



Vol. XI.--No. 25.

DALLAS, TEXAS, JULY 23, 1892.

WEEKLY \$1.00 a YEAR.
5c. a COPY.

CATTLE FOR PROFIT.

H. B. HILLYER.

Read before Farmers Institute at Temple, Texas

How hard is it for men, and even whole countries, to throw off the shackles of a settled habit in any sphere of life. See the persistency of the average Texan today in holding on to his scrub pony horses, long horn cows, or razorback hogs, and the common barnyard fowl!

In the days of an open range and abundance of grass the year round, this was all well enough, but now things have changed. The country is mostly fenced up, stock must be fed during the winter, and at least in Bell county, we are forced to accept the new surroundings and to adapt our methods to them.

The average Texas cow will not give more than a gallon of milk a day, and this for not over five or six months. Now, count the cost of her care and feed and the value of her calf, and if your time and feed is worth anything, you have surely lost money on the job. And, my friends, let me say to you that no man can successfully compete in this fast age until he learns to compute the cost of raising everything that he attempts to produce or grow, and make a selection of those things that in his section will yield the largest profit.

We keep cattle now for milk and butter and beef as food, and thus supplement our bill of fare, and also that our surplus may be sold at remunerative profits to increase our cash. We must abandon the long horn range cow. "We are not able to buy thoroughbred, fine stock; then what shall we do?" You know well enough. But here custom steps in and holds you back. You have been in the habit all your lives of letting your cows take care of themselves. Take the same care of your cows that you do of your mares, and cross them up with the best thoroughbred males in the country, and encourage the introduction of such males by paying fair compensation for their service. It will pay you a splendid dividend upon the investment and trouble.

Then comes in the next question, what breed is best for general use? This is a question that each must solve for himself. A cross from any thoroughbred breed will double the value of the common stock. Let us examine some of the leading breeds. This may aid us in getting what we want:

First, we will take the Jerseys. Where range is limited, and beef cattle no object, and milk and butter the demand, there is no better cow than the little Jersey, and grade cattle of this stock usually give more milk than the full bloods. The Jersey cow will give from two to three gallons of milk a day, and often make fourteen pounds of butter a week. They are persistent milkers; with care will milk from one calf to the next. I have a seven-eighths Jersey cow which will give five gallons of milk a day. I have known a few to give six gallons of milk a day and thirty, and even forty, pounds of butter a week is a probability. One cow in America has given 1025 pounds of butter in twelve months.

Second, the Durham is a larger cow and a larger milker, but gives less butter than the Jerseys, yet the cattle are much larger and make fine beef stock, getting their growth rapidly, and take on fat easily; are first-class beef stock, and there is no way on earth so easy to market your surplus grain, straw and grass, and at good prices, as to put it into good, thrifty beef cattle. The Durham steers also make fine work oxen, and from experience and observation, I think a yoke of steers will plow just as much land in a season as a pair of mules, and on far less cost of feed—less than one-third the cost of animal—

and when he is old and worn out, makes the best beef on earth. I am surprised at the disuse of work oxen so much of late years.

The Holstein cow is the largest cow we know of. They are splendid and persistent milkers. A very poor Holstein will give six gallons of milk a day; they often give eight or ten gallons a day, and one in America has given fifteen gallons a day—30,000 pounds of milk in twelve months. They are also the best butter cow on earth. The champion cow of this breed has given 1156 pounds of butter in twelve months. I have known half-breeds of this stock to give six gallons of milk a day.

There are other breeds of fine cattle that are worthy of note, but we must pass on.

A cow is God's best gift to man. What a burning shame upon our country the unkind, cruel treatment these noble creatures receive at the hands of our unthinking people. Get you a good cow, or cows, build a good, warm shed for them, feed and care for them well, and the investment will pay you many fold. A very grave mistake usually made is that a cow ought to give milk with any rough treatment—half starved and unsheltered. You can take any six-gallon cow of any breed in America, turn her out on a dry range and without shelter from sun or rain, and in three months you can reduce her to a two-gallon cow. And on the other hand, you can take any two-gallon cow and by care and shelter and feed you can, in a short time, make her a four gallon cow.

As to feed, green grass in the spring is nature's food; mature grass and grain fall food, to lay on fat and prepare for winter. In all such matters we should study nature. Cows bring their young in the spring; they need light, moist, sappy feed to keep down feverish tendencies and give greatest flow of milk. As the calves, yet older, they need less milk, but richer in character, and hence dry feed, and grain comes in. In six to seven months the calf is prepared to make its own living, and hence the cow, in a state of nature, dries up about that time, and then converts her food into fat to stand winter, as well as care of her future calf, whence we deduce some valuable hints in feeding. Nothing can take the place of green food in the spring. Our cultivated grain is better than wild grasses. A good supply of rye, oats, millet, sorghum, etc., is valuable. The town man cannot always procure these, and the best substitute is nice, clean, sweet slops. In this all table and kitchen refuse can be used, and to this added cotton seed (boiled done), corn meal, wheat bran and oats, and any vegetables, as turnips, beets, carrots, or pumpkins are fine. Cows soon become very fond of slop, and while a little trouble, it is a great saving in expense. Cows will give one third more milk from wet slops than with dry food, though it is contended that dry feed will give you the same yield of butter with less flow of milk. I doubt this. Last year I kept two cows in a small lot all the time, part of the time on slops and hay, and part of the time on dry feed. They kept in fine condition and perfect health all the time, but gave much more milk on slop feed. As dry feed, I am using this season cotton seed hulls and meal, and wheat bran and corn meal. The ration I give twice a day is one-half bushel of hulls, one quart of cotton seed meal, one quart of corn meal and one-half gallon of wheat bran. This is full feed for my Holstein cow—about one-fourth less to my Jersey cow. They keep in good health and give fair quantity of rich milk, but the butter is quite white. While cotton seed hulls is a good healthy feed for flesh, it is nothing like as good milk and butter producing

food as good, sweet hay, though its cost is not over one-half so great as the hay.

And lastly, it is bad economy to raise a calf on milk. Your cow will come up for feed as readily as to see her calf, and will milk much longer without a calf than with one and give more milk. My plan is to wean a calf at three days old, and then feed it for one month on warm, fresh milk; the second month you can feed it: one-half warm milk, fresh from its mother, and one-half on skim (but sweet) milk; into this mix a little corn meal, bran or cotton seed meal; the third month feed it on skim milk alone, and give it increased gruel of corn meal and bran. After this feed it on ground feed and hay. You can now turn calf and mother together and have no trouble roping off calves. Your cow will give milk the year through. If a heifer is thus treated with her first, and after calves, you have no idea how uniform will be the flow of her milk the year round. The above process of raising calves is recommended for fine calves that are worth raising. For common beef stock it will, by any process, except a free range, cost you three or four times as much as the butcher will give for it. If the stock is common, and only fit for the butcher, it is best, from an economic standpoint, to kill it at once. But if it is a full-blood or grade, and a heifer, it will pay you to raise it. Calves raised by hand as above indicated are thriffter and more hearty than those that lie in the pen all day and rely upon a little stripping night and morning, as by the old plan.

And lastly, if you would feed grain to any stock or fowl economically, it will pay to buy a corn and cob crusher. One can be bought for \$20 dollars, or you can buy a Wilson Bone and Grain Hand Crusher for \$5. This, with a straw cutter, are indispensable farm implements.

Belton, Texas.

MAKING HAY.

John M. Stahl, in Country Gentleman.

Hay is generally cured too much. It is not necessary to cure it so dry as is generally supposed. Recently I wrote about early cutting and therein stated that the hay that my uncle's horses preferred to grain was cut earlier and cured less than was his practice up to that time. His experience led us to put our hay away when it was cured less than we had previously supposed to be necessary. We were led to take a second step in the same direction by an experience of our own.

One hay harvest in order to avoid the wetting of the grass by a threatening rain storm, we hurried into the barn four loads that were quite a little greener than we liked. Other hay was placed on top of this two or three days later. We expected to find mold when we reached the four loads named during the winter, and were surprised to find it bright and clean, more fragrant than the other hay and more greedily eaten by the cattle and horses. The quantity was so small, comparatively, that it was impossible for us to determine whether the animals made a greater gain from it per pound than from the hay cured more; but we were so much pleased with it, it being clearly more palatable and succulent, and presumably more easily digested than the other hay, that since then we have stored our hay when it has not been cured so much as we had supposed was advisable before that time, but we have not stored the hay, or at least the bulk of it, as green as were the four loads.

It is impossible to describe in words just the conditions of the grass or clover when it should be put away. I can only advise the reader to stow away two or three loads while it is yet a little greener than he has supposed advisable, and to note carefully

the condition of this hay when it is reached in feeding out the mow, and the way the animals relish it. He can soon determine the proper degree of curing. Whether or not hay can safely be put into stacks when as little cured as it may be put in mows I cannot say; but it can go into good barracks as green as into mows. I have never been East in haying time, so cannot speak of the Eastern practice, but in the West not a few farmers leave their hay in the field until it is quite brown and dry. Such hay certainly does not contain more nutriment than hay not cured so much, and it is certainly less palatable; while when it is cured so long, it becomes so dry and brittle that there is a material loss in handling, and that of the most valuable parts; and the longer it is left in the field, the greater the chance of damage by rain.

A ROAD HOWL.

Correspondent Michigan Farmer.

"I want to make a small howl in regard to road making. I do not suppose it will do any good, but it will relieve my mind. This, as we all know, is the season for the farmer to go out with the new road machine and scrape the sod along the side of the road into the middle of the same, and call it a road.

"It is very nice for a few weeks, and there comes in a little rut here and another there, so by the time winter sets in we have a muddy, rutty road to ride over. And it is not a few rods, either, for a road district can do a mile or two of it in the time required to 'work on the road.' Now, why cannot they work say twenty or thirty rods with the road machine; make a good, wide road bed, and then draw on good gravel, not sand? Almost every district has a bank of gravel within its limits. If not on the road go back on the farm. If the farmer is a good, generous, free hearted man he will give it to his own district. If not, cancel his road work for the year. He certainly should be willing to do that. It is a good plan to get the teams and men all out together, and, by a little system, you can get a great deal more done. Of course it is hard to do so, but once get your district in that habit, and they think there is no other way.

"Perhaps some may think that the first part of this is all imagination, but I know of one road district (and I presume there are others) that has not drawn gravel enough in two years to cover twenty rods of road in good shape. Yet they have scraped and scraped, and will probably continue to scrape.

"Anyone who has driven fifty miles with a horse knows that when he gets on a gravel road, he gets on a good road. It is very seldom that you see a railroad company drawing sod, sand and clay to ballast their road.

"If the proof of the pudding is in the eating, the proof of good road is in its smoothness and lasting qualities. And a well made gravel road will knock out a sod, sand and clay road every time."

Terrell Register: The ring of the trowel, the sound of the hammer, the grinding noise of the saw and the changeable hum of the planter make a concert of summer music most pleasing to the ear of progress.

Stephenville Empire: N. B. Sikes, who farms on the Geo. Sikes farm, has a new variety of onions that originally came from Nebraska. From one small set this spring he raised a half gallon of onions, in size ranging from a pullet's egg to a goose egg. They never rot. He also has a new variety of eschallots which beat anything now in the country.

P432209 - water

Household.

Address all letters for this department to Mrs. S. E. Buchanan, Waxahatchee, Texas.

PITTPAT AND TIPPYTOE.

Eugene Field in Daily News.

All day long they come and go—
Pittypat and Tippytoe;
Footprints up and down the hall,
Playthings scattered on the floor,
Finger marks along the wall,
Tall tales streaks upon the door—
By these presents you shall know
Pittypat and Tippytoe.

How they riot at their play!
And, a dozen times a day,
In they troop, demanding bread—
Only buttered bread will do,
And that butter must be spread
Inches thick, and sugar, too!
Never yet have said, "No,
Pittypat and Tippytoe!"

Sometimes there are griefs to soothe—
Sometimes ruffled brows to smooth;
For—I much regret to say—
Tippytoe and Pittypat
Sometimes interrupt their play
With an interjection;
Fie! oh, fie! to quarrel so,
Pittypat and Tippytoe!

Oh, the thousand worrying things
Every day recurrent bring!
There are little duties to meet;
Little frocks are strangely torn,
Little shoes great holes reveal,
Little hose, but one day worn,
Rudely yawn at toe or heel.

Who but you could work such woe,
Pittypat and Tippytoe?

But when comes this thought to me:
"Some there are that children be,"
Teasing to their little beds,
With a love I cannot speak,
Tenderly I stroke their velvet cheek.

God help those who do not know
A Pittypat or Tippytoe!

On the floor, along the hall,
Rudely traced upon the wall,
There are proofs in every kind
Of the havoc they have wrought.
And upon my heart you'll find
Just such trademarks, if you sought.

Oh, how glad I am so,
Pittypat and Tippytoe!

EDITORIAL CHAT.

A happy inspiration, that of kind Mrs. Rucker, to help keep up the interest of this department, thought to do so she must overcome a natural diffidence. In her kindly acknowledgment of benefits received, and pleasures enjoyed, she has conferred a pleasure upon others, proving that every kind deed we do brings us happiness in return.

To Mrs. L. S. Kraemer we would suggest the probable cause for preserve syrup sugaring is two-fold. There being very little acid in either fruit mentioned, the rule of "measure for measure," gives too much sugar, and possibly too, the syrup is boiled down too thick. We do not remember having ever seen fig preserves that the syrup did not crystallize in six months time, and we were brought up in a fig growing country.

Thanks to L. B. S. C. for her words of sympathy and cheer. We are always glad to have a contribution from her graceful facile pen, and keep her promise in mind.

Mrs. Dora Dooley sends an excellent recipe for hop yeast, and bread, and promises other good recipes before long. We will be very glad to have them.

Hester Kirke sends us her best recipe for making peach preserves, also two good recipes for cooking squashes and egg plant. We will add our way of making mock oysters from egg plant, which makes a nice breakfast dish.

We feel that "the lines have indeed fallen to us in pleasant places" when we recall the number of pleasant acquaintances we have made through the Household. Though strangers by reason of absence and distance we are friends with many through the magic touch of pen and printer's ink. We are under obligations to a great many good women in this and other States for their gracious help in maintaining the interest of our department. We feel as if we had over-reached distance, and felt the warm grasp of womanly hands, and have heard in fancy the cordial "God speed" of many whom we may never see, yet in unity of thought—in love for each other, and our vast sisterhood of women—in our aim to stand shoulder to shoulder with each other in our efforts to uphold our homes, and train our children to be great and good we are indeed very near. Many personal letters breathing the kindest sentiments and fervent wishes for greater success, are our treasures, which we treasure among our choicest blessings.

MOCK OYSTERS.

