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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15.00 per year, or \$3.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

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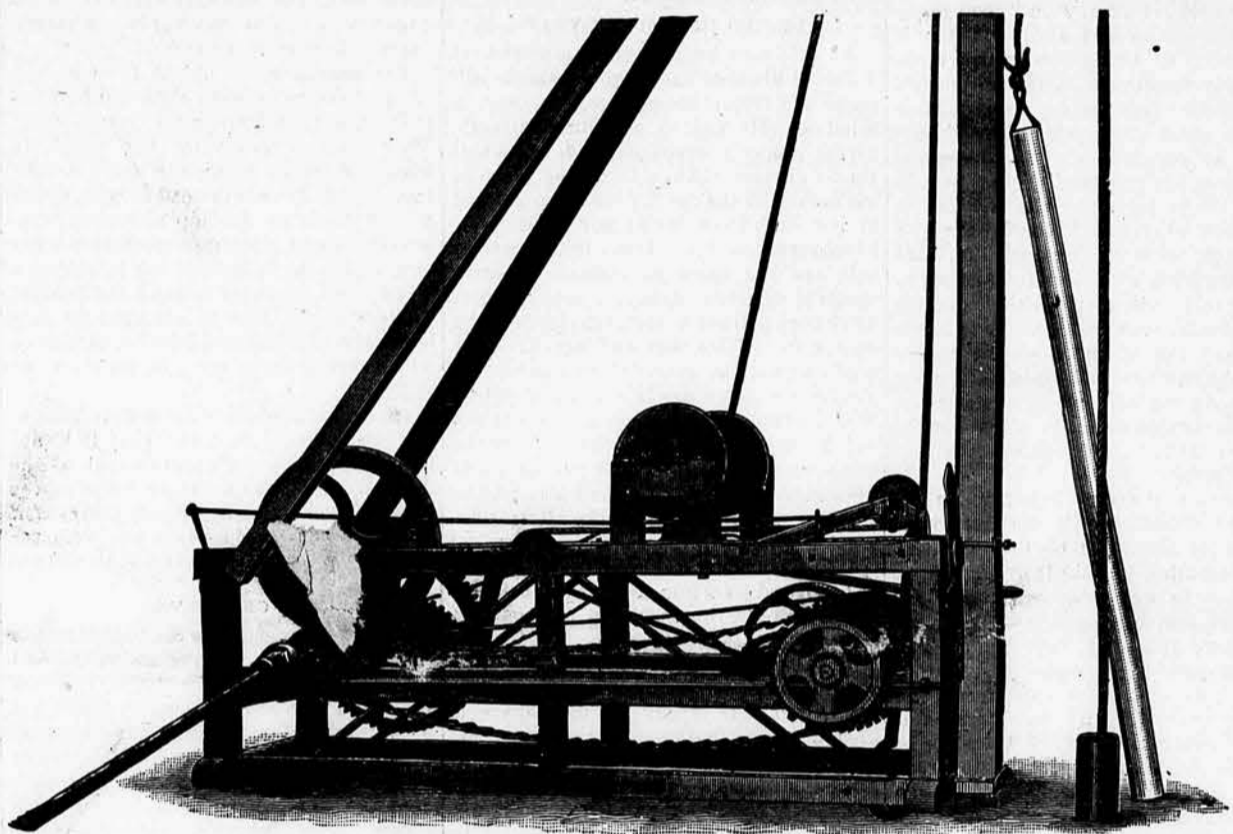
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ASHLAND STOCK FARM HERD OF THOROUGHbred Poland-China hogs, contains animals of the most noted blood that Ohio, Indiana and Illinois contains. Stock of both sexes for sale sired by Bayard No. 4633 S., assisted by two other boars. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

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A. E. STALEY, Ottawa, Kansas, Breeder and shipper of Improved Recorded Chester White swine. Stock of all ages for sale. [Please mention KANSAS FARMER.]

SWINE.

W. W. WALTIRE, Carbondale, Kas., breeder of Improved Chester White swine and Short-horn cattle. Stock for sale. Correspondence invited.

JOHN KEMP, NORTH TOPEKA, KANSAS, Breeder of Improved **CHESTER WHITE SWIN** Stock for sale.

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SHROPSHIRE SHEEP.—You can buy high quality Shropshires, highest breeding, and Hereford cattle of Will T. Clark, Monroe City, Mo., on H. & St. Joe and M. K. & T. HEREFORD CATTLE

POULTRY.

WILLOW GROVE.—Has for sale seventy Barred Plymouth Rock and Black Langshan cockerels at \$2 to \$5 each. Describe what you want and I will suit you. G. C. Watkins, Hiawatha Kas.

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A. B. DILLE, Edgerton, Kas., breeds the finest of A. B. P. Rocks, S. Wyandottes, Lt. Brahmas, R. and S. C. B. Leghorns, M. B. Turkeys, etc. Eggs \$1 to \$3 per setting. Satisfaction guaranteed.

EMERKA POULTRY YARDS.—L. E. Pirley, Emporia, Kas., breeder of Wyandottes, B. B. R. Games, P. Rocks, B. and W. Leghorns, Buff Cochins and Pekin Ducks. Eggs and birds in season. Write for what you want.

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25 OZS. FOR 25 C.
ABSOLUTELY PURE. JUST TRY IT.
F. F. JAGUE & CO., MANUFACTURERS, KANSAS CITY, MO.

The Stock Interest.

THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

OCTOBER 13—F. M. Lail, Marshall, Mo., Poland-China swine.

THE EDUCATION OF HORSES.

The value of the horse for many purposes depends as much upon his education as upon his registered ancestors. The wild horse is of little or no use to man upon the wild plains, but in proportion to his training and knowledge received from man does his value increase as a farm animal. In view of this it is high time that the fifteen and a half millions of horses which are in our country to-day should receive the best instruction. Who shall educate? Children are not competent to educate children, neither are boys competent to educate colts, nor would I give it into the hands of those who, strictly speaking, are afraid of horses, but to him who is firm, with "good horse sense," gentle, patient and cautious; if such be a boy in a measure he is a man. Horses may vary much in disposition and the man who would be an accomplished horseman must study his subjects' disposition as carefully as the successful teacher does his scholars. Had you in all cases the preparing of the foundation of the colt's education I would have you begin back with its embryo life, and better even back with its sire and dam, selecting only those of a desirable quality and disposition, being sure to have them in a perfect state of health at the beginning of the new life and then caring for the dam during the period of gestation with such caution as not to allow her to become excited or provoked to an unreasonable degree.

DURING THE COLT'S FIRST YEAR it should be handled with the greatest of kindness (as should it be through life), never attempting to hold it or imparting instruction in any way without (first) being fully prepared to do so and (second) always accomplishing your end. The qualifications of a successful colt-trainer are good judgment, quick observation, and a lasting patience, with considerable of practical experience. With a trainer of above qualifications the most treacherous dispositioned colt can be converted into a faithful and useful servant. I would train the colt to lead and stand hitched early in life as well as teaching it to eat the required food before weaning which you know must support its life afterward.

DURING THE COLT'S SECOND YEAR a repetition of its first year's instruction is about all that can be required, remembering that its early training should not include any farm work or labor, as its bones do not become sufficiently hardened to perform any labor, without injury, until it is nearly grown. However, it may be trained to the bridle which will accustom it to the bit and also serve as an easier method of handling it at this age.

THE THIRD YEAR. Now beginning with its ancestors and following as I have directed thus far, you have laid a permanent foundation on which to build its useful education, but many not having the privilege to build this foundation and others neglecting it from the busy cares and bustles of life, at this age I will begin with another colt (of which instructions will also apply to the former) as ordinarily found in the common farm barnyard. This is the age at which I would introduce the main portion of the harness. By the way, allow me to say that I deem it an important object in this subject to always select the grade and size of harness that is adapted to your work and horse, bearing in mind to keep it pliable and without defect, as an oversized collar, a stiff heavy harness or an unsewed line may be the ruin of a colt at this age, when it is to be used at very moderate work. Early in the third year select a time when the roads and weather are suitable. Being sure that your horse has had all the exercise he desires to take in an open lot, you may let him return to his usual stall, then place and fasten the harness on him very gently. It is well to give him a small feed of grain to lessen the excitement, if there be any, caused by his new encumbrance. He may now be taken to the wagon for his first work and placed by the side of your steadiest lead animal—or your neighbor's if you have none suitable—for it is essential

that this animal be one that is trusty and possesses a good brisk and ready walk, and the more of these qualities your lead animal has the better suited it is for the place. First, hitch your lead animal, second, your colt before, and, third, the tugs of the same, while your assistant is holding him by the bit, then getting in the wagon the colt may be led for a few hundred yards, when the leader quietly falling behind can easily take his place with the driver, after which allow them to move off in a good reaching walk to acquire that life and gait which is so necessary to be taught in the colt's first lesson and also to lessen the danger of becoming entangled. Now comes the time for teaching the language which by all means should be given carefully and impressively and required to be obeyed. At this point, men, as well as boys, let me with great force stamp in your hats—Teach but few words and teach them well. Even many of you who read this paper will recall to memory that you are permitted to enjoy life to-day by the ready obedience of your horse in some particular instance.

DURING HIS FOURTH YEAR.

At this age he may be employed at different kinds of farm work which will serve to develop his powers, but bear in mind at this age to use him sparingly, giving properly prepared food, as at this time a greater change is taking place in his mouth by the developing and replacing of new teeth than during any previous or subsequent period. I would suggest at this age the horse be trained to drive single if desired; although many horses have been trained to this branch of work during their third year and appear quite docile as well as graceful, but allow me the truth—that a boy is a boy and enjoys that company, likewise a colt is a colt and enjoys the same, hence the greater the age the less the danger and resistance to go alone. When desired the horse may be hitched to the buggy in the afternoon—having worked in the wagon or at its usual work during the forenoon—being careful to hitch and start him as above mentioned. In driving the horse single for the first time he should be allowed to draw the lines sufficiently tight to produce a constant steady but gentle pressure on the bit, and if this is not his disposition it should be insisted upon by the driver, as, thus held, the horse will soon become so accustomed to the hand of the driver that his speed will be regulated accordingly (and with equal value if not greater) to prevent the accidents that so often occur by a loosely held rein. By teaching your horse this important lesson, as a driver, you will find that he will travel faster and farther in a day with greater ease to himself and much less trouble to you. With these directions no trouble is likely to occur unless that by being alone he should see some object in front which will induce him to back rather than go forward. In such cases with horses—old or young—it has been my experience to hold a steady line with one hand while the other is used in assisting you to alight from the buggy, when you can easily take hold of his bit as he continues back. From this cause many lives have been lost, as well as horses and buggies ruined forever; and in all such cases where resistance is repeated I consider this the proper method to take, as remaining in the buggy to force the horse with a whip frequently increases the backing instead of checking, while if you were holding his bit you would be comparatively safe.

A WORD ABOUT BALKERS.

During this year there is not so much change in the quantity of his frame and general make-up as there is in the quality; so, also, there should not be so much change made in the quantity of his training in harness as in the quality. This can only be done by thoroughly reviewing what you have previously taught; and here teaching him to have perfect confidence in you without fear.

For the want of a better time and place in this paper I shall devote a few lines to the balking horse. Many men who claim to be professional horsemen are often provoked to anger by a horse of this kind, without knowing its true cause or remedy. But few horses are naturally vicious or stubborn; although many by their free disposition are kept in a constant strain of nervousness by their threatening drivers. The degree to which you have excited the nervous system of your horse is the true cause of his balking; and this cause has been brought about by the mis-

treatment of an excitable horse hitched to a heavy load. It is evident that many horses have refused to remove loads when if they were not crazed it would be no task to them; and it is also true that horses will pull, with a steady draw, at loads which they cannot move; in most cases they can no more pull the former than the latter, for the same reason that you cannot readily climb a fence when closely pursued by a vicious animal, and the greater the danger and excitement the less liable you are to escape. Why then should you be cruelly punished for not carefully and steadily climbing the fence? O, erring horsemen, take off the fear and you need not take off the load! You must make your horse love you and not fear you. At six years old your horse is approaching maturity.

FEEDING AND GROOMING.

Before the season of heavy work approaches the horse's strength should be gradually tempered by a proper system of diet as well as exercise. The first great point in feeding is regularity, and if your horse be not fed regularly with a sufficient quantity you need not apply to a veterinarian but correct it yourself.

The second great object is to make a proper balance between the grain feed and that class of material called "rough feed." The standard grain for the horse, in which so many commonly make a mistake, should be oats instead of corn, as the former tends to develop and strengthen without accumulating so much of the encumbering fat, although the latter, as a winter feed, contains more of the heating properties and may be changed for oats occasionally with good results, as may be wheat bran, roots, etc., to regulate the system.

See that the brush is not simply used to remove external dirt, but that it be applied vigorously for the removal of the scurf and dust which has gathered on the skin. Much might be said on things that modify the horse's service, but with the above important subjects we shall have to forbear.

A GRADUATE.

Again commencing at the foundation of the former colt's life and following as I have directed until the horse is seven years old, you have a horse that has not been "broken," but one that has received his education and power of endurance by a series of lessons, each one dependent upon the other, and as such is one which I would place at that point in man's age when he enters upon his duties with all the vigor and energy of life. Having used (as you see) the horse's former life for the development of a good constitution, a strong muscle, a permanent set of teeth and a good education, you thus have a horse that I would call graduated, or, in other words, a horse ready to commence a long and profitable life to his country as well as to his owner.

Combines and Foreign Trade in Meat.

EDITOR KANSAS FARMER:—The cattlemen of Kansas are under more obligation to the FARMER than any stock paper in this State or Missouri for its liberality to those who desire to ventilate some of the methods of the cattle and hog combine. No stock paper or Kansas City daily will allow a word in their columns from any one.

This talk about reciprocity with foreign countries in meat, with the one hundred and fifty Funston inspectors at Kansas City (more properly "meat taggers"), is a gross delusion. Admitting that the export of cattle, in the various forms, has increased from 100,000 head in 1880 to 676,000 for year ending June 30, 1892, who has it benefited but the Armour combine? Can any one cite us to any benefit to the producer? This huge combine, every day growing in its power, standing between the foreign market and the feeders of cattle, gathers all the profits into its greedy maw. When the export trade took 100,000 cattle annually, cattlemen got for finished corn-fed beef \$5.50 to \$6.50 per 100 pounds. Now, with an annual export of 676,000 head, they get from \$4 to \$4.50 for the best cattle on the market. Corn feeding to cattle will soon be a thing of the past. Most of the heaviest feeders are "busted." The smaller feeders have lost heavily—are fighting shy.

