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WHY EDUCATE.

Farmers' Review.

Prof. James Wilson says that Iowa is educating more young people in colleges. It is said, than any state in the union of its population. For what? The professions are so full that few of the incomes equal those of good farmers. The teaching force is full. Railways are built and manned and those who get the best pay in transportation lines go up from the working force, not from the schools.

Every avenue is running over except those that lead to work in agricultural and mechanical directions. The farmer, who has created for all and helped to educate all, has been the last to recognize the need of special training for the farm. But now we have come to the time when the farmers must study sciences that relate to the farm. Waste can no longer be indulged in. Thousands who were educated for something else have turned to farming and regret that they were not taught differently. There is a difference between 16 and 32 cents for butter, 3 and 6 cents for beef, \$75 and \$150 for horses, \$5 and \$8 for sheep, 30 and 60 bushels of corn to the acre, 150 and 300 pounds of butter from a cow in a season, and so on. Yet education makes a difference. An old farmer may say he goes to the market in all these and never saw a school. Agreed, but he learned his lessons in the school of experience, one that exacts the very highest tuition. We know some graduates of the grand old school of experience who took forty years to get through, and paid as heavy dues every year as would put a boy through a four years' course. They are proud of their school, too, and tell how they squared accounts, fed and wasted as they learned, year after year, got a knowledge of pasturing in their twentieth year, made poor butter a quarter of a century, raised poor colts for thirty years, but do better now. Self made men, sure enough, but how dear the doing of it.

AN OLD-TIME LESSON.

American Economist.

Despite all the talk about the hardships of the farmer, he is a king compared to his father or grandfather. If he doubts let him hunt up the old gentleman's day book of forty years ago and note the prices then.

A bushel of wheat would buy three-fourths of a barrel of salt; it would now buy two barrels.

A bushel of corn would buy 7-12 pounds of sugar; to-day it will buy 13-14 pounds. Ten pounds of butter bought 33 1-3 yards of cotton cloth then; now it purchases 48 1-3 yards.

Ten pounds of cheese were worth 25 pounds of nails; the cheese now pays for 54 pounds of nails.

A pound of washed wool grown ten years before the war would buy one-fifth of a barrel of salt, 3-5-6 pounds of sugar, 2-3 yards of cotton cloth or ten pounds of nails. To-day his one pound of wool will pay for three-fourths of a barrel of salt, 8 pounds of sugar, 6-1-2 yards of cotton cloth and 22 pounds of nails.

These figures are based on New York City prices. But as a matter of fact he never realized anything like those prices in his local market.

Freights were high, and when the cost of bringing produce to the New York market was deducted from New York prices for farm produce, and the cost of bringing the merchandise from New York to the village store at which he traded was added to the price of what he bought, the average farmer was really not more

than half as well off ten years before the war as our figures would indicate.

For instance, in 1857 it cost 25 1-4 cents to bring a bushel of wheat by the cheapest route from Chicago to New York; in 1891 it cost less than six cents.

Surrounded by these conditions, life on the farm was hard indeed. Calico and Kentucky jeans had to do for Sunday garments, and an ox cart in which to ride was the height of the style.

Luxuries for the table were almost unknown; Johnny cake and salt pork was a princely diet.

There were days of hard times, when the farmer cradled his grain, and raked and bound it by hand.

He toiled early and late, saved and scrimped, and received less return for a week of hardest toil than the farmer of 1892 receives for a single day's pleasant ride on a mowing machine or a self-blinder. Let us have no more of such "good old times."

THE FARMERS' SONS THE HOPE OF OUR COUNTRY.

Northwestern Farmer and Breeder.

Under this head Hon. F. W. D. Mays spoke before the Farmers Institute at Pocomory, in the State of Washington, recently, and stated the familiar facts so pertinent, that we reproduce the following from his address: The most potent factors and most conservative elements in the body politic of the past and of to-day have been and are the influence wielded by the sons of farmers. I suppose the students of history will not dispute this assertion when they recall the names of Washington and Lincoln, besides a host of others that could be mentioned. By reference to the work and deeds of the sons of the farm-house of the past, I am warranted in assuming that the farmers' sons are the hope of our country for the future. In boyhood I climbed the same hills over which George Washington played and romped in his early life, and where in later years, after he was called from the plow to serve his country, he led the continental armies over the most formidable foe of his day. It is not possible for any of the epochs of history made since the days of Washington, or to be made in the future, to eclipse or detract from the lustre of his name or deface the bright halo of glory that will forever wreath his brow and shine about his head at the mention of his name.

The late great civil war, for the emancipation of American slavery, would have been a failure but for calling Abraham Lincoln, the rail-splitter, who followed the plow barefoot in his youth, to guide the ship of state in those perilous times when brother was arrayed against brother, contending for what both believed to be liberty under the constitution.

The youth of our cities, as a rule, so impair their mental abilities and degrade their manhood by evil habits, that they unfit themselves for successful leaders in great emergencies; and when these arise, some farmer's son who has grown as well as brain, is necessarily called, as was General Jackson, from the farm, to lead our armies to victory, and as Lincoln was to guide the ship of state.

Times would fall me to cite instances in proof of the position I claim for the farmer's son in history, and I declare that his services will be more indispensable in the future, since our city life, especially in the great marts of our country, are such as to inspire little hope of a high type of manhood to be developed in the youth of these centers of population, where exist the vices of city life.

The inauguration of the present system of our agricultural colleges and schools of

science opens a bright page in the history of our country that augurs well for the future. It is now possible for almost every son and daughter of our farmers to drink deep at the fountain of knowledge which flows through these schools, and be thereby prepared and fitted for duty in any emergency to direct which our country's need may call them.

FARMERS AND STRIKERS.

American Dairyman.

Farmers never strike, but they have a big interest in strikes, nevertheless, strange as it may seem. The switchmen's strike, just ended, at Buffalo, has cost the county of Erie and the State of New York probably not less than one million dollars in property destroyed and in the movement and maintenance of troops to prevent the further destruction of property. Farmers are the largest tax payers, and will have their share to pay of this expense.

Farmers are very sensitive about taxation, and sometimes they make a kick against taxation that is just in the extreme and is in their own interest, as for instance, the maintenance of the canals of this State in an efficient condition; but here is an expenditure for the maintenance of the public peace that they have to stand their share of, which bears hard upon them, but any corresponding benefit, and the fact of this State ought to be in a mood to demand that there shall be laws which will prevent such expense.

Railroads are performing a public function, furnishing highways, and, as common carriers, their business is semi-public in its nature. In the event of its interruption the people of the whole State are inconvenienced. A law should be passed to prohibit railroad companies from discharging employees without giving one month's notice, and that no organized body of employees should go on strike and leave their work without giving similar notice in writing, and that a copy of the same notice should at the same time be served on the State Board of Arbitration, so that that body might have a chance to make itself useful in preventing trouble, such as we have had.

"An ounce of prevention is worth a pound of cure," and it is about time that the "ounce of prevention" was tried.

Waxahachie Democrat: Dr. Fears says that he saw Johnson grass killed in two years that had made eight tons to the acre. It was done by Col. Tom Lancaster at Carlton, in Hamilton Co. He plowed the ground twice in August and twice in September, very shallow with a sharp sweep. The next year a very few scattering stalks appeared. These were cut down with a sharp hoe, and that ended the Johnson grass. Since then the doctor has had a patch killed by shaving it up with a sharp hoe, in August and September. When Johnson grass is treated as above, the roots sour and rot which accounts for the above method of killing it. There can be no doubt that Johnson grass can be killed and that it will yet prove a blessing to the black land country. It is good stock feed and it will also enrich the ground. It is also fine for hogs, horses and cows which will eat and fatten on its roots in the winter time. As to Col. Lancaster's experience, the doctor went out and looked at his place and there was not a stalk of Johnson grass there.

American Dairyman: It is comparatively easy to teach dogs to do certain things. With certain limitations, perhaps it is equally easy to prevent their forming bad habits. But there is one thing that dogs sometimes learn to do of which they can

never, as long as they live, be broken so thoroughly as to make them perfectly reliable. This is the killing of sheep. No matter how gentle or how intelligent the dog may be, after he has once caught and killed a sheep, he can never be trusted. Various methods of overcoming the habit are recommended, but they are all very sure to fail when put to the test. There is no doubt that the dog that has killed sheep can be so trained that he will not so much as harm a lamb when his owner is around. When he thinks any one is watching him he will be the very "pink of perfection." But the taste of blood has developed and intensified all the treachery in his nature and he will be ready for slaughter just as soon as he thinks it is safe for him to engage therein. He may become so cunning and crafty as to throw even a very careful observer off his guard. His behavior will be so perfect, as far as his master sees, that it will seem impossible that he should do any harm. But the spirit of mischief is in him, and it will remain in him as long as he lives. The only sure way to break him of his sheep-killing propensities is to break his neck. And the sooner this is done the better it will be for all concerned.

The Carriage and Wagon Maker: The cheap buggy has come to stay. There is one in Cincinnati that has been in use fifteen years, and still holds its own if a contemporary speaks truly. * * * What has become of the electric vehicles that the Electrical Vehicle Company promised some time last winter would be splashing over our boulevards early this season? We have heard considerable of late about this and that patent for the electric propulsion of carriages, wagons, and buggies, but so far they seem mostly on paper. * * * What is the Des Moines inventor doing? Why has he not put his new vehicles on the streets? They were pronounced a success some time ago. * * * The blacksmith shop, says a contemporary, in speaking of drawbacks, can always be counted upon to furnish its full quota of "drawbacks," chief among which, especially in small shops, is the scorching of wood in fitting iron parts. These scorched places are difficult to remove, and if not removed they are sure to torture the painter sooner or later. Even when, to all appearances, they are removed, there is always an existing liability of paint peeling and flaking from the affected parts. By scraping the scorched and inert particles of wood off from the burned portions of the surface, and treating them to an application of shellac, we may, in a measure, remedy the evil. But an artificial vitality imparted to a surface is always uncertain in its action.

Beaumont Enterprise: The heifer which attacked and knocked down Mr. Gladstone in the park in Hawarden a few days ago, although dead, having been pursued and killed when Mr. Gladstone gave the alarm, has acquired a high market value. Soon after the heifer was shot a local speculator procured the hide for 5 pounds sterling and has since been offered as high as 60 pounds sterling but he has steadfastly refused to be induced to part with his prize. Another man who obtained possession of the heifer's head has refused an offer of ten pounds sterling for all the teeth.

Garland News: North Texas is entitled to and ought to have an agricultural and mechanical college. This is the garden spot of Texas, and our agricultural resources and capability are entitled to recognition. We are glad to note the persistency with which the TEXAS FARM AND RANCH is urging the necessity of an additional college, to be located in North Texas.

STATE NEWS BOILED DOWN.

The Rio Grande is higher than it has been for years.

Local option prohibition was adopted at Rockwall on September 2d.

The Trinity Navigation Company, of Dallas, capital \$800,000, has been chartered by the State.

Agents of oil mills are in East Texas buying cotton seed at \$7 50 per ton. The seed are worth twice as much for manure.

Austin has enjoined the sale of the Sunday Sun on account of scurrilous articles in its columns regarding the city and her citizens.

D. B. Thurnmond, a farmer living a few miles south of Lewisville, was found hanging in his barn by a plow-line. It is supposed he suicided.

Dr. J. M. Johnson, of Giddings, while watering his horses was seriously injured by the horses fighting and crowding him against the fence.

Sam Howard sold to P. J. Catron, of Bonham, a red Berkshire pig fifteen months old that weighed 555 pounds without being big fat.

The freight depot and office of the St. Louis & Southwestern railroad at McGreggor, together with a small lot of cotton, were burned Monday night.

On Saturday last a farmer living near Palestine hailed to that town and sold a wagon load of peanut vines, with the nuts adhering, and sold the same readily for \$7.

An M. K. & T. freight train laden with rich silver ore, bound for Kansas City, was wrecked at Waco. The ore was from Mexican mines. Numerous specimens are now in private hands.

On Monday last a team of horses in a Dallas delivery wagon came in contact with an electric trolley wire which was broken and had been tied to a post, and both horses were instantly killed.

The Railroad Commission at Austin is in daily receipt of remonstrances against extortionate freight rates since Judge McCormick's decision. Salt manufacturers and grain shippers are loudest in their complaints.

Dr. Rogers, of Alto, Cherokee county, was called to see a sick negroess. After examination and prescription, he asked for a cup of coffee, which was produced and drank. The doctor was immediately taken sick and died in a few hours.

News from Weatherford states that on account of freight rates adopted by the railroads since the McCormick injunction, will entirely stop shipments of flour from the roller mills of that place, and that present rates are very detrimental to the business of that town.

Citizens of Tarrant county living along the line of the Alvarado road have raised a guarantee fund of \$600 and will, after September 25th, work the county convicts on that road. This will give from fifty to seventy-five of the toughest kind of "hands" to do the work.

The trouble between J. B. Ashley, white, and a number of colored citizens of his neighborhood, in Lamar county, has been settled by the opposing parties pledging themselves in writing to keep the peace towards each other for two years. The treaty of peace is signed by J. B. Ashley and thirty-eight of his colored antagonists.

In a portion of Washington county several days before a mad dog had passed through and bitten a large number of dogs, and on last Thursday these last began one at a time to go mad. The citizens became alarmed and started out to slay, and hundreds of dogs were killed.

Sheriff Olive, of Williamson county, who has a State-wide reputation as a bold and efficient officer, was shot and killed at Echo on Sunday morning at 1 o'clock. It was a base assassination. Olive was standing on the railroad platform. His assailant came out from under the platform in front of him and fired.

LOCAL AND GENERAL MARKET REPORTS.

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

Cotton Market.

GALVESTON, September 15.—Spot cotton closed steady.

Low ordinary	54 7/8
Ordinary	55 1/8
Good ordinary	56 1/8
Low middling	57 1/8
Middling	58 1/8
Middling fair	59 1/8
Receipts and Exports at all United States Ports.	

Receipts thus far this week	547,832
Receipts the same time last year	107,832
Receipts this day	18,601
Receipts this day last year	30,729
Total receipts thus far this season	109,653
Total receipts thus far last season	127,791
Difference	129,538
Exports to Great Britain	8,800
Exports to France	5,161
Exports to continent	

Stocks at all United States Ports.

Stocks this day	475,933
Stocks this day last year	588,602

Dallas Live Stock.

Common to fair steers	1 50c @ 2 00
Choice fat cows	1 30c @ 1 60
Common to fair cows	1 00c @ 1 25
Choice veal	2 50c @ 3 00
Common to fair veal	2 00c @ 2 25
Choice fat yearlings, per head	18 00c @ 25 00
Choice fat hogs	75c @ 1 00
Common to fair hogs	4 00c @ 4 25
Choice fat muttons	3 25c @ 3 50

Produce.

Potatoes—40@50c per bushel.	
Onions—3c per lb.	
Beans—Navy, 4@4 1/2; Lima, 4@4 1/2; Texas butter, 4c.	
Cabbage—Solid heads, 2 1/2@3.	
Butter—Good country, 14@15c; common, 12c; fancy creamery, 22@24c; Kansas dairy, 20@22c.	

Grain and Feed-stuffs.

Quotations below are on grain from store.	
Corn—Wholesale, 43c per bushel in sack; retail, 50c; in ear 35c per bushel.	
Oats—Sacks, 30 @ 32c per bushel in car lots; 24c single bushel.	
Barley—55c per 100 lb in car lots; retail, 65c per 100.	
Cotton seed—Per bushel, 25c retail; wholesale, 12 1/2c.	
Hay—Loose, local, \$6 00 @ \$8 00; best prairie hay, bal-d, \$9 00 per ton; in carload lots, f. o. b., \$9 00; small bales, best, 45c; best Forney, \$5 00 per ton in carload lots.	
Wheat screenings—Chicken feed, \$1 25 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, 70c f. o. b. at Dallas.	

Poultry and Eggs.

Prices paid by dealers—Old hens, \$2 50 per doz.; spring chickens, small, \$1 50; spring chickens, large, \$2 00; roosters, old, \$2 00; turkey hens, 75c; turkey gobblers, spring, 85c; turkey gobblers, old, \$1 50.	
Eggs, 6c per doz.	
Butter—Good country, 14@15c; common, 12c; fancy creamery, 22@24c; Kansas dairy, 20@22c.	
Wheat screenings—Chicken feed, \$1 25 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, 70c f. o. b. at Dallas.	

Hides and Wool.

Hides—Buyers are paying: Dry flat, heavy, 65c; light, 5c; dry salt, 5c; green salt, 37c; butcher's green, 3c.	
Wool—Light medium, 20c; low medium, 17@18c; fine, 15@16.	
Horns, hoofs and bones—\$6 00 per ton, delivered.	

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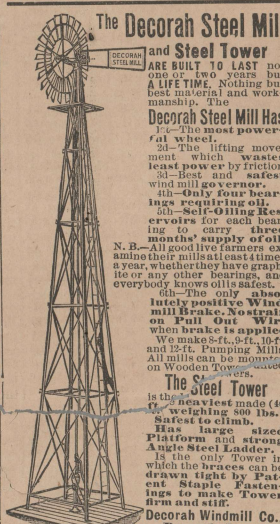
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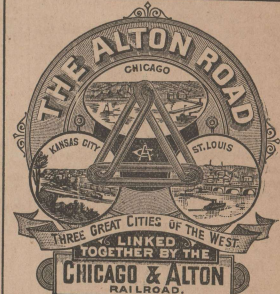
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THE SUN CHOLERA MIXTURE.

Atlanta Constitution.

The veteran editor of the New York Journal of Commerce pays editorial tribute to the medical prescription which has come to be known as the Sun cholera mixture, and the Constitution desires to join its esteemed contemporary in making the remedy known.

Mr. Stone says that the remedy was given to the public by the Sun more than twenty years ago, but this is a slip of the pen or of the types. It was given the public more than forty years ago, and since that time it has done a world of good, not only in cholera epidemics, but in all derangements that possess the cholera symptoms—in cases of cholera morbus and in dangerous attacks of diarrhoea.

The prescription was drawn up by a number of eminent physicians of New York and published in the Sun's editorial columns. This fact has given the remedy the name of the Sun cholera mixture. The editor of the Journal of Commerce has seen it in constant use for nearly two score of years and found it to be the best remedy for bowel troubles ever yet devised.

To this he adds: "No one who has had this by him and takes it in time will ever have the cholera."

The writer of this has seen this remedy employed for more than twenty years, and it has never failed in any case of bowel trouble when taken promptly. He has seen it give almost instant relief in the disease (almost as violent as genuine cholera) which ensues when the deviled crab and the milk punch meet in the bosom of the careless epicure. It is a remedy that ought to be in every household, whether there is danger from cholera or not. This is the prescription:

"Take the equal parts of tincture of cayenne pepper, tincture of opium, tincture of rhubarb, essence of peppermint and spirits of camphor. Mix well. Dose, fifteen to thirty drops in a little cold water, according to age and violence of symptoms, repeated every fifteen or twenty minutes until relief is obtained."

It will do no harm if an equal part of fine brandy is added to the rest. In violent cases of cholera morbus or genuine cholera, it is best to prepare two doses, so that if the first dose is thrown off the stomach the second can be given immediately. There need be no fear of collapse, as this medicine is given promptly, and when the medicine is given.