Peel and slice, and cut into dice about

half inch square, one egg plant. Throw them into salt water for ten or fifteen minutes, while in a sauce pan on the stove sufficient water and milk. In proportion of half and half is coming to a boil. Put the dice in, season high with butter and pepper, boil until tender, add broken cracker when ready to serve, serve hot.

A REQUEST.

MRS. L. S. KRAEMER.

Will some of the sisters of the Household kindly tell me how I can prevent candy from forming in the bottom of my jars of preserved figs and watermelon rinds, and oblige one who reads and appreciates your valuable paper in every department?

Texarkana, Ark.

HINTS FOR THE HOUSEHOLD.

HESTER KIRKE.

In preserving peaches, it is well to remember that they will keep as long and be much prettier, to first boil the syrup, then drop the peaches in, cook slowly and stir as little as possible. The result will be light, firm preserves, similar to those put up by the Oneida community.

The flat taste of the summer squash can be improved by mincing a little onion with it when it is put on to cook. Season all with cream, pepper and salt, and mash slightly.

To make egg plant appetizing, I use the following recipe: Cut the egg plant half in two, with a sharp knife scrape out the inside, leaving two shells; boil with it taken out in salty water until soft; mix a little onion, bread crumbs, season highly with butter, pepper and a little cream, if desired. Put the stuffing into the shells and put them into the oven to bake for a few moments.

Bremont, Texas.

GOOD NURSES.

MRS. L. B. S. C.

When I heard that you had been confined for some time by the side of a sick loved one, my heart went out to you in sympathy. I can imagine what a faithful nurse you must be, for I am a firm believer in the idea that where one succeeds well in one thing, she will do just as well in anything else, should the emergency require it.

I can imagine there will shine bright stars in our diadem should we be faithful to the sick with whom we are thrown.

There are some women, and I am sorry to say it, who are lacking in something to make their presence desirable in the sick room. Many of us can recall the "Auntie Dolefuls" with their sorrowing faces and numerous prescriptions.

In contrast how I love to remember the cheerful, though thoughtful nurse that once administered to my wants. What soft slippers she wore; she neither whispered nor whined her words; she never worried me by begging me to think of something to eat; on the contrary she would surprise me with something prepared by her own hands.

A professional nurse should have patience, labor, but should it not be given to those of us who must be at once mother, nurse and housekeeper, we have the assurance that if we will ask it, our heavenly Father will give us the strength and patience needed.

Bremont, Texas.

A HAPPY THOUGHT.

MRS. SOLOMON RUCKER.

Dear Sisters—I have just finished reading the only letter in the Household, written by Mrs. Alex. Dickie, and fearing the sisters are getting too negligent and will let the Household go down, I will try to say a few words of encouragement.

It will never do to let the Household go down, for it is worth too much to each and every one of us. I have been wanting to write for a long time, but never felt able to write for publication. But I feel it my duty to write a few lines just to tell the dear sisters how well I enjoy all of the letters.

I always turn to the Household first, read all the letters, good and helpful recipes, then I think if I could just write a letter that would interest any one as much as theirs do me, I would not hesitate a moment, but would write. Mrs. Dickie says she thinks these letters have helped her to have patience with her babies. I am sure we need something to give us patience. I have two children, one a little boy, three years old, and one little girl, one year old, and they are rude, too. I think boys, as a general thing, are more rowdy than girls. I am very sure it takes a woman with a good nature, mild temper and a heap of patience to raise children right. I believe there are too many women who allow their temper to get the best of them, when they should not, with children. As I am young and know but very little about raising children I will say no more.

I don't see how any farmer, or his wife,

could do without TEXAS FARM AND BANCH. There is so much help to the cook, as well as the farmer, and much to be learned in so many other things. Hoping to be able to send you some good and helpful recipes in the near future, and forever to be a reader of your valuable paper, will close by wishing you every success.

Melissa, Texas.

A RECIPE FOR HOP YEAST AND BREAD.

MRS. DORA DOOLEY.

I have been reading your valuable paper but a short time, but in it I have learned many valuable things.

"June Time" asks for a light bread recipe. I see a good many different recipes, but none for hop yeast. I will give you my way, which I think is the best I ever saw, also how to make the yeast:

Take a cake of good yeast, put it in a cup of warm water, not too hot; let it get soft and make a stiff batter; let it set over night. In the morning put some hops in a pan to boil; when the strength is drawn out, strain the water into the yeast. After it cools, make up a stiff batter with corn meal and let it rise; when it gets light, roll, out in cakes and spread upon a board to dry in the shade. To make the bread, set the yeast as before, in the morning, put your yeast in the tray, pour in as much water as you want, according to the yeast—milk, if you have it, is better—knead it thoroughly, set in a warm place to rise; when it is light, knead again—the more you knead it the better it will be; mould in loaves and put in pan and let it rise again; when light, bake in a moderately hot oven. This makes beautiful bread if managed right. It may seem to be lots of trouble, but it is not much after one gets used to it.

If I see this in print, and it does not look too bad, I may come again. As this is my first letter, I will close with the wish for success to the Household.

Dan, Texas.

A CAUTION AGAINST GOSSIP.

MRS. M. D. M'LAURE.

As I have my dinner on to cook, and everything is quiet, I will try to contribute a little to the dear Household:

Of all evils the human family is heir to, surely none is more sinful than gossip or idle talk, or repeating little hints, or worse, gives us chance to hear of our neighbor or acquaintance. How idly, yet often innocently, a light remark may be repeated, and yet as it is repeatedly told, magnified, until hearts are made to ache and homes often made unhappy. Men—even Christians—are not altogether free from this despicable practice, but women oftener indulge in the evil habit, not always with intent to injure the person spoken of, but simply to speak of this or that report just for pastime or to be entertaining. Dear Christian women, let us spend our time more profitably than in talking of the faults of our neighbors. Life is so short to spend a moments time that way. There are those detestable creatures you must often entertain, who hear your bit of news, and it is as a sweet morsel under their tongues; they take delight in spreading with their magnifying brush, and by the time two or three more of this clique have given a dash of color to the report, some thoughtless or innocent girl or woman, fair name has a tarnish that neither time nor tears can erase. If you see or hear of an imprudent step some young creature has made, go at once and privately caution or counsel her, but never repeat it before one of these evil minded tattlers.

Well, as my dinner is done, and I have somewhat relieved my mind, I will close by asking the sisters to send through our paper a recipe for blackberry jam.

Denton, Texas.

HOME REMEDIES.

Alpha Briggs: For bites and stings, apply spirits of hartshorn, if you have it; if not, make a poultice of fresh wood-ashes moistened with water.

Mrs. M.: To cure croup, mix one teaspoonful of powdered alum with two teaspoonfuls of sugar, and give in a teaspoonful doses until cured.

Mrs. M.: To cure frost-bites, add one ounce of hydrochloric acid to seven ounces of rain water and bathe the parts two or three times a day in the mixture.

Alpha Briggs: To cure diphtheria, place a live coal in the bowl of a common tobacco pipe, drop a little tar on it and draw the smoke into the mouth, discharging it through the nostrils.

C. H. Duryea, Norwich, N. Y.: To cure chapped hands, apply the following ointment: Melt one-fourth of a pound of mutton tallow, add one-half ounce each of gum camphor and glycerine, let it boil two minutes, stirring constantly, then put away to cool. Before going to bed, wash the hands thoroughly in hot water, rub on

the ointment and draw on a pair of old kid gloves.

Alpha Briggs: To cure corns let a small piece of potash remain in the open air until it slakes, then thicken to a paste with pulverized gum arabic. Pare the corn and apply the paste, leaving it on ten minutes; soak the corn in strong vinegar for a little while, then leave it alone and it will soon come out.

CAN YOU EXPLAIN THIS?

Farm Life.

Who can explain the feeling and experience of this mother, Mrs. C. M., of Akron, N. Y., who writes to Farm Life as follows:

To-day I feel like darning.
To-morrow I may like darning, darning.
To-day I want to visit.
To-morrow I may wish my visiting list was wiped out.

To-day I am sure that everything is arranged and managed for my best good.

To-morrow I am likely to be equally certain that I am the victim of fate, and that blind chances rule the universe.

To-day I am glad I am alive.
To-morrow I may wish I had never been born.

To-day I speak softly and tenderly to my fellow creatures.

To-morrow, if I speak at all, it will be with the voice of a shrew.

To-day I am perfectly happy, and know I shall never be anything else.
To-morrow finds me abjectly miserable and thoroughly convinced that I always shall be.

To-day my children are so lovely that I am sure that they must have had a heavenly origin.

To-morrow I am in considerable doubt about their celestial pedigree, have none at all concerning their ultimate destiny.

Do I learn anything from this experience?
No.

ARE THEY TRAINED?

Hendon in Woman's Chronicle.

We mean our boys! Do fathers and mothers begin the training of boys to honor womanhood early enough? At the present time all right thinking people are lamenting the steady growth of those evils in communities which undermine the family and blast the lives of so many young women. Until recently the advance of these evils has been met or tried to be in vain, by making an outcast of the girl but giving no attention to the man who is the cause of her sorrow. The writer believes that the time to begin this battle is during early boyhood, and that it should be fought out with the boy and the young man almost altogether, and the victory is comparatively easy if the matter is taken in hand soon enough. A little observation will show that every boy of seven or eight years of age has the God-given, unimpaired and beautiful, yet tender and sweet admiration for beautiful women and the faintest gallantry for sweet little girls. This has only to be kept burning with the same pure flame to make him the veriest knight that ever lived. Let him be taught the real truth that it is manly to love and protect girls and women, that the greatest and most successful men that ever lived have loved, honored and defended women, and that pure love for woman in the heart of a man burning with an intensity that a pure life gives makes a kingly man. Encourage the boy to cultivate this feeling of gentleness and admiration toward little girls, and then when he has reached the age of ten or twelve, impress upon him the sacred duty of caring for God's last best gift to man—woman. It will be seen at once the fearful responsibility that rests upon the boy who not only do not train the boy, but absolutely shame out of him, by making fun of him, the natural love he has for little girls, that is as near divine at that age as anything found on earth. Add to this the words so often heard, "She's only a girl," or "Girls are of no use," "Women are a necessary evil," etc., and it will be seen how that the seeds of disrespect for woman and utter lack of appreciation of the sacredness of their mission is lost sight of.

Away with all this and let the boy be led to feel that woman is a prize, a jewel, a precious embodiment of all we prize most in life, and see what kind of a man he will make. Who will begin the good work?

TREATMENT OF THE SICK.

Farmers Voice.

It is a frequent remark that diseases do not prove fatal as they once did. Smallpox, typhoid fever, scarlet fever, etc., now yield to treatment in the vast majority of cases. Of course there has been some progress made in what is called medical science, but the greatest step forward is

TOO FUNNY.

Western Plowman.

The Bible admits that there is a time to laugh, and this may be amended by the observation that there is a time to make others laugh—and a time when it isn't safe to do so. Unhappy is the poor wretch whose joke miscarries and falls with a dull, stinking thud. (How is it that thuds are always dull and sickening?)

The stupid man is unfortunate in his stupidity, but fortunate is the fact that he never has to suffer the penalty following ill-timed or unripe jokes. On this point hangs a tale:

A tiger once invited a goat to dinner. The goat was "tickled to death" at the notice of the noble beast, and wore his spiketail coat and link sleeve buttons in token of his appreciation.

"Can I help you to some of the venison steak?" the tiger asked the goat, very cordially.

The goat could not eat venison steak, but he dissembled, cleverly, and preserved a smiling exterior.

"My physician," he protested, positively forbids venison steak."

There was nothing else on the table, and the poor goat was obliged to sit idly by while the tiger devoured a hearty repast. But the goat was not going to deprive himself of the sweets of revenge. He accordingly pressed the tiger to dine with him the following evening. The invitation was accepted with thanks, and promptly on time the tiger thrust his hind legs under the goat's mahogany.

"Can I help you," sweetly inquired the host, "to some of this fricasseed tomato cans with brown paper sauce on?"

"No, thank you," rejoined the tiger, "my doctor forbids."

"So sorry," murmured the goat, in secret glee, "I fear you will have only an unsatisfactory meal."

"Oh, I shall do very well," protested the tiger.

Whereat he fell upon and devoured the goat himself.

Alas, exclaimed the latter with his dying breath, "I was too funny!"

CONTROL OF CORPORATIONS.

Farmer's Call.

The events of the Homestead have raised in our mind the question if the government supervision of corporations should not be strengthened and extended. A corporation has within it the possibilities of vast power, and this possibility frequently becomes a reality. In such cases the power is so great that it is a menace to peace and liberty; it is great enough to be made oppressive, and too great to be made so. On this account a partial government control of some corporations has been found necessary. Those operating railroads, street cars and water works are notable examples. Experience has proved that unless these corporations are limited in their action by municipal, state or national government, their exactions will become too burdensome, they will insist upon extortionate charges and unjust discriminations, and unless their powers are curbed by the strong arm of the law they become so arrogant that they have no regard for right or law, and are ready to defy officials when they can not buy them. Hence it is one of the most solidly established doctrines of government, not only in this country but elsewhere, that railroads and similar corporations should be in part controlled by the government.

But if this be true of these corporations, why should it not be true of the large, powerful corporations like that which operates the Homestead mills? The Homestead corporation employs four thousand men; it is backed by millions of capital; it has shown that it is able and ready to put its property in a state of siege and defend it with mercenary troops; by arbitrary, and perhaps unjust action, it can throw thousands out of employment, can incite riot and insurrection, can force the destruction of property, can grind down the wages of labor, and can seriously interfere with a large number of related industries. Is not this too much power for one man? Should not the Fricks as well as the Goulds be restrained by law?

The skilled workmen in the steel trade are munificently paid compared with the coal miners, yet last winter there was a general effort, and only too successful, to force down the wages of the coal miners, and starvation forced them to submit. In the mines of northeastern Illinois, operated by A. E. Stevenson and others, the suffering became intense and food was raised throughout the state for the miners, Quincy contributing two carloads. But in the end the coal barons triumphed. These corporations have a terrible power.

Only last winter more terrible scenes than those witnessed at Homestead were narrowly averted in Tennessee by the good sense of the Democratic governor. Brice, not content with the grinding down pro-

cess that was limited by the freedom of the men, hired the convicts from the state and proposed to work them in the mines. It was only by great good fortune that the convicts were not turned loose and that blood was not shed. And yet, although the wages of the miners were ground down, the coal combine, in which Brice and Wanamaker are shining lights, has steadily advanced the price of coal.

By these gigantic corporations both the laborer and consumer are robbed. The power of these corporations must be limited, the arrogant must be taught a lesson. The evil involves all classes and all political parties, and is a matter of too much concern to be treated solely as a subject for political capital. All parties and all classes should unite to secure an extension and tightening of government control of corporations.

PROFITS ON DRINK.

