



ESTABLISHED, 1863.
VOL. XXIII, No. 24.

TOPEKA, KANSAS, JUNE 17, 1885.

SIXTEEN PAGES WEEKLY.
PRICE, \$1.50 A YEAR.

KANSAS HORTICULTURAL SOCIETY.

The Fifteenth Semi-annual Session, Held at Oswego, June 11th and 12th.

FIRST DAY.

The fifteenth semi-annual session of the Kansas State Horticultural Society, held at Oswego, Kansas, the 10th and 12th inst., was one of the most entertaining sessions held for a number of years. The Labette County Horticultural Society did the part of entertaining members and delegates in such a whole-souled and hospitable manner that every one present will always keep a warm place in their heart for the Oswego folks and the county Society. Never was better music, both vocal and instrumental, provided for the State Society.

The Association convened at the opera house with President Gale in the chair and Secretary Brackett at his usual place. The number of delegates present was smaller than usual, owing to the backward season and the very busy time with farmers and small fruit growers. After the usual opening, county reports were made on fruit prospects as follows:

Wyandotte county.—The prospects not encouraging. Apples bloomed profusely, but the fruit is dropping off. Some orchards will not produce enough for home use. Pears presented fine prospects, but since reduced by blight. The Murillo cherry will make a good crop. The Hartford grape promises well; other varieties only a partial crop. Strawberries not cultivated in spring producing well. There will be a good crop of currants and gooseberries. All varieties of blackberries damaged by the severe winter except the Snyder variety. The canes of raspberries badly winter-killed. Peaches in all localities a failure. Blight has appeared on the pear, crab and other trees.

Johnson.—Apple crop very light and still thinning out by dropping. The King of Tompkins, Dominie and Winesap apple trees are damaged by the winter. No peaches. Blackberries, the Snyder only escaped injury. The pear crop promises well, but the trees are affected by blight. Cherry crop light. Raspberries damaged by the winter, the Miami doing the best. The crop of strawberries is a remarkable one. The same may be said of gooseberries and currants. The Concord grape promises a large yield.

Leavenworth.—Apple crop promised to be a heavy one, but the fruit is much thinned out by dropping. The Ben Davis variety carries a full crop, while the other sorts are below an average. Some blight on pear trees; the crop will be light. Peaches failed. The Early Richmond cherry is variable; some trees full, others light. All varieties of grapes injured; the Concord will produce well. Strawberries a fair crop. Blackberries injured by blight and rust, except the Snyder. Currants and gooseberries look well. There is some blight on apple trees, mostly on the Dominie sort.

Labette.—Apples one-half crop; the Missouri Pippin never fails. The next two best sorts for productiveness are the Ben Davis and Jonathan apples. The fruit is falling some, although there is but little blight among the trees. In some parts of the county peaches will make a partial crop. Some blight among pear trees; a number of very fine pear orchards which will produce well. Cherries a light crop. Blackberries and raspberries were injured a great deal by the winter; the Snyder the least, about one-

fourth a crop. An excellent crop of strawberries, currants and gooseberries. Only a fair crop of grapes; some ten-year-old vines were winter-killed.

Montgomery.—Apples a poor crop, except the Ben Davis, Jonathan and Maiden's Blush. The Winesap and Missouri Pippin bloomed full, but greatly reduced by dropping of the fruit. Pears will produce a good yield upon uplands; on the bottom land poor prospect and trees affected with blight. A light crop of the Early Richmond and Murillo cherries. The Wild Goose plum will yield well. A few peaches upon the uplands; trees badly killed. The Snyder blackberry escaped injury during the winter. Mulched strawberries not cultivated late produced well. Red raspberries injured; the Black Cap two-thirds of a crop, the Gregg variety uninjured. A good crop of Concord grapes on young vines; the winter injured old vines.

Coffey.—Reported similar prospects and conditions as in the adjoining counties.

Sumner.—Reported large crops of small fruits of all kinds, and a good prospect for apples. Vineyards and orchards in excellent condition.

Washington.—Reports encouraging for a crop, yet vineyards and orchards injured more or less by severe winter.

Riley.—Apples materially injured by blight. The Missouri Pippin carries a full crop and escapes the blight. The early bloom of strawberries cut off by late frosts, the Wilson and Downing suffering the most. Peaches a failure and many trees killed. Raspberries promise well. Some pear trees bear well, others scattering. The Kittatiny blackberry killed to the ground.

In Labette county it was reported that the Ben Davis and Keswick apple trees suffered by the bark bursting on the southwest side. Remedy, promptly wrap with cloth waxed so that the tree may heal at once.

"Kansas Soils" was the subject of a very interesting and useful paper by Dr. W. S. Newlon, of Oswego. It was followed by a general discussion which lasted for some time upon the subject of drainage. Surface and tile methods were fully discussed. It was shown that any orchard not having a natural subsoil drain would be very much benefitted if tile drainage was followed, and there would be less blight and less loss of peach and apple trees. The experience and observations given by those present clearly showed the benefits derived from drainage, with a decided advantage in favor of tile or under drainage over surface drainage.

At the evening session addresses of welcome were given by J. L. Williams, President of the Labette County Horticultural Society, and J. W. Marley, president of the city council. The response was given by Judge F. Wellhouse, of Leavenworth county. This was followed by one of the most entertaining addresses of the session upon the subject of "How to Make Home Attractive," by Rev. J. A. Hyden, Oswego.

SECOND DAY.

D. Doyle, Oswego, gave a valuable essay on the subject of "Bugs," which was followed by an interesting paper on "Horticulture in Southern Kansas," by P. C. Bowen, of Labette county. The progress of horticulture with its difficulties and mistakes for the past decade was reviewed. He advocated the patronizing of reliable home nurseries, the selection of suitable locations, and urged more care and vigilance in the

business. The great difficulty in the way of success was the proverbial carelessness. If the same attention was given to the fruit orchards as is given to farm crops to make them succeed, there would be no question as to the success of fruit growing.

The committee on the Apple Orchard Manual appointed at the last annual meeting, consisting of F. Wellhouse, Leavenworth county; Wm. Cutter, Davis county, and A. N. Godfrey, Greenwood county, presented their respective papers on this subject, the most instructive papers prepared for the Society for some time. These papers were laid over until the annual meeting, when they will be thoroughly discussed as well as other reports to be made by new committees who are to prepare the best lists of varieties suitable for the various districts of Kansas. If this Manual is carried out in the spirit begun, it will be one of the most valuable productions of the State Society, and result in immense benefit to the State.

J. F. Hill gave an essay on "What I Didn't Know." The paper had direct reference to the mistakes of horticulture. The effect of a mistake in a farm crop only lasts one year, while in horticulture the effect is for years or a life time. A mistake in buying a number of cheap seedlings when he should have secured budded fruit, the culture costing no more for one than the other; being deluded by oily and swindling tree agents, the mistake of planting trees with more top than than root, the unfortunate location of an orchard, planting in holes deeper than the soil, encouraging borers by too much indiscriminate trimming, and receiving and following too much volunteer advice, were mentioned as some of the horticultural mistakes.

Dr. Hamisphar read a paper on "Knowledge and Its Power," in which he urged not only the getting of horticultural knowledge but learning to apply it as well.

Hon. L. A. Simmonds, Sumner county, gave a very practical and learned paper on "Geology Applied to Horticulture, or the Classification of Soils." He mentioned sand, clay and lime as the elements of all productive soil. He then proceeded to classify the various soils accorded to the per cent. of silica, aluminum or clay the various soils might contain.

Mr. Williams, President of the Labette Society, after being repeatedly called out, responded and made quite an extensive talk about "Pear Blight." He is one of the most successful and largest pear growers in the State, having an orchard of some 5,000 trees. Mr. Williams thought it a mistake about there being any such thing as pear blight. When anything affects a tree it is at once denominated blight. Often the so-called blight among pears is caused by the pear being grafted on the uncongenial stock of the apple, or some time upon quince stock, causing "root-bound;" frequently the roots of the tree freeze. The pear trees often blight because of a late growth in a wet season, or a too early growth in the spring gets frozen, but more generally the reason is that the new growth is not a genuine pear growth, rather a sap growth, which, if not pinched back, will blight.

Mr. Williams preferred a clay rather than sandy soil for pears. He recommended the following varieties in the order named for southern Kansas: Bartlett, Duchess, Clapp's Favorite, Flemish Beauty, Louisa Bonne de Jersey, Vicar of Wakefield and the Howell. At the evening session, President Gale de-

livered his semi-annual address, which was a thoughtful and well-written paper, urging very cautionary measures by the Society and its members in the way of indorsing fruit theories, various devices, etc., that are constantly pressed upon the members and Society. Traveling swindlers and unreliable nurseries were roundly scored in the paper.

After a few remarks by members and visitors, and the passing of resolutions thanking the musicians and the citizens of Oswego and the Labette County Society for their exceedingly cordial entertainment, the State Society adjourned. The annual meeting, the Board decided, will be held next December at Manhattan.

American South-down Association.

Kansas Farmer:

The fourth annual meeting of the American South-down Association was held in Springfield, Ill., on the 3d inst. The large number of cattlemen and fine stock breeders in attendance at the central Illinois series of Short-horn sales made this meeting of the Association one of unusual interest.

Communications from members unable to attend, fully confirmed the expressions of those present that the production of more and better mutton is a growing demand of the day in America. The low prices received for wool during the last few years have certainly been very disheartening to wool-growers, yet to South-down breeders it was a matter of congratulation to know that South-down wool brings a few cents more per pound than that yielded by the long-wooled mutton sheep.

Among letters recently received was one from Mr. Henry Woods, manager of the well-known Lord Walsingham flocks at Merton, in England. Mr. Woods, in common with others who have examined Volume I. of the American South-down Record, speaks in high terms of the value of the work. The purchase of it by so many breeders of South-down sheep and the use made of it by them in the selection of breeding stock from distant flocks, are the best evidences that could be had of the wisdom of having founded such a Record.

No other than the most favorable reports were given by members who spoke of the results of the lambing season just closed.

As is well known, the supply of recorded rams for use next fall is quite limited, and some anxiety was expressed as to what the result would be. It was hoped, however, that the present scarcity would not cause breeders to save for breeding purposes another year all the ram lambs, whether good or bad, that have come this spring.

The importance of reporting promptly to the Secretary all sales or transfers of recorded animals was admitted without debate.

The Secretary's report showed an encouraging number of entries for record in Volume II.

The Treasurer's report was received and referred to the Auditing Committee, who, before the close of the meeting, reported it back as correct and as showing the finances of the Association in good condition.

The election of officers resulted as follows: For President, J. H. Potts, Jacksonville, Ill.; Secretary, S. E. Prather, Springfield, Ill.; Treasurer, D. W. Smith, Bates, Ill. Directors for the next three years: Geo. Pickrell, Lanesville, Ill.; T. W. Harvey, Burlington, Neb.; J. H. Potts, Jacksonville, Ill.; Henry E. Alvord, Mountainville, N. Y., was chosen a Director for the unexpired term of M. F. Collier, deceased. **PHIL. THURFON.**

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.
July 7 and 8—Jas. Richardson, Short-horns, Kansas City.
October 28—Hon. T. W. Harvey, Turlington, Neb.
November 3 and 4—Inter-State Short-horn Breeders, Kansas City Fat Stock Show.
S. E. Ward & Son, Short-horns, first Friday of Kansas City Fat Stock Show.

American Sheep Husbandry.

A people ought to try to supply their own markets, wherever their soil and climate are adapted to the productions needed. This is certainly the case with wool. We have in this country such a variety of climate that we can produce all the kinds of wool which may be required for our own consumption. The most of the carpet wools come from South Africa, and other warm countries, where the sheep which produce these wools can be kept at the lowest cost; where the winters are so mild as to admit of pasturing all or nearly all the year round. The South and Southwest certainly furnish all that is required in climate to grow their cheap wools, and what is lacking is the sheep and the disposition to take care of them. In the Southern States dogs are the greatest drawback, and nothing short of extermination by law will probably rid the country of those destructive foes. The northern farmer, who must furnish food gathered in summer to his flock in winter, cannot afford to breed sheep whose fleeces sell so low as the carpet wools. These are the cheapest wools in the market, because the coarsest, and because they can be produced at so little cost in the countries where they are mostly grown, Africa and South America. There are considerable quantities of these wools now produced in New Mexico and Southern Colorado, and in Western Texas. The native sheep of this region furnish this kind of wool. The fleeces are light, from two to four pounds, and the staple, four to seven inches in length, is quite lustrous and strong. The Cotswold, Leicester, and Lincoln wools can be made into carpets, but are worth more for combing to make into worsteds of various sorts, yarns, shawls and hosiery. These wools are wavy, or more or less crimped, while the regular carpet wools are slightly waved, but mostly straight and of strong texture.

A warmer climate is better adapted for the sheep which produce combing wools. And here is an ample field for American industry to be developed. These sheep may be grown, and wool of superior quality produced from them in the North and West, and in colder latitudes, provided the sheep receive sufficient care. They must be housed in winter, and fed roots and other foods adapted to their wants, or the wool will lack in length, gloss or luster, and in strength and weight of fleece.

The farmers in Canada (who are more painstaking than their younger neighbors, and better feeders) succeed in keeping the combing woolled sheep; whereas the American farmers, as a rule, do not succeed. Roots and good sheep are very closely allied, especially the larger breeds. This fact the enterprising Canadian farmer fully understands, and he never thinks of keeping sheep without an adequate supply of roots. The American farmer falls back on corn as the basis of success in feeding. Corn will not keep up the standard of the coarse-wooled sheep, nor will it make wool of the standard staple. The middle-wooled sheep run down under a corn diet, and with the so-called "good care" given to them, they, too, need roots or a more succulent diet than they usually get. The Canadian middle wools are superior to ours for these reasons. The sheep have a more natural diet, and the wool is brighter (an evidence of health) longer and stronger, and is, of course, more valuable.

It is plain to me that our systems of care and feeding are not naturally adapted to either the middle or combing woolled sheep. We by our systems keep these sheep in an unnatural state, and therefore we do not get the fullest benefits which could be derived from them. The facts are, that the most of our coarse and middle woolled-sheep are kept more for their lambs than for their wool. So long as this is made the leading feature, it is not surprising that the wool should be neglected, or that the care and keeping should be of a character not to produce the best quality of wool. Our farmers have not yet learn-

ed, or at least they do not heed the fact that a system of liberal feeding which will make lambs more profitable will also make more and better wool. Sheep in poor flesh do not have good wool. It is weak in fibre and harsh in texture, and lacks lustre, especially with the sheep which have wool of medium or coarse grade. The wool on Merino sheep when kept poorly, is finer than when more liberally fed, but it is weak, and lacks in lustre. It is also harsh to the touch, and the fleece of a poor sheep can be told in a lot by these signs. Liberal feeding causes a flow of oil, which is essential to good fibre, soft texture and a bright attractive look, as well as to give the wool strength. This flow of secretion must not cease, or there will be a break in the wool; a joint, or weak spot. These defects should be avoided, as they reduce the value of the fleece and its price. Our manufacturers have to go abroad for 80,000,000 pounds of wool to supply their looms. Of this 80,000,000 pounds, perhaps half is of the cheaper sorts which are used for carpets and knitted goods of the cheaper kinds, and the other forty millions are the finer wools from South America, which ought to be produced in this country. How we can do this, and where, I will reserve for another article.—F. D. Curtis, in *Country Gentleman*.

Hydrophobia in Sheep.

The *Michigan Farmer*, of May 20th, reports that in Rollin township, Lenawee county, a flock of fifteen sheep had the hydrophobia, or at least a disease closely resembling it, and all were killed by their owner. We think that there is little doubt that the disease was actual rabies, and it may therefore not be inopportune to say a few words respecting the disease which is, happily, unfrequent in this country, although, some twelve years ago, an outbreak took place on the farm of Mr. Hudson, at Braceville, Ills., which affected both cattle and sheep, but was promptly stamped out by pelning and shooting all which exhibited the indicative symptoms.

About 1864, Judge Daniel Booth, of Mount Clare, Galewood, Illinois, (well known as one of the joint owners of the "C. O. D." herd in Montana, with Stephen Niles and Joseph Hadley, of Chicago), was a severe sufferer from the disease. To use his own words in describing the symptoms: "The only thing we could do with the sheep was, as soon as we saw they were infected, to take and heave them out. I had a flock of about two hundred and fifty and lost two-thirds of them. It was in winter and the ground was covered with snow, in some places four feet deep. The sheep would stand on the frozen surface and bury their heads in the snow, and the heat of their heads would melt it in the places where they rested."

The bite of an animal may produce hydrophobia in man or beast. We have personally known paroxysm and delirium supervene from a bite by a teased pet rabbit. Where it breaks out in flocks, it is invariably due to the bites of dogs, the inoculation being communicated by the saliva. Were it not for the circumstance that sometimes the wool wipes the teeth clean before they enter the flesh, far greater losses would often be incurred.

The time elapsing between the bite and the exhibition of symptoms of the disease is usually from two to six weeks, though longer periods have been known to elapse. Diminished appetite, mischievous propensities, furiously butting each other, are first observable, and eating mud and clay, or nibbling at sticks. Then succeed nervous irritability, twitching of the muscles and quickened breathing, followed by drowsiness, total loss of appetite and regardlessness of surroundings. Spitfire runs from the mouth, and thirst is evinced, but, though the animal may thrust the nose in water (of which it has no dread), there is no power to swallow fluid. In from two days to a week the animal dies. On dissection the windpipe and tongue will be found inflamed, and sometimes the brain and spinal cord. The stomachs will often contain a dark, frothy fluid, not unlike the "black vomit" so fatal to human life in hot climates.

As there is no known remedy for the disease in the human being, so there is none for it in animals.

We would, however, suggest the treatment of the sheep with the herb elecampane, which farmers have stupidly striven to extirpate from their

pastures, in spite of the attested medical virtues of its roots. It is only recently that chemical science has asserted for this "weed" its proper place in nature's laboratory. Helenamine, the active principle of the plant, promises fairly to supersede carbolic acid in antiseptic surgery, and is said to possess fatal germicidal properties. It might take the place of the sunflower around outhouses and ditches, and thus be always at hand when needed, the leaves and stalks being fed to the affected sheep. Elecampane, as a remedy for hydrophobia in man, has been used in and around Philadelphia for forty years and longer, with great success, and is known as "the Goodman remedy." A physician who knew of its use for over thirty years states he never knew of a case that failed where it was properly administered. Among other cases he mentions one where a number of cows had been bitten by a mad dog. To half of this number they administered this remedy, to the other half not. The latter all died of hydrophobia, while those that took elecampane and milk showed no sign of that disease. The first dose for a man is one and one-half ounces of elecampane root, bruised, put in a pint of new milk, reduced to one-half by boiling, then taken all at one dose in the morning, fasting until afternoon, or at least a very light diet after several hours have elapsed. The second dose same as the first, except take two ounces of the root; third dose the same as last, to be taken every other day. Three doses are all that is needed, and there need be no fear. This is known from experience in a large number of cases where it has been entirely successful. This is no guess-work. Those persons alluded to were bitten by their own dogs, and were penned up to see if they would go mad. They did go mad and did bite the persons. For an affected sheep the same amount might be fearlessly exhibited.

In a valuable animal the actual cautery may be tried, but to do so it will be necessary to clip the entire sheep, to use the knife freely where necessary, and apply the red-hot iron thoroughly to the slightest scratch. But if the sheep is one fit for the butcher, the better plan is to kill it at once, and carefully remove any part suspected to have been bitten, when the rest may be used as food without danger. Contact with the saliva should carefully be avoided, as it has been proven infectious.

Care should be taken to distinguish the disease from phrenitis, in which similar delirium manifests itself, or blain, the profuse discharge of saliva attending which may induce mistaken apprehension before the characteristic swelling of the head enables the shepherd to definitely pronounce the ailment gloss-anthrax.—*National Wool Grower and Sheep Breeder*.

About Hog Cholera.

A writer in *Colman's Rural World* discusses the subject, closing a long article as follows:

Hog cholera is not a disease *per se*, hence the thousand and one conditions under which hogs are affected. Hardly two herds present precisely the same general conditions, and why? Because in one case it is the result of one cause, in a second herd of another cause, and of a third and of a hundred others from various and a variety of causes, none of which would have been seen or known had the animals possessed sufficient vitality to have thrown them off or resisted and overcome them, nor is this vital resistance confined to the hog or any other kind of animal; it is as common to man and to all animal nature as to him.

Not an intelligent man will deny that we are all surrounded more or less with unhealthful conditions at pretty much all times, but we being more vigorous in resisting than they in attacking, are able to throw off the influence; but every now and again the weak feel the effect, suffer, linger and die. Here is evidence of superior vitality in the many, and of a lack of it in one; and the reason hogs die in droves, is because they are raised from the same impaired stock and fed and kept together in the same way, hence are all or nearly all weak alike. It will be seen that I am not a believer in contagion or an infectious hog cholera, but it is a generally impaired vitality and an almost universal one-sided method of breeding, feeding and raising; hence its appearance in certain neighborhoods

at times look as though carried in the air much the same as Asiatic cholera.

But even in such epidemics as Asiatic cholera, we are advised by medical scientists that surrounding conditions favor its approach and deadly influence, whilst an avoidance of these favor immunity from its attacks; hence, we are advised to keep our premises clean and free from filth and decomposing vegetable matter, our drainage clear and perfect, our bodies in a clean and vigorous condition, our food healthful and fresh, and our habits abstemious. If then these are essential to immunity in the human family, why not in the case of the hog? We are told by many farmers that all this care and attention to so many little healthful details, involves time and expense, and that there is so little profit in raising hogs that they cannot afford it. I do not think so; to my mind it is as easy and as inexpensive to breed, feed, keep and market hogs properly and healthfully as the reverse, and much more so, because we suffer no loss; we save indeed the three or four millions of dollars which the Secretary of our State Board of Agriculture says we lost last winter by neglect—a consummation most devoutly to be wished. But my letter is already too long, and with the editor's permission, I will stop here and follow the subject in another issue. In the meantime, will our farmers take time by the forelock and so plant and sow now, as that they may have something for winter feed besides corn; and when the time comes, some protection against the wind and the weather.

Points of Practical Value in a Horse.

There is no work required of any horse, let the duty be ever so menial, where intelligence, honesty, and kindness will not be of material value. The possession or lack of these may be learned by scanning the expression of the eye. This is termed the window of that deeper-seated part, from whence all actions get their promptings, and if viciousness lurks within, its sinister reflection will shine through, and the effect need not be misinterpreted. Well marked fullness of brain half way between the eyes and the setting on of the ears, accompanied by breadth and fullness immediately back of the ears, are always connected with kindness of disposition, and associated with ambition. If there be fullness in front and narrowness back of the ears, there will be a kindly disposition without ambition. If the development be the reverse of this, there will be an absence of kindly intentions, with marked vicious tendencies. The ear is largely a fancy point, yet the manner in which it is set on, and its motion, furnish clear indications to experienced horsemen, and to other horses, of the character of the thoughts. The ears have a language well understood by other animals, and when to this is added the expression of the eyes, the whole story is pretty clearly told.

As regards the neck, its peculiarities mainly minister to the fancy, and while the points touched upon are not necessarily keys to the breeding of the animal, the neck, to a considerable degree, is. While the neck may be said to be merely a flexible member, placed between the shoulders and the head for the purpose of carrying the latter, and enabling the horse to see the way clearly to the right and left, and reach the ground, or the branches overhead for food, that part to which it attaches at its base, the shoulder, cuts a very important figure in the horse's value and durability, no matter what character of service he is assigned to. As is well known to most persons, the more upright shoulder is preferred for draft, because the force is required to be expended in a forward, horizontal direction, while the slanting shoulder throws the force of the exertion upon the lower part, or shoulder point. Hence if a horse is selected with a slanting shoulder, and put to drawing loads, it will be found that the horizontal effort will throw the lower portion of the collar upward against the lower portion of the neck, pressing upon the wind-pipe, creating distress in breathing. But for road work, speeding, or for the saddle, no matter how worthy the animal may be in other respects, the upright shoulder prevents efficient service, and it matters not how attractive the horse may be in other ways, he cannot put himself into a form that is prevented by his make-up, nor show a swinging gait and a good reach, likening his foreleg to a pendulum, with this restricted in its movements, because not swinging

freely forward and back, at its upper attachments.

In selecting a horse for hard driving, or for use under the saddle, it should be borne in mind that the greater the angle represented by the position of the scapula, or shoulder blade, giving obliquity to the shoulder, the less is the concussion put upon the shoulder under violent exertion, because the less upright the shoulder is, and the less the force is applied directly in the line of bone and muscles, the less spring and elasticity there are in that direction. After passing upon the shoulder of the horse, it is well to look between the forelegs, at their attachment with the shoulder. In selecting a horse for any purpose other than draft, a very wide breast should be avoided, for in most cases a horse with this formation will paddle when he trots—a defect which should consign him to slow draft. For active service the breast should not be over medium width, and the forelegs should be reasonably close together. Between the forelegs and close up to the body the space should be so filled with muscle as to form a pointed arch, rather than to show a wide space, as in the case of the draft horse. An arm wide at its junction with the shoulder, rendered so by full development of muscles on the rear and anterior portion of the arm, should always be sought, for the opposite formation is always attended by want of precision, power, and activity, in the movements of the forelegs. As the subject will be referred to again, as to other portions of the horse's make-up, we will merely add that the homely saying, "no leg, no horse," should always be borne in mind, and for any service other than slow work on dirt roads, the horse with injured legs, or defective formation in these members, should be shunned, unless the injury be of such nature that he will soon recover from it. As to defects in the formation, these of course can not be remedied, and should be guarded against.—*National Live Stock Journal.*

The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

UTERINE DISCHARGE.—A Kentucky saddle mare, for about eight months, has been troubled with a very offensive discharge, whether from the vagina or neck of bladder, I am unable to say. The color of the discharge is yellowish-white, sometimes mixed with urine. Very copious after she gets "warmed up" a bit; has the odor of decaying flesh. Sometimes the urine is very clear, at others milky. In quantity, the discharge varies; during the last ten minutes of an hour's exercise, it seems to equal a quart or more. Her condition, except in this respect is good; hair smooth; eats three heavy feeds of oats a day. The discharge also takes place while standing in the stall. [Steep one-half pound of whole flaxseed every night in hot water, and give a third of it in each meal daily. Give dose of the following powders in feed twice a day until the quantity is used: Gallic acid, 4 oz.; powdered acetate of lead, 3 oz.; powdered gentian, 1 lb.; mix. Dose, two tablespoonfuls. Use Moore Bros.' injectio vagina as a local application.