DIRT ROADS.

Isaac B. Potter, in the Century.

By dirt roads are meant those formed of the natural soil found in the line of the roadways. They are so common as to be almost our only roads outside of town and city limits, and will for many years be used largely in country districts, and especially on the lines of the crossroads which connect the main highways. Dirt roads, at their best, are greatly inferior to macadam and Telford roads in durability, cost of maintenance, drainage, traffic qualities, and, in many locations, in point of economy also. But the dirt road is general, and the public hand must be directed to its treatment.

The first and most important requirement for the maintenance of a dirt road may be stated in one word—drainage. It is the one thing that can neither be dispensed with nor neglected. Most dirt is easily displaced under the softening influence of rain, and this process is hastened in this kind of road by heavy wagons passing over the wet surface. On every mile of roadway within the United States there falls each year an average of 27,000 tons of water—a heavy, limpid fluid, always directing itself to the nearest outlet and seeking the lowest level. Water is hard to confine and easy to release, yet, through neglect of the simplest principles of drainage, water is the most active destroyer of country roads. In providing for the drainage of a dirt road we should first consider the material of which the roadway is composed. If a heavy viscous clay predominates, the ordinary side-ditches should be of good depth, and will even then, in many cases, be inadequate for thorough drainage without the addition of a centre drain running midway between and parallel with the side-ditches. The centre drain should be filled with loose, irregular boulders, cobblestones, broken bricks or similar filling, covering a line of tiles or fascines at the bottom, and should be connected with the side-ditches by cross-drains carrying the water outward from the centre-drain at proper intervals along the length of the roadway.

But these centre drains, though often needed for the improvement of country roads, are not in common use. They add somewhat to the cost of the roadway, but, in most cases, add considerably more to its value, and should be employed in all situations where sand or gravel cannot be had to relieve the heaviness and water-holding

properties of the clay. In locations where the prevailing material is of a loose, sandy nature, the difficulties of drainage are more easily overcome, and side ditches, if found necessary at all, may be of moderate depth and left open, without incurring the risk and dangers of travel that prevail where the deeper, open ditches are used for draining heavier soils. But, on the other hand, the light and shifting nature of sandy road material destroys its value as a surface layer for an earth roadway.

FIELD PEA CULTURE.

Hoard's Dairyman: "Select a high, dry piece of ground that will come to tillage the first of any in the spring. It should be very rich ground. If possible plow in the fall, and as early as possible in the spring harrow the land well and sow broadcast two and one-half bushels per acre of the smaller Canadian field pea and three to three and one-half bushels per acre of the marrow fat or larger variety. Then cross-plow the seeds under not less than four inches deep. A week after, say, sow one bushel of oats and harrow in. When the peas are fairly past the boiling stage and the pods are green enough to dry down and hold the grain, cut them with a mowing machine, throwing each swath out of the way. Dry out thoroughly and stack in ricks around a pole near the barn. Thresh with a machine, if convenient, taking out a part of the lower concave teeth. In stacking cover thoroughly with marsh or refuse hay, or what is better canvass cover. Pea straw will soak rain as easily as brush. Save the pea straw and chaff in the barn; sheep especially will consume it. If bright, cows will eat the most of it. Grind the peas and oats. If the grain is three-fourths peas, feed three pounds where six pounds of bran has been fed before. With clear pea meal feed two pounds in place of six pounds of bran. Mind one thing positively—peas must be planted deep, not less than four inches in ordinary soil, and they must be seeded thickly. Stick and hang until you are an expert in growing peas."

WATER-TIGHT FLOORS.

A Water-tight Floor is many times an imperative necessity in large manufacturing establishments, breweries, packing houses, stables, etc. We suggest the following as the best and cheapest way to having a strong and serviceable floor, as make a tight floor by the V. E. Campe Roofing given to us by the V. E. Campe Roofing & Mfg. Co., of Kansas City, Mo., whose "ad" appears on another page.

A reasonably tight floor is first laid; then lay the Black Seal Two or Three Ply Felt over it, pasting all laps and joints with hot roofing pitch; turn the Felt up at the sides of the room and fasten it securely to the wall with hot pitch, then swab hot pitch upon the Felt freely the width of the plank to be laid, lay the plank in this and nail it securely before the pitch cools. Continue this operation until all the planks are laid. Fill all the cracks between the planks with hot pitch. By following the above directions a perfectly tight and solid floor, through which not a drop of water can get, will be the result.

HOW IS THIS?

We make a specialty of water supply for ranches, farms and private residences also furnish horse power and pumping jacks, and the celebrated Star and Eclipse wind mills, the best in the market. Write for catalogue and prices.

F. F. JOLLINS Mfg Co.
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That the International & Great Northern R. R. is the direct line to Austin, San Antonio, Corpus Christi, Rockport, and to Monterey, the City of Mexico, and other principal cities in the Republic of Mexico, via Laredo. It is also the shortest and quickest line between Houston and Galveston. Pullman Buffet Sleeping Cars run through between St. Louis and Laredo without change. For tickets, folders, maps, or other information, call on any ticket agent, or write D. J. PRICE, Asst. Gen'l Pass. Agent, Palestine, Texas.

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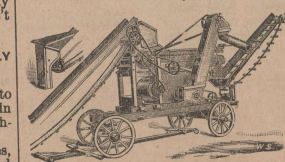
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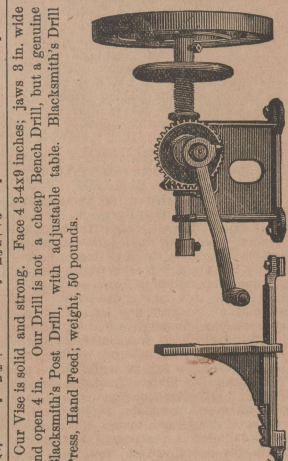
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Only one made that successfully shells corn with the shuck on as well as off.

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FOR FARMERS, STOCKMEN, PLANTERS AND MECHANICS—THE BEST IN THE WORLD.



Our Vise is solid and strong. Face 4 3/4 inches; jaws 3 in. wide and open 4 in. Our Drill is not a cheap Bench Drill, but a genuine Blacksmith's Post Drill, with adjustable table. Blacksmith's Drill Press, Hand Feed; weight, 50 pounds.

Blacksmith's Tongs, Wrought Iron, 18 in.

Blacksmith's Cold Chisel 1 1/2 lbs. Solid Cast Steel

Blacksmith's Hammer Hot Chisel, 1 1/2 lb.

Farrier's Pincers, Cast steel, 12 inches.

Adze-Eye Shoeing Hammer and Handle, wt. 9 oz.

Farrier's Knife, Wooten's.

Screw Plate, 3 Taps, 3 set Dies, Cut 3-8, 1-2 and 5-8 inch.

Combination Anvil and Vise, Hardened face, Finely polished, weighs 50 lbs.

Farmer's Forge No. 5, B, will heat 1 1/2 inch Iron

Our Forge is built especially for our Kit, 15 inches high to top of bowl, 14 inches in diameter. Fan 5 inches in diameter, weighs 45 pounds.

Every tool on this list is the best the market affords, and so guaranteed. This kit of tools, freight prepaid to any R. R. Depot in the U. S. as a premium for a club of 35 subscribers at \$1 each, or for \$25 cash.

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a new growth up to date, (Aug. 10th) by actual measurement, of one and one-half to one and three-fourths inches in diameter of stem, and 6-12 to 8 feet high, and 6 to 8 feet of head in width, and require no stakes. I think it would take a tornado to uproot one. Seven pear trees and three Persian walnuts pruned the same way are growing very rapidly. The fact of my pruning my trees this way caused many remarks, and much opposition from my friends; they saying that I would surely lose all my trees, but now they are very much surprised at the result of their most phenomenal growth."

Hitchcock, Texas.

PEARS—A CRITICISM VS. EXPERIENCE.

NATT STEVENS.

Your correspondent, Alf. H. H. Tolar, of Alvin, in your paper of last week, makes some very interesting statements about the product of the pear trees at his place, but they are misleading—somewhat speculative, in other words; calculating the income of ten acres of 10-year old trees at "fifteen thousand dollars a year, saying nothing about the value of the surface crops of vegetables, berries, etc., or tree cuttings saved and rooted each year in or among those trees each year." And he only reckons 100 trees to each acre, or 1000 trees in all. Now, it would have been just as easy to have shown the value of his ten acres to have been forty-five thousand dollars as fifteen thousand; then why not make it that amount at once and not wait ten years for it.

My pear trees are planted in squares twelve feet apart, making at the rate of 300 trees on each acre, and by friend Tolar putting his trees that distant apart he might possibly reckon the value of his product on ten acres of 3000 trees to be forty-five thousand dollars just as easy, "to say nothing about intervening crops, rooted cuttings, etc."

He speaks of pear trees in Mexico and other countries 200 years old that are still living, and only mentions two varieties anywhere. Perhaps that number is all that he knows of—that is Le Conte and Kieffer, varieties that he infers are said to be 200 years old, when neither the Le Conte nor Kieffer varieties are over 50 years old yet. I will not criticize the article further, as experience is our best guide.

My pear trees are set out twelve feet apart each way, and I would not change the distance now if I could, unless it were

to put them at ten feet each way and cut out trees afterwards if their branches should interlock too much—and many will die anyhow as years roll around. This last distance I would put Kieffer and Le Conte trees; other kinds of pears twelve feet apart each way, as a pear tree does not occupy much space; and after four years old plant nothing of the vegetable kind among my trees; no Johnson nor Bermuda grass, but instead prairie grass. The highest yield of pears on 15-year-old trees of mine is: Kieffer and Le Conte, one-half bushel; Clapp's Favorite, Dutchess, Congress and Jefferson, 2 bushels apiece; and one variety of pear (leaf) tree, 15 years old, nothing yet. I have not as yet quite an acre in pear trees in all. Some are only two years old. My whole crop this year is three bushels, and sold for \$2 a bushel at home. Such are the fruits of pear raising here this year.

Forney, Texas.

HARVESTING PEANUTS.

J. C. Crumpler in Home and Farm.

Now that the season is advancing, a few suggestions as to the saving of the peanut crop may be timely. To the planter making his first attempt to grow the nut, the question of saving at comparatively small trouble and expense is often perplexing, and a hint or so may relieve all embarrassment and be invaluable. Eastern South-side Virginia grows more ground peas, and is more familiar with cultivating and handling the crop than any other section in this country, or in the world as to that matter, and I will tell you how we save it there.

About the first of October the Virginia crop is matured and ready for digging, but prior to that time small poles about three inches in diameter, seven feet long and hewn to a point at the larger end are procured and placed in readiness. It will take from fifty to a hundred of these, according to the abundance of growth. A very luxuriant growth may require even more.

Maturity is usually indicated by the shedding of leaves in the center of the plant, although on land bearing its first crop few if any leaves are dropped before frosts have killed the vines. It is better, however, to dig before frost comes, in order to save the plant for hay. The old-time way of digging with the hoe is entirely out of the question since the work may be done so rapidly and well with the plow. The larger part of our crop is dug by taking an ordinary single turn-plow and

with the usual landside and large sized point (the mould board removed) were run close under the hill row on either side, cutting the tap root. Others secure a point made for the purpose and to fit the same plow, but being much broader, two horses are necessary to draw it. Now, either of these methods are very satisfactory, and leaves the plant so that by means of long handled forks it may be easily lifted out, shaken and tossed into heaps.

It is not necessary to let the vine dry or cure at all before shocking, which is done by taking the poles formerly provided, placing them ten or twelve inches in the ground singly and convenient in the shock row, nail two small thin strips on the pole about six inches from the ground and begin placing the vines upon them around the pole until the top is reached, pressing down closely all the while and your shock is completed. Place another pole and follow the same instructions.

Some may think that in a close green shock like this the peanut would damage and turn black, but experience has proven to us that in this way we secure the best results. A peanut left in the sun to cure, and especially so if the dew falls on it, will become dark and dingy, while cured in the shock in good weather, will have a bright, fresh color.

In two weeks of fine weather the nut is ready to be pulled from the vine. No machine ever having been invented to successfully do the work it is done by hand, and costs from ten to twelve cents per bushel with us.

Cleaning and grading here is done mostly by factories, but in sections remote from these it devolves upon the producer to prepare his crop for market. Carefully pick out all the dark and defective nuts, and then pass them through a tumbler in a perfectly dry condition. Never wash them. If you can't devise a tumbler, the work may be more slowly done by shaking thoroughly in small quantities in a large basket. The following machine will save considerable labor. Make two wheels, three feet in diameter, and two boards two inches thick. Place them on an axis five or six feet apart, and then nail upon them strips two inches wide and close enough together so a peanut would not drop through. Make a door or slide somewhere to be used in putting in and taking out the nuts. Make the inside of the cylinder as rough as you please. Place the machine in suitable forks and turn by cranks.

HAVE YOU GOT PILES

ITCHING PILLS known by moisture like perspiration, cause intense itching when warm. This form and BILINE, BLOOMING or PROLIFERATING PILLS YIELD AT ONCE TO DR. BO-SAN-KO'S PILE REMEDY, which acts directly on parts affected, absorbs tumors, allays itching, effecting a permanent cure. Price 50c. Druggists or mail, Dr. Bosanko, Philadelphia, Pa.

BLOOMINGTON (PHOENIX) NURSERY, 600 ACRES, 13 GREENHOUSES.

TREES AND PLANTS

We offer a large and fine stock of every description of FRUIT and ORNAMENTAL TREES, Shrubs, Roses, Vines, Small FRUIT, Hedge Plants, FERT and FORE-TREE, etc. Price 50c. Druggists or mail, Dr. Bosanko, Philadelphia, Pa.

PHOENIX NURSERY COMPANY, Successors to SINKY TUTTLE & CO., BLOOMINGTON, ILL.

PARIS NURSERIES.

GRAPE VINES. BERRY PLANTS. Finest hardy ornamentals, such as Trees, Shrubs, Roses, Evergreens, etc.

All home grown and thoroughly tested.

No doubtful high priced varieties to offer. Large bearing orchards to propagate from. Wholesale and retail. No traveling agents employed. Catalogues free on application.

STELL & CLARK, W. W. Stell, Paris, Tex.

GREEN MOUNTAIN GRAPE

Entirely Hardy and very vigorous, the vines bearing a fruit of exquisite flavor. Stood the test of 7 years and pronounced the earliest and best grape on the market.

CAUTION The enormous success this grape has met with has caused substitutes to be placed on the market. Buy no vine without the above trade-mark seal. Illustrated circular sent upon application. AGENTS WANTED. STEPHEN HOYT'S SONS, New Canaan, Conn.

McKinney Nurseries.

Price List Sent Free.

30,000 Peach Trees, three to five feet, Apple, Pear, Plum, Fig and Shade Trees. Fine Roses, Shrubs and Evergreens, propagated and grown on the

Richest Soils in North Texas.

SELECTED STOCK, TRUE TO NAME.

LOW PRICES. SAFE DELIVERY.

"Order what you want and get it."

E. W. KIRKPATRICK, MCKINNEY, TEXAS.

BLACKWELL'S BULL DURHAM SMOKING TOBACCO.



SO SAY WE ALL OF US.

I'm an old smoker, and have at one time or another tried all the different Smoking Tobaccos, but for a good smoke Bull Durham beats 'em all.

A leading characteristic of Bull Durham has always been the hold which it takes on old and fastidious smokers. What its excellence first secured, its uniformity has always retained, and it is, therefore, to-day as twenty-five years ago, the most popular Smoking Tobacco in the world.

Get the genuine. Made only by

Blackwell's Durham Tobacco Co., DURHAM, N. C.

"KEYSTONE"

Corn Husker and Fodder Cutter



Husks the corn and cuts the stalks into the best fodder known. A wonderful machine. A perfect success. Much improved for 1892. See it at the principal fairs, or send for our FREE book, "The Great Leak on the Farm."

KEYSTONE MFG. CO.,

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KANSAS CITY COUNCIL BLUFFS. ST. LOUIS, COLUMBUS, O.

TRY IT, EVERYBODY

Mr. E. Crew, who has had wonderful success in growing celery in Texas, and realizing a profit at the rate of

\$2,000 PER ACRE

says any one can raise it if they only know how. Mr. Crew tells how in TEXAS FARM AND RANCH, and we have made arrangements to supply our readers with 5,000 trial packages of GOLDEN HEART CELERY SEED, raised and put up by Mr. Crew in Waller County.

Until October first we will send to any one sending one dollar for a year's subscription to TEXAS FARM AND RANCH and ten cents additional to pay postage, etc., the paper one year and a package of celery seed.

If you are already a subscriber, you can have your time extended one year and get the celery seed by sending one dollar and ten cents, or you can secure a new subscriber for TEXAS FARM AND RANCH at \$1 per year, and send it in with 10 cents additional and have the paper sent to the new name and address and the celery seed sent to yourself. Address all orders and communications to

TEXAS FARM AND RANCH, Dallas, Texas.

until cured, and then stack or way you would corn fodder. They only wish to save the blades, which are common in some sections with blades, if so, gather and cure in same

here it is only raised in small quantities the seed can be fed to any kind of stock that corn or oats are fed to without threshing. The heads can be cut off with a corn knife as you would cane tops, either before or after cutting up. In larger quantities, the heads are generally threshed with the common threshing machine, and the seed fed as other grain, or what is a much better way, have it ground as chyme with corn, rye or oats, or alone. Fed without grinding there is much that is not digested, thus overcrowding the stomach perhaps to detriment and certainly to no good purpose. Ground and bolted as meal, or rather more like buckwheat flour, it is well liked by many for cakes made similarly as buckwheat cakes.

But instead of cutting off the later ripening heads we would prefer threshing it stalk and all. Remove the concave from the machine and all is ready, and you have cleaned seed and the fodder in best of shape. Of course the shredded fodder must be well stacked or put under cover.

One of our most successful Western farmers drills rye with a one-horse drill between the rows just after he cuts the seed with a header, and leaves the remainder of the stalk standing, which with the young rye, makes fine feed for his stock during fall and winter and early spring.

The merits of kaffir corn are not fully known yet, but we believe there is a large extent of the West and South to which it will be found to be what is needed for both forage and seed. We intended to try the red variety this year, but did not have time to experiment. We are growing Jerusalem corn, and we think it is standing dry weather the best, though it is thinner on the ground, and that is one reason; also millo maize and cane for feed and will report any points of comparison or interest at close of season.

Winnipeg, Okla.

BACON IS HIGH—PORK IS HIGH.

There Are No Indications Favoring Early Decline.

Southern Live Stock Journal.

Never, in years, was there more urgent necessity in this country for engaging in hog industry for home consumption and for market.

Bacon at 10 cents, at the cheapest, the average farmer buying his meat in hundreds, it may be, unable to afford it.

If this state of things does not emphasize the necessity of growing hogs for home market, nothing else will.

The necessity is pressing; is written in characters so bold that one can read and read.

Nearly two pounds of lint cotton will be required, on a cash basis, to pay for one pound of bacon.

Five pounds of bacon in the smoke-house would pay for a day's work of an ordinary farm hand, on the cotton plantation.

Four pounds of home-made bacon would pay for picking 100 pounds of cotton.