Springfield Union.

The National Bureau of Statistics shows that on the \$700,000,000 which annually passes into the tills of the retailers of intoxicating liquors in this country there is a profit of one hundred and thirty three and one-quarter per cent. If poor people had to pay such a tax as that on bread, there would be a rebellion. But when a man tosses off a glass of whiskey, and pays five cents for the drink and seven or eight cents to the barkeeper for the trouble of handing it to him, he generally thinks the barkeeper an awfully good fellow.

American Farmer: We may be satisfied that as mutton has become such a prominent factor in the meat food of the American people, that sheep husbandry will be largely increased, and that a good demand will be found for breeding stock, so that the farmers having surplus of ewes will find ready customers at fair living prices. The prospect is encouraging for this great industry. The consumption of fat lambs and good, young mutton is immense, and the demand is sure to keep up with the supply for some time to come.

BUTTER MAKERS

Should have and use an Imported Floating Thermometer. It costs 50 cents; and a Cream Tester, which costs 85 cents, both for 75 cents, or both the TEXAS FARM AND RANCH one year for \$1.50.

TEXAS FARM AND RANCH PUB. CO.
Dallas, Texas.

YOU WANT IT.

TEXAS FARM AND RANCH is pleased to announce that it has secured a first-class Hand Corn Sheller, weight fifteen pounds, price \$3; or Sheller and TEXAS FARM AND RANCH one year for \$3.25, purchaser to pay express charges from Dallas. Next to our Family Grist Mill (of which there are now over one thousand in use among our subscribers, and every one giving splendid satisfaction), we consider this the most useful premium we have ever offered. It will be sent free to any one sending us a club of six yearly subscribers at \$1 each.

"SOUTHERN LITERATURE," A MONTHLY MAGAZINE.

"Southern Literature" is designed to represent and encourage literary work in the South, publishing the work of Southern authors alone.

The present volume will contain stories, poems, sketches of old Southern life, and other interesting matter pertaining to the South, contributed by leading writers throughout the Southern States, two dollars per year. Send 50 cents for three months trial subscription. Liberal terms to agents. Write for sample copy. Address Atchison Bros., publishers, 280 Elm street, Dallas, Texas.

Hide and Wool Shipper: With good care and where sheep are kept in small flocks 95 per cent of the lambs dropped should be raised. If this is not done the chances are that there is something wrong with the shepherd. Generally speaking, 100 ewes are enough to keep in a single flock.

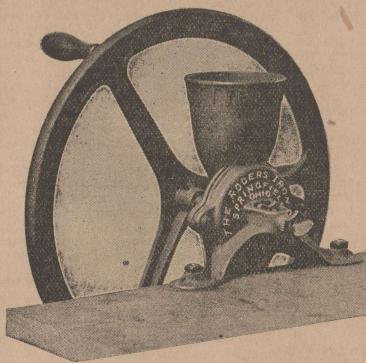
For Malaria, Liver Trouble, or Indigestion, use
BROWN'S IRON BITTERS

A Small THRESHING MACHINE of great capacity for Light Power. The Columbia threshing machine. EVERY FARMER can use. DO HIS OWN THRESHING, with less loss and more profit. Send for free literature. We make a full line of Horse Powers. BELLE CITY MFG. CO., Racine, Wis.

Grind Your Coffee

—ALSO—

Meal, Hominy, Graham Flour, Chicken Feed, Etc.
TEXAS FARM AND RANCH FAMILY GRIST MILL.



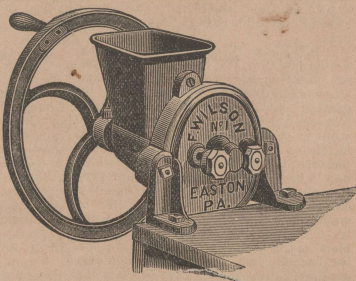
THIS MILL IS ESPECIALLY MADE FOR GRINDING GRAHAM FLOUR OR CORN MEAL FOR TABLE USE. IT CAN ALSO BE ADJUSTED FOR CRACKING THE GRAIN IF DESIRED.

It is a valuable implement to have in the kitchen, as you can have fresh Graham, corn meal and coffee, as you will grind a pound of coffee in two minutes. This mill is not to be compared to those made on the old style coffee mill principle. The grinding surfaces are of very hard material, especially made for this purpose, and are ground off perfectly true on emery wheels and will last for years. The shaft is made of steel, and will not bend or break.

No. 1 Poulter's Mill

This Mill is especially made for GRINDING DRY BONES, SHELLS, GRAIN and many other Substances for Poultry. WEIGHT 25 POUNDS.

No family is at home without one of these mills. Price, \$5 each. Purchaser pays the freight. We send them to TEXAS FARM AND RANCH Experimental Farm and can fully agree with all that is said in favor of these useful little machines. Either mill will be given as a premium for seven subscribers to TEXAS FARM AND RANCH at one dollar each.



MEN MAKE MISTAKES—FIGURES NEVER FAIL.

ROPP'S

COMMERCIAL CALCULATOR

Prevent Mistakes.

Relieve the Mind,

—SAVE—

Labor, Time and Money,

—AND—

Your Reckoning in the Twinkling of an Eye.



A READY CALCULATOR, BUSINESS ARITHMETIC and ACCOUNT-BOOK Combined.

This is unquestionably the most complete and convenient work on *Figures*, for PRACTICAL USE, ever published. It contains nearly all the *SHORT CUTS* known; Hundreds of *Simple Rules* and *Original Methods* for "Easy and Rapid Calculation," and Millions of *Accurate Answers* to Business Examples and to Practical Problems.

It *Sifts and Simplifies* the whole science of Arithmetic, retaining only the *Crucial*, in a nut-shell, as it were. Its Tables, Rules and Methods are all extremely simple, eminently useful, practical, and fully abreast with the age of steam and electricity.

Every one who prefers to take the *Simplest*, the *Shortest* and the *Easiest* way for doing his work, should possess a copy of this useful and convenient Pocket Manual. It will enable Everybody to become Proficient and Quick in Figures; and to many a young person, it may prove to be a stepping stone to a successful business career.

NO FARMER, MECHANIC OR BUSINESS MAN SHOULD BE WITHOUT IT, BECAUSE IT WILL SHOW AT A GLANCE, WITHOUT THE USE OF PENCIL, PEN OR PAPER,

The number of Bushels and pounds in a load of Wheat, Corn, Rye, Oats, or Barley, and the correct amount for same, at any price per bu.
The exact amount for a lot of Hogs or Cattle, from 1 lb. to a car load, at any price per Cwt.
The correct amount for a load of Hay, Straw, Coal or Coke, from 25 cents to \$20 per ton.
The exact value of a bale of Cotton, at any price per lb. Also the Toll for ginning it.
The correct amount of articles sold by the Bushel, Pound, Yard or Dozen, from 1/4c. to \$1.
The exact Wages for any time, at various rates per month, per week, and per day.
The equivalent of Wheat in Flour, when exchanging same, from 25 to 40 lbs. to the bu.
The only correct Rule and Table for estimating the exact contents of Logs of all sizes.
The exact contents of Lumber, Cisterns, Bins, Wagon-beds, Corn-cribs, Cord-wood, and Carpenters', Plasterers' and Brick-layers' work.

It is neatly printed on fine paper, and elegantly bound in "Pocket-book" form. The No. 1 binding contains a *sliding* and a *practical* "Account-book," which has *self-instructing* "Formulas" for recording Receipts, Expenditures, Purchases, Sales, etc. In fact, all about "Book-keeping" that is needed by the people. It will commend itself to every thoughtful and progressive mind, for its originality, simplicity and usefulness.

Hundreds of testimonials like the following have been received: "A new publication that must prove of incalculable benefit to the commercial world—unless the book itself can calculate its own worth—for it calculates almost everything."—Chicago Times

No. 2, Fine Artificial Leather, with Pocket, Silicate Slate and Account-Book sent postpaid to any address on receipt of 75 cents, or given free to any one sending us three subscribers at one dollar each.

Address TEXAS FARM AND RANCH, DALLAS, TEXAS.

STATE NEWS BOILED DOWN.

H. D. Sharp, a tenant on the farm of R. O. Wolf, near Ansonia, was thrown from a mule and dragged and kicked to death.

A. S. Hardwicke, of the Abilene Infantry, won the prize as the best drilled man at the interstate drill and encampment.

Forney is sending out heavy shipments of corn and hay. Forney hay has long been the standard article in the North Texas market.

Near Atlas, Greer county, Lark Foster had his right hand caught in a thresher and torn off. The arm was amputated above the elbow.

On Wednesday a shipment of 2700 pounds of sea turtles were shipped from Galveston to New York. The largest reptile weighed 400 pounds.

In the trial of G. F. Bouton, at Dallas, for the murder of one Tiche, the accused was found guilty of murder in the first degree, with a life sentence.

Wm. Connell, while working a hay press near Waco, got his foot caught in the press and received injuries on account of which amputation was necessary.

Seven Chinamen who were escaping from Mexico to Texas to keep from starving, were arrested under the brutal American exclusion law, and jailed at San Antonio.

The Progress says that the corn crop of Jackson county will average from thirty to forty bushels per acre, and that cotton is doing remarkably well and promises a full bale per acre.

Recent soundings at Velasco give seventeen feet as the depth at the shallowest place, between twenty-four feet of water in the river and twenty-three feet at the Gulf end of the jetties.

The large castor bean crop near Blum is said to have been injured by too much rain. The beans are ripening and the crop though not full is expected to prove as profitable at least as cotton.

Advices from Richardson and surrounding country state that the people are much annoyed by the continued noise of the numerous threshers. The crops are turning out better than was expected.

The Itasca Mail says that large quantities of hay are being marketed and shipped at that place. Twenty wagon loads a day being a common thing, and one day forty loads were weighed in by one man.

Crops are so heavy about Van Alstyne that farmers do not know what to do with them. They must reduce their acreage or increase the capacity of their cribs and granaries. This complaint is general.

A man named Albin Regnier, procured a pistol and deliberately shot and killed his grand daughter while on her knees begging for her life. The provocation claimed was moral indiscretion on the part of the girl.

The contract for the erection of the roller mill building at Decatur has been awarded. It is to be a 200 barrel affair and to be ready for business by October 1st. It will also have an elevator of 20,000 bushels capacity.

There was a cold show at Abilene on the 16th, and many fine specimens were exhibited. Farmers from the country round about were in attendance, looking jolly and saying that the "Abilene Country" is all right for crops.

The Dodd City Spectator says that farmers in that section are preparing to sow a large wheat crop this fall. This is as it should be. A crop of wheat that will make fifteen bushels per acre at the usual prices will beat a half bale per acre cotton crop.

Owing to the removal of the duty on grain by Mexico, large quantities of corn is flowing into that country. The Ballinger Leader on this subject says: "Thus another very important market is opened to swallow up the immense grain crop that is being raised in Texas, and at prices it is hoped, reasonably fair."

Ernest Henkel, a young man of Galveston, while showing to some admiring friends his skill with a revolver, pointed it at his own head and drew back the hammer a time or two, and just as he exclaimed, "see that," his thumb slipped, the pistol fired and young Henkel was dead in three minutes. Fools flourish perennial.

On Friday of last week the Dalton gang concluded to patronize the northbound Missouri, Kansas and Texas train and notified the company of the entertainment, so they could be represented by sheriffs and deputy marshals. The robbery took place at Adair, I. T., and included the mail, express, passengers and officers. It was businesslike throughout.

The Terrell Register states that country produce was selling at that place last

week as follows: Oats at 23 to 25 cents a bushel, corn 35, Irish potatoes 40, apples 75 cents to \$1, peaches 75 cents, hay \$7 to \$8 a ton, eggs 8 cents a dozen, butter 12 1/2 cents a pound, green corn 8 cents a dozen, frying chickens \$1.50 a dozen, cabbage 2 cents a pound, watermelons 10 to 25 cents each.

LOCAL AND GENERAL MARKET REPORTS.

[Carefully corrected from the most reliable sources up to Friday of each week.]

Cotton Market.

Galveston, July 21.—Spot cotton closed steady.

Low ordinary	5 1/2
Ordinary	5 3/4
Good ordinary	6
Low middling	6 1/4
Middling	6 3/4
Middling fair	7

Receipts and Exports at All United States Ports.

Receipts thus far this week	7,080
Receipts the same time last year	5,985
Receipts this day	473
Receipts this day last year	1,395
Total receipts thus far this season	7,060,414
Total receipts thus far last season	6,870,739
Difference	189,675
Exports to Great Britain	7,383
Exports to France	75
Exports to continent	1,591

Stocks at All United States Ports.

Stocks this day	48,075
Stocks this day last year	27,698

Dallas Live Stock.

Common to fair steers	\$1 50 @ 2 50
Choice fat cows	1 50 @ 2 00
Common to fair cows	1 00 @ 1 50
Choice veal	3 00
Common to fair veal	2 00 @ 2 50
Choice fat yearlings, per head	8 00
Choice milch cows, per head	15 00 @ 40 00
Bulls	7 00 @ 1 00
Choice fat hogs	3 75 @ 4 00
Common to fair hogs	3 55 @ 4 50
Choice fat muttons	1 00

Produce.

Potatoes—40@50¢ per bushel.

Onions—2¢ per lb.

Beans—Navy, 4@4 1/4¢; Lima, 4@4 1/4¢; Texas butter, 4¢.

Cabbage—Solid heads, 2 1/2 @ 3¢.

Butter—Good country, 18@20¢; common, 12¢; fancy creamery, 22@24¢; Kansas dairy, 20@22¢.

Grain and Feed-stuffs.

Quotations below are on grain from store.

Corn—Wholesale, 53¢ per bushel in sack; retail, 55¢; in ear 40¢ per bushel.

Barley—Sask., 20¢ per bushel in car lots; 35¢ single bushel.

Wheat—55¢ per 100 lb in car lots; retail, 80¢ per 100.

Cotton seed—Per bushel, 35¢ retail; wholesale, 12 1/2¢.

Hay—Loose, local, \$6 00 @ \$8 00; best prairie hay, bal-d, \$9 00 per ton; in carload lots, c. o. b., \$9 00; small bales, best, 45¢; best Forney, \$9 00 per ton; \$9 50 in carload lots.

Wheat screenings—Chicken feed, 1 1/2 @ 1 3/4 per 100.

Amber cane seed—\$1.00 per bushel.

Millet—Per bushel, \$1.15.

Alfalfa seed—\$7 00 per bushel.

Wheat—Buyers are paying: No. 2 to No. 3, 72¢ f. o. b. at Dallas.

Poultry and Eggs.

Prices paid by dealers—Old hens, \$3 50 per doz.; small, \$1 00; spring chickens, \$4 00; large, \$3 00; roosters, old, \$3 00; turkey hens, 75¢; turkey gobblers, spring, 85¢; turkey gobblers, old, \$1 50; Eggs, 16¢ per doz.