One of my neighbors fed 100 herd last winter.

Cost per head.....\$40.00
Fed at least 80 bushels corn at 40 cents.... 32.00
Total cost.....\$72.00

WHENEVER I see Hood's Sarsaparilla now I want to bow and say

"Thank You"

I was badly affected with Eczema and Scrofula Sores, covering almost the whole of one side of my face, nearly to the top of my head. Running sores discharged from both ears. My eyes were very bad, the eyelids so sore it was painful opening or closing them. For nearly a year I was deaf. I went to the hospital and had an operation performed for the removal of a cataract from one eye. One day my sister brought me



Mrs. Paisley.

Hood's Sarsaparilla

which I took, and gradually began to feel better and stronger, and slowly the sores on my eyes and in my ears healed. I can now hear and see as well as ever." MRS. AMANDA PAISLEY, 178 Lander Street, Newburgh, N. Y.

HOOD'S PILLS cure all Liver Ills, jaundice, sick headache, biliousness, sour stomach, nausea.

Sold August 27, at home, for \$4.00, weight 1,500.....\$73.14

Net profit per head.....\$ 1.14

These cattle sold in Chicago on September 1 for \$4.35. The shipper lost over \$1,000. This is the history of all cattle-feeding business for six years. The exceptions are few. Not a feeder has made a dollar for years, unless he has fed bulls, stags, young heifers or Arkansas plugs. The average high price of cattle and hogs for any year is shown by taking the "spurt" prices on hogs and cattle for a day or week "to sound the country," and the lowest price on finished cattle. Thus it is deceiving to the world and misleading to every one who is in the cattle business.

General Rusk is often commended highly for his efforts in opening foreign markets to "free trade" in meat. I heard these laudations before the Agricultural Board last winter and the late Commercial Congress at Kansas City. I defy any theorist or politician to show where or when the farmers benefited by his negotiations. If this is attempted I will show that the producer of meat can never be benefited until that colossal combine is removed. Republicans can howl "prosperous Kansas" until they become hoarse. The fact remains that farming does not pay. Talk about the millions of bushels of wheat produced, but say nothing of the 55 to 60 cents per bushel the tolling farmer gets for it! Fifteen bushels is an average per acre, as reported any year, equal to \$9. Deduct the cash expense and how much is left for labor and use of land, tools, etc.? The renter only gets two-thirds at that, or \$6, and pays all expenses.

These politicians talk of our balance of trade, fabulous and unprecedented exports, equal to over \$1,000,000,000 per annum, yet gold flows out of the country so as to alarm the United States Treasury. No money coming to America. Who gets it? The European money combine for interest on our stocks, bonds and mortgages. Combines and interest will be the ruin of the agricultural industry. If this is "calamity," make the most of it.

P. P. ELDER.

Princeton, Kas., September 5, 1892.

Both Saint and Sinner.

It troubles the sinner and troubles the saint, it's a troublesome, trying and nasty complaint, Don't think it incurable; I tell you it ain't

Excuse the grammar; it's the truth I'm after, whether grammatically or ungrammatically told. The truth is, that catarrh can be cured. The proprietors of Dr. Sage's Catarrh Remedy offer \$500 for an incurable case of Catarrh in the Head.

THE SYMPTOMS OF CATARRH.—Headache, obstruction of nose, discharges falling into the throat, sometimes profuse, watery and acid, at others, thick, tenacious mucous, purulent, bloody, putrid and offensive; eyes weak, ringing in the ears, deafness; offensive breath, smell and taste impaired, and general debility. Only a few of these symptoms likely to be present at once. Dr. Sage's Remedy cures the worst cases. Only 50 cents. Sold by druggists, everywhere.

Clean the cellar thoroughly before putting in the vegetables for winter use. Neglecting this is worse than eating several meals without washing the dishes.

We Sell Live Stock.

Our cash sales for 1890 were \$1,004,199.38 total business exceeded two and one-half million dollars. Established since 1880. Market reports free and consignments solicited from stockmen, by OFFUT, ELMORE & COOPER, Room 14 Exchange Building, Kansas City Stock Yards.

Agricultural Matters.

CLOVER AND ALFALFA.

The editor of the Iowa *Homestead* recently made a trip in Kansas for the purpose of studying the geographical limitations of the varieties of clover. The following is his letter on the subject:

"How far west can clover be grown, and to what extent can alfalfa take the place of clover, are questions of vital concern to our farmers, not only in Kansas, but in any country west of the Missouri. We have spent the past few days in traveling over the State and conversing with leading farmers on this important question. There is no hard and fast line that can be drawn to indicate the degrees of latitude and longitude beyond which clover can be successfully grown, nor can any man very clearly define the limit of the eastern boundary of profitable alfalfa. In most places west of the longitude of Manhattan, 96° 30', there would be some difficulty in growing clover successfully, and yet there are many places, especially on the north line of the State where it can be grown as far west as 99°. It is not so much the question as to whether it can be grown on certain farms or on certain parts of a farm, as it is whether it can be grown as a part of a rotation over the entire cultivated part of the farm, or of a district. We are quite sure that clover is pronounced a failure (and by clover we mean the red and mammoth varieties) in many places where, if it were sown without any other crop, sown early and covered two inches deep, it could be made a success. There are no special difficulties in the way of growing clover satisfactorily north of the Republican, or east of the longitude of Manhattan, or about 96° 30'. One of the main difficulties lies in the fact that the average Kansas farmer in the central southern portion of this State is filled with the idea that his soil is inexhaustible, and will respond with an endless number of bountiful crops of wheat, corn, oats and any other grain he has a mind to sow, grown in succession and without manure. This notion has become common with all farmers in all good countries. It is not many years since the soil of southern Illinois was supposed to be inexhaustible, and the glow of burning straw stacks on the eastern horizon at nightfall in autumn told how common was the belief, not twenty years ago, in the State of Iowa. Such fires lit up the evening sky in Kansas, and hundreds of tons of the brightest wheat straw are given up in flames, testifying to the same confidence in the minds of the Kansas farmers. Probably nothing but a very perceptible exhaustion of the soil will convince the Kansas farmer of the fact that in order to restore the wastes of the soil, he must grow some kind of legume as a rotation crop, and as he gets to looking this question fairly in the face, he will begin to study how to grow clover, and will succeed far beyond his present expectations. Iowa farmers should have patience with Kansas farmers, because it was less than ten years ago, less than five even, when many farmers on the Missouri slope of Iowa fully believed that it was not a clover country. It is the blind faith of farmers in a marvelously rich and productive soil of the central southern portion of Kansas that stands in the way of growing clover.

"Nevertheless, it must be admitted that there are great difficulties in growing clover south of the Republican, and west of 96° 30'. It must be also admitted that alfalfa is much more easily grown. Alfalfa is grown in small patches over the entire State of Kansas, excepting along the Missouri river and, perhaps, as far west as Topeka. There are many patches east of this line, but

farmers in the eastern fifty or sixty miles of the State bordering on the Missouri river find clover growing so easy and advantageous as a rotation crop, and so much superior to alfalfa, that they give comparatively little attention to the latter. In this they are wise. On the line of the Republican, stretching to the northwest, both in Kansas and Nebraska, and south of that line alfalfa fields are more frequent, many farmers growing alfalfa without irrigation on any kind of rich, tillable soil, where it can have an opportunity to send its roots down ten or twenty feet for water. This may seem improbable to our readers of Iowa, of eastern Nebraska, and north and east of these States, but it is, nevertheless, a fact. We found one man a day or two since, who, in digging a well, had gone down seventeen feet alongside the roots of alfalfa, and we are prepared to believe that the roots will go even twenty or twenty-five feet. We call special attention to this as it indicates the soil suitable to alfalfa, and also the kind of soil in which it will not succeed. It will not succeed where the water is too near the surface. It likes frequent drinks, but it don't like wet feet. Where an impervious clay rests between the surface and permanent moisture, or where a ledge of stone intervenes, success cannot be expected. It is, therefore, a question of soil and

moisture. No irrigation is needed.

"There are, however, serious objections to alfalfa. One is that alfalfa fields make an admirable breeding ground for a variety of native locusts, and in the early morning and evening the plant is literally covered until it is golden rather than green. Farmers who expect a crop of seed find the grasshoppers stripping it so completely that they are compelled to cut it to make it into very indifferent hay. Whether this is permanent or whether some parasite will develop that will rid them of this plague is yet to be determined. The main difficulty, however, with growing alfalfa is that on account of the fact that it has to be sown without a nurse crop, does not get at its best short of three or four years, and is not suitable for a rotation crop. It makes a most excellent permanent meadow, and when this is said, all is said. We have seen fields that were pastured, but the general testimony of farmers who have tried this method is that it runs out. Possibly this would not be true in other localities, especially where it is allowed to grow four or five years before cattle are turned on it, but we are satisfied that the general farmer will find it difficult to use it as permanent pasture.

"It might not be amiss to say something about the Kansas corn crop. The magnitude of the Kansas corn crop is one of great importance to every part of

brick bake oven about the time she put in the bread, we have been told that this was not a "hot" wind. We have seen the corn leaves turn entirely yellow in two or three places in a field where it joined a grain field that had been plowed over, and we have been told that this was the effect of a "hot" wind. Since the rain has come we have been told that the damage on the corn fields was due to the "hot winds." Therefore, we are still in doubt as to whether we have had an experience of a hot wind or not. On one subject we are quite clear, and that is that hot winds do not come from Texas or the Staked Plains, but that they are purely local and the result of an extremely hot sun shining on a broad space of bare ground or heavy stubble, and that while a hot wind might be blowing in one township there would be none in the next. The corn south of a heavy grove of native or planted timber might be burned up with a hot wind, while the corn on the north side of the grove would suffer nothing. If in some way large belts of trees could be grown and the soil plowed to a depth of a foot, in order to hold the moisture and to act as a mulch that would favor capillary attraction from the reserve of water in the under soil, we think the hot winds would cease to blight the hopes of the Kansas farmer.

"The soil of central southern Kansas, and in fact of the entire State, is marvelous in its richness, and it is little wonder that in a favorable season the farmers consider it inexhaustible.

"While we think the corn crop of Kansas largely overestimated by the local statisticians, and that the final estimate will confirm this conclusion, it is hard to overestimate the wheat crop. Clear back to the desert on the Colorado line, and beyond, the wheat fields are yielding the very best quality of wheat and in the greatest abundance. Plenty of fields are yielding from thirty-five to forty bushels to the acre, and a man who has less than twenty thinks that his platter is not more than half full. More than that, the wheat is of the very best quality, grading No. 2, and much of it weighing from sixty-two to sixty-four pounds per bushel. It is now selling at from 52 to 57 cents, and the amount handled is determined solely by the capacity of the elevator. Of course a large proportion is yet in the shock and if a season of wet weather should occur damage is inevitable. Even if the corn crop is short no Kansas farmer nor any Kansas railroad has any right to complain, as the result cannot be anything else than giving hope and courage to the farmers."

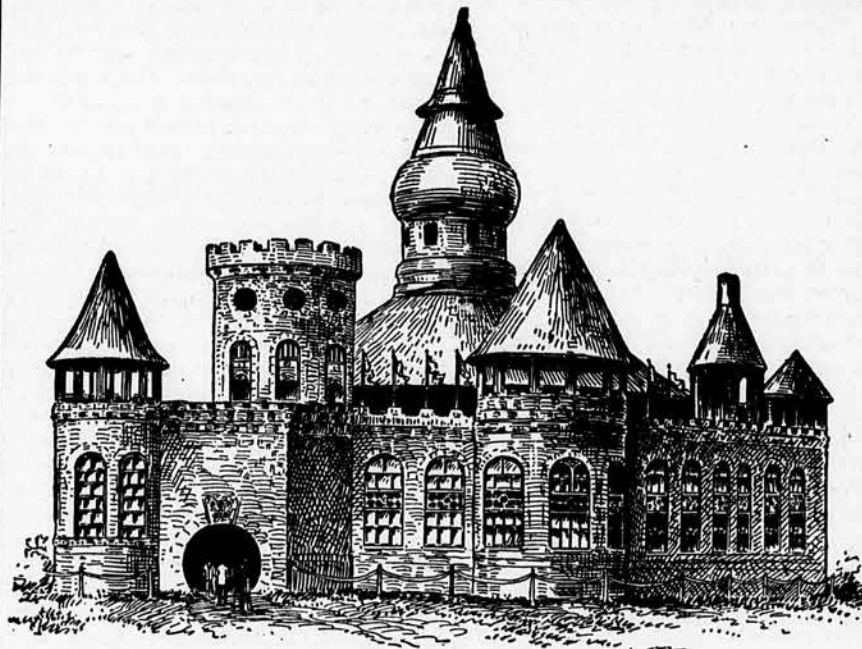
"Woman's Suffer-age"

was what a witty woman called that period of life which all middle-aged pass through, and during which so many seem to think they *must* suffer—that Nature intended it so. The same lady added: "If you don't believe in 'woman's sufferage,' there is one ballot which will effectually defeat it—Dr. Pierce's Favorite Prescription." This is true, not only at the period of middle life, but at all ages when women suffer from uterine diseases, painful irregularities, inflammation, ulceration or prolapsus. The "Favorite Prescription" so strengthens the weak or diseased organs and enriches the blood, that years of health and enjoyment are added to life.

A grower says that horse manure spread thickly under currant bushes early in the spring will prevent currant worms.

A Sad Awakening!

"When in the dark, on thy soft hand I hung,
And heard the tempting siren of thy tongue—
What flames—what darts—what anguish I
endured,
But when the candle entered—I was cured!"
Such complexions as so many of our young ladies possess—dull, pimply, and covered with sores and blackheads, is enough to cool the ardor of the warmest lover. To such young ladies we would say, that you can never have a soft, fair, smooth, attractive, *kissable* complexion, unless your blood is healthy and pure, for the condition of the blood decides the complexion. Dr. Pierce's Golden Medical Discovery will purify your blood, tone up your system, and drive away those distressing headaches and backaches, from which you suffer periodically, and give you a complexion a lily or rose-leaf might envy.