BLOOD-POISONING AND PERVIOUS URACHUS.—I have a sucking colt nearly three weeks old, which appeared to be all right when born, but in a few days old (the second or third day, I think,) one of its hind legs was swollen some in the hock-joint, and it limped on it and held it up as though in pain; then, in a couple of days the swelling went out of that leg and the other leg commenced to swell in the same joint on that leg, extending upward nearly to its body, when I began to get alarmed, and consulted veterinary surgeons, who advised me to simply bathe the swollen limb two or three times a day with hot water, as hot as I could bear my hand in, and I asked one if I hadn't better give him some sweet spirits of nitre, and he thought perhaps it would be good, so I gave him a teaspoonful a couple of times a day for a few days. I thought at first the hot water was going to help his leg, but after using a day or two it went on swelling from the upper side of hock-joint to foot and pained him so he went on three legs most of the time. When about two weeks old it broke on the inside of the joint and discharged considerable matter, and for two or three days the swelling went down considerably, then it commenced to swell again and has just broke on the outside of the joint, and he swelled some on front side of stifle of the other leg, and one of the fore legs swells some in the knee-joint, and seven or eight days ago he commenced to leak some at the navel, or where the naval cord broke off. At first only a few drops, but in a few days it would run a stream as large as a knitting-needle for a few seconds when making water or just before. Our horses are all having distemper.

Some are getting over it. The mother of the colt worked up to foaling time, then let her lay still five or six days, and put her to work again carefully at plowing and general farm work. Can the colt be helped, or will it die? It don't act sick, sucks good and appears bright. All the treatment I have given it is a little nitre and the hot water baths. Have bathed its navel some with an astringent liquid procured of the veterinary. Don't think he has leaked from navel as much for a day or two. [Your colt is suffering from blood-poisoning. The application of hot water to the inflamed parts and the administration of small doses of sweet spirits of nitre was proper treatment. We would suggest that when you find an abscess forming at any part, poultice it with linseed, and instead of working the mare allow her to remain all the time with the colt, so as to give it as much nourishment as possible to support it through its trying ordeal. Protect the young animal as much as possible during cold nights. The discharge from the navel opening is urine coming through a canal called the urachus, leading from the urinary bladder to one of the enveloping fetal membranes during intra-uterine life. Ordinarily after a young animal is born, the urine flows through the usual channel, but in some cases the urachus remains pervious for a length of time, and if astringents fail to close it a hot searing iron must be used. If the colt's appetite continues good, and it is supplied with abundance of milk, the probabilities are that it will make a good recovery.]

Infringement of Patent.

Since the fire in the Newark Machine Company's factory last summer several firms have been building clover-seed cleaners after the pattern and style of the Victor, which has been built for many years by the Newark Machine Company now of Columbus, under their patent. The Newark Machine Company recently filed an interference claim for infringement against Howard Campbell and Gaar, Scott & Co., of Richmond, Ind., which was this week decided by the United States Commissioner of Patents in favor of the Newark Machine Company. This will lay liable for damages to the Newark Machine Company the manufacturers and purchasers of machines made in imitation of the Victor Huller by using the Newark Company's patent devices now used in its construction. These patents run for about sixteen more years.

An illustration of the law's delay—a policeman going in the opposite direction from a street fight.

It is stated that the more wrinkled the seeds of peas and sugar corn are, the better is the variety for the table.

For cuts from barbed wire fence, sore shoulders, kicks and open sores on animals, use Stewart's Healing Powder, 15 and 50 cts. a box.

Never take a crop from the orchard. Clover and pasture it as much as you like, but put your grain crops somewhere else.

Stirring wet soil has such a bad effect that an entire season's cultivation will frequently fail to make it friable and mellow.

"Who are the men who make history?" asks an exchange. We don't know, but the men who mar history are usually the historians.

The pendulum of the new clock in the Chicago Board of Trade building weighs 750 pounds. The dials are 10 feet 10 inches in diameter.

A Georgia man is said to write without knowing even the alphabet; but then when a Georgia man wants to write he does not let his ignorance of twenty-six little letters stand in his way.

Ex-President Mark Hopkins, of Williams College, although over 82 years old, preserves his mental faculties unimpaired. He recognizes with ease the faces of men who were his pupils half a century ago.

There is now living in Pickens county, Ga., a man who during the Rebellion donned his wife's dress, kept his face closely shaved and wore a big sunbonnet, in order to avoid being conscripted and sent to the front. The officers in search of recruits frequently visited the house and asked his wife where her husband was, and at the very moment he could be seen working in the field in female garb. By the time he had worn out seven of his wife's dresses, he became tired of masquerading, enlisted and became a good soldier.

The committee clerks, having footed up the several appropriation bills as passed by the last Congress, find that they aggregate \$217,680,243. Following are the totals of the respective bills as they became laws: Pensions, \$60,000,000; military academy, \$301,021; fortifications, \$725,000; consular and diplomatic, \$1,242,925; navy, \$15,070,837; post office \$53,700,990; Indian, \$5,702,512; army, \$24,014,052; legislative, etc., \$21,376,708; sundry civil, \$28,079,257; District of Columbia, \$1,716,643; deficiency, \$4,926,855; agricultural, \$585,790.

Consumptives, call on your druggist and get a free Trial Bottle of Dr. King's New Discovery.

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

HORSES.

FOR SALE.—On good terms, two imported Clydesdale stallions, with books of 1885 included. Both sure breeders. Can see their colts. For particulars address Robert Ritchey, Peabody, Kas.

THE IMPORTED CLYDESDALE STALLION.—"KNIGHT OF HARRIS" (No. 995 Clydesdale stud book), will stand this season at the stable of the undersigned, three miles west of Topeka (Sixth St. road). He is one of the best Clydesdale horses in America. Sire Chieftain; grandsire, the great show stallion Topman. To insure, \$25. H. W. McAFEE.

CATTLE.

ASH GROVE STOCK FARM.—J. F. Glick, Highland, Doniphan county, Kansas, breeds first-class THOROUGHBRED SHORT-HORN CATTLE AND POLAND-CHINA SWINE. Young stock for sale. Inspection and correspondence invited.

WALNUT PARK FARM.—F. Playter, Walnut, Kas., breeds the largest herd of Short-horn Cattle in southern Kansas. Stock for sale. Cor. invited.

JOHNSON & WILLIAMS. Silver Lake, Kas., breeders of Thoroughbred Short-horn Cattle. The herd numbers thirty head, with a Rose of Sharon bull at head.

OAK WOOD HERD. C. S. Elchholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle, Poland-Chinas & Brnz Trkys.

DEXTER SEVERY & SONS, Leand, Ill., breeders of Thoroughbred Holstein Cattle. Choice stock for sale, both sexes. Correspondence invited.

W. M. D. WARREN & CO., Maple Hill, Kas., importers and breeders of Red Polled Cattle. Stock for sale. Correspondence solicited. R. R. station, St. Marys, Kas.

CEDAR-CROFT HERD SHORT-HORNS.—E. C. Evans & Son, Prop'r, Sedalia, Mo. Youngsters of the most popular families for sale. Also Bronze Turkeys and Plymouth Rock Chickens. Write or call at office of Dr. E. C. Evans, in city.

T. M. MARCY & SON, Wakarusa, Shawnee county, Kas. We now have 116 head of recorded Short-horns. If you wish a young bull or Short-horn cows do yourself the justice to come and see or write us.

BROAD LAWN HERD of Short-horns. Robt. Patton, Hamlin, Kas., Prop'r. Herd numbers about 120 head. Bulls and Cows for sale.

ALTAMAH HERD. W. H. H. Cundiff, Pleasant Hill, Cass Co., Mo., has fashionable-bred Short-horn Bulls for sale. Among them are two Rose of Sharrons and one aged show bull. None but the very best allowed to go out from this herd; all others are castrated.

U. P. BENNETT & SON, Lee's Summit, Mo., breeders of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

POWELL BROS., Lee's Summit (Jackson Co.), Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Fowls. Stock for sale. Mention this paper.

W. A. POWELL, Lee's Summit, Mo., breeder of the Poverty Hill Herd of Thoroughbred Short-horn Cattle. Inspection and correspondence solicited.

J. W. LILLARD, Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORNS. A Young Mary bull at head of herd. Young Stock for sale. Satisfaction guaranteed.

CATTLE AND SWINE.

COTTONWOOD FARM HERDS, J. J. Mails, Manhattan, Kansas, Breeder and shipper of Short-horn CATTLE and BERKSHIRE SWINE. Orders promptly filled by express. The farm is four miles east of Manhattan, north of the Kansas river.

D. B. A. M. EIDSON, Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle. Hambletonian Horses of the most fashionable strains, pure-bred Jersey Red Hogs and Jersey Cattle.

SHORT-HORN PARK, containing 2,000 acres, for sale. Also, Short-horn Cattle and Registered Poland-China. Young stock for sale. Address B. F. Dole, Canton, McPherson Co., Kas.

GLENNVIEW FARM. G. A. Laude, Humboldt, Kas., breeds Short-horn Cattle and Poland-China Swine. Also Saddle and Harness Horses.

I HAVE 10 young pure-bred Short-horn Bulls, 19 Cows and Heifers, a few choice Poland-China Boars and Sows—the latter bred for sale. Send for new catalogue. H. B. Scott, Sedalia, Mo.

H. S. FILLMORE, Green Lawn Fruit and Stock Farm, Place, Lawrence, Kas., breeder of Jersey Cattle, Poland-China and Berkshire Swine. Stock for sale.

WOODSIDE STOCK FARM.—F. M. Neal, Pleasant Run, Potawatomie Co., Kas., breeder of Thoroughbred Short-horn Cattle, Cotswold Sheep, Poland-China and Berkshire Hogs. Young stock for sale.

SHEEP.

E. COPLAND & SON, DOUGLASS, KANSAS, Breeders of Improved American Merino Sheep. The flock is remarkable for size, constitution and length of staple. Bucks a specialty.

C. F. HARDICK & SON, Louisville, Kansas, breeders of REGISTERED AMERICAN MERINO SHEEP, Having good constitution and an even fleece of fine, dense wool. Fine wool a specialty. Come and see our flocks or write us.

A. F. WILLMARTH & CO., Ellsworth, Kas., breeders of Registered Spanish Merino Sheep. "Wooly Head" 695 at head of flock. Choice rams for sale. Satisfaction guaranteed.

SWINE.

OUR ILLUSTRATED JOURNAL.—A full and complete history of the Poland-China Hog, sent free on application. Stock of all ages and conditions for sale. Address J. & C. STRAWN, Newark, Ohio.

F. M. BOOKS & CO., Burlingame, Kas., importer and breeders of Recorded Poland-China and Large Berkshire Swine. Breeding stock the choicest from the best herds in seven States. I have special rates by express. Write.

A. J. CARPENTER, Milford, Kansas, breeder of Thoroughbred Poland-China Swine. Stock for sale. Inspection and correspondence invited.

J. A. DAVIDSON, Richmond, Franklin Co., Kas., breeder of Poland-China Swine. 170 head in herd. Recorded in A. and O. P.-C. R. Call or write.

ROBERT COOK, Iola, Allen county, Kansas, importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

F. M. LAIL, Marshall, Mo., breeder of Registered Poland-China Swine. Forty ready for sale. Plymouth Rock eggs, \$1.00 for 13.

CATALPA GROVE STOCK FARM. J. W. Arnold, Louisville, Kansas, breeds Recorded POLAND-CHINA SWINE AND MERINO SHEEP.

The swine are of the Give or Take, Perfection, and other fashionable strains. Stock for sale in pairs not related. Invite correspondence or inspection of stock.

POULTRY.

ONE DOLLAR per thirteen for eggs from choice Plymouth Rock fowls or Pekin ducks. Plymouth Rock cockerels \$2 each. Mark S. Salisbury, Box 931, Kansas City, Mo.

NEOSHO VALLEY POULTRY YARDS.—Established 1870. Pure-bred Light Brahmas, Partridge Cochins, Plymouth Rocks. Eggs in season. Stock in fall. Write for prices. Wm. Hammond, box 190, Emporia, Kas.

N. R. NYE, breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

W. M. WIGHTMAN, Ottawa, Kansas, breeder of high-class poultry—White and Brown Leghorns and Buff Cochins. Eggs, \$2.00 for thirteen.

BRONZE TURKEY EGGS.—\$3.50 per 12. Our Tom weighs over 40 pounds. Plymouth Rock eggs, \$1.50 per 13. H. V. Fugaley, Pittsburg, Mo.

EGGS FOR SALE.—From Light Brahmas, Buff Cochins and Plymouth Rocks, 13 for \$1.75; 28 for \$3. Also Pekin Duck eggs, 11 for \$1.75; 22 for \$3. Also Emden Geese eggs, 8 for \$2; and Bronze Turkey eggs, 12 for \$3. W. J. McColm, Waverland, Shawnee Co., Kas.

J. M. ANDERSON, Salina, Kas. Bronze Turkeys, Plymouth Rocks, Pekin Ducks, Shepherd Puppies and Jersey Cows and Heifers. Write for prices.

FAIRVIEW POULTRY YARDS. Write postal for price list of fowls and eggs. Six varieties. Mrs. Geo. Taggart, Parsons, Kansas. Lock box 754.

PLYMOUTH ROCK CHICKENS. Eggs for hatching, from the finest breeding pens in the United States. Fowls have taken first premium wherever shown. Eggs safely packed for shipment. Setting of 13, \$2.50. Fowls for sale in the fall. Address E. W. Stevens, Sedalia, Missouri.

MRS. T. W. BAGSDALE, Paris, Mo., breeder of Light Brahma Chickens and Bronze Turkeys—the best. Eggs, \$2.50 for 13.

GEO. H. HUGHES, North Topeka, Kas., 14 first prizes (Felix and Pierce, judges,) on W. F. B. Spanish, & P. Rocks. Eggs, \$3 for 13; 26 for \$5. Prepared shell, 100 lbs. \$3. 12 egg baskets, 90 cts. Poultry Monthly, \$1.

MISCELLANEOUS

S. A. SAWYER, Manhattan, Kas., Live Stock Auctioneer. Sales made in all the States and Canada. Good references. Have full sets of Herd Books. Complete catalogues.

REPUBLICAN VALLEY STOCK FARM.—Henry R. Avery, Wakefield, Clay Co., Kas., breeder of Percheron horses. Stock for sale. Send for catalogue.

MERINO SHEEP. Berkshire hogs and fifteen varieties of high-class poultry of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas. For sale cheap 15 registered Short-horn bulls, 1 to 3 years old. Also, Clydesdale horses.

THE LINWOOD HERD SHORT-HORN CATTLE



IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas.

The herd is composed of VICTORIAS, VIOLETS, LAVENDERS, BRAWNIES, SECRETS, and others from the celebrated herd of A. Cruickshank, Stritton, Aberdeenshire, Scotland. GOLDEN DROPS, and URSAS, descended from the renowned herd of S. Campbell Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLISES, LADY ELIZABETHS, etc. Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOSTER head the herd.

Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.

STEWART'S HEALING POWDER. CURES ALL OPEN SORES, CUTS FROM BARBED WIRE FENCE, SCRATCHES, KICKS, CUTS, etc. Sold Everywhere. 15 & 50 cts. a box. Try it. STEWART HEALING POWDER CO., ST. LOUIS.

Correspondence.

More About Plymouth Rocks.

Kansas Farmer:

I noticed in your paper of June 3d a letter from one Mrs. Moore, of Oketo, Kas., in reference to some Plymouth Rock eggs she got from one W. J. McCollm. In justice to all parties who may read your valuable paper, I will say that I am one of Mr. McCollm's neighbors, and I know that he has the finest lot of Plymouth Rock chicks I ever saw, and that Mrs. Moore will find it will take her a long time to get a strain of Plymouth Rocks that will have yellow legs and beaks when they are young. I presume not one in a hundred will fill the bill at hatching time, as she describes; but when grown will once in a great while come up to the standard, but very seldom.

In reference to the number of chickens she hatched from the two settings, that is far better than my wife has done this spring. I bought two cockerels of Mr. McCollm this spring, very fine ones, but did not blame him for selling poor stock because one chicken that was hatched on my place had four legs and lived a few days only and then died. A freak of nature occurred in my neighborhood that will prove in a greater measure that strange things will happen once in a while in this world. A man, one of my neighbors, bred one of his cows to a fine Durham bull and got a hermaphrodite calf, but he did not blame the man that owned the bull. As to those poor, stingy souls the lady speaks of, she does not know Mr. McCollm's people or she would not say and write that of them. They are generous people and do not have to sell eggs for a living. If she would come to Waveland and see them at their home, she would take that back I am sure. I hope the good lady will send the truth of the final result of those chicks in the fall. Yours, WILLIAM SHOECRIFT.

Waveland, Shawnee county.

Mrs. Moore's Chickens.

Kansas Farmer:

In a late issue of the FARMER a Mrs. Moore seems to feel very badly about her trade with rascals and seems real sorry for them, but I feel just as sorry for her. She says I sent her Plymouth Rock eggs last year; so, I suppose I did, though her name had been forgotten. She did not get a single chick from any eggs I sent her resembling Brahmas, as it was not possible. We keep only the Plymouth Rocks, and those we sell eggs from are always kept eighty rods from any other chicken range; so they could not possibly get mixed. Then, there are no Brahmas within one mile of this place, and they were gotten last spring. Eggs from our yards hatched near here, and those from a distance, as far as heard from, have reported well marked and nice Plymouth Rocks as a result of their hatchings.

Mrs. Moore seems to think Mr. Salisbury treated her all right. So he did me; yet when I send her eggs from chickens hatched from eggs I purchased of Mr. Salisbury in 1883, she got only Brahmas. I suppose it is possible to have one hatch with feathers on the legs, as there is some of that blood in the Plymouth Rocks, though we have never had but one, and that was from one of the eggs purchased in 1883. We also purchased of Mr. Salisbury thirteen eggs of his fancy yard but failed to hatch a single chicken. But was he to blame? I think not. Any way, if I had thought so, I would have complained to him first, as any honest person should do, and I could very soon have learned if he was a rascal.

I have just had thirteen chickens hatched from eggs from the prize winners at the New Orleans Exposition, and am glad to see several of them with dark legs and beaks, as I know I have several pullets among them.

About the Kansas eggs bought of Mr. McCollm, I will venture to say she has an excellent lot of Plymouth Rock pullets. How can she be so positive of their bad qualities when they were only a week or so old when she wrote about them. I think when Mrs. Moore has learned a little more about Plymouth Rocks, she will be surprised how foolish she was in writing such a letter for publication. I invested \$8. in eggs with Davis & Nye, of Leavenworth, and got one little chicken; but I did not blame them for

the failure, as I knew well-trained men do not always handle eggs with much care.

Mrs. Moore or any one else ordering eggs of me and failing to get a hatch will always receive a second lot free.

H. V. PUGSLEY.

Poultry Notes.

Kansas Farmer:

The warm weather the last few days has given chicks a great start of vigorous growth.

During the early part of the season many complaints were heard from breeders of the loss by diarrhea, as the weather was very changeable and damp. My experience is that June and July hatched chicks prove the most successful in many respects, for early and late hatched chicks suffer from extremes of bad weather, we therefore find June and July the safest time to hatch and raise chicks. Of course the seasons change and hardly two are alike. The little chick loves a warm temperature and generally finds it in June and July. We would not advise hatching later than July, as the chicks hatched late are always behind in everything except consumption of an over large quantity of feed and the contracting of diseases.

GEO. H. HUGHES.

North Topeka.

From Stafford County.

Kansas Farmer:

We had very heavy rains in this section early in the spring which delayed the farmers somewhat, but they are now plowing their corn the second time, and with but few exceptions report good stands. Wheat is thin, but the heads are large and well filled. We hear of some rust on low lands, but hear of no insects. There has been some wheat plowed up, and the ground has been put in corn. The acreage of corn has been increased about one-third over last year. Corn looks fine; oats the same. Wheat will do to cut in about two week if nothing happens it.

Our town is booming, quite a number of houses in course of construction. The new Baptist church is finished, the Herald building is almost enclosed, and the material is being hauled for a \$20,000 flouring mill. We now have a telephone line from Sterling, distance thirty-five miles to this place. A firm from Hutchinson, Kas., and Chicago, Ill., are now putting in a large stock of lumber, and still there is more to follow. We expect a railroad within a year. Real estate is advancing in price rapidly.

We are glad to see the FARMER take the right side on the temperance question, and say all hail the day when rum shall be banished forever from these United States.

Stafford, Kas.

J. F. GISH.

Corn in Illinois.

Kansas Farmer:

With each returning season the farmer is called upon to face some unexpected change or condition of things specially affecting the interests of his calling. The spring just past will long be remembered by the farmers of central Illinois for the unusual difficulty experienced in securing a good stand of corn.

Many have been the causes assigned for the failure of much of the early-planted corn. Among them, injured seed, and yet corn from the same cribs came well from some plantings and failed in others; planting too deep, yet we know of cases where the seed was put down four to five inches into cold damp ground and it came well and is still doing well; planting too shallow, and here we have a case where shallow planting gave an excellent stand, while deep planting in an adjoining field of same quality land and with seed from the same lot was a bad failure; the presence of a new enemy—a small cut-worm, but the most careful search for him in cases where the corn did not come up failed to prove his presence. So the list might be extended, and with each reason for failure would be found proof that our reasonings so far in this matter are in vain.

One thing is very plain, and that is, our farmers will all be studying anew the subject of seed corn, its gathering and preservation. Heretofore accepted theories and methods are completely knocked out of time by the experiences of this season.

However, after much replanting and still more anxiety, our farmers are now happy to find themselves mostly with good stands of corn in full growing condition.

PHIL. THRIFFTON.

T. E. Bowman, Topeka, makes loans on good farm securities, at moderate rate of interest and no commission. Correspondence solicited.

Philosophy of Soil Culture.

If men would study the philosophy of things they would avoid a great deal of trouble. Apply that proposition to culture of the soil in particular, and we have a theme that every farmer, every farmer's wife and son and daughter, and, indeed, every person, ought to study enough to have at least a little knowledge relating to causes and effects in soil working.

Why do we plow, for instance, and harrow, and roll? Why do we drain land? Why do we use light rather than heavy implements in working the soil after plants have started to grow? Why do not weeds grow in well shaded ground? Why is the soil in timbered land always looser and better than that in open ground? Why is wet land unfit for tillage? Why does hard ground, or cloddy ground dry out quicker than soft and well pulverized land? Why does fertile soil retain moisture longer than that which is sterile?

Plowing ground is not, as many suppose, for the purpose of bringing up fresh soil. It has two objects (1) to loosen the soil, and (2) to cover trash or manure as the case may be. When a piece of woodland is cleared off in on a season, what may be sown broadcast upon it, or rye, and it can be covered well enough with a harrow. But go out to an old piece of open ground and the same method would fail. Ground does not need to be turned at all unless it be to cover stuff as before stated, and then only because that is the easiest and quickest way to do the work. If the ground could be lifted up, furrow by furrow, and set down again in the same place or in another place on the manure, weeds, or other things to be covered, it would be just as well as to turn it over. But that would take too much time. When it is desired to manure a piece of ground heavily with coarse matter, whether it be growing grass or clover or rye, or barnyard manure, or green weeds, or dry stubble, or cornstalk, the easiest and quickest way to get the manure into the ground is to turn the soil over on it. If it were not for this or because of similar facts; were the ground, for instance, perfectly clean, and in good condition as to fertility, nothing would be needed more than a stirring which might be done with harrow, or cultivator, or, possibly, it would do to sow the seed upon it without any additional preparation.

Hard ground dries out very soon in any weather. It will open in large cracks which extend down a considerable distance below the surface, and every one of those cracks operates as a steam pipe or chimney to carry away moisture. Loose ground cannot open in large cracks because of its looseness. But loose ground, soon after a rain, will form a thin crust on top, and that will crack in little seams, and they, to the extent of their width and depth, are escape valves through which moisture goes out of the soil into the atmosphere. These facts teach us (1) that if we would keep ground moist we must keep it soft, and (2) if we would retain the moisture as well as possible we must not allow any cracks on the surface. There is no use in talking about shutting up the cracks in the hard ground. The best thing to do is to let it crack as much, as long and as deep as it will in one summer, and then, after fall rains come, proceed to put the ground in condition so that it will not be subject to cracking. As to the surface cracks in soft ground after rain, they may be closed by rolling, by harrowing, by raking, by cultivating, or by any method that will either press the soil, as a roller does, or stir it as a harrow or fine toothed cultivator.

The object of working soft ground, as that of a cornfield, is (1) to keep it loose on the surface so as to prevent the escape of moisture as much as possible, and (2) to destroy weed growth. For the first purpose the shallowest possible culture is best, because every disturbance of soil particles near the top exposes fresh soil surfaces to atmospheric influences and to that extent facilitates evaporation. For the second purpose, the manner of culture depends on the extent of weed growth to be affected. If it is too far advanced to be effectually destroyed by a shallow working with harrow or cultivator, that fact must be considered and such implement used as will perform the service successfully, even though it be a fallow plow with the bar running by the corn

rows. The weeds must be destroyed or there will be no corn worth gathering.

When the ground is in good condition as to cleanness, fertility and softness, the culture ought to be very shallow for still other reasons, and particularly because every growing plant throws out lateral roots which are needed in the plant's growth and therefore should not be disturbed by tools. Lateral roots of corn occupy the entire space of which the stalks grow. When the farmer looks on his long shovels he will find many roots that have caught and slid up to the top. If he will dig a ring around a thrifty corn hill, say two feet away, so that the ring is four feet in diameter, and then wash away the earth from about the hill, he will be surprised at the number and general distribution of roots. So examine the roots of a grape vine. They spread in every direction and run near the surface. Deep culture of corn ground disturbs these lateral roots, often tears them in pieces, thus destroying them and their functions. Hence, for this reason the culture should be as shallow as possible to do the work intended and needed.

Fertile soil always has more or less vegetable matter in it. Leaf mold is the richest soil for most purposes and because of the vegetable matter it contains. Hard and barren soil may be reclaimed, loosened and restored to fertility or made fertile though it never was so before, by mixing vegetable matter with it. Barnyard manure, dried leaves and rotten wood from the timber, rotted sawdust from the mill or factory, chip dirt from the wood pile, green clover or rye or oats, anything of this kind or nature mixed with hard ground will loosen it, and mixed with sterile land will fertilize it. Then the best thing to do with such land is to cover it thickly with some such substances at a time when the ground is soft enough to break up well, and plow the stuff under. If the fresh broken ground is very lumpy, use the best clod crusher and break them as fine as possible and let lie a season. If the breaking is done in the fall, let lie till spring; if down in the spring let lie till fall, and repeat the proceeding. Then, at the next seeding season, treat it as other lands are treated.

Gossip About Stock.

A very representative lot of Jersey cattle are catalogued for the forthcoming sale by the Springfield, (Ill.) J. C. C. on the 24th inst.

An important sale of Short-horns is advertised by Col. Jas. Richardson and others to take place at Kansas City July 7 and 8. Send for catalogue and mention this paper.

