 to 15 or two 20 to 25 bales per day. Very strong, simple, quick and durable. Also our **"IDEAL" Hay Press** mounted & not mounted. Steel lined. **PROGRESS ENGINES & BOLLERS.** Complete Ginning and Grinding Outfits. Architectural Irons, Foundry, Boiler and Machine Shops. Address **PROGRESS MFG. CO.,** Sole Mfrs., Box B, Meridian, Miss.

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FOUR NEW PRESSES FOR 1895.
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Portable Hay Press, \$60. Sent on trial. Address for circular, C. B. ECLIPSE, Rlenzi, Miss.

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SHORTEST CRANK
GREATEST POWER
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Steel Queen Wind Mills.
3 Sizes.
8 Foot, 10 Foot, 12 Foot.
Ask for our Catalogue.
MARSEILLES MFG. CO., MARSEILLES, ILL.
Southern Rock Island Plow Co., AGENTS, DALLAS, TEXAS.

PRIDE OF TEXAS HAY PRESS.
PRICE \$135.
BEST AND CHEAPEST PRESS MADE.
MANUFACTURED BY **TEXAS HAY PRESS CO.,** Houston, Tex.
Correspondence answered promptly.

THE MIDWAY SULKY PLOW
We unhesitatingly recommend the Midway as being without an equal, and offer it not only as a competitor of the many cheap sulky plows, but guarantee it to be the equal of any sulky plow ever put on the market, regardless of price. The mould-board used is the same as used on our Canton Clipping Blackland Plows, which have gained such an enviable reputation in the blackland districts. The beam is attached to frame so that it runs perfectly steady in all kinds of land, with no tendency to oscillate up and down, thereby leaving the furrows of uneven depths. This is a serious defect in other plows that is thoroughly overcome in the Midway, and will be found a great advantage to all who desire smooth, steady plowing. The rear or third wheel is set so that in combination with the two other wheels the bottom friction is all taken off, thereby securing minimum draft, and we offer the Midway as the lightest, strongest and most complete Sulky Plow ever put on the market, and at a price that is within the reach of everybody. Hundreds of testimonials from the best Texas farmers. Circulars free. We manufacture Disk Harrows, Sulky and Gang Plows, Steam Plows, Harrows—both Wood and Steel, Canton Clipping Walking Plows, Riding and Walking Cultivators, Corn and Cotton Planters, Chequerboard Corn Planters, and Sulk Cutters. We carry the largest stock of Buggies, Carriages, Road Carts, Delivery Wagons, Mail Hacks, Sleighs, Mails, Excavators, Grain Drills, Traction Engines, Thrashers, Hay Presses, Drag Rakes and All-Steel Rakes. Bain & Old Wagons. Write us for your wants.
PARLIN & ORENDORFF CO., Dallas, Tex.

The "Invincible Sulky" Plow
THE LATEST AND BEST.
Many New and Valuable Features.
Ask for Circular.
B. F. AVERY & SONS, SOUTHWESTERN BRANCH, DALLAS, TEXAS.
FACTORY LOUISVILLE KY.

A GOOD REMEDY for dependency can store, nor will the trouble yield to the treatment of the most skilled physicians in the land. **FOR THE BLIND** you must take something out of the regular line—something that will refresh the mind and take it off of the sordid and cankering cares of business. The great humorous and industrial journal, the **TEXAS SANDWICH**, will do it in every case. Send 25 cents in 2-cent stamps for two months trial. Dallas.

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Breeder's Gazette, weekly.....	2 00	3 00
Courier-Journal, weekly.....	1 00	1 75
Colorado Poultry Journal.....	50	1 50
Cosmopolitan Magazine.....	1 00	2 25
Creamery Gazette, semi-monthly.....	1 00	1 50
Dallas News, semi-weekly.....	1 00	1 75
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\$20

Will pay for the Farm and Ranch Sewing Machine and all attachments and **TEXAS FARM AND RANCH** for one year. The machines are fully guaranteed, and can be returned at our expense if not satisfactory. If you want to know more about these machines, read the advertisement on page 19. Address all orders to

TEXAS FARM AND RANCH,
Dallas, Texas.

TEXAS
TO THE WORLD!

The greatest commonwealth in the universe, whose soil teems with the products of the mart, and whose laws, constructed for the advancement of man, throw wide open its gates to the

People of the United States

and bids them enter for the purpose of investment and settlement.

Capital and Labor

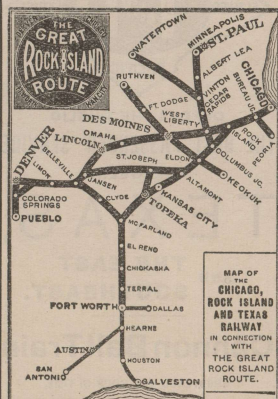
alike have equal advantages and thrive under a good and just government, controlling the richest section in the world.

TEXAS IN 1893

produced for home and foreign consumption,

1,845,333 bales of cotton,
3,424,441 bushels of corn,
24,595,169 bushels of oats,
6,553,575 bushels of wheat.

and made a correspondingly large record in the production of other staples. The **PRESENT YEAR** is the most successful in its history and far exceeds the figures above. This great State is reached direct from St. Louis, Cairo and Memphis by the



This map shows a modern "up-to-date railroad," and how it has its own lines to the principal large cities of the West. It is the

"GREAT ROCK ISLAND ROUTE,"

And has double daily fast express train service from Texas as follows:

No. 4 Lv. Fort Worth.....	10:40 a. m.
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No. 2 Lv. Fort Worth.....	8:10 p. m.
Ar. Kansas City.....	5:25 p. m.
Ar. Chicago.....	9:25 next a. m.
Ar. Denver.....	7:25 a. m.