THE ALFALFA PALACE. [See page 8.]

subsoil, rather than a question of heat and rainfall. Alfalfa will stand any amount of heat, provided its roots can reach permanent moisture, and where this is not the case, failure must be expected. We have found fields, partly bottom and partly rolling land, in which a ton to the acre might be cut as a second crop on the bottom land, and not one-third of a ton, and that of an inferior quality on the higher lands in the same fields. We frequently have letters from farmers in different parts of the West asking whether it will pay them to grow alfalfa. This statement of conditions under which it is grown in these States is the best answer which we can give to these questions. At this point, Garden City, Kas., longitude 100° 45', clear out in the desert, alfalfa does admirably without irrigation, and supremely well with it. But the inference must not be drawn that it will do equally well on all parts of this line or at all points many miles east. Examination of the soil and subsoil in this particular locality show that there is no clay or hard-pan to interfere with the roots going down any depth and supplying themselves with the water drawn up by capillary attraction from the sheet of water lying on the same level with the Arkansas river. A few miles distant this condition does not exist, nor is it general. This particular spot is, therefore, an ideal place for the growth of alfalfa, and if the plant is once established the roots reach perma-

the West this year. After passing through the State from east to west, almost its entire length, and from the north to the south, we think it is not safe to estimate the Kansas corn crop at more than half an average crop. The really good corn that we have found in the State lies east of the latitude of Topeka and along the Nebraska line for a breadth of a county or two, as far west as corn is regarded as a reliable crop, and in a few counties east and a little southeast of Great Bend. There is plenty of stalks over most of the State from Larned east, but the trouble is that the extreme heat and dryness has killed the tassel and turned a certain per cent. of the blades white. In many places a large per cent. of the stalks are barren, a large per cent. of the ears short, and seven-eighths of the ears wormy. We have not been so heartless as to wish the Kansas farmers a hot wind, but we have wished that should they be afflicted with such a calamity we might fortunately be able to witness it. At this writing we do not know whether our wish has been gratified or not. We have been told for the last three or four days that the corn could stand a temperature anywhere from 95° to 105°, as marked by the average thermometer, but it could not stand a hot wind. As we have ridden along the railroad on the windy side of the immense stubble fields and the air came into the car windows reminding us of the heat that came out of our mother's

Affiance Department.

A Question of Dollars and Cents.

"In order to arrive at some approximately correct conclusions as to the daily earnings of a man who works on a farm, we shall proceed as follows," says E. B. Opdyke, in *Ohio Farmer*: "The corn crop is probably as profitable a crop as a farmer under ordinary conditions can produce; so we take it as a basis. In 1891 it required on my farm thirty days to plow and harrow the soil and to plant thirty acres of corn, using the wire check-rower; re-planting, three days—a very low average of time; shelling seed corn, one day; cultivating five times, including one harrowing, twenty-five days; cutting corn, 104 shocks of eight hills square (two acres per day), fifteen days; husking thirty shocks per day and tying up the fodder, fifty-two days; drawing and cribbing the corn at the rate of seven and one-half acres per day, four days. Then the total time for thirty acres of corn from plow to crib is 130 days.

"Eight months of the growing and harvesting season's work is 208 days; and in that time by the above data, the work of one man from plow to crib would be forty-eight acres of corn.

"Now, to accomplish this, by my data, a man must be engaged not less than twelve hours a day, including the care of the team at morning, noon and night. I put in more time to accomplish what I did. Attending to the team is a necessary part of the work and the time there used must be included in the calculations. While I do nothing unusual I am engaged from fourteen to sixteen hours a day through the working season—chores and all. But calling twelve hours as the team and field day, the ten-hour man would accomplish only ten-twelfths or five-sixths as much in 208 days, which would be forty acres—and this for a very active man. Again, the average production in a period of perhaps ten years is what both laborer and farmer must count upon to get correct results. In examining the United States Agricultural Report for 1890 I find that fertile Illinois in ten years averaged twenty-six and nine-tenths bushels per acre, while Iowa and Ohio each averaged thirty and seven-tenths bushels. We will assume the average yield as thirty-one bushels per acre for ten years. Then the twelve-hour active man would produce 1,488 bushels of shelled corn from his forty-eight acres from plow to crib, in 208 days. Next the price. The average Ohio price for ten years past has been almost 44 cents per bushel. Then the 1,488 bushels at 44 cents would equal \$654.72. Again, it is the custom in this locality (and I believe it equal in both sides as nearly as may be) where the proprietor of the farm furnishes team, implements, seed, etc., and the man furnishes his own labor, boards himself, shocks and cribs the corn, to give a rental of one-third of the produce. One-third of 1,488 bushels is 496 bushels, which at 44 cents equals nearly \$220, and his third of the fodder as 208 fodder shocks, each containing four corn shocks of eight hills square, at 20 cents per shock, equals \$41.60. The aggregate value of the man's share of his production in 208 days of twelve hours each is, then, \$261.60. Although the average price of 44 cents per bushel is treated here as a net price, whereas it is the gross, cost of marketing not being deducted, we will let that go. Then \$261.60 divided by 208 gives about \$1.25 per day to the very active twelve-hour man who boards himself. The ten-hour man would earn \$1 per day, boarding himself. If the man were boarded by the owner of the farm, as in the case of hiring, then the ten-hour man, allowing 25 cents per day for board, would earn 75 cents a day. If these data are all found to be correct and a farmer pays more than 75 cents per day to his ten-hour man or \$1 a day to his twelve-hour, or \$1.25 to his fourteen-hour man, does not the farmer pay out of his own labor all the surplus? And, if so, are there equal conditions between the farmer as a laborer, which he is, and any other man who works with or for him as a laborer? If there be not equality why should there not be? Of course if a man spends much of his time loafing around and then complains that he can hardly get along even when paid \$1.25 for a ten-hour day, and boarding besides, who is to be blamed? Is it the farmer who puts in steadily from twelve to sixteen hours a

day, and several hours each Sabbath doing his necessary chore work? But it must not be forgotten that it requires an active man to earn even these wages. How many, for instance, will cut and tie 104 of eight hill square shocks per day, or husk thirty shocks? I find it difficult to hire men who will do even half these amounts.

"As the board costs as much for the slow-moving as for the active man, the slow mover is dearest at half price. What would the slow mover think of 40 cents per day for ten hours' work, or 50 cents per day twelve hours? Do not the foregoing considerations furnish a clue to the failure of many farmers to succeed because of their paying wages which the farm will not justify them in paying? Do they not also furnish a clue to the comparative failure of some who, like a writer in a recent *Farmer*, changed from the vocation of a wage-earner as a mechanic to the vocation of farming? These considerations in reference to wages might be extended to wage-earnings in general, but space will not permit. Criticism and correction of any of the points herein presented are frankly invited."

Alarming Venality in Connecticut.

Out of several thousand voters, taken not far from equally from city and country in Connecticut, 113 out of every 1,000 were venal. And of these venal, 556 in every (assumed) 1,000 were of American stock; 173 Irish of the second generation, 136 Irish born; twenty-eight Germans second generation, fifty-three German born; three are English second generation, six English born; six Scotch second generation, three Scotch born; six colored; six French Canadian second generation, nine French Canadian first generation, and six of other foreign birth. It further appears that out of every (assumed) 1,000 of intemperate voters, 540 were venal; in every 1,000 drunkards, 700 were venal; in every 1,000 shiftless, all were venal; in every 1,000 total abstainers, 342 were venal; while in every 1,000 temperate voters, forty-five only were venal. This latter is, again, a case where the actual numbers represented on the side of the total abstainers may be so small as to give misleading percentages. The final fact is, however, liable to no such correction. Out of every thousand voters known to have been arrested or imprisoned—chiefly for drunkenness and its attendant crimes—778 were venal.

The decaying towns have more venality than the others, and the prices range higher. There are wards in every city and districts in every growing town where there is as much or nearly as much corruption as in any of the country towns. But in general I think it will be found that where the soil is the poorest, money most rare, the conditions least favorable to enterprise and mental activity, there is more bribery—and this in spite of the fact that there is more drunkenness, though perhaps not more intemperance, in the city. Still, we are here, as everywhere, reminded that the offense is individual and follows the laws of all disease in respect to contact and infection. The average health of a city or town may be high while that of particular neighborhoods in it is low.

These investigations establish the percentage of the venal for twenty-one Connecticut towns, including one city, at fifteen and nine-tenths. Since the proportion between the city and the country population included is as nearly as may be that of the whole State, it follows that we have here a basis for an estimate of the aggregate of venality in the entire State. If this be so, there are 26,394 purchasable voters in Connecticut. I am in no position to affirm the absolute accuracy of this estimate, simply because my facts are only from one-eighth of the towns in three of the eight counties. But if analysis of samples taken without selection from the whole is ever conclusive concerning the entire mass, I see not why this may not be called a fairly reliable estimate. And surely 26,000 would allow a sufficiently wide margin for possible error.—Prof. J. J. McCook, in *September Forum*.

If railroads would confine themselves strictly to the avocation of common carriers to the people there would be infinitely less opposition to them.

Hood's Sarsaparilla is an honest medicine, honestly advertised for those diseases which it honestly and absolutely cures.

The Family Doctor.

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

Answers to Correspondents.

FAMILY DOCTOR:—Please describe whooping cough, and what remedies would you advise? Can it be given to another person, except through the breath? E. A. G.
Lincoln, Kas., September 9, 1892.

Whooping cough, or *Pertussis*, as it is technically called, is a disease arising from a miasmatic or microbic poison, the chemical and physical characteristics of which are little known or understood. We chiefly know its manifestation through symptoms. What is called the pneumogastric nerve is the main center of invasion of the poison, where it manifests itself chiefly by peculiar spasmodic paroxysms of cough.

Most writers, for convenience of description, divide it into three stages. First, the stage of invasion or incubation, presenting symptoms very similar to ordinary acute catarrh, such as dry cough, sneezing, watery eyes, headache, great weariness, feverish nights, oppression of breathing and great restlessness. This stage lasts about two weeks, growing gradually worse. Then follows the second, or convulsive stage, characterized by violent spells of coughing. The cough is very harsh and strong. The breath seems to be all forced out of the lungs in the act of recovering it, the child, by a kind of strident suction, produces that peculiar sound called a whoop, which once being heard is seldom forgotten. The windpipe seems to collapse together and the child often gets purple or even black in the face and seems on the point of choking to death, when the spasm relaxes sufficiently to permit the taking of air into the lungs again, and the same scene may be repeated from once to several times close together. Then may supervene a period of freedom from any cough for a few minutes to several hours, when the same scene will be repeated. In very severe cases the eyes become blood red and the face about the eyes as black and swollen as if it had been dealt a heavy blow. Sometimes the eyes swell entirely shut and ooze dark blood, and sometimes the nose and ears may bleed seriously. In these intense paroxysms the child will struggle for its breath as if its throat were in the clutch of a giant strangling it to death. In milder cases these symptoms are less and less severe, according to the intensity of the paroxysms. At the termination of the paroxysm—after one to five minutes—there is frequently a spell of vomiting of mucus, and often of food recently eaten. This stage reaches its climax in one to two weeks and declines gradually in two to four weeks more. Then the third, or stage of declension, sets in. Then the symptoms gradually abate and fade out in two to four weeks more. During the shocks and convulsions of the second stage it is often difficult to nourish the child properly on account of the frequent spells of vomiting.

There are many remedies commended. Tartar emetic, in doses too small to engender nausea and vomiting. Clover tea sometimes cures in a few days. Red pepper tea in very small quantities. Hot, black coffee. Belladonna, in very small doses, or its alkaloid atropia, in exceedingly small doses (it is too poisonous for the laity to prescribe). Great relief is often obtained by giving the child a warm sponge bath and wrapping it in a dry sheet and putting it to bed in another room, and then burning a quarter of a pound of sulphur in an iron dish in the room with doors and windows tightly closed for two or three hours, and when the gas has all escaped from the room the child may be returned to and kept in the room thus disinfected and fumigated. In the early stages this will often make a quick cure.

The disease is very contagious, its poison

being, like that of small-pox, very subtle. It is conveyed through the air to considerable distances and is carried and preserved in clothing great distances, and an uncertain length of time. Unless the clothing, bedding and room of the patient be thoroughly disinfected the danger lingers long after the cough ceases. Thorough fumigation of all clothing, bedding, furniture and the room itself by the fumes of burning sulphur is probably the best safeguard against contagion.

The Lesson of the Prize Ring.

All decent and respectable people of the United States are again suffering a sense of deep shame and humiliation on account of the brutal exhibition in the New Orleans prize ring last week.

For years John L. Sullivan has been corrupting the boys and young men of the country by inculcating the spirit of the brutal prize ring. If his great muscular development were devoted to pounding rock in a prison yard, the country could well afford to pay his keeping. In the name of humanity and decency, we ask, how long the foremost people on the earth will tolerate such scenes of degradation and shame, before declaring and actually making it a State's prison offense?

No sane man doubts the great value of large physical development of every child of the race. But when it is simply set to destroy itself and its kind it deserves the ban we hurl against all other brutality. All right-minded men reprehend and re-primand with equal severity and justice such exhibitions of unmanliness. The medical man and sanitarian sees other elements of wrong and crime in it than the moral one. These overgrown and over-done specimens of physical development are a curse and bane upon normal development. They encourage abnormal and vicious development of physical powers, and engender false and fatal ideas of physical prowess, they stimulate otherwise useful men to become mere brutes like themselves.

Compare two champions of the summer of 1892, Sullivan and Gladstone. The one has been a plague-spot and curse to his kind for years. It is doubtful if he ever earned a dollar that did not have some element of human degradation attached to it. Brutal strength coupled with brutal selfishness, marked the man from the beginning. That which he gloried in as manly, gone to ruin and been wrecked at 34, just when he ought to be in the bloom and prime of physical being. What poor degraded hopes he had in life, blasted by the lion's paw of another bruiser. The other, gone steadily on through a serene and useful manhood to 83 years of age, and still the intellectual giant and gladiator of the world, a man of magnificent physique, almost as brawny as his brutal contrast. Every one of his great muscles and nerves and every fibre of his massive brain given over from his youth up to the service of his fellow-men. No man today can catalogue the splendid services he has rendered to humanity. He, too, believes in physical development, but not that the seed of the woman shall bruise the head of another bruiser, but that he may tent long in the land of the living and push the great car of civilization and human betterment clear to the great frontier of human capacity, so that when he dies of old age, countless thousands shall mourn the loss of a benefactor. Here is a great and harmonious development of physical and mental manhood being spent for the glory of the world. There is great bulk and immeasurable selfishness rolled along like the car of Juggernaut, with the sole purpose of crushing men as an iceberg might crush a ship, and to what end? That a brute may glory in being most brutal of all.

In the same papers that recount these savage scenes in the most degraded of American cities, we read the story of another great contrast in life, not a dead cock in the pit at 34, but a dead hero at 84, John G. Whittier. Every man who loves his kind, every man who loves honesty, sobriety, industry, self-abnegation, purity and nobility of character, the rapt singer of the sweetest songs of life, must feel degraded that the same prints that record humanity's great loss on one page should record on another the world's humiliation and disgrace in the prize ring.