These are knock-down facts, that even a blockhead can understand.

These lessons will be of incalculable value to this country.

Is it because this is not a good hog-producing country? No one will be so brazen, so fool-hardy, as to say "yes."

Most every community furnishes one or more prosperous examples to prove that it is a good country.

The experience of the times will be worth millions to the section.

The logic of necessity will force the people to profit by the dear lessons experience teaches upon them, and cotton farmers will be awakened to the importance of raising hogs as they have not been before.

Every man that can spare the cash will be found trying to turn over a new leaf, and in a few years at furthest, the South will be copying the West—on a smaller scale.

The average cotton farmer will turn out his cotton farm; that is, he will take the fence from around it and make him a hog farm.

A pasture for fine pigs—the rye patch, the oat patch, the pea patch, the sorghum patch, the potato patch—will supplant a portion of the cotton acreage. The question of home-made meat will be the leading question, and it will be settled in grand style, once and for all time. The lesson will bring valuable results and the whole country will profit by it.

American Farmer: The importance of plenty of good grass in raising and feeding stock cannot be overestimated. Every stockman knows the importance of plenty of grass for all kinds of stock during the summer months.

HORSE DEPARTMENT.

Edited by J. E. LITTLE, Waxahatchie, Texas, to whom all communications pertaining to this department should be addressed.

Official paper of the Texas Trotting and Pacing Horse Breeders' Association.—S. B. HOPKINS, Secretary, Dallas, Texas.

The Lomo Alto stallion, Comal, won the 2:50 stallion trot at Sedalia, Mo., winning the first, second and fifth heats in 2:28, 2:36 and 2:38 respectively, and landing his share of the \$1000 purse.

Any one wishing to keep up on the current sporting news of the day can do no better than to subscribe for the Turf, Field and Farm of New York. It pays particular attention to field sports, the stage and the trotting and running turf. Its summaries are complete and even the advertisements are entertaining and instructive.

Turf, Field and Farm: It is generally conceded that the average country road is a disgrace, and Bill Nye suggests that before we undertake to supply Jaeger underwear and sealskin covered Bibles with flexible backs to the Africans, it might be well to devote a few dollars to the relief of galled and broken-down horses that have lost their health on our miserable highways.

The general-purpose ring of our fairs is arranged for a class of horses that are not fit to show in any of the special rings, but breeders should realize the fact that there is in reality no general-purpose horse, and they should turn their attention to the raising of special-purpose horses. When you get to market you want a draft, a saddle, a coacher or a roadster, it might be well to devote a few dollars to the relief of galled and broken-down horses that have lost their health on our miserable highways.

Turf, Field and Farm: The breaking and early training of the youngster will have a very important bearing on the future usefulness as regards road driving. It does not require a training at \$5,000 a year to break his colts, but it does require some brains, considerable patience, and a man of more ordinary intelligence. One hasty blow may do more harm than weeks of rational treatment can restore.

We wish to call the attention of Texas breeders to the fact that the way to build the right kind of a public sentiment in the State is to keep the business before the people, and more particularly the class that at present takes little or no interest in the matter, and we would modestly suggest that if they will keep their advertisements in TEXAS FARM AND RANCH they will reach a very large class that are not at present touched by the horse papers of the country, and would, we think, be planting seeds in good soil, that ere long would produce a bounteous harvest.

American Horse Monthly: There is talk of reviving trotting under the saddle. Budd Doble claims that a trotter or pacer that takes to the saddle goes faster. The following trotters have made faster records under the saddle than they did in harness: Great Eastern, 2:15 3/4; Lady Suffolk, 2:26; Lady Smith, two miles in 4:59; Dutchman, three miles in 7:33 1/2, and four miles in 10:51. Pacing records were made by Johnson, 2:13, and Billy Boyce, 2:14 1/2. Of the driving drivers, Budd Doble, Ed. Geers, Gee Grimes, W. E. Weeks and Charlie Green are great in the saddle.

The Carriage and Wagon Maker: In view of the increasing number of accidents to horses in the streets of London, the committee of the Animals Institute have decided to attempt to cope with the difficulty by organizing a system for aiding horses by means of ambulance carts to be placed in easy available positions, where they will be at hand in case of accidents to convey horses to establishments where their injuries can be immediately attended to. This is certainly a humane step in the right direction, and similar methods should be adopted in the large cities of this country.

Clark's Horse Review: The speed increasing capacity of the bicycle sulky was aptly illustrated in the race made by the mare Josephine in the 2:28 trot the first day of the breeders' meeting in this city. This mare had taken a mark of 2:31 in the fifth heat of the race two weeks previously, and when she reeled off the first heat in time equalling her record and then came back fourth in the third, and third in the three succeeding heats in 2:22 1/2, 2:24 1/4, and 2:25 1/4, the judges became fearful that she was not being driven to win and put up Geers as pilot for the fifth heat, but the best Ed could do was to finish fourth. The failure of Geers to better the mare's position would seem to indicate that Wills, the deposed driver, had been driving to win particularly as it was found

that as soon as she was again hitched to the bicycle sulky in which the first heat had been won (but which had broken down at the conclusion of the heat) the mare came again and won the deciding heats. It is very easy for a driver to be injured in his reputation by circumstances like these, and too great care cannot be exercised by judges in the matter of deposing drivers. When a man is taken from the sulky a good big slice of his reputation goes down with him, so that, while protecting the public, don't forget to give the driver the benefit of the doubt.

The Carriage and Wagon Maker: According to a writer in "Good Roads" the new Michigan law providing that the man who uses on his wagon wheels tires of a certain width shall have a rebate of one-half in his road-tax, works a great advantage not only to the owner of the vehicle but to the roads. It is estimated that with broad tires on wagons, carriages and buggies all public highways can be kept in much better condition than there is not possible at one-fourth the cost of the present system. In the matter of road reform the first essential seems to be the widening of the tires of the vehicles. The general adoption of this would be a long step of itself in the direction of perfect roads. Without it perfect roads are practically impossible.

Turf, Field and Farm: For a number of years it has been a common practice for trainers to convert pacers into trotters by the use of toe weights, but it has been but a short time since they began converting horses to the pacing gate when they had become outclassed as trotters. One of the first examples of such conversions was the old black gelding Jewett, who had gained a trotting record of 2:24 1/4, over the Buffalo track in 1880. Soon after this Jewett appeared as a pacer, and in 1886 he made a record of 2:14. In 1888 Jewett was again set to trotting and reduced his record at that gait to 2:20, but within a few weeks he was back among the pacers, and has been campaigning every year since. This year is his fourteenth year, and on the turf and he is performing over the half mile tracks in New England.

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THE A. & M. College is putting in a cheese factory in addition to the creamery, which has heretofore been successfully handled.

TEXAS will never have factories to amount to much until the Railroad Commission can regulate freight rates and enforce its regulation.

WOMEN are shrewder than men; that is, as regards legitimate shrewdness. They now circumvent pick-pockets by having their dresses made without pockets.

SUCCESS in farming depends more upon doing things well than upon doing a great deal. Work that must be done over had better been left undone in the first instance.

THERE will be more hogs and beefs raised and fattened in Texas this year than ever before, and consequently but little money will leave the State to buy bacon, beef and lard.

THE theory that every man is good for something, and that those who are not good for anything else must make good office-holders, has not worked satisfactorily. There must be something wrong about the theory.

THE low price of cotton has been a blessing to the South. It has done for farmers what nothing else could have accomplished. It has caused them to turn their attention to raising home supplies, thereby saving a good many dollars.

THE opinion largely prevails that nothing is worthy of thought "unless there is money in it." Could anything be more thoroughly sordid than such a view of life? No wonder the works of the devil are to be seen on every hand, when whole nations bow down and worship him, by doing and thinking works and thoughts that please him best. The pursuit of knowledge for knowledge's sake is one of

the purest pleasures vouchsafed to man, but few there be who enjoy it. It is a fact that the best and wisest men who ever lived have died in poverty, after doing more for mankind than all the millionaires that ever lived.

THERE are as many shades of political opinion as there are religious sects. There are not more men "wearing the livery of heaven to serve the devil in" than there are political pedagogues teaching arrant nonsense for political economy. There are men preaching politics in the by-ways who know just enough about the needs of organized society to keep out of an electrosynary institution. There are others who are wise as owls, cunning as serpents, and who don't care a continental shipplaster what happens, if they can, after the battle is over, rob the dead and defy the wounded.

THE South can never prosper as she ought until she ceases to send all her income away to pay for what she could herself produce. It will take more than half the cotton crop of Texas to pay for her liquor. This is a total loss. It will take more than half the wheat crop to pay for the agricultural and horticultural products brought in from other States. The railroad and express charges on the articles shipped into the State, and that ought to be produced in the State, will amount to more than the remainder of the wheat crop and the surplus corn combined.

TEXAS possesses important natural advantages for supplying our sister Republic of Mexico with a great variety of products which that country must buy. This Texas can very easily do under a proper administration of railroad rates. As long as the transportation lines continue to haul freight to Mexico at a lower rate from Kansas, Nebraska and Iowa than from the black lands of Texas, only half the distance, important natural advantages are overcome by still more important artificial disadvantages. Railroad regulation is the only solution of the problem.

FARMERS are taking more active interest in politics than they have ever done before. This is as it should be. But they must be careful about their leaders. "When the blind lead the blind both fall into the ditch." Demagogues make the ignorance of the masses their stock in trade. If they can, by their much speaking, befuddle any subject so their followers cannot comprehend it any better than themselves, they are in the third heaven of their glory. It behoves every man to inform himself on all public questions and public men, otherwise he cannot act intelligently. Discontented agitators are not the men to lead the people.

THE customs of to-day are not necessarily better than those of yesterday because newer. But politics and politicians are almost the same every day in the year. It was in the fifties when Gen. T. N. Waul and A. J. Hamilton, canvassed the Second District of Texas for congress. There were no railroads then and few stage lines, and the district extended from the Trinity to the Rio Grande and from salt water to Red River. The Panhandle, with its buffaloes and Comanches, was "not in it." The writer heard them at the county seat of Grimes county. These were both giants on the stump. Their scathing sarcasms were enough to take the bark from a black-oak. The partisans of each aspirant were enthused and excitement was fearful. Would there be bloodshed? Would a duel result? The sheriff was instructed to take all necessary precautions to prevent a riot. Next morning, after an early breakfast, the two champions were seen in a Brattleboro buggy behind a pair of bays, driving to their next appointment. One lunch basket, one brown jug, and one tin cup under the seat, proclaimed that sometimes "things are not what they seem."

BETTER CALL A HALT.

When a business man finds that his affairs are not prosperous he goes to work to learn the cause, and when that is found, he removes it if he can. This is plainly the part of wisdom. If his expense is greater than his income, he must increase the one or curtail the other. If by reason of former prosperity he has adopted profligate habits and expensive vices, he must reform or suffer certain ruin. This is true of all men. What is true of each individual of a community or country is true of the entire community or country. Therefore, if the people of the country, or of the South, or of Texas, are suffering financial depression, they are either earning too little or spending too much—or, perhaps, they are doing both—and the only escape is to earn more or spend less. To earn more they must work more, or work better. To spend less does not necessarily involve privation; but the people must become producers instead of consumers, and sellers instead of buyers. A man cannot be a profligate spendthrift and prosper financially. Neither can a community of people, large or small, escape the consequences of injudicious prodigality. The people of this country are paying for government, National, State, County and Municipal, every year an amount greater than the entire money circulation of the country; and besides this, they pay several hundred millions of dollars that never reaches any public treasury, but goes to protect manufacturers against foreign competition. TEXAS FARM AND RANCH believes that there never can be general prosperity while these extraordinary expenses must be met. The favored few; the beneficiaries of this prodigality may vastly prosper, and become enormously rich, as is the case now, but those who create the wealth will be steadily drained of their substance, and will continue to live face to face with inevitable poverty. The remedy is to return to habits of intelligent economy, both public and private. This principle overshadows every plank in every platform of every political party, and is the only hope for the future.

CLEAN UP.

Not only cholera, but almost every disease flesh is heir to, luxuriates in filth and flourishes by every physical imprudence. In every country on the globe hundreds die daily from easily preventable diseases, unaided by epidemic scourges. Under circumstances now prevailing, it is criminal to neglect the necessary precaution of a thorough cleansing of everything that might furnish the germs of disease a medium of incubation. It is criminal to postpone this necessary precaution. This country, with the technical knowledge available, and the fact that our people are a well fed, well clad and physically robust people, abundantly able to adopt any measure of precaution that may be properly advised, ought to be able to successfully defend itself against any invasion by the gaunt scourge of Asia. Every town should go energetically to work to purify the soil and the air, and every householder should promptly second the effort by a thorough cleaning of premises. But neither should wait for the other. Municipal governments that hesitate or quibble about the cost, should be urged by public opinion emphatically expressed. Any health officer who speaks flippantly of the impending scourge as a wisely ordained means of killing off a surplus population, as recently occurred in a metropolitan city of Texas, should be promptly replaced by a physician more in sympathy with humanity, who has in his make-up more of the human and less of the brute. Any member of a city council who openly and officially ridicules the well-grounded fears of the people he misrepresents, as recently occurred in the same city, should be scourged from his place by an injured and indignant public opinion. TEXAS FARM AND RANCH does not hesitate to say that it is an insult

to an intelligent constituency for an official to declare that the city government is not financially able to prosecute efficient sanitary measures, while openly admitting the expenditure of many thousands of dollars contrary to law. The people should demand that their servants do their duty, and the demand should be so loud that every recreant ear shall hear.

We may possibly escape the scourge this fall simply because, as a people, we are in a better sanitary condition, or we are more easily placed in a sanitary condition than any other people, our national defensive measures efficient and our national health authorities competent. We may possibly escape altogether by reason of intelligent measures actively prosecuted. But no pains or expense should be spared. Every effort calculated to ward off cholera will be profitable, even if there were no such thing as cholera. Disease and death we have always with us, and enlightened sanitation always minimizes danger to health from whatever source. Then, if cholera comes it is easily disarmed by prudential measures. In all previous epidemics negroes and intemperate people of all classes are the chief sufferers. The best precautions are to drink only cistern water; use no milk, except that which is boiled; avoid all stale food, raw vegetables, butter and cheese, and all food that may be hard to digest; bathe frequently, and go about your business as if there were no death in the air. The writer is convinced, by actual experience and observation, that freestone water is the best preventive of cholera. Everybody should clean up, and continue to clean up. A thorough fumigation of sleeping apartments with brimstone will be beneficial, even if there is no cholera near. Keep always an approved cholera remedy at hand, and do not wait for the disease to develop, but take the remedy promptly upon the appearance of the first symptom, and don't delay sending for a physician. TEXAS FARM AND RANCH will from time to time publish such matter on the subject as may be deemed best for our readers.

THE critical period in a man's life is when he concludes that the world owes him a living, and starts out to collect it. If he becomes a train robber he is in danger of the penitentiary; if he becomes an office-seeker, there is more hope of a fool than of him.

W. M. C. HILL's two-year-old colt, George Campbell, won the two-year-old pacing stake at Mason City, Iowa, last Saturday, over a heavy track in 2:26 1/2. This is considered a fine record for a two-year-old, under the circumstances. This colt will be at the Dallas State Fair.

THE next Legislature will be called upon to do something to place an agricultural and mechanical education within the reach of the masses who need it. The best way to do this is to follow the example of Mississippi, Louisiana and some other States, and authorize the counties to endow a given number of scholarships, and fill them with worthy boys who could not otherwise attend.

"THE rich and the poor meet together; the Lord is the maker of them all."—Prov. xxii-2

The above is Scripture, and we accept it as truth. Nevertheless, if we are to judge by exterior manifestations, the Lord made them out of different sorts of dirt—dirt that meets, but don't mix.

TEXAS last year sent out of the State about \$35,000,000 for bacon, lard, corn, molasses and liquor to get drunk on. The first four articles ought to have been made in Texas, and the last article should have been left alone. The amount of money that might thus have been saved would amount to about \$100 for every family in the State. With cotton at present prices, it is folly to expect prosperous times while there is such a heavy drain on the country.

FOR THE FARMER'S BOYS.

Board's Dairyman.

We recently received the following interesting letter from a gentleman at Jamestown, N. Y., which contains a valuable lesson for farmers and their boys to consider:

My Dear Sir—I have neglected my boy too long. Send the Dairyman too—

When he finished his course at the Agricultural Department at Cornell College he came home with a contract to take charge of a valuable herd at a good salary, and after a brief vacation he went to his duty. He has a chance of promotion and increase of salary, and has a more healthful and independent employment. You may use this as a text if you choose in a sermon on giving the farmer's boy a chance for higher work in his own profession and let them see what they can do for themselves. The doors of the Agricultural Colleges are open to them; the expense is small and there are places waiting for them at good figures when they are through. There is not a farmer's boy in the land of good average mind but may avail himself of the means offered for a first-class technical education, and be sure of a good place at good pay. The surprise in the case of my boy was that he was bred in a city and that he should choose his employment as he has, rather than prepare for and pursue one of the professions."

It is time that farmers and farmers' boys wake up to this question of a better education for the farm. The old idea that a farmer does not need any special education for his business has cursed the farm, the farmer and the country long enough. Agriculture is being organized on the basis of intelligent brains very rapidly, and there is a great demand for young men who are students of their business. Look at the way the dairy business is being organized. To successfully manage a creamery or cheese factory with modern machinery, modern markets, and modern methods like the Babcock test, requires that the manager have a mind that is dressed with knowledge, not stark naked in ignorance. The butter maker or cheese maker must be a good mathematician and understand percentage well, for the patron is demanding his just pen. He will not be met this demand the young men must educate themselves better. It will get so in a short time that the butter maker or cheese maker will need a diploma from some good dairy school in order to easily get and hold a place. The farmers' capital is in the land, cows and milk, and he wants it intelligently administered. If the farmers could read the reports of the cheese factory instructors in this and other states and see how the charge of ignorance ignorance! Ignorance!! piles up against factory and patron everywhere, they would see that there is a big money value in better brains and educated skill very soon. Milk to the value of hundreds of thousands of dollars is spoiled every week because the men who make the milk and the butter maker and cheese maker do not understand their business. We all need to know more, not less.

Then again, men of capital are all the time establishing large herds of thoroughbred stock and they want intelligent men to take charge of them. There is a great call in this direction. The boy of ordinary farm training won't do for this work. He must have studied the principles of scientific breeding, feeding and handling of animals. Here is a grand chance for the brainy farm boy. Our universities are overloaded with boys from the farm trying to make half-fledged lawyers and doctors of themselves. If they would turn their attention in this direction they would have a broad future ahead of them, for their farm training would give them a good start.

A SERMON OUT OF THE PULPIT.

National Stockman and Farmer.