Retailers get—Old hens, \$3 35 per doz.; spring chickens, small, \$3 25; spring chickens, large, \$3 00; roosters, old, \$1 50.

Hides and Wool.

Hides—Buyers are paying: Dry flint, heavy, 65¢; light, 5¢; dry salt, 50¢; green salt, 30¢; butcher's green, 2¢.

Wool—Light medium, 20¢; low medium, 17¢ @ 18¢; fine, 15¢ @ 16¢.

Horns, hoofs and bones—\$6 00 per ton, delivered.

ODDITIES ABOUT RATS.

American Naturalist.

Rats are natives of Asia and their raids westward belong to comparatively modern times. From the fact that the rat is not mentioned by any of the early Europeans it is surmised that it was unknown west of the Ganges in ancient times. The black rat first came from Asia to Europe in the sixteenth century—along with the plague—and was first known as the "graveyard specter," because he preyed on the flesh of those who died during that awful visitation. He was also known as the "plague cat," because the common house cat had a similar habit of feasting on the dead. The black rat was the common house rat until the brown or gray rat made his appearance in 1775. The gray rat came to Europe from India, by way of Russia, and is now popularly known as the Norway rat, from a mistaken tradition that it came from Norway to England and from the latter country to America.

THE TEXAS STATE FAIR AND DALLAS EXPOSITION.

Opens October 17 and Continues Till October 30, Inclusive.

I will give \$2 for the best 5 ears of white corn, \$2 for best 5 ears of yellow corn, or unwhit corn; 50 cents for best 2 ears of sweet corn; \$2 for the corn that attracts the most people; \$2 for best quart of blackberries; \$2 for best quart of dewberries; \$2 for best quart of gooseberries, canned. Exhibitor can have a sample of best in his or her line exhibit. \$5 for best

quart of honey, and \$5 for best gallon of green corn, canned, and best recipe for canning green corn. Also those who exhibit ripe corn in the ear can have a few grains of the best corn in that exhibit the day before the close of the Fair. Every visitor at the Texas State Fair has a right to exhibit at any time while the Fair is in progress. Each visitor can compete for these premiums. Those who want to take a half gallon of wheat or oats, heads or threshed, or any other field or garden produce for me, may have a few grains of the best in that line of exhibit. The person who exhibits the best wheat, oats or honey food seed can have a few grains of the best seed from each farm exhibit.

If any person has the Davy Jordan yellow corn, unmixd with other corn, I will give \$2 for the best 50 ears of it. I will keep all the remnants of these exhibits. Each exhibitor should have his or her address on their exhibits, so I can send them their premiums and a sample of best seed. If any exhibitors wish to choose their own seed at the Fair, they can do so.

L. W. MARTIN, Cedar Hill, Texas.

Stephenville Empire: Farmers of Erath should begin to make earnest efforts to live at home. This is a fine corn country, and there is no business sense in having our smoke houses in Kansas and Missouri. Every pound of bacon and lard bought from abroad lessens the amount of money at home. Raise your own bacon and lard, and come to sell to new comers, or to trade upon.

Amarillo Champion: In one month time several hundred thousand acres of school land will be open to settlement in Potter county. It lies north, northeast and northwest of Amarillo and many excellent sections of good land within six to twelve miles of town can then be filed upon. This land we regard for all purposes as equal, if not superior, to any in the Panhandle for all-purpose farming and stock raising. Come on at once and take your choice of sections that will be worth \$10 per acre in two years time. Now you have only to pay two or three dollars per acre. Now is the accepted time to make a home in the great Panhandle country. Water is abundant in the streams, and on the dry sections it can be obtained at from twenty to fifty feet.

Again the Champion says, now is the time to get in on the ground floor.

THE BOERNE POST.

The only paper published in Kendall county—a county populated by a thrifty and intelligent class of farmers, and famed for its hardy breed of horses and for its agricultural products. Famed also for its climatic healthfulness, and yearly visited by countless numbers from all parts of the Union. Hence The Post is peculiarly situated as an advertising medium.

JOHN GUTHRIE, Boerne, Texas.

NOITNETTA STACARTTA SIHT.

The head line of this advertisement is not printed in a foreign language, but has simply been transposed, and is read from right to left. It has been set this way for the purpose of attracting your attention. Our object in attracting your attention was this: If this were your ad. and it was placed in the Weimar Mercury, it would be read by over 2000 people every week. The moral is apparent. The subscription price of the p. per is \$1 50 per annum. Address, THE MERCURY, Weimar, Texas.

Big Advance in Cotton. The Cotton Problem Solved.

The advancement has opened the eyes of people throughout the cotton world. We poor farmers have needed something besides lint cotton, and now we have it. And it is the FERGUSON LINTLESS COTTON—All Seed, no Lint. It yields from 20 to 40 bushels of seed per acre, and gives one-third more oil than seed from lint cotton. Positively no Humbug. Price 30¢ per package by mail. References given. Seed shipped the last of August. R. H. CAMPBELL, Madison, Morgan Co., Georgia.

TEXAS RAISED

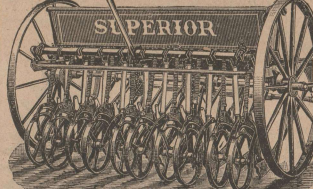
Strawberry Plants

—FOR—

TEXAS HOMES.

Send me your orders for the genuine EARLY MICHIE STRAWBERRY PLANTS. Orders booked for September delivery, by the 100, 1,000 or 10,000. Prices reasonable. Terms cash. C. E. TODD, Alvin, Tex.

THE SUPERIOR STEEL FRAME GRAIN DRILL

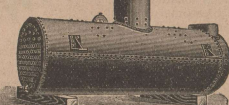


has always kept far ahead of all competitors and now contains more modern improvements than any drill made. It is supplied with our new Patent Double Distributor which has two channels for sowing Grain, the smaller one for Wheat, Barley, Rye, Millet and all other small seeds, and the large channel is made especially for sowing Texas Red Oats, which no other drill will distribute successfully. We guarantee the SUPERIOR to sow oats in any desired quantity and deliver the Grain in uniform, unbroken stream, and when finishing at end of season, not a single grain is left in the hopper to sprout and cause breakage. The SUPERIOR has Steel Frame, Steel Wheels, Agitator in hopper for oats, and many other improvements not found in any other. Made with 8, 10, 12, 14 and 20 HOES or SHOES. Examine before buying, and if not handled by your dealer, write us for prices and terms.

PARLIN & ORENDORFF CO., Sole Agents, DALLAS, TEXAS.

ENGINES AND BOILERS.

Automatic, Station Engines, Single or Steel or Flanged



ary and Portable Sectional Sheet, Steel Boilers.

High-Class Goods at

Reasonable Prices!

Descriptive catalogue, terms, etc., by addressing

AMES IRON WORKS,

FACTORY: OSWEGO, N. Y.

DALLAS, TEXAS.



MADE BY THE CHICAGO BRADLEY & CO. SURPRISE, ILL.

GENUINE OIL-TEMPERED STEEL TEETH.

STEEL AXLES,

DOUBLE STEEL SEAT-RAISER.

WOOD OR STEEL WHEELS.

Buy the Best and Save Money.

ASK YOUR DEALER FOR CIRCULAR; if he has none send to us or to our branches for it.

DAVID BRADLEY & CO., MINNEAPOLIS, MINN.

DAVID BRADLEY MFG. CO., CHICAGO, ILLINOIS.

KEATING IMP. & MACHINE CO., State Agents, DALLAS, TEX.

THE SULKER LEW

We have made exhaustive tests of several valuable improvements on the TRICYCLE during the past year, and they prove to be **valuable additions** to the **TRICYCLE**. These improvements have not been made at the **farmer's expense**. We spent thousands of dollars in making out our improvements, (many makers of plows do it at your expense, detriment and loss.) We are therefore able to place before our patrons goods of the highest quality, which can be purchased with perfect safety. Space forbids giving a description of the TRICYCLE here. Our circulars, which are mailed free to any address, give full description and testimonials. We will guarantee for durability, lightness of draft, ease of management and perfect work in Texas, New Mexico, Bog Wallow Land and the TRICYCLE in 12' and 14' and guaranteed as represented or money will be refunded.

Ask Harrows, Steel Harrows, Stalk Cutters, for the world-renowned Superior Grain Drill, Spring Scales, Sweep Rakes, Mowing Mills, Saws, Hacks, Hain, Cooper and Olds Wagons.

SEND FOR CO. FREE. DALLAS, TEX.

CORRESPONDENCE

ON THE WING.

RICHARDSON, TEXAS
Editor Texas Farm and Ranch.

Looking back over the past, counting the ups and downs of life, and realizing the fact that most of my life has been downs, I sometimes feel a little blue, and feel just like that "if I had this panorama to pass through again I would always keep the bright side of life's picture before me. Life is too sweet and flitting to waste or shadow it by turning the dark side of the picture and climbing mountains that we never reach.

The fantastic, superficial, dudish, giggling part of this past age has worked itself up to believe that farm life is only one degree above prison life. Well, there are two classes of men that I never agree with; one is a self-conceited sap head, and the other is the man who is so much the superior of the rest of the world that he is not of Adam's race. And then there is another poor fellow, whom I reckon God made, that always excites my sympathy, and that is the fellow who cannot make a good, decent living farming. But the man whom I delight to honor and call brother, is the man about whom novelists never write and muses seldom sing—the bravest and truest man in this world—the good, honest farmer, full of pluck, push and common sense, who always succeeds, and cares but little whether the world is flat or round, so as he gets plenty of rain and sunshine.

Yesterday, while in the city of Dallas, I met Mr. G. W. Potter, whom I have known from his childhood, and who only a few years ago was a poor orphan boy with a widowed mother and his little orphan sisters to look after, with the old-time three "outs" and one "in"—"Out of money, out of clothes, in debt and out of doors." To-day he is numbered among the thrifty and independent farmers of this country, who are enjoying peace and plenty. I also met my old friend, Smith Pierce, who began here seven years ago with nothing but a good wife and little children. He has, by industry and the right kind of economy, bought and paid for ninety-nine and one half acres of as fine black land as is in the State, which is to day worth four thousand dollars. He is full of push and as happy as a small boy with a new hat.

Neither of these, when asked to subscribe for TEXAS FARM AND RANCH, complained of hard times, or said he had more papers than he could read, but handed the agent the dollar with a pleasant smile, and went off feeling better, and will soon be wiser men.

There are hundreds of men in this fine black land country, whom I could name, who came here a few years ago poor, who are to day owners of magnificent farms, finely improved, which they have "gained by honest toil." Now, the finale of the whole matter is just about this: If these fellows whose pants are patched where a man's pants ought not to be, and who spend most of the wet days and Saturdays, and many other days that are neither wet nor Saturdays, loafing around the street corners and saloons of their nearest towns, swearing that "farming dont pay," would spend some of that time visiting Farmers Institutes and listening to live farmers talk, or would visit and talk with good, thrifty farmers, they would I believe come to the conclusion that somebody has told a "Fourth of Ju—lie." The more I swing around the circle the more I see that the one thing needful with thousands of our brother farmers is to read good farm journals, attend Farmers Institutes, gain all the information possible concerning their own business, and to learn, above everything else, the great important lesson, that no one man knows all there is to be learned about farming. How long, oh, brother farmers, will it be till we wake up, get a move on us, and get in the front rank of civilization, where we of right should be?

Would you like to hold a Farmers Institute in your community this summer or fall? Let us know through TEXAS FARM AND RANCH and we will take great pleasure in giving all the assistance possible.

UNCLE SNOOT.

SYRUP MAKING.

FOARD COUNTY, TEXAS.
Editor Texas Farm and Ranch:

We take your paper and are much pleased with it, but have not seen anything from our new county, and send Mr. W. A. Jones' inquiry about sorghum syrup, and having considerable experience, I thought I would write on syrup making: I have made syrup in three different States and am at it here. I find the climate has a great deal to do with it; also the soil. In Tennessee we had a white, tough land in the bottoms that made the

clearest and best syrup from all kinds of cane. In this country I have only tried red and sandy land and made syrup that sold readily at 40 cents and retailed at 50 cents per gallon. The time of year you make it has much to do with it here. I much prefer the fall crop, for they I can work it on this plan, and I can do it in summer:

I want my pan twice the capacity of my mill. I make it myself for a 2 horse mill. I make pan 8 feet long, 4 feet wide and 8 inches deep, divided into four parts, about 22 inches wide by 4 feet long. I don't want any gates, but dip my juice in, transferring altogether. It won't do to let it mix, for some boiled and some green never does well. People contend that it does, but I know better. You might as well tell me that to put a turnip in a pot and boil it half done, and then put in a raw one, that they would both get done at the same time. I build my furnace as shown in the diagram.

Now, you see my end space next the chimney, is larger than the others: I finish in that. Now, if your nearly finished syrup gets too hot in the middle of the pan, it will immediately go to the end, and so won't burn. I see the writer in TEXAS FARM AND RANCH says, keep the juice going in all the time. That is not my experience after twenty years at the business. I run my mill from morning till noon, and then fill pan 1 full of juice, pan 2 two-thirds full, pan 3 one-half full, with some clear water in pan 4; then I fire up with a hot fire, and 3 will boil first; then I transfer, after skimming, to 4; 2 to 3 and 1 to 2, and fill 1 full again, and so on till night. The juice standing four to six hours makes it boil quicker and skim easier.

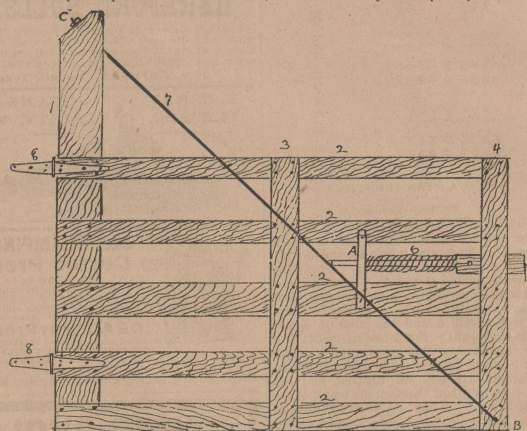
J. J. VERNON.

FARM GATES.

BELTON, TEXAS.

Editor Texas Farm and Ranch:

I have traveled over much of Texas, and opened thousands of gates, and I have never seen one that is correctly made. It is impossible to make a gate eight or ten feet wide and brace it so it will not sag down and in a few years drag the ground, and then soon rock to pieces. My gate is of the simplest possible construction



Any man with saw and hammer can make it in an hour. Cost of lumber seventy-five cents, hinges twenty-five cents, wire nails ten cents.