When two male lions meet in forest or plain there is, according to lion-hunters, always a great battle, at the end of which one lion skulks away, torn, disfigured, his hide hanging in strings, and bleeding, or dies and is eaten by hyenas, while the other goes roaring through the country proclaiming his prowess. How like that inhuman scene at New Orleans.

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Reference: Metropolitan Nat'l. Bank, Chicago. 174 South Water St., CHICAGO.
Also Kansas Farmer Co., Topeka, Kas.

The Home Circle.

To Correspondents.

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

The Vanishers.

Sweetest of all childlike dreams
In the simple Indian lore
Still to me the legend seems
Of the shapes who flit before.

Flitting, passing, seen, and gone,
Never reached nor found at rest,
Baffling search, but beckoning on
To the Sunset of the Blest.

From the clefts of mountain rocks,
Through the dark of lowland firs,
Flash the eyes and flow the locks
Of the mystic Vanishers!

Wistful, longing, through the green
Twilight of the clustered pines,
In their faces rarely seen
Beauty more than mortal shines.

Fringed with gold their mantles flow
On the slopes of westering knolls;
In the wind they whisper low
Of the Sunset Land of Souls.

Doubt who may, O friend of mine!
Thou and I have seen them too;
On before with beck and sign
Still they glide, and we pursue.

Glimpses of immortal youth,
Gleams of glories seen and flown,
Far-heard voices sweet with truth,
Airs from voiceless Eden blown,—

Beauty that eludes our grasp,
Sweetness that transcends our taste,
Loving hands we may not clasp,
Shining feet that mock our haste,—

Gentle eyes we closed below,
Tender voices heard once more,
Smile and call us, as they go
On and onward, still before.

Chase we still, with baffled feet,
Smiling eye and waving hand,
Sought and seeker soon shall meet,
Lost and found, in Sunset Land!

—John Greenleaf Whittier.

John Greenleaf Whittier.

The daily papers of Wednesday, September 7, announced the death of one of America's greatest poets, John G. Whittier, at the advanced age of 84 years. There are five names in the roll of "America's Greatest Poets," Longfellow, Whittier, Bryant, Holmes and Lowell. Of these, four have now passed "to that bourne whence no traveler returns," leaving only one, Oliver Wendell Holmes, who is now past 83 years of age. On the 29th day of August of this year Dr. Holmes celebrated the eighty-third anniversary of his birthday, and the poet Whittier sent him a poetical memento the first stanza of which is as follows:

"Among the thousands who with hall and cheer
Will welcome thy new year
How few of all have passed, as thou and I,
So many milestones by!"

Whittier lacked three months and ten days of reaching his eighty-fifth "mile post."

He was born at Haverhill, Mass., on December 17, 1807, and died at Hampton Falls, N. H., at 4:30 a. m., September 7, 1892. His parents were Quakers. He spent his boyhood on a farm, and also learned the trade of shoemaker, but at the age of 18 began writing verses for the Haverhill Gazette. His general life history can be learned by consulting Appleton's Cyclopedia, or Johnson's.

Nearly every school boy and girl of 40 years old and under are familiar with Whittier by reason of reading and committing to memory his famous verses beginning:

"Up from the meadows rich with corn,
Clear in the cool September morn,"

and, although the facts related in the poem are somewhat mythical, we love Whittier for Barbara Freitchie's sake, and we love old Barbara for Whittier's sake. We also love Whittier for his brave and touching "Voices of Freedom," and for the heroic patriotism to which he mounted during the war that struck the shackles from the slaves of America.

The poem at head of this page is one of the finest from Whittier's pen, and now he has joined company with the "Vanishers," but his spirit will be present with us, and millions after us, in the soulful verses he has left as his own imperishable monument.

A long while ago he wrote:

"Stand still, my soul, in the silent dark
I would question thee,
Alone in the Shadow drear and Stark
With God and me."

And now he has approached "the Shadow drear and Stark," and no one can doubt that he is happy and beckons his friends to come where he is and be "with God and me."

Corbett and Sullivan.

Isn't "Home Circle" interested in the individuals above named? It surely ought to be; not necessarily interested in their welfare, but in the elegant whipping the big bully received last week.

When we all think of the columns of "stuff" that have appeared in our daily papers for the past few years about "Sully," we ought not suppress our feelings of thorough pleasure in reading how he was so thoroughly whipped by Corbett. Let us all love Corbett for the punishment he gave Sullivan, and then it might be a pretty good thing to pray that Jackson or some other slugger will "knock out" Mr. Corbett, and that thus the good work may go on until the prize ring is completely purified, by being itself completely "knocked out."

No one who has read about Sullivan whipping his poor hard-working wife during his "drunken spells," can help but feel great satisfaction at the downfall of the late "world's champion." We can all be truly thankful that we are not likely to hear much more about Sullivan, and at same time make mention of the final fact that at New Orleans, on Wednesday evening, September 7, 1892, James Corbett, pugilist, won \$45,000 by "knocking out" John L. Sullivan in the twenty-first round; and instead of applying the motto of Virginia,

"Sic semper tyrannis,"

we may say,
Sic semper pugnaiores.

Elderberry Wine.

I enclose herewith recipe for elderberry wine, inquired for by "J. W. McK." in KANSAS FARMER of August 31. A cup of this wine made hot with one-third boiling water and teaspoonful of sugar, is an excellent remedy for colds and influenza, and is largely used thus in England.

ELDER WINE.—To every three gallons of water allow one peck berries, to every gallon of juice allow three pounds sugar (sorghum sugar), one-half ounce ground ginger, one pound raisins, six cloves. To nine gallons wine four tablespoonfuls yeast. Mode.—Pour the boiling water on the berries, picked from stalks; let these stand twenty-four hours; strain through a sieve, breaking the fruit to express all juice from it; boil juice, sugar, raisins and spices for one hour; let it stand till milk-warm, then put into a clean cask with yeast. Let it ferment a fortnight; bung up the cask after that time and keep for six months, when it will be found excellent.

The wine can be heated and served with sippets of toasted bread and a dash of nutmeg.

Berries ripen in September and are well adapted for wine. The juice contains a large portion of the principle necessary for fermentation, and its beautiful color imparts a rich tint to the liquor.

A good syrup is made from equal parts of elder and blackberries boiled with sugar and spices and bottled at once, and is useful to use in cases of summer complaint.

Hoping this may be useful to "J. W. McK.," and still not be against prohibition laws, I am, sincerely,
M. BEST,
Medicine Lodge.

Jenness-Miller Illustrated Monthly for September.

The September number of the Jenness-Miller Illustrated Monthly is quite up to its usual standard of excellence. The words and music of a charming song, "The Lullaby Sung Me by Mother," forms a prominent feature. The words are by Foster Coates, and the music by Stephen Massett. Mrs. Jenness-Miller has an instructive article on "How to Become a Picture in Your Clothes." There are sketches and portraits of two famous foreigners, the Empress of Germany and Jean Ingelow. Mabel Jenness writes of "Art in Repose and Motion;" Mrs. M. E. W. Sherwood tells of "Social Difficulties and Successes;" Prof. Henry Drummond discusses books, and a dozen other well-known writers have timely and instructive articles. Price \$1 a year, 10 cents a copy, of all news agents. Jenness-Miller Co., 114 Fifth avenue, New York city.

To rise in the morning with a bad taste in the mouth and no appetite, indicates that the stomach needs strengthening. For this purpose, there is nothing better than an occasional dose of Ayer's Pills taken at bed time.

DR. PRICE'S Cream Baking Powder.

Used in Millions of Homes—40 Years the Standard.

Receptions at the White House.

The evening receptions at the White House are now card receptions. There are four of these each winter that may be described as regular. These are to the diplomatic corps, to the judiciary, to the officers of the army and navy and to the Congress. Of course there are other receptions. Sometimes a scientific, a commercial, or a medical congress is held in Washington, and the President deems it to be his duty to invite the delegates to view the President and a few of his friends. But the great, regular, social events at the White House, aside from the formal state dinner parties are the four that have been named.

Everybody goes to them, the particular guests at one being the general guests at the others. At their own reception the members of the diplomatic corps wear their uniforms, and there is much complaint on the part of some of the guests that they do not also wear them at the other receptions. The officers of the army and navy are necessarily in uniform at each of the four.

The crowd is invariably enormous. The line of carriages of arriving guests reaches from the White House porch down the long circular driveway of the grounds, out of the gate, down Pennsylvania avenue, past the Treasury, around the corner and down Fifteenth street towards the Washington monument. A late arrival will easily consume an hour in crawling from one end of the line to the porch. Then when the door is reached, and the wearied but expectant burdens of the carriage are discharged, they find themselves in a pack of human beings that is almost terrifying. It seems impossible that this good-natured crowd should be able to make its way through the single door into the White House. Sometimes the police make way for a belated distinguished guest; sometimes a window is opened, and ladies are handed into receiving hands. The crowd inside the doors is as great as that outside, and the progress from the porch across the vestibule, up the stairway, and down again is so slow that sometimes the receiving party is no longer receiving when the last comers enter the Blue room, and is so painful that the attempt to get in is often abandoned, and is never repeated except by those who must and by those who have no glimpse of the glories of social life except at these receptions. As the crowd moves on, it chats and jokes. The ripping and tearing of garments are heard. The carefully arranged hair of the women is tumbled. The crowd has occasionally to make way for a fainting woman. Twice as many people go to these receptions as are asked. A man or woman who is bound to go to a White House reception has no modesty or conscience, so that intruders are many. The heat is suffocating, and usually the crowd is expected to pour into and out of this huge humming hive of torment through one doorway. Any one who gets into the rooms, however, will find that comfort in-

creases as the crowded ways of ingress and egress are left behind, for the White House is an ample building, and can hold a small army on its lower floors.—Harper's Weekly.

Whose Eats Meat Cannot Sing.

One whose business it has been to find persons suited for vocalists says he never loses his time looking for a fine voice in a country where fish or meat diet prevails. Vocal capacity disappears in families as they grow rich, because they eat more meat. Those Italians who eat the most fish (those of Naples and Genoa) have few fine singers among them. The sweet voices are found in Irish women of the country, and not of the towns. Norway is not a country of singers because they eat too much fish, but Sweden is a country of grain and song. The carnivorous birds croak; grain-eating birds sing.—Musical Millions.

The United States geological survey has been for ten years engaged in making a great map of the United States, parts of which will be on exhibition at the World's Fair. The piece, six feet in length and four feet in width, now ready, includes the State of Connecticut and a bit of Long Island and eastern New York. This vast map will take at least twenty-five more years to complete. Its detail is such that upon it will be indicated every stream, brook, hillock, mountain, valley, farm, village and city. It will show every public and private road as completely as a surveyor's map of a small township. This map, when completed, would, if spread out, cover a little over three-quarters of an acre in superficial area. Of course it would be impossible to suspend such a map as to make it available for practical use, and therefore it will have to be published in sections. In addition to this piece of the map of the United States the geological survey is preparing an outline map of the country, which will also be exhibited at the fair. It is to be spherical in shape. By it at a glance the different elevations, the table lands, the mountain ranges and the valleys will be indicated in the outline, the highest peaks of the mountains being proportionately elevated as much above the sea level as are the peaks of the Rocky mountains above the Atlantic and Pacific coast lines.

Bulrushes Shaken by the Wind

Do not vibrate to the passing wind more readily than weak nerves vibrate to the slightest noise or other trivia because of their disturbance, which would be disregarded for the vigorous. That benignant tonic, Hostetter's Stomach Bitters, strengthens them through the medium of restored digestion, and thus remedies their super-sensitiveness. Malaria, kidney and liver complaint and constipation are cured by the Bitters.

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The Young Folks.

Le Marais du Cygne.

A blush as of roses
Where roses never grew!
Great drops on the bunch-grass,
But not of the dew!
A taint in the sweet air
For wild bees to shun!
A stain that shall never
Bleach out in the sun!

Back, steed of the prairies!
Sweet song-bird, fly back!
Wheel hither, bald vulture!
Gray wolf, call thy pack!
The foul human vultures
Have feasted and fled;
The wolves of the Border
Have crept from the dead.

From the hearths of their cabins,
The fields of their corn,
Unwarned and unweaponed,
The victims were torn,—
By the whirlwind of murder
Swooped up and swept on
To the low, reedy fen-lands,
The Marsh of the Swan.

With a vain plea for mercy
No stout knee was crooked;
In the mouths of the rifles
Right manly they looked.
How paled the May sunshine,
O Marais du Cygne!
On death for the strong life,
On red grass for green!

In the homes of their rearing,
Yet warm with their lives,
Ye wait the dead only,
Poor children and wives!
Put out the red forge-fire,
The smith shall not come;
Unyoke the brown oxen,
The plowman lies dumb.

Wind slow from the Swan's Marsh,
O dreary death-train,
With pressed lips as bloodless
As lips of the slain!
Kiss down the young eyelids,
Smooth down the gray hairs;
Let tears quench the curses
That burn through your prayers.

Strong man of the prairies,
Mourn bitter and wild!
Wall, desolate woman!
Weep, fatherless child!
But the grain of God springs up
From ashes beneath,
And the crown of his harvest
Is life out of death.

Not in vain on the dial
The shade moves along,
To point the great contrasts
Of right and of wrong:
Free homes and free altars,
Free prairie and flood,—
The reeds of the Swan's Marsh,
Whose bloom is of blood!

On the lintels of Kansas
That blood shall not dry;
Henceforth the Bad Angel
Shall harmless go by;
Henceforth to the sunset,
Unchecked on her way,
Shall liberty follow
The march of the day.

—John Greenleaf Whittier.

INSECTS THAT MAKE PAPER.

"Wasps were the first paper-makers," said an entomologist to a writer for the Washington Star. "It is very interesting to study the ways of these fierce little insects. For the sake of a grab at the honey store a single individual will sometimes face a whole swarm of bees, being in fair combat a match for any three inhabitants of the apiary. Most of us have had experience of the fearlessness with which they will attack human beings.

"The female wasp spends the winter in a torpid condition, and when spring arrives she hunts up some sort of sheltered spot appropriate for a nest. A mouse hole serves her purpose excellently. Having selected the retreat, she proceeds to lay within it the foundation of a home that is destined before long to afford quarters for a large and busy family. For this object earth will not serve her turn. The substance of which the walls and chambers of the house are to be composed must be none other than the finest paper, made of wood pulp, mixed with a sort of sizing, worked to a paste and finally spread into sheets.