S. S. Shankland, Fort Scott, Kas., a Short-horn breeder, who has been using a Bates bull at the head of his herd, breaks away from that idea, for beefy reasons, and purchases a Cruickshank topped young Mary bull, 3d Barnef of Linwood, an eight months old calf for \$300 of Col. W. A. Harris.

Remember the next Kansas Short-horn sale is held at Hamlin, Brown county. A large lot of young cattle are offered as well as one of the best improved farms in the state. The shrewd farmer and breeder will be present at this sale to secure some of the numerous bargains that will be offered.

The largest Short-horn herd of cattle in Southern Kansas is owned by Frank Playter, Walnut, Kas. Attention is directed to his card in this issue. He deserves generous patronage for his efforts to improve the livestock of that part of the state. Mr. Playter recently purchased of Col. W. A. Harris, the 2d Barnef of Linwood, a Cruickshank topped young Mary yearling bull to head his herd. It cost him \$400.

Swine breeders should take advantage of the opportunity to buy as many pure bred animals as possible this season. Our advertisers generally report the choicest lot of young pigs for sale this season that they have ever raised. Jos. Elliott, Abilene, Kas., an excellent breeder of first-class Berkshires reports several sales to some of our best swine breeders. Parties desiring some rare bargains should visit his herd.

At the Short-horn sale of Messrs. Simmons & Ingles, Kentucky, last week, fifty-seven Short-horns sold at an average of \$132. The sale of Short-horns made on the 9th inst., at Alexis, Ills., by the Messrs. Lafferty, made an average of \$119 for thirty-eight females and \$80 each for twelve bulls. The day following at Kewanee, Ills., Messrs. C. C. Blish & Sons sold twenty-seven females at an average of \$128, and five bulls averaging \$123.

Plowing Grass Land.

Kansas farmers have not had much experience yet in the plowing of sods made by tame grasses; but the time is fast approaching when they will have their grass lands as well as the farmers in older States. Here is a good article on the subject which we take from the *American Cultivator*. Farming in Massachusetts is not like farming in Kansas, but plowing needs to be done in much the same way every place:

The slow system of farming, by which we mean more seeding to grass and plowing less for crops to be made by the use of purchased fertilizers, is likely to come into vogue again. It is the forced result of two or three years of low prices, which will not pay the expenses of extensive cropping for only moderate yields. The commercial fertilizers will be less used, or if not they will be proportionably less a reliance for securing good crops. More stock will be kept, more land will be seeded, and when once in grass many farmers will avoid plowing it as long as practicable. Some of these changes are in the line of conservative progress. They are a reversion to practices formerly common, but which have lately been out of use. If we increase the amount and value of home-made manure the soil will be enriched to such an extent that crops can be grown at low prices with profit.

More extended seeding with clover and the grasses is also in the line of improvement. But much depends on how the grass seeding is treated, how long it is kept up and the rotation for bringing it under the plow again. Our climate is not adapted to permanent seeding with grass, as is that of England. Where a permanent seeding with anything is attempted it is usually a mistake. After a few years the valuable grasses disappear, and their place is occupied in moist soil with wild grasses and moss and on uplands with weeds. Unless extraordinary care is taken grass lands will begin to deteriorate in three to four years. They can be kept up by top-dressing with manure and occasionally harrowing the surface in the spring. Where plowing is not convenient or desirable these means may avail for a time, yet it is generally at a loss of profit as compared with more frequent re-seeding, and a greater loss in soil fertility.

When a very old sod comes at last to be plowed most farmers entertain greatly exaggerated ideas as to its crop-producing powers. The land may be fertile, but being in grass for a long term of years is no proof that it is so. With sod roots which only occupy two or three inches of the surface the land becomes hide-bound, and even on hill-sides shows the presence of excessive moisture by a covering of mosses. To suppose that such fields can be fitted for a seed-bed by plowing and cultivating in spring is generally a mistake. The deep furrow is apt to turn up soil that needs an entire year's influence of sun, frost and rains to fit it for crops. Fall-plowing such land lightly and early enough to allow some rotting of the sod, will do much towards fitting it to crop the following year. Some time must be lost after the plow is put in before the seed can follow. It is better to lose it from fall until spring than to plow then, expecting a crop the same season, cultivate all summer and fail at last.

The obstacles to cropping old sod land are generally the vitality of grass roots and the presence of grubs and worms which undisturbed soil is apt to harbor. The white grub is a great pest on clover seeding after the second year. It is the larva of the May beetle, which finds in young clover the conditions for depositing its eggs in the soil beneath. In some places it is almost impossible to grow corn on clover sod because of the ravages of the grub. On old grass land the wire-worm is equally destructive, though usually the first and sometimes the second crop escapes, the worm working on the roots of the sod. Where quack and June grass prevail there is little danger that their roots will be destroyed the first or even second year after plowing. On fields that have become hide-bound with these grasses they thrive better for turning the sod upside down and leveling the surface. In a wet season a field of quack spring-plowed will, if left alone, be as green in a month after as it was before plowing. By midsummer this obstinate weed will be large enough to

be mown and perhaps yield as much as if the plow had not troubled it.

Under ordinary circumstances frequent seeding and frequent plowing are best. There is a greater increase in fertility in a field the first and second years after it has been seeded with clover than there is at any after period. The total amount of fertility may increase slightly, but its availability is much less. Fields left too long in sod are apt to become foul with weeds, which make the labor of cultivating much greater when the land has finally to be plowed.

The depth to which sod land may be most profitably plowed depends greatly on the character of the grasses, and somewhat on the time when plowing is done. Years ago, for wheat, farmers used to break up clover sod to a depth of eight inches or more. With a mass of green herbage turned under it was thought important to bring up some of the subsoil to furnish due proportion of mineral fertilizers, phosphate and potash. Wheat will thrive under deeper plowing than any other grain, partly because the plowing for wheat is done in warm weather, and in part from the need of mineral manures for this grain, which deep plowing helps to furnish. Since farmers have taken to using phosphatic manures they do not plow as deeply for wheat as they used to do. When plowing any other than a clover sod, deep turning of the soil is not best even for wheat. One of the largest crops of wheat ever grown, averaging fifty-four bushels per acre, was from a timothy sod plowed in June not to exceed five inches deep and summer-fallowed. It had a light dressing of phosphate, and with this was probably better for not having more of the subsoil turned to the surface.

A Monument to the Pilgrim.

A large statue—The Pilgrim, was unveiled in Central Park, N. Y., last Saturday. The statue is heroic in size, placed upon a grand pedestal with bronze panels. It is that of a man forty years of age standing and looking away to the west. He is attired in the old pilgrim garb and one hand rests on the muzzle of a flint-lock musket. George William Curtis delivered the principal oration, concluding as follows:

Here in this sylvan seclusion, amid the sunshine and the singing of birds, we raise the statue of the Puritan, that in this changeless form the long procession of the generations which shall follow us may see what manner of man he was to the outward eye, whom history and tradition have so often flouted and traduced, but who walked undismayed the solitary heights of duty and of everlasting service to mankind. Here let him stand, the soldier of the free church calmly defying the Hierarchy, the builder of a free state serenely confronting the continent which he shall settle and subdue. The unspeaking lips shall chide our unworthiness, the lofty mien exalt our littleness, the unblenching eye invigorate our weakness; and the whole poised and firmly planted form reveal the unconquerable moral energy—the master force of American civilization. So stood the sentinel on Sabbath morning guarding the plain house of prayer while wife and child and neighbor worshipped within. So mused the Pilgrim in the rapt sunset hour on the New England shore, his son caught up into the dazzling vision of the future, beholding the glory of the nation which should be. And so may that nation stand forever and forever, the mighty guardian of human liberty, of God-like justice, of Christ-like brotherhood.

Topeka Stock Yards Sales.

The representative sales of live stock at the Topeka stock yards for the week ending Saturday, June 13, were as follows:

Total of sales, 255 animals. Milk cows ranged from \$27 to \$48; yearling steers, \$20 to \$24; steers, stockers, 4c to 4½c per lb; hogs, 3¼c; horses, \$110 to \$115; ponies, \$35 to \$40; mules, \$100.

Take the milk from ewes that have plenty, and make their lambs go short, before resorting to cow's milk for a supply for those lambs that are not provided for.

Grass is one of the most important crops on the farm, after all is said and done, and it should be cared for in proportion to its importance.

FOUR ACTS PLAYED!

Sad Report About Ex-President Arthur.

Will the Fifth and Final Act be a Tragedy.

[*Rochester Democrat and Chronicle*.]
"Dr. Lincoln who was at the funeral of" "ex-Secretary Frelinghuysen, says ex-" "President Arthur looked very unwell." "He is suffering from Bright's disease." "During the past year it has assumed a" "very aggravated form."

That telegram is act IV. of a drama written by ex-President Arthur's physicians. In Act I. he was made to appear in "Malaria," of which all the country was told when he went to Florida.

In Act II. he represented a tired man, worn down, walking the sands at Old Point Comfort and looking eastward over the Atlantic toward Europe for a longer rest.

The curtain rolls up for Act III. upon the distinguished actor affected with melancholy from bright's disease, while Act IV. discovers him with the disease "in an aggravated form, suffering intensely (which is unusual) and about to take a sea voyage."

Just such as this is the plot of many dramas by play-wrights of the medical profession. They write the first two or three acts with no conception of what their character will develop in the final one.

They have not the discernment for tracing in the early, what the latter impersonations will be. Not one physician in a hundred has the adequate microscopic and chemical appliances for discovering bright's disease in its early stages, and when many do finally comprehend that their patients are dying with it, when death occurs, they will, to cover up their ignorance of it, pronounce the fatality to have been caused by ordinary ailments, whereas these ailments are really results of bright's disease of which they are unconscious victims.

Beyond any doubt, 80 per cent. of all deaths except from epidemics and accidents, result from diseased kidneys or livers. If the dying be distinguished and his friends too intelligent to be easily deceived, his physicians perhaps pronounce the complaint to be pericarditis, pyæmia, septicæmia, bronchitis, pleuritis, valvular lesions of the heart, pneumonia, etc. If the deceased be less noted, "malaria" is now the fashionable assignment of the cause of death.

But all the same, named right or named wrong, this fearful scourge gathers them in! While it prevails among persons of sedentary habits,—lawyers, clergymen, Congressmen,—it also plays great havoc among farmers, day laborers and mechanics, though they do not suspect it, because their physicians keep it from them, if indeed they are able to detect it.

It sweeps thousands of women and children into untimely graves every year. The health gives way gradually, the strength is variable, the appetite fickle, the vigor gets less and less. This isn't malaria—it is the beginning of kidney disease and will end—who does not know how?

No, nature has not been remiss. Independent research has given an infallible remedy for this common disorder; but of course the bigoted physicians will not use Warner's safe cure, because it is a private affair and cuts up their practice by restoring the health of those who have been invalids for years.

The new saying of "how common bright's disease is becoming among prominent men!" is getting old, and as the Englishman would say, sounds "stupid"—especially "stupid" since this disease is readily detected by the more learned men and specialists of this disease. But the "common run" of physicians, not detecting it, give the patient Epsom salts or other drugs prescribed by the old code of treatment under which their grandfathers and great-grandfathers practiced!

Anon, we hear the patient is "comfortable." But ere long, maybe, they "tap" him and take some water from him a day again the "comfortable" story is told. Torture him rather than allow him to use Warner's safe cure! With such variations the doctors play upon the unfortunate until his shroud is made, when we learn that the patient died from heart disease, pyæmia, septicæmia or some other deceptive though "dignified" cause.

Ex-President Arthur's case is not singular—it is typical of every such case. "He is suffering intensely." This is not usual. Generally there is almost no suffering. He may recover, if he will act independently of his physicians. The agency named has cured thousands of persons even in the extreme stages—is to-day the mainstay of the health of hundreds of thousands. It is an unfortunate fact that physicians will not admit there is any virtue outside their own sphere, but as each school denies virtue to all others, the people act on their own judgment and accept things by the record of merit they make.

The facts are cause for alarm, but there is abundant hope in prompt and independent action.

A Large Establishment.

A few days ago we had the pleasure of being conducted by one of the gentlemanly proprietors through one of the leading manufacturing establishments of Topeka—the large flouring mill owned by Messrs. Shellabarger & Griswold.

In this establishment the wheat is converted into flour by being passed through a number of rollers. The old way was to cut and press the wheat between two large mill-

stones. It is now conceded by the best millers, East and West, that flour manufactured by the roller process will make much better bread than that made by both cutting and squeezing the wheat.

Messrs. Shellabarger & Griswold have recently made a number of valuable improvements in their machinery; one is removing their old engine, which produced irregular motion, because from its construction the power was derived principally from the direct pressure of the steam, and have substituted in its place a large new Corliss engine. The power is now derived both from the direct pressure of the steam, say fifty pounds to the square inch, and also all its effective expansive power on the piston. Now, not only less fuel is required, which is a large item of expense, but the motion is perfectly regular and uniform. The effect of these improvements will necessarily be perceptible in the future, both to our vision and taste, in the superiority of the flour they will make and the very delicious bread we will all have to eat.

When you want flour, order Shellabarger and Griswold's Best Brand.

Are You Going South?

If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays and by which through trains are run. Before you start you should provide yourself with a map and time table of the Kansas City, Fort Scott & Gulf Railroad (Memphis Short Route South). The only direct route from and via Kansas City to all points in Eastern and Southern Kansas, Southwest Missouri and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars and free Reclining Chair Cars, Kansas City to Memphis; through Sleeping Car Kansas City to New Orleans. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville and all points in Arkansas. Send for a large map. Send for a copy of the "Missouri and Kansas Farmer," an eight-page paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free.

Address, J. E. LOCKWOOD,
G. P. & T. A. Kansas City.

The Line selected by the U. S. Gov't to carry the Fast Mail.

Burlington Route

H&STJ K.C. STJ & C.B.R.R.

5,000 MILES IN THE SYSTEM,

with Elegant Through Trains containing Pullman Palace Sleeping, Dining and Chair Cars, between the following prominent cities without change:

CHICAGO, PEORIA, KANSAS CITY,
ST. LOUIS, DENVER, OMAHA,
ST. JOSEPH, QUINCY, HANNIBAL,
KEOKUK, BURLINGTON, DES MOINES,
ROCK ISLAND, LINCOLN, COUNCIL BLUFFS,
ATCHISON, TOPEKA, LEAVENWORTH,
SIOUX CITY, ST. PAUL, MINNEAPOLIS.

Over 300 Elegantly Equipped Passenger Trains running daily over this perfect system, passing into and through the important cities and towns in the great States of

ILLINOIS, IOWA, MISSOURI, KANSAS, NEBRASKA, COLORADO.

Connecting in Union Depots for all points in the States and Territories, EAST, WEST, NORTH, SOUTH. No matter where you are going, purchase your tickets via the

"BURLINGTON ROUTE"

Daily Trains via this Line between KANSAS CITY, LEAVENWORTH, ATCHISON, ST. JOSEPH and COUNCIL BLUFFS, OMAHA, SIOUX CITY, ST. PAUL and MINNEAPOLIS.

KANSAS CITY, ATCHISON, ST. JOSEPH and QUINCY, HANNIBAL and CHICAGO, Without Change.

T. J. POTTER, VICE-PRES. & GEN'L MGR., C. & B. Q., CHICAGO, PERCEVAL LOWELL, GEN'L PASS. AGT., C. & B. Q., CHICAGO, I. F. BARNARD, GEN'L MGR., K. C., ST. J. & C. B. AND M. & ST. J., ST. JOSEPH, C. DAWES, GEN'L PASS. AGT., K. C., ST. J. & C. B. AND M. & ST. J., ST. JOSEPH.

The Home Circle.

May-Dew--Uhland.

Translated from the German by Mrs. M. F. Butts.

On the wood and on the field
When the day is new,
Gushing out of Paradise
Are fountains of May-dew.

Then all joyful forces work
The happy world to bless;
Leaves grow green, and flowers are gay
And full of spiciness.

When May-dew the sea-shell drinks,
Pearls are found about;
When it in the oak tree sinks,
Honey-bees come out.

When the birds in journeying
Bathe their tiny bills,
Then they know the wondrous song
That the greenwood thrills.

With May-dew on lily leaves
Maidens grow more fair,
Wetting rosy cheeks and lips,
And soft, golden hair.

Even eyes all stained with tears
Soothed and holpen are;
And through baths of pure May-dew
See the morning star.

Fall, then, May-dew, upon me—
Balmy cure for pain;
Weary eyes and thirsty heart
Long for the sweet rain.

Give me youth and poet-joy;
Make me fair to view;
Clear my eyes to see the Sun,
Heavenly May-dew.

About the Use of Tobacco.

What follows is an extract from a sermon delivered by Rev. Mr. Talmage, of New York, on the subject of the use of narcotics by men and women. It is well worth reading and studying:

There are ministers of religion to-day indulging in narcotics, dying by inches, and they do not know what is the matter with them. I might, in a word, give my own experience. It took ten cigars to make a sermon. I got very nervous. One day I awakened to the outrage I was inflicting upon myself. I was about to change settlements, and a generous wholesale tobaccoist in Philadelphia said if I would only come to Philadelphia he would, all the rest of my life, provide me with cigars free of charge. I said to myself: If in these war times when cigars are so costly and my salary is small, I smoke more than I ought to, what would I do if I had gratuitous and illimitable supply? And then and there, twenty-four years ago, I quit once and forever. It made a new man of me, and though I have since then done as much hard work as any one, I think I have had the best health God ever blessed a man with. A minister of religion can not afford to smoke. Put into my hand the money wasted in tobacco in Brooklyn and I will support three orphan asylums as grand and as beautiful as those already established. Put into my hand the money wasted in tobacco in the United States of America and I will clothe, feed and shelter all the suffering poor on this continent. The American church gives \$1,000,000 a year for the evangelization of the heathen and American Christians spend \$5,000,000 in tobacco.

Now I stand this morning not only in the presence of my God, to whom I must give an account for what I say to-day, but I stand in the presence of a great multitude of young men who are forming their habits. Between 17 and 23 there are tens of thousands of young men damaging themselves irretrievably by tobacco. You either use very good tobacco, or cheap tobacco. If you use cheap tobacco I want to tell you why it is cheap. It is a mixture of burdock, lampblack, sawdust, coltsfoot, plantain leaves, fuller's earth, lime, salt, alum and a little tobacco. You can not afford, my young brother, to take such a mess as that between your lips. If, on the other hand, you use costly tobacco, let me say I do not think you can afford it. You take that which you expend, and will expend, if you keep the habit all your life, and put it aside, and it will buy you a farm to make you comfortable in the afternoon of life. A merchant of New York gave this testimony: "In early life I smoked six cigars a day at 6½ cents each—they averaged that. I thought to myself one day, 'I'll just put aside all the money I am consuming in cigars and all I would consume if I kept on in the habit, and I will see what it will come to by compound interest.'" And he gives this tremendous statistic: "Last July completed thirty-nine years since by the grace of God I was emancipated from the filthy habit, and the saving amounted to the enormous sum of \$29,102.03 by compound interest. We lived in the city, but the children, who had learned something of the enjoyment of country life from their annual visits to their grandparents, longed for a home among the green fields. I found a very pleasant place in the country for sale. The cigar money now came into requisition, and I found it amounted to a sufficient sum to purchase the place, and it is mine. Now, boys, you take your choice, smoking without a home, or a home without smoking."

The building inspector is the man who is informed when a building has collapsed.

The Handy Woman.

The handy woman! what cannot she do, besides the ordinary work of the family? In her case necessity knows no law, and she becomes an adept in the use of tools—hammer, saw and axe—can weed the garden, repair, after a fashion, broken fences, and with strings saved from store bundles, improvise arbor for woodbine or creeper to cover—making the unsightly corner of the garden a thing of beauty. The energetic, handy woman will do many a piece of work while waiting the "sometime" of the man of the house. She can cut kindlings, put up shelves where no one but a woman would see the use, and afterward wonder how she ever got along without them. Can cover furniture, can paint, paper and varnish; while her inborn tact and quickness of perception enable her with the smallest possible outlay, if obliged to economize, to work wonders in tastefully adorning the home, and to suggest plans and methods of work for stronger arms to accomplish.

In matters of dress, too, by turning and re-trimming good material, she will make a neat and tasteful appearance, with little expense. Such a woman never throws away anything of possible use. Every door-button, lock, nail, screw and hinge is saved for—sometime. She uses carpet tacks a second time; looks carefully over the carpet, darning thin places before putting down again; and once in a while, after sweeping, she takes a woolen cloth, wrung out in ammonia and water, vigorously rubs the carpet all over, frequently rinsing and wringing the cloth not very dry. She knows that tapestry Brussels, and even velvet carpets are thus nicely cleaned and colors brought out afresh and unharmed. She knows, too, that cold tea is the best thing to clean graining; milk and water for floor oil-cloth; that newspaper rubbed over the lately-polished cook stove will keep it bright for a long time; that kerosene will remove all dust from corners and crevices in furniture; that there is a right and wrong way to sweep a room; that if clothes are folded an even thickness before passing through the wringer they will dry more quickly and with fewer wrinkles; and, after drying, by taking pains to fold and sprinkle each article evenly, to iron will be pleasure. She knows that beans to bake require no parboiling if soaked in cold water over night; and she has learned that fine flour bread, lacking nutriment, is not healthy to live on, and, therefore, will make for breakfast a corn cake thus: Four heaping tablespoonfuls Indian meal, two heaping tablespoonfuls of flour, two spoonfuls sugar, scant teaspoonful soda, little salt, and mix with sour milk to batter thinness.

Or, she will take one cup of sifted squash, left over from yesterday's dinner, and one pint flour, one cup of milk, two tablespoonfuls sugar, two tablespoonfuls yeast powder and bake in single cake tins, making most delicious golden biscuits.

Another day she will make "Graham cakes," or "Sally Lunn," or from the left-over plain boiled rice pudding wholesome fritters, or "third bread" of Indian meal and flour.

When the black ants are troublesome she will suspend the pail or firkin containing sugar by a hook made of wire, and tie around the hook a rag covered with pine tar; the rag is to prevent the tar from running down the wire.

She will save empty spools, saw them in two, drive a nail through each half, and make a good door-knob for screen doors, and use in various back places.

If in sickness she desires a wee bit of a light she will prepare a circular piece of thin wrapping paper, twist the center of it into a small point for a wick, place it point upwards in a saucer, and pour melted lard or bits of candle around it; by night it will be hardened and ready to light, giving a tiny clear blaze, free from smell.

She knows "a penny saved is a penny earned," but is aware also of the truth of the old saying, "save at the spigot and let out of the bung." She is no believer in false economy; she knows good material pays all the way through; she buys the best of the kind, then takes care of it and wastes nothing—not even time; she plans for the general work of the day, allowing for interruptions and the few moments sofa rest, or reading sandwiched in here and there; she has found out long ago such little rests freshen and pay.

You may be sure such a true economist thinks of others beside herself; has always something to spare for the needy, and will not defraud the Lord of "the first fruits," and is a blessing to all who know her.

Don't shake your head doubtfully, dear reader, there are many such women, and the secret of their success is "methods of work" and "no waste no want."—*Riverside.*

A pretty way to make a shade for the lamp, or rather a cover for the porcelain shade, is to take a narrow strip of red silk, gather it quite full at each edge, drawing it close at the top so it will fit the shade, then trim the bottom with antique lace; this should not be gathered, but lie smoothly over the shade; then with heavy embroidery silk draw in a fringe all around the lace; this should be thick and close, and should quite conceal the shade.

The operation has been successfully accomplished by a German chemist of separating rags of cotton and wool mixed by subjecting them to the action of a jet of superheated steam. Under a pressure of five atmospheres the wool melts and sinks to the bottom of the receptacle, while cotton, linen and other vegetable fibers stand, thus

remaining suitable for paper manufacture. The liquid mud which contains the wool precipitated by this means is then desiccated; the residue, to which is given the name of azotine, is completely soluble in water, and is valuable on account of its nitrogen. The increased value of the pulp free from wool is sufficient to cover the cost of the process.

The Wastes of the Household.

While the well-known saying that a French family could live with elegance on what an American housewife throws away is frequently illustrated in families where waste can be ill afforded, it is also true that, in eight cases out of ten, this relegation of cold bits to the offal pail or ash barrel is not caused so much by extravagance as by the lack of knowledge of how to dispose of them in any other way. The dainty utilization of scraps is a subject that well repays the thoughtful study of any housewife, and even the least original cook can often "evolve" from her inner consciousness an appetizing dish from cold fragments that at first sight appear utterly unpromising. In this matter, however, the mistress must generally depend upon her own brains. Few hirelings have the keen interest in their employers' welfare that would urge them to save a couple of pennies here and five or six there. Fewer still, with the best intentions in the world, know how to do it or appreciate that it is in the minor economies that true saving consists. What difference does it make if those scraps of cold bacon left from breakfast are summarily disposed of in the swill barrel, or if that bit of corn-beef—too small to appear upon the table again—is bestowed upon the first basket beggar who presents himself? And if these escape the fate from the extra conscientiousness of the housekeeper, they are too often converted into the ubiquitous hash. Hear how one careful housewife disposed of similar remnants: To the corn-beef and bacon, minced fine, she added half as much cold mashed potato, one raw egg, a little chopped onion and parsley, and with croquettes made of these, rolled in flour and fried in nice dripping, provided an appetizing dish that was quite sufficient, when accompanied by stewed potatoes and bread and butter, to make a lunch for three people. Another dainty dish, which appeared upon a friend's table, was formed from even less promising materials. Her dinner the day before had been a stuffed chicken boiled with rice. Examination of the pantry revealed the carcass of the fowl, with one leg attached to it, and a couple of spoonfuls of the cold rice. Nothing daunted, however, the valiant housekeeper advanced to the charge, and, with the aid of a small, sharp knife, removed more meat from the bones than one would at first have believed possible. This was cut—not chopped—in small pieces and with the rice and half of the dressing, while the bones, the rest of the stuffing, and a little minced onion were put over the fire in two cups of cold water. When a slow, steady simmer of a couple of hours had reduced this one-half, it was cooled, strained, skimmed, and slightly thickened with browned flour, then returned to the fire with the fragments of meat, rice, etc., brought to a boil, poured over crustless squares of fried bread laid in a hot platter, and garnished with parsley. The result was a savory salmi, whose scrappy origin no one would have suspected.—*Christine Terhune Herrick, in Good Housekeeping.*

Beloved, tho' thy life be torn from mine,
And single handed I am left to meet
The jars of fate, the cruelties of time
Without thy love, which made all things
complete,
Still, having known the best that life can
give,
I am content, while kneeling by the earth
Which covers all that made life sweet to
live—
And tho' I am bereft, and feel the dearth
Of every joy, yet something still I keep—
The flowers of memory and a place to weep.
—*Gladiola.*

Shall we grow old together?
Nay! though 'tis wintry weather,
The earth awaits the spring,
When suns shall warm the heather,
When birds will moult and feather,
And happy things take wing—
And thought and I together,
Defying wintry weather,
We, too, will wait for spring.
—*Louise Chandler Moulton.*

Horsehairs immersed in water do not turn into snakes. The presence of what is called the hair worm (*gordius*) in pools of stagnant water by the roadside has led to this belief. This worm is a parasite inhabiting beetles grasshoppers, etc. When full grown it leaves the insect and deposits its eggs in long chains in moist earth and water. When seen in the water its appearance is exactly that of an animated horsehair six or eight inches long.