I once made a gate like the above illustration and fifteen years afterward I saw it again, and it had not sagged one-half an inch. It was painted with two good coats of paint before it was nailed together. My gate is made as follows:

The upright piece next to hinge is 2x8 inches and eight feet long. The slats are 1x6 or 1x4, ordinary fencing lumber. The two pieces in the middle and at the latch end of the gate is the same size as the slats, one nailed on each side. The slats must be securely nailed to the upright with eight penny wire nails, firmly clinched, the gate squared on the ground, one of the cross pieces in the middle and latch end of the gate must be securely nailed and clinched, and the gate turned over and the cross pieces at middle and end on opposite side from those first nailed on. They

must be nailed through with ten penny nails, and clinched. Instead of a worthless brace I use a three eighths inch iron rod, four inches of the bottom of it turned at right angles and pass through the bottom of the gate at the latch end, with a nut on opposite side. This rod then goes diagonally up to the top of the hinge end of the gate, passes through the upper end of this 2x8 piece, and then with a good washer and nut at the top. Screw this up until the gate stands one inch above a square, for the rod will press into the timber a little at each end, and will sag a little for the first few months, but will never get below a square until the gate rots. Where this rod passes a slat, staple it firmly to the slat. This can be done with the wire nails which adds to the stiffness of the gate.

For a latch I will show you a simple spring latch of my own invention. It is made of hard timber, flat one-fourth of its length and round the balance of it. A pin passes through it just back of the cross bar through which it passes. This acts as a stop to the latch, also for a handle to open it. The spring is made by tightly coiling a brass wire over a round stick of proper size, this will make at a mere nominal cost, a spiral spring that will last a life time.

The gate posts must be made rigid. A sill accurately fitted between the posts just below the surface of the ground will hold the posts in that direction. If the land is black the hole around the post for at least a foot deep and a foot from the post must be macadamized with rock and gravel to hold, and even then a side brace may be necessary, and this can be made so as to answer as a stop for the gate.

Instead of the latch above described a strip of plank 1x3, six feet long may be used as a sliding latch. Instead of the iron rod a strong wire or a 1x3 strip may be used as a very poor substitute.

If the gate is painted before putting together and afterwards painted every two years, it will last a life time.

H. B. HILLYER.

WHO WAS THE LOSER?

TYLER, TEXAS.

In your paper of July 9th, I noticed an article headed "Cruelty to Animals" by a western stockman, having reference to the present merciless means of shipping hogs.

Your paper stated that on the second Monday in June, (or 13th day) owing to hot weather, 2,000 hogs were taken dead from the cars that arrived at the Chicago stock yards.

What an enormous loss! Did I hear some friend say that perhaps there was

of watermelons, are selling cheap. Fruit crop rather short, owing to the sleet in March. Needing rain; have had none in this immediate neighborhood for five or six weeks. Market gardeners are doing fairly well.

This country is gradually becoming infested with squirrels, furnishing good sport for the boys.

Some of our city people have got a little common sense, and are enjoying the summer at the beautiful lakes and fishing resorts of Smith county. That beats spending a lot of money in the North or West. I have something more to write in the near future. CLAUDE A. SHUPORD.

CARE OF GRAIN.

BIRDVILLE, TEXAS

Editor Texas Farm and Ranch.

"It seems to me," said a well-to-do and rather intelligent and progressive farmer the other day as he sat gloomily in the shade of his comfortable dwelling, waiting for his oats to get dry enough to stack, "that every time we have a good crop year the rains come and destroy our grain after it is cut, or damage it so that it is hardly marketable. My oats are already badly damaged, and I am liable to lose many bushels of wheat." "I have thought of that," replied the missionary of TEXAS FARM AND RANCH, "and it strikes me that human ingenuity, which has made old ocean's bosom a pleasure ground for people in floating palaces, has harnessed the lightning to any kind of vehicle or machine desired, and converted all the elements of earth, ocean or space into stores for man's service, ought to be able to devise some means whereby a farmer, after he has toiled and sweated to produce and cut his grain, shall be able to take care of it and preserve it in proper shape for the market."

"It ought, it ought," hastily ejaculated the down-hearted farmer, "and I have been thinking about how it can be done." And being urged to give his plans for preventing thousands and thousands of bushels of grain from rotting or being damaged too badly to find a profitable market, as is usually the case after every heavy crop year, he continued: "Harvest time, when the crops are heavy, is a very busy season, and every farmer is anxious to get his grain out and on the market early as possible. We put our reapers to work on extra time and hire a few men to throw together the bundles in shocks, containing anywhere from ten to twenty-five bundles each, without any protection whatever from the weather, trusting in the good Lord to keep the windows of the heavens closed and the weather clear until a thresher can be had, when a dozen wagons are put to work and the grain threshed from the shock. But rainy seasons and good crop years go together, and along towards the latter part of June, during the first part of July, just when we need fair weather the most, we are almost certain to have rains, and while I am a pious man, I tell you it won't do to trust too much in the good Lord holding up the rains at this time of year, and the consequences are that the wheat can't be threshed and rot in the shock, or is so damaged that when it is threshed it does not sell for enough to pay the cost of production, and then our hearts 'get bad,' as the Indians say, and we cuss our ill luck."

"Well, now for your remedy," put in the TEXAS FARM AND RANCH man.

"Well," here's what I'm going to do. I am going to have my grain cut at the right time, and if it does require a few extra hands, I am going to have it put up in small shocks, and I am going to have each and every one of these shocks well and securely 'capped,' even if the caps have to be tied on with binding twine, which I think will be the safest way, as the caps will not then blow off. Then if it rains, my grain will stand in the field uninjured until fair weather does come, and whether it rains or not, when my grain is dry enough I will have it stacked by a man who understands his business, and then, rain or shine, I shall be independent—Independent of the weather, independent of the crowding orders which render it impossible for the separators to do the work as rapidly as required of them, independent of the difficulty of hiring a dozen teams and wagons to haul the grain from the shocks to the machine, and independent of having to thresh just when somebody else allows me to do so. I can thresh in August or wait till September, just as I like, but when I do thresh, I will have grain that has gone through a sweat in the shock, which will not heat in the bins, and which will bring several cents more per bushel than that which was threshed from the shock, and I shall have done my work with less worry and less cost than I have this year and not have on hands the prospects, as I now have, of losing several hundred dollars worth of grain."

"Say," said the old gentleman as I was

HIGHLY AMUSING.

Youth's Companion.

Practical jokes are never quite so thoroughly satisfactory as when they react on the perpetrator. A gentleman who is noted for his pleasantry, attempted the other day to have a little amusement at the expense of his wife. He was passing along the street, when a toy in the window attracted his attention. The more he examined it the more he became convinced that he had great possibilities in the way of mystifying his friends and thus entertaining himself. He purchased one and started for home in great glee.

The toy was a little contrivance with two rollers and a crank, like a clothes-wringer. It was very appropriately called a magic money-maker, for if a piece of paper were put between the rollers and the crank turned, there would come out on the other side a new crisp bill—one dollar, five dollars, ten dollars; in short, a bill of any denomination within the limit of the operator's financial condition.

The secret was simple enough. Both rollers were hollow, and into one several bills were carefully rolled. The turning of the crank rolled the piece of paper into one cylinder, and at the same time one of the enclosed bills was rolled out of the other. The secret was supposed to be known only to the operator.

To insert a plain piece of white or brown paper between the rollers and take out of the other side a ten-dollar bill was of course a mysterious and interesting performance, and the gentleman promised himself considerable amusement.

He secured several new ten-dollar bills, and after practicing the trick once or twice went home.

"What have you got there," asked his wife. "Sh—," he exclaimed, raising his hands warningly. "Don't say a word; I'll tell you all about it later. This is a new invention I've got hold of, and our fortune is made."

He put the little machine carefully on the table, asked her to cut him a piece of paper the size of a dollar bill, which she did.

"Now," he said, "I suppose you would like a nice crisp ten-dollar bill, wouldn't you?"

"Why," she replied, touched by such spontaneous and unusual generosity, "I dare say I could find plenty of uses for a new ten-dollar bill, or even an old one."

"Very well, my dear, you shall have one." And starting between the rollers the piece of paper she had cut him he side rolled a beautiful crisp greenback, which he passed to her saying, "I think you will concede, my dear, that it is the quickest way of making money you ever saw."

She stood for a moment speechless with astonishment. Then she exclaimed: "Why, what in the world are you doing? Don't you know you'll be arrested for counterfeiting. Stop it and throw that thing away."

"I dare say," continued her husband, outwardly calm, but inwardly shaken with laughter, "you could use another ten. You can have it just as well as not. It only takes a minute." And cutting another piece from the newspaper he rolled it in, and rolled out a second bill. "I tell you, George," exclaimed the now thoroughly excited woman, "you shall not do this. Somebody'll certainly find it out, and you'll be arrested. I'll destroy these counterfeits just as fast as you make them!" And before her humorous husband knew what she was doing, she caught up the two bills and tore them into twenty pieces.

The unfortunate joker spent his leisure time for the next week in pasting the fragments together.

HE WOULDN'T TAKE PAY.

New York Herald.

Two men stood on a New York street corner chatting, one having his boots blacked the while, the other trying to keep a cigar burning. The latter had but one leg. When the ragged little bootblack had got through with the one and collected a nickel, he tapped his box smartly with his brush and looked up at the one-legged man:

"Shine 'em up, sir?"

"Why, I've only got one foot, young chap."

"Shine it up, sir?"

"Well, I don't know—you charge a nickel for two feet, I suppose you'll do mine for 2 1/2 cents, eh?"

"Yes," said the boy, "if you'll furnish the change."

He went industriously to work polishing up the lonely foot, while the two men continued joking. The one-legged man was telling the other fellow about leaving his leg on the slope of Lookout Mountain. He

had pulled out a 10-cent piece mechanically, as he talked, and the boy was a long time on the job. When the lad had put an extra fine polish on the broad-bottomed shoe, the one-legged customer cheerfully tendered the dime.

"I always pay double," said he, laughing patronizingly, "on account of the wear and tear on the boy's feelings."

"An' I allus dont take nothin'," retorted the dirty little fellow, shouldering his box with the conventional swing. "My grandpa left a leg in the war, an' I dont take nothin' for a one leg job, see?—on account of the wear and tear on me feelings—see?" he added slyly.

And he swaggered away with an air of independence that struck the two men speechless with amazement.

THE RUNAWAYS.

Margaret Wilson in American Agriculturist.

Winnie and Marion were running away. They had good reason they thought. Had they not been called in from an archery match with the boys to mind baby? And then, had they not been scolded for being cross to him? A few muttered whisperings while the little fellow was falling asleep had decided it all.

"I wish we had thought to put some crackers in our pockets before we started," said Marion, before they were out of sight of the house. "I begin to feel hungry already."

"O, we'll find berries and things in the woods," said Winnie brightly. The day was beautiful and she began to think running away good fun.

"Berries? Winnie!" queried Marion, the doubter. "I looked all over the strawberry patch yesterday, and not one was ripe. And what other things are there in the woods that are good to eat?"

"Well, there's—Winnie had to pause; "There's birch bark for one thing. Chewing-birch, you know."

"Oh, yes, so there is," assented Marion, reassured. She was fond of chewing-birch.

"And sour sorrel," Winnie proceeded, "and grape tendrils and young raspberry shoots. Why, if it comes to the worst, we needn't starve where there are dandelion leaves."

They had reached the foot of the hill now, and a swampy piece of ground had to be crossed. This gave an opportunity for what they called "navigating," a pastime of which they were fond, but one which always resulted in wet feet. A little shriek soon announced that in jumping from one island to another—the small clumps of grass were "islands"—the three young navigators—Marion had miscalculated her distance and was standing ankle deep in water. Winnie had to change her course and go to the rescue, and in reaching out to help Marion to dry land she also got one foot into the water. Such adventures made the delight and excitement of navigating. In the pasture was a high and dry ridge of land, and when they got this far they sat down, took off their boots and stockings and spread them out in the sun to dry.

"It seems a long time since we left home," said Marion. "I suppose it's about lunch time."

"They won't be thinking much of lunch," said Winnie, a note of triumph in her voice. "They will be searching everywhere for us by this time, and they will almost have given up hope of ever seeing us again. They'll wish they had been better to us."

"I shouldn't wonder if Jack was sorry for calling me a crybaby, yesterday," reflected Marion.

"I wish I had written a will," said Winnie, turning the stockings, "and left my Robinson Crusoe to Maurice. He always said that Aunt Eleanor should have given it to him, because it wasn't a book for a girl."

"Are they nearly dry yet?" asked Marion. "I'd like to go on and find some chewing-birch. I wish we had put some crackers in our pockets. I'll never run away again without something to eat."

Winnie pityingly, "Well, these are as dry and warm as toast, now. Put them on and we'll go and look for berries. I know the earliest spot in the whole place for them. I never told anyone before, because I like to get the first one for mamma myself. You shall have all that we find, so cheer up."

Boots and stockings on, Winnie led the way to a little knoll around an old stump. Here a diligent search began, and for ten minutes not a word was said.

"I'm afraid there are none," Marion said at last, but next minute gave a little cry of delight. "O, here's a great, great big one, as red as fire. Look, Winnie! Let us hurry and bring it to mamma."

"What a beauty!" exclaimed Winnie. "Come on."

The first strawberry was the great event

of each season, and in the excitement of the moment they forgot that it was not to seek it they had started out that morning. They were half way across the swamp before their original purpose came to mind again. Winnie was selecting an island for her next jump when Marion called out, "But, Winnie, we didn't mean to go back at all."

She stood still. "Neither we did. Now that we are this far, though, perhaps we had better go the rest of the way."

"Yes, for how would mamma get the first strawberry if we didn't bring it to her?"

When they came near the house, a feeling of guilt caused their steps to lag. They watched anxiously for the first signs of the disturbance caused by their absence. Surely, they said that couldn't be Maurice and Jack still at their bows and arrows. Winnie seized Marion's hand firmly and hurried her into the house. Their mother met them in the hall with her usual smile. "Have you been out for a walk?" she asked. Marion ran and kissed her.

"Here, mamma; it's for you," she said, opening her hand, and disclosing a crushed strawberry. "The first one!"

"Would you like me to mind baby for you?" Winnie asked, holding out her arms for him.

"No, dear. Lunch is ready. There is the bell."

Marion gave a rapturous sigh. "I'm so glad we came back," she said softly to Winnie.

A CLOSE QUESTIONER.

Farmers' Home Weekly.

"Papa," said Willie, as he and his father roamed over the fields together, "I like to go walking with you. You know so much about everything, don't you?"

"Yes, Willie, I know a great deal," returned Mr. Bronson, complacently. "And it is a great pleasure to me, my son, to be able to impart to you the information that I have acquired."