Through Pullman Sleepers and Free Reclining Chair Cars.

Don't overlook the fact that Train No. 2 saves you a whole business day en route to Denver or Colorado Springs. Your local ticket agent will probably want to sell you a ticket via the Rock Island, but if he don't—insist until he does. **J. C. MCCABE, G. P. A.,** Fort Worth, Texas.

SHELL OUT.

PATENT CORN SHELLER.

Not a toy, but a machine which does the work, and all a farmer needs for shelling corn for home use.

IT WON'T CHOKE. SIMPLE IN CONSTRUCTION. IT IS DURABLE AND CHEAP.

We will furnish this Sheller and **TEXAS FARM AND RANCH** one year for \$3.25, or we will send it f. o. b. Dallas for \$3 cash.

I should have acknowledged receipt of the Corn Sheller and Bone Mill purchased from you some time ago. It came all o. k. I have thoroughly tested both, and if I could not get others like them, I would not take one hundred dollars for them. Every poultry fancier ought to own a Bone Mill. I grind all the corn my stock eats. And the Sheller—it is a perfect daisy. Can easily shell a bushel of corn in five minutes.—**J. C. COLLINS, Belton, Texas.**

Address **TEXAS FARM AND RANCH, DALLAS, TEXAS.**

Something Needed in Every Home

The Best Coffee Mill in the Market.

This mill holds one pound of roasted coffee, which can be ground out in quantities desired as needed. Air tight canister with screw cap top.

Hardwood box, rounded corners, finely finished with three coats of varnish.

Mountings, copper bronzed and lacquered.

The advantages—convenience, rapid and easy grinders—commend this mill as in every way superior to the old style ones.

We will send this mill (purchaser pays express charges) and **TEXAS FARM AND RANCH** one year for \$1.50. Or we will send the mill alone for 75 cents.

From the above brief description and the illustration you get a fair idea of the mill. Every family needs and should have one. Address all orders to

TEXAS FARM AND RANCH, Dallas, Texas.

New Iron Lasts

.....AND.....

Home Repairing Outfit.

ENLARGED, REMODELED AND GREATLY IMPROVED.

Consisting of 28 First-Class Tools and Materials shown in cut, viz:

1 Iron Last, 10 inches; 1 Iron Last, 8 inches; 1 Iron Last, 6 inches; 1 Iron Standard with Base; 1 package Assorted Nails; 1 package 4-8 Wire Clinch Nails; 1 package 5-8 Wire Clinch Nails; 1 package 6-8 Wire Clinch Nails; 1/2 dozen pairs Star Heel Plates; 1/2 pound Copper Rivets and Burrs; 1 Steel Branch; 1 Sewing Awl, complete; 1 Pegging Awl; 1 Wrench for above; 1 Stabbing Awl, complete; 1 Shoe Knife; 1 Shoe Hammer; 1 bottle Rubber Cement; 1 bottle Leather Cement; 1 ball Wax; 1 ball Shoe Thread; 1 bunch Bristles; 1 Harness and Saw Rosin; 4 Harness Needles; 1 Soldering-Iron; 1 bottle Soldering Fluid; 1 box Rosin; 1 bar Solder; Directions for using.

All these Tools are

PRACTICAL, NEAT and CHEAP,

Not mere toys, enabling any person to do his own

HALF SOLING, BOOT, SHOE, RUBBER, HARNESS and TINWARE REPAIRING.

These Tools, when purchased separately at a hardware store would cost over \$6.00.

The only COMPLETE OUTFIT on the market.

We furnish the Tools mentioned above, complete, weight 18 pounds, or \$3.00. **TEXAS FARM AND RANCH** one year and the complete set of Tools for \$3 75.

Address **TEXAS FARM AND RANCH, DALLAS, TEXAS.**

Farm Machinery.

A SPADING PLOW ON THE WAY.

I. A. ARMSTRONG.

Several weeks ago we noticed in TEXAS FARM AND RANCH an article on the drag plow. For four or five years we have been at work, off and on, on a spading plow, and we have just now finished a model of it. We are not ready to give the invention to the world, as it is to be put to the test first. We believe it will prove a success, but we are not financially able to build a perfect-working machine just now. It is clear to our mind that the old drag plow will be displaced by a better implement within the next decade. Already efforts are being made to lay it aside. The pulverizer tried it but failed. The disk plow is now up against it, and it is "nip and tuck" with them.

The advantages of a spading plow are that it will leave an uneven bottom that will hold the water, and thus prevent washing so badly; the ground will be left loose, and it will cut deeper than the drag plow. The latter cuts an even bottom, also packs it, and plows on an average not more than five or six inches in depth.

We would like to hear from farmers on the subject of plows, and if our spading plow should not prove a success, perhaps some one else will get up one that will do the work. The main thing is to get a first one. If defective it may be improved.

We would like to correspond with some person or company who will go in with us and help build a real working machine.

McKinney, Texas.

Patents granted to citizens of Texas for the four rocks ending July 23d, 1895, reported through the office of J. F. Beale, Solicitor of Patents, 908 G Street, N. W., Washington, D. C.