"On any fine day in spring time you may catch sight of a wasp earnestly at work with its jaws upon an old fence paling or window-frame. In this manner she gets together a bundle of wood raspings, which she carries into the hole she has selected, thereupon kneading it into paste and preparing it properly for her purpose. With this material she builds a sort of terrace, which she suspends horizontally, and not, like the combs of a beehive, in a vertical position. The terrace is a sort of hanging floor, secured to the roof by strong paper rods. It is circular, and is composed of an immense number of cells made of paper and almost of the same size and form as those of a honeycomb, each being a perfect hexagon. These cells, however, are never used as honey pots by wasps, as they are by bees, for wasps make no honey, and the cells are only utilized for nursery purposes—in

other words, as rooms in which the young are reared.

"When the old lady wasp has completed a certain number of cells and deposited eggs in them, she stops building in order to procure honey from the flowers wherewith to feed the young worm-like larvæ which have been hatched from the eggs. In a few weeks these little grubs become perfect wasps and lend their assistance in the extension of the edifice, forming another platform of cells, suspended from the first by columns. So it continues, and by the end of summer the house—perhaps it might better be called a town—of hanging terraces is completed, and the descendants of the original foundress may number as many as 30,000.

"Scarcely has the nest arrived at completion, through the labors of the youngest generation or its inhabitants, when the early frosts of autumn begin to thin their numbers. When November comes the wasp population is cut off as by a pestilence. Of those abroad some fall far from their habitation; others crawl back to die, while those at home, lately so busy in the work of building, repairing or keeping in order, are now sluggish and inactive. In a little while the city of terraces becomes a city of the dead. Its sole surviving dwellers are two or three females, on whom depends the perpetuation of the race. They pass the winter in a torpid state, and when the early warmth of spring awakens them they wander off, each on her own way, to found another colony."

"German Syrup"

J. C. Davis, Rector of St. James' Episcopal Church, Eufaula, Ala.: "My son has been badly afflicted with a fearful and threatening cough for several months, and after trying several prescriptions from physicians which failed to relieve him, he has been perfectly restored by the use of two bottles of Bosch's German Syrup. I can recommend it without hesitation." Chronic severe, deep-seated coughs like this are as severe tests as a remedy can be subjected to. It is for these long-standing cases that Bosch's German Syrup is made a specialty. Many others afflicted as this lad was, will do well to make a note of this.

J. F. Arnold, Montevideo, Minn., writes: I always use German Syrup for a Cold on the Lungs. I have never found an equal to it—far less a superior.

G. G. GREEN, Sole Man'fr, Woodbury, N.J.

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QUININE AND PE-RU-NA.

Two Great Malarial Remedies Compared.

Nothing is more clearly demonstrated than that there are two distinct forms of malaria, which, for the want of better names, may be denominated acute and chronic. It has been recently shown that the parasite which causes malaria are different in the acute and chronic forms. The acute form is commonly known as fever and ague, or chills and fever. This form of the disease is too well known in malarious districts to need description, and is generally curable by large doses of quinine, though this is not so favorable a remedy as Pe-ru-na. The chronic form of malaria is, by no means, so well understood, as the symptoms are hardly ever exactly alike in any two cases, and it is rarely, if ever, curable by taking quinine. Each case presents slightly different symptoms, the most common ones being dull headache, sallow complexion, furred tongue, bad taste, poor digestion, shivering feelings, hot flashes, cold feet and hands, and constant, tired feelings.

Quinine will not cure cases of chronic malaria as above described. Pe-ru-na is the only specific for such cases. Pe-ru-na is sure to cure, leaves the system with no derangement, and produces no drug habit hard to leave off, which quinine will do.

Pe-ru-na is for sale at most drug stores, accompanied with directions for use; but those who are using it should send for the Family Physician No. 1, a treatise on malaria. Sent free by The Pe-ru-na Drug Manufacturing Company, Columbus, Ohio.

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The State fair is favored with model autumn weather. A full report will be given in our next issue.

A proposition to work convicts on the roads is advocated by some writers as a solution of the questions of the employment of convict labor and the making of good roads.

It is very gratifying to note that Kansas City as a grain market is looking up and bids fair in the near future to become one of the most important in this country.

Arrangements have been completed whereby excursion trains to the World's fair, by whatever road they may arrive in Chicago, will run within the Exposition grounds and discharge their passengers there.

The KANSAS FARMER editorial, "Alas! the Rain-Makers," has been freely copied by the press. A Chicago exchange puts it into its own editorial columns without mentioning this paper, and it will now probably go the rounds credited to the Farm, Field and Stockman.

Probably one-half of the \$20,000,000 a year which the government spends on rivers and harbors goes into unnecessary roadsteads and streams, the main use of which is to float saw logs down during a freshet.

On the third page of this week's KANSAS FARMER appears a fine view of the great alfalfa palace which is now being built at Roswell, New Mexico, and which is to constitute a leading feature of the South-eastern New Mexico and Pecos Valley fair, which will be held October 4, 5 and 6, 1892.

In 1823 a patent was issued to Jeremiah Bailey, of Pennsylvania, for a mowing machine, and he constructed two machines the same year. It is believed these were the first ever made.

RECIPROCIITY AS PER THE JULY STATEMENT.

The course of the trade of the United States with those of the countries with which reciprocity treaties have been negotiated, is a curiosity which it is difficult to understand.

The Treasury report for July shows, for the twelve months ending July 31, 1892, as compared with the corresponding period one year previously, that we increased our imports from Brazil by the sum of \$68,259,361 worth, and for the same period increased our exports to Brazil by only \$2,600,633 worth.

The report for Cuba is for eleven months. The United States increased her sales to that country during these eleven months by \$6,441,575 over the corresponding eleven months before reciprocity, and has increased her purchases from that country by \$11,924,464.

With Puerto Rico, fortune has, in a small way, favored reciprocity. Thus, for the eleven months of reciprocity, we have increased our imports from that country by only \$193,310, while we have increased our exports to that country by \$556,670, and have reduced the adverse balance from \$1,032,060 without reciprocity to \$668,700 with reciprocity.

In the case of British West Indies, reciprocity has been in effect for six months. Both imports and exports have decreased as compared with the corresponding period last year, and the balance of trade which was formerly \$5,960,729 has been reduced to \$4,678,049.

With Salvador, our experience under reciprocity has been even more sad. During the six months period we have increased our imports by \$848,339 and have decreased our exports by \$29,620, increasing the adverse balance of trade from \$820,492 for six months without reciprocity, to \$1,698,251 for the corresponding period with reciprocity.

Our trade with British Guiana has diminished on both sides, the imports having declined from \$1,449,443 for the six months ending July 31, 1891, to \$572,656 for the corresponding period of 1892, and our exports to that country for the corresponding period have declined from \$578,804 to \$577,858, changing an adverse balance of trade to a balance in our favor.

In the cases of Guatamala and or Austro-Hungary, we have slightly decreased our imports and have increased our exports about the same amount, but have left still a balance against us in both cases.

The aggregate showing is that our exports to the reciprocity countries have been somewhat increased, but, as in the former showings summarized in these columns, this increase has been at the expense of greatly increased imports from these countries and a much larger balance of trade with them.

These results are doubtless disappointing to both the advocates and the opponents of the McKinley law. To the advocates it is far short of an endorsement, while to the opponents it is substantial argument against free trade, apparently indicating that, with markets on both sides free, American traders are not sharp enough to sell a dollar's worth of goods without buying several dollars' worth, and thus creating a debt to be paid in gold.

EXPORTS AND IMPORTS IN JULY.

Considerable anxiety has developed in speculative and banking circles on account of the fact that the balance of trade for the first month of the fiscal year was against the United States. The exact situation as to this adverse balance is shown by the Treasury statement for the month ending July 31, 1892.

our total exports of merchandise amounted to \$58,899,458, leaving a balance against this country amounting to \$13,116,127.

In addition to our transactions with foreign countries in merchandise we dealt in gold and silver during July as follows: We imported \$195,179 worth of gold bullion, \$84,422 in United States gold coin, \$262,839 worth of foreign gold coin, making total imports of gold \$542,440 worth; silver bullion \$353,733 worth, \$14,381 in United States silver coin, \$1,069,868 worth of foreign silver coin, making total imports of silver \$1,437,982 worth, and a grand total of imports of gold and silver \$1,980,422.

The fact that the country's stock of gold was reduced by about \$10,000,000 worth is the alarming feature of the record in the estimation of mono-metallists.

AUGUST CROP REPORT.

Issued from the office of the Kansas State Board of Agriculture, September 7, 1892, by M. Mohler, Secretary.

During the month of August our correspondents report that threshing has been done in 103 out of the 106 counties of the State, and that the average yield of wheat per acre reported by threshers, up to September 1, is as follows:

- Eastern belt, 14 bushels per acre. Central belt, 20 bushels per acre. Western belt, 17 bushels per acre.

The actual yield of wheat, as shown by threshers' reports, is higher than the estimate of a month ago. Should the balance of the crop yet to be threshed yield equally well, the total winter wheat product will be increased over the previous estimate near 5,000,000 bushels, making a total winter wheat product for the State of about 70,000,000 bushels.

OATS.

The average yield of oats per acre, as reported by threshers, is as follows:

For the eastern belt, 26 bushels; for the central belt, 30 bushels; and for the western belt, 28 bushels. This, too, shows a higher yield per acre than was reported a month ago, and the aggregate amount of oats for the State will be considerably increased over the previous estimate.

CORN.

In the early part of August the corn crop, in many portions of the State, was seriously damaged by dry and intensely hot weather. Our correspondents report the average condition of corn for the State nine points lower than a month ago, having reduced the estimate from 77 to 68 per cent. of an average crop.

Thorough and intelligent cultivation, our correspondents say, has been attended with more pronounced success than usual this year, while the lack of it has been more disastrous than usual. The season was remarkable; a very cold, wet May, and a dry, hot June and July.

KANSAS WEATHER-CROP BULLETIN.

Bulletin of the Weather Service of the Kansas State Board of Agriculture, in co-operation with the United States Weather Bureau, for the week ending September 12, 1892:

The rainfall this week is deficient in the northern third of the State, generally, in the extreme southeastern counties and with marked deficiencies in Barber, Ford, Reno and McPherson. With these exceptions it is generally above the normal, the greatest excess occurring in the western counties of the eastern division, and in the eastern counties of the middle division.

The temperature over the greater portion of the southern two-thirds of the State is slightly below the normal. In the northern third it is above the normal.

The week has given the average amount of sunshine except in the south-central

and southeastern counties, where it is slightly in excess.

The weather conditions of the past week have been very satisfactory. With but a few local exceptions the rainfall has been sufficient for fall crops and pastures, and to put the ground in excellent condition for fall plowing and seeding, without being so excessive as to seriously hinder threshing and haying.

Fall plowing is being pushed, especially in the wheat-growing sections, and an increased acreage will be sown. Some have already begun to sow, and others are nearly ready to begin.

In southern counties corn is ripe enough to feed and much of it has been cut.

Grapes, melons, potatoes and tomatoes are good crops generally.

COST OF PRODUCING CORN.

The question of how much it costs a farmer to raise his corn and how much profit or loss there is in the business has been one of considerable interest not only to the farmers of the West, but to those who are looking for new locations in which to engage in the business of farming.

In order to get information which is reliable and later than that given by the Federal census, the Commissioner of Industrial Statistics has received carefully prepared estimates from representative farmers of each county in Nebraska. The names of the farmers reporting are given by the County Clerks at the Commissioner's request. At least ten individual reports are asked for from each county.

The general get-up of the papers, aside from the recommendation of the County Clerks, show that the persons making them out had an intelligent idea of what was required, and they have made careful, conservative estimates. It is not expected that the additional reports which may be received or the official estimate of the Deputy Commissioner will materially alter the figures here given.

The blanks sent out requested the farmer to give the items of cost under the following heads:

Interest on land at 8 per cent., taxes, seed, listing or planting, plowing, harrowing and rolling, cultivating, husking, cribbing, and any additional cost.

Five hundred and thirty-five reports have been received. These show that the highest individual estimate of the cost per acre is made in Nemaha county, \$16.60, and the lowest individual estimate comes from Banner county and is \$4. The highest average for any county is that of Richardson, \$9.48, and the lowest is McPherson, \$4.32. The average for the whole State shows that it cost \$6.43 per acre. According to the United States census report the average market value of the product of one acre of corn is \$7.58. The difference between this market value and the cost of production leaves \$1.14 1/2, which is the profit per acre after the cost of hauling to market is taken out.

Annual Meeting of the Kansas Swine Breeders' Association.

The annual meeting of the Kansas Swine Breeders' Association will be held at 2 o'clock p. m., Thursday, September 15, at the office of the Superintendent of swine, State fair grounds, Topeka, Kas. The election of officers of the association, and other important business will come before the meeting.

GEO. W. BERRY, Secretary.

Grand Encampment at Washington.

On the occasion of the G. A. R. grand encampment at Washington, D. C., September 20, 1892, the Union Pacific will sell tickets at the rate of one fare for the round trip. These tickets are good going until September 20, and good returning until October 12. See your nearest Union Pacific agent.

Fruits must be picked in their season, but there is no suitable season for picking a quarrel.

KANSAS STATE FAIR NOTES.

The live stock exhibit made at the tenth annual exhibition of the Kansas State fair, this week, is hardly up to the standard of other years, yet, in some departments, especially in the horse department, it is stronger. Among other exhibitors are Jolidon & Son, of Elvaston, Ills., who show Percherons, Belgians and Oldenberg coachers. Last week, at the Nebraska State fair, they entered the contest with eighteen head, winning twenty-one prizes—ten firsts, five seconds and six sweepstakes. Their leading prize-winners are here and in our next issue the results will be recorded.

Joseph Watson & Co., of Beatrice, Neb., are here with six of their thirty English Shires, every one of them a prize-winner. At Lincoln, Neb., last week, they won second and fourth prizes on four-year-old stallion; first, second and fourth on three-year-old stallion; first and second on two-year-old, sweepstakes stallion, any age, and silver medal on best Shire stallion, offered by Nebraska State Shire Association. In the sweepstakes ring, stallion, any age, there were five class winners in the ring, a very pronounced strong array and their winner a top among the tops.

F. B. Rix, of Topeka, Kas., shows eight of his twenty head—English Shires and Oldenbergs. In his string are the brood mares Moss and Moss Rose, both first prize takers and as yet never beaten in the ring. The prize-winner two-year-old and the yearling filly Moss Agate are here from last year awaiting first honors in the grand array.