Willie looked as if he didn't exactly know what "acquired" and "impart" and "information" meant, but he took it for granted that his father understood what he was saying, and for a minute he was silent. Then he asked, catching sight of the cattle grazing in the next field, "Papa, what is cows?"

"Cows," returned Mr. Bronson, after a moment of thought, "cows—er—are animals with horns that give milk and eat grass."

"Do cows like grass better than they do apple pie and custard?" asked Willie.

"Very much better," said Mr. Bronson. "Why do they, papa?" asked the boy.

"Oh, because they were born that way."

"Why do cows give milk, papa? Can't they sell it?"

"No. Cows don't know anything about money, you know; even if they did, they wouldn't know where to keep it."

"Couldn't they keep it in their horns?"

"Oh my, no!"

"What good are cows' horns, anyhow? Do they make that funny 'moo' sound with their horns?"

"What an idea! No, indeed. They do that with their throats."

"Why don't they do it with their horns?"

"Can't anybody blow horns?"

"Oh, yes. Tin horns and—er—brass horns, but not cows' horns."

"Papa, why don't cows have tin horns?"

"Oh—non-sense. Oh—er—because they are cows, I suppose."

Willie thought deeply for a long time about this, and then he turned to his father and said, "Why are cows cows, anyway?"

A LESSON AFTER SCHOOL.

Eva L. Carson, in New York Independent.

Alice, aged 10, came home from school with an exceedingly damp aspect, and dissolved into tears on entering the room.

"What is the matter my dear?"

"I was pro-pro-moted, and the teacher's awful cross! She ex-expects me to know things when I do-on't know 'em!"

"Promoted! Why, how nice! You didn't expect to be!"

"It isn't nice at all, mamma! And she's beginning to tell us about adjectives and verbs and things! And it's horrid! It's too hard. I don't like such hard lessons."

"If I was only as big as you, I'd never have to learn any! Oh, dear! I don't see why we must learn such hard things."

"But the lessons I learn are a great deal harder, dear. If you had to learn my lessons, what would you do?"

"You don't learn any lessons," said Alice laughing, through her tears. Paul looked up from his book, and Nellie from her crocheting, and joined in the laugh.

"I don't! Well, you are mistaken, all of you. I am older, and so my lessons are harder than yours, of course. They

are not about adjectives or verbs, it is true; but I don't like them any the better on that account, and I very often make as much fuss about the learning as you do."

Nellie's eyes grew round, and the corners of Paul's quizzical mouth twitched as he watched her wondering stare.

"Sometimes I think," slowly said Mamma, looking through the window up into the sky, while three pairs of young eyes noted her far-away glance—"sometimes I think, children, that I ought never to find fault with you, for I cry and rebel over my lessons far worse than any of you. I feel this way. I can't understand it, you know. I can't see why I must learn such hard things."

"Why, that's exactly the way I feel!" exclaimed Nellie.

"But my teacher is very firm. When he says 'must' I have to obey. I may struggle and get angry, or cry. I may say 'I won't,' or 'I can't,' or 'it is too hard,' but in the end I have to learn my lessons just the same. And as soon as I have finished one lesson my teacher sets me another, and it is always a little more difficult than the last."

"Ah!" said Paul, with a deep drawn breath.

"And then I make the same struggle and fight as before, but it is just as useless, you know, dears; I have to learn it, just the same. And the only thing I am sure of, children, is the one thing you can know to-day, too, if you will—"

Mamma's eyes left the window, and turned from one to the other of the silent group.

"We are all, dears, you and I, too, surely going to find out the reason for it, by and by!"

Mamma's eyes turned to the sky again. Paul, with a little sigh, opened his algebra. Nellie moved her crochet hook slowly, a new thought in her face. Even little Alice hastily wiped off her half-dried tears, and picked up the despoiled grammar without a word.

Farmer's Home: The French Marshal Vivonne and the Comte d'Auvergne were probably the most corpulent gentlemen of the court in Louis the Fourteenth's time.

"Marshal, you are really getting too fat," said the king, "you ought to take more exercise."

"Your majesty does not know, then, that I take a great deal of exercise?"

"No; what do you do?"

"I walk around the Comte d'Auvergne three times every day."

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accepting the invitation of his son to visit the orchard, wherein the trees were burdened with tempting, juicy peaches, "we are getting too blamed lazy and too contentedly trustful."

"How so?" said I at random, still headed toward the orchard.

"Why we don't get up and 'git' enough, and then we trust the Lord to keep off the rain just at the time of year when He seems to have the weather less in hand than at any other season. Go on now and John will show you some as fine early peaches as you ever wrapped your lips lips around."

And I went.

P. U.

DOES THIS FIT YOUR CASE?

COTTONDALE, TEXAS.

Editor Texas Farm and Ranch:

While looking over a recent issue of TEXAS FARM AND RANCH, my eye fell upon this paragraph:

"Why is it that some men make a good living from only a few acres of land, while others cultivate broad plantations and run in debt deeper and deeper every year?"

This is the first time I ever saw that in print, yet I have asked myself that question many times, and here are some of my ruminations on the subject. In the first place we think that "there is more in the man than in the land he works." From what little I have been able to observe as I have passed along the highway of life, I find the most common error with our farmers is this: we over-jump ourselves. We haven't sense enough to know a good thing when we see it. An industrious farmer with a small family can take a farm of, say thirty acres, and by close living and hard work make a nice profit above expense on it. Yet, nine times out of ten, give the farmer a farm of 100 acres and he will fail to clear expenses on it.

Why so? Because we farmers are, as a class, poor hands to estimate cost of production. We cannot see why "me and four hired men can't cultivate 100 acres just as cheaply as me an' Sallie an' the chifin cultivated our thirty acre farm?" Another reason why many of us, both small and great, fail, is that we sit down and estimate the income from our farm (counting on a full crop of course) then guess at the cost of making the crop and find we are going to have more money (?) than we can find purses to hold (!) next fall. The result is that when the harvest is over we find ourselves in debt, and no time to sit down and figure on the next season's work—but just keep on digging until bye and bye some third party politician boom or happens to find us when our heart is full of care, our eyes bedimmed with sweat and a feeling that seems to tell us that "some one has blundered," the result is that too often we are led off into believing that some one at Washington or Austin is to blame for our miserable condition, when in fact, we are in the wrong. No man has a right to complain of bad times while he continues to buy on time a pound of bread or meat or anything else that he uses, which can be grown on the farm.

Some of my friends tell me that the country is short of money; that times will be no better until more money is put in circulation. This may be true. I do not know, but I believe it is more common sense, more true domestic economy which we are in need of. Not so much money, but fewer debts, and a more strict application of the rule which says, "live within your income, however small that may be." I hear many farmers complaining of the injustice of the national banking system. It may be all wrong, for all that I know to the contrary, yet I think that Texas would be a happy place indeed if all of her farmers held each a check for at least \$100 on some national bank. Not an acre of land should be cultivated at a loss. Not a seed should be put into the ground until we know exactly what it will cost to grow the crop, and how much money or food it will bring the farmer.

TEXAS BEN.

SOME TEXAS SOILS AND CROPS.

DALLAS, TEXAS.

Editor Texas Farm and Ranch:

As you are aware, my business is that of selling farm implements and machinery, and during the last twelve months I have traveled all over Dallas county. I am perfectly surprised at the area of rich, farming land contained in this county, and this year's crop will show what can be produced here with a good season.

At last the people in this vicinity have taken the oft repeated advice of TEXAS FARM AND RANCH, and let up on cotton, and are diversifying their crops. Their own experience has taught them that if they had but one crop to sell, and as they could not eat it or feed to stock and sell them, they were obliged to sell at whatever the Eastern speculators chose to give. If the price was fair, they came out even

at the end of the year, but if it was low, like last year, they had to make an assignment and go to selling lemons, where there was less risk and more profit.

Many of our best farmers decided to try it rather heavy on wheat for this year, and they have succeeded beyond expectations. I herewith give you my estimate of the amount of wheat raised in Dallas county this season: There is about 600,000 acres of land in the county. After deducting the bottom land and timber, also the area used for pasture, cotton, corn, and other crops, I believe that there are about 60,000 acres in wheat, which, at an average of 25 bushels per acre, gives 1,500,000 bushels as the year's crop. The price at Dallas has been 75 cents for best dry wheat, down to 70, 67 and 65 for damp wheat. At an average of 70 cents, the income to the cotton farmers will be \$1,050,000. The average, so far as I have heard, is over 25 bushels, as the following will show: John Will Sparkman, ten miles northwest of Dallas, entire crop averaged 37 bushels. He sold at 75 cents. Will Buchanan, same locality, averages 30 1-2 bushels; Mr. Franklin's went 33 bushels; Berry Daniels went 31 bushels; James H. Cochran went 41 bushels; Ernest Brown, got 27 bushels. The Furneaux brothers of Trinity Mills, Dallas county, have contracted to sell their entire crop to the E. O. Starnard Milling Company of Dallas. They will have nearly 20,000 bushels. Wm. Myers, near Frankfort, will have nearly 5000 bushels. Not only has the God of Nature given this immense wheat crop, but He has dosed them with an immense oat crop, and corn—well, I should say corn! Stalks eight to twelve feet high, and two big 18-inch ears on every stalk. I predict that corn will average 60 to 80 bushels per acre, and in some cases go over 100 bushels.

It is too early to say what cotton will do, but the probability is that the weather will be warm and dry from now on—just what cotton wants—so the chances are favorable for a fair crop. Again, all who desired have made good gardens—in fact, they have made so much that they have glutted the Dallas market, large as it is. The prices this week have been as low as follows: Cabbage 25 cents per dozen; Irish potatoes 23 cents per bushel; cucumbers, 5 cents per dozen; eggs, 6 cents per dozen, etc.

The amount of actual cash received into this county for the total production this year will be several millions, and with a few more years like it, Dallas county will show more beautiful farms, becoming orchards and vineyards, stately, well painted houses and commodious barns and granaries, and more Canton Clipper plows, Victor cultivators, Buffalo Plow threshers, and other first-class machinery, all kept under cover in sheds, barns or other suitable buildings, instead of letting them lay out in the fields to rust and rot, as is now the case, and for which there is no excuse whatever. Dallas county is safe for a year at least, and no farmer will suffer for food or clothes, whether Hogg, Clark or Nugent is elected Governor of Texas. Great is Texas, and great is Dallas county of Texas! WILL HUNSTABLE.

COTTON SEED AND THEIR USES.

CAULVERT, TEXAS.

Editor Texas Farm and Ranch.

It is only within the last twenty years that the importance of cotton seed as one of the products of the farm has been fully appreciated. Previously the use of cotton seed for cattle and sheep was well known, and some of our advanced farmers utilized them as a fertilizer, but the greatest number knew or cared but little as to their real worth, hence on many farms and at most of the gin houses the seed were wasted. The advent of the cotton seed oil mill gave this product a money value, and soon the practice of selling cotton seed became general, and no one other cause has to so great an extent caused the deterioration and exhaustion of the fertility of our soils as this almost universal sale of cotton seed to the mills. Under the tenant system of farming everywhere practiced in the cotton growing States, the tenant is the most inveterate and constant seller of cotton seed, whether a share or money renter, regardless of whether he expects to remain and cultivate the same land longer than the present year or not. But the tenant is not alone in this practice, as many who own their farms sell their seed without ever for a moment stopping to think that constant drain upon the products of the soil will certainly and very soon exhaust its fertility to such an extent as to render its cultivation unprofitable. This constant exhaustion of the soil by the removal of all the products by sale or their destruction by burning is "killing the goose that lays the golden egg."

The best and most profitable use of cotton seed by the farmer is to feed what is

necessary for the cattle and sheep of the farm, carefully securing and saving all the manure from their lots and keeping all the balance of the seed not needed for planting the crop for manure. Close observers say, and the reports of some experiments in feeding cotton seed to cattle and sheep go to show, that the value of cotton seed as a manure is rather enhanced by being fed when the droppings of the stock is carefully saved.

The fertility of soils not subject to denudation and leaching by heavy rains can, when cultivated in cotton, be preserved by returning to the farm all of the products of the plants except the lint, which is largely derived from the atmosphere, and does not exhaust the elements which contribute to the growth of crops to any considerable extent like the formation of the plant and seed does. No farmer, whether owner or renter, ought ever to sell a pound of cotton seed unless purchasing from the mills the equivalent in value of cotton seed hulls and oil cake to be used as feed for stock and manure for crops, and then at the prices paid for the hulls and oil cake it is a transaction of doubtful economy.

When cotton seed, either alone or when composted with the scrapings of the stock lots is used as a manure, the increased yield of the crops at the usual prices of farm products will be a sum greater than the amount received when sold to the mills. Whether applied as a fertilizer for corn, cotton, sorghum, wheat, oats, millet or to the truck patch, its value is shown in the greatly increased vigor of the plant and the increased yield. Nor is its value as a fertilizer limited to the crop next grown after being applied as the crops of the succeeding year show the value of the seed is not limited to one season. An experiment on light, sandy loam, where the soil was as nearly uniform as generally found the application of 800 pounds cotton seed to the acre and the land planted in corn in 1891 increased the yield a fraction over fifty per cent over the land not manured and it is believed that other crops are benefited in as great proportion. It is a ruinous practice to sell cotton seed. W. B. MORROW.

INFORMATION WANTED.

HOUSTON, TEXAS.

Editor Texas Farm and Ranch.

The drought in Southwest Texas during the past year has obliged stock men, to save their herds from utter destruction, to ship them away. In response to this necessity hundreds of cars loaded with cattle have been shipped to other and greener pastures, but by far the larger number to the "Indian Territory."

Will you please inform me under what conditions these cattle are received and pastured in the Territory? What is the condition of the grazing lands? are they open or enclosed? Do the cattle men lease land, or grazing privileges from the Indian (Nation) government? And what are the average rates paid per acre, or per head, as may be the custom? These inquiries are made in connection with some recollections I have of the serious difficulties cattle men encountered some years ago, when obliged by the President of the United States to remove hurriedly their stock from the Indian country.

O. L. COCHRAN.

Grazing privileges are procured direct from the individual Indians of the five civilized tribes. Particulars can be had by addressing their tribal governments. It is now too late in the season to send cattle to the Territorial grazing grounds, as most, if not all of these lands are closed. Cattle are closed about March 1st. Each tribe has its own regulations. Grazing privileges in the Comanche reservation are obtained only under the sanction of the Interior Department. Some of these lands are open and some are enclosed. Prices vary. We cannot at present give prevailing prices. The range is good.

SHORT CORRESPONDENCE.

A friend of mine, J. H. Estes, sent me some of his copies of TEXAS FARM AND RANCH, which I read, and I have decided to take it because there is no politics in it. I am am taking several papers and they are full of politics.—H. L. THEAD, Theadville, Miss.