Albert R. Moore, assignor of one-tenth to C. N. Fisher, both of Houston; mechanism for operating railway switches.

Julien Prade, Waco; nut sheller.

James A. Roosevelt, Austin; draft rigging for railway cars.

H. A. Tillet, T. D. Tarpley, and R. J. Moore, Abilene, combined hook and hammer.

Hugo Gallinowski, Galveston; wood preservative.

Jesse D. Padgett, Dallas, girth rigging for side saddles.

Edwin N. Stephenson, Waco; machine for tuffing mattresses.

Geo. W. Cameron, Waco; grubber.

John W. Farris, Round Rock; harrow.

Wm. G. Ford, Tyler; vehicle axle point.

Charles Herold, Fort Worth; lubricator.

Harry McEroy, Palestine; wrench.

Jesse D. Padgett, Dallas; riding saddle.

John R. Rowell, Emory; car coupling.

B. C. Briney and S. O. Geron, Paris; fence making machines.

Jesse S. Brooks, Cedar Bayou; combination steel bar.

Wm. C. Cardwell, Rice; wire stretcher.

Wm. S. Hull, Dallas; garbage furnace.

J. Hyman, Del Rio; vehicle wheel.

H. J. Lewis, Busk; nail holding attachment for hammers.

J. W. Melvine, Houston; cut off valve.

G. F. Speer, Tyler; valve.

WIDE TIRES PREFERABLE TO NARROW.

Starting with a wagon and load weighing 4500 pounds, it was found in Indiana that a 3 inch tire required 150 pounds less draft to be drawn over sod than a 1 1/2 inch tire; 150 pounds less draft on a hard road, and 300 pounds less draft to move a load on a dead pull. The conclusion of the experiment may be summed up as follows:

1. On hard roads, block pavements and other permanent and substantial roads there is no argument, so far as actual draft is concerned, in favor of the wide tire, the effect being rather against the wide tire.
2. In their effect upon hard roads the wide tires have the advantage. This benefit is not sufficiently appreciated by turnpike and macadam road companies.
3. In soft mud, slush, and under similar circumstances, under which even the wide tire cuts in, the advantage is against the wide tire and in favor of the narrow.
4. On sod and soft ground, where the wide tire does not cut in and the narrow does, the advantage is on the side of the wide tire.

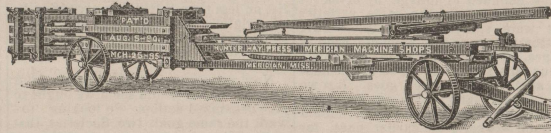
Experiments at the Utah Experiment

Station demonstrated that a given load on 1 1/2-inch tire drew 41.6 per cent heavier than when on a 3-inch tire, the draft being on a fairly stiff grass sod. On a moist, but hard road, the 1 1/2 inch tire drew 12.7 per cent heavier than the 3-inch.

Wide tires are not only lighter in their draft than narrow ones under nearly all conditions, but cut up roads very little; in fact, when 6 inches wide tend to make the road bed better continually. They could be gradually substituted for the present narrow ones, and better roads be the result, especially on the farm and on turnpikes largely in use by farmers.

THE HUNTER HAY PRESS.

The Meridian Machine Shops, of Meridian, Miss., are manufacturing the Hunter full circle horse power hay press, made under the personal super-



vision of the inventor, Mr. J. W. Hunter. He sees that every press is perfectly made, hence they have no hesitancy in sending them out to be paid for when tried and found as guaranteed—well and substantially made of good material, to bale 1 to 1 1/2 tons of hay per hour, and to load 10 to 12 tons in car, which makes it fully equal in capacity to any horse power hay press. But the most attractive part of their press is the price at which they offer it under the above guarantee. Their price is \$135 for a press mounted on four wheels, which is about half the price usually charged for hay presses not a whit better, and few are equal to theirs. Write them for catalogue giving full description and testimonials from reliable parties all over the country.

THE MIDWAY SULKY PLOW.

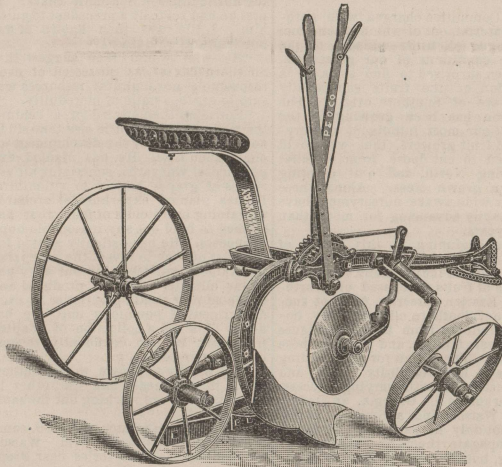
After careful and thorough investi-

tion of the wants of the users of Sulky plows, the manufacturers of the Midway Sulky Plow have placed upon the market a plow that cannot fail to meet the requirement for a first class sulky plow that could be sold at a moderate price, and it is freely guaranteed by them as being equal to any plow on the market, and from the immense sales of last season it would appear to have found great favor with the people of Texas in the black land districts.