It is not often that one meets with as much good advice in the same space as is contained in the following "Short Sermon" Prof. Eastman to the students in a business college. It comprehends about the whole scheme of a successful business; on the whole the sermon may be profitably studied. Read it:

"You are the architects of your own fortunes; rely on your own strength of body and soul. Take for your star industry, self-reliance, faith, honesty, and inscribe on your banner, 'Luck is a fool. Pluck is a hero.' Earnest effort in one direction is the road to wealth and high position; diligence and stick-to-it-ness is the winning hand. Don't take too much advice; keep at the helm and steer your own ship, and remember that the great art of command is to take a fair share of the work. Don't practice too much humility, think well of yourself; strike out—assume your position. It is the jostlings and jollings of life that bring great men to the surface; put potatoes in a cart over a

rough road and the small potatoes go to the bottom; turn a raft of logs down a mill race and the large logs come on top. Rise above the envious and jealous. Fire above the mark you intend to hit. Energy, invincible determination, with a right motive, are the levers that move the world. Don't drink. Don't smoke. Don't chew. Don't swear. Don't deceive. Don't read novels. Be in earnest. Be self-reliant. Be generous—there are two sides to every balance, and favors thrown in one side of the scales are sure to be reciprocated in the other. Be kind. Be civil. It is a foolish man who does not understand that molasses will catch more flies than vinegar. Read the papers—they are the great educators of the people. Advertise your business. Keep your own council, make money and do good with it. Love your God and fellow-men. Love truth and virtue. Love your country and obey the laws."

DOLLY DINGLE'S LITTLE DOG.

July, in Farmer's Voice.

Dolly Dingle has a great deal of trouble with her Fido, because he is such a self-willed quick temper and saucy little fellow, and flies into a rage on the slightest provocation. But on this occasion we can hardly blame Fido for flying into a rage, although it isn't very nice to let one's temper get the best of one. Dolly had tossed out some bones for him, and among them was one with considerable meat on it. This one caught Fido's eye the moment it touched the ground, and he began smacking his lips and sniffing all over. But just at this juncture there was a dreadful hubbub in the street. Fido pricked up his ears and listened. It was a dog fight!

"A fight! a fight!" cried Fido to himself; and wheeling about, he made for the gate as fast as he could run. But the gate was closed, and all he could do was to wait about, making frantic endeavors to get a good peep at the fighting dogs through the paling fence; and while he was thus engaged an old hen came along, picked up the dainty morsel and walked off with it.

The fight was soon over, and Fido hurried back for that bone as fast as his legs could carry him. But he stopped very short, staring at the bones in stupefied amazement. The one with the meat on it was gone. Yes, there was no denying the fact, it was gone; and who could have taken it puzzled Fido very much.

"Ah!" he snarled out at last, as he espied the old hen in one corner of the yard, pecking away at something at a furious rate. "That's who took it! I'll kill that hen!" and blind with fury, he was about putting his threat into execution, when Dolly appeared upon the scene.

"Fido! Fido!" she cried, "will you let that hen alone? Good gracious me! I never saw such a savage little fellow as you are! What are you after that hen for?"

"What am I after that hen for?" panted the thoroughly infuriated Fido. "What am I after her for? I'll kill that hen! I'll wring her neck! I'll make the feathers fly! Je whiz! Let me go, let me at her!"

"What did she do to you?" said Dolly, holding to the squirming Fido with might and main.

"What did she do to me? She took one of my bones! Let me go! Let me at her!"

"What if she did take one of them, you selfish little fellow," said Dolly. "And besides, why didn't you watch them?"

"Why didn't I watch them? How could I? I was watching a fight in the street. Let me at her—let me at her!"

"You were watching a fight, were you?"

"Yes, I was. I'll kill that hen!"

"The next time you won't watch a fight; you'll watch your bones," said Dolly.

"Can't I leave my dinner when there's any excitement in the street, without somebody coming along and stealing it?" whimpered Fido. "Don't you jump up and leave the table when a circus goes by, and wouldn't you wobble me if I stole anything while you were gone? And she took the only peace that had any meat on it, too! Je whiz! Let me go! I'll make the feathers fly! I very seldom get any bones with meat on them; this was the only one I had got for a whole week—for a month—for a whole year! and that hen had to come and take it!"

"You know you are telling a story, Fido," said Dolly. "You often get bones with meat on them. But you're never satisfied; you're always grumbling. There's no pleasing you; if we fed you on ham, you would turn up your nose and declare that the ham was tainted, or we'd never have given it to you. You are bound to grumble; you couldn't live without it."

"Who wouldn't grumble, when he has such luck as I have? What business had that hen to steal my dinner? What business had she coming near it at all? You're always reproaching me, why don't you reproach her? But I'm only a dog! Oh, yes, I'm only a dog! I never thought of that. That hen can strut about and do as she pleases; I'm expected to submit to everything, of course; because I'm only a dog."

"Now shut up," said Dolly. "Shut up this instant! mind you. If you dare to harm that hen, papa will give you a most unmerciful thrashing."

Fido darted a queer look up into Dolly's face; then allowed his eyes to wander in a wistful fashion to the bones that had nothing on them, after which he slunk off to the barn to ponder over his hard lot. Poor Fido!

Detroit Free Press: Flossie, a little city girl, was spending a month in the country. Hens and eggs were the objects of interest to her, but she did not see a turkey until she had made the rounds of the henery and then she frightened up a great old gobbler in the meadow patch. He made a rush for the fence and she fell over a watermelon.

"What's that, Flossie?" inquired the mother.

"I don't know," she said as she brushed her dress, "but I guess it is the kind of hen that lays water-melons."

G. A. R. RATES TO WASHINGTON AND RETURN.

The Ohio & Mississippi Railway has offered a rate of one cent per mile (\$15) from St. Louis to Washington and return, on account of the National Encampment of the G. A. R., and the same rate to Baltimore and return for the meeting of the Naval Veterans, and this will undoubtedly be made the basis of a low rate from Texas points.

The O. & M. Ry. and its connections form the distinctively battle field route from the West to the National Encampment.

From the beginning to the end of the war, the States of Virginia, Maryland and West Virginia, were the constant scene of conflict between the contending armies, and there was hardly a day during the four years, when the sound of battle could not have been heard in one or the other of them. They are therefore rich in associations, and the very names of the stations as they are announced on the trains, passing through this historic region, call up memories of the terrific struggle which took place here thirty years ago. Antietam, Harper's Ferry, Manassas, Spotsylvania, Culpeper, Fairfax, Martinsburg and Appomattox, rise in review as we pass; and Gettysburg, the one great battlefield on Northern soil is not far distant.

In choosing the route to the Grand Encampment, care should be taken to select lines which pass over this historic ground. From the West, the Ohio & Mississippi Railway runs through Car Lines to Washington, in connection with the Baltimore & Ohio Road, passing through West Virginia, Maryland and Northern Virginia, with Clarksburg, Martinsburg, Antietam, Harper's Ferry and Maryland Heights, on the way, and forming the direct line to Gettysburg.

Or, by taking the Ohio & Mississippi Railway, in connection with the Chesapeake & Ohio Route, we pass through the very heart of the Old Dominion—the scene of some of the heaviest fighting of the war.

No other routes to Washington can present so much of interest to the members of the Grand Army as these, and it should not be forgotten that from St. Louis and the West, the Ohio & Mississippi Railway is their direct and best connection. For rates of fare, routes, time of trains, and further information, address

H. C. ARCHER,
South Western Pass. Agt. O. & M. Ry.
182 Main St. Dallas, Texas.

SUMMER EXCURSION TICKETS

Via Santa Fe Route to principal points throughout the United States, are now on sale at all coupon ticket offices. Apply to your nearest ticket agent, or write to either of the undersigned, and full information as to routes, rates, etc., will be furnished.

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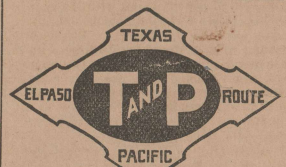
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Orchard and Garden.

Edited by Dr. A. M. RAGLAND, Pilot Point, DeWitt County, Texas, to whom all communications for this department should be addressed.

NOTES AND COMMENTS.

We see an article on "Pear Growing for Profit" copied bodily without credit from TEXAS FARM AND RANCH. Fellow workers, our columns are free to all, but please give us credit for our say.

The present fall is one of the most favorable we have known in a number of years for planting strawberries. Let the ground be fertilized and deeply plowed at once and the plants set with the least possible delay, for if planted during this month and given a good start before cold weather, then will give quite a good yield of berries next spring.

Uncle Nat gets after Friend Tolar, who is writing up a boom for pear growing in the coast region, with a sharp stick. He don't believe in figuring out a fortune after the fashion of Friend Tolar. Pear growing is a good thing, Uncle Nat thinks, but he is not willing to allow such rosy statements to pass unchallenged. Uncle Nat wears a level head on his shoulders and knows what he is talking about. He is authority.

Mr. Chas. Green, in Green's Fruit Grower, has the following about the use of ashes on the young apple orchard. Save all the ashes for your apple trees or peach trees: "The Michigan Experiment Station strongly recommends unleached ashes for apple orchards, to be for several years an exclusive application; and in addition to this on light soils twenty loads of rotted stable manure, and in other cases fifty pounds of nitrate of soda and two hundred pounds of fine ground bone. In most instances ashes have proved highly beneficial to orchards, but discrimination should be made with varying soils, as in some cases it has greatly increased growth, while in others it has produced no sensible effect. The above authority, in recommending 50 or 100 pounds of nitrate of soda, and 100 or 200 pounds of muriate of potash and 400 pounds of ground bone, regarded 50 to 100 bushels of wood ashes as better to take their place and would supply at least one-half the phosphoric acid. The only objection we would make to this prescription would be in strongly modifying the substances and their quantities according to variations in the nature or composition of the soil, to be determined by careful measured trials."

The following item that will interest progressive fruit growers we cull from the Fruit Grower. It illustrates what we have contended for in this Department, namely, that the best and only the best fruit should go to market, and that only the fruit grower who feeds and intelligently cares for his trees will in the long run be successful. Fruit trees on virgin soil may do well for a number of years, but the time comes, sooner or later, when the trees must be fed or they will lose their vitality and no longer produce good fruit: "Within nine miles of St. Louis are fourteen acres of a peach orchard, perhaps 1,450 trees, that netted the grower last season very near \$7,000. Remember, this was last season's crop, the largest ever known there, when a large portion of the fruit brought little beyond freight charges, because the most of it received little attention at the hands of the various growers. He permits peaches to go to waste and remain on the ground under the trees that would be regarded as prize specimens by the average grower. The people who wanted fancy fruit made a break for this every morning and ordered ahead regardless of prices, which were high enough to drive off the average dealer, but these extraordinary figures were no surprise, as each year that he has a crop, and regardless of competition, he secures similar figures. Such fruit is not the result of any accident, it is the result of hard work and the same care. His trees are watched with the same care as his horses, cows and hogs, and their wants and needs looked after as closely."

PLANTING AN ORCHARD.

"I am going to plant an orchard," said Friend B.

"I am glad to hear it. When do you expect to begin?"

"That's what I came to see you about. You have a beautiful young orchard, and somehow your trees all live. Can't you give me some directions about planting, Friend A?"

"Well, if you be in earnest, and will take advice from one so unworthy as myself, I shall willingly help you. What do you wish to know, Mr. B?"

"Oh, well, the boys are turning over

the wheat stubble on the hill farm and I thought I would lay it off in November and plant it in apple trees. What kinds would you plant, Friend A?"

A.—"Well, tell me before you begin, do you propose to plant in the sod without any other preparation? Don't you think you ought to manure the ground and cross-plow before you plant the trees? Thorough preparation before the trees are set is the golden rule of success with an orchard. Give the trees a sickly start the first year and you might as well cut them down. If you don't, the borers will."

B.—"Mr. A. will it be necessary to go to all that trouble. I thought it was only necessary to dig the holes and set out the trees and they would take care of themselves?"

A.—"There's where many who plant orchards make a grave mistake. A young tree needs the same care a pig does. If you feed the pig plenty of wholesome food and give him good quarters, he thrives and repays your care one hundred fold. So it is with a tree. Get good varieties, in vigorous health, from a nurseryman you know, and plant with proper care on good soil; feed the tree, prune and train, and you will just as surely get a profitable return."

B.—"You surely don't mean that you tend your orchard that way now, Mr. A. The trees must be ten years old, ain't they?"

A.—"Yes, sir; my trees are dressed and cared for just as regularly now as when I began. My motto from the beginning has been that a 'thing' worth doing at all is worth doing well, and you can see it has paid me."

"Yes, your orchard is the best paying institution in the neighborhood. I'll try your plan if it does seem unnecessary labor. The most luminous thing about it is that you have succeeded while the rest of us, who planted the trees and then 'turned them loose,' have no fruit that we can show alongside of yours."

GRAPE CULTURE IN TEXAS.

BY G. UNDERDUNK.
(Continued from last week.)
SUMMER PRUNING.

6. Near the base of each of the horizontal arms, select a strong shoot, which is to be trained for the purpose of renewal at the next winter pruning. This renewal cane, as it grows, is to be trained to the upper wire of the trellis.

7. Next pass over the remaining upright canes and pinch off the terminal bud of each as soon as it reaches two leaves beyond the last bunch of grapes, the embryo clusters of which will appear as the cane grows. Some varieties will show two others three, and the Herbeumont and Lenor will sometimes show four bunches of fruit on one of these upright canes.

8. After the upright canes have been stopped as above directed, they will start a lateral from the axil of each leaf. The laterals should be promptly stopped by pinching each one off just above the first leaf. The sooner this is done after the lateral passes the development of its first leaf the better. In fact, every operation of summer pruning should be performed as soon as the development of the plant will admit.

9. The laterals will start a second time, when we in turn pinch off this new growth one leaf as before, thus giving to each lateral two leaves. The above stopping of canes and laterals will force a development of fruit by stopping all surplus growth, and at the same time supply abundant shade for the growing grapes. The whole course of pruning will here, with our Southern varieties, be completed by the middle of April, or a very little later, and whatever grows afterwards during the season may be left to grow at will on the trellis, except that suckers from near the ground must be kept down during the whole season.

Paragraphs 6, 7, 8, and 9 constitute the summer pruning in the renewal system. If we prefer not to follow the renewal plan, then we simply do not stop the canes as directed in paragraph 7.

10. During the winter after the third year of growth, we do our third winter pruning. Of course, we must now be governed by the conditions resulting from the summer treatment of the preceding year of growth. If we followed the renewal system of summer pruning, as detailed in paragraphs 6, 7, 8, and 9, we will now see that each vine consists of two horizontal arms which support the upright fruit canes of the previous year, and the renewal canes which we trained to the upper wire of the trellis. There may also be more or less light, straggling shoots that grow after the summer pruning has been completed.

11. We now cut away the old horizontal arm of last year just above the renewal cane that was trained to the upper wire, and shorten to from four to eight feet the

renewal cane. This may be shortened in proportion to the vigor of the plant, and brought down to supply the place of the old horizontal arm on the lower wire. Remove all straggling shoots that may have escaped amputation, so that the vine shall again consist of only two horizontal arms, trained in opposite directions on the lower wire of the trellis.

12. But if we have not followed the renewal system of summer pruning our vines will be in a different form and will of course require different treatment. In the latter case instead of two strong canes on the upper wire and several short old fruit arms, we will find several upright canes of considerable strength. If we see that the average it might have an eye or two more; or, if below an average, it may be left with an eye or two less. And if there are a good number of strong canes, say five to seven on a side, then any very weak ones could be cut out altogether, or at most given a single eye.

From this onward the treatment of each succeeding year is to be a repetition of this year's work. By this time the cultivator will have become acquainted with his vines, and will have acquired sufficient judgment concerning them that he should be competent to manage them successfully.

There are some points in relation to the treatment of the grape to which we will here refer as the result of some repetition. Whatever system of pruning is adopted the work must be begun early and pressed promptly. So rapid is the spring development that delay is disastrous. Do all stopping of shoots so early that it can be done at the terminals, so that the vine shall be despoiled of little or no foliage, and there shall be no waste by forming useless wood only to be removed during the growing season. The grape is very sensitive to the loss of foliage during the season of rapid growth—therefore the idea in summer pruning is not to destroy foliage or new wood, but to so direct their formation as to economize every energy of the plant and concentrate its power to the production of fruit. The operator who fails to keep these ends in view had better not summer prune at all.

Again, it must be remembered—and the idea carried through our pruning and binding to the trellis—that while the young fruit may grow well in the sun, yet in this latitude the grapes must be in the shade at the ripening season.

Again, don't cut your vines while the buds are swelling, as it will cause them to bleed so freely. If you have begun to cut and find them bleeding very much, then wait till a northern checked the sap and begin again. If no friendly norther comes along to help you out, then wait till some leaves begin to open, and although we deprecate cutting at this stage, it is better than to prune when the vines bleed profusely. And yet again, don't cut too early, as then the warm spells of our winter may push out the buds too soon and thus endanger the crop. The middle of our January is the safest medium time for our winter pruning.

Diseases of the grape have never been serious with us. During unfavorable seasons we have sometimes had some anthracnose and rot. While these two afflictions are really different in a scientific view, they have about the same effect on the crop, and are relieved by the same remedy, viz: Bordeaux Mixture. I never lost a crop from either cause, but one does not go far East or North to encounter both of these fungoid pests.

The yield of Herbeumont or Lenor may be stated at about 6,000 pounds per acre, or 400 or 500 gallons of juice. The grapes are sold on the market at 10 cents per pound, and at the vineyard at 5 cents per pound. In wholesale quantities we could get about three cents per pound.

Probably about the best use to make of surplus grapes is to reduce the must to twenty or twenty five per cent of its original bulk, and preserve it in that form, to be restored to the form of fresh grape juice for beverage. Those who prefer it made into wine, can, of course, so prepare it. I have made no wine for several years.

CELERY PLANTS.

E. CREW.

Those who sowed their celery from the 10th to 15th of August, May now expect results. Examine your box or bed of plants and you will find that grass, purs-

ley, and other neglected matter is in the lead. Pull all this matter out of the bed, and if the celery has started you will know it with its two leaves—long and slender leaves, with the hull of the seed adhering, in many instances, to one leaf. Once you have identified, clear all other growth from the bed, then press the earth in the box or bed down either with a roller or some flat surface, as your garden hoe.

The firmer you can keep the earth around the young and growing plant the better. The roots want protection, and firming the earth over the seed not yet up will materially assist in getting a uniform stand. Chickens will pass around your celery bed for something to eat; they don't relish celery, but to allow them to scratch or make a wallow around or near the celery is very retarding to its growth; so also does pulling up weeds that tend to loosen the earth—it needs pressing down even if the plant itself is entirely pressed down. By the pressure the root is shifted from the warm air at this season of the year, and when the roots are so protected the plant will rise and grow with renewed vigor. My remarks here with reference to keeping the earth pressed firmly to the roots will apply to celery throughout its growth to maturity. This season so far is the best I have had in years; the copious rains have, up to date, done away with the water pot, and I now expect to be able, by firming the earth after weeding, to carry my plants to maturity without watering, as my beds are spaded up deep and well fertilized, and hold water like a sponge; and by an occasional use of the roller over the plants after each weeding, will break up any crusts formed and fill with capillaries that throw off the moisture of the earth.

By obeying the above remarks your success is assured, and you will have a growth of very hardy plants. You may be annoyed by weeds for a time, but as winter approaches they are shut off in their growth, and the celery keeps right on, rejoicing and reveling in your frosty nights. Leaves of celery that are covered with frost will hold their heads up and welcome the warm sunshine without showing any wilting or drooping, and you now have a growth of green that is refreshing to look upon, when all other vegetation has disappeared. If you cannot resist the temptation to use a hoe, at least press the earth around the roots of the plants, and not to stir the soil deep under the plants, as the hoe will do to the many little roots that are reaching out on all sides. You may top the plants if you like, this will sometimes favor a more stocky plant, and favor the roots, which, at the right time, will do its work for the tops.