Mulhall, in his "Progress of the World," writes that in effect the invention of machinery has given mankind an accession of power beyond calculation. The United States, for example, makes a million sewing machines yearly, which can do as much work as formerly required 12,000,000 women working by hand. A single shoe factory in Massachusetts turns out as many pairs of boots as 30,000 bootmakers in Paris.

"What color is now the most used in painting?" asks an exchange. Red, friend, a deep-burning, throat destroying red.

How to Freshen Cashmere and Black Silk.

Girls, do you want to know how to freshen up your old black cashmere dresses preparatory to making them over this spring? If so, I will tell you. I first carefully ripped every seam, and picked out all the threads, shook and brushed out the dust from pleating and ruffling, and each separate piece of the dress. Then to one pailful (say eight or ten quarts) of water, I added two ounces of aqua ammonia and enough blueing to make the water of a very, very dark color.

Should the dress be rusty black, you will need all the more blueing, to give it the desired freshness. Then take your basket of pieces, and carry it out to your clothes-line, also your pail or small tub of water prepared as above. Then take each piece separately, immerse thoroughly in the water, but do not wring them on any account, as it would leave creases which it would be almost impossible to press out. Hold for an instant over the tub to drip, then pin on the line, being very careful to place the goods with the right side toward the line, so that the clothes-pins will press the wrong side, as sometimes an imprint is made which is hard to remove, if made upon the right side.

Go on thus, till all the pieces have been immersed, or, as Bridget says, "soused up and down." Next, have a good fire with warm irons ready, and as soon as the pieces are partially dry, yet somewhat damp (and it is much better that they be too damp than too dry), iron them in the following manner: Take your ironing-board and fold a thick woolen blanket (so to have six or eight thicknesses) over it. Then I took a dark woolen shawl and pinned it over the folds of the blanket tightly and smoothly about the board, to keep all firmly in place. Never, on any account, use cotton sheets, as every wrinkle and crease shows, and leaves a glossy mark on your cashmere. Now, if your pieces are of the right dampness, and pressed very carefully on the wrong side, you will be surprised to see how nice and fresh they will look. An experienced dress-maker told me this method of restoring cashmere and black silk, and said it was far better and more satisfactory than to have the goods re-dyed. My cashmere looked so well when made up I did not get a new one, as I intended. I bought nice velvet for vest, cuffs and collars, and with the rearranging of trimmings, every one thought I had a new dress. I have since freshened up a black silk in the same manner, and the new which I had left from which to cut a new basque, could not have been told from the other. With new lace and embroidery, and different make up in style, I was quite satisfied with it.—*Indiana Farmer.*

The Indians according to Prof. J. W. Powell, were the "mound builders," and some build mounds to the present day.

The best way to preserve eggs, according to recent tests, are packing in salt, oiling the shells; beef drippings may be used, and immersing in lime water.

Powdering the face seems to be as fashionable as ever in England, judging from the fact that in one year no less than 400,000 powder puffs were sold. To make these it takes 7,000 swans' skins to supply the demand.

A peculiarity in working in German silver spoons is the color of the hair, which in time becomes dyed a pale green that requires years to change. The particles of metal—which is chiefly copper—also produce a disease similar to consumption.

Since 1870, women have been admitted to universities in Sweden, Norway, Russia, Switzerland, Italy, Spain and France. At St. Petersburg, in 1882, ninety-nine young women were given degrees in the literary and historical department, and sixty-four in the scientific department.

IVERS & POND PIANOS

UNEXCELLED IN

Beauty of Tone, Elegance of Finish,

—AND—

THOROUGHNESS OF CONSTRUCTION.

The IVERS & POND PIANOS are the result of the most extended experience, greatest skill and ample capital. Eighty of these pianos have been purchased and are in daily use by the New England Conservatory of Music, the most important musical college in the world.

Sold by responsible Dealers everywhere throughout the United States.

Fully Warranted for Five Years.

Illustrated catalogue furnished free on application.

GENERAL WARE-ROOMS,
597 Washington St., Boston, Mass.

The Young Folks.

Some Other Day.

Of all the words that grown folks say,
The saddest are these, "Some other day,"
So easily, carelessly, often said,
But to childish ears they are words of dread,
To hope a knell, and to wish a doom,
A frost on expectancy's tender bloom;
For even the baby who scarce can crawl
Knows a promise like that is no promise at all,
And that out of sight and of mind away
Is that mocking mirage, "Some other day."

The years flit by, and wishes fade,
And youth in the grave of age is laid,
And the child who bent his youthful will
Is a child no more, but is waiting still,
For the pleasure deferred, the left-out game,
Though it came at last, is never the same;
The bubble has died on the mantling cup,
The draught is dull as we drink it up;
And old hopes laugh at us as we say,
"At last it has come, that 'other day.'"

Ah! little hearts which beat and fret
Against the bounds by patience set,
Yours is but universal fate,
And the old as the young all have to wait,
You will learn like us to be stout in pain,
And not to cry when your wishes prove vain,
And that strength grows from a thwarted will,
And that service is done by standing still,
And so bravely look up into Heaven, and say,
"I shall find it all there, 'some other day.'"

Stories of Great Waves.

[New York Tribune.]

Captain Parselle, of the White Star steamship Adriatic, has been ploughing the boundless main these forty years. He has navigated every ocean and almost every known body of water large enough to float a ship. During recent years he has commanded some one of the Liverpool steamers of the White Star line, and has thousands of acquaintances in this city who know well what an honest, bluff, straightforward old sea-dog he is. This introduction to the *Tribune* readers would be wholly unnecessary but for the miraculous nature of the stories which are to follow, and which, says Captain Parselle, "are as true and as sure as that the sun is now shining at us here on my deck."

The conversation which had preceded these wonderful tales had referred to the storm wave lately encountered in mid ocean by the Germanic. The Captain explained what sort of a sea it was. "The newspapers called it a tidal wave," he said, "but it was nothing of the sort. Tidal waves only occur in bays, firths and rivers, which are so situated as to be peculiarly sensitive to the influences of the moon and of gravitation. At least, that is how meteorologists explain them. But though I have studied their theories with laborious care, I have encountered tidal waves that had an origin far more subtle in the local situations that make water especially excitable."

"For instance, I saw a tidal wave once from a high bluff on the banks of the Ganges. It was a perpendicular wall of water advancing at the rate of about twenty miles an hour. It was perfectly straight, except at the very top, where it crested into a foam that had not strength enough to fall. It was about seventeen feet high. That was a pure tidal wave, and I have never yet been able to work out its origin or cause."

"Now a storm wave, such as struck the Germanic, is a very different thing, and is explicable upon thoroughly well-defined meteorological principles. The wind in a first-class ocean storm is hopelessly erratic. I have known it to blow from every point of the compass within half an hour. It blows with terrific force, and, of course, creates tremendously heavy seas in every direction when it blows. The sea recovers very slowly, so that after the wind has veered from south to north the seas come at you in engulfing waves in every conceivable direction. Now, there is a point where the influence of all these seas unites, producing a wave that reaches incredible altitudes with a force that is simply irresistible. That is a storm wave, and that is what knocked the Germanic. No seaman can locate it, and if you happen to be in its path all you can do is—take it."

"Have I ever encountered one? Well, I should say so. I don't often tell these stories, for if a man tells many of them he is in danger of losing his reputation for veracity. The yarn I am going to spin now, however, is true. It is my own experience, and, whether anybody believes it or not, it is so. Thirty-three years ago I was the chief officer of a 900-ton ship. We sailed between London and India. One evening, when a few days out from London, in the English Channel, the time came to relieve the watch. That was 8 o'clock. The sky was a little murky, but not absolutely cloudy. The Channel waters were calm. The breeze was fresh, blowing from the west at such a rate as to compel us to sail under a reefed mainsail and double-reefed topsails. On our lee side was a brig. My captain and I were standing together on deck. I had given orders for the watch to be called, and they were then assembled on the poop deck. The captain said to me:

"Mr. Parselle, I think the light ought to be visible by this time"—meaning the Eddy-

stone light. "Suppose I go aloft and look," I answered.

"I went up the rigging till I got about sixty feet aloft, and suddenly, when just in that perilous position, I heard a terrible shout from the deck. I looked down to see what was the matter, and just as I did so a mountain of water struck us amidships. It picked me right off my feet and hurled me clear through the rigging, and flattened me against the mast, whence I fell down into the main-deck. The rest of what happened I discovered after my recovery. The wave took off every strip of rigging and canvas, all the yards, boats and arms, and left the ship with only her masts standing. We ran back to the Isle of Wight, and anchored in the Solent, to ascertain the extent of the damage, and then we discovered the most wonderful thing of all. The ship had been sheathed with copper, and that wave had stripped its top sheet off for eighty feet of the ship's length as clean as a mechanic's shears could have done!"

"How did it happen? Don't ask me. I suppose there may have been a little hole in the copper, and the water was forced into it with such immeasurable power as to have the effect I have described. But you remember I told you there was a brig to the leeward of us. The next morning we saw her lying astern of us in the Solent. Her masts were gone, and if an army of carpenters had been at work clearing off her deck, they could not have left her more barren than that wave did. Her watch had been swept overboard and every man of them lost."

"Well, that was a storm wave for you, but I struck one in 1877 that was much more remarkable. I was off the coast of Japan, captain of one of the finest steamships afloat. We were in a typhoon. They call them typhoons there, but they are identical in character with our own cyclone and the African tornado. It was an awful storm, the worst I ever saw. The wind howled and shrieked and raved like a million demons loosed from the Styx. The seas struggled with each other for our possession, and roared the most infernal noise, as they broke over us in merciless force. The sky was inky, but not a drop of water fell. My chief officer and myself were standing on the bridge directing the helm. Suddenly yards away, I saw a most prodigious mountain of water. Its towering crest was lashed into a white foam, and appeared just between the two yards of the mast. Above the hellish din of the storm I could hear the awful bass roar of that monster wave as it came to us like a steam engine. I turned to my officer. His face was as white as chalk."

"Here's the last of our good boat, my boy," I said, and turned her nose right into the wind. "Her bow rose until we were almost perpendicular. I almost thought we should be thrown over. The crest struck us and blinded me so that I could not see. And then, so sure as I am an honest man, her bow fell and her keel rose, and we passed over that most terrific wave as gently as a chip over a mill pond ripple. I never was so dumbfounded in my life, for I fully expected that moment to be the last that ship would ever know. These two yarns, mind you, are my own personal experiences, and I give you my word of honor for their truth."

"About three weeks ago, on my last trip back to England, we called at Queenstown. There I met my friend, Mr. Thomas Gray, the secretary of the London Board of Trade, a thoroughly well-known man, whose word is as good as his bond. He told me in good faith the following story, and said he knew it to be true: Some time ago, precisely when I don't just now remember, a new light was being put in the Eddystone lighthouse. This house, you know, stands on a solid rock, which the sea entirely covers at high water. The building is a circular iron tower, hollow in the centre and about nine feet in diameter. The materials which were used to fix the new light were brought by steamers to the rock, and holes were opened in the base of the light-house, through which they were admitted into this hollow space. Then they were hoisted up by derricks to the top of the light-house."

"One afternoon the son of the architect, a young man just about of age, was standing at the top of the tower, looking down through this hollow space, a distance of 140 feet to the rock below. Suddenly he became dizzy and fell headlong into the abyss. Just at that opportune and providential moment a storm wave, such as I have been describing, broke against the light-house. The hole in its base had not been closed, and in the twinkling of an eye, at the very moment the young man fell, the water rushed in through these holes, up the hollow tower, and received the falling form. Receding immediately, the water left him, alive and none the worse for his ducking, on the rock at the tower's base."

"The sea saves lives as well as devours them."

E. M. Calkins, has just completed one of the most wonderful pieces of mechanism ever produced. He has worked on it for twenty years, and, like Darius Greene's flying machine, "at last is done." On a large platform, 7x20 feet, constructed so as to represent mountain scenery, rocks, trees, lawns, rivers, cascades, caves and lakes, there are several hundred moving figures of men, birds and beasts. In the center is a life-like facsimile of Washington's residence at Mount Vernon. On the roof are two beautiful figures, carved and painted so as to represent sculptured marble, guarding with drawn swords the historic mansion, while a gilt eagle perches upon the porch. In a room Washington is lying on his death-

bed, surrounded by weeping friends. In the kitchen are colored servants at work. In the yard are men sharpening their scythes and chopping and sawing wood. Several incidents connected with Indian life are vividly pictured. Railway cars are running, and ships with sails unfurled and laden with passengers float in a miniature river. Even Noah's ark is represented, with Noah at the head of the procession marching into it, while up on the hill tops surrounding are men and women awestruck at the rising waters. A perfect grist mill in operation is represented; also a country home, with the father and mother sitting by the fireside, reading by the light of pine knots. The figures are all kept in motion by a small overshot wheel, less than ten inches in diameter. All of the figures were carved with jack knives, Mr. Calkins having worn out several knives since he began the work.

Kindliness of Abraham Lincoln.

Several years ago—before the war—says a gentleman with whom we spent an hour in conversation a few evenings since, I was engaged in speculation, and the merchandise in which I dealt occasioned frequent visits to Lawrence, Mass. It was during one of my visits to that city that I made the acquaintance of George Clark, who, in a small way, was an insurance agent.

Clark, though in humble circumstances and often pinched in pecuniary matters, was of that class of men whom misfortunes do not sour, who borrow very little trouble and who—awake or asleep—are happy and contented with their lot. Everything he had was good enough and would do "till the tide turned." He was, withal, an eccentric individual, and he had a habit of magnifying his statements regarding many things to the degree that those who knew him best always accepted his tales with a large degree of allowance.

Among his many claims was one that he was born in a log cabin in Illinois, and that he grew up in the same neighborhood with Abraham Lincoln; had split rails with him; had bunked with him; knew him backwards and forwards, and that during Mr. Lincoln's brief stumping tour in New England he had come out all the way from Boston to see him; declined the accommodations of the best hotel in the city and slept on an improvised bed in one of the two rooms which he and his wife occupied. He also claimed that "Abe"—he mentioned him familiarly—was the grandest man in this country and that the fates had more in store for him than most people realized. I knew very little about Mr. Lincoln at that time. Like most people in the East I believed Mr. Seward was the coming man.

A few years passed and Mr. Lincoln, sure enough, was the man of the hour. Clark, whenever I met him, was talking about him. "I can have any office I want," he said emphatically; "Abe will look out for me." I thought him a dreamer, and like all his acquaintances doubted his claim. One day when he was repeating his story I mildly informed him that nobody believed him. To my surprise he was not indignant. He only insisted that I should accompany him to the Appleton Mills and take note of the fact that at the time Mr. Lincoln visited him they registered there together, he having shown "Abe" through the mills of the company. The record was as he stated. I was convinced.

Shortly after Clark said he was going to have an office, and that in order to get it he must raise twelve dollars to pay his fare to Washington. I told him it was a useless undertaking. He laughed at me. "Abe" wouldn't refuse him anything he asked. He had made up his mind he must have a post-office. I told him that twelve dollars would only pay his fare, and that everything was so high and the hotels so crowded that he couldn't live twenty-four hours in Washington. Again he laughed in my face, and then said: "What do I care for high prices and hotels? Abe'll take care of me. All I want is money enough to get there."

Half in earnest, half in jest, and wholly in doubt about the propriety of the thing, the late Hon. D. C. Sargent—then a resident of Lawrence—several other gentlemen and myself contributed the amount and sent him on his journey rejoicing.

In due time Clark arrived in Washington. It was evening. He had no money and no place to lodge. He was hungry. A reception was taking place at the White House, and a man of his plebeian appearance was not only "out of place," but was hustled about in an unceremonious manner and in one way and another deterred from approaching Mr. Lincoln. Clark's patience under the embarrassing situation served him for more than an hour, when hunger and anxiety about a place to "put up for the night" caused him to lose his discretion and become desperate. Mounting a chair just as a foreign Minister was approaching Mr. Lincoln he sang out "Abe! Abe!" Mr. Lincoln instantly recognized the speaker. The passing pageant of chivalry and fashion became to his mind like the unreality of a dream from which he had been suddenly aroused, and in all that brilliant assembly he saw only George Clark, the man who had shared with him the hardship and privations of frontier life in the days of small things.

"Make way for my friend!" exclaimed the President, and the surprised ladies and gentlemen paused in astonishment as Mr. Clark approached Mr. Lincoln, and was received with a cordiality and warmth of greeting that had not been accorded any other guest of the evening.

A few minutes later Mr. Lincoln excused himself from the reception and passed into

another room with his old friend and closed the door. The scene that followed is known only through Mr. Clark, and as he was inclined somewhat to exaggerate circumstances, must be considered with some grains of allowance.

Mr. Lincoln, so Mr. Clark repeatedly told his friends, was as familiar and off-hand as in their youth. He leaned against the wall and laughed. He was like an overjoyed boy. "You don't know," he said, "how glad I am to see you. The face of an old friend is like a ray of sunshine through dark and ominous clouds. I've shook hands till I am tired more than I ever was splitting rails." He inquired where Clark was stopping and if he had been to supper, and when Clark told him that he was "stopping with Abe Lincoln and hadn't had anything of any account to eat since leaving home," he ordered the best the White House afforded set before him while he returned to "finish up the business he had in hand."

Clark used to say that he never fared so sumptuously before in his life. If he'd been a foreign Prince or some big gun from nobody-knows-where instead of an office-seeker he couldn't have been treated better. The cooks and servants actually overwhelmed him with kindness, and to use his own words gave him "oysters and meats cooked in five different languages." Until late that night—and till a late hour for several nights after—Mr. Lincoln laughed and talked with him concerning the events of their youth. In fact, through recourse to Clark, and the stories of the days when they were companions, Mr. Lincoln found needed relief from the tremendous tension to which his strength and mind were subjected in those trying hours that preceded the opening of the rebellion.

During the days Clark rode about in Mr. Lincoln's carriage when the horses were being aired and was shown many attentions from people of note. Somehow, so Clark affirmed, it got out that he was the "man behind the throne," and it so happened that he was in great demand by office-seekers from all over the country, who desired his influence and offered to pay liberally for it. But he was proof against temptation.

Finally he told Mr. Lincoln the object of his visit and solicited the Lawrence postmastership. Mr. Lincoln laughed at him, and said: "You ain't quite up in education, George, to take that kind of a job. But I've fixed you all snug and right. Take this letter." Mr. Lincoln then inquired whether or not he had money or tickets with which to get home, and when he discovered that he had neither he sent for tickets and ordered a basket of food put up for him. Clark was very proud of the basket and kept it till he died. The letter was addressed, "To the Collector of the Port of Boston." Clark presented himself at the custom house one morning, and, upon being snubbed by one and another when he inquired for the Collector, remarked that he had a letter from his friend Abraham Lincoln addressed to the gentleman for whom he had inquired. This opened the doors. The letter said, in substance: "The bearer is my friend, Geo. Clark. Give him the best position he can fill. If he fails in one place give him another." The Collector settled him as watchman on board vessels in the harbor—a berth in which he could sleep as much as he liked—at \$1,200 a year.

Says our informant: I met Clark on State street a few days after the assassination of Mr. Lincoln. He had a deep weed upon his hat and his countenance betrayed the deep mental anguish through which he was passing. "I've got no desire to live another day," he said. "The lights are out; the world is dark; there is no more happiness for me." He wept like a child, and when we parted I made up my mind that he would soon follow his friend to the mysterious bourne. And I was right.

A camel sometimes lives to the age of 100 years. No wonder he has a hump on his back.

Free Tuition. Expenses Light.

KANSAS STATE AGRICULTURAL COLLEGE.

Endowment \$500,000. Buildings \$100,000. Apparatus \$50,000.

17 INSTRUCTORS. 400 STUDENTS.

Farmers' sons and daughters received from Common Schools to full or partial course in Science and Industrial Arts.

Send for Catalogue to Manhattan, Kansas.

A PRIZE Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address TRUE & CO., Augusta, Maine.

ROCKFORD WATCHES

Are unequalled in EXACTING SERVICE.

Used by the Chief Mechanician of the U. S. Coast Survey; by the Admiral commanding in the U. S. Naval Observatory, for Astronomical work; and by Locomotive Engineers, Conductors and Railwaymen. They are recognized as the best for all uses in which close time and durability are requisites. Sold in principal cities and towns by the COM-PANY'S exclusive Agents (Leading Jewelers,) who give a Full Warranty.

THE BEST

THE KANSAS FARMER

Published Every Wednesday, by the
KANSAS FARMER CO.

H. C. DEMOTTE, President
R. R. BROWN, Treasurer and Business Manager
H. A. HEATH, General Business Agent
W. A. PEPPER, Editor

TERMS: CASH IN ADVANCE.

Single Subscriptions:
One copy, one year, \$1.50
One copy, six months, 1.00

Club Rates:
Five copies, one year, \$5.00
Eleven copies, one year, 10.00

A person may have a copy for himself one year free, by sending us four names besides his own, and five dollars; or, ten names, besides his own, and ten dollars.

ADVERTISING RATES
Made known on application. Orders from abroad for advertising must be accompanied by the cash.

KANSAS FARMER CO.,
Office, 273 Kansas Avenue, Topeka.

FARMERS AND STOCKMEN READ

This Very Liberal Offer!

There are a large number of farmers and stockmen, especially new settlers in Kansas and Nebraska, who need and want the KANSAS FARMER. They need it because it is their friend and instructor. To all such we will send the FARMER from June 1st, until January 1st, 1886, for 75 cents. Please send at once, so as to not to lose a single number.

Those who desire to examine a copy with the view of subscribing, give us your name and address on a postal card, and we will take pleasure in mailing it to you.

Our present subscribers will accommodate us very much if they will each furnish us a list of names and addresses of those who are not, but should be, readers of our valuable paper; and we will send them sample copies.

We call special attention to the club rates on our 8th page.

Address **KANSAS FARMER CO.,**
Topeka, Kansas.

The Hessian fly is doing damage in Michigan wheat fields.

The cotton worm is doing a great deal of damage in Texas.

The Secretary of the Treasury has determined to adopt a different kind of paper for notes of the banks and of the government.

The seventeen-year locusts have appeared in large numbers in Michigan, New Jersey and California. No damage is reported as caused by them.

Cholera is reported in several Provinces of Spain. A Madrid dispatch of the 11th inst. says cholera in Spain is spreading and the increase in the number of cases now daily reported is causing great alarm among the people.

The Methodist Episcopal conference of Southwestern Kansas at the last meeting appointed a committee to select a site for a college, and the committee have agreed upon Winfield.

General Grant's health remains very precarious. The effort to complete his books of memoirs, it is believed, has kept him alive this long. Now that he is done with that, the relaxation is feared.

The latest crop report sent out from the Agricultural Department at Washington estimates the total wheat crop of this country at 367,000,000 bushels, of which 207,000,000 is winter and 160,000,000 spring. The condition of winter wheat is lower than ever before in June, being now 62 against 70 in May.

Inconsistency of an Editor.

Our readers will see two letters in the correspondence department this week referring to the substance of a letter written by Mrs. Moore and published by the KANSAS FARMER two weeks ago. The same matter is referred to in the Poultry Department of the North Topeka Times, edited by Geo. H. Hughes. The Times copies the letter of Mrs. Moore in full and then the editor, Mr. Hughes, comments at length, commencing thus:

The above article taken from the KANSAS FARMER, June 3d, shows the inconsistency of an editor of allowing a imagined injured woman the use of the columns of his paper for such a purpose, before consulting and having both sides of the question.

The trouble with Mr. Hughes is, that he does not know nearly as much about editing a newspaper as he does about running a poultry show. Like some other people, he imagines that newspapers are published in the interest of advertisers and not for the readers and subscribers who pay for it. He will go to a newspaper office and ask space in the paper to say something to the readers in the way of an advertisement. He is willing to pay for the privilege of putting his advertisement in a paper sent out to people who pay for it because of its reading matter and not because of its advertisements, but he is not willing that the people who trade with him because of the advertisement he puts into their paper shall have the privilege of telling what they received from him and in precisely the same way that he told them what he had to sell, that is through the paper.

An advertiser who is not willing to face his own business in the same paper that he uses to advertise in, must have little faith in his own integrity and in the fairness of his business. At any rate, if what has been done in this case by the KANSAS FARMER "shows the inconsistency of an editor," the editor pleads guilty. Further, he would have it understood that so long as he controls the editorial columns of this paper, his readers will have at least an even chance with advertisers in talking about any business advertised in the paper.

To say, or to suppose that because a person advertises in a paper the editor thereby becomes his sponsor and friend, is to attract attention to a man's cupidity and ignorance. The advertiser is entitled to fair treatment, that is all. He engages so much space, pays for it, says in it what he wishes to; it goes out to the readers as the rest of the paper goes. The editor may call attention to it if he desires, or he may not. That is his business. He does not call attention to every article that he himself writes, nor to every other piece of reading matter. He calls attention to such things only as in his judgment ought to be so treated. He often sends out advertisements that come to him under previous contracts in such form as to make him feel that he is under obligations to publish them, but he is very glad there is no rule requiring him to call attention to them.

An advertiser places his matter before the readers of a paper, not at their request, but at his own, and if his business will not bear talking about by anybody but himself, he will not last long.

In this particular case, it would have been more decorous if Mrs. Moore had simply stated facts and omitted unfriendly personal allusions; but if our readers will remember other similar letters by other persons, they will remember, also, that the language was not more respectful than that used by Mrs. Moore. She believes she has been imposed upon by men who approached

her through the KANSAS FARMER, and she has a perfect right to say so in the same paper. If she is mistaken, it is a very easy matter to show it, and in doing that the advertiser gets out an additional advertisement.

An editor who praises and puffs an advertiser simply because he is an advertiser and without knowing anything about his reliability or character or reputation, had better quit the business and let an honest man take his place.

Railroad Assessment.