As will be observed from the accompanying illustrations this is a three-wheel plow, the mold board used is the same as used on the Canton Clipper black land plows, which have gained such an enviable reputation in the black land districts. The beam is manufactured of the highest grade carbon steel, the front furrow wheel is constructed so that the plow will do good work in boggy wallow land; the levers are conveniently

arranged and unlike all other sulky plows, the beam does not pivot on the axle, therefore enabling the Midway to run perfectly steady in all kinds of land with no tendency to oscillate up and down, thereby leaving the furrow uneven depth. This is a serious defect in other plows that is thoroughly overcome on the Midway and will be found a great advantage to all who desire smooth, steady plowing. Having three wheels and a long landside there is no tendency for the plow to take too much land, a fault also commonly found in other plows.

The rear wheel is set so that in combination with the two other wheels the bottom friction is all taken off thereby securing minimum draft, and we confidently offer the Midway as the lightest strongest and most complete sulky plow ever put on the market and will insure it to give an ease and comfort in plowing not found in any other sulky plow.



Any one desiring further information on the Midway will do well to correspond with the manufacturers. Parlin & Orendorff Co., Dallas, will send circulars and testimonials to any one making application for them.

THE STANDARD CORN HARVESTER.

Manufactured by the Standard Harrow Co., of Utica, N. Y., Chicago, Ill., and Kalamazoo, Mich., is claimed to be the easiest working, most durable, most scientific and safest corn harvester on the market. It works easily because it has a large range of adjustment, so that the machine can be set to give an upward shear cut to the knives, which are set back to an obtuse angle to the body of the machine; large and broad wheels, thus reducing the power required to the minimum.

This machine is all metal, and constructed on principles by which it is not only light in weight, but extremely durable. The frame is made of open hearth angle steel; the platform of sheet steel; wings of high carbon sheet steel, and knives extra durable, of the finest quality crucible steel, properly tempered. The runners angle steel, being securely bolted in position, and when worn can be replaced at slight cost. The seats are very substantial, being securely braced, and are adjustable in height. The arc of circle in front gives free motion to the shafts and allows the machine to be turned with perfect freedom.

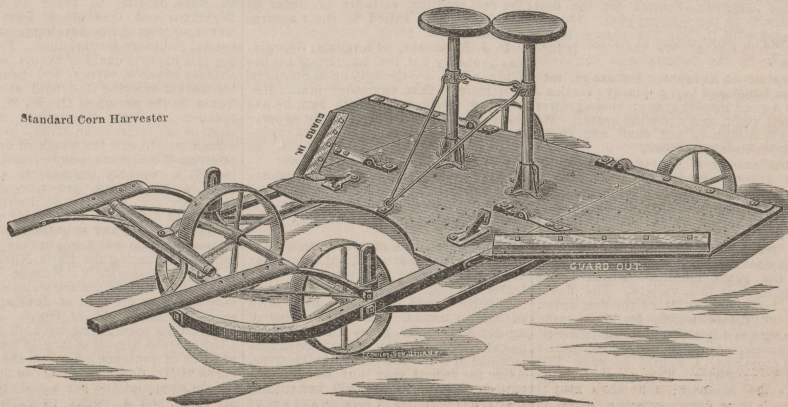
We wish especially to call attention to the safety guards, fully protecting the knives. The guards consist of a piece of steel with edges about one half inch in thickness, attached to under side of wings, automatically coming forward beyond the edge of knives, and receding when machine is in operation. When the machine is not cutting, the guards are always out, automatically locked, giving absolute protection from danger. These guards are an entirely new feature, they work perfectly, conveniently and without the slightest obstruction to the operation of the machine, and we feel confident will be greatly appreciated by users of corn harvesters. These guards absolutely prevent danger. If, however, it is desired to work the machine without the guards, they can be permanently locked back. The platform of machine is 2 1/2 feet wide, and from outside to outside of wings is 5 1/2 feet wide, thus accommodating itself to almost any width of rows.

CAPACITY OF PORTLAND CEMENT.

Practical Engineer.

One barrel of Portland cement of 400 pounds has the capacity to cover, when used with one barrel of sand, 67 square feet, one inch thick; 90 square feet, 3/4 inch thick; 134 square feet, 1/2 inch thick. Two barrels of sand, 104 square feet, one inch thick; 139 square feet, 3/4 inch thick; 208 square feet, 1/2 inch thick. Three barrels sand, 104 square feet, one inch thick; 187 square feet, 3/4 inch thick; 280 square feet, 1/2 inch thick. For cheapest good brick and stone mortar use Portland cement one part; clean, coarse sand, six parts; fresh slaked lime, 1/2 part. One barrel Portland cement is sufficient to make enough mortar to lay 2,000 bricks with 1/4 inch joint. This will set slowly. A very large batch can be made up at one time without fear of injury from setting.

Standard Corn Harvester



Farm and Stock.

Fanny Landseer 1969, made 15 pounds 9 ounces of butter from 97 pounds 3 ounces of milk.

Chill is the only country where beggars ride on horseback. Horses are so cheap that he who owns the greatest number are considered poorest.

Every farmer before gathering his corn should carefully select his seed corn in the field. Select seed from well developed stalks bearing two good ears well filled and well covered with shuck.

Thirty tons of water per day is about the amount evaporated from an acre of land in summer under ordinary methods of cultivation. This is equal to one inch of water in four days. It requires 1000 tons of water to produce fifty bushels of corn. Most of this water is transpired

stuff and says it is not fit to feed to dogs. Of course this stuff was shipped from this country. There seems to be no limit to the greed of the greedy. Such practices should consign the perpetrators to a penitentiary for life. They are public enemies, for, though they acquire wealth by this species of villainy the country suffers in its commerce and the people in their reputations.