Mark M. Coad, of Fremont, Neb., shows ten head Percherons and the well-trained saddler, Red Rose, that is really owned and handled by Mrs. M. M. Coad, whose skillful horsemanship has won several first prizes, and has exhibited at the American Horse show at Chicago, creating much surprise among the equestrians of many thousands of onlookers. Red Rose is a handsome golden chestnut, thoroughly trained, has nine different gaits, including the Spanish trot and park walks. At the Nebraska State fair the Percherons won six first and four second prizes, and the very excellent coacher Alger took first in class. Ture, the famous prize-winning Percheron stallion, won sweepstakes. He and four of his get first, and in company with four court ladies and sons took the sweepstake prize of \$200 over all draft breeds.

William Burgess, of Crete, another Nebraska importer and breeder, is here with six of his prize-winning English Shires. At Lincoln the twelve in his collection won seven prizes in class, sweepstakes best mare, any age, and the medal by the Shire Association.

Messrs. Berg & McClellan, of Hastings, Neb., exhibit six of their tops, four Percherons and two French coachers. At Lincoln won eleven ribbons on their array of fourteen. They have been remarkably successful in securing choice selections for the Western trade, and desire a further acquaintance with Kansas people.

E. Bennett & Son, of Topeka, whom every Kansan knows, are out with fifty of their three hundred head, consisting of Clydes, Percherons and coachers. Several of the prize-winners of 1891 are out bedecked in their best fair-day attire, reinforced by a strong company from the late importation of 1892.

W. A. Pierce, of Maple Hill, Kas., shows seven Percherons; Messrs. Hesel & Bryant, of Carbondale, Kas., two Percherons, one Clyde and one Belgian; W. J. Veal, Richland, Kas., Percherons; O. L. Thisler, Chapman, Kas., Percherons; H. W. McAfee, Topeka, Kas., eighteen head, consisting of Clydes, English Shires, Belgian and coach horses. In the standard-bred class, O. P. Updegraff, Topeka, showed the largest number of any individual exhibitor.

IN THE CATTLE SHOW.

The exhibit of cattle, while not so strong in some features as in former years, is a very creditable one. In the beef breeds division, the Herefords, Polled Angus, Galloways, Red Polls and Short-horns will contest for sweep ring honors.

Makin Bros., of Florence, Kas., entered fourteen of their seventy-five Herefords, all prize-getters, and the pride of Kansas white-face lore. At the late Nebraska State fair, in an exceedingly strong ring, they won four first prizes, five seconds, first special offered by the American Hereford Association, also first special on two-year-old herd.

C. H. Elmendorf, of Kearney, Neb., one

of the leading breeders of white-faces in the United States, is here keeping company with the Makin herd. It will be remembered that Messrs. Elmendorf and Makin won four out of five of the carcass prizes, the ultimate and final test for beef animals, at the American Fat Stock show at Chicago, last November. Last week, at Lincoln, Mr. Elmendorf exhibited twelve of his one hundred and sixty head, winning first on aged bull, aged cow and heifer calf, third on yearlings, bull and heifer, also sweep bull and sweep cow, carried away the red ribbon best bull in beef breeds, and a special by the American Hereford Association for best bull and four of his get.

M. R. Platt, Kansas City, Mo., is out with fourteen representatives from his herd of five hundred Galloways, and is contesting for honors in the beef ring. At Lincoln this herd carried away eight firsts, four seconds in class and sweepstakes on bull and sweep cow. This herd, collectively, is a very strong one and are individually among the tops of the Galloway breed.

W. A. McHenry, of Dennison, Iowa, came in with fourteen of his one hundred and ten Polled Angus, and will wrestle with the Galloways, Herefords, Polled Reds and Short-horns for beef ring honors. This herd stood third at the Iowa State fair, two weeks ago, in a beef ring array of ten herds, composed of the most valuable and highly-bred individuals in the United States or England. At the late Nebraska State fair this collection carried away eight firsts, five lesser prizes, also first on bull and cow any age, bull and four of his get, sweepstakes on cow any age or breed, and second sweepstakes on herd. There were three herds competing and the "Doddies," when on the contest sward, attracted no little attention from the onlookers.

W. Miller's Sons, of Wayne, Neb., are showing thirteen of their Red Polled cattle, headed by Davyson 10th 544 A. R. P. B., a remarkable two-year-old prize-winner, having won first in his class and sweepstakes over all where shown. Two weeks ago, at the Iowa State fair, he won sweepstakes over his noted sire, Davyson 18th, heretofore considered the best Polled Red bull in the United States. Among the queens of the harem is the aged cow Ruperta 608 (3126), that took first in class and sweepstakes at Des Moines and at the Nebraska State fair, same honors over Priscilla, one of the leading show cows in this country. The Polled Reds, as a breed, are attracting considerable attention, and when reviewing the individuals coming from the three herds, Miller's Sons, B. R. Bohart, Elvira, Iowa, and J. H. Gilfillan, Maquoketa, Iowa, as exhibited at Des Moines, the observer is forced to conclude that the older and better known beef breeds must look well to their laurels in the future.

The review of the dairy breeds will appear next week.

THE SHEEP EXHIBIT.

The display in this important branch of the live stock industry is not as extensive as it should be, especially at this time, when one considers that the sheep breeder generally has prospered during the past few years, yet the representative flocks on exhibition in the fine and middle-wool divisions are a toppy collection.

Jewett & Sons, of Lawrence, came in with twenty-five of their six hundred head of Spanish Merinos and make a splendid showing. This flock was shown at Des Moines and Lincoln, where the fine-wool breeder readily made purchases. On the farm at home are one hundred and seventy-five stock rams suitable for service that the breeder may look over with an intention of raising the standard of his flock, at a reasonable cost.

E. D. King, of Burlington, Kas., proprietor of Meadow Brook farm, entered forty-five of his three hundred and fifty registered Merinos. This show flock was exhibited in a strong competitive field at Des Moines, two weeks ago, and won three first, four second, four third prizes and two sweepstakes. At Lincoln, last week, was still more fortunate, taking all premiums in class, also sweepstakes.

In the middle-wool division are Will T. Clark, of Monroe City, Mo., and Messrs. Crancer & Bell, of Neeley, Leavenworth county, Kas. Mr. Clark showed forty of his one hundred Shropshires, that won for him at Sedalia fair, four weeks ago, all firsts and seconds and sweeps in the middle-wool class. He reports his sales

more numerous than at this time last year.

Crancer & Bell entered twenty-four—sixteen Cotswolds and eight Shropshires—representatives of their combined flock of two hundred and fifty. They, like Mr. Clark, report satisfactory sales of stockers at rates in keeping with the prevailing prices of mutton.

THE SWINE DEPARTMENT.

The regulations of the Fair Association not providing for but three breeds—Poland-Chinas, Berkshires and Chester Whites—does not give that variety of breeds that one usually sees at State fairs, yet those that have come are among the best within "hog history," and reflects credit on the skill and industry of the Western swine-breeder. Nebraska, Missouri, Illinois and Kansas breeders are represented as follows: Colthar & Leonard, Pawnee City, Neb., Poland-Chinas; A. Dorsey & Sons, Perry, Ill., Polands and Berkshires; Geo. W. Falk, Richmond, Mo., Poland-Chinas; J. C. Canaday, Bogard, Mo., Poland-Chinas; N. H. Gentry, Sedalia, Mo., Berkshires; W. E. Gresham, Burrton, Kas., Poland-Chinas; R. S. Cook, Wichita, Kas., Poland-Chinas; Geo. W. Berry, Berryton, Berkshires; W. W. Waltmire, Carbondale, Chester Whites; John Kemp, Topeka, Chesters; N. B. Hovey, Topeka, Polands; Dr. P. A. Pearson, Kinsley, Polands; C. J. Huggins, Wamego, Chesters.

The twelve representative Poland-Chinas from Pleasant Prairie herd, owned by Messrs. Colthar & Leonard, of Pawnee City, Neb., were shown at the Nebraska State fair last week, where fourteen hundred head, of which over eight hundred were Poland-Chinas, were shown, and worked well up among the top prize-winners. This firm hold annual sales, and at their first, on October 23, 1891, the prices ranged higher than that of any other during the year in the West, even the spring pigs ranging over \$22 per head. A major portion of the individuals sold went to breeders in a half dozen States. Their second annual sale will be held October 20, 1892. A number of their offerings were sired by a full brother of Short Stop, the great prize-winning boar of 1891, that was bred by this firm. An excellent line of breeding will be found among the young stuff sired by four top boars. The exhibit here includes the yearling boar, What's Wanted, Jr., who stood first in his class at the Nebraska State fair last week.

R. S. Cook, of Wichita, shies his Poland castor in the prize ring with eighteen entries thereon, whose history dates back eighteen years, since the foundation of the herd. New and fashionable blood strains have been added from time to time from leading Eastern herds, among which were the Corwin, U. S. and Tecumseh lines. There are a few non-Corwin pigs now in the herd that should interest the progressive breeder. Will exhibit at the Southern Kansas fair, to be held at Wichita, September 26 to October 1, inclusive.

Willis E. Gresham, of Burrton, Kas., is out again in much stronger force than last year, and seems to be more encouraged at the outlook for business than a year ago. His herd, "Quality herd," is very appropriately named, at least the knowing Poland breeder would so conclude on learning that Seldom Found 23037 O., 7815 S., and Klever's Chip Vol. 7, S., head the herd. The foundation strains were Butler, Tecumseh, Graceful and Black Bess and additional blood introduced with a view to early maturity.

G. W. Berry, of Berryton, says, "Hello, Mr. Secretary; I'm here with six of my sixty top Berkshires, headed by Long-fellow's Model 27058, a two-year-old that won sweepstakes at the Kansas City Inter-State fair in 1891." The entries comprise a young herd of ten months, four head of which weigh 1,400 pounds. They show excellent quality and at 350 pounds each establish beyond question the ultimate idea of Mr. Berry attaining early maturity. They were sired by Onward 25383, a prize-winner.

Minter Bros., one of the oldest commission firms at Kansas City, was established 1879. Do a strictly commission business in grain, seeds, hay and mill produce. Consignments given personal attention and sold by sample on its merits, also make liberal advances. Have one of the best wheat salesmen on the board.

Fewer big cities and more thriving villages would have been the rule but for the discriminations of railroads.

Wheat Seeding—No. 2.

EDITOR KANSAS FARMER:—We have written before of some points in wheat-seeding, but as it is of first importance to all the settlers in the newer Oklahoma, we shall note occasionally something of actual methods being put in practice.

As, perhaps we have written, the seeding must all be done on sod broken in May and June, which was largely planted to corn and forage plants, or else on sod broken in August or September. Comparatively few of the settlers have had experience under similar conditions, as they have come from all sections of the country. The time for learning by conference and consultation with neighbors is very limited. Everybody has been on the rush in breaking, building, fencing, digging wells, going back and forth from a former home, where they perhaps had a crop, etc., and they hardly know their nearest neighbors. We wish that every farmer might have such a counselor as the KANSAS FARMER, and in it we might have more of the practical experience of farmers. We have theories in abundance now.

The first preparation for wheat we have seen is on sod broken in May, two inches deep, on which no crop was planted. The sod was generally of short grasses of various kinds, generally grouped under the name of buffalo grass, and the roots are small and short and the soil is easily torn to pieces. Four horses were put on a heavy disc harrow, so set as to throw the dirt well, and the ground gone over twice with this. The ground is now pretty well stirred three to four inches deep. We do not know what the future work will be except the runner press-drill will be used. It should have been more finely pulverized with smoothing harrow, plank drag, and then harrowed again. In another field the commonly used sod-breaker is being used to cross-break it, going about as deep again as first breaking. In stiff sod it would be impossible to cross-break, and back-setting would be necessary or the use of a plow with a rolling cutter. Others are intending to harrow with the common harrow and then drill without cutting or rebreaking.

Our own ground is in crop except the August breaking, and we are only at this writing (September 1) getting the corn fodder cut, except where it was fired in patches, and it will be some days before we can be ready to plow. We expect to use the ordinary stirring plows with rolling-cutters, then harrow, drag and drill.

Some were intending to seed by September 10, and so announced in the local papers, when we called attention to danger from grasshoppers, chinch bugs and possibly flies, if sown so early in this latitude, and we judge none will be sown before October.

J. M. RICE.
Winnview, Okla.

How to Keep Wagon Tires Tight.

Wagon tires get loose in very dry, hot weather from two causes, the chief of which is the shrinkage of the wood of the felloes. It is a poor plan to wet the felloes and thus swell the wood for it will very soon dry out and leave the tires as loose as ever. If, however, the wood be soaked in boiling linseed oil it will be swelled and the tires tightened as permanently as though cut or upset by a blacksmith. A writer in the *Ohio Farmer* gives the following instructions for doing this: "Make a trough a little wider and a little deeper than the felloes of the wheel. Heat linseed oil to the boiling point, and at this temperature pour in the trough. Have everything so arranged that you can immediately turn the wheel slowly through this boiling oil. Two or three revolutions are sufficient. Then take the next wheel. One heating is sufficient for four wheels, if the work is rapidly done. Better, however, add a little boiling oil after the second wheel is soaked. Have sufficient oil in the trough to cover the felloes. After the wheels are all attended to the oil may be poured into a vessel and kept till the next occasion. The skeptic of course says it will do no good. The oil can not contract the tire. It is immaterial whether the oil contracts the tire or expands the wood. We do know that it makes a perfect job. On one occasion it so firmly tightened the tire that the spokes began to bend. This process of tightening tires is far preferable to that of the blacksmith. The wheel retains its original shape better. If wagon wheels are so treated once a year they are able to endure the hot and dry season. The whole cost will be a few cents' worth of oil to the wheel and a few minutes' work."

Horticulture.

Manure in Sod Garden.

EDITOR KANSAS FARMER:—A letter is received from one who is somewhat discouraged in garden work on ground that has been in cultivation at least one year, and for next year is planning and preparing for a garden in ground only broken this year, and says he is putting on manure heavily.

Now, we are an advocate of heavy manuring, having on our old farm in Iowa used all the manure made, and bought much beside. But we would drop a word of caution as to using too much manure, except that it be well rotted, on land on which there is so much unrotted material already in the soil as would likely be found in the virgin soil in south Oklahoma. Unless it should be an exceptionally wet season, the presence of any additional vegetable matter will absorb so much of the natural moisture, and also prevent the soil from becoming sufficiently impacted, that we very much fear that it will dry out and the garden be a failure for a season or two. There is generally too much non-assimilated matter already in the soil, except for a very few kinds of vines and plants. Most vegetables need a very finely pulverized and somewhat compact soil, and much of our Western soils are too loose when new for successful gardening.

We advised this correspondent, and would advise those similarly situated, to use only well-rotted manure, or that like chicken droppings, which has less of undigested matter in it than from other sources. We presume the prepared fertilizers would not be open to this objection, and it would be advisable to use them, but have not had experience.