Hempstead, Texas.

JAPANESE FRUITS—ROOT PRUNING.

H. M. STRINGFELLOW.

In response to your inquiry as to the blooming of the Japan plums and apricots in Southern Texas, I can answer for the coast. The Bongomum blooms entirely too early to be safe. The Japan apricot blooms a little later, but too early, while the Botan and Burbank bloom at the right time, and promise to be the plums for this section. While both were loaded with little plums on the 18th of March, and lost the crop by the freeze, they bloomed a second time in Mr. Disney's garden at Alvin, in January, and a fair crop of very fine plums. By the way, these plums, as well as the Chinese and Japanese hybrid peaches have made an extraordinary growth the present season under the root pruning system. I shortened the tops to 18 inches and the roots to one inch on 30 trees and, though the spring was the driest ever known here, they are now from 6 to 7 feet high, with very large heads and full of fruit buds. I hope some of your readers tried this plan, as recommended last winter, and will report as to its success. At Prof. Brunk's suggestion, Mr. J. Hale, of Connecticut, root-pruned 100 peach trees that he set out at Valley Mills, Ga., and reports splendid growth, without the loss of a tree. Mr. C. Falkner treated several thousand pear trees the same way near Rockport with equal success. I have received quite a number of letters endorsing the plan by those who tried it the past winter, and reproduce one from Mr. Humeston, of Hammond, Louisiana, an entire stranger to me. He read my article in TEXAS FARM AND RANCH and tried my plan. He writes: "Heretofore I have followed in the old rut and planted my trees with all the roots. The result was I had to stake them to keep them from blowing over, and after two years of growth had three of them blown over, and on examination found no deep roots—all very near the surface. Last fall I adopted your plan, and the result is, that out of one hundred and seven peach trees I have lost but two. They have all made

little cream, replace in the skins, lay on the piece cut off at first, and set in the oven until thoroughly hot.

Glazed—They make a pretty dish if boiled, peeled and cut in halves lengthwise; lay on a buttered baking dish and set in a good oven; as they begin to crust over baste with butter several times until they take on a glossy, golden color.

Fried Raw—Peel, cut in thin slices (round) and fry in boiling fat the same as you would Saratoga potatoes. They are delicious. Cold boiled potatoes are best dredged with flour before frying. Nowhere except in my childhood's home have I ever eaten sweet and white potatoes chopped and fried together. They are excellent if fried in a little pork or bacon fat.

Sweet Potato Pudding—Into a quart of hot milk stir one cupful of grated raw sweet potato; let it boil, add a large tablespoonful of butter, remove from the fire and pour over four well-beaten eggs; season with salt and pepper and bake until firm like a custard. This is served as a vegetable; if sweetened it may be used as a desert.

With Meat—Peel some raw sweet potatoes, and lay under a piece of roasting meat. It will take them from thirty minutes to an hour according to size.

Cooked in this way, or plain boiled or baked, they may be warmed over with a sauce made for stock. Put butter size of an egg into a frying pan, and when hot throw in a pint bowlful of sliced cold potatoes and a teaspoonful of minced onion. Fry a light brown, lift out with a skimmer, stir a teaspoonful of flour into the butter in the pan, and when smooth add slowly a cupful of any nice stock or gravy; as soon as it boils season with salt and pepper; take from the fire and pour slowly over the beaten yolk of one egg; return to the fire to get thoroughly hot, and pour over the potatoes.

FOOT CUSHIONS.

New York Examiner.

An experienced laundress is quoted as saying to a lady who was expressing sympathy with her on account of her being obliged to stand so much: "No, I don't get very tired when I iron; at least it's only my arms and shoulders that get tired. I don't mind standing, if I can have things my own way." And what her way was she then explained: "I always have a cushion for my feet when I stand at the ironing board. It is made of a dozen thicknesses of old carpet lining, covered with a drug-

get. The lining is cut in squares and very loosely tacked together with long stitches. The drugget is cut of the required size, the edges are turned in and overhanded; then strong stitches are sewed through about every two inches over the surface of the cover. I have a little loop on two corners of the rug, and hang it up by both loops. In this way it does not curl up and get out of shape, as it would if it were hung by one corner. I have another rug in front of my dishwashing table; indeed, there are numbers of them around the house, and when I have any work that requires standing, one of them invariably comes on to the floor under my feet.

"If housekeepers realized how much of their strength could be saved by a few of these simple devices, they would not fail to provide them. I can stand at my table as long again without feeling weariness if I have one of these cushions or pads to stand on. I think they might be a profitable article of trade. I have used them for years, and I can't see why they have not been generally introduced. They seem as necessary to me as holders and stove brushes."

HOW A PIANO SUFFERS FROM HEAT.

Interview in New York Sun.

You know the sounding board—the life of a piano—is forced into the case when it is made so tightly that it bulges up in the center. The wood is supposed to be as dry as possible, but of course it contains some moisture and gathers a lot more on damp days and in handling. Now when you put a piano in an overheated, dry room, all this moisture is dried out, and the board loses its "belly" and gets flabby and finally cracks. Even if it does not crack, the tone loses its resonance and grows thin and thny, and the felt cloth and leather used in the action dry up, the whole mechanism rattles and the piano is blamed.

How can you prevent it? Easily enough. Keep a growing plant in the room, and as long as your plant thrives your piano ought to, or else there is something wrong with it. Just try it, and see how much more water you will have to pour on the flower in the room where your piano is than on the plants in any other room. Some people keep a huge vase or urn with a sopping wet sponge in it near or under the piano, and they do this as long as their fires are kept up.

Sudden changes from cold to heat will

cause moisture, which is injurious to the finish and will rust the strings and pins of your instrument. But a piano in a room that is freezing cold, even 40 degrees below zero for that matter, can be gradually warmed and receive less harm in five years of such treatment than it will during one winter in the same climate if subjected to a continuous heat of 75 degrees.

HOW OFTEN TO BATHE.

Good Housekeeping.

A thorough bath of the entire person should be taken at least once a week during the year, and oftener through warm weather or where the employment is such as to render it a necessity. But it is not well, even in sea bathing, to drench and soak the system, as is so often done by those who are professedly in search of health. Nor should immersion in the water be continued for too long a time. From five to ten minutes is sufficient for children, from ten to twenty minutes for women, depending upon their physical vigor, and from fifteen to thirty minutes for men—the latter being as long as a robust man should remain in the water daily. There is one advantage in sea bathing which should not be overlooked, and it is that the air is always of the purest and most inspiring. This is a factor which should not be overlooked, since for all purposes of life, health and strength, pure air, in abundant quantity, is the correlative of the purity which comes from the bath, while both combined tend to vigor, long life and happiness.

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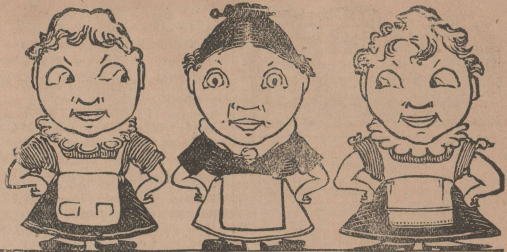
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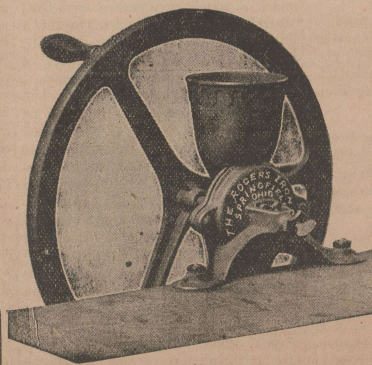
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Household.

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

FULFILLMENT.

Florence O. Jones in Woman's Chronicle.

No one fulfills the plan of his creation
Who cannot say
That he has led one soul from willful blindness
Into the day.
We may not stand on some high mountain sum-
With wisdom crowned, [omit]
And see a brother lie in human weakness
Low on the ground.

We cannot reach the blessed land of promise
By one swift flight.
But step by step, not halting in our weakness,
We reach the light.

If we but make a ladder of our failings,
And roundly climb,
Climb up, a helping hand outstretching,
Rest will be found.

Our welcome will be warmer, at the ending,
If it be known
That we have helped some struggling, fainting
To stand alone. [brother]

EDITORIAL CHAT.

Very welcome are you, Mrs. Adelaide, and thanks for your recipe for cantaloupe pickle. We sincerely wish your first fall garden may be a grand success. Tell us of its progress from time to time.

Moss Rose, with the modesty of the sweet flower whose name she takes, does not give us her real name, which we would like to know, but she greets us with such kind and encouraging words, that are as sweet as the perfume of the rose to our ears as the perfume of the rose to our sense of smell. Be sure you come again. We would like your essay for our department.

After a long absence, Nellie Jones comes. How glad we are to have you, and we do so regret that "the other letter," to which you refer, was lost, for it certainly did not reach us. How delightful that week in the country only you and others who are denizens of a city—hot and dusty, and crowded as even Dallas is—can know. We are often filled with wonder when we look at the great number of very poor people who eke out a meager existence in town simply because they love the noise and excitement. Too poor to participate in any of the pleasures a town affords, yet hanging on, goaded by hunger and crowded into dirty hovels, when they might go on a farm and at least breathe the pure air and have an abundance of plain food, and their children released from the contaminating influences which abound in the haunts of the crowded, poorer localities in our cities.

We have just had the pleasure of reading the first number of the Texas Home Corner, published in Austin, by Mrs. Julia Truitt Bishop. Her paper is a gem of purest water, just the paper to enrich, entertain and elevate our homes, and just such a paper as we would expect from her after reading the delightful talks in the Houston Post and her piquant original stories. We wish for her a success commensurate with her deserts, and would suggest that householders, who have not already done so, subscribe for Texas Home Corner.

A few weeks ago Mrs. Hamlett asked to be told where she might find peacock's plumes. If she will write to Wm. H. Neeld, box 124, Bloomington, Ind., she can buy beautiful plumes and quite cheap. We got them from this party last year.

Politics and the World's Fair, of late, topics of universal interest, have given place to a subject, the thought of which makes us, remote as we are from the terrible scourge, shudder, and fills our hearts with dread foreboding should cholera reach our country. In New York it is the all-absorbing subject. The most conservative and coolest admit the danger and even probability of its gaining a foothold in this country, and the most stringent measures are being adopted to ward off the danger. Along the coast and on the border there exists almost absolute quarantine, and in the large cities efforts are being made to perfect a system of sanitation. The hundreds of emigrants from Russia and other countries where the dread disease is raging, who are just landed and who are on the way, will be held in quarantine a sufficient length of time to disinfect their belongings and insure immunity from contagion.

A CHEERY LETTER FROM "HOME-FOLKS."

MRS. ADELAIDE LEFEL.

Will you let me enter your charming Household? I am not a farmer's wife, but I am interested in TEXAS FARM AND RANCH, and more especially in the Household department. My husband is a pressman, and prints and folds TEXAS FARM AND RANCH every week with the greatest care, so that it will be just right, neat clear and clean. He never forgets to put one in his pocket for me. I always look

forward to Thursday with pleasure. When I was first married I began clipping recipes from the Household, and intend making me a cook-book of my own. I thought one, but there is not one good, reliable recipe in it.

I saw a letter sometime ago asking if cantaloupe could be pickled. I am not real sure, but I think it has not been answered; I will give a recipe that I tried with splendid success this summer:

Spiced Nutmeg Melon.—Select melons not quite ripe, open, scrape out pulp, peel and slice; put fruit in jar; for 5 pounds fruit take a quart of vinegar and 2-1/2 pounds light brown sugar; make syrup and pour boiling hot over fruit for eight days; last time add 1 ounce stick cinnamon, 1 of whole cloves and 1 of allspice. Small melons can be stuffed like mangoes. I hope the lady, if she has not made all she wishes to, will try this one.

Now, Mrs. Buchanan, I have asked for a place among you. I can't say how deservingly I am, for I haven't been married long, and don't know much about keeping house, cooking, or "which is the best way to raise children." I simply do the best I can with all my strength and might—angels could do no more. I have only one child; he is a good child; and I have a kind, thoughtful husband. Both I consider great blessings. I am very fond of music, flowers and home. I intend having a small fall garden. Never made one before; hope it will be a success.

Feeling as if I was writing to an old friend, I have prolonged my letter. Please excuse me. With many good wishes.
Dallas, Texas.

A WARM FRIEND TO OUR PAPER.

MOSS ROSE.

Dear Household—Here comes another one from the Lone Star State seeking admittance to your department. I have read TEXAS FARM AND RANCH for four years, and like it better than any paper I have read during that time. I do not see why people will spend their money for a wicked paper, that is, one full of dirty, sinful news and vulgar advertisements, when there are good useful papers like TEXAS FARM AND RANCH. I think parents ought to provide their children with pure, useful and religious reading, and if they wish them to be Christians, to take a religious paper of some kind, and then give them good books to read, and set them a good example, and then those children will be an honor to their parents. But I hear some one saying, "You do not practice what you preach," so I will say adieu, promising to come again.

CONTENTMENT.

NELLIE R. JONES.

What a pleasure is a contented spirit; it lights the dark path for many a weary heart which the giant despair has laid desolate. I would that every creature were endowed with the gift to always look on the bright and cheerful side of every day life. We believe that there is no one absolutely free from cares and troubles. "Fighting within and fears without," seems to be the lot of many, but, dear friends, do we ever put ourselves on the witness stand of conscience and let that shame, lawyer, Love, cross-examine our hearts to see just precisely how much we are to blame for our sorrows; and then do we ever make a trial balance, and put our errors opposite those of our loved ones, and our kind and loving deeds against the same of those with whom we come in contact daily, and then compare results? I am afraid if we should each do this honestly we would have less to complain of about others, and we would have to check off many a harsh word and unkindness to our own account.

I have spent a delightful week in the country, and it does seem to me that of all situations those who enjoy the free life in the country are the most abundant. Surely nature and nature's God has spread with lavish hand the brightest colors and richest hues for the benefit of those who wish to enjoy them. No artist, however skilled, can compare with the scenic effects produced by a natural landscape. The broad, sloping prairies, stretching away until they seem to unite with the horizon, the rustic bridge across the lowly stream, thickly studded with massive trees, the thick, dark foliage inviting you to rest under the shade of its branches. If you follow your inclination you will ramble through the wood and along the ravines, you will spy luscious wild grapes while the birds keep up a wild melody about you, and the locusts keep up a shrill accompaniment. Truly, if people could only appreciate their blessings, they would praise the powers that be that they can enjoy the country life of to-day. Ah! I hear some one say in a tired little tone she knows nothing about the milking,

churning, gardening, large washings, heavy men to cook for, etc. Well, possibly I have not had much experience, but I know one dear little soul who manages to accomplish this vast deal of work, and yet finds time to look neat, prepare dainty articles for her house, and always has time to entertain her guests well, and show them the beauties of country life, and she rarely passes a week in the summer without company.

The lack of system ruins more families than any one cause, both in the country and city. When women reduce their work to a system like men do, there will not be so many overburdened housewives. Another unpleasant feature is the thoughtlessness of the men of the household. They will come in from their work and throw their garments on chairs and trunks, sit on the bed and muss it up, their papers are scattered all over the house, and so on. If boys were taught from childhood to wait on themselves and take care of their things they would lessen the work of mother, sister and wife. Of course no good loving husband will leave heavy work for the wife to do. He will feed the pigs, dig the potatoes, carry the water, and keep a generous supply of wood on hand. But fearing this will grow to be rather a lecture than a short chat, I will desist.
Dallas, Texas.

HEN-MINDEDNESS.

Goodform.

Mr. William Dean Howells has invented and defined the term "hen-minded." Here is his introduction to it in his new novel entitled, "The Quality of Mercy." "Mrs. Northwick, one of those hen-minded women who are so common in all the walks of life, and who are made up of one aim at a time, and of manifold anxieties at all times." We must confess the characterization hard to excel, and no Duty in the United States, but we could not permit Mr. Howells, who has had many flings at women folks from the beginning until now, to make such an indictment with safety to himself had he not, with wise discretion, added in the same breath: "There are hen-minded men as well as women." With this qualification, "On Duty" quietly lifts his phrase on the point of her pencil into the thoughts of her half-million readers, and suggests that they pass it along until it becomes a smooth-worn pebble of woman's speech, and helps to shame every one of us out of "hen-mindedness." If we are afflicted with such distemper.

A DEAD LETTER OFFICE.

Isabel Smithson in Short Stories.

Cousin Ruth was playing waltzes for the young folks. Near her stood John Graham, one of her old beaux. He had lately come home after an absence of twenty years.

John was looking at Ruth with apparent concern, counting the lines that began to mark her pale face and noting the streaks of gray that ran through her hair. It had been so dark and thick the last time he had seen it! Then he gazed thoughtfully at the merry young dancers, and at last, feeling that he ought to say something, asked:

"Who is that graceful yellow-haired girl?"

"That is Grace Deering, Cousin Tom's daughter," Ruth replied. Her hearer exclaimed wonderingly:

"Tom Deering's daughter! I remember him so well!" After a pause he added, "I thought you and he would have been married long ago."

Cousin Ruth smiled, shook her head and played on without speaking.

"The last time I saw you," said John musingly, "you were waltzing with Tom himself—do you remember it?"

Did she recall it? Twenty years had passed since young Jack Graham had bidden her a cold and brief farewell, and she amazed and awe-struck by his manner, had merely said "Good-by," and let him go. Yet the memory of that night had never left her.

"I wonder why Ruth is playing that old-fashioned waltz," said the elders of the party to each other, and John Graham listened spell-bound to the well-remembered strain.

"Ah," he said suddenly, "the tune recalls the past. I sent you a bunch of violets that very night, and hoped that you would wear them. Oh Ruth, what a heartless flirt you were!"

Old as John had grown, his eyes wore a familiar expression as they met hers.

As soon as the young people had tired of dancing, Cousin Ruth went up to her room and locked herself in, giving way to strange emotion. From the lowest depths of her trunk she took an old brass-bound box that had not been disturbed for twenty years. Unlocking it she hastily raised the

lid. Instead of the fresh, sweet violets she had laid in it, there were a few crisp, shapeless, and withered petals, beneath which for the first time she discovered a bit of paper on which these words were:

"Once for all, Ruth, is it yes or no? If yes, wear these violets at the ball to-night. I go away to-morrow; and if it is no, I shall not return."
J. G.

For a few minutes Ruth stood motionless. Clasp the little missive she went downstairs. One of her nephews, passing her in the hallway thought how pretty she must have been when she was a girl. Her face was aglow with an unusual beauty. She went into the sitting room where John Graham sat alone. He was gazing moodily at the embers of the fire. Ruth approached and putting the piece of yellowed paper gently into his hand said calmly:

"I never saw it until this instant." He looked at her in mute astonishment as she was about to turn away.

"Would you have worn my flowers had you found my note?" he asked hurriedly. "Ah, Ruth, is it now too late?"

The merry voices in the next room drowned her answer to all but John Graham; he alone heard it.