Track gamblers revisited legislation against pool rooms and book making; but now that the people in some of the states have, through their representatives, passed stringent laws against all betting on races, they are perfectly willing that pooling and book-making shall cease, if betting is not interfered with.

Hoard's Dairyman exclaims, "Drouth everywhere * * * This is a serious question." The Southwest is somewhere—no doubt about that—and there has been abundant rains in the several

states. Why not, in a comprehensive diversity of farm products, experiment somewhat with indigo. The plant grows luxuriantly in Texas, and is said to be quite profitable in Martinique, and elsewhere. During the civil war, indigo was produced on almost every farm for home use, and there was no serious difficulty about it, although there was a total lack of experience to back the enterprise.

Steam, electricity and the bicycle

a wonderful power to reproduce himself it should be remembered that the blood of the dam is still in the veins of the offspring, and in spite of the best care and selection will occasionally crop out, at least until three or four generations have been bred. The breeder who succeeds must have the pluck to stick to his plan of breeding, he must study the quality of the animals he selects and uses for breeding, and in this way a herd of hogs equal to the best may be secured and at a comparatively low cost. But in all cases only pure bred sires should be bred and as breeding and selecting will permit only good grade dams, a little nearer full blood each time would be used. Any failure to do this is a long step towards destruction. Eldon, Mo.

MARKET LETTER.

[As reported for TEXAS FARM AND RANCH by the Standard Live Stock Commission Co.]

Receipts of cattle show a decrease of 10,000 compared with last week, and about 3000 less than a year ago. The closing of this week's market was dull and lifeless. The few choice, well finished, corn fed cattle did not decline much, but everything of medium quality is selling lower. Good cows and heifers sold strong at the close of the week, as did also choice feeding steers.

While range steers have been selling higher than last year, they declined about 10 to 15 cents yesterday. We look for an increase in the receipts of Western cattle soon, and they are likely to sell lower. We see nothing to encourage the holding of cattle that are ready to market, and would advise the shipping of all good range steers at present. However, owing to the prospect for feed being so good, the half fat cattle are worth more money to keep them at home than they would realize here.

Of the cattle sold Friday, pretty good 1183 pound cattle and plain fat 1371 pound cattle sold @ \$4.75, with 1479 pound steers @ \$5.20. Some Missouri-fed Texans sold @ \$4.20 against \$4.25 on Thursday. Dakota, grass steers, weighing 1234 pounds and 1317 pounds, sold @ \$4.00 and \$4.30, with range heifers @ \$3.65.

The Texas cattle market was slow and ten cents lower. The \$3.40 and \$4.00 cattle were considered about 20 cents lower than a week ago. Cannors, however, were about steady. Union Stock Yards, Chicago, Ill.

Clean out the fence corners and other places before the weeds go to seed. The benefit is only temporary when weeds are allowed to propagate their species by thousands.

Coleman's Rural World: The largest purse that it has ever been possible for a trotter or pacer to win was in the Kentucky Futurity for three year olds trotted at Lexington, fall 1894. The fortune which went to the winner was \$22,450, and the winner was Benzetta, the chestnut daughter of Onward, whose dam was Beulah, dam of Early Bird, 2:10, daughter of Harold. This Miss in this race beat five other great cracks, trotting one heat in 2:14. Benzetta is now a four-year old, and her first race this year was in the 2:13 class, at Columbus, O., July 8th, and as evidence showing how early maturity develops, she produced early decay, she trotted one winning race in 2:14½, 2:10, 2:10.

THE DIGESTIBILITY OF GOOD CHEESE.

Hoard's Dairyman. The old English people are good livers, and they found that the digestion of a hearty meal was greatly aided by a bit of old, well ripened cheese and bread as the last course. A certain medical authority, more theoretical than wise, put forth the statement that "cheese is very indigestible, and this on account of the acidity and want of alkalinity; but, if it is cooked, this alkalinity is restored by the addition of potassium, and then, if the cheese is eaten with somewhat food, it will be made easily digestible."

This statement, observes the New York Times, is wholly inconsistent with the facts. Cheese is never eaten until it is cured, and in the curing of it ammonia is formed, and this is alkaline. The well cured cheese, too, has been all the time filling up with the rennet germ, which have been growing and increasing in it in innumerable quantities, these germs are the very best aids to



through the crops and the weeds and grass that retard their growth. Hence the importance of keeping down all growths that do not add to the farmer's substance.

The best thing to do with a chicken eating hog is, not to try to cure the habit, for you can't do that, but put it in a pen and fatten for market. Push the rascal through and get rid of him.

We believe the fastest mile made this year in harness was 2:02, at Detroit, by Robert J., and the track was held to have been two seconds slow. It looks now like 1895 will see the two minute record made.

Corn grows about eighteen inches high in England, and produces no ear. No wonder; the young plant comes up, looks around and sees that its no use, the island is too small. Corn is a plant that requires some room for a full development.

The catalogue of the Muddy Creek herd of pure bred Hereford cattle, S. W. Anderson, Asbury, Greenbrier Co., W. Va., proprietor, has been received. It is elegantly illustrated, and contains histories and pedigrees of a large number of choice sires and dams.

During the eleven months ending with May the United States imported 12,760,000 gallons of molasses, and at the same time American sugar makers are discussing the question of how to get rid of their molasses at least cost. This is one of the curiosities of commerce.