We are done threshing wheat—the best crop in twenty years. The smallest crop was fifteen bushels to the acre, the best about thirty bushels. Fifty-two acres made 1,210 bushels. Oats fifty bushels to the acre. Very dry and cotton sorry.—E. H. HAMMACK, Maxdale, Texas.

I am after cattle, and am glad to report a very big business. Eight hundred and nineteen cars Texas cattle for first sixteen days of this month into Chicago by the C. & A. railroad—about 20,500 head. That

is not bad.—J. A. WILSON, Gen. Agt., Chicago & Alton Railroad.

QUESTIONS AND ANSWERS.

I wish to know how to handle black-eyed peas to keep the weevil out of them.—A. FARMER, Bellevue, Texas.

ANS.—Place the peas in a tight box or barrel, and put a small vial, loosely stoppered, of bi-sulphide of carbon in the midst of the peas.

You will please send remedy for the large red ant beds if you have any.—JOHN COLLINSWORTH, Luling, Texas.

ANS.—Bi-sulphide of carbon on a wad of cotton or rag, thrust into the hole as far as practicable and the hole covered, is said to be efficient. Try it.

Can you tell me through your valuable paper how to keep eggs fresh from July to December? Tell me of a never failing plan, and oblige.—J. W. HEWITT, Brenham, Texas.

ANS.—To 1 peck of lime put 12 gallons of water and 1 gallon of salt; stir, and when settled, pack the eggs and pour over them the clear water from the lime and salt. Keep them covered.

Will you or some reader of TEXAS FARM AND RANCH inform me what kind of poison to use, and how to use it, to kill prairie dogs the cheapest and shortest time possible?—S. N. JOHNSON, Dundee, Texas.

ANS.—Saturate a bunch of cotton with bi-sulphide of carbon and place it as deep in the hole as possible and cover the hole with earth. The poison is cheap. It must be handled with care, as it is an explosive when in contact with flame.

Can you tell me where I can get the old big bone Guinea hogs? I want them to cross with others. If you don't know where I can get them, please tell me which you think is the best hog for a farmer? We want the largest hogs we can get.—E. C. MOORE, Thornton, Texas.

ANS.—We do not know of any Guinea hogs now bred; at least they are not advertised. You will make no mistake if you choose Poland Chinas.

I will be glad if you will inform me, through your columns as soon as possible, of the most practicable way of making cotton seed cakes for cattle feeding, with particulars as to feeding of same.—F. AYERS, Gregory, San Patricio County, Texas.

ANS.—Cotton seed cake, or oil cake, is the seed after the oil is expressed. We know of no other process. This cake, after being ground or broken up, is fed to cattle, as any other concentrated food, in conjunction with coarser food, beginning with a small quantity and increasing to two, three, or four pounds per feed.

1. I have a turkey and a chicken that cannot walk straight, stagger like a drunken man; have no appetite for food. What is the disease, and what will cure them?

2. Should sweet potatoes be plowed after they begin to run, and will it damage them to cover a part of the vines up plowing?—G. W. L. ROBERTSON, Comanche, Texas.

ANS.—1. If the fowls are very fat it is probably apoplexy. Feed bran and vegetables and very little concentrated food. If it is a nervous or brain affection give 6 grains bromide of potassa once a day.

2. Sweet potatoes may be cultivated as long as the vines will permit. The vines may be placed on the ridge and a thorough plowing given. Covering vines causes them to take root. This weakens the main root, and should be avoided. Many successful growers raise the vines when they begin to root by running a long stick under them and lifting them. This is not necessary under careful cultivation.

What is the name of inclosed grass, its value for forage and grazing, time to plant, character of soil suited to it, etc.—H. B. THOMPSON, Gayden, La.

ANS.—The inclosed specimen is the bromus sceleratus, of the botanists, commonly called chess or cheat. Makes fine grazing in early spring, but is such an unmitigated nuisance to the wheat men, and the relative value in nutrition so low when compared to other good forage plants, that the attempt to propagate it is to be deprecated. We have two other varieties of this grass here, one that could not be determined by the department at Washington, to where I sent several specimens. Had I been working for glory, I could have insisted on a separate name for it as the discoverer of a new and valuable grass, but in this utilitarian age we should only handle such grasses as promise a certain return for investment. Therefore, we say to Mr. Thompson, for his country, better use lespedeza striata, or Japan clover, paspalum platycaulis and Bermuda for grazing, and if the cheat does well with him rye will also do well, and should be grown by every farmer for winter pasture, unless he can get Texas blue grass for a permanent pasture.—Geo. H. HOGAN.

At Weston, a small village ten miles southwest of Van Alstyne, a man named Maynard and his son, Monday evening became drunk, quarrelled, and the father stabbed the son to the heart, and afterwards said he was glad he killed him. The murdered man leaves a family.

FARM AND STOCK.

COTTON CULTURE—V.

JEFF WELCHER.

So far my predictions in April have been fulfilled, that is, that we would have a rainy season, with bountiful provision and forage crops, a short cotton acreage, with a shorter yield per acre. The first is now assured, and the probabilities of the latter are almost a certainty—but not necessarily so. It is our ignorance of natural science that causes at least 90 per cent of all our failures. If we make a good crop this season we are nearly sure to follow, or try to follow, the same plan next year. This is likely to get us into trouble in the wet season, as wet seasons and dry seasons generally alternate.

I made my first crop in Texas in 1876—average wet year. We made a double crop, and out crop, with only half a cotton crop; 1877 was dry—made the reverse; 1878, wet—big grain and light cotton crop; 1879, but only one good rain between March 8th and June 28th—made only one-fourth of a grain, but a double cotton crop; 1880, rain and worms in excess—immense grain and very short cotton crops; 1881, dry, with very light grain and fair cotton crops. And so it goes on up to 1889, when good crops of all kinds were made; 1889 and 1891, seasons were very similar. In 1891 cotton was the only crop that commanded a good price, although the crop was much larger than any previous one. Corn in the West was not worth hauling to market, other grain not much better. Stock would not pay their way to the market, and commissions. Every Southern farmer who had a surplus of provisions, forage or stock wished it in cotton; and the next year, 1890, he got everything in cotton he could. This was not all; capital sought the cotton fields; besides, the cotton planter was in better condition every way; labor was well paid and content, and was increased in other sections. Our grain and provision farmers along our northern border, and sugar and rice growers along our southern border helped to swell our cotton acreage far above any report sent out from Washington, and the margins between Sea Island, or grade Sea Island, and the short staple upland cotton, were so meager, compared with the difference in prolificness, that the long staple was discarded on every hand for prolific varieties. Foreign countries increased their cotton crop nearly a million bales in 1890. Had the year 1890 been such as 1889 or 1891 (dry spring and fall, with only showers during the summer) the American cotton crop alone would have reached twelve million bales, instead of less than nine million. But the grain crop of 1890 was short because there was not enough acres in grain. This reversed prices somewhat, dropping cotton and elevating grain and provision prices. This drove nearly all cotton culture into the cotton belt proper.

In the spring of 1890 I had more orders from Kansas alone for cotton plant food than I had in 1889, or sold to the whole South in 1891. This falling off in the sale of improved seed, and the large grain acreage reported all over the South in 1891, with excessive yields of cotton per acre over 1890 at all the experiment stations, and our own enhanced yields per acre, show the yield per acre in 1891 to be at least 20 per cent more than in 1890, or its twin brother, 1889, is likely to be.

Now, have we scientific reasons for this? I think so. As stated in my last article, if the earth and reservoirs are full of water when the sun passes the equinox the last of March, we are very liable to have excess of rain until the equinox is passed in September, over seasons that are ushered in with March and April dry. The March and April rains also pack the soil, so that all capillary pores come too near the surface for proper cultivation without tearing up roots, and causes the soil to break up in clods; and water cools the soil and air so that plants get off slowly, and the hasty preparation always causes improper planting and rough cultivation. These all tend to retard plant development until late in June, when the weather gets hot. All the roots are in the surface soil, and if full of water, and all the soluble plant food lifted from the subsoil to the surface, and the atmosphere washed of its volatile plant food, which is also in the surface soil, we get rapid plant growth until checked by root cutting, drouth, or the exhaustion of the surface plant food. I talk making. And generally, all combined, help the over-cropped or slipshod, unscientific farmer the wrong way. Between August 5th and 15th, hot weather, and the boll worm will play havoc with the crop, except on very sandy soils; but these sandy soils will not grow much in wet springs until hot weather, and will have very little fruit on to shed when the drouth comes.

As good cotton can be made the wet

seasons as the dry seasons on well drained land that has been deeply turned over (not subsoiled) two to four months before time to plant. Run rows so as to keep water from settling on the plants, plant a prolific variety and keep crust torn up soon as dry enough to plow after each rain or every ten days, until the first of August. After the tenth of July cotton will not stand over two weeks after a soaking rain on stiff soils without shedding if the crust is not torn up, but by keeping the soil loose and well pulverized we have had the most prolific to make straight ahead across six weeks drouth on very drouthy land and eight weeks on sandy soils well filled with humus, making the full crop without rain after blooming began, and on the western prairies and plains a full and large crop can be made without a drop of rain, if the land is broken very deep, say ten or twelve inches the last of May, harrowed and rolled until well pulverized and planted in a prolific variety of cotton the first of June. A bale and a half per acre has been made this way on the western plains without a drop of rain, and it can be done again. Now here I wish to venture some comments on these western lands or alkali plains. I cannot believe a word of this alkali business in a dry climate. All dry climates are good for small grain, and alkali, except well neutralized by an acid, is detrimental to grain crops, while soils well filled with organic matter or carbonic acid and nitrates will make the finest crops of grain with very little rain or irrigation. Then we know as the water level sinks in the pores of the earth the air follows. This air is to some extent laden with carbonic acid and nitrates or the volatile part of decomposed organic matter. When these acids are cooled, turn to liquids, and combine with the alkali, phosphate or other mineral base in the soil and become fixed carbonates and nitrates. I mean by fixed, that they become crystallized and will not return to the air until again wet and exposed to heat. By this means the soil, where there is ample phosphate, lime or alkali elements, will reach just as deep as the earth is permanently dried out. Such soils contain large excess of nitric and carbonic acids in soluble form. The greatest proofs that these dried out soils contain these acids, instead of the opposite, alkali, we see when once wet they dry out very slow, while alkali soils dry out rapidly. Again, plants that form but little shade do wonders on these soils when once wet, while any plant that forms a dense shade like cotton, sweet potatoes, cow peas, or even weeds or briars during hot weather, will drop dead when a wetting rain follows a dry, hot spell, almost as suddenly as the animal from swallowing a dose of aqua fortis (nitric acid). Then again a liberal supply of potash applied in water furrow under bed at planting time will insure against this root rot.

New Boston, Texas.

REPORT OF PROGRESS IN THE INVESTIGATION OF THE COTTON BOLL WORM.

F. W. Mally in Bulletin No. 28, U. S. Department of Agriculture, Division of Entomology. GEOGRAPHICAL DISTRIBUTION AND DESTRUCTIVENESS.

The boll worm is found throughout the whole cotton region. Over the greater portion of this area its injury is only slight and not worthy of special economic consideration. The regions where special remedial or preventive measures are practiced comprise that portion of Texas included by an irregular line drawn from Paris to Tyler, to Cameron, to Temple, to Gainesville, to Paris. For Arkansas, a narrow belt from Fort Smith to Morrilton, to Little Rock, to the southeastern portion of the State. For the Indian Territory, a strip running from Gainesville, Texas, to Fort Smith, Ark.

These are the areas of greatest destructiveness, and for the whole area the injury may range from 10 to 15 per cent of the whole crop. For certain counties the percentage of injury is greater. Again, individual plantations may be almost wholly destroyed while a dozen others adjoining may escape with slight injury. The sensational reports of damage are nearly always based upon these individual examples, and an accurate scientific estimate of the average for a county or district is seldom made. The worst infested fields are, in most cases, those which, for some of many reasons which could be given in a detailed report, behind the others, that is, late cotton. This makes them more attractive to the moths, and accounts, in part, for the fact that one field is badly injured while surrounding ones are not. The injury in other portions of the cotton region, not specially outlined above, amounts to less than 2 per cent, and is so scattering as to demand serious attention, unless, perhaps, in a few isolated, exceptional localities.

FOOD PLANTS.

Corn is well known as its choice food

plant. Cow peas rank next, and cotton probably third, though there is evidence that the tomato crop were in as prime a condition later in the season when corn matures, the tomato would rank third, and cotton, at best, about fourth. This accounts, in part, for the slight injury to cotton over most of the cotton belt, where many of the crops just mentioned are planted a second time later in the season, and which, therefore, divides the attack of the boll worm on cotton. Experience has abundantly shown that cotton as a food plant is more a compulsion than a choice. More stress should be placed upon the importance, from an economic entomological standpoint, upon the many host plants already on record for this species. In localities where the cultivation of tobacco is being introduced it is to be noted that the boll worm abundantly attacks the crop, and care must be exercised in order that its ravages may not attain serious proportions and endanger the progress of the introduction of this crop. In large cities even flower gardens entirely isolated from corn or cotton fields have been frequently found to be infested with boll worm. This cannot be accidental, as might be urged if these gardens were exposed to badly infested fields, and it simply illustrates the reckless, apparently indifferent habit of the female as to the host plant upon which she deposits. Special mention in city flower gardens should be given the verbena, geranium, abutilon, rosebuds and jack beans.

CHARACTERS AND TRANSFORMATIONS.

These have been so fully described heretofore that nothing further deserves special mention in this connection, except the habit of cannibalism among the worms. As for the imagos, former observations as to the diurnal habits have been fully verified the present season. At Arlington, Texas, last August, hundreds were seen flying and feeding freely on cow peas from 9:30 to about 11 a. m. Though carefully watched, deposition at this time was not observed, and it appeared that they were only breakfasting. Deposition, however, could be frequently noted in the afternoon, several hours before sundown.

NUMBER OF BROODS AND HIBERNATION.

As to the number of broods, nothing additional need be mentioned at this time. The question of hibernation, however, demands special consideration, and steps must be taken to determine more definitely the facts. Your agent, unfortunately, has been located in regions not especially infested, and it transpires that owing to the scarcity of adults at any season, in the localities under observation, that hibernating specimens would be rarely found.

There is no question but that many pupae do not issue in the fall, but remain as such over winter. Many of these even enter the pupa state as early as the middle or latter part of September and remain quiescent until April or May. The decided overlapping of the broods from the beginning of the season is thus easily explained, for doubtless the hibernating moths appear earlier than those issuing from the pupae in spring.