We have similar ground, except as to the character of the sod, which has much less of grass roots in it, and shall not use any manure for the reason that it would be impossible to get any that is rotted, but we shall plow at least twice this fall and winter, thoroughly pulverizing and compacting each time, leaving always loose soil on top, that, acting as a mulch, will hold all the moisture possible.

Then, as to being discouraged as to gardening on new land, we have been over that road before, and know that with constantly deepening the tillage to such depth as the soil will admit, the addition of the best manure after the grass roots have rotted, thorough cultivation and early planting, the "newness" will soon wear off, and the rich garden be one of the places where a crop can be depended upon almost regardless of the seasons. It is an ideal to be worked for on the farm, also, which we do not claim to have attained, but all will admit might be more nearly reached than is generally done.

J. M. RICE.
Winniew, Okla.

Pear Culture.

By J. H. Stearns, delivered before the Michigan Horticultural Society.

The first mistake I made was in planting some varieties in which there is no profit for me. The next was in not planting dwarfs deep enough, nor keeping them headed back properly, and in earlier years in not being prompt to cut out the blight. Another was in planting varieties on soil not adapted to them. My experience and observation is that there are but few varieties which, if planted on soil suitable for them, will not be successful and profitable. Usually a strong clayey soil is best for pears, but there are a few varieties that do well on the lighter soils, if kept well fed and cultivated. Of these there are the Bartlett, Howell and Louise Bonne. It will not pay to plant Duchess, Anjou or Sheldon on any but strong, fairly heavy soil.

The ground should be well fitted before planting, by being worked very deep by the use of a subsoil plow. Make it rich with fertilizers. If it is not so naturally, work or underdrain it so that no water will stand on the surface very long after heavy rains.

I have an orchard of 1,000 trees, most of which are twelve years old, and it has been thoroughly cultivated every year during that time, except a portion of it that was left in grass for two years as an experiment, which was very unsatisfactory. The past season I had but one tree that showed signs of blight, while trees within three miles of my place, standing

in sod, were nearly ruined the past two years.

The standard pear needs but little pruning, but cut back nearly two-thirds of the young growth of dwarf trees. If this is not done, and they are not planted deep enough, they will become a sort of half standard, and they will get top-heavy and tip over.

The past season my pears were sprayed thoroughly with the Bordeaux mixture before they blossomed or leaved out. After the fruit set I sprayed three or four times, at intervals of a week or two, according to the weather. In the latter sprayings I put in Paris green at the rate of one pound to 250 or 300 gallons of water, to destroy the codlin moth and the curculio.

Shall We Continue to Plant Vineyards?

I am by no means sure that the continued heavy planting of the grape will prove to be a safe commercial venture. It is, doubtless, true that the consumption of this fruit in fresh condition is increasing at a rapid rate, and it may reasonably be anticipated that such consumption will continue to increase. On the other hand, public sentiment grows stronger against wine-making, and this seems likely to diminish the demand for grapes for such purposes.

The grape can be, and is, successfully and profitably grown much farther north than any of the tree-fruits, since by laying down and covering the vines they can be carried safely through the severest winter cold. With judicious selection of a vineyard site, many of even the late-ripening varieties mature with nearly or quite the same certainty as farther south. As a case in point, a fine collection of well-ripened grapes, grown in southern-central Minnesota, was shown at the New Orleans Exposition during the winter of 1875. Among them were perfectly ripe Catawbas which, even in southern Michigan and northern Ohio, ripen thoroughly only in exceptionally favorable seasons or in protected and sheltered localities. A subsequent visit to the vineyard in which these specimens were grown revealed the fact that their maturity was due to the training of the vines upon a low trellis with a southern slope and exposure. The vines were covered with earth in winter.

—T. T. Lyon.

Just so long as bananas are sold in our Northern towns by the wagon and carload we may say, plant grapes. The capacity of our people to consume grapes is only just beginning to be tested. What we want is to improve their quality, to cheapen and quicken transportation and to extend the season. Every Northern market should be supplied with fine grapes from June until January, and in abundance. Our people have only been eating grapes for two months; they ought to be supplied for six.

Fruit-growers need to tone up on honesty. They should put up honest goods in first-class order, stop growling at commission men, and improve the quality of their fruit. Have a perfect understanding with your commission house. Let the house know what you have, and just when it will be shipped. Make daily reports, use the telegraph, get acquainted with a trustworthy firm and stick to it. It is possible to have good, faithful, conscientious producers and shippers at one end of the route, and good, prompt, honest dealers at the other end; but there must be mutual and continual understanding and co-operation.—S. S. Crissey.

EVERYTHING DEPENDS UPON THE EFFICACY OF SPRAYING.

A prominent grower of Milton, in the Hudson river grape region, who markets about twenty tons of grapes, told me that he never sprayed a single vine, but raised just as good grapes and as many as his neighbors, who, though they sprayed carefully and profusely, had just as much rot as he did. Other growers here say that this year some of the sprayed vineyards seem worse affected by the rot than those that were never sprayed at all. I thought we had found the trump card for this grape-rot trouble in the copper solution. It will be most unfortunate, indeed, should we find our vines to be still at the mercy of this dreaded disease. If so, then all danger of overproduction vanishes at once and we must battle for grapes. But continued heavy planting does not seem wise unless this fact is established, and even then grape-growing would be a precarious business, requiring great capital and pa-

tience. At the present prices, even with the declination from rot and disease, how could a full crop of fruit be marketed with profit to the grower, when his partial crop scarcely nets a paying price?—From *Prospects and Problems for the Fruit-Grower, in American Gardening.*

The Keiffer Pear.

At the last meeting of the New Jersey Horticultural Society this pear was well discussed. Mr. Denise said:

"The Keiffer is a cross between the Bartlett and Chinese sand pear. It gets its hardiness and vigor from the latter, and its quality, if it has any, from the former." He thought it not a success north of New Jersey, but succeeded on the same latitude west. It is the most vigorous grower in the pear line, and the most productive. The fruit is evenly distributed over the tree. It has been a question with him whether the pear would sell when the market was well supplied with other varieties. One merchant when consulted said: "No." Others were sought who were willing to try it, and the past season they had run after him and sought the Keiffer, so his mind was relieved as to its selling qualities. Its looks sell it. He has 1,600 trees. Those ten years from the bud were as large as Bartletts twenty-five years old. The fruit hangs on well and is not liable to be blown off, and is good to handle because it is hard when fit to pick. Nine hundred and forty trees eight and nine years old produced last year 791 barrels, which sold for \$1,028.30, averaging \$1.30 per barrel clear of all expenses. One hundred trees produced 191 barrels, which sold for \$248.30. He does not consider this a big pear story; others can tell larger ones, but this is absolutely truthful as taken from his books. He is very well satisfied with his venture. He had nothing to say about the quality; he grew them for the dollars and cents they produce. Now if he were to plant more with the light of his experience to guide him, he would set 999 Keiffers and one Bartlett in an orchard of 1,000 trees.

Mr. Vandever considered it a poor table pear, but fine for canning. He thought Mr. Denise's ground was unsuited to the Bartlett, while it was suited to the Keiffer.

Mr. Blish thought the quality of the fruit depended on proper curing. He thinned off about a quarter of the crop when half grown, and later, more; those left were allowed to ripen on the tree; when gathered they were taken to the cellar and spread out in a thin layer till they had ripened, and in this condition he found them very palatable.

Mr. Repp advised going slow; he had trees for sale if any one wanted them, but he planted none himself. When all the Keiffer trees now planted come into bearing, what will be done with the fruit? He predicted it would be such a drug as to be unprofitable and people would cut down their trees. He reminded those present of Mr. Lincoln's aphorism that you could fool all the people some of the time, but you could not fool all the people all the time, and that was about the size of the Keiffer pear business. He grew Lawrence and Bartlett in preference to Keiffer.

Mr. Ward said the Lawrence would not sell in either the Newark or New York market. He was in a store a few weeks ago. The merchant had a few baskets of fine, large Lawrence, and a few barrels of Keiffer; the latter sold readily for \$2.50 or more, per barrel, while he would have been glad of an offer of 25 cents per basket for the Lawrence. Mr. Ward was cutting down his Lawrence trees on this account. When asked if the fruit was as fine as formerly, he replied that it was not. It is difficult to conceive how a person in quest of a table pear would pass by the Lawrence and accept the Keiffer. One would hardly expect a person to do so a second time; but tastes, like fashions, change. In reply to an inquiry made of Mr. Ward as to what he would now plant for profit, he said: "Gifford, Shelding, Bartlett, Seckel, Clairgeau, Sheldon and Keiffer."

In all that goes to strengthen and build up the system weakened by disease and pain, Ayer's Sarsaparilla is the superior medicine. It neutralizes the poisons left in the system after diphtheria and scarlet fever, and restores the debilitated patient to perfect health and vigor.

BEECHAM'S PILLS for a bad liver.

A Monster Pear Tree.

The *National Stockman and Farmer* recently obtained the history of a remarkable pear tree. Mr. Jacob A. Shugert, who furnishes the information, wrote to that paper: "The tree stood twelve miles north of Vincennes, Ind. It measured eleven feet ten inches in circumference some feet above the ground, and was sixty-six feet high. At eight feet from the ground eight limbs branched out of about equal size and length, forming a complete circle and balancing the tree to perfection. The branches covered an area of sixty-five feet in diameter, and when loaded with fruit the lower ones nearly touched the ground. It bore nearly every year. The fruit was of fair size and pretty good quality. It was called Sugar pear (which of course was a local name). The history of the tree is as follows: Mrs. Ockletree, wife of the man who located the farm, stopped at Vincennes with a man by the name of Mayse. In the evening, when she got on her horse to return home, Mr. Mayse went to a pear tree near by, pulled up a sprout and gave it to her for a riding switch. Going home Mrs. Ockletree noticed a small root on the switch, and on arriving there planted it in the garden, and it grew to be the noted tree. About thirty years ago the tree was destroyed by a storm, all the limbs and part of the trunk being blown down. At that time it was considered to be seventy years old. Afterward a sprout came out at the top of the portion of the trunk left standing, and grew to be as large as a common-sized pear tree and fruited every year. It finally died two years ago (1890), and was cut down and burned. I was living on the farm in 1854, 1855, etc. A great many came to see the tree. My father died on the farm in 1876, aged 76 years. I was born in McConnellsville, O., in 1835. I left the farm where the pear tree grew in 1874, bought a farm adjoining and lived there until 1885."

Commenting on the above, the editor of the *Stockman* says:

"The original tree from which the sprout was pulled up was no doubt planted by the French, who settled Vincennes about 1735, and for years were the only tenants of those vast solitudes except the tribes of Indians, with whom they were on friendly terms. Pear trees planted by French settlers in an early day, at Detroit and at St. Louis, are said to be still standing and in good condition. More attention should have been given to raising seedlings from these remarkably healthy trees."

"The Shugert tree was in all probability the largest pear tree in the United States. It was not the oldest, however. The Stuyvesant pear tree (as it was long called) planted by Governor Stuyvesant, of the Dutch colony of New Amsterdam, on his farm, now included in the city of New York, was over 200 years old when destroyed in 1867; but it was not of extraordinary size."

AYER'S Sarsaparilla

Your best remedy for Erysipelas, Catarrh Rheumatism, and Scrofula.

Salt-Rheum, Sore Eyes
Abscesses, Tumors
Running Sores
Scurvy, Humors, Itch
Anemia, Indigestion
Pimples, Blotches
And Carbuncles
Ringworm, Rashes
Impure Blood
Languidness, Dropsy
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All cured by

AYER'S Sarsaparilla

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass. Sold by all Druggists. Price \$1; six bottles, \$5. Cures others, will cure you

CANCER Dr. Hartman's treatment for Cancer. A book free. Address Surgical Hotel, Columbus, O. Even hopeless cases recover.

In the Dairy.

Bacterial Influences in the Dairy.

Some are harmful and some are beneficial. This is what pupils are taught in the dairy school in Geneva, N. Y.:

Why should the udder, etc., of the cow and the hands of the milker be made as clean as possible before milking?

To keep bacteria from getting into milk. Why should milk be removed from stable as soon as possible after milking?

To prevent absorption of any odors of the stable.

Why should milk not be put at once after milking into closely covered cans?

Because by so doing odors are retained in the milk.

Why should milk that is to be set for cream in covered cans or put into cans for immediate delivery be aerated?

To remove animal and other odors from the milk.

Why should milk be set as soon as possible after milking?

To stop the action of bacteria.

Why should the temperature of the milk be reduced as quickly as possible for creaming?

To prevent formation of fibrine and the growth of bacteria.

Why should milk that is to be set for cream be agitated no more than is necessary before setting?

Because agitation favors the formation of fibrine.

Why should milk pails, pans, cans, churn and every utensil used in the dairy be kept most carefully cleaned?

Solely to keep out bacteria.

Why is cream ripened before churning?

To develop flavor and render churning easier.

Why should the ripening process of cream not be allowed to continue too long?

To prevent development of bacteria that produce offensive products, such as bitterness, and destroy aroma.

Why should a thermometer be used at every step in the process of making butter?

To be sure that the temperature is the one desired in each stage or division of the work.

Why does cooling milk prevent or retard souring?

Retards growth of bacteria.

Why do milk and cream sour less readily in winter than in summer?

There are fewer bacteria in the air and the temperature is lower.

Why does the ripening of cream make it churn more easily?

The albuminous matter of cream is thus rendered less tenacious.

Why does milk become sour?

Bacteria change sugar into lactic acid.

Why should the room in which milk is set be made perfect in its sanitary conditions, such as good ventilation, cleanliness of floors, walls, etc., freedom from bad odor without, etc.?

To keep out undesirable bacteria, and to keep products free from bad odors, etc.

Why is butter worked?

To lessen the per cent. of water and casein.

Why does the presence of casein in butter injure it?

It affords nourishment to bacteria, which cause butter to decompose.

Pure butter may contain 10 per cent. of water. There may be less than this, but very rarely. Some water is indispensable to dissolve the salt that is necessarily mixed with the butter for its preservation, and the ordinary 10 per cent. of it will barely dissolve the 6 per cent. of salt that is thus used. Thus the usual proper proportion of moisture that is found in butter is unavoidable and a necessary constituent of it. But when the water amounts to 20 per cent., or, as it has been found in some cases, 27 per cent., this becomes a dishonest adulteration and a fraud on the purchaser.