We have received Vol. 13 of the American Berkshire Record, containing pedigrees from 26,000 to 30,000. Over 3500 transfers are also noted. It contains a large amount of information of value to breeders. Every breeder of Berkshires should have a copy. Address Chas. F. Mills, secretary, Springfield, Ills.

It is charged that a large shipment of lard received in France was analyzed and proven to be composed of the contents of the intestines of swine, deodorized and bleached, and mixed with fats and sold as "pure hogs lard." A prominent Paris journal denounces the vile

states composing that choice corner of the Lord's vineyard. No doubt about that. There has been no time during the present farming season when there was any need for more rain in Texas, Louisiana, Arkansas, and the B. I. T. Even Southern New Mexico complains of having been blessed with abundant rains.

Prof. Geo. E. Morrow, formerly agriculturist of the University of Illinois, is now Director of the Oklahoma Experiment Station, and we have good reason to expect something better from that Station than has characterized its labors heretofore. Prof. Morrow is a man of ability and experience. Oklahoma is to be congratulated.

At a recent auction horse sale at Sheepshead Bay, the two-year old colt, Hastings, went under the hammer at \$37,000. Two others, same age, brought \$14,000; and nine head, the oldest five years, brought a little short of \$100,000. Of course, these youngsters were bought on account of their supposed ability to win money for their new owners.

The cotton plant is getting a move on it since the sun in his glory has commenced again to shed his refrigent rays (or words to that effect) upon it, and the industrious farmer is wielding his improved agricultural implements effectually against the weeds that contend with it for the mastery of the soil. But the boll-worm? Oh, that's another branch of the subject.

The plan of having corn in the field until the rush of cotton picking is over is a bad one. The waste from weather, weevils and other causes is more than any consequent loss of cotton by stopping to gather corn. But there is little need to stop picking cotton to gather corn. Cotton is oftener picked by hired labor than otherwise any way, so that if this work is pushing, why not put more pickers in the patch and gather and house the corn while it is in best condition? It is our experience, even in South Texas, where weevils are worst, that corn gathered early and cribbed wet will not be troubled with weevils. If put up too wet, it is liable to rot, of course, and this must be guarded against. The best results we have ob-

have knocked the top off, the bottom out and the sides in, of the horse raising business. Most of the work that horses have done these new inventions now do. When some genioramus invents a machine that will make milk and butter and cheese and steak and roast and boarding house hash, better and cheaper than the cow can do it, then will cattle raising go under a deep, dark cloud—not until then, however.

IMPROVING THE HEAD.

N. J. SHEPHERD.

When care is taken to select out the best of the sows and breed them to a thoroughbred boar a decided improvement can be secured with the pigs. To still further improve, one of the best plans of management is to select out the best of the sows and breed them to a full blooded boar. It is necessary in doing this to secure new blood sufficiently often to prevent close inbreeding as inbreeding usually, tends to weaken or lower the vitality. Proper care in doing this is the safest way of reaching uniformity in appearance and quality. In a majority of cases which are the best sows can be readily determined by the time they are weaned. In selecting the sows get those nearest your ideal possible, and if any of them are weak in any essential point breed to a boar that is especially strong where the sows are deficient. It may not and often is not possible to secure an ideal boar, or with one or two matings secure the ideal pig, but by a careful selection and breeding a good improvement is gradually possible.

In order to get the most out of a boar in breeding it is essential that he should not only be a thoroughbred, but he must possess individual merit to an extent that he will be able to stamp his good qualities on his offspring. If in addition to his possessing individual merit, his ancestors before him were good animals, all the better, and the farther back his ancestors can be traced the better and more certain he can be depended upon to prove a good breeder himself.

While good results cannot but follow this plan of breeding too much merit is not expected. While the sire may have

any doubting Thomas wants further proof of this, I will copy the letter *scilicet* *in* *extenso* in my next. We have had the letter published in our county paper, and even those who bit at his bait have concluded they can get along without his extra 300-to-600-pounds-the-second-year anti-pruning, sucker-catching grape.
Bowie, Texas.

PEACH AND PEAR.

Fruit Growers Journal.

With the introduction of the Le Conte pear and the Elberta peach an impetus was given to Southern horticulture which had before been unknown. In regard to the Le Conte pear, I can truly say that they have brought much money into the South, that they are good shippers and keepers, and that some people have been known to say that they like to eat them, but further than this they are woefully lacking in merit. The same can be said of the Kieffer pear. But as to the Elberta peach, as it grows in its Southern home, one cannot well say too much in its praise. It is nearest to perfection of any variety of fruit that has yet been produced upon this globe. I know what I am saying when I make this statement, for I have been growing it and eating it for more than ten years. It has not one single fault that I know of. It is as near perfection as anything can be in this world. Some one has asked if there is any fruit in nature that appears as fine as the colored plates the catalogue give? Yes, there is one—the Elberta peach. President Berckmans, the originator of this variety (No. Samuel Rumph was the originator—Editor), was unusually modest in presenting it to the public. It was the one good peach out of 12,000 seedlings, and he placed it quietly in his catalogue, without booming it in the least. We of the South had it and enjoyed it long before the North knew anything about it; and now I see that in both North and South it is destined to stand at the head of the list. Thousands of acres have been planted in this variety, and as it is a good shipper, a good eating peach, and an abundant and regular bearer, it promises great things for its possessors.