By courtesy of Hon. E. P. McCabe, State Auditor and Secretary of the Board of Railroad Assessors, we have a copy of the assessment of railroad property in this State for the year 1885. It shows considerable increase since the busy year 1882. "In 1883 the number of miles of main line and side tracks was 4,321, and the assessed valuation was \$27,590,214. In 1884 the total mileage was 4,486 miles, and the assessed value was \$28,455,907. The present year shows a mileage of 4,724 miles, valued at \$30,367,820. In two years, '83 and '84, when there was little railroad building anywhere, mileage in this State increased 403 miles, equal to one continuous line across the State from east to west, and the value of Kansas railroad property increased, in the same time, \$2,777,606. In the dull year of 1884, the increase of mileage was 238 miles, and the increase in value of railroad property was \$1,911,913."

There is one thing about railroad assessment which we do not understand, and which we do not remember to have ever seen or heard explained, that is, that it is lower according to real value, than the assessment of other property is. The average value of Kansas roads, including all property belonging to them is per mile from four thousand to eleven thousand dollars, the average for all the roads being \$7,263.30. That is not more than one-fourth of the real value of the roads, if they are worth anything at all. Lands and personal property are listed at 40 to 50 per cent of their actual value, and we do not see why railroad property should not be treated the same way. We understand that the assessors believe their valuation corresponds fairly with the valuation of other property; but it does not seem so to our mind. If a horse is worth a hundred dollars the assessor does not put him down at twenty-five, nor is that rule adopted in relation to any kind of property. Over in Missouri there is complaint on the same subject. The St. Louis papers show the figures of the railroad commissioners as to value of railroad property in the State to be so much higher than those of the assessors as to produce surprise, and the editors wonder, as we do, why the difference is so great, or why there should be any difference at all.

A Springfield (Ill.) special dispatch says a bulletin was issued by the State Board of Agriculture to-day, supplementing to the June crop report, which says in order to prove the accuracy of estimates of regular correspondents, inquiries were directed to the leading millers throughout the State. The subsequent reports confirm the former statements that the winter wheat yield will be the smallest in twenty-five years.

In some of the counties of Southwestern Virginia, the same where drouth prevailed last year, the people are on the verge of starvation. Corn is selling at two dollars a bushel. The growing wheat is hardly enough to talk about. The situation is distressing, and the suffering people must have immediate help or they will perish.

Kansas Schools.

There are a great many things in and about Kansas of which all of us are or ought to be proud, and among them may be mentioned as standing in the forefront are the schools of the State. Exercises at the close of the schools for the year have called attention to them again, and it is well to stop a moment and think what has been done and what is doing in and by our schools.

First in importance, of course, are the public schools. Quoting figures from the Capital, in 1862 there was not a dollar of State tax to distribute among the public schools, nor was there a single school house then belonging to the State. The enumeration of school children in that year showed 8,595, and teachers were paid \$16 to females per month and \$27 to males. That was twenty-three years ago. Now we have 6,344 school houses containing 7,818 rooms, and during the year 1884, there was an enrollment of 303,601 scholars, with an average attendance about six months in the year of 207,339. The number of teachers employed in Kansas public schools during the year 1884 was 8,221 of whom 4,915 were females whose average salary was \$33.85. Male teachers' wages averaged \$40.70. Money paid during the year for teachers' wages and the supervision of schools was \$1,682,734.62, and the total expenditures for the year on account of schools was \$2,882,963.58. The little school property owned in the 534 organized districts in 1862 was \$10,432. In 1884 the value of school property in the State was \$5,715,582. And besides this vast aggregation of common school property, we have a State University, a State Agricultural College, and a State Normal School, each occupying magnificent buildings that cost large sums of money. The attendance at the State University in 1884 was 521; at the Agricultural College, 395; at State Normal school 534.

But these do not show all our schools. There are some private institutions of great merit. Washburn college in Topeka is growing in usefulness and popular favor. It receives and educates both male and female, and the attendance is regularly increasing. Reports for 1884 show an attendance of 240 students.

The college of the Sisters of Bethany, for girls, also at Topeka, is growing stronger and more prosperous every year. Bethany is crowded, although additional room was provided last year.

Baker University, at Baldwin City, in Douglas county, had an attendance of 289; Highland University in Doniathan county, had 121 students; Atchison Institute, 66; Fort Scott Normal college, 191; Freedmen's Academy at Dunlap, Morris county, 175.

In addition to these there will soon be two new colleges in the State, one at Emporia, the other at Winfield. Kansas has reason to be and she is very much pleased with her schools.

The Seventeen-Year Locusts.

We are in receipt of a circular letter from the Commissioner of Agriculture at Washington, requesting information as to localities visited this year by the 17-year locusts, and particularly Phillips county. The object is to ascertain the time of appearance so as to trace the history of these peculiar visitations. The information may be forwarded direct, or it may go through this office. We hope the matter will not be neglected. A postal card announcing the appearance of the locusts in any part of the State will be received and valued here as a favor.

Several soldiers were killed last week by Apaches. Efforts are put forth to capture the savages, but up to date, success in that direction has not been encouraging.

A Chapter on Draining.

This subject must be considered by farmers in Kansas. As long as the lands are fresh and fertile and cheap, ten acres may be scarified and a crop raised that ought to grow on one acre. But when lands become more valuable, the principle of condensation or consolidation must be adopted, so that a farmer need not spread his work over a township in order to raise enough to eat. There is no use in working so much land. In thousands of cases men who own and till little farms of five to ten acres make more clear money and live better than do other men on ten or twenty times as much land. There are nearly one hundred and forty thousand of such little farms in this country to-day, and they pay enormous profits.

In order to raise large crops of paying produce, the soil must be put in good condition and that cannot be done without draining. It is a part of successful agriculture. Its object and effect is to prevent hardening and cracking of the soil by giving free and continuous ways of egress for all unnecessary moisture. Many of our Kansas farmers this year have seen the bad effects of too much water on and in the soil. A certain amount of moisture is necessary; so is a certain degree of dryness. One of the reasons why timber grows better along streams than on the high ground at a distance is, that it is drained by the river or creek channel. The reason why hard clay, or hardpan, remains hard and unproductive is partly because there is no under drainage to draw off water below the surface.

There are two kinds of drainage, one on the surface and one under the surface; they are therefore called surface drainage and under drainage. That on the surface may be made by drawing furrows with plows and making necessary ditches and drains to carry off surface water so that there shall be no little ponds or lakes in the way of cultivation. There are many cornfields in Kansas this year that were rendered useless some weeks, and some of them for the whole season by reason of standing water. Had those lands been well drained on the surface they would have been worth much more, and if they had been well underdrained there would have been very little trouble.

Rolling land is not as much affected by underdraining as is flat land; and where the subsoil is gravel and sand, underdraining is of little use, because the water readily sinks in the loose stratum below. All that is needed is a little open ditching on the surface, and that only in very wet seasons. The hard subsoils are those which most need draining. They are commonly either too wet or too dry for good plant growth, and they are always too hard for tender roots to penetrate. Underdraining regulates this. It draws the surplus water away and tends to loosen the ground. The only piece of underdraining on Kansas land that we have ever seen, was on a ridge, and a deep drain was cut out to a ravine. The water course was made of rock laid so as to make a continuous opening or drain. Above the drain, loose stones were placed and they were covered with hay, when the ditch was filled up. This was to drain a garden. The result was, that the owner had vegetables two or three weeks before any body else in that vicinity. The draining had the effect to loosen the subsoil and make it pervious. When rain fell the soil absorbed it, and it did not lie on the hard clay below, but went into that and passed on to the drain. A few hours after a rain, the soil was fit to work.

The object of this article is not to

instruct as to methods, but to call attention to the subject. We expect to say a good deal more on the subject as time passes, and methods will be considered. The State Horticultural Society discussed the subject at their recent meeting, which shows that our advanced thinkers in practice consider the subject important.

Change in British Government.

Mr. Gladstone, the British Secretary of State for foreign affairs, resigned his office last week, and with him all the other members of the cabinet tendered their resignations. The times are troublous in England now, because the people and government are passing through a change which few only understand. Mr. Gladstone is a clear headed man. He sees what is going on around him, and he is wise enough to understand that the forces which move the world of mind ahead are stronger than the local theories of obstinate monarchs. He understands that England and the British empire are on the highway to absolute freedom, and that forms must give way to substance. India, Canada, Australia, and all the other dependencies of Great Britain are so only in name. But there is a bond of sympathy among them for the mother country, and they are all suggesting the formation of a British confederacy of sovereign states. That is coming, and when it is here, it will be an empire of freemen, a kingdom of republics.

Monarchy in Britain is a mere form to-day. The Sovereign has no more power than the President of the United States. Gladstone sees the approaching change, and would prepare for it by a gradual process of adjustment. Others, however, do not see as much as he, and they are not willing to recognize what they do see. The conflict of forces compels a temporary retirement of the Gladstone ministry. But it will be only temporary. The same men may never again be clothed with office, but the spirit of the times will sweep aside all resistance to its irresistible power, and better men still than even Gladstone will appear as they are needed.

The Wool Market.

Prices remain steady. The market is not brisk, nor yet is it really dull. A good deal of wool is on the market, purchases are frequent, but buyers are still cautious. There is an upward tendency in woolen clothing and that indicates a return of better prices, at least a more active market for wool.

Walter Brown & Co., Boston, in their last circular say: "Manufacturers bought quite freely during the early months of the year and have now enough stock to carry them until there is a larger line of new wools on the market, hence they have little inducement to purchase at present except as they need some particular grade to fill their orders for goods. In woolen goods the situation looks much better than a year ago, larger orders have been taken and most of the mills are now running with a prospect of their goods going into consumption instead of accumulating in the hands of commission houses to be forced off later, at a sacrifice. These orders, however, have been taken at a low basis, and while they confirm the opinion that wools are not likely to be any lower than at present, it will be difficult to establish an advance in the raw material without checking sales.

"*Eastern Fleeces.*—During the past month the business in washed fleeces has not been satisfactory. Holders have shown some disposition to close out old wools before the new clip comes forward, but as the majority of the lots

on hand are not of the most desirable character, manufacturers have been slow to purchase. The present problem of much interest to those connected with the trade, is the probable value of the wools from Ohio, Michigan, etc. Experience for the past two years has developed the fact that in the Territories and Texas is found a strong competitor to eastern grown fleeces, and that with the exception of choice XX and above grades, from Southeastern Ohio and adjoining sections, the above mentioned competing wools can be used with equal satisfaction by those who understand them. It is very evident therefore that wools from the fleece washed districts will have to meet the situation, and in the absence of any general advance, will have to be sold on a lower basis than last year.

"*Kansas and Territory Wools.*—As yet, none of these wools have arrived, except a few clips of early shorn wool. The cold and wet weather of the past few weeks has materially retarded shearing, particularly in Kansas, and the clip will be about three weeks late in coming forward. As far as we learn however, the condition of Kansas wools promises a great improvement over that of last year, and this proving the case, the wools will undoubtedly be more eagerly sought after by manufacturers when they reach the eastern markets.

KANSAS AND NEBRASKA.

	Light.	Ordinary.
Fine.....	14a17	14a17
Fine Medium.....	15a17	15a17
Medium.....	16a18	16a18
Coarse.....	16a17	14a15
Low and Carpet.....	13a14	12a13

Hagey & Wilhelm, St. Louis, report sales of Kansas wool, 23 sacks at 17c; tub washed, one lot 20 sacks at 27c, 14 small lots at 26 to 27c.

Messrs. Lucas & Wynn, Chicago, send us prices in that city on the 13th inst.—Kansas and Nebraska—Fine, 15 to 18; Medium, 18 to 20; Coarse, 14 to 16; Carpet, 12 to 13.

Inquiries Answered.

GRAPEVINES.—The best time for layering grapevines is in July. In next week's FARMER we will describe the method of doing the work. In the meantime, keep the ground clean.

Will you please publish for my benefit as well as many others, if the timber culture law is going out of effect, and if so when does it take effect; also the preemption act. I have been told they both go out of effect on July 1st.

—Our understanding of the situation is, that the bill proposing to repeal the laws you refer to did not reach a vote, and that therefore they are not repealed. At any rate, nothing was done, or could be lawfully done, to impair or jeopardize any rights already vested under the laws while in force. If our correspondent will address a letter of inquiry to the register of the land office at Garden City, Kas., he will obtain reliable information. Inclose this query and reply, or refer to it in your letter.

I have some pigs that have a disease that is entirely different from anything I ever saw. They first appear to be stiff all over, and when they move they have to jump, and in about three days they get so bad they can't stand on their feet, and become weak in the back and drag themselves as though their kidneys were affected. The pigs are from two to three months old, and in good growing condition when taken. Please tell me through your paper what it is and how to cure it.

—The pigs, we suppose took cold from exposure, from which an affection of the kidneys resulted. If they are on good grass they will probably come through all right. A little oats, rye and flax seed fed to them every day would be good, and the feed ought to be ground or crushed, or soaked. If you have nothing but corn to feed them, soak it twenty-four hours before feeding, for a few weeks at any rate.

Lightning struck Washington Monument at Washington three times during a storm one day, and slightly damaged the cap. It is to be repaired.

There is some disposition manifested to censure the late Commissioner of Agriculture, Dr. Geo. B. Loring, and to intimate that he was careless to the verge of dishonesty. It is very well to be watchful and economical and careful of the public funds, and it is also well for new and inexperienced men to go low in attempts to expose as rascality what may, on further examination, appear to have been good management. Col. Colman may be as good and as competent as he himself estimates, yet his character and reputation will suffer none by holding off in the work of aspersions at least until he has something to present more than what shows an earnestness and zeal on the part of his predecessor that it will be well for him to imitate without making any noise about it. Doubtless the machinery and work of the office may be improved, for Dr. Loring greatly improved both, and if Col. Colman will devote his time to that he will find less occasion to bring himself into prominence by casting reflections upon Dr. Loring.

THE MARKETS.

By Telegraph, June 15, 1885.

STOCK MARKETS.

New York.

BEEVES—Receipts 54 car loads. Market fairly active. Native steers sold at 5 30a6 30 4 car-loads of Texas steers 5 10, and fat bulls at 4 00a4 75.

Chicago.

The Drovers' Journal reports: CATTLE—Receipts 7 800 shipments 2,500. Market active, natives 5c higher. Shipping steers 1 90a5 65, stockers and feeders 3 60a5 00, cows bulls and mixed 2 40a4 30, 100 cars through Texas cattle on sale, corn fed 4 00a4 80, grassers 3 30a4 30. HOGS—Receipts 30,000, shipments 4,000. Market slow and prices 5c lower but closing firmer. Rough and mixed 3 75a4 05, packing and shipping 4 05 4 10, light weaners 3 90a4 20, skips 3 25a3 61. SHEEP—Receipts 1,000, shipments none. Market steady. Natives 2 40a4 50, Western 3 00a4 00, Texas 2 50a3 50, lambs per head 2 50a4 00. The Drovers' Journal special Liverpool cable quotes the supply 1-1/2c, the American cattle 1/2c lower; best grade, 1 3/4c dressed.

St. Louis.

The Midland Journal reports: CATTLE—Receipts 1,500 shipments 600. Market steady, with a good local and shipping demand. Fair to choice native steers 4 80a5 65, butchers' steers 4 00a4 75, mixed butchers' stock 3 00a3 25, stockers and feeders 3 50a4 65, grass Texans 3 00a3 80, wintered Texans 3 50a4 50. HOGS—Receipts 5,100, shipments 7,100. Market stronger and active. Yorkers 4 00a4 15, packing 3 50a3 90, butchers' 4 00a4 20. SHEEP—Receipts 1,400 shipments 250. Good grades scarce and wanted but common stuff dull. Good to choice native muttons 3 25a4 00, common to medium 2 50a3 00, Texans 1 70a3 25, spring lambs 1 50a2 50 per head.

Kansas City.

CATTLE—Receipts 1,093. Exporters 5 15a5 30, common to medium 4 60a4 85, stockers and feeders 4 25a4 75. HOG—Receipts 6 141. Assorted 3 70a3 75 mixed 3 50a3 65. SHEEP—Receipts 174. Market steady. Fair to good muttons 2 60a3 00, common to medium 2 00a2 50.

PRODUCE MARKETS.

New York.

WHEAT—Ungraded red, June 98 1/2a99 1/2c, July 10 1/2a10 3/4c. CORN—Ungraded 54a56 1/2c.

St. Louis.

WHEAT—No. 2 red, cash 1 10. CORN—No. 2 mixed, cash 32a33c. OATS—Nominal. RYE—Cash 62 1/2c.

Chicago.

WHEAT—The wheat market is very nervous to day, fluctuating rapidly within a narrow range with prices closing for the day somewhat better than Saturday. June 80 1/2a81 1/2c. CORN—Cash 47 1/2a47 3/4c. OATS—Cash 32 1/2c. RYE—Cash 64c. FLAXSEED—Cash 1 33c.

Kansas City.

Price Current reports: WHEAT Daily elevator receipts 5,698 bus, withdrawals 5,237 bus, in store 652,286 bus. Wheat was some at rattled to day. June No. 2 red was offered 1 1/2c lower than Saturday without selling. July sold at 80 1/2a80 3/4c against 81 1/2a81 3/4c Saturday. CORN Daily elevator receipts 498 bus, withdrawals 2,131 bus, in store 125,800 bus. The market to-day was about as dull as it could be. No. 2 corn was an irely nominal with bids running lower, but the market not tested. White corn was lower and quiet. June sold at 44c against 45 1/4c Saturday. RYE—No sales. OATS—No. 2 cash, 28c bid no offerings; June, 1 car at 30c. BUTTER—The supply of all kinds is light and a firmer feeling is noticeable. Creameries are better sale owing to the sour condition of the cheaper stocks. Dairies are in good request and in short everything fit for table use is steady and in good demand. We quote packed: Creamery, choice..... 15a16 Creamery, fair to good..... 11a13 Creamery, held stock..... 8a 9 Choice farm dairy..... 13a14 Fair to good dairy..... 8a 9 Storepacked, grocers sections..... 7a 8 EGGS Receipts moderate and market steady at 9c for candled. Shippers should now candle their eggs before shipment and save expense on bad eggs. CHEESE—We quote Kansas and Missouri consignments part skims at 4a5c per lb.

Horticulture.

Horticultural Notes.

If there are too many bunches of grapes on young vines, remove some of them.

Remember that any growing stalk, limb or vine may be checked temporarily by removing the terminal bud.

If the young trees are growing too fast and their heads becoming too heavy, pinch off the ends of the leading branches.

Paper bags drawn over grape clusters before insects have begun their work, are a certain preventive against their depredations.

It is better that the main branches of a tree do not all start out from the same place on the trunk, but they ought not to be far apart.

Those of the grape vines which are to be used for layering ought to be allowed to run on the ground so that all the laterals will grow in one direction and that upward.

The best time to shape the head of a tree is when it is young. Removing buds and branches may be done then more easily and at less risk than after the tree becomes older.

The ripening of fruit is a vital process, and for its successful operation, and to attain the best results, it needs and ought to have the benefit of all the active forces of the plant.

Whenever you have a minute or two to spare, go among the trees; look at them, study them, learn what is needed to train them as to shape, and when you see a bug or caterpillar, go for it.

If the grape vines are growing too fast and running too much to cane, pinch off the ends of the runners. That will tend to shorten them up comparatively and it will force out lateral shoots.

It is bad policy to pull off leaves when the plant is growing. It may be necessary to remove a limb or a part of one, but do not disturb leaves on the remaining parts, unless it be necessary in order to destroy insects.

Small fruit of every kind needs clean and careful cultivation now. Keep down the weeds, and whenever a sprout appears cut it away unless it be one that may be needed to replace a damaged cane, or to set in other ground.

Light and direct rays of the sun are not the same. Shading green houses in very warm weather has been found favorable to high coloring. The general opinion has been that the sun's rays are necessary for coloring leaves, flowers and fruit.

Every time you are near a plum tree, during the growing season, give it a few sudden, quick shakings, as if it were struck with a maul. It is a good thing to treat all young trees the same way occasionally to loosen worms and cause them to fall.

The rays of the sun need not shine directly on fruit in order to obtain best results either in substance, flavor or color. This has been demonstrated many times in hot houses and conservatories where the most luscious fruits and most beautiful flowers are grown in the shade.

The old method of removing grape leaves in order to let the sun in to ripen the fruit, was an unnatural proceeding. It was supposed that ripening was a chemical process for whose successful operation the rays of the sun were necessary. But the leaves would not be there if they were not needed; they would drop at the proper time if that was the natural thing to be done.

Mulching---Summer and Winter.

In speaking of mulching, the Germantown Telegraph says:

"It is practiced in both summer and winter, but with different objects in view. In summer the grand design of mulching is to prevent the too rapid evaporation of moisture and the protection of the roots of whatever is mulched from the excessive heat of the sun. Wherever there is an accumulation of decaying vegetable matter there is a store of moisture after each fall of rain, which is retained much longer than is the case with moisture in the average soil. The observation of this fact in the case of forests, where there is a constant mulch of leaves, gave rise to the practice of mulching about newly set trees and the mulching of growing crops where a supply of moisture is desirable.

"In all cases of setting trees, shrubs, or tender plants in the ordinary soils it is desirable to give a good mulching, and if this can be done when the soil is filled with moisture, decaying chips, old hay, straw, or cornstalks can be used.

"Regarding mulching in winter, it is not to protect the roots from the frost, but to maintain an even temperature if possible after the ground is frozen. No injury comes to the roots of perennial plants from being incased in frozen earth; it is from repeated thawings and freezings that the roots become torn and thereby injured, and to prevent this is the design of mulching. It may be said that this may be accomplished by mulching so as to prevent any freezing. This is true, but the trouble is that in accomplishing that result the conditions are favorable to the development of fruit-buds at any time when there is unusual warmth, even in winter, whereby by subsequent freezing fruit-buds are destroyed.

"It is to accomplish protection in this, the most important direction, that mulching in winter should be performed only after the ground becomes thoroughly frozen. And this is especially desirable in case of fruit trees that are inclined to be tender and of quick development of fruit-buds, such as the peach. Saw-dust affords an excellent mulch, and if placed about the trees in good quantities will cause the retention of frost in the soil until there is settled weather and no danger from late spring frosts. By pursuing this course a fine crop of fruit may be saved from entire destruction, because the frozen earth about the roots prevents any flow of sap and any unnatural or premature development of buds."

An Unproductive Orchard.

The members of the Elmira, N. Y., Farmers' Club considered the question of unproductive orchards at a late meeting. Mr. W. W. Hare, of Groton, N. Y., advised the following course for the benefit of Mr. G. W. Hoffman, who contemplates cutting down his unfruitful orchard:

"Seeing that Mr. Hoffman was inclined to cut down his apple orchard because it made wood rather than fruit, I thought my experience might be of some benefit to him. If he will, next spring when his orchard is in bloom, (or when it should be in bloom), girdle all his trees by making one cut clear through the bark, once around each tree with a common hand saw, I think he will be amply repaid by a full crop of apples, either the next fall or the year after, unless prevented by frost. This course will not injure the trees, but will check the growth so that the tree will perfect the fruit buds for the next year. I tried this plan with success many times and it has never failed. The operation may need to be repeated, if the soil is very rich and the trees thrifty, every two or three years until a fruitful habit is formed. An apple tree to fruit well should not make more than four inches of new wood in one year. When a full growth of apples is produced little or no wood will be made. If his trees make a growth of new wood of more than four inches in a year, the operation should be repeated. By this process the growth of the tree will be reduced to the fruit standard, and all the roots will remain in a healthy condition to perfect any crop of fruit set. This is one advantage over root pruning, and another is that it can be done more easily. Both methods accomplish the same thing, to-wit: reduce the growth of the tree to the fruit standard. The soil where Mr. Hoffman's orchard stands is, undoubtedly, made of bottom land, (so called), full of

vegetable matter which causes a large growth of wood, and he, seeing that the orchard was unfruitful, has applied manure, seeking to make it fruitful, but really increased the evil rather than diminishing it. I would recommend that if anything be applied to the soil that it be straw only, spreading on the ground after a heavy fall of snow, for the purpose of keeping trees back in the spring, out of the way of frosts. The character of the soil has much to do with the fruitfulness of trees and their ability to stand the elements.

"I have known peach trees standing in a valley to bear well, being set on the north side of some building and considerable clay and stone mixed with the soil at the time of planting (producing slow growth), while others planted on the south side of buildings in natural soil were frozen back every year and produced no fruit. I should hesitate a long time, trying all the different methods, before I would conclude to cut down a thrifty, growing orchard because it did not fruit."

How to Treat Spring Bulbs.

The tulips, hyacinths, crocuses, and other spring bulbs, after flowering, should, if possible, be permitted to finish their growth in the beds, so that the bulbs below may fully mature. In our parks, after they have done flowering, as the beds are pretty soon wanted for filling with the regular summer bedding plants, and they cannot be permitted to remain to finish their growth, they are carefully lifted, with all the roots possible, and laid in a sheltered position. By July, when all the tops have completely died down, they are taken up, divided, cleaned and put away in bags until autumn, when they are again planted. Where not in the way, they may be permitted to remain in the beds for two or three years, after which it is always best to take up and replant. In case of leaving them in the ground, their position must be indicated by a stake, or otherwise, that they may not be lost sight of and dug up.

Diseases of the Plum.

Of all enemies the curculio is perhaps the greatest, and among the diseases the black knot is well known. There is also a tendency of all wild ones to rot on the trees when brought into cultivation. Probably no good plum will be found to be curculio proof. Nature beats them with numbers of trees and quantities of fruit. This may be a hint to us; but the journals have thoroughly discussed this part of the subject, and have attempted to point out remedies. The black knot when it attacks is very destructive. A writer in one of the prominent New England journals claims that it is occasioned by poverty of soil and poor cultivation. This is a mistake, as natural groves of thrifty wild ones are frequently entirely killed by it. The only safety lies in carefully cutting out and burning every appearance of it, by which means it can be prevented from doing any harm. In regard to rotting on the tree, it is found that some varieties are much more liable than others, but close pruning of the tree and thinning of the fruit are the most effectual remedies. As an offset to these difficulties in growing the trees, its advantages are that it is tenacious of life, and adapted to all our soils, whether on the stiff clays of the high lands or on the light sands of the river bottoms; it withstands our hardest winters, being perfectly hardy and is as prolific as any tree that bears fruit. It is also easily propagated, either by budding, any manner of grafting, growing from pieces of the root, or planting the seed.

Use Mica Axle Grease, the best made.

The Norway spruce, planted two feet apart, will speedily form a perfect and beautiful hedge for a farm, with one clipping yearly.

We improve the qualities of corn in the same manner that the stock-breeder improves his herd--by selecting the best and propagating from the best.

Nervous Debilitated Men

You are allowed a free trial of thirty days of the use of Dr. Dye's Celebrated Voltaic Belt with Electric Suspensory Appliances, for the speedy relief and permanent cure of Nervous Debility, loss of Vitality and Manhood, and all kindred troubles. Also, for many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk is incurred. Illustrated pamphlet, with full information, terms, etc., mailed free by addressing Voltaic Belt Co., Marshall, Mich.