Observation proves, beyond a doubt, that a great majority of the destructive brood on cotton in August and September issue as imagos before the close of the season. The facts also prove that instead of the number of worms which might rightfully be expected from these imagos to appear in greatly increased numbers, absolutely appear in decreased numbers. This indicated that some of the moths of this brood were bent upon hibernation and refrained from depositing at this time. Indeed, the facts disclosed by the latest observations warrant the assertion that many of the imagos, resulting from this destructive brood, hibernate. The majority of the worms spoken of in previous reports, as found so late in the season, are mostly those from the eggs of belated females of the preceding brood, and worms whose most rapid development has been hindered by various, perhaps accidental, unfavorable environments. Furthermore, as previously stated, the broods from the very first of the season overlap. Doubtless, therefore, a great portion of the worms found during the latter part of September and later consist also of the larva, so to speak, of the last brood, and should not be counted as a separate brood, or even a partial one.

NATURAL ENEMIES.

The cannibalistic habit of the boll worm makes it its own greatest enemy, as will be shown under the head of remedial measures. All the enemies noted in Bulletin No. 24 of the Division have been observed again. The same special stress and importance must again be repeated in speaking of the egg parasite (*Trichogramma pretiosum*). Its value cannot be overestimated. Among birds, the sapsucker, crow, blackbird and crows, deserve special mention. Another species of robber fly was noted catching the imagos. Observa-

tions upon the habit of ants (*Solenopsis geminata*) earlier in the season makes it absolutely certain that, at that season, they frequently capture a boll worm. They do so mostly when the worm travels or comes out of the ear of corn to molt. They seldom enter an ear of corn for a deliberate search after their victim. Later in the season, when there is a greater diversity of insect life and also vegetable growth, the ant loses special interest in the boll worm.

A small Anthocorid (*Triphleps insiduosus*) is found abundantly on corn silks. It punctures and feeds upon the eggs of heliothis and probably very young boll worms. Many beneficial insects, especially the small scymnid beetles, are also abundantly found on corn silks. This subject will, however, be treated more fully in a subsequent report.

INSECT RAVAGES EASILY MISTAKEN FOR THOSE OF BOLL WORM.

Many Hemipterous insects puncture very young forms and squares, or their peduncles, causing the prospective fruit to fall. The mark resulting from the puncture closely resembles the working of very young boll worms, and by many planters, the latter are held responsible for the injury. To Hemipterous insects is due much of the shedding of cotton in August and September, and their ravages are popularly called "sharp-shooter" work. The most injurious, and perhaps, also the most abundant of the sharp-shooters, is a large leaf-hopper (*Aulacizpes sp.*). *Calocoris rapidus*. *Largus cinctus* are among those also which do much damage. The life-history and ravages of these insects must be reserved for more complete discussion in a subsequent report.

REMEDIES.

The great range of food plants of the boll worm, its habit and method of feeding upon special portions of these host plants, together with the isolation of individuals which necessarily follow such food habits, make all insecticidal measures of any nature of little or no practical utility. In the regions designated heretofore, as injured probably about 2 per cent or less, the attack by the boll worm is divided between so many different crops that the application of any insecticide upon one crop becomes much more expensive for that crop than the injury done by the worm. Furthermore, such measures are inadequate, unless applied to all the crops attacked at any specified time, in any given locality. For these reasons it is evident, therefore, that insecticidal measures are entirely impractical, even though the insecticide be a perfectly efficient one and can be applied with the greatest effect. The same can be said for localities worse infested, though the difference in destructiveness partly mitigates the excess of expense. In any case, the vast areas of cotton to be treated, in addition to other crops, still make such measures questionable as to expense, aside from the time required during the busy season, when such remedies must be applied. It is the opinion, therefore, of your agent that no insecticidal measures, even though efficient as such, are to be recommended, because from the nature of the case they are burdensome and impractical. The whole work must be accomplished by preventive measures, such as hereinafter discussed, and which have been suggested by the food habits of the species in question, and which by experiment, have been found adequate. The boll worm has a choice food plant among the long list recorded, and, as will be seen, it has been the effort of your agent to demonstrate the practicability of manipulating this food plant so as to concentrate the attack upon it, first trapping the worms and then destroying them.

(Continued in next issue.)

Texas Stockman and Farmer: A very comprehensive presentation by the department of agriculture of the statistics of sheep and wool gives the estimated number of sheep and product of wool for each of twenty years past the average wool supply by the decades since 1840, the annual importation of wool since 1870, and the average annual importation of woolsens by decades since 1890. It shows that the value of our flocks is greater by \$42,000,000 than in 1870, and the value per head greater than since 1875. From this fact it appears that the domestic supply of wool is six times as great as in 1840, and that both domestic and foreign supplies were only three pounds to each inhabitant while they are now 61.2 pounds. Then, including imports of woolsens, scarcely four pounds per head were used, whereas we now require over eight pounds. It appears that three-fifths of all the wool used for all purposes is of domestic production, while four-fifths of the requirement is manufactured in this country, leaving only one-fifth to come in the shape of imported goods. It is gratifying to know, also, that for three decades the

GUMBO A LA WAXAHACHIE.

Fillet of a f nny snake,
In the c.diron boll nd bake
Eye of newt, and toe of frog,
Wool of bat, and tongue of dog,
Adder's fork, and bld d worm's sting,
Lizard's leg, and bld d worm's sting,
For a charm of powerful trouble,
Like a hell-broth boil and bubble.
Doubt, doubt, do, double b. trouble,
Fire, burn, and caldron, bubble.

"Dinner will be ready at 1 o'clock sharp, Tuesday; come and bring your friends."

The above was the brief contents of a letter to TEXAS FARM AND RANCH "Bad Man," signed by J. B. Wilson and W. J. F. Ross, the veteran gumboists of the city of Waxahachie.

The summons was fully understood and promptly complied with.

The unfathomed to the mysteries of an county gumbo as compounded by Jeno George, the master of ceremonies the annual meetings of the ancient order of "Stag Bubbblers" cannot fully appreciate what an invitation to one of their banquets comprehends in its entirety.

Invitations are only given to a chosen few, and an invitation once extended carries an honorary life membership, provided it is accepted for the meeting it is intended for. Our Bad Man became a member of the "Stag Bubbblers" order many years ago, and just prior to the centennial celebration of its organization.

The ingredients composing a gumbo is a profound mystery to all the inhabitants of this earth except a trio of compounders known as "Chief Bubbblers," and they are sworn to defend it even at the cost of their lives.

J. B. Wilson, W. J. F. Ross, Judge Anson Rainey, Ed Williams, Tom Anderson, Jim Kennedy, George Ricketson and a few others invented "gumbo" and organized the order of "Stag Bubbblers" just one hundred and fifteen years ago while in camp on the banks of Waxahachie (cow) creek, when that present picturesque and beautiful stream, which now with a small government appropriation could easily be made navigable—was only a spring branch carrying off the waste water from Hawk's spring, Gumbo, as compounded by the "Chief Bubbblers" is the true elixir of life, and it is a well known fact that no one who ever swallowed three conservative drafts while repeating the following lines:

It's good for stomach, good for liver,
Eat gumbo and live forever,
Eat it hot, for he's a fool
Who'd let the precious stuff get cool.

has ever died or refused to take a drink.

During the first fifty years the club experienced much trouble in holding their annual seances on account of the unfriendly Indians that infested the country at that period and on one occasion the thirteenth annual bubble I believe—the entire membership were captured by the Anacahet Indians, of which Loofmadaplace, a noted and much feared warrior, was their chief. It was at once decided by the Indians to put every one of them to death or compel each Bubbler to marry six squaws. All except Judge Rainey and Oscar Dunlap chose to die at the stake.

While extensive preparations were being made for the marriage of Dunlap and Rainey to the twelve squaws and for the roasting of the other Bubbblers, who preferred death to a harem, Wilson and Ross concocted a plan for escape.

THE PLAN.

They had with them two cases of Hire's Extract of Root Beer.

Wilson and Ross managed to secure this and hide it near the spring, and as both are great linguists, speaking all modern languages, they at once struck up a conversation with the twelve beautiful young squaws that were on the next day to be hitched to Dunlap and Rainey. After convincing them—which was easily done—that their own fate was to be almost as bad as roasting they agreed to render willingly all assistance possible to the Bubbblers, every one, to escape. The twelve maidens or rather twelve Indian squaws, wives elect of Rainey and Dunlap were placed in the milkhouse which stood, and still stands, partially over the spring, with the two cases of root beer extract in their possession with instructions that when Ross and Wilson finished the following song, they should quietly empty every particle of it into the running water.

In hades we'll all be sunk
Unless we get these one elixir drunk;
Our only chance to e'er get free,
To get these injuns on a spree.

CHORUS.

Beautiful angels we will be,
Beautiful angel, one, two, three,
Four beautiful angels in a row,
Four beautiful angels p. d. q.

We'll make them drunk on Hire's beer
Desert the squaws without a tear,
And thus we'll save our precious lives,
And live to marry one day wives,
Crows, etc.

The magnetic voices of Wilson and

Ross caused the entire tribe, including Loofmadaplace, to gather round them and as they finished the grandest vocal effort of their lives each pointed at the stream of water running from the spring.

The Indians saw the water gradually changing color and were sorely perplexed.

They knew not what to do.

Wilson and Ross told them in perfect Anacahet to do as they themselves did whenever occasion presented, i. e., take a drink. The chief removed his rawhide top, flattened himself upon his belly and dipped his nose in the now amber colored liquid. The grunt of satisfaction which he gave inspired the remainder of the tribe and they all arranged themselves along the branch and began drinking the water which by the miracle performed by the Bubbblers had been suddenly changed to the most pleasant and fascinating drink they had ever tasted.

While the entire tribe, except the twelve in the milkhouse, were engaged in filling up their tanks the Bubbblers, at a signal from E. H. Griffin, superintendent, under the leadership of Tom Anderson, marched up to a street car which they boarded and told the driver to head and head fast for the M. K. & T. depot.

I have only related this little incident which occurred in the hey day of this order to show what a mild thing saved twelve squaws and a number of partially civilized white men. I didn't know the squaws, but I am human and of course glad of their escape, but especially am I glad the Bubbblers escaped to the order as I hope to meet every one at an annual gumbo each succeeding year.

WILLIAMSON COUNTY FARMERS INSTITUTE.

The executive committee of Williamson County Farmers Institute met in the city of Georgetown, July 8, 1892, and arranged the following programme for the third meeting of the Institute to be held in Georgetown, August 10, 11 and 12th, 1892:

August 10th, 11 o'clock a. m. The Benefits of Diversified Farming, by Jno. C. Edgar, Duval, Texas.

2 p. m. Pleading Cattle, by G. W. Curtis, A. & M. College, College Station.

5 p. m. Wheat Raising, by Spencer Fine, Jonah, Texas.

8 p. m. Market Gardening, by W. A. Clark, of Temple, Texas, and Q. M. Crockett, Georgetown, Texas.

August 11th, 10 a. m. Resolved, That Farmers Try to Cultivate Too Much Land, by Jno. P. Smith.

2 p. m. Hogs and Hog Raising, by F. S. Wade, Beaufort, Texas; also The Poultry Business, its Difficulties and its Profits, by T. A. Evans, Hutto, Texas; T. C. Richey, Georgetown, Texas, and Mrs. S. E. Sherman, Salado, Texas; also Culture and Propagation of Fruit, by C. L. Shell, Granger, Texas.

8 p. m. What Shall be Done to Get Our Wheat Turned into Flour, by Wm. Davidson, Jonah, Texas; George Irvine, Georgetown, Texas, and J. A. Rumsey, Corn Hill, Texas.

August 12th, 10 a. m. How Can Corn be Converted into Cash in the Most Expeditious Manner, by D. H. Snyder, Georgetown, Texas.

2 p. m. What Can We do to Get Farmers to Attend and Participate in Our Institutes, G. W. Glasscock and T. P. Hughes, Georgetown, Texas; also The Cost of Growing Corn, by R. M. Hargis, Taylor, Texas; also The Credit and Mortgage System, by C. J. Jackson, Corn Hill, Texas; also Possibilities of the Texas Farmer, by A. W. Terrell, Austin, Texas.

8 p. m. Milk and Butter for Home Market, by S. L. Burnap, of Hutto, Texas, and Isaac Sellers, Georgetown, Texas.

All premiums on farm products will be awarded during the second day and on stock the evening of the third day.

The following committee was appointed to arrange premium list and solicit the offering of premiums: Lee M. Taylor, F. W. Carothers, M. B. Lockett, A. A. Booty, T. P. Hughes, D. H. Snyder, J. E. Cooper and John C. Penn.

JAS. H. FAUBION,
Chairman Executive Committee.
All county papers friendly to the cause, please copy.

A \$2000 HORSE.

Stepenville Empire.

A stranger at Alexander last week had a very fine looking horse which he proposed to sell to the people for \$2000, in shares of \$100 per share. He told them that they could put their names down, and if the necessary amount of stock was not taken there would be no sale. It is said he sold stock to one man, and afterward gave him a written release. About eight others signed the paper, which was doubled over when handed to the signers for their signatures. It afterward transpired that the paper they had signed was a joint promise

sory note. The signers became alarmed, and asked to be released, but the party held the note, and refused to release. Several of the signers caught, held the party, took the paper from him and rubbed out about four names, and gave it back. There are yet several names, it is said, on the note, which are good for the \$2000. Of course if the note is carried off and sold to innocent purchasers, and sued on when due, the parties would all have to pay, even those who forcibly withdrew their names.

Texas Stockman and Farmer: A great many soapy sheep flocks have gone to market, or been absorbed by flocks in which soap has to fight for existence. Now if we could only have a little encouragement, State and National, to put good sheep where the "bare bellies" have been, what a grand thing it would be for Texas.

San Angelo Standard: What a lot of gold darned foolishness passes current for political wisdom these enlightened days.

THE BEST IN THE WORLD

Blackwell's

Bull Durham

Smoking Tobacco

Situated in the immediate section of country that produces a grade of tobacco, that in texture, flavor and quality is not grown elsewhere in the world, and being in position to command the choice of all offerings upon this market, we spare no pains nor expense to give the trade

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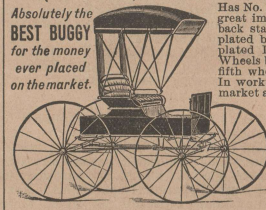
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Absolutely the BEST BUGGY for the money ever placed on the market.

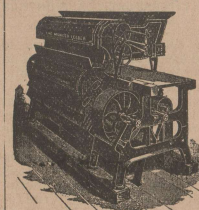


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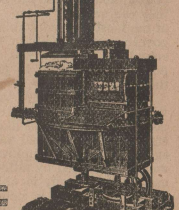
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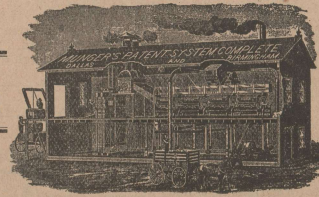


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