VEGETABLES FOR HEALTH.

American Gardening.

There can be no doubt that many ailments we suffer from are the results of abstinence from vegetable diet, or a too great indulgence in other foods. Custom has made the potato an essential at the dinner table, but other vegetables do not find their way there as frequently as they ought. Statistics show the clergymen and gardeners attain the greatest age and enjoy the best health. Undoubtedly the longevity in these two classes is greatly due to gardening and its productions and the effects of these are doing wonders for the proper enjoyment of mankind. Good vegetables, fruit, pure water and air, are of most vital importance; and, in fact, with these alone, it would be difficult to destroy life.

The following note as to the medicinal value of vegetables, by an English authority, may be of interest.
Salsify is recommended to those who suffer from biliousness.

Carrots and parsley are powerful diuretics.
Spinach has a direct effect upon the kidneys.

The common dandelion and nettle, used as greens, are excellent for the same trouble.

Asparagus and sekale enliven the blood and keep it pure.

Celery acts admirably upon the nervous system and is a cure for rheumatism and neuralgia.

Beets and turnips are excellent appetizers and blood cleansers; likewise is cabbage.

Lettuce and cucumber are cooling in their effect upon the system, eaten cooked or raw; the former is said to cure jaundice effectually.

Onions, garlic, leeks and shallots, all of which are similar, possess medical virtues of a marked character, stimulating the circulatory system, and the consequent increase of the saliva and the gastric juice promoting digestion.

Red onions are an excellent diuretic, and the white ones are recommended to be eaten raw as a remedy for insomnia. They are a tonic and nutritious.

A soup made from onions is regarded by some as an excellent restorative in debility of the digestive organs.

Peas, beans, carrots and parsnips are very nutritious and fattening.

Watercress, endive, salsify, mustard

and cress and the tomato are perfect liver regulators.

Grapes are almost as good as quinine for malarial troubles—indeed, they are a "cure-all" for many unpleasant feelings.

Pineapple relieves sore throat, whilst the juice of lemons is a valuable drink.

A cabbage leaf placed inside the hat in summer will keep the head cool and easy under the influence of a burning sun.

HOW MUCH A WIND MILL WILL IRRIGATE.

Southwestern Farm and Orchard.

Of course the deeper the water is below the surface, the greater is the power required to raise it. Consequently a windmill of a given strength will raise less water, and irrigate less land when the water has to be raised 200 feet than when it has to be raised 100 feet. A twelve-foot windmill is usually reckoned capable of doing the following, provided a suitable reservoir is attached:

Water 200 feet below the surface, with a reservoir 30x60 and six feet deep, will water one acre of garden.

Water 150 feet in depth with reservoir 40x80, one and one-half acres.

Water 100 feet in depth and reservoir 50x100, two acres.

Water 50 feet in depth and reservoir 60x120, four acres.

Where the soil is free from rocks and well points can be easily driven, it will always pay to put up a windmill, if the water is within 50 feet of the surface, wherever there is a sale or demand for garden truck, and where the necessary water cannot be obtained by any cheaper method. Usually arid land near enough to town can be obtained for a very small sum, and as the total cost of a windmill and reservoir will not exceed \$250 it is like buying four acres of irrigated land for this amount plus the value of the land in its arid state.

MULCH ON PEACHES.

Mechan's Monthly.

There are many accumulations of straw, grass, hay corn stalks, etc., that can be used for mulch, and if utilized would become very profitable. During the season of 1893, after my strawberry bed was through fruiting, I raked the straw off, which had been used for mulch, and scattered it around some peach trees near by, covering about the same space as the branches, to the depth of two inches. This was done about July 10, thus aiding the ripening of the fruit for the same season. But the greatest result was noticed last season, when the peaches were ready to gather. They were smooth, of large and uniform size, while those on adjoining trees were small and inferior. No other reason can be assigned for the superior fruit but the mulch. The soil under the trees where the mulch had been applied, although at the close of the extended drought was loose and moist, while the soil under the other trees was baked very hard, and cracks several inches deep were visible. Was it the fertilizing properties in the straw applied that caused the difference? Certainly not, since straw protected the strawberries during the winters of 1892 and 1893, before it was applied to the peaches; if there had been any available plant food in it, it certainly would have been taken up by the berries.

STERILITY OF FRUIT.

Professor Waite.

Apples are found to be more inclined to be sterile than pears. Indeed, as a rule, very little fruit on either apple or pear, is the result of self-pollination. The great barrenness of the Baldwin orchards in Southern Ontario is perhaps due to this fact. Of pears, Prof. Waite found the following either wholly or in part incapable of setting fruit from self-fertilization, and require pollen from some other variety to render them fertile: Anjou, Bartlett, Boussock, Clairgeau, Clapp's Favorite, Easter Beurre, Howell, Lawrence, L. Bonne, Mt. Vernon, Found Sheldon, S. du Congress, Winter Nells, etc. Self-fertile sorts: Duchess, Bosc, Buffman, Flemish Beauty, Kieffer, LeConte, M. Elizabeth, Seckel, Lyson, White Doyenne, etc.