In the Dairy.

Raising and Training of Milch Cows.

The Rural and Stockman has repeatedly and correctly said that all the improved or fixed character breeds of cattle are good, and this of course must necessarily be the case as to the peculiar local conditions prevailing where such breeds of cattle are originally established, the pairing and selection of cattle having the qualities it is desired to combine and perpetuate. Further selections of the inferior animals also being resorted to, in order to weed them out, and in this way raise the average quality and value of cattle remaining after the weeding process has been performed. But we need not further allude to the fact that herds of thoroughbreds are only maintained at a high average excellence of quality and value by the exercise of sound judgment in pairing, and great care in drafting out the weeds, or animals that are too inferior to be used to perpetuate their kind with advantage to either the breeder, his patrons, or to the surrounding community. Such a breed is good in its originating conditions, because these conditions have controlled its quality and form of development, during the formation of character based upon quality. Any of the best breeds of cattle are better adapted to, and more profitable in their native locality than elsewhere, because by conforming to its peculiar conditions the breed becomes better adapted to the place of their origin and its belongings, than any breed developed and established in distinctly different conditions. The differences in the characteristics of different distinct breeds of cattle, indicate only a difference in the conditions they have been developed in as well as in the peculiar traits of the breeds itself.

Giving breeders of cattle full credit for the judgment they exercise in pairing, and the discretion and care they exhibit in feeding, it still remains true that surrounding conditions have more influence on the constitutional or established qualities of cattle than either pairing or the general style of feeding. Special kinds of feed, and methods of feeding, and practical training have a powerful controlling influence on the character and capacity of milch cows, particularly, much more so, probably, with cows trained to carry and yield milk, than any other cattle, not excepting working oxen. To illustrate: In a young cow of kindly disposition a given quantity of blood is made from a given quantity or ration of feed by a certain degree of digestive power. Strong digestive power produces a given quantity of blood from a certain ration or quantity of feed, and no more blood can be made from the amount of material digested from such a quantity and quality of feed, because it is digested close, and all the nutritive matters are dissolved out of the feed taken. Part of the blood formed from this feed is demanded by the udder glands to form milk, in cows kept for their milk, and a certain portion of the blood is devoted to nourishing the body of the cow. If the cow be a large yielder of milk, the proportions of blood made by digesting its elements from her feed will be small; the quantity of blood demanded to make milk in the udder being still in proportion to the quantity of their lacteal secretion contained in the udder and yielded at the pail.

The amount of milk yielded by any cow, whether a light or heavy milker, is according to the amount of blood conveyed to the udder glands by the mammary arteries. All the milk carried in the bag in a twelve hour storage quantity or yield is necessarily stored in the arteries that are contained in the hind quarter of the cow previous to passing into the milk glands that form the milk from such stored quantity of blood.

The full expanded size of the cow's udder represents not only the bulk or quantity of milk a cow yields, but also the extent of space required and actually occupied by the accumulated supply of blood stored in the supply arteries of the udder, all of which accumulates and occupies space within the limits of the hind quarters, previous to flowing to the milk glands of the udder in the large yielding cows. The udder is expanded by milk pressure till large enough to contain a twelve hours' milk yield; and the hind quarters of full or large-yielding cows are enlarged to the size that will contain a twelve-hours' yield. And as yield increases from heifer age up to the full growth of cows, the extent of space occupied within the

limits of the hind-quarters by the quantity of blood from which the large yield of milk is obtained, is much greater in extent, this being necessary to afford space for the venous blood that does not flow into the udder, than the extent of udder space actually filled by the twelve hours' yield of milk with the bulk of the milk glands added.

It is the necessity for space in the vicinity of the udders of large yielding cows, to contain the double extent of blood supply, that is required by cows of any given yield, that leads to their unusually large hind quarter growth in nearly all cows that yield a full or large quantity of milk; the size, or width and depth of the hind quarters corresponding in extent to the size of the udder and the milk yield of the cow. Most all large milkers are much thinner in flesh than small yielding cows, as large yielders respond according to feed and handling or training. Cows that are sloped yield a greater bulk of milk than those that get their feed and water separately rather than together, as it exists in sloped-feed, the reason of which is understood by practical dairymen. The reason then why the hind quarters are large and the fore quarters small in large yielding cows is this: Only a limited and corresponding quantity of blood can be formed by the best digestive capacity from a certain quantity of food that fills a stomach, corresponding in its interior space to the size of a cow's. If, naturally, half the blood made goes to the fore and half to the hind quarters' growth, then the cow is neither wedge-shaped nor a large yielder. But if three-fifths of the blood flows to the hind quarters, most of it on its way to the udder, and only two-fifths flows into the fore-quarters' blood vessels, in this latter case the cow is generally wedge-form, the neck, horns, head, etc., as well as fore quarters, being small according to the reduced supply of blood nutriment that reduces the size of other parts of the fore quarter growth, as well as that of the terminal parts, even the muzzle becoming fine with the other frontal growths, from a reduced blood supply in the entire fore quarter growth and out-growing appendages. So much, for this occasion, completes the explanation of large hind quarter development and fore quarters in a largely preponderating number of cows, supplying large yield of milk at the pail.—J. W. Clarke, in *Western Rural*.

Cheap Creamery.

Mr. Geo. Libby writing to the *Western Farmer*, gives some particulars as to his creamery as follows:

"As I have heard and read a great deal about what it will cost to put up a creamery, I will give you a little experience on the subject. I have put up a building 16x24, and 10 feet high to the eaves. It is clapboarded with inch clapboards on outside, and sealed up on the inside and overhead with common ceiling. On one end I have a lean-to eight feet wide; in the lean-to I have a two-horse power engine and boiler. In the upright I have one Curtis 300-gallon churn and two 30-gallon Boss churns, one Mason butter-worker, one 200-gallon cream vat, one pair 240 pound scales. I have a good well of water that is about 48 degrees.

"I am located on a rise of land sloping from my creamery, giving a good drainage, and, as the subsoil is just gravelly enough to make a good drainage, I dug a hole 14x15 and six feet deep, and boarded it up with cheap lumber, putting a building the same size on top of it by first setting up studs of 2x4 scantling six feet high, and boarding it around the outside with common dimension boards, clapboard fashion, and putting a roof of the same material on it.

"In that I stored forty large loads of ice. It kept until October, and would have kept until this time, but I used it up to raise cream or cool my milk with and to cool cream. I have made about 3,000 pounds of butter this last summer, and could have made more if I had obtained the cream. Now, as to the cost: I suppose anybody can figure up what the building I have described would cost.

My engine and boiler cost.....	\$200 00
My two Boss churns cost.....	50 00
Curtis churns (second hand).....	35 00
Butter-worker.....	50 00
240 pound scales.....	6 00
Belting, pulleys, shafting.....	50 00
200 gallon cream-vat.....	85 00
Total.....	\$426 00

"For handling cans, I think the Hawkeye can, of about 16 gallons, is the best. They will hold enough cream to

make about thirteen pounds of butter, and cost \$2.50 each.

"For cans to set milk in, for the farmer's use, get the best tinner that is handy by, and have him send and get the pressed bottoms and glass gauges for an 8½ or 8¼ inch can; make it about 20 inches deep, with a common tin cover and good pail bail on it for a handle. They will cost from 65 to 85 cents, according to the tin you use and the man you have to deal with.

"And when you get your creamery in running order, if you have got a wife handy, who has been in the habit of making first-class butter in the old way, don't go and count her out for a boy that has been around a creamery for a few months, but take her in and let her show you how to make the butter, and you will hit it every time.

The Poultry Yard.

Colds and Roup in Fowls.

Stephen Beale, an English poultry dealer, says, in the *Country Gentleman*, that "roup is the worst enemy which British poultry keepers have to contend with, though gapes and diphtheria make good running for the leading position. We have, therefore, special opportunities for studying this disease, and there are few who have not had it at one time or another in their yard. It is very insidious in its nature, and does not depend upon any one special condition for its development.

"Roup generally begins with a cold. Generally the first symptom is a running or obstruction at the nostrils, but this is not always easy to see, especially where there is a large number of birds. Thus the necessity for a sharp lookout being kept. Very often fowls with just a slight cold show no other symptom, for the general health of the subject is not affected. Of course, this makes it all the more necessary that there should be a careful watch kept, especially at those seasons of the year when the changes in temperature are so many and so varied. When the disease is roup a different state of affairs exists. Then the whole system is influenced, and in addition to the obstruction or running at the nostrils, there is puffing up of the eyes or swelling of the face, and the bird hangs moping about, showing clearly that it is all "out of sorts." But, as we have already said, these indications are not to be found with a common cold, though under certain conditions they may ensue if the cold is neglected. When a bird is seen to have a running at the nostrils, it should be examined at once, and if the breath is not offensive, then the affection may be regarded as merely a cold, for with roup the breath is always tainted. In either case, the bird should be isolated at once, for even colds, especially of the influenza type, that is when the discharge is excessive, the eyes constantly watering and the bird sneezing, are very infectious, and the other birds will soon get the same complaint if the affected one is left near them.

"The bird so separated should be put into a warm, draftless place. It may have first a dose of castor oil, and be fed for a day or two on bread soaked in warm ale. The face, eyes and mouth should be washed two or three times a day with vinegar and water, or, what is better, with a weak solution of chlorinated soda, which any chemist can supply. In this country there are many roup pills sold, and I believe there are others in America. Of course, the best are Walton's and Guest's; or homoeopathic remedies may be tried, and with these I have been most successful in treating poultry. *Arsenicum* and *Aconitum napellus* would be the right medicines to use, either separately or in alternation, according to the special symptoms of the disease—the arsenicum

when the discharge from the nostrils is copious and excoriating, and the acornite when the body appears in a high state of fever, or when there is a stoppage of the nostrils, with a constant effort of the patient to get rid of the obstruction by sneezing. The best way to administer the medicine is to use a ball syringe, and having filled this with the medicine (one drop of the No. 3 tincture to a dessertspoonful of water), put about a teaspoonful down the throat of the bird, holding up the head until the act of swallowing is over. I have given it with a spoon, but it is difficult and uncertain.

"As already mentioned, roup is indicated by the offensive breath, and by the swelling of the face, as well as the discharge from the nostrils. It is really two diseases in one. There is some internal complaint, generally scrofula—the result of bad feeding, bad housing, or bad ventilation—and the cold. It is this complication that makes the complaint so difficult to battle with, for unless both complaints are treated, there is very little prospect of successfully dealing with roup. Here, too, perfect isolation must be the first step. Roup is very contagious, and the discharge from the nostrils mixing with the water or the food, as it will certainly do when all are feeding and drinking together, is quite sufficient to communicate the disease all round. The bird may be treated as already prescribed for cold, but it will also be necessary to get the scrofula out of the blood. For this purpose there is nothing better than powdered charcoal, which can either be made with butter into finger pieces or be mixed with the soft food. No one with roup in his yard should, however, rest content with this treatment. The disease may be taken as a sign that there is something generally wrong with the whole of the birds, and though it may not declare itself, the powdered charcoal had better be mixed with all the soft food two or three times a week. Attention should at once be paid to such matters as ventilation, cleanliness and diet, to see whether there is no contributory cause. A general whitewashing of the houses, renewing or digging over the house floors and runs, if they be earth or sand, is also advisable.

"Returning to the roup bird, if it has to be saved, confessedly in most cases a very difficult matter, more must be done. The face, eyes, nostrils, mouth and throat should be washed twice a day with strong vinegar and water, or what is infinitely better, the solution of chlorinated soda. Where the nostrils and eyes are closed, this is not enough, and the bird will soon die of suffocation, as the mucus clogs up the passages completely. In this case I have obtained what is known as a toothache pencil, which is a fine glass tube, at one end bent, and a small ball syringe at the other end.

"This is charged with the solution of chlorinated soda. The bent arm is inserted in the slit, which will be found in the roof of every fowl's mouth, and when there the ball is squeezed, forcing the solution through the nostrils and under the eye lids. The effect is that the passages are cleared, as the solution eats the mucus without injuring any of the organs of the fowl. I have sometimes saved birds in this way, which must have died but for it. When necessary the process should be repeated, but after cleaning, except in very bad cases, this will not be necessary for some hours. And if proper attention is paid, there will be very few instances where such extreme measures are necessary.

"In conclusion, I must just give a word of advice as to the returning of cured birds to the poultry yard. This should not be done until every trace of the disease is gone, and then a fine, warm day should be selected as the occasion—a relapse is nearly always worse than the first attack, and a too early exposure is sufficient to induce such a relapse."

The Breeding of Plymouth Rocks.

In endeavoring to apply scientific principles to the breeding of any variety of domestic fowls, great care is necessary in order that one may neither overestimate nor underestimate the value of the facts which one discovers.

One catching the idea that, especially for the small breeder, the most is to be accomplished by the accurate observation and analysis of facts, must not let the idea run away with him so that he becomes unable to appreciate the work

and the success of those who breed in a different way.

So much by way of preface, that in what I have to say, I may not seem to criticise those who follow a different method from my own.

In the feeding of the Plymouth Rock all the success that I have had, has been the result of exceedingly great care in attending to the minutiae of the work; and my prior experience has convinced me that in this way alone, can one, who does not raise an exceedingly large number of birds, succeed in securing many that are fit for exhibition.

My practice now (and for a number of years past) is to select and set the eggs of particular hens,—one hen's eggs in one setting, another's in another. When the chicks are hatched, I punch the web of their feet in such a way as enables me to tell their exact pedigree. Some may question the possibility of selecting the eggs of a particular hen from a large number.

This is the best way to do it. Put the hen, whose eggs you want, by herself, when you think she is laying. Do this several times until you get three or four of her eggs. By comparison of these, you will probably find that no two are exactly alike, either in color, size or shape, and yet by examining them closely, you will find something about them that is constant.

As I write, I have three eggs from one of my best pullets on the table before me; no two are just alike, either in color, shape or size, but in all three there is a peculiar purple spot that I have not seen on the egg of any other hen, in that particular pen, this season. Dating eggs is very helpful in deciding in doubtful cases. These eggs of mine are dated April 12, 14 and 15. If I should find two of the same date, I should know that I had made a mistake, and, unless I could see it, should throw both out.

I am told that in the case of Leghorns, which lay a pure white egg, it is quite difficult to select those of a particular hen; yet I believe that if I had an extra fine, high scoring hen, I should manage it in some way.

Now for the results of this method; I set last year from one pen, enough eggs so that I had about seventy chickens; thirty-five of them were pullets. From these thirty-five I selected the ten best to form a breeding pen. I then examined their feet, and noticed the way they were marked. The whole ten were from my two best hens. Such results convince me that unless a breeder can set all the eggs from his best pens he will be most successful if, by the exercise of a little care, he succeeds in discovering and setting the eggs laid by his very best birds.

The common saying that "like begets like," is true to a greater extent than some imagine. Not only within the species, as some affirm, is this so, but the whole breeder's art, in the selection of birds, shows that he believes what is true, that the best are much more likely to produce the best than are those of poorer quality.

Let one, who breeds few birds, follow for several years the practice of selecting eggs and marking chicks, so that he can trace his birds through a fine pedigree, not only on the male, but also on the female side, and he will find his breeding a much greater success than before, both as regards the production of a larger proportion of exhibition birds, and an increase of the general excellence of his stock.

For those who would like to, but cannot devote the time necessary to the following of the method which has been pointed out, I think I can make a suggestion that will be found of value.

It was long ago noticed by scientists that there was some connection between the color of the plumage in Cochins and that of the shell of the egg. Knowing this fact, I have been led to observe the matter in respect to Plymouth Rocks.

In general, the result is, my best hens lay a rather light egg. I have no fine hen that lays what may be called a dark egg. Talking with other breeders who, like myself, select eggs, I find that their experience corresponds with my own; and in cases where I have seen very dark eggs set, the chicks, especially the pullets, have been largely of the dark-brown, smutty cast, so detested by every good breeder.

For one then, who has no opportunity for exact selection of eggs, the nearest approach to it in the breeding of the Plymouth Rock, is to select the lighter shells; or perhaps a better way to put it would be, do not set very dark eggs if you want fine feathers.—George C. Capron, in *Poultry Monthly*.

Taking Care of the Hay.

Every year, says a writer in *Farmers' Review*, a great deal of hay in the aggregate is either greatly damaged or utterly ruined by soaking rains between cutting and housing, which might have been saved if it had been properly put up in cocks and protected by hay caps well fastened down. This is especially true of clover, one of our most valuable forage crops. It must be cut green and cured in the cock to give its full excellence unless housed under the partial silo system in tight barns, from which the air is excluded as far as possible, when it can be put in the mow quite green and come out in fine condition. But a cock of clover hay if exposed to rain without protection will wet through from top to bottom. If rainy weather lasts a day or two it is spoiled in the cock. If clear weather sets in it must be opened out and thoroughly dried before housing, and with such handling and drying as is absolutely necessary, it loses under the best conditions fully half its value, and when housed will be but little more than a mass of naked stems, from which all the leaves have fallen in the handling which it has been subjected to. Properly capped a cock of clover hay well put up will only be wet a little on the bottom half, even if exposed to a heavy rain storm.

It is a mistake to suppose that hay caps need to be coated with paint or linseed oil to make them shed rain. Good heavy brown sheeting drawn tightly over a cock and fastened down at the corners will permit but little water to pass through it. If, however, it is desired to render it *water-proof*, this is easily and cheaply effected by immersing it for a few hours in an alum solution, wringing it out and hanging to dry in the shade, and then immersing in a solution of castile soap, and wringing and drying in the same manner. Good, strong, brown muslin one and one-half yards wide, torn in squares, makes a good and cheap hay cap. They will cost 16 to 20 cents each, according to quality. The making up may be a very simple affair. The edges, if desired, can be quickly hemmed on the sewing machine, a knot tied in each corner, with a strong cord tied one end around the knot, and with a loop in the other end through which to thrust the sticks for holding it in place, completes the making. The knots will prevent raveling, and there is no strain on the edges to tear them. Aside from liability to danger in the cock, there is always the danger of injury from an unfinished stack being caught in a rain without protection. To afford this stack covers are needed. These need not of necessity be very expensive. The heaviest brown muslin, treated to the alum and castile soap bath, will prove very effective, but as considerable strain is liable to come on so large a cover from the wind, a heavier article like heavy twilled cotton goods would be better. In making it the seams should be lapped and double-sewed, and a cord should be bound all around the edge, with loops every few feet for fastening. It will not only protect unfinished stacks of hay or grain while stacking, but serve equally as good a purpose in protecting an open stack in threshing time in case of rain. Spread under the threshing machine it will save all the scattered grain, and will serve many useful purposes on the farm, lasting with care many years. If one cannot conveniently make up the caps and covers they can be bought ready made as will be seen by reference to our advertising columns. In this connection there is a caution to be given to those who have oil saturated hay caps. If thrown in a pile they are very liable to generate spontaneous combustion, and on this account are dangerous material to have on the premises.

THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1886, section 1, when the appraisal of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

How to post a Stray, the fees fines and penalties for not posting.

Broken animals can be taken up at any time in the year. Unbroken animals can only be taken up between the 1st day of November and the 1st day of April except when found in the lawful enclosure of the taker up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray. If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs. If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said appraisal, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor, and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for week ending June 3, '85

Pratt county—J. W. Naron, clerk.

MARE—Taken up by George Gestenlayer, in Naron tp., April 6, 1885, one roan mare, 7 or 8 years old, 16 hands high has been foundered; valued at \$50.

MARE—By same, one bay mare, 6 or 7 years old, harness marks, had halter on when taken up, poor in flesh.

Morris county—A. Moser, Jr., clerk.

MARE—Taken up by L. T. Glascock, in Parker tp., May 8, 1885, one brown mare 2 years old, left hind foot white, white spot in forehead; valued at \$50.

Osage county—C. A. Cottrell, clerk.

FILLEY—Taken up by W. T. Parker, in Melvern, May 12, 1885, one 2-year old bay filley, white strip in face, right hind foot white; valued at \$50.

Graham county—H. J. Harwi, clerk.

HEIFER—Taken up by Woods Graham, in Hill City tp., May 23, 1885, one 3 year old white heifer branded on left hip with letter H; valued at \$25.

Republic county—Y. R. Parks, clerk.

STEER—Taken up by J. G. Isaacson, in Norway tp., May 8, 1885, one 2-year old steer, reddish neck and hips; valued at \$25.

Johnson county—Henry V. Chase, clerk.

HORSE—Taken up by John Mackey, 5 miles west of Shawnee, in Shawnee tp., one chestnut sorrel horse, about 14 or 15 years old, 13 hands high, star in forehead, shod on 3 feet; valued at \$15.

Osborne county—Frank Stafford, clerk.

PONY—Taken up by D. H. Kearney, in Winfield tp., (Pottsville P. O.), April 13, 1885, one dark bay mare pony, branded on right shoulder, white spot on end of nose, right hind foot white, 13 hands high, 10 or 12 years old, harness marks on back; valued at \$30.

Strays for week ending June 10, '85.

Rice county—C. M. Rawings, clerk.

BULL—Taken up by Frank W. Truesdell, (aw ¼ sec. 3, tp. 20, r. 8), in Atlanta tp., May 15, 1885, one 1-year old red bull, no marks or brands; valued at \$15.

STEER—By same, one 1-year old red and white spotted steer; valued at \$15.

HEIFER—By same, one 1-year old red heifer, white spot in face, white leg, no marks or brands; valued at \$15.

2 STEERS—By same, two 1-year old red steers, slit in each ear; valued at \$30.

Atchison County—Chas. H. Krebs, clerk.

MULE—Taken up by J. M. Osborn, of Grasshopper tp., (Muscogee P. O.), May 22, 1885, one brown roan male, white spot on root of tail, lame in left hind leg, small size, 12 years old; valued at \$50.

Harper county—E. S. Rice, clerk.

PONY—Taken up by Matthew Wilson, of Odell tp., May 7, 1885, one black horse pony, 12 or 15 years old saddle and harness marks, white hind feet, star in face.

Allen county—R. W. Duffy, clerk.

PONY—Taken up by T. H. DeHaven, of Humboldt tp., June 3, 1885, one pony mare, 9 years old, blaze in face, branded on left hip with brand similar to inverted T (L), Mexican brand on both hips; valued at \$15.

Chase county—J. J. Massey, clerk.

HORSE—Taken up by R. R. Harris, of Toledo tp., May 6, 1885, one black horse with small white spot in

forehead, branded S on left shoulder, supposed to be 8 years old; valued at \$60.

Crawford county—Geo. E. Cole, clerk.

MULE—Taken up by G. E. Wampler, of Walnut tp., one roan mule, about 14 hands high, dark brown, about 14 years old, harness and saddle marks; valued at \$30.

Franklin county—L. Altman, clerk.

MULE—Taken up by A. J. Johnson, of Williamsburg tp., one brown horse mule collar and harness marks about 15 hands high, had leather headstall on, about 10 or 12 years old; valued at \$50.

Osage county—C. A. Cottrell, clerk.

STEER—Taken up by Asher Smith, of Melvern tp., June 1, 1885, one 3 year old roan steer, crop off of under side of left ear, white on belly; valued at \$25.

Rush county—L. K. Hain, clerk.

PONY—Taken up by Geo. H. Dellett, of Garfield tp., May 24, 1885, one gray mare Texas pony, 4 years old, brand similar to W. H. L.; valued at \$25.

PONY—By same, one dun mare Texas pony, 4 years old, also branded W. H. L.; valued at \$25.

Montgomery county—H. W. Conrad, clerk.

FILLEY—Taken up by John Ellison, of Fawn Creek tp., May 15, 1885, one brown filley 2 years old, white spot in forehead, short thick mane, slim flaxen tail, no brands visible; valued at \$30.

Shawnee county—Chas. F. Spencer, clerk.

MARE—Taken up by Markes Owen, of Soldier tp., in May, 1885, a 2-year old black mare, both hind feet white, star in forehead, no marks or brands visible; valued at \$50.

PONY—Taken up by Wm. McNoun, of Soldier tp., one gray mare pony, 14 years old, 13½ hands high, saddle marks on back, no other marks or brands visible; valued at \$20.

Ottawa county—W. W. Walker, Jr., clerk.

COW—Taken up by John McDade, of Ottawa tp., one red cow, 4 years old, slit in right ear, branded on hip c. 3; valued at \$25.

Hodgman county—J. P. Atkin, clerk.

PONY—Taken up by A. E. Saborn, of Marensa tp., May 16, 1885, one light bay horse pony, small white spot in forehead; valued at \$15.

Strays for week ending June 17, '85

Brown county—G. I. Frewitt, clerk.

COLT—Taken up by A. Nellans, of Robinson tp., June 4, 1885, one bay stud colt, 1 year old past, white spot in forehead; valued at \$20.

MARE—Taken up by C. M. Truax, of Robinson tp., June 4, 1885, one claybank mare, about 10 years old, branded on left jaw with X & H., on left shoulder S. O. and T. O., on left thigh.

Rush county—L. K. Hain, clerk.

PONY—Taken up by G. S. Smith, of Illinois tp., May 23, 1885, one black or brown mare pony, 15 years old, bluish on left hind leg, branded P. on left shoulder; valued at \$30.

Cowley county—J. S. Hunt, clerk.

PONY—Taken up by A. N. Gordon, of Silverdale tp., June 1, 1885, one black mare pony, 14 hands high, indistinguishable brand on left hip and another on left shoulder and brand similar to V on left jaw, star in forehead, snip on nose, left hind foot white; valued at \$40.

Crawford County—Geo. E. Cole, clerk.

PONY—Taken up by D. A. Fowler, of Walnut tp., May 23, 1885, one bay mare pony, about 13 hands high, white in face, right eye glass-colored, a lump on left side of nose, branded D. C. on left shoulder and H. on right.

Anderson county—A. D. McFadden, clerk.

MARE—Taken up by J. P. McClure, of Monroe tp., one iron-gray mare, 6 years old, left hind foot white, some white in face and wart mark on left side of neck; valued at \$40.

Decatur county—R. A. Reasoner, clerk.

MARE—Taken up by N. J. Bradley, of Olive tp., (Oberlin P. O.), May 27, 1885, one bay mare, branded on left hip with capital A with half circle on top, about 12 years old; valued at \$30.

Davis county—P. V. Trovinger, Clerk.

COW—Taken up by Harper King, of Jackson tp., May 5, 1885, one red cow, little white, about 3 years old; valued at \$18.

BUTTER AND CHEESE making

apparatus and supplies of every description. D. H. ROE & CO., 253 and 255 Kinzie St., Chicago, Ill.

PATENTS obtained by Louis Bagger & Co., Attor-

neys, Washington, D. C. Established 1864. Advice free.

Pioneer Herd of Holstein Cattle

DUROC JERSEY SWINE.

For beef, butter, and cheese, breed HOLSTEINS.