Cream at twenty-four hours old and slightly acid ought to come readily at a temperature of 57° to 58°, and in forty minutes at the longest. Irregular temperature of the milk and cream, to great extremes, has its influence, and bad water is a reason that is not often considered. The milk of cows long in milk mixed with others have been known to prevent the butter from coming, and adding several batches of cream together at the time of churning, and not properly mixing them several hours before churning, is a prolific

cause of long and difficult churning. Where the amount of cream is small, and the difficulty seems to proceed from this cause, the cream can be mixed with three times its bulk of water at 75° and allowed to rise, and then when skimmed it can be diluted with water and readily churned. Very sweet cream should not be churned at over 52°, while cream moderately ripe should be churned at least 6° or 8° warmer, and very acid cream may need to go still higher. In all cases it is not an unwise plan where the cream is refractory to add water, warmer or colder, as the case may be, according to the temperature and ripeness of the cream.

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The Poultry Yard.

Notes on the Different Breeds.

The manager of the poultry department at the Ontario Agricultural college gives brief notes on some of the leading breeds. His views are tempered by the cold climate and exposed situation of a Canadian farm.

Plymouth Rocks.—A hardy, vigorous breed growing rapidly to large size. Small bones, great and rapid flesh formers. Male birds go up to ten and twelve pounds; cockerels reach eight pounds in early fall. Females good layers, good sitters, good mothers. A breed well suited to the climate. Chickens hardy. The best all-round fowl for farmers. Pullets lay from four and a half to six months of age.

Wyandottes.—A comparatively new breed, of great merit. Cross of Dark Brahma and Silver Spangled Hamburg. Matures rapidly, having small bones, and putting on flesh easily. Males go up to seven, eight and nine pounds. Females are good layers, good sitters, good mothers; apt to become broody, but easily broken up, and lay soon after. Chickens hardy. A good fowl for farmers. Pullets lay when five months old.

Dorkings.—A breed very much prized in England for its table qualities. While a breed of great merit they are not hardy enough for the farmers to take hold of. Crossed with Plymouth Rocks an excellent result is obtained.

Brahmas.—A well-known and old established breed, with many friends and admirers. Grow to large size and heavy weight but take time to do so. Have large frames and a good deal of feed is required to put flesh on them. Are very hardy, both as chickens and fowls. Are quiet and bear confinement well. Females are fair layers of eggs of good size, but rather heavy for early sitters (when egg shells are likely to be thin), and apt to be clumsy as mothers. After seven or eight months of age males make good table fowls. Pullets lay at seven months of age.

Buff Cochins.—Another of the Asiatic family that has many friends. Like the Brahmas, they grow to large size, but take time to do so. Are very quiet, and stand limited quarters well. The females are good sitters and careful mothers, fair layers of a large egg (when hens) of rich color. Pullets lay when seven months old; males grow to heavy weights; chickens and fowls hardy.

Houdans.—A breed of French fowls of some merit as layers, but do not grow to the same weight in this as they do in the country of their origin. They are non-sitters and lay a white egg of rather more than average size. Chickens are hardy, mature rapidly and are great foragers. Are not so suitable for farmers as either Plymouth Rocks or White Leghorns. Owing to heavy crest on the top of the head are apt to fall easy prey to hawks and other enemies of the poultry yards. Crests will freeze and become solid with ice, where water is not kept from freezing, or a fountain with narrow lip is not used. A good table fowl.

White Leghorns.—One of the best layers at all seasons, when properly handled and cared for, as all fowls should be. Are non-sitters, hardy, and mature rapidly. Will lay well in winter in a moderately comfortable house. Chickens thrive well and feather quickly. Hens lay a white egg of large size. Pullets lay at five or six months; sooner if hatched early. The Brown and Black Leghorns are also great layers. They are good fowls for farmers

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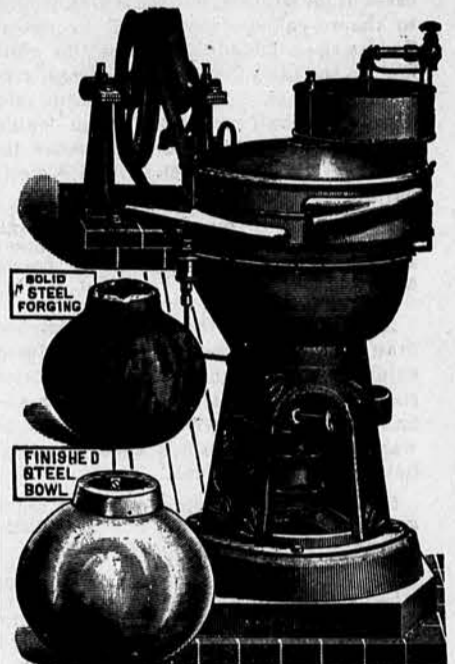
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a case with any certainty is by a microscopic examination of some of the morbid tissue. The treatment is complete excision, and even that must be done at a very early stage before the disease becomes generalized throughout the system...

We have one inquiry this week, written on a postal card with a lead-pencil, so badly rubbed as to be illegible. If a question is worth the asking, it is surely worth writing with pen and ink and sending in an envelope.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City, September 12, 1892. CATTLE—Receipts 10,018 cattle, 537 calves. Supply of beef steers large and better quality...

Chicago, September 12, 1892. CATTLE—Receipts, 16,000. Best grades 5@10 cents higher; others steady. Beef steers, \$3 25@5 55; stockers and feeders, \$2 15@2 90...

St. Louis, September 12, 1892. CATTLE—Receipts, 4,000. Texans 10¢ higher. Native steers, common to best, \$3 25@4 40; Texans, \$2 10@3 00...

GRAIN AND PRODUCE MARKETS.

Kansas City, September 12, 1892. In store—Wheat, 774,302 bushels; corn, 71,814 bushels; oats, 98,395 bushels, and rye, 18,977 bushels.

WHEAT—Receipts in forty-eight hours, 240,500 bushels. The market yesterday opened firm and active, but toward the close became weaker...

CORN—Receipts for past forty-eight hours, 69,500 bushels. Market for this grain was an uneven one, mixed being dull at unchanged prices...

OATS—Receipts for forty-eight hours, 15,000 bushels. Demand somewhat better and values a trifle firmer, a better order trade being had than for some days...

RYE—Receipts for the past forty-eight hours, 9,000 bushels. Less active and weaker. By sample on track, on the basis of the Mississippi river...

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HAY—Receipts in past twenty-four hours, 830 cars, and shipments 150 tons. Market lower and demand fair for both prairie and timothy.

St. Louis, September 12, 1892. WHEAT—Receipts, 315,000 bushels; shipments, 108,000 bushels. Market opened easier, closing 1/4¢ lower than Saturday's figures...

CORN—Receipts, 88,000 bushels; shipments, 23,000 bushels. Market opened easy, closing 1/4¢ below Saturday. No. 2 cash, 43¢; September, 43¢; October, 44¢; December, 43¢; year, 46¢; May, 47¢.

OATS—Receipts, 44,000 bushels; shipments, 130,000. Market lower than Saturday. No. 2 cash, 29¢; September, 29¢; October, 30¢; May, 30¢.

HAY—Steady. Timothy, \$8 50@12 00; prairie, \$7 00@8 50.

ments, 231,000 bushels. No. 2 spring 73 1/2@73 3/4; No. 3 spring, 67 1/2@68; No. 2 red, 73 1/2@73 3/4. CORN—Receipts 346,000 bushels; shipments, 372,000 bushels, No. 2, 47¢; No. 3, 45¢.

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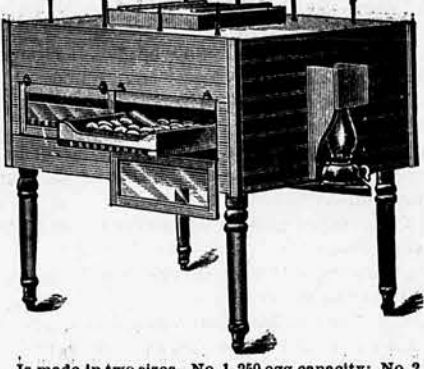
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The Apiary.

Edited by Rev. E. T. Abbott, St. Joseph, Mo., to whom all communications relating to this department should be addressed. Inclose a stamp if you desire a reply by letter. We invite questions and communications from any of the readers of the KANSAS FARMER who may be interested in bee culture.

Bee-Keeping Notes.

Mrs. General, one of Dickens' characters, taught her pupils in etiquette to say "prunes and prism" in order to put the countenance into a pleasing state of calm. I do not know of a business that requires a greater control over the emotions than bee-keeping; and not only is a formula for the preservation of the outward calm required, but also one that will keep the inner man unruffled. A nervous, excitable man can never do anything with bees, unless it be the "tame" kind, which by the way, I take but little stock in. I believe that a colony of bees that permits the combs to be overhauled by the bee-keeper without a lively protest, will be too sleepy to defend itself from robber bees, and in the spring and fall, when honey is not to be found in the fields, will fall an easy victim to its neighbors who possess more "get up."

I know one bee-keeper who starts up a good old long meter Methodist hymn whenever he enters his apiary, and keeps it going till he leaves; not so much with a view of charming his audience as to having his movements unconsciously adapt themselves to the slow time of the tune.

A hive of bees should never be approached from the front, but always from the rear. The sense of smell in bees is very highly developed, and a person who is perspiring should take extra precautions while near the hives. Sweating horses are particularly subject to attacks from bees, yet, I believe the bees are first attracted by the salty perspiration (salt water being a tid-bit to bees), and are led into stinging the horses by the stamping, switching and otherwise excitable demeanor of the animals.

Many inquiries come to me in regard to the value of a swarm of bees. There is as much relative difference in the worth of bees as there is in horses; ranging from less than nothing up to a considerable sum. One man in Massachusetts values a single queen bee that belongs to him at \$100. Two hives of bees in my apiary, standing side by side seem outwardly to be of about equal value, but one will make close to 150 pounds of honey this season, and the other will barely have enough to winter on. A good average swarm should be worth \$5 at least, but the selling of bees is so easily open to fraud for the reason that buyers are usually new to the bee business, that they should be bought only of parties known to be responsible.

"Sunflower honey" is a term wrongfully applied to bitter, strong and ill-flavored honey in the State—and there is lots of it, too. Sunflowers yield no honey. Bees work on sunflowers for pollen to feed brood, but there is not a particle of nectar in this species of flower. The bitter honey mainly comes from May weed, fire-weed and rag-weed on which bees work when there is nothing better in bloom to keep them employed.

Kansas honey enjoys to some extent the same reputation that Kansas butter used to hold. Anything that was greasy, and dubbed "butter" by its maker, was butter, and went into the antique barrel reserved

for butter, along with doubtful wads that came in dubious looking cloths and natty little rolls adorned with pineapple stamps. All brought the same price and most of it went out of the State for soap grease. "Honey is honey" to a great many, and they are just as apt to buy, if it is cheap, a black, oozy compound of bee bread and brimstone, sailing under the name of honey, as they are to buy a neat white section of the most delicious flavored nectar ever made. The people need educating into a liking for the best grades alone; all inferior honey should be fed back to the bees, as its sale to a grocery will not only lessen the demand for, but lower the price of good honey.—James Burton, Jamestown, Kas.

The above is full of good suggestions and is well worth repeating, but we can not agree with friend Burton's remarks about the "tame" bees. The best colony of bees we ever owned would permit us to take their hive apart without "let or hindrance." Our experience has been that those bees that are less given to stinging defend their hives better than any others. Some bees seem to make a business of stinging people, and have no time to gather honey or defend their homes. Such bees are not very profitable.

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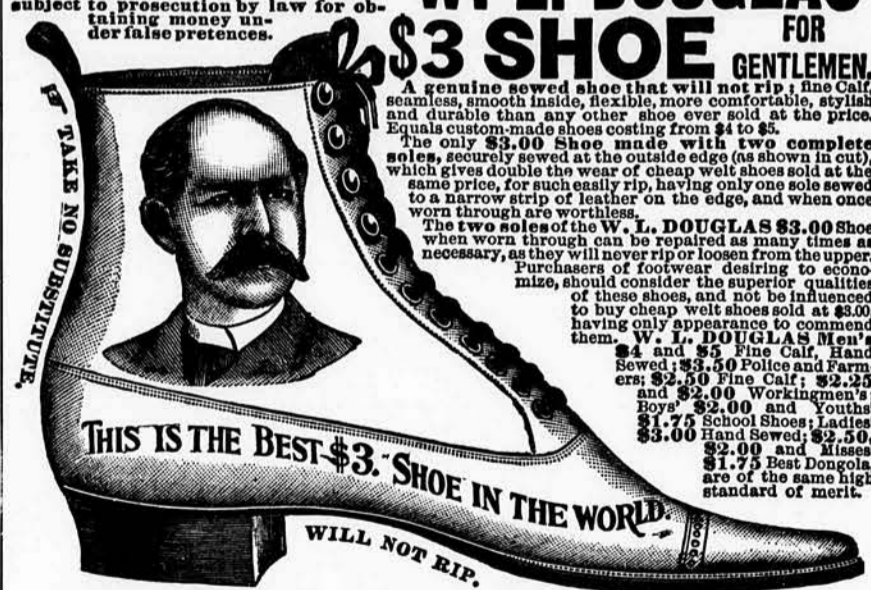
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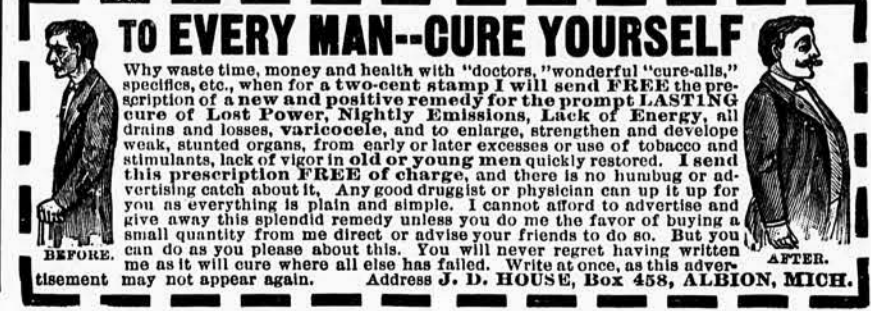


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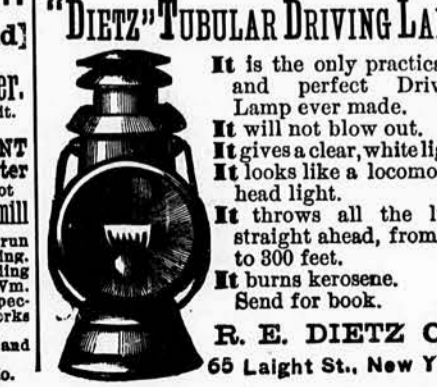
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