A great contrast was noted between self-pollinated and cross-pollinated fruits. Self-pollinated fruit is narrower and not well filled out toward the blossom end. Some varieties, however, pro-

duced perfect fruit. Self-pollinated fruit is slightly later ripening than the crosses as well as somewhat smaller and is seedless, or nearly so. His conclusions are, that many varieties of pears require cross-pollination; the pollen from another tree of the same variety is no better than from the same tree. Impotence of the pollen is not due to any deficiency of its own; pollen of two varieties may be absolutely self-sterile, but perfectly cross-fertile. Plant mixed orchards, or at least avoid solid blocks of one variety. Plant only three or four rows of a variety together, unless experience has shown it to be perfectly self-fertile. Be sure there are bees in the neighborhood, within two or three miles, to properly visit the blossoms.

DONT DRAG YOUR FEET.

Many men do because the nerve centers, weakened by the long continued use of tobacco, become so affected that they are weak, tired, lifeless, listless, etc. All this can be easily overcome if the tobacco user wants to quit and gain manhood, nerve power, and enjoy vigorously the good things of life. Take No-To-Bac. Guaranteed to cure or money refunded by Druggists everywhere. Book free. The Sterling Remedy Co., New York City or Chicago.

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If parties having large Gourdseed corn to sell will send sample and price to Keating I. & M. Co., Dallas, Texas, they may learn something to their advantage.

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This book is written specially for Texas, by A. H. Andrae, and is complete every way, giving best varieties adapted to this state, cutting, pruning, grafting, planting, diseases, insects, etc. The second part gives practical instructions for gathering grapes, wine and how to make it, vessels, washing and pressing, white wine, red wine, etc. We are making a special offer of this book at 25 cents postpaid, or will give one copy free to anyone sending us one new yearly subscriber at \$1.00. Address TEXAS FARM AND RANCH, Dallas, Texas.

AN INNOVATION.

Excellent Facilities Now Offered by the Iron Mountain Route, to Travelers En Route to the North and East.

With the change of time on the Iron Mountain Route, effective June 30, residents of Texas have been put in the most possibly commensurate with Memphis, St. Louis, Chicago, Cincinnati, Philadelphia, Boston, New York and the Atlantic sea board. The most note worthy feature inaugurated is that of train No. 54. This is known as the "Texas-New York Flyer", carrying as it does, through Pullman buffet sleeping car from El Paso, Ft. Worth, Dallas and way points to Little Rock and St. Louis, where direct connections are made with the Vandalla fast train for New York, and mid-night special over the Chicago & Alton R. R. for Chicago.

Leave Texarkana 4:10 a. m., arrive St. Louis 10:05 p. m., arrive Chicago 8:00 a. m. next morning, New York 7:43 second morning out. A double daily line of through Pullman buffet sleeping cars is also operated between Galveston and St. Louis, via. International & Great Northern one line, and Gulf Colorado & Santa Fe and Houston & Texas Central the other line. Day coaches are also run between Ft. Worth, Dallas, Texarkana and Memphis, arriving at the Mississippi River gate-way at 4:30 p. m. This in addition to the old established service between Laredo and San Antonio gives Texas the best outlet to the North it has ever known.

Mr. Jno. C. Lewis, Traveling Passenger Agent of the Iron Mountain Route, Austin, Texas, is very enthusiastic over the new card and reports a most encouraging travel, particularly on No. 54, the fast "Texas-New York Flyer", which has been so extensively advertised.

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back if you want it—Vacuum Leather Oil. Get a can at a harness or shoemaker, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swab, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

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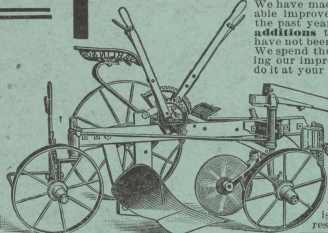
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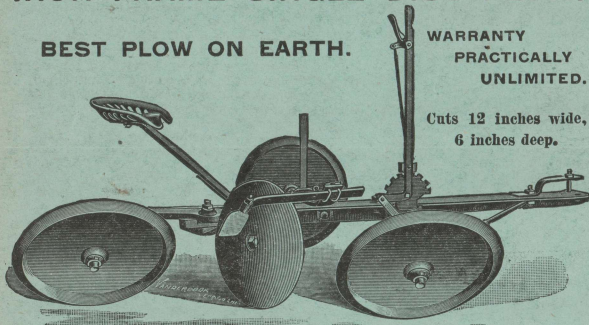


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FOR INFORMATION

About Calhoun County and Southern Texas, the "New California," address the **Port Lavaca, Port Lavaca, Texas,** for sample in cultivation; 20 adobe tenant houses; a good adobe, shingle roof dwelling in a fine cotton-wood grove. Purchaser will own his water and have no water right or annual water tax to pay. All kinds of fruit can be grown. Altitude, about 3250 feet; located in a beautiful valley of rich land, surrounded by mountains. Just the place for a colony. Good wire fence around the cultivated field; ditches in good order. For terms address

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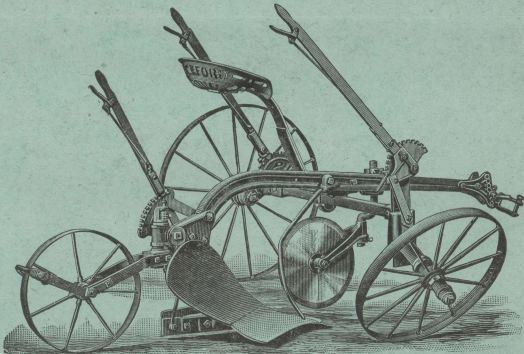
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