THE WORLD'S FIRST WEDDING.

Ladies' Home Journal.

What a morning that was of the world's first wedding! Sky without a cloud. Atmosphere without a chill. Foliage without a crumpled leaf. Meadows without a thorn. It shall be in church—the great temple of a world, sky-domed, mountain pillars, sapphire-roofed. The sparkling waters of the Gihon and the Adidekel will make the fount of the temple. Larks, robins and goldfinches will chant the wedding march. Violet, lily and rose burning incense in the morning sun. Luxuriant vines sweeping their long trails through the forest aisle—upholstery of a spring morning. Wild beasts standing outside the circle looking on, like family servants from the back door gazing upon the nuptials; the eagle, king of birds; the locust, king of insects; the lion, king of beasts, waiting. Carpets of grass like emerald for the human pair to walk on. Hum of excitement as their always is before ceremony. Grass blades and leaves whispering, and the birds chatter, each one to his mate. Hush, all the clouds. Hush, all the birds. Hush, all the waters, for the king of the human race advances, and his bride—Perfect man, leading to the altar a perfect woman. God, her father, gives away the bride, and the angels are the witnesses, and tears of merriment dew stand in the blue eyes of the violets. And Adam takes the round hand, that has never been worn with work or stung with pain, into his own stout grasp and says: "This is now bone of my bone and flesh of my flesh." Tumults of joy brake forth and all the trees of the wood clap their hands, and all the galleries of the forest sound with carol and chirp and chant, and the circle of Edenic happiness is complete; for while every quail hath answering quail, and every fish answering fish, and every fowl answering fowl, and every beast of the forest a fit companion, at last man, the immortal, has for mate, woman, the immortal.

Married—Wednesday, the 1st day of June, in the year 1, Adam, the first man, to Eve, the first woman, High Heaven officiating.

RECIPES.

Alice Chittenden, in New Delta.

Sweet Potato Pie—Wash six large size sweet potatoes, boil, drain, peel and mash through a colander into a large earthen bowl; add three large spoonfuls of sugar, three beaten eggs, half a cupful of butter and one quart of sweet milk. Bake with an under-crust only and spread with a meringue of the whites of two eggs beaten stiff with two tablespoonfuls of powdered sugar. Will keep several days and is better cold than hot.

Croquettes—Take three cupfuls of mealy, mashed, baked sweet potatoes, and while beating with a four pronged fork as you would whip eggs, add slowly a tablespoonful of melted butter, a teaspoonful of lemon juice, salt and pepper and a grill of cream. Mold into small cork-shaped croquettes, dip in egg and bread crumbs and fry in hot lard or drippings.

Fried With Bacon—Cold sweet potatoes are delicious fried with pork or bacon. Fry eight ounces of thinly sliced pork or bacon, transfer to a hot dish, and fry in the drippings a quart of potatoes which have been boiled, peeled and sliced rather less than half an inch thick.

Stuffed—They may be stuffed the same as white potatoes. Bake until nearly done, some round potatoes with smooth skins. Take from the oven, cut a bit from one side and with a teaspoon remove the inside; mash it well with salt, pepper and a

MACHINERY

ty is sometimes only paint deep.

Atato planters and potato diggers are at odds to profitable potato culture.

The way to control the course of a vehicle or hen-pecked husband is with the tongue.

Strange, but true: A thoroughly tried wheel is capable of going the longest distances without breaking down.

A Dallas man has invented and patented a fishing machine. The Prohibition Party should present him with a gold medal.

If the present tendency to raise lintless cotton continues, the threshing machine manufacturer is liable to chase the cotton-picker-stock jobbing-scheme into the poorhouse.

With the improved farm implements now made, a man can cultivate four times as much land as could be done under the previous plan, and raise four times as much produce.

It is undoubtedly true that many farmers buy implements which they ought not to buy. No farmer should buy an implement unless he needs it and is willing not only to use it but to take care of it. Any implement that is left exposed to the weather ought not to have been bought. The object in all purchases of farm machinery should be to enable the farmer to do his work better and in a shorter time, thus enabling him to earn leisure for other purposes than labor. There is no good machine adapted to the place and season that will not be a source of clear profit, if it is properly used and properly cared for, and there is nothing more expensive than costly machinery neglected.

The prevalent discussion of the road question should actuate manufacturers to place upon the market a road improvement wagon. We believe the people are nearly ready to adopt a vehicle constructed for that purpose. There can be no good reason given why three or four-inch tires should not be used. A wagon made to work three horses abreast would probably be better. Convince the people that three horses thus applied will haul the load of four horses hitched in the usual manner, and they will adopt the plan. Perhaps a combination of the two systems would be better than either. Wide tires and three abreast has always worked well wherever tried. They have been in use in Louisiana for fifty years, especially in cane fields.

I found it in a Chicago Sunday morning paper. When a man finds anything in a Sunday morning paper of this city it is indisputable evidence that he is in robust health and duly sober. A search for the north pole would be a tame affair compared to the hunt through one of the mammoth papers for a particular paragraph. The man who succeeds in perusing one in a single day shows powers of perseverance and endurance that would be the envy of a Sullivan and pride of a Corbett. Who would have thought that Keating, the head of the greatest machinery house on earth would have slipped off and become a professor. But then, "seeing is believing," and here's what I saw in the aforementioned Sunday paper:

HOW TO MAKE MUSCLE.

NEW APOSTLE OF PHYSICAL CULTURE.

Professor Keating Tells About His Original Method for Developing the Human Frame—A Striking Exponent of the Result of His Theories.

Listen! "Keating for a number of years has been engaged in evolving from his inner consciousness an original system of physical culture and muscular development."

May be this accounts for the fact that Harry Keating has had to stay home and see that the demand upon the Keating Implement and Machinery Company for machinery which pours in from all quarters is supplied. If this report in the Sunday Herald is true, I expect any time to hear that Billy Robinson has resigned the management for the Parlin & Orendorff Company's business and become a professor of dress reform, with millinery parlors taking the place of his beautiful carriage repository, or possibly John Hunter may do business at the old stand under a sign like this:

"Shapes made to order. Anybody can have a beautiful form under Prof. Hunter's new calisthenic system of training. Come in and have your waist reduced."

Think of Bob Munger presiding over an elegant establishment bearing this legend: "Prof. Munger, ladies high art tailor; in-

ventor of the latest and most fashionable corset-condenser for obese women and double box expander for lean women—warranted not to break the fibre or injure the sample."

How would Burr appear as Professor of Lilly White politics? His sign might read, "Republicans with consciences on hand; new method of distinguishing an honest Republican from an office-seeker—Democrats reformed."

Now that this professor business has struck the machinery men, there's no telling where it will end, unless the cholera overtakes it. How'd this look in hand-some gold letters:

"Prof. Harry Keating, Clairvoyant; trance-business medium. Hours, gentlemen, 12:30 to 12:35 p. m.; ladies, 9 a. m. all hours. Satisfaction guaranteed."

Now that C. A. Keating has branched off and started a new fad, you need not be surprised to hear of anything startling from the others. If, on my return, I should meet Maj. Taber strutting down the street in a spotted shirt and four-inch silk belly band, I'd show no surprise; and if Hardy is not out in a full Jeness-Miller costume, I'll simply say I've returned just a few days too soon.

I shall look up Prof. Keating and try to borrow a hundred, and in case of refusal, will write another letter and send you a picture of him in his new professor's suit.

OUR BAD MAN.

Editor TEXAS FARM AND RANCH—I got aboard the Texas & Pacific train on the morning of the day that bill collectors make their rounds and arrived in St. Louis next morning in time for early breakfast.

My first visit was to the Whitman Agricultural Company, where I hoped to secure an advertisement of a new grain drill this company is putting out. President Chas. E. Whitman was absent in the East looking after the big hay press trade which his company is having, and I was informed by the Rev. Harry Whitman that owing to the extraordinary demand upon them for hay presses they had been unable to manufacture grain drills in large quantities this season. Still, they have made and put out a sufficient number to show that they have in their new drill many superior points of merit which will pave the way for a demand for another season.

My next call was to the Kingland & Douglas Manufacturing Company, whose machinery has been making friends and holding fast to customers in Texas for half a century. Like the Whitman people, they are loaded up with orders.

I next tripped over to see Mr. F. W. Terpening, Western Manager for D. M. Osborne & Co., and found him deeply engaged in an earnest effort to tame a new bicycle, which some friend, with malice aforethought, had sent him. The battle was brought to a sudden end when Mr. Terpening received a message from the agent of the life insurance company, in which he held a policy, to the effect that the policy would be canceled if he didn't give up the bicycle taming business.

All the St. Louis machinery manufacturers and dealers report a satisfactory business and an illuminated future.

Being through with St. Louis, I took a train over the old reliable Chicago & Alton for this city, where I landed just before the battle between the police force of Chicago and Brown, the horseman. For some time the authorities of Chicago have been endeavoring to break up racing at what is known as Garfield Park by arresting most everything and everybody, except those directly responsible for the claimed violation of municipal laws against gambling. A large number of policemen, whose marksmanship and language had never been naturalized, began discharging their pistols in the neighborhood where Brown was because he had refused to tip his hat and bow low enough when addressed by one of them. This excited Brown, and he at once proceeded to send two of "Chicago's finest" to where the cholera never goes. Another policeman, by a strange and unaccountable accident, after many unsuccessful attempts, succeeded in starting Brown's soul over the great divide. Three deaths is the result of the mismanagement of those who are paid to defend life and property. Even the cholera will be afraid to visit Chicago if she don't better discipline her police force.

A visit to the David Bradley Manufacturing Company revealed the fact that they are busy preparing goods for future delivery, and happy over a splendid line of orders already filled. Their new disc harrow and disc cultivator have met with a splendid reception from the trade, and numerous testimonials from users show that confidence placed in anything put out by this concern is never disappointed.

The Famous Manufacturing Company say they have been unable to keep up with orders for their Champion hay presses.

I learned that J. M. Wendelken was

here and intended staying some time, but was advised by the physicians to return to Texas at once, as he was taking on fat too fast. The bacilli in Chicago water seemed to promote the growth of adipose tissue between the bones and skin, which he has been wearing around in Texas, and as he had already gained a quarter of an ounce, the doctors advised him to return, as they feared for the worst. Post Billy Robinson, and tell him to fight shy of Chicago bacilli. This fat-promoting bacilli is only found in the water, hence Keating and myself are not likely to be injured.

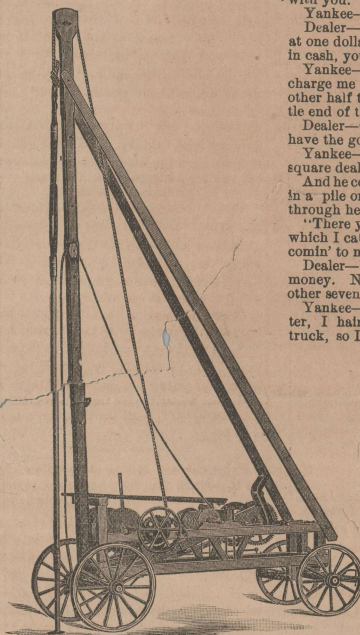
Some cotton picker stock is still offered on the market here, and an occasional sucker takes the bait.

I have arranged to have a seance with Col. C. W. Marsh, editor Farm Implement News, and Hon. Dave Barclay, of Elgin, next week, and in case I don't write again soon you'll find my life insurance policy in my private drawer in the safe, which please hand to my wife.

Chicago, Ill.

STANDARD WELL-DRILLING MACHINERY.

Waterloo, Ia., is becoming quite famous on account of its being the center of the West for well-drilling machinery. One of the most extensive factories in the world



devoted to the production of goods of this class—that of Morgan, Kelly & Tanehill—is located in Waterloo. These people make everything in the line of well-drilling and well-boring machinery. Their shops are furnished with the latest style and most approved appliances for the work, and they are prepared to supply anything in their line as good and as cheap as can be produced anywhere. Their trade is extensive and it is constantly increasing. The necessity of an ample supply of water on every farm and for every household is acknowledged by all, and whoever furnishes the cheapest and best means of obtaining this necessity is a benefactor. The accompanying illustration gives a very good idea of the Standard low down, mounted, patent well-drilling machine, made by Morgan, Kelly & Tanehill. It has all the latest improvements and is made low down so that when mounted on trucks the various levers and working parts are within reach of the operator, and it is steeper on the ground when in operation. For further particulars send to Morgan, Kelly & Tanehill, Waterloo, Ia., for catalogue.

BALL-BEARING AXLES.

Western Plowman.

The ball-bearing axle and the pneumatic tire, with which the sulky for the race track has been provided, is regarded as a decided success. Friction is reduced to a minimum, and the horse has no unnecessary draft to retard his speed. Now, if ball-bearing axles are a good thing on the sporting sulky, why is it not a good thing also on the common, every-day buggy? Isn't it about time for the greased axle, that isn't always greased, to be retired in favor of something more modern

and scientific? Perhaps the pneumatic tire will be impracticable for every-day use, but a practicable ball-bearing axle at reasonable price ought to be devised, and no doubt will be. Don't let the jockeys and gamblers monopolize all the good things.

A BROOM SPECULATION.

House Furnishing Review.

A 6-foot Yankee, seated upon a load of brooms, drove his team up before the door of an establishment where he expected to find a purchaser. Jumping from his seat he entered the store and the following colloquy took place:

Yankee—Can't I sell you a load of brooms to-day, mister?

Dealer—No; don't want any.

Yankee—Better take 'em—sell 'em dog chesep.

Dealer—Don't want 'em; got enough brooms.

Yankee—I'll tell you what I'll do: if you'll take the lot I'll let 'em go for one dollar a dozen. You know they're wuth double that.

The dealer stroked his chin a moment, as if in deep thought, and replied:

"Well, I don't want any brooms, as I told you, but I don't mind making a trade with you."

Yankee—What sort of trade?

Dealer—Well, I'll take your whole load at one dollar a dozen and pay you one-half in cash, you take the other half in trade.

Yankee—No you don't, mister! You'll charge me such an alford profit on the other half that I might come out at the little end of the horn.

Dealer—Oh, no; I promise you shall have the goods at just what they cost-me.

Yankee—Wall, mister, that's what I call square dealin'. It's a bargain.

And he commenced to unload the brooms in a pile on the side walk. When he got through he walked into the store.

"There you are, mister; fourteen dozen, which I calculate makes just seven dollars comin' to me."

Dealer—Yes, that's right; there's the money. Now what do you want for the other seven dollars?

Yankee—Wall, I dunno, you see, mister, I haint nuth posted on your other truck, so I guess I'll take brooms.

HOWE, TEXAS.

August 29 1892.

David Bradley Mfg. Co.,

Chicago.

GENTLEMEN:—Yours regarding disk cultivators received. Would say I have sold four of your Walking Disk Cultivators and they have proven very satisfactory, and I think they are going to crowd out all shovel cultivators in this section. I have not had any of your Riding Disks yet, so do not know what they will do, but the walkers are good and I will be able to sell a good number here the next season. The farmers that had them this year say that they have better corn this year than they ever had before, and they attribute it to the cultivator.

(Signed) W. J. TIGHE.

Garland News: We are more convinced every week that TEXAS FARM AND RANCH is the best farmers' paper published in America. It is chock full of good things every week.

Maid: How could you be so free with Mr. Gabbie, an entire stranger? Kate: He is not an entire stranger. He lost one arm several years ago.—Boston Transcript.

GAINESVILLE, TEXAS, July 21, '92.

Mess. Parlin & Orendorff Co., Dallas, Texas.

GENTLEMEN:—I am using the Tricycle Plow bought of you, and I will add a word of praise for its lightness of draft, strength and ease of management. Every one that wants a riding plow should buy a Tricycle. Yours very truly,

J. W. GRIGGS.

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.

Poultry and Bees.

Falstaff objected to eggs from a flock led by a male bird, and he was right. There must have been some knowledge in Shakespeare's day of the fact that when fowls are kept for eggs alone it is not only a waste of food and a torment to the hens, but a detriment to the fine quality of the eggs to let run with them what Mr. Bliss has well called dead-head roosters. In modern times it has been shown that impregnated eggs will not keep nearly so well as those from maiden pullets. We have bought eggs for settings and dispensed with males for some years, and have saved by it more than the cost of the eggs we have bought in the large number of eggs laid by the relieved flock.—Rural World.

One of our poultry exchanges has an article headed "A Fortune in the Poultry Business." There is more truth in the heading than in all the rest of the article, but it is not the kind of truth that the writer bargained for. There is no "fortune" in the poultry business," but no man has and no man will, under prevailing conditions, get a fortune out of the business. Poultry raising has been injured as a business by the rosy-hued statements of enthusiasts, who were more expert with figures and fancy than with facts. Texas Farm and Ranch has never seen the color of the hair, nor heard the sound of the name of the man, who has become rich raising fowls and eggs for market. But poultry raising is an important feature of farm economy, and adds materially to the general result when proper care is given to the fowls. There is a place on every farm that only fowls can fill, and that would otherwise remain vacant and unappropriated. But don't make the mistake of presuming that because a few hens may bring 100 per cent profit, that you can stock the entire farm with hens—turn it into a hen ranch and make 100 per cent profit. Every farm has a given capacity for fowls, and this depends as much upon the general economy of the farm as upon its size. Every fowl above this capacity will subtract from the profit of the remainder. Learn by experience—that's the best way—just how much poultry you can profitably keep and do not exceed that limit.

HOW TO IMPROVE THE FARM POULTRY.

H. B. GEER.

Although ten years a breeder we have never yet allowed ourselves to run to the fancy in poultry to the detriment of economical or commercial values. We see in all fowls their ultimate purpose and fate, which is either to fill the egg basket or the frying pan. Of course there are fine specimens of each and very fancy breed that are kept simply as breeders, and are valuable to their owners as such. But, nevertheless, no breed can stand long or meet with public favor and support unless it possesses superior qualifications for the market and the table. A handful of breeders may be able to make some money out of the strictly fancy, as breeders, but the great majority—the public—are more interested in a hen that is a good layer, or one that is a superior table fowl.

We believe in doing the most good to the greatest number, and in doing it as cheaply as possible, and in elevating the grade and improving the farm poultry, we recognize in the thoroughbred male bird the most potent and the cheapest factor. In mating up their fowls, people often lose sight of the fact that the cock is one-half of the breeding pen. This is a fact that must not be lost sight of when the improvement of the common fowls on the farm is under consideration.

Every farmer's wife, and often the children, too, think a great deal of the good old common hens about the place, and some of them are particular favorites—and few meritorious. Some people will have what they like, and we say let the good housewife keep her mongrel hens if she is attached to them. But we would advise her to dispose of the old scrub rooster. Let him go. Get him off of the place and get a thoroughbred one of some good breed. Suppose we get a good Leghorn cock and let him run with the common hens. He won't cost much—only one fowl—but he is capable of working vast improvement in the new crop of chickens. He would impart to them just one-half of their make up, so then, they would be half Leghorn. That's not working much change in the old flock of fowls on the place, but it is imparting a vast improvement to the new generation.