For largest return on money invested in swine, breed DUROC JERSEYS. Choice registered animals for sale by W. M. A. GARDNER, Oregon, Mo.

Correspondence solicited. When writing mention this paper.

Every animal selected by a member of the firm in person.

Largest and Choicest.

Over thirty yearly records made in this herd average 14,212 lbs. 5 ozs.: average age of cows four-

and a half years. In 1881 our entire herd of mature cows averaged 14,164 lbs. 15 ozs. In 1882 our

entire herd of eight three year-olds averaged 12,388 lbs. 9 ozs. April 1, 1884, ten cows in this herd

had made records from 14,000 to 18,000 lbs. each, averaging 15,608 lbs. 6 3-10 ozs. For the year ending

June 1884, five mature cows averaged 15,621 lbs. 12-5 ozs. Seven heifers of the Netherland Family,

five of them two years old and two three years old, averaged 11,516 lbs. 12-5 ozs.

BUTTER RECORDS.

Nine cows averaged 17 lbs. 5 1-2 ozs. per week. Eight heifers, three years old, averaged 13 lbs. 4 3-4

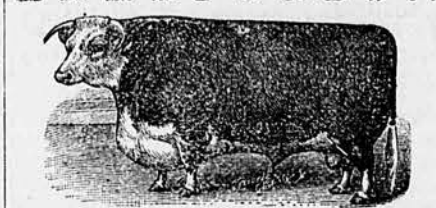
ozs. per week. Eleven heifers, two years old and younger, averaged 10 lbs. 3 ozs. per week. The

entire original import of Netherland Family of six cows (two being but three years old) averaged

17 lbs. 6 1-2 ozs. per week. When writing always mention the KANSAS FARMER.

SMITHS, POWELL & LAMB, Lakeside Stock Farm, Syracuse, N. Y.

HEREFORDS!!



Important information for the breeders and stockmen west and southwest of the Missouri river!

60 acclimated imported

Hereford Bulls for Sale!

They represent blood of Horace, Lord Wilton, The Grove 31, and other prize-winning sires. Thirty 18 months to 2 years; thirty 14 to 18 months old.

Selected from best herds in England. Recorded in A. H. R. or eligible and entered for record in Vol. V. Illustrated Catalogues.

G. E. HUNTON, Breeder. Abilene, Kansas. May 1st, 1885. (U. P. Ry., 163 miles west of Kansas City)

F. McHARDY,



Breeder and Importer of

GALLOWAY CATTLE,

Emporia, : : : Kansas.

My herd numbers over one hundred head, consisting of the best and purest strains of blood. It is composed of animals bred by the most noted breeders of Scotland—the Duke of Buccleuch, the Earl of Galloway, Thos. Bigger & Sons, Cunningham, Graham, and others.

I have thirty head of young bulls, fit for service, sired by the noted bull MacLeod of Drumlanrig; also thirty high grade females of different ages that I will sell reasonably. Time given to suit purchaser, if desired.

THE ELMWOOD HERD

—OF—

A. H. Lackey & Son,

PEABODY, Marion Co., KAS.,

BREEDERS OF

SHORT-HORN CATTLE

AND

BERKSHIRE SWINE.

Our herd numbers 130 head of well-

bred Short-horns, comprising Cruick-

shanks, Rose of Sharons, Young Marys,

Arabellas, Woodhill Duchesses, La-

vinias, Floras, Desdemonas, Lady Janes

and other good families. The well-

known Cruickshank bull BARNPTON'S

PRIDE 49854 and the Bates bull ARCHIE

HAMILTON 49792 serve our herd. We

make a specialty of milking Short-horns,

the Arabellas being specially noted as

milkers. Good, useful animals of both

sexes always for sale.

Premium Berkshires very cheap.

1,000,000 POUNDS

—OF—

WOOL!

WANTED!

For which the highest market price will be paid

in cash.

Sacks furnished or exchanged, by applying to

GALE & WILBER,

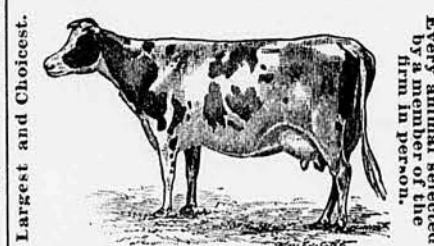
(Postoffice Address)

WINFIELD or ROCK, Cowley Co., KANSAS.

HOLSTEIN

CATTLE.

550 Head on Hand.



Over thirty yearly records made in this herd average 14,212 lbs. 5 ozs.: average age of cows four-

and a half years. In 1881 our entire herd of mature cows averaged 14,164 lbs. 15 ozs. In 1882 our

entire herd of eight three year-olds averaged 12,388 lbs. 9 ozs. April 1, 1884, ten cows in this herd

had made records from 14,000 to 18,000 lbs. each, averaging 15,608 lbs. 6 3-10 ozs. For the year ending

June 1884, five mature cows averaged 15,621 lbs. 12-5 ozs. Seven heifers of the Netherland Family,

five of them two years old and two three years old, averaged 11,516 lbs. 12-5 ozs.

BUTTER RECORDS.

Nine cows averaged 17 lbs. 5 1-2 ozs. per week. Eight heifers, three years old, averaged 13 lbs. 4 3-4

ozs. per week. Eleven heifers, two years old and younger, averaged 10 lbs. 3 ozs. per week. The

entire original import of Netherland Family of six cows (two being but three years old) averaged

17 lbs. 6 1-2 ozs. per week. When writing always mention the KANSAS FARMER.

SMITHS, POWELL & LAMB, Lakeside Stock Farm, Syracuse, N. Y.

BERKSHIRE HOGS.

My herd now numbers about Forty Breeding Sows and Four Boars, including representatives of the best families of the day, and also prize-winners at the leading shows of this country, Canada and England. I have now in use in my herd sows that won in England in 1883, 1882 and 1881, and descendants of noted prize-winners previous to that time. The principal boar in use in my herd at present is "Duke of Monmouth" 11861, who won in 1883 the first prize at four leading shows in England, including first at the Royal Show, and also first prize at two leading shows in Canada. He thus won six continuous first prizes without being beaten, a like record I believe never attained by any other boar. I paid \$400 for "Duke of Monmouth." He is a splendid breeder, an animal of great constitution and comes from the same family as my old boar, "Lord Liverpool" 221, for whom I paid \$700, and who is now almost eleven years old and still alive. I have now a splendid lot of pigs from three to six months old the bulk of which are got by "Duke of Monmouth." I would also spare a few of my sows, young or old, when in pig, and part of my breeding boars. I do not advertise prices as low as the lowest, for I cannot afford to sell as low as those who bought a cheaper class of stock to start with, but my prices are reasonable and within the reach of all who know the value of first-class stock. My herd of Berkshires show as much size as hogs of any breed, and I am sure I can show more quality, activity, constitution and size than is combined in any other breed of hogs. Almost if not every prominent herd of Berkshires in the West contains representatives from my herd, and this alone, considered in connection with the many prizes I have won for ten years past at our largest shows, proves beyond a doubt the quality of stock I am producing from year to year. No breeder of any kind of hogs in the United States or Canada has for several years past bought and retained in his herd so many valuable animals at an equal cost as I have. I have issued a new catalogue this season containing the pedigrees in full of my herd and a limited description of each animal together with a complete list of prizes won for several years past. This catalogue I will mail free to all who feel interested enough to write for it.

I am also breeding High-grade Short-horn Cattle and Merino Sheep. Have now about 100 good young rams for sale.

I have reduced rates for shipping.

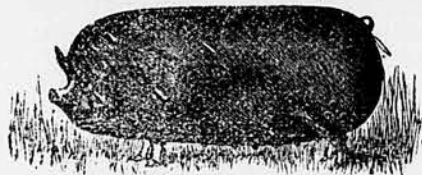
All parties visiting from a distance will be met at the train, if notice is given in time.

For prices or any further information, address

N. H. GENTRY,
Sedalia, Mo.

PLEASANT VALLEY HERD

Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Price reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.

S. McCULLUGH,
Ottawa, Kansas.

If you want
A YOUNG SOW,
Bred to our crack
Boars;

If you want
A YOUNG BOAR
Pig;

If you want
A YOUNG SOW
Pig;

If you want
to place an order for
A SPRING PIG;

POLAND-CHINA SWINE.

If you want
A SETTING OF
Plymouth Rock
Eggs, at \$1.50;

If you want
a Thoroughbred
SHORT-HORN
BULL,

From \$100 to \$125.

Write to
MILLER BROS.,
Junction City,
Box 298. - Kas.

MEADOW BROOK HERD

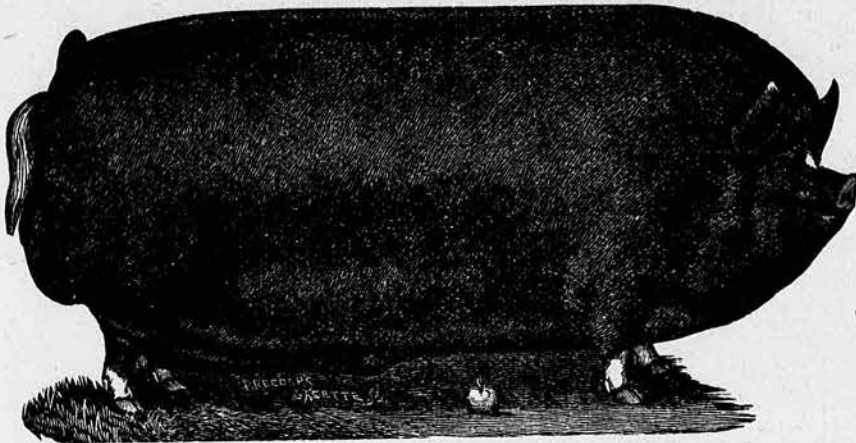


OF POLAND-CHINA SWINE.

Breeding Stock recorded in American and Ohio Records Tom Duffield 1675 A. P. C. R., at head of herd. Always space with latest improvements of the favorite breed. Personal inspection solicited. Correspondence promptly answered.

JELLEY & FILLEY, Proprietors,
KINGMAN, KANSAS.

Manhattan Herd of Berkshires



SOVEREIGN DUKE 3819. - (From Life, by Lou Burk.)

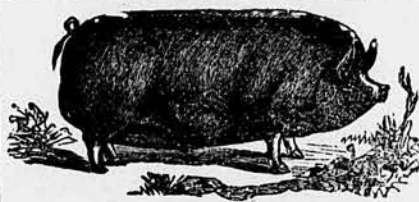
SOVEREIGN DUKE 3819, at head of famous Manhattan Herd. Among many other honors, elsewhere, this splendid sire won five blue ribbons during two successive years at the great St. Louis fair, including sweepstakes as best boar of any age or breed, each year, a record never attained by any other boar.

At the St. Louis and other leading fairs of 1882, the Manhattan Herd sustained its well-earned prize-winning reputation of former years by winning a majority, over all competitors, of the premiums competed for, being 15 sweepstakes and 58 prizes for that year.

Until the present time I have been unable to supply the demand from some fourteen States and Territories for my swine, but I now have about 40 very choice young Boars and Sows old enough to use, that I will sell at prices to suit the times.

A case of Cholera has never occurred in my Herd, which has come through the past severe winter in very thrifty condition. Twelve different families of Sows and five noted Boars in use. Satisfaction guaranteed. Send for Catalogue to

A. W. ROLLINS, Manhattan, Kansas.



EARL OF CARLISLE 10459,

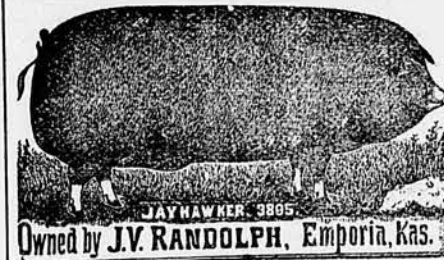
A son of Imp. Royal Carlisle 3433 and Imp. Fashion, and Duke of Wellington 12392, winner of second prize at St. Louis Fair in 1884, under one year old. My pigs this spring are very fine, from five different boars. I never have had a case of disease in my herd of any kind. Have some choice Boars now ready for service, also one young SHORT HORN BULL—fine individual and fashionably bred.

I would always prefer parties to

Come and See My Stock Before Purchasing,

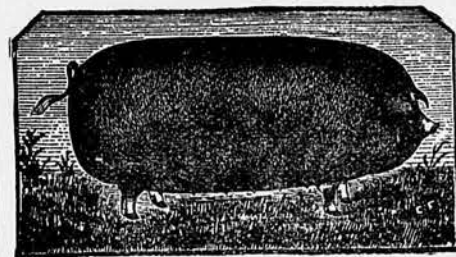
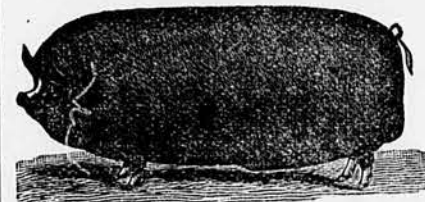
But orders trusted to me will receive my own personal attention and will be filled with care, for I will not send out stock that I would be ashamed to keep myself. Catalogues will be ready soon. Correspondence solicited. Come and see or address

JAMES ELLIOTT, Abilene, Kansas.



Owned by J. V. RANDOLPH, Emporia, Kas.

Established in 1868.

PURE-BRED
Berkshire and Small Yorkshire
SWINE.

We are breeding 25 of the best selected sows of the above named swine to be found in the country, direct descendants from Imported Sires and Dams. We are prepared to fill orders for either breed, of both sexes, at the very lowest prices.

We have tried Small Yorkshires thoroughly, and are satisfied that they cannot be excelled as a profitable hog to raise. They are very docile and mature rapidly. Send for prices and catalogue to

WM. BOOTH & SON,
Winchester, Jefferson Co., Kas.



Chester White, Berkshire and Poland-China Pigs, fine Setter Dogs, Scotch Collies, Fox Hounds and Beagles, Sheep and Poultry, bred and for sale by W. GIBBONS & CO., West Chester, Chester Co., Pa.

Send stamp for Circular and Price List.

ABILENE HERD

-OF-

BERKSHIRES
FOR 1885.

COMPRISING the choicest strains of blood bred to perfection, including ten different families known to fame, such as the Sallie Sweet Seventeen, Cassanara and Gipsy families. At the head of my herd stands

RIVERSIDE HERDS

POLAND and BERKSHIRE SWINE.

Having been a breeder of Poland China Swine in Kansas for seventeen years, it is with pride as well as pleasure that I announce to the people of the New West that I am offering the finest lot of Pigs that I have ever seen offered, representing the best strains of the breeds, and thoroughly bred. I will fill orders of either sex and any age at reasonable prices. All stock warranted to give satisfaction. Come and see my stock or write, and if not as represented, I will pay your expenses. Orders promptly filled.

J. V. RANDOLPH, Emporia, Kansas.

TIMBER LINE HERD

-OF-

HOLSTEIN CATTLE and
POLAND-CHINA PIGS.

We have on hand 150 head of fine pigs for sale now and for spring trade. Also a fine yearling Holstein bull and a few grade Holstein cows for sale. Splendid milkers. We guarantee satisfaction. All correspondence answered. Inspection invited.

W. J. ESTES & SONS,
Andover, Butler Co., Kas.

S. V. WALTON & SON,

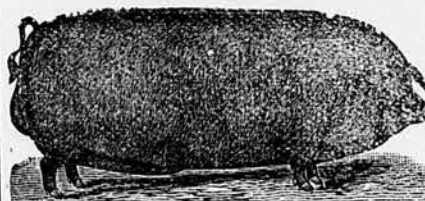
Box 207, Wellington, Kansas.

—Breeder of—

IMPROVED POLAND-CHINA HOGS

Of the Highest Type.

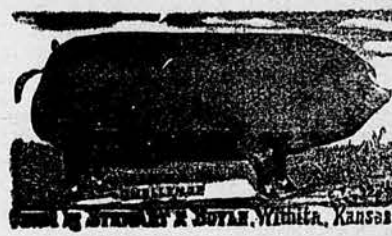
All well pedigreed. Correspondence solicited

Poland-China and Berkshire
HOGS.

We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Ours is the largest herd of pure-bred swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, and have sold many hogs in this and in other States, and with universal satisfaction to our patrons. Our hogs are fine in form and style, of large stock, quick growth, good bone, hardy and of wonderful vitality. Our Poland-Chinas are recorded in the American Poland-China Record.

RANDOLPH & RANDOLPH,
EMPORIA, LYON CO., KANSAS.

Acme Herd of Poland-Chinas



We are having a splendid lot of pigs for this season's sale, bred by "Challenge 4979" and "Kentucky King 2661." Orders taken now. Pedigrees gilt-edge and stock first class. We claim that our "Challenge 4979" is the best boar in Kansas, "for money, marbles or chalk."

STEWART & BOYLE,
WICHITA, KANSAS.

Dr. Thomas Blackwood,



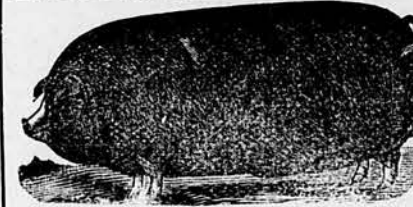
Breeder of POLAND-CHINA SWINE. My Poland-China herd numbers over 75 head. My stock is first-class, all registered, and guaranteed just as represented. Choice breeding stock not akin, of both sexes, for sale at all times at reasonable prices. All correspondence promptly answered. For full particulars and prices, address,

THOMAS BLACKWOOD,
Clay Center, Kansas.



Owned by ISAAC WOOD, Oxford, Sumner Co., Kas.

ISAAC WOOD, Oxford, Kas.—PIONEER—The sweepstakes herd of the Southwest for three consecutive years. Comprising the blood of all the popular strains of the day. Six years a specialty. Pigs furnished not of kin. Quality of stock and pedigree first class. Prices low and favorable rates by express to all points. Pigs of different ages ready to ship, and orders taken for future delivery. Satisfaction guaranteed. For history of herd, see Vol. IV, page 31; Vol. V, page 47, and Vol. VI, page 37, Ohio P.-C. Record.



RANKIN BALDRIDGE,

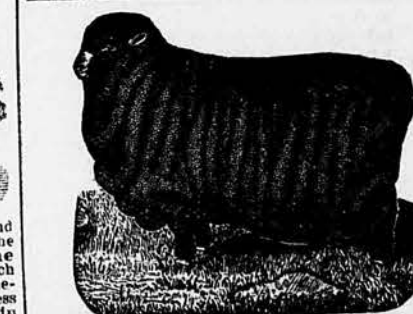
Parsons, Kansas,

Breeder of Pure Poland-China Hogs. This herd a remarkable for purity, symmetry, and are good breeders. Black Jim, a prize-winner, bred by B. F. Dorsey, heads the herd. Stock recorded in Central Poland-China Record. Correspondence invited.

THOROUGHbred, POLAND-CHINAS



As produced and bred by A. C. MOORE & SONS, Canton, Ill. The best hog in the world. We have made a specialty of this breed for 38 years. We are the largest breeders of thoroughbred Poland-Chinas in the world. Shipped over 700 pigs in 1883 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 160 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-C. Record. Pigs all eligible to record. Photo card of 43 breeders free. *Swine Journal* 25 cts. in 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.



H. V. PUGSLEY, Plattsburg, Mo.,

Breeder of pure Merino Sheep. Registered in Vermont and Missouri Registers. Largest flock in the State. Plymouth Rock chickens and Bronze turkeys. Catalogues free.

The Busy Bee.

Swarming.

From the time our bees are built up they should be handled with a view to the amount of increase we wish from them. It must be remembered, however, that the greater the increase the less will be the amount of honey produced. If we wish a large yield of honey we must keep down the increased stock. If we multiply the number of our colonies largely, we must not expect much honey. All things considered, the most profitable management consists in merely doubling the number of colonies, and keeping them all strong for surplus gathering. The swarms should be used for storing the harvest, while the parent colonies should be built up and used to reinforce any weak swarms. Such complete control of the bees, without opposing their natural instinct, can only be had by the use of the shallow frame and two-story hive. I shall give a few hints on the handling of such a hive. In the one-story hive, when crowded, the bees must be left pretty much to themselves to swarm when they are ready, unless the queen cells are torn down, which is both tedious to the operator and injurious to the colony; it tramples too directly upon the bees' natural instinct.

As our swarm is to gather the harvest, it must come at the height of harvest time. It must also be large, because some of the bees have to stay at home to do the house work, and we want a large band of foragers. To have it in the early part of the clover harvest is a mistake, because many of the bees will be dead before it is over, and so the swarm be weakened just when it should be strong. To have it late in clover flow is also a mistake, as the foragers will nearly all be alive during the slack time between clover and basswood, with nothing to do; and when the basswood does come they will be dying off largely, and there will be no young ones old enough to take their places. But if the swarm comes off in the height of the clover flow, they will gather the honey and die in the scarcity, and the young ones hatched during this time will be ready for the basswood flow; thus losing no time, and having few to support in a time of scarcity.

Until the clover harvest is fairly in, the super should not be put on, but the brood chamber should be kept free from much honey by means of the extractor. Before this, any colonies of extra strength may be used to build up weak ones, or may even be divided if bent on swarming; but the best plan is to remove one, or even two combs, from the brood nest and spread the others; thus giving more room to cluster and more room in the upper part of the combs for honey. When the clover harvest is fully opened, put on one-half story of sections (even if you intend to run for extracted honey) first replacing any combs removed from the brood chamber. As soon as the bees are well at work in these sections, above all the honey cells of the brood combs even with their frames and extract the honey; the queen will lay up to the top bar. By the time the sections are ready to seal will likely have become crowded, and if not given room will swarm too early. Now, if you wish extracted honey, replace the half story by a full one of combs or foundation, and give this half to some other colony to seal, or set it aside until wanted; but if you wish section honey, replace the half story by another, and set the filled upon it. While the bees are filling the new one they will seal the other. When you want a swarm, crowd the bees by removing the upper half story, or by replacing the full story by a half one, and the swarm will be out in a few days. Leave the half story now on with the parent colony, and put two or a full one (with unfinished combs if you have such) upon the hive to swarm.

LIVING THE SWARM.—Take a swarm catcher previously prepared as follows: A long pole with three feet of clothes line fast to one end; a peach basket fastened bottom up to the free end of rope, a few steps of comb fastened to inside bottom of basket (any circular half bushel basket will do). Hold it near the swarm, shake the swarm from the branch, and place the bottom up immediately below where the swarm was, and the bees will cluster in the basket. If the bees cannot be shaken from the limb, place the basket immediately above them and they will rise into it. A market basket or high felt

hat on the end of a pitch fork will often answer the purpose. Having secured the swarm, carry it to the new hive and shake it down upon a sheet previously spread in front of the hive; watch till the queen goes in. If many of the bees re-cluster repeat the shaking till all, or nearly all, are in.

To prevent second swarming, give the bees plenty of room as they require it.—G. B. Jones in *Farmers' Advocate*.



"I owe my Restoration to Health and Beauty to the CUTICURA REMEDIES."

Testimonial of a Boston lady.

DISFIGURING HUMORS. Humiliating Eruptions Itching Tortures, Scrofula, Salt Rheum and Infantile Humors cured by CUTICURA REMEDIES.

CUTICURA RESOLVENT, the new blood purifier, cleanses the blood and perspiration of impurities and poisonous elements, and thus removes the cause. CUTICURA the great Skin Cure, instantly allays itching and inflammation, clears the Skin and Scalp, heals Ulcers and Sores, and restores the Hair.

CUTICURA SOAP an exquisite Skin Beautifier and Toilet Requisite, prepared from CUTICURA, is indispensable in treating Skin Diseases. Baby Humors, Skin Blemishes, Chapped and Oily Skin. CUTICURA REMEDIES are absolutely pure, and the only infallible Blood Purifiers and Skin Beautifiers. Sold everywhere. Price, Cuticura, 50 cents; Soap, 25 cents; Resolvent, \$1. POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.



TOPEKA MEDICAL AND SURGICAL INSTITUTE.

PERMANENT AND RELIABLE.

DRS. MULVANE, MUNK & MULVANE, Physicians and Surgeons in charge.

Treat successfully all curable diseases of the eye and ear. Also catarrh of the nose, throat and lungs, by new and sure methods.

All Manner of Chronic, Private and Surgical Diseases Successfully and Scientifically Treated.

Patients Treated at Home, BY CORRESPONDENCE.

Send for circular and printed list of questions. Correspondence and consultation strictly confidential.

DRS. MULVANE, MUNK & MULVANE, 86 east Sixth street, Topeka, Kansas.

KANSAS FARMERS' MUTUAL FIRE INSURANCE CO.,

—OF—

ABILENE, : KANSAS.

OFFICERS:

J. E. BONEBRAKE, President.
C. H. LEBOLD, Vice President.
W. A. MORTON, Secretary

—INSURES—

FARM PROPERTY AND LIVE STOCK

Against Fire, Lightning, Tornadoes and Wind Storms.

AGENTS WANTED in Every County in Kansas.

For any information, address the Secretary, Abilene, Kansas.

Fun, Facts and Fiction.

SATURDAY EVENING LANCE!

A PAPER FOR THE PEOPLE.

Devoted to Society, Lodge, Amusement and Dramatic News, good literature, etc. Will be published especially for the State of Kansas. Terms, \$2 a year; \$1 for six months. Specimen copy free.

Address **M. O. FROST & SON, Pubs.,** Topeka, Kansas. Clubbed with the **KANSAS FARMER** for \$2.75.

COLLEGE OF THE SISTERS OF BETHANY.
TOPEKA KANSAS.

BETHANY COLLEGE
Under care of the Protestant Episcopal Church.
For Girls and Young Ladies exclusively. Boarding and Day Pupils.

Twenty-six Officers and Teachers.
Faithful Maternal oversight for all entrusted to our care.
All branches taught—Kindergarten, Primary, Intermediate Grammar, and Collegiate; French, German, the Classics, Instrumental and Vocal Music, Elocution, Drawing, Painting.
The Music Department employs eight teachers and twenty pianos and three organs. In the Art Department the Studio is fully equipped with casts, models, and copies.
Send for Catalogue to T. C. VAIL, Bursar, or BISHOP P. VAIL, President, Topeka, Kansas.

WASHBURN COLLEGE
TOPEKA, : : : KANSAS.



FALL TERM BEGINS SEPTEMBER 16, 1885.

OPEN TO BOTH SEXES.

Four Courses of Study—Classical, Scientific, Academic, Business. Personal supervision exercised. Separate Christian Homes provided for young women. Ten instructors employed. Excellent appliances of Library, Apparatus and Cabinet. Expenses reasonable.
PETER MOVICAR President.

IT WILL BE AN ADVANTAGE to always mention the **KANSAS FARMER** when writing to advertisers.

CHICAGO VETERINARY COLLEGE, INCORPORATED 1883.