Leghorns, especially the Browns, are reputed to be great layers, and our experience convinces us that they really are the leaders so far as the egg basket is concerned. The Leghorn blood falls wherever it goes; so our half-breed new crop of pullets would certainly lay when much younger than

their mothers were when they first began to lay. Fully two months earlier would the half-bred seek the nest, and the simple fact that they were from fowls that were not akin would tend to make them larger, stronger and more vigorous than their parents on either side. The pullets from such a mating would possess, to a sufficient extent, the Leghorn laying qualities to make them much better layers than their mothers. They would also be nearly uniform in shape and carriage, if not in color. In fact, the chickens from common hens mated with a Leghorn cock, would be highly valuable and desirable chickens, and a good long step on the way to improvement in the farm poultry.

Nashville, Tenn.

WANTS UTILITY.

WM. WOOD.

I have always liked TEXAS FARM AND RANCH, and I like it better than ever for your bold faithful and fearless manner of defending the farmers' cause with the fancy breeders of poultry. What the farmers and their wives need is honesty to deal with, and we so often get bitten by trusting to sharpers in poultry. I have having Plymouth Rocks, and not being satisfied with their laying abilities, I tried the White Leghorn rooster with them—the thoroughbred, so claimed to be by the dealer—began in a few days after buying to develop feathers on the legs, where they had been out off; and besides this he was worthless, was not known to mate with a hen all winter. I exchanged him for a yellow hen in the spring with a neighbor. The next deal was for three Houdans, a rooster and two hens that cost me six dollars. As I dealt with a woman, I felt sure I had gotten an honest deal, but oh, my! The hens were old, and I thought never would lay. But one did lay three months; laid once in three days, and three months; laid every other day for a short time and began to st. Wondering what kind of a mother this constant laying and non-setting fowl would make, I set her, and she took good care of the chicks for nine weeks. The other hen laid after about four months, every other day until she took sick, which stopped her. I think from the two hens I have had this summer (and I bought them in the spring) about three dozen eggs. So you see from my experience, your part in the poultry discussion—takes hold and fits in just right. And now I want to know what you consider the best breeds for an all purpose fowl on the farm. We think of making it a business as we can work into it, but want fowls for eggs produced mostly. If you will give me your opinion of best breeds for laying, I shall be greatly obliged.

Do you know of a white breed larger than the white Leghorn that will lay as many eggs in the year?

Ryan, McLennan Co., Texas.

[For eggs, Leghorns are best, for eggs and flesh, Pit Games, Plymouth Rocks, Langshans. White Leghorns will lay more eggs than any other white breed. White Cochins and white P. R's are larger.—Ed.]

NO BROODER NEEDED.

Farm and Breeder.

Our experience in raising chicks the last two years after real warm weather has set in, has been so satisfactory that we have not let a hen run with a chicken for the past year. As soon as the chicks are hatched out we take them from under the hen, put them in a market basket or small box, with some old cloths in the bottom, and then wrap them up snugly so that they will keep warm. Of course when the weather is cool we are more careful about wrapping them up, and we carry them in the house of nights or down in our green-house cave, (which, by the way, every poultryman should have) as they can then let the little chicks run under the benches during stormy, bad weather, and on fine days let the chicks have a free range out of doors, or in a yard; they are some little trouble for a week or ten days. After that they will take care of themselves. After the middle of May, by feeding three or four times a day, they may be allowed to range at will, as they will come home, so accustomed are they to your call. Have a yard with smaller yards in it, and fix a place that only we little chicks can get in; then another yard for chicks three and four weeks old, then another for larger chicks, and so on for three or four grades. Then you can feed them with some satisfaction, as the little ones can get the kind of feed intended for them.

We have raised every chick this summer in this way, and I believe I am safe in saying we have raised 95 per cent of all chicks hatched. The old hens are not dragging the life out of chicks, nor do they have them so lousy. We take great pains after the little ones are hatched to see that there are no lice on them. If we find any, a

very little grease, not salty, but pure lard, is rubbed on the back of their heads and under necks and below the vent. This scatters the lice. Then we change their basket cloths the next day, and again in about a week we repeat the same. This generally cleans them up, and as the new feathers start on the young chicks they lose the dense coat of down and then lice have no chance to hide.

Chicks treated as above described will grow like weeds and will be clear of lice, unless allowed to roost with older chickens. We have never had such satisfactory results in raising chicks as we have the past summer. Another advantage of this kind of management is that the brooding hen, as soon as the chicks are taken away, will go to laying again. A brooder is useless for us for we have never raised stronger or healthier chicks than we have this summer. A number of our neighbors have tried the same plan and like it very much.

Farm Field and Stockman: Honey has been enclosed in well corked flasks, some of which were kept in perfect darkness, while the others were exposed to the light. The portion exposed to the light soon became crystallized, while that kept in the dark remained unchanged. Hence we see why the bees are so careful to obscure their glass windows which are placed in their hives. The existence of the yeast depends on the liquidity of the saccharine presented to them, and if light were allowed access to this; it would prove fatal to the hive.

A writer in the Homestead says: "I have raised over 20 different breeds of fowls during the last 20 years, and their crosses, and the fowl which have given me the best satisfaction is obtained by crossing the Silver Polish Cock with Light Brahma hens. Such a cross makes a fowl about the size of the Plymouth Rock. The cross between the Light Brahma cock and Silver Spangled Hamburg hens makes a very handsome as well as useful fowl. They are grand layers and good mothers. Those two varieties are the best I have obtained out of all my experiments. They both have small rose combs, so there is no danger of their freezing in the winter and stopping the fowls from laying a month or six weeks when eggs are the highest."

Western Plowman: Do you want to learn how to kill chicks with facility? The common custom is to keep a dish of "Indian meal dough" mixed up and two or three times a day a lot is thrown down to the chickens. If they eat it, well and good; if not, and the chances are they will not, they having become tired of one single article of diet set before them day after day it stands and sours. If a quantity is thus found uneaten, the next feed is likely to be a light one, and the chickens, driven by hunger, finally devour the sour stuff; the result is, cholera or some other fatal disease sets in and their owner wonders "Why my chickens are all dying off." In our own practice we find that small quantities of varied food, if given to the chickens often, produce vastly better results than any other method of feeding."

"There are some breeds that lay very large eggs, among them being the Black Spanish, Minorcas, and Houdans. The best way to increase the size of the eggs is to use a male from any of the breeds named, and cross on the largest and best hens of the flock, selling off all the stock next season except the pullets from the cross, which should be retained. These breeds are not considered equal to some others for market, but if the pullets of the cross are mated with males of some choice market variety the chicks will be equal to those of any other cross. In this way the flock may be improved with but little expense, only the purchase of a male being necessary."

We would call the attention of Helly-bower to the fact that the above extract is from the Southern Fancier, and is legitimate game for his blunderbus.

BEECHAM'S PILLS for a bad Liver.

EIGHT HUNDRED GALLONS OF WATER PER HOUR THROUGH PIPE 350 FEET LONG.

One of the most prominent theatrical managers in the United States is Mr. A. M. Palmer, of New York City. He has a fine country seat at Stamford, Conn., and among the conveniences of his elegant home he numbers a 6-inch Improved Rider Hot Air Pumping Engine. He says it gives perfect satisfaction, and adds, "It forces water, easily and freely, through pipe 350 feet long, and with a raise of about 50 feet, at the rate of about 800 gallons per hour." Our readers ought to be interested in such an engine, and should write for illustrated catalogue to the De Lamar Iron Works, 21 Cortlandt St., New York City.

"WORTH A GUINEA A BOX."

STILL ROLLING

St. Helena, England, is the seat of business.

BEECHAM'S PILLS

are made there. They are a specific for all Nervous and Bilious Disorders arising from Weak Stomach, Impaired Digestion, Disordered Liver and all Female Ailments.

THEY ARE COVERED WITH A TASTELESS AND SOLUBLE COATING.

Of all druggists. Price 25 cents a box. New York Dep't 1, 36 Canal St.

FALL Eggs and Plants, Fowls, Poultry-books and Papers; finely illus'd circular free. Address GERR BROTHERS, St. Mary, N. J., Or, H. B. GEER, Nashville, Tenn.

BEEPS! QUEENS! HONEY! Honey Extract-Foundations. See books and Apian Supplies for sale or exchange for beeswax. **CULWICK & CULWICK, Norse, Texas.**

Elmwood Poultry Yard

The largest Poultry Yard in Western Texas. Have won more First Premiums at the Dallas State Fair than any other breeder in the State. Have eggs for hatching at \$2.00 per 15 from the following breeds: Silver Spangled Hamburgs, White and Brown Leghorns, White Minorcas, Plymouth Rocks and Langshans. R. A. CORBETT, Baird, Texas.

Neches Poultry Farm.

The Largest Poultry Farm in the Southwest. The only man in Texas who devotes his whole time to Poultry Culture. Twenty-two varieties of Poultry, also Pigeons, Pet Stock and Scotch Terrier Dogs; 18 first and 10 second prizes at Dallas Fair. Write for wants. Send 2 cents for 12-page catalogue.

J. G. McREYNOLDS, P. O. Box 75. Nechesville, Texas.

NO HATCHER MADE

Can show better results Over 60 in successful operation of Hatcher, 115, alone. The greatest hatch ever accomplished, 25 chicks hatched at same time, with a 2 days' incubation. Hundreds of testimonials. Send 4 cents in stamps for new illustrated catalogue. For TABLE INCUBATOR & BROODER CO., QUINCY, ILL.

Eggs for Hatching a Specialty.

Stock first class, carefully mated in large, roomy yards. Birds vigorous and healthy. Eggs \$2 per 15 from Barred and White P. Rocks, White and Silver Wyandottes, Black Langshans, Brown Leghorns, Black Minorcas, Buff, Pekin and Japanese Bantams. \$3 per 15 from Ga. Shawhocks and Blue Heron Pit Games, and Exhibition B. B. Red and Red Eye Games. Pekin Duck eggs \$1.50 per 11. Angora Rabbits and Guinea Hogs \$2.50 per pair. Safe arrival guaranteed. Bees and queens. Price list for a stamp. 43 years in Texas.—B. F. GARBOLL, Blooming Grove, Navarro Co., Texas.



Water, Fire and Wind Proof! Anyone can Apply It. Cheaper Than Shingles!—Wood-Pulp Asphalt Roofing, Building and Sheathing Papers, Roofing Paints and materials. Circulars and Samples free.

CHILLS

WINTERSMITH'S Tonic Syrup or Improved CHILL CURE!

The most successful Remedy for Fever and Ague ever known. Prevents Malaria in its various forms. Contains no Quinine, Arsenic nor any deleterious substance whatever. Reasons of the superiority of Wintersmith's Tonic over Quinine and other Remedies.

The remedies usually given have reference only to preventing the paroxysm or breaking the chill, without regard to the condition the system may be left in after the chills have been removed; whereas the mere breaking of the chills is but a small part of what is required to effect a radical cure. The various organs of the body, more especially the liver and the stomach, must be brought into a healthy condition, otherwise a return of the chills will be probable. A proper use of Wintersmith's Tonic never fails to remove the cause and cure the most obstinate case of Fever and Ague.

ARTHUR PETER & CO., Agents, LOUISVILLE, KY.

a new growth up to date, (Aug. 10th) by actual measurement, of one and one-half to one and three-fourths inches in diameter of stem, and 6-12 to 8 feet high, and 5 to 8 feet of head in width, and require no stakes. I think it would take a tornado to uproot one. Seven pear trees and three Persian walnuts pruned the same way are growing very rapidly. The fact of my pruning my trees this way caused many remarks, and much opposition from my friends; they saying that I would surely lose all my trees, but now they are very much surprised at the result of their most phenomenal growth."

PEARS—A CRITICISM VS. EXPERIENCE.

NATT STEVENS.

Your correspondent, Alf. H. H. Tolar, of Alvin, in your paper of last week, makes some very interesting statements about the product of the pear in general at his place, but they are misleading—somewhat speculative, in other words; calculating the income of ten acres of 10-year old trees at "fifteen thousand dollars a year, saying nothing about the value of the surface crops of vegetables, berries, etc., or tree cuttings saved and rooted each year in or among those trees each year." And he only reckons 100 trees to each acre, or 1000 trees in all. Now, it would have been just as easy to have shown the value of his ten acres to have been forty-five thousand dollars as fifteen thousand; then why not make it that amount at once and not wait ten years for it.

My pear trees are planted in squares twelve feet apart, making at the rate of 300 trees on each acre, and by friend Tolar putting his trees that distance apart he might possibly reckon the value of his product on ten acres of 3000 trees to be forty-five thousand dollars just as easy, "to say nothing about intervening crops, rooted cuttings, etc."

He speaks of pear trees in Mexico and other countries 200 years old that are still living, and only mentions two varieties anywhere. Perhaps that number is all that he knows of—that is Le Conte and Kieffer, varieties that he infers are said to be 200 years old, when neither the Le Conte nor Kieffer varieties are over 50 years old yet. I will not criticize the article further, as experience is our best guide.

My pear trees are set out twelve feet apart each way, and I would not change the distance now "I could, unless it were

to put them at ten feet each way and cut out trees afterwards if their branches should interlock too much—and many will die anyhow as years roll around. This last distance I would put Kieffer and Le Conte trees; other kinds of pears twelve feet apart each way, as a pear tree does not occupy much space, and after four years old plant nothing of the vegetable kind among my trees; no Johnson nor Bermuda grass, but instead prairie grass. The highest yield of pears on 15-year-old trees of mine is: Kieffer and Le Conte, one-half bushel; Clapp's Favorite, Dutchess, Congress and Jefferson, 2 bushels apiece; and one variety of pear (leaf tree, 15 years old, nothing yet. I have not as yet quite an acre in pear trees in all. Some are only two years old. My whole crop this year is three bushels, and sold for \$3 a bushel at home. Such are the fruits of pear raising here this year.

Forney, Texas.

HARVESTING PEANUTS.

J. C. Crumpler in Home and Farm.

Now that the season is advancing, a few suggestions as to the saving of the peanut crop may be timely. To the planter making his first attempt to grow the nut, the question of saving at comparatively small trouble and expense is often perplexing, and a hint or so may relieve all embarrassment and be invaluable. Eastern South-side Virginia grows more ground peas, and is more familiar with cultivating and handling the crop than any other section in this country, or in the world as to that matter, and I will tell you how we save it there.

About the first of October the Virginia crop is matured and ready for digging, but prior to that time small poles about three inches in diameter, seven feet long and hewn to a point at the larger end are procured and placed in readiness. It will take from fifty to a hundred of these, according to the abundance of growth. A very luxuriant growth may require even more.

Maturity is usually indicated by the shedding of leaves in the center of the plant, although on land bearing its first crop few if any leaves are dropped before frosts have killed the vines. It is better, however, to dig before frost comes, in order to save the plant for hay. The old-time way of digging with the hoe is entirely out of the question since the work may be done so rapidly and well with the plow. The larger part of our crop is dug by taking an ordinary single turn-plow and

with the usual land-side and large sized point (the mould board removed) were run close under the hill row on either side, cutting the tap root. Others secure a point made for the purpose and to fit the same plow, but being much broader, two horses are necessary to draw it. Now, either of these methods are very satisfactory, and leaves the plant so that by means of long handled forks it may be easily lifted out, shaken and tossed into heaps.

It is not necessary to let the vine dry or cure at all before shocking, which is done by taking the poles formerly provided, placing them ten or twelve inches in the ground singly and convenient in the shock row, nail two small thin strips on the pole about six inches from the ground and begin placing the vines upon them around the pole until the top is reached, pressing down closely all the while and your shock is completed. Place another pole and follow the same instructions.

Some may think that in a close green shock like this the peanut would damage and turn black, but experience has proven to us that in this way we secure the best results. A peanut left in the sun to cure, and especially so if the dew fall on it, will become dark and dingy, while cured in the shock in good weather, will have a bright, fresh color.

In two weeks of fine weather the nut is ready to be pulled from the vine. No machine ever having been invented to successfully do the work it is done by hand, and costs from ten to twelve cents per bushel with us.

Cleaning and grading here is done mostly by factories, but in sections remote from these it devolves upon the producer to prepare his crop for market. Carefully pick out all the dark and defective nuts, and then pass them through a tumbler in a perfectly dry condition. Never wash them. If you can't devise a tumbler, the work may be more slowly done by shaking thoroughly in small quantities in a large basket. The following machine will save considerable labor. Make two wheels, three feet in diameter, and of boards two inches thick. Place them on an axle five or six feet apart, and then nail upon them strips two inches wide and close enough together so a peanut would not drop through. Make a door or slide somewhere to be used in putting in and taking out the nuts. Make the inside of this cylinder as rough as you please. Place the machine in suitable forks and turn by cranks.

HAVE YOU GOT PILES

ITCHING FILES known by moisture like perspiration, cause intense itching when warm. This form and BLEEDING OR PROTRUDING PILES YIELD AT ONCE TO DR. BO-SAN-KO'S PILE REMEDY, which acts directly on parts affected, absorbs tumors, allays itching, effecting permanent cure. Price 50c. Druggists or mail, Dr. Bosanko, Philadelphia, Pa.

BLOOMINGTON (PHENIX) NURSERY, 600 ACRES, 13 GREENHOUSES.

TREES AND PLANTS

We offer a large and fine stock of every description of FRUIT AND ORNAMENTAL TREES, Shrubs, Roses, Vines, Small Fruits, Hedge Plants, FRUIT AND FOREST TREE SEEDLINGS.

Price Catalogue mailed free. Established 1862. PHENIX NURSERY COMPANY

Successors to SIDNEY TUTTLE & CO., BLOOMINGTON, ILL.

PARIS NURSERIES.

GRAPE VINES. BERRY PLANTS. Finest hardy ornamentals, such as Trees, Shrubs, Roses, Evergreens, etc.

All home grown and thoroughly tested.

No doubtful high priced varieties to offer. Large bearing orchards to propagate from. Wholesale and retail. No traveling agents employed. Catalogues free on application.

STELL & CLARK, W. W. Stell, Paris, Tex.

GREEN MOUNTAIN GRAPE

Entirely Hardy and very vigorous, the vines bearing a fruit of exquisite flavor. Stood the test of 7 years and pronounced the earliest and best grape on the market.

CAUTION: The enormous success this grape has met with has caused substitutes to be placed on the market. Buy no vine without the above trade-mark and the illustrated circular.

AGENTS WANTED. Send upon application.

STEPHEN HOYT'S SONS, New Canaan, Conn.

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Price List Sent Free.

30,000 Deep Trees, three to five feet, Apple, Pear, Plum, Fig and Shade Trees. Fine Roses, Shrubs and Evergreens, propagated and grown on the

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SO SAY WE ALL OF US.

I'm an old smoker, and have at one time or another tried all the different Smoking Tobaccos, but for a good smoke Bull Durham beats 'em all.

A leading characteristic of Bull Durham has always been the hold which it takes on old and fastidious smokers. What its excellence first secured, its uniformity has always retained, and it is, therefore, to-day as twenty-five years ago, the most popular Smoking Tobacco in the world.

Get the genuine. Made only by

Blackwell's Durham Tobacco Co., DURHAM, N. C.

"KEYSTONE" Corn Husker and Fodder Cutter



Husks the corn and cuts the stalks into the best fodder known. A wonderful machine. A perfect success. Much improved for 1892. See it at the principal fairs, or send for our FREE book, "The Great Leak on the Farm."

KEYSTONE MFG. CO.,

STERLING, ILL.

KANSAS CITY COUNCIL BLUFFS. ST. LOUIS. COLUMBUS, O.

TRY IT, EVERYBODY

Mr. E. Crew, who has had wonderful success in growing celery in Texas, and realizing a profit at the rate of

\$2,000 PER ACRE

says any one can raise it if they only know how. Mr. Crew tells how in TEXAS FARM AND RANCH, and we have made arrangements to supply our readers with 5,000 trial packages of GOLDEN HEART CELERY SEED, raised and put up by Mr. Crew in Waller County.

Until October first we will send to any one sending one dollar for a year's subscription to TEXAS FARM AND RANCH and ten cents additional to pay postage, etc., the paper one year and a package of celery seed.

If you are already a subscriber, you can have your time extended one year and get the celery seed by sending one dollar and ten cents, or you can secure a new subscriber for TEXAS FARM AND RANCH at \$1 per year, and send it in with 10 cents additional and have the paper sent to the new name and address and the celery seed sent to yourself. Address all orders and communications to

TEXAS FARM AND RANCH, Dallas, Texas.

FARM AND STOCK.

THE SOW.

N. J. SHEPHERD.

Upon the management of the sow largely depends the quality of the pigs. While it is necessary to select and use good breeding animals, yet this will go for naught if proper care is not taken in feeding and managing the brood sow so as to secure strong, vigorous pigs. It should be understood that it is possible to feed the pigs to a good advantage before as well as after farrowing. It is not best or necessary that the brood sow should be kept fat, but it is very important that she be kept vigorous and thrifty. Not only will better pigs be secured, but there will be a much less risk of loss.

As far as the weather will permit, both in winter and summer, it is best to allow the sow to run out. They will more readily receive a good variety of food, and will keep healthier and thrifter than if they are confined. One of the most important items is the feed. While there is no objection to using more or less corn in feeding, it would not be well in exclusive rations. One of the best rations that can be used, except in the coldest winter weather, is ground oats and barley; oats and middlings are nearly as good. During the winter some corn meal can be added with benefit, as corn is one of the very best as well as most economical grains, under average conditions, that can be used to maintain animal heat. These rations supply elements needed for the growth and development of bone and muscle. And if clean, dry quarters, with good, pure water, the range of a pasture, is provided, with liberal rations of these, a sow can be kept healthy and thrifty, and will usually farrow a healthy litter of pigs. Corn is a good feed for all kinds of stock. The principal objection to using with breed sows is that it is too heating and constipating—conditions unfavorable to gestation or parturition. If corn is depended upon largely for feeding, ten days or two weeks before it is time to farrow a change should be made to a diet that is less heating or constipating, as the risk of loss will be much greater. As to the amount of the ration that should be supplied, the condition of the animal must be taken as a basis. Feed sufficient to keep thrifty; let the amount be large or small, as thrift is necessary to a breeding sow that is expected to farrow a good litter of pigs.

Eldon, Mo.

N. G. ALEXANDER'S HERD.

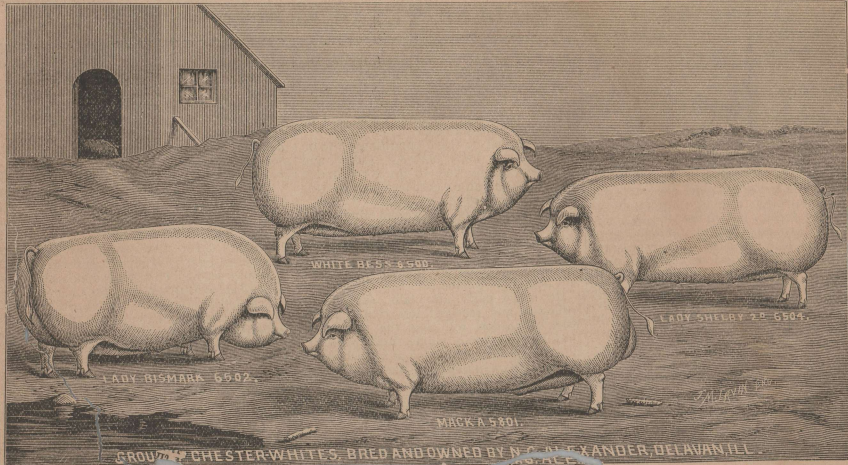
We give herewith an excellent illustration of some of the Chesters of the Illinois Central Herd, owned by N. G. Alexander, of Delavan, Ill. This herd is one of the best known in the West, and is acknowledged to be one of the best and largest herds of the breed in the United States. Extensive advertising and sales extending to nearly every locality in the country has familiarized those interested in swine with Mr. Alexander and his stock. He has made merit of first importance in breeding and strict integrity foremost in business transactions. These have secured him a large and constantly increasing trade and won him a wide friendship. Over 40 head of fine old breeding sows and 4 extra fine old males, composed his herd for 1892, and he now has a lot of 125 choice pigs in addition to what he has already shipped out on early orders. We don't believe any reasonable man will be disappointed in ordering a Chester from him. He will not send out a pig that he does not consider good enough for his own herd, and pigs must be good to satisfy him. He will be glad to send to all who write for it a handsome circular containing price lists and much other information, together with the illustration shown here and a number of others typical of his fine herd. As a sort of side issue he is breeding Light Brahmas and White Guinea fowls—all whites, you see. He has the best blood in the poultry yards that money can buy, and sells fowls, and eggs in their season, at very reasonable prices. One of his rules of business is to guarantee safe delivery of any stock purchased from him. Pedigrees accompany all animals shipped. See advertisement on page 3.

COTTON (AND PEAS) CULTURE—VIII.

JEF WELDON.

While fresh upon my mind, I must correct the impression that I have been under that late corn and peas were a never failing remedy for boll worms. On Red River bottom nearly every plantation had considerable corn just in roasting ear while the boll worm was putting in its work on these plantations, doing considerable damage to the late cotton. Still, it is evident from the amount of worms in the corn that their work of destruction would have been much greater in the exceedingly

rank cotton if there had been no late corn, but as an absolute protection, late corn is a failure. So it has proven with my peas this season; still the pea test was hardly a fair one. The boll worm, like corn and cotton this season, were about ten days late, and the peas were nearly all ripe and most of the leaves shed off, and no blooms, when the boll worm came, and my field of cotton was an isolated patch with early corn all around in adjoining fields. Like the green corn, the green pods were badly punctured, and the damage to the cotton was not serious. But I was badly disappointed in finding any damage done after my experience with late cotton and peas after the overflow of 1890, which was given at the time in TEXAS FARM AND RANCH. After these overflows is the only time that the boll worm ever hurts me, because I have for the past eleven years, except after the overflow, had a full crop of cotton made before they came. But I am a great pea man if there were no boll worms.



Why, Uncle Snort, I am surprised that you have been farming 35 years, and that this is your first year with peas! Who you gather the crop of corn, cotton, wheat or oats from the three-acre pea land, and out that the three acres makes more crop than 5 acres of the same nature of land and the mellow condition of the soil, you will plant every foot of land in peas that is two feet to make half bale of cotton or 25 bushels of corn, 15 bushels of wheat or 40 bushels of oats per acre.

Waxy, lime or clay lands, that will make only 5 bushels of wheat per acre, planted in peas after wheat is cut off, mow the vines off for hay in the fall, and (only) harrow or fine the surface of the land and sow again in wheat, I will guarantee, under the same conditions that 5 bushels per acre was made the year before, that 15 bushels per acre will be made. Both the heavy crop of peavine hay and extra ten bushels of wheat would be clear gain, for the preparation and cultivation given the peas would be necessary for the wheat if no peas had been planted. While densely shading the land through the summer with peavines will nearly double the next year's crop of anything, especially if the land is old lime or clay land; still the difference is always greatest in non-cultivated small grain crops, because the mechanical action of the acids gathered from the atmosphere by the shade keeps the land from packing or crusting; this causes the roots to feed deeper, and a short dry spell will not affect it like where the land crusts. Another thing: small grain gathers and retains very little from the atmosphere, especially on old land where the surface is packed, while the cultivated surface does not.

Uncle Snort happened to strike the pea well suited to his land. The speckled pea is the most popular pea planted. To be planted in corn at laying-by, on rich lands or lands that will produce 25 bushels of corn per acre, I prefer them to all others, and they can be procured almost anywhere, on poor lands the "unknown" pea, introduced into Texas by Mr. T. B. Baldwin (Dick Naylor). This pea fits a very rank grower on rich lands; will break down and rot the corn; or if planted alone, will be all vines. But for making peas on and improving poor land they have no equal. The pea, like cotton and everything else, must be improved or variety selected to suit soils and purposes for which they are wanted. On poor lands, sandy lands especially, the viney, late kinds are the best. On this line the "unknown" pea stands

head. For planting in corn at laying-by, on good land, we want a short vine, medium early. If too early, will try to make with the corn during July's hot, dry weather; by being a little later, would come into bearing after corn had ceased to draw on the land, and be ready for the boll worms and the returning cool nights and showers the last of August. A later, more viney pea would be of little advantage in capturing the boll worms, and would keep on making vines and wrapping up the corn or itself during the damp weather in early fall, thus rotting the corn, or if planted alone will rot its own pods, and be such a tangled mass they could not be mowed; and if mown, the vines would be so large and sappy they would be hard to cure into hay. Where we wish to plant alone on land that will produce 20 or more bushels of corn per acre, or after small grain, whether for hay or seed, a shorter vine or more of a cluster or bunch pea is best, as the nearer to a bunch the earlier and more prolific, when planted on rich land

will greatly enhance the yield. Because I have never joined the throng in abusing cotton and running away with all the federal nothings to take the place of cotton as a money crop, but on the other hand have tried to make cotton cheaper, I am looked upon by many as the "all cotton crank." I have always preached diversity of crops, but have never agreed that any crop could take the place of cotton on the ordinary farm. I can show up, on our farm not only everything that Mr. Hillyer claims he raises on his half-acre farm, in greater profusion, but of a higher grade in most things. Still they will not take the place of cotton as a money crop away from the large towns.

We made some money on our strawberries at 10 to 15 cents per quart (not 25 cents a quart); made a small profit on our gilt-edge Jersey butter at 15 to 25 cents a pound (not 40 to 60 cents); made something on our potatoes, both Irish and sweet, at 35 to 75 cents per bushel (not \$1 to \$2 per bushel). Our other fruits and vegeta-

bles, outside of home consumption, have not netted us a cent. While every farmer should do as Mr. Hillyer says—raise everything possible for home consumption—still there is but the one crop the ordinary farmer can look to for his cash to meet his obligations in the fall, and that crop is cotton. So we just must learn to raise it cheaper. This can be done by growing home supplies as much as possible, and a natural and scientific study of the nature of our soils, climate, etc., and the purchasing and improving varieties to suit. While we can make a pound of Jersey butter at one-half the cost we could scrub butter, one pound of the Jersey butter is worth two of the scrub, we can as surely make and harvest two pounds of cotton by scientific improving and cultivating to fit the season and soil.

New Boston, Texas.

KAFFIR CORN.

J. M. ROSE.

A North Carolina correspondent writes me that he is experimenting with kaffir corn, but he does not know how to harvest it to make most of both seed and fodder. If it was a little earlier we should say cut it about six inches above ground and shock it in the same manner as corn fodder, perhaps in his moist climate in shocks of eight hills square. Here we would make them sixteen hills square, or four times as large. Cut early, say when first seeds are ripening, sprouts would start from the roots and a second crop of two to three feet in height would be had—at least this was our experience in a moist climate. Even in this dry climate we cut some about August 1, and it is making a second growth, but we cannot of course say yet what it will make. But we judge it is now too late to cut for a second crop of forage, and so we should make the most of the seed. As soon as the first seed heads are sufficiently hard to save we should go through the plot and cut off all these and put in some place where they will dry out. Here we could throw them on the ground and they would soon be cured, but perhaps not where there is likely to be an excess of rain at this season. This cutting of the early heads will allow the strength of the stalk to go to the smaller heads, of which there are often one to three, and bring them to a much larger growth and so increase the seed yield. In a large way in the West these first ripening heads are cut with the great grain header. Before frost we should cut it at the ground, shock

THE SUN CHOLERA MIXTURE.

Atlanta Constitution.

The veteran editor of the New York Journal of Commerce pays editorial tribute to the medical prescription which has come to be known as the Sun cholera mixture, and the Constitution desires to join its esteemed contemporary in making the remedy known.

Mr. Stone says that the remedy was given to the public by the Sun more than twenty years ago, but this is a slip of the pen or of the types. It was given the public more than forty years ago, and since that time it has done a world of good, not only in cholera epidemics, but in all derangements that possess the cholera symptoms—in cases of cholera morbus and in dangerous attacks of diarrhoea.

The prescription was drawn up by a number of eminent physicians of New York and published in the Sun's editorial columns. This fact has given the remedy the name of the Sun cholera mixture. The editor of the Journal of Commerce has seen it in constant use for nearly two score of years and found it to be the best remedy for bowel troubles ever yet devised. To this he adds: "No one who has had this by him and takes it in time will ever have the cholera."

The writer of this has seen this remedy employed for more than twenty years, and it has never failed in any case of bowel trouble when taken promptly. He has seen it give almost instant relief in the disease (almost as violent as genuine cholera) which ensues when the deviled crab and the milk punch meet in the bosom of the careless epicure. It is a remedy that ought to be in every household, whether there is danger from cholera or not. This is the prescription:

"Take the equal parts of tincture of cayenne pepper, tincture of opium, tincture of rhubarb, essence of peppermint and spirits of camphor. Mix well. Dose, fifteen to thirty drops in a little cold water, according to age and violence of symptoms, repeated every fifteen or twenty minutes until relief is obtained."

It will do no harm if an equal part of fine brandy is added to the rest. In violent cases of cholera morbus or genuine cholera, it is best to prepare two doses, so that if the first dose is thrown off the stomach the second can be given immediately. There need be no fear of collar.

This medicine should be promptly used when the medicine is given.

DIRT ROADS.

Isaac B. Potter, in the Century.

By dirt roads are meant those formed of the natural soil found in the line of the roadways. They are so common as to be almost our only roads outside of town and city limits, and will for many years be used largely in country districts, and especially on the lines of the crossroads which connect the main highways. Dirt roads, at their best are greatly inferior to macadam and Telford roads in durability, cost of maintenance, drainage, tractive qualities, and, in many locations, in point of economy also. But the dirt road is general, and the public hand must be directed to its treatment. The first and most important requirement for the maintenance of a dirt road may be stated in one word—drainage. It is the one thing that can neither be neglected with nor neglected. Most dirt is easily displaced under the softening influence of rain, and this process is hastened in this kind of road by heavy wagons passing over the wet surface. On every mile of roadway within the United States there falls each year an average of 27,000 tons of water—a heavy, limpid fluid, always directing itself to the nearest outlet and seeking the lowest level. Water is hard to confine and easy to release, yet, through neglect of the simplest principles of drainage, water is the most active destroyer of country roads. In providing for the drainage of a dirt road we should first consider the material of which the roadway is composed. If a heavy viscous clay predominates, the ordinary side-ditches should be of good depth, and will even then, in many cases, be inadequate for thorough drainage without the addition of a centre drain running midway between and parallel with the side ditches. The centre-drain should be filled with loose, irregular boulders, cobblestones, broken bricks or similar filling covering a line of tiles or fascines at the bottom, and should be connected with the side ditches by cross-drains carrying the water outward from the centre-drain at proper intervals along the length of the roadway.

But these center drains, though often needed for the improvement of country roads are not in common use. They add somewhat to the cost of the roadway, but, in most cases, add considerably more to its value, and should be employed in all situations where sand or gravel cannot be had to relieve the heaviness and water-holding

properties of the clay. In locations where the prevailing material is of a loose, sandy nature, the difficulties of drainage are more easily overcome, and side ditches, if found necessary at all, may be of moderate depth and left open, without incurring the risk and dangers of travel that prevail where the deeper, open ditches are used for draining heavier soils. But, on the other hand, the light and shifting nature of sandy road material destroys its value as a surface layer for an earth roadway.

FIELD PEA CULTURE.

Hoard's Dairyman: "Select a high, dry piece of ground that will come to tillage the first of any in the spring. It should be very rich ground. If possible plow in the fall, and as early as possible in the spring harrow the land well and sow broadcast two and one-half bushels per acre of the smaller Canadian field pea and three to three and one-half bushels per acre of the marrow fat or larger variety. Then cross-plow the seeds under not less than four inches deep. A week after, say, sow one bushel of oats and harrow in. When the peas are fairly past the boiling stage and the pods are green enough to dry down and hold the grain, cut them with a mowing machine, throwing each swath out of the way. Dry out thoroughly and stack in ricks around a pole near the barn. Thrash with a machine, if convenient, taking out a part of the lower concave teeth. In stacking cover thoroughly with marsh or refuse hay, or what is better canvass cover. Pea straw will soak rain as easily as brush. Save the pea straw and chaff in the barn; sheep especially will consume it. If bright, cows will eat the most of it. Grind the peas and oats. If the grain is three-fourths peas, feed three pounds where six pounds of bran has been fed before. With clear pea meal feed two pounds in place of six pounds of bran. Mind one thing positively—peas must be planted deep, not less than four inches in ordinary soil, and they must be seeded thickly. Stick and hang until you are an expert in growing peas."

WATER-TIGHT FLOORS.

A Water-tight Floor is many times an imperative necessity in large manufacturing establishments, breweries, packing houses, stables, etc. We suggest the following as the best and cheapest way to laying a tight and serviceable floor, as make a tight floor. E. Camps Roofing given to us by the V. S. Co., whose "ad" appears on another page. A reasonably tight floor is first laid; then lay the Black Seal Two or Three Ply Felt over it, pasting all laps and joints with hot roofing pitch; turn the Felt up at the sides of the room and fasten it securely to the wall with hot pitch, then swab hot pitch upon the Felt freely the width of the plank it is laid, lay the plank in this and nail it securely before the pitch cools. Continue this operation until all the planks are laid. Fill all the cracks between the planks with hot pitch. By following the above directions a perfectly tight and solid floor, through which not a drop of water can get, will be the result.

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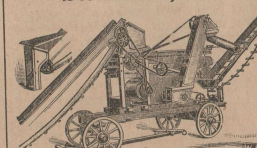
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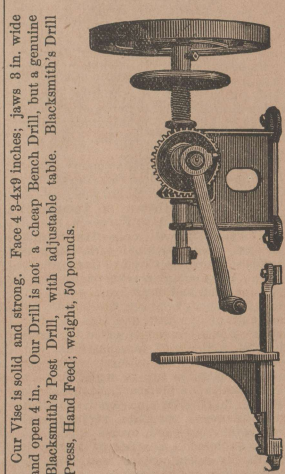
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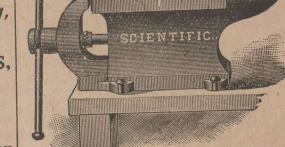
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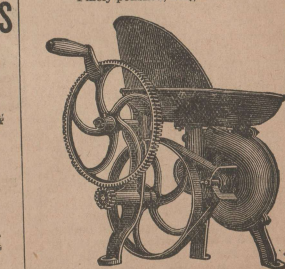
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