For annual announcement and further information apply to the Secretary, 79 to 85 - 12th Street, CHICAGO, ILL.

TOWER'S FISH BRAND POMMEL SLICKER
THE BEST WATERPROOF RIDING COAT.
Covers the entire saddle, and will keep you dry in any storm.
Sold everywhere. Illustrated catalogue free. A. J. Tower, Boston.

100,000 PRESENTS! This OFFER Good Till August 15th.

Everybody who sends as directed gets a Present worth from 20 cents to \$1,000.

The proprietors of **THE POULTRY KEEPER**, being desirous of having the already well-known and popular Poultry paper which has now a home side circulation of over 100,000 copies, more widely circulated and introduced into houses where it is not already known, have determined to throw off all profit on the subscriptions, knowing well that when this journal reaches 200,000 subscribers, the advertising patronage will pay for the inducement we offer, if not, will use a portion of our capital for the sole purpose of increasing the circulation.

FOR FIFTY CENTS We will enter your name on our subscription books and mail you regularly for one year **THE POULTRY KEEPER**, bound, stitched and cut, and send you immediately by sealed mail one Numbered Receipt good for one of the following presents:

The List of Presents to be Given to our Subscribers:

10 U.S. Gov't Bonds, \$500 each	5000	1 Cash Prize	\$500
10 U.S. Greenbacks, \$500 each	5000	1 Nickel plated Columbia Bicycle	150
10 U.S. Greenbacks, \$100 each	1000	1 Grand Square Piano	500
1 Cash Prize	1000	1 Grand Cabinet Organ	200

1 Three-cent Rockaway, 1 Silver Dinner Service, 5 Top Buggies, 20 U. S. Greenbacks of \$50 each, 1000 Autograph Albums, \$2 each, 2 Village Carts, 1 Pony Phaeton, 1000 Pocket Silver Fruit Knives, 1000 Gents' Pocket Knives, 1000 U. S. Greenbacks of \$1 each, 10 Gents' Gold Watches, English Movement; 10 Ladies' Gold Watches, English Movement; 20 Boys' Silver Watches, American Movement; 8 Solitaire Diamond Finger Rings, 3 Patent Harvesters, 2000 Elegant Art Gems, 5 Raw Silk Parlor Suits Furniture, 1400 Gold Finger Rings, Ladies' Breast Pins, Gents' Scarf Pins, Lockets, Fans and Chains, and 92,421 other presents, valued from 20 cents to \$1, makes a grand aggregation of 100,000 presents, thus guaranteeing a present to each and every new subscriber who sends us 50 cents.

All of the above presents will be awarded in a fair and impartial manner. Presents will be sent to any part of the United States or Canada. No postage will be asked from any subscriber to forward presents. The **50 CENTS** which you send us is the regular price for a year's subscription, and therefore we charge nothing for the present. Our **PAID** will be in your future patronage and the increased rate we will get for our advertising space. **YOUR SUBSCRIPTION FREE.** Get five of your friends to join you by cutting this out and showing it to them. Send us **\$2.50** and we will send you **THE POULTRY KEEPER** for one year, and one numbered receipt for each of your subscribers, and one extra for your trouble.

SEND TEN SUBSCRIBERS WITH **\$5.00** and we will send you **12** subscriptions and **12** receipts. Send **Twenty** Subscribers and **\$10.00** and we will send a paper and receipt to each of your subscribers, and a beautiful solid Aluminum Gold Hunting Cased Watch to you. The watch is worth **\$10**. Can be traded for double this amount.

THIS OFFER an early date, as in no case will they be received later than August 15th. **THE POULTRY KEEPER** is the best and ablest edited Poultry Paper in the country, and already has a circulation of 100,000 copies, and has just completed the distribution of 100,000 presents to its first 100,000 subscribers. It contains sixteen pages, beautifully illustrated, and tells how to make poultry pay. No postponement.

500 STEM-WINDING WATCHES FREE. In order that we may positively know what papers pay us best, the 500 Watches will be given away to the first 500 people who answer this advertisement and give us the name of the paper where they saw the advertisement. If you send us 50 cents you will be entitled to one of these old, well known and reliable watches and one receipt good for one present. This offer is bona fide and will be carried out to the letter. Send now.

THE POULTRY KEEPER is well established, having already 100,000 subscribers, and is backed by ample capital, so that every one of our subscribers may be sure of getting what we promise. Indeed, we could not afford otherwise. We will send a printed list of the Awards free, and all presents will be forwarded to holders of receipts as they may direct. **OUR OLD PATRONS AND SUBSCRIBERS** should go to work at once and help us to increase our list, by this grand and generous offer.

ONLY 50 CENTS Secures **THE POULTRY KEEPER** one year and one receipt good for one present. One number of the paper is worth double the subscription price. As to our reliability, we refer those who do not know us to any Bank or Mercantile Agency.

These are Presents to our Subscribers, given to them absolutely Free. (2-cent postage stamps taken.) Money in sums of \$1 or less may be sent in an ordinary letter at our risk; larger sums should be sent by Registered Letter or Postal Note, and addressed to **THE POULTRY KEEPER, 89 Randolph St., Chicago, Ill.**



PROPHETS SAY
It will be rainy next summer. Then save your hay. Our circular describes the only carrier that horse returns to load, and runs either way without changing anything. Big bargain to introduce it. Don't forget this. Box 414. OBORN BROS., Marion, O.



ALL RIGHT
Self-feed STRAW & HAY CUTTER
The best in the world. The knife is Steel, and tempered, and is fastened to lever with three bolts, and can be easily taken off to sharpen. The length of cut is regulated by the lever to which the knife is bolted. The higher the lever is raised, the longer it will cut. All are guaranteed. Send for circular which will be mailed FREE. NEWARK MACHINE CO., Columbus, O.

ARTESIAN WELLS

Rock Drilling, Well Digging, Pipe Driving, Prospecting Machines and Outfits.
GENERAL WELL SUPPLIES
MANUFACTURED BY
NEEDHAM & RUPP,
27 West Lake St., - CHICAGO, ILL.
ILLUSTRATED CATALOGUE MAILED FREE.

WOOD'S CULTIVATOR ATTACHMENT.



Can be attached to any cultivator; has 12 steel bull tongues, one inch wide, in malleable iron frame. Best thing ever used in young corn. Write for circulars of Attachments, Iron Duke Harrows, Equalizers, &c.
AGENTS WANTED.
KIMBERLIN MFG CO., Indianapolis, Ind.

TIMKEN SPRING VEHICLES!



Fastest riding Vehicle made. Rides as easy as with one person as with two. The Springs lengthen and shorten according to the weight they carry. Equally well adapted to rough country roads and fine drives of cities. Manufactured and sold by all the leading Carriage Builders and Dealers. **Henry Timken, Patentee, St. Louis.**
Used exclusively by **CHICAGO, ILL. ABBOTT BUGGY CO**

Entirely New Idea.



The Invincible Riding Cultivator has had an entirely new idea added to it to make it the easiest handled riding cultivator on the market. Further particulars sent free on application.
The Invincible can now be converted into a perfect working combined walking and riding cultivator.
We are manufacturing a full line of Walking Cultivators, consisting of our Triumph, Gem, and Tip Top, which are made with double, bound and single tongues and tongueless. Our Cultivators are fitted with 4, 5, 6 and 7 Shovels, and have iron beams or wood beams, with either iron or wood standards, as desired.
The choicest line of cultivators now offered the farmer. If your dealer does not represent them, write us for catalogue, which will be sent free with full particulars.

BARNES MANUFACTURING CO., FREEPORT, ILLINOIS.

STANDARD Cane Mills

For Horse and Steam Power.

Evaporators

For Syrup and Sugar.

Known and Used the World Over.

We are the sole makers of the Victor, Great Western, and Niles Cane Mills, of the original and genuine Cook Evaporator, and of the Automatic Cook Evaporator.

BLYMYER MANUFACTURING CO., CINCINNATI, O.
Manufacturers of Steam Engines, Boilers, Ice Machinery, and Refrigerating Machinery.

DELAWARE CO. CREAMER.

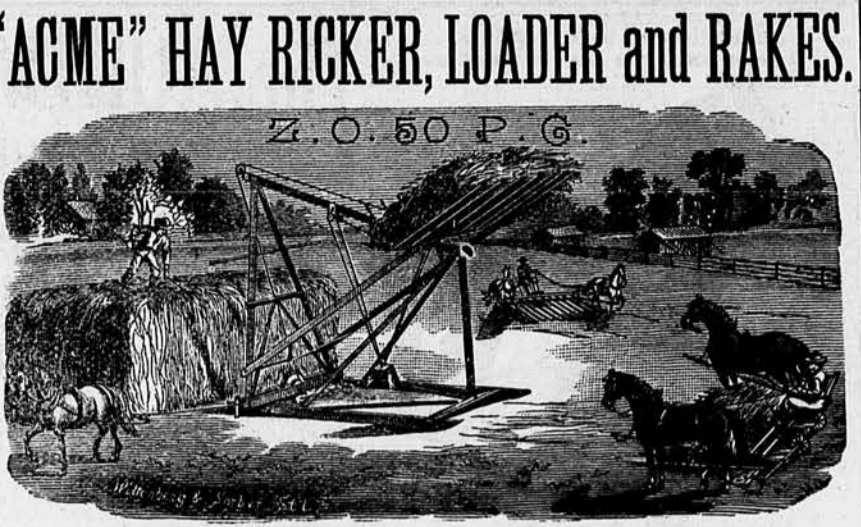


Send for CIRCULAR.

Greatest LABOR SAVING SPECIAL OFFER
Creamer in the market. We make a special offer to the first purchaser in every town. It will pay you to write at once and get a creamer at less than wholesale prices. Address the

DELAWARE CO. CREAMER CO.
Benton Harbor, Mich.

"ACME" HAY RICKER, LOADER and RAKES.



Z. O. 50 P. G.

AGENTS WANTED!

The Greatest Money-saving, Labor-saving, Time-saving Hay Machinery Ever Invented.

Twenty to forty acres of Hay put up in one day, at a saving of from 50 to 75 per cent. The hay is not touched with fork until on the rick in splendid shape for stacker. They make the farmer perfectly independent, even with a large crop of hay on hand, at a time when it is difficult to get reliable help, at great expense.

THE ACME RICKER is always ready for work, eats nothing, never strikes for higher wages and is not subject to sunstroke. It built Ricks or Stacks 20 to 25 feet high, and elevates from 300 to 1,000 pounds at one time. It is also the best and most complete Hay-loader on the market. These statements verified by thousands of the best farmers in the land.

Write for Catalogue giving full particulars.

ACME HAY HARVESTER CO., Manufacturers, Peoria, Illinois.
MOLINE PLOW CO., Kansas City, Mo.,
GENERAL AGENTS FOR KANSAS AND WESTERN MISSOURI.

TOLL YOUR OWN CRIST!!



"MANVEL" WIND ENGINE

SIMPLE, DURABLE, SELF-REGULATING, NOISELESS.
STOCKMEN AND FARMERS CAN

HARNESS THE WIND

AND GRIND ALL THEIR GRAIN with a machine without a cog, friction clutch, or ratchet, and at the same time Pumps all their water for Stock.

FULL LINE OF PUMPS, TANKS, IRON PIPES & FITTINGS kept on hand. Parties requiring a Wind Mill should examine this machine, built for service, and write, stating the kind and amount of work they want done, to

B. S. WILLIAMS & CO., (Limited), Atchison, Kas.
(FACTORY, KALAMAZOO, MICHIGAN.)

Minneapolis Light Binder



A NEW DEPARTURE. The latest improved Binder in the market. The Lightest Draft. Most Reliable, Economical, Simple and Durable. Adapted to large and small farms, and is the choice of every wide-awake, judicious and independent farmer. It is unlike any other Binder made; has dozens of good points, which must be seen to be understood and appreciated. Call on our Local Agent and let him explain to you, or send for Circulars to the manufacturers

MINNEAPOLIS HARVESTER WORKS,
MINNEAPOLIS - MINNESOTA.

BOOKWALTER ENGINES

UPRIGHT AND HORIZONTAL,
3 TO 10 HORSE POWER.

OVER 3,000 IN SUCCESSFUL OPERATION.

Illustrated Pamphlet sent free. Address,
JAMES LEFFEL & CO., Springfield, Ohio.
Eastern Office; 110 Liberty St. New York.

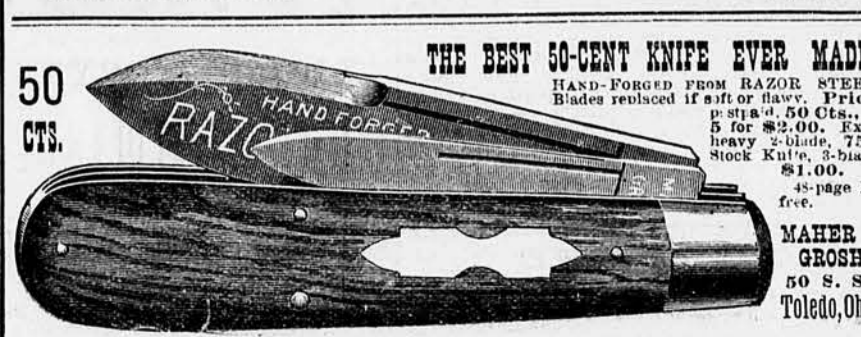
ATLAS ENGINE WORKS

INDIANAPOLIS, IND., U. S. A.

MANUFACTURERS OF
STEAM ENGINES & BOILERS.
Carry Engines and Boilers in Stock for immediate delivery.



THE BEST 50-CENT KNIFE EVER MADE!



50 CTS.

HAND-FORGED FROM RAZOR STEEL! Blades replaced if soft or flawed. Price, 50c. straight, 50 Cts., or 5 for \$2.00. Extra heavy 2-blade, 75c. Stock Knife, 3-blade, \$1.00.

48-page list free.

MAHER & GROSH,
50 S. St.,
Toledo, Ohio.

SUGAR MILLS

Eighty Sizes, for Hand, Animal, Steam and Water Power.
The Best. The Cheapest
Thousands are Now in Use.
We are this year selling direct to the farmers giving them the benefit of Agents' discount for cash. "Northern Cane Manual" FREE on application. Address The Geo. L. Squier Mfg Co., Buffalo, N. Y.



EUREKA MOWER

Wide Front Cut
And Direct Draft.

The only successful CENTER DRAFT MOWER manufactured. The lightest Draft Mower in the world. With largely increased capital, new and extensive buildings, equipped with special machinery and skilled workmen, we are prepared to furnish a Mower that HAS NO EQUAL.

AGENTS WANTED
IN ALL UNOCCUPIED TERRITORY. SEND FOR ILLUSTRATED CATALOGUE.

EUREKA MOWER CO.,
UTICA, N. Y.

MARSEILLES-ADAMS POWER CORN SHELLERS.



HAND ONE, TWO, FOUR OR EIGHT HORSE POWERS.
BELT or GEARED FEED GRINDERS.
Pumping or Power
WIND MILLS,
ALL SIZES AND STYLES
Iron Pumps, Iron Pipe,
SHELLERS BRASS CYLINDERS
—AND—
Riding, Walking and Combined
ADAMS SPRING CORN CULTIVATORS.
MARSEILLES MFG. CO., MARSEILLES, La Salle Co., Illinois.

—SEND FOR—
ILLUSTRATED CATALOGUES.



MICA AXLE GREASE

PAT MAY 12 - 1884

IS THE BEST.

USE IT

NEW 'Singer' Model Sewing Machines only \$15



Including an \$8.00 set of extra attachments of 9 pieces and needles, oil and usual outfit of 12 pieces with each. Guaranteed perfect. Warranted 5 years. Handsome, durable, quiet and light running. Don't pay \$30 to \$50 for machines no better. We will send ours anywhere on trial before paying. Circulars free. Save \$15 to \$35 by addressing **GEO. PAYNE & CO., 47 Third Ave., Chicago, Ill.**

CONSUMPTION.

I have a positive remedy for the above disease; by its use thousands of cases of the worst kind and of long standing have been cured. Indeed, so strong is my faith in its efficacy that I will send **TWO BOTTLES FREE**, together with a VALUABLE TREATISE on this disease, to any sufferer. Give express & P. O. address. DR. T. A. SLOCUM, 181 Pearl St. N. Y.

TWO-CENT COLUMN.

"For Sale," "Wanted," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.

WANTED—To exchange a clean Stock of Boots and Shoes for Real Estate. Address J. W. Paratore & Co., 427 Kansas avenue, North Topeka, Kas.

FIVE EXTRA YEARLING SHORT-HORN BULLS For sale cheap. L. A. Knapp, Dover, Kas.

WM. FINCH, of North Topeka, south of engine house, has three imported English Shire stallions that will make the season of 1885. Also for sale by same party, Plymouth Rock eggs. For particulars add. him.

Cabbage Plants.

Late Flat Dutch Cabbage Plants delivered at Express office in Kansas City, at the low price of \$1.25 per Thousand. Grown from the very best August Sound seed, and are very fine plants.
June 14, 1885. **WM. BATES**, Armourdale, Kansas.

Morton's Lightning Arrestor
FOR WIRE FENCES

Preserves fences from damage and live stock and persons from being killed by lightning.

Agents wanted.
Address W. T. DAVIDSON, Abilene, Kas.

RIVER VIEW
Stock Farm.50 HEAD OF
IMPORTED NORMAN
STALLIONS

Just arrived from France, added to my stock of Norman Horses, which now numbers upwards of 100 HEAD, from 2 to 5 years old. Parties wishing to purchase first-class stock will do well to call and see my Normans before purchasing elsewhere. Prices and terms to suit purchasers. All of the above stallions were selected by myself in France this season. (Mention this paper.)

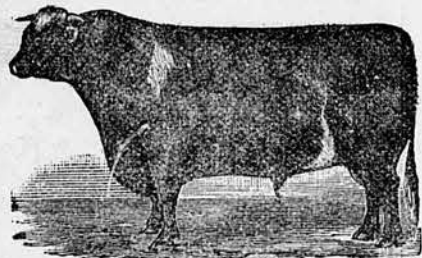
JAMES A. PERRY
Importer and Breeder of Norman Horses.

River View Stock Farm, Wilmington, Ill.

Fifty miles south of Chicago, on the Chicago & Alton railroad.

SHORT-HORN CATTLE SALE

JAMES RICHARDSON, CEDAR GROVE HERD, of ROANOKE, HOWARD CO., MO.



For catalogues, address

JAMES RICHARDSON, Roanoke, Howard Co., Mo.,
or C. R. BROWN, Glasgow, Mo.

DR. PATTON'S BROADLAWN HERD.

Seventy-Five Head of

Broadlawn Short-horns!

WILL BE SOLD

At Hamlin, Brown Co., Kas., July 1st, 1885.

LOCATION.—Hamlin is situated on the St. Joe & Western R. R. and near Padonia, on the M. P. Omaha extension.

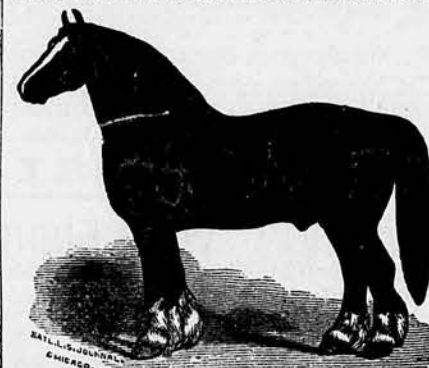
Consisting of Young Marys, Vellums, Josephines, Adelaides, Lady Days, Wileys, Harriets and Primroces. Broadlawn Farm, of 640 acres, will be offered to the highest bidder at 11 o'clock, immediately preceding the sale of Short-horns, and if sold, the whole of Broadlawn herd of about ONE HUNDRED AND FORTY HEAD will be sold then or on the following day. Broadlawn is one of the finest improved farms in northeastern Kansas. Residence, large two-story frame building, and a house on each quarter section; frame stabling for 200 head of stock; two wind-mills—grinding, shelling, cutting, and pumping water in tanks in the stable; 350 acres in tame grass and clover, and water on every 80 acres of land; well hedged, and near three railroads. Terms:—One-fourth cash, and three fourths in three equal yearly payments, at 8 per cent. interest. Terms on Short-horns:—Cash, or notes on six months at 8 per cent. interest.
Address **DR. ROBT. PATTON, HAMLIN, BROWN CO., KANSAS.**

YOU CAN RECEIVE THE

KANSAS FARMER from June 1, '85, to Jan. 1, '86,
SEVEN MONTHS FOR 75 CENTS!

PERCHERON NORMAN, CLYDESDALE
and ENGLISH DRAFT HORSES.

E. BENNETT & SON
Importers and Breeders,
Topeka, Kansas.
All stock registered. Catalogues free.

OVER ONE HUNDRED
CLYDESDALE, ENGLISH DRAFT
AND PERCHERON NORMAN
Stallions and Mares arrived in August, '84.

Another importation just received, ages range from two to four years old. Our stock won fifteen premiums at the Iowa State Fair of 1884; also sweepstakes on Clyde-dale stallions and sweepstakes on Percheron Norman stallions. 300 High-Grade Mares, in foal to our most noted horses, for sale.
Advantages offered to customers at our ranch: Many years' experience in importing and breeding. Immense collections, variety of breeds, enabling comparison of merits. The best of everything. A world-wide reputation for fair and honorable dealings. Close proximity to all the through railroad lines. Low prices consequent to the extent of the business. Low rates of transportation and general facilities. Visitors welcome at our establishment.
Ranch 2 miles west of Keota, Keokuk Co., Iowa, on the C. R. I. & P. R. 15 miles west of Washington, Ia. SINGMASTER & SONS, Keota, Keokuk Co., Iowa.

The AULTMAN & TAYLOR
THRESHING MACHINERY!

FATTENED ON AN AULTMAN-TAYLOR STRAW STACK



The Most Reliable in the Market! The Most Durable in the Market! No other Separator will Thresh the Grain as Clean! None other will Save as Much Grain for the Farmer!

It is called the "Starved Rooster Thresher" because it puts the grain in the half bushel instead of the straw stack, and leaves more in the straw-stack for chickens to fatten on as is the case with other threshers.

Owners of Aultman & Taylor Threshers make more money than the owners of any other Machines: Because they can always have the preference of jobs; because they can obtain better prices for their work; because they can thresh grain in all conditions, when other machines cannot; they have less expenses, less detentions, less breakages, for the machinery is durable and strong.

In the case of steam rigs, farmers feel safer in employing an Aultman & Taylor Engine than any other, for they are built strong, and are safe; they do not wish to employ new and untried Engines; they want the "old reliable" Aultman & Taylor, that has stood the test for years.

Threshermen, See the New Improvements for 1885!

On Separator and Engine, which places this machinery still further in advance of all competitors. The light running, double geared Aultman & Taylor Horse Power is also kept ahead.

The durability of this Machinery (as well as its good work) is the most wonderful of any Threshing Machinery ever made. Amongst the many instances of durability, would refer our customers to M. A. & W. W. Wheeler, of Keighley, Butler county, Kas., to whom we last fall sold a new Separator to replace an old Aultman & Taylor Separator that was bought fourteen years ago and has been run every season since!

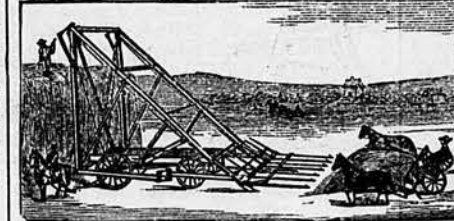
We can refer to a number of parties who bought Aultman & Taylor Machines when we first came to Kansas City, twelve or thirteen years ago, and are still running them. Can any other machine show such a record? No. Is not the Aultman & Taylor the cheapest to buy, even at 50 per cent. more money than other Machines? Yes, but they can be bought at same price as other so called first class Machines. Are not the great bargains in Threshing Machinery in this country to be had in the Aultman & Taylor? Yes.

Call on our Agents for Descriptive Pamphlets, Price Lists, etc., giving the liberal terms offered on this Machinery, or send to us direct.

TRUMBULL, REYNOLDS & ALLEN,
General Western Agents, KANSAS CITY, MO.

THE DAIN IMPROVED AUTOMATIC HAY-STACKER and GATHERERS!

The Greatest Labor-saving, Money-saving, Time-saving Machinery Ever Introduced on the Farm or Ranch.



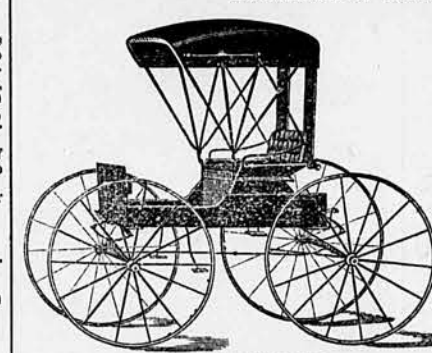
Will save 50 to 75 per cent. in the cost of putting up hay over the old way. Does away with the hard labor of putting up hay; hay not touched with a fork from the time it leaves the mow until it is on the stack; is put up better than it can be done by hand, so that hay keeps better and is worth more. The cost of a Stacker and two Gatherers saved in putting up every seventy tons of hay! No farmer or ranchman who puts up hay can afford to be without it. Makes a farmer independent. One man, three boys and five horses will do the work of ten men and six horses. Send for Descriptive Circulars and Price Lists.

TRUMBULL, REYNOLDS & ALLEN,
(Manufacturers) Kansas City, Mo.

Vehicles for All Kansas and the Southwest!

BRADLEY, WHEELER & CO.,

Manufacturers' Direct Distributing House for



OUR JUMP SEAT.

BUGGIES OF EVERY STYLE AND GRADE.

Concord Buggies, Buckboards, etc. Garden City Plows and Cultivators, Bradley Mowers and Rakes. All goods sold under our own name and guarantee!

Catalogues and full information promptly furnished, Inquiries or visits solicited from every body.

CORNER 10th AND HICKORY STS., (Near Union Depot on route to Stock Yards)

KANSAS CITY.

WOOL!

LUCAS & WYNN,
Wool Commission
MERCHANTS,

221 and 223 }
Kenzie street, } **CHICAGO, ILL.**

Consignments solicited. Sacks free to shippers. Cash advances made. Reliable market reports furnished. Information cheerfully and promptly given on application.

Hart Pioneer Nurseries,

(Established, Dade Co., Mo., 1857; Ft. Scott, Kas., 1865; incorporated, 1884.)

FORT SCOTT, : : KANSAS.

A full line of Nursery stock, all warranted true to name. No substitution of varieties to our purchasers. Reference: Bank of Ft. Scott. For other testimonials see our catalogue.

FOR SALE!

Fifteen extra fine PEDIGREED SHORT-HORN BULLS for sale at reasonable prices. **G. W. GLICK,**
Atchison, Kansas.