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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

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JOHN KEMP, North Topeka, Kas., breeder of improved Chester White Swine. Some fine young boars fit for service for sale. Correspondence invited.

A. E. STALEY, Ottawa, Kansas, CHESTER WHITES AND POLAND-CHINAS. Light Brahma cockerels, \$1.50.

W. S. ATTEBURY, Rossville, Kansas, BREEDER OF Chester Whites Exclusively. Young stock at all times. Satisfaction guaranteed.

PRAIRIE COTTAGE FARM

Home of the Chester White Hog.
C. J. HUGGINS, Louisville and Wamego, Kansas.

Have for sale brood sows, two boars, also a nice lot of spring pigs of both sexes, the get of my herd boars, Ben Buster 6189 and Jerry Simpson 6161. Correspondence and inspection invited. Prices reasonable.

J. R. KILLOUGH & SONS, Richmond, Kansas, Breeders of POLAND-CHINA SWINE. The very best strains. Nothing but first-class stock will be shipped to any. Come and see us or write.

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IRWIN & DUNCAN, Wichita, - Kansas, Sedgwick Co. Bred and have for sale Bates and Bates-topped Short-horns—Waterloo, Kirklevington and other fashionable families. Also breed and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

CATTLE.

SUNNY SLOPE FARM, C. S. CROSS, Proprietor, Emporia, Kas.

Breeder of PURE-BRED HEREFORD CATTLE. Herd headed by Wild Tom 5153, a son of Bean Real 11055 and assisted by sons of Cherry Boy 26475, Archibald 1st 39253 and Washington 22615. 200 head, all ages, in herd. Strong in the blood of Lord Wilton, Anxiety and Horace. A choice lot of young bulls and heifers, fit for any company. Correspondence solicited, or, better still, a personal inspection invited.

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G. W. GLICK, ATCHISON, KAS. Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Waterloo Duke of Shannon Hill No. 89879 and Winsome Duke 11th 115,137 at head of herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

SWINE.

CLOVER LAWN HERD POLAND-CHINAS. Young sows and boars and spring pigs for sale. Prices reasonable. Stock first-class. W. N. D. BIRD, Emporia, Kas.

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Short-horn cattle and Poland-China hogs, bred by C. C. KEYS, VERDON, NEB. Aberdeen King 101458, a pure Cruickshank, heads the herd. Stock for sale at all times. Visitors welcome. A fine lot of young male pigs for sale. Farm two miles north of Verdon, Nebraska.

R. S. COOK, Wichita, Kas., Breeder of Poland-Chinas. Won seven prizes at World's Fair—more than any single breeder west of Ohio.

(Breeders' Directory continued on page 16.)

The Stock Interest.

THOROUGHbred STOCK SALES.

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

FEBRUARY 14—Dan W. Evans, Fairview, and J. A. Worley, Sabetha, Poland-China swine, combination.

DUROC-JERSEY SWINE.

The interest manifested in this breed of hogs warrants, as a matter of information, the reproduction of portions of the address of the President, J. M. Stonebraker, at the first annual meeting. He said:

"In commencing my address I am pleased to be able to state this one fact, viz.: Some of you will doubtless remember that when the National Duroc-Jersey Record Association was organized, a little more than one year ago, there appeared an article in a couple of journals to the effect, 'that it had died a-borning,' but that assertion was groundless. It still lives and its members are here to-day for the purpose of electing a new set of officers for the ensuing year and transacting such other business as may properly come before the meeting. I am also pleased and gratified to see so many members and breeders present; it speaks well for the association, being its first annual meeting. We all know there is strength in numbers and that these meetings are made much more interesting and profitable when there is a goodly turn-out of its members.

"Gentlemen, we are here assembled for the first time since the birth of our organization. It was about fourteen months ago this new-born child came into existence and it has grown to nearly manhood, and has a membership of fifty-seven breeders of red hogs, with a record number of animals, which I take is sufficient evidence and proof of the desire for and necessity of its existence and that it has come to stay, is the voice of a large majority of the Duroc-Jersey breeders.

"Gentlemen, has it ever occurred to you that it does not hurt the moon for a dog to bark at it? The moon still keeps on in its regular course, to all appearances unconscious of the commotion it kicked up. If it does the dog any good, why let him bark to his heart's content; it may be music to his own ears if to no one else. All the unjust accusations against the officers of this association have only strengthened it by adding new members to its fold. I have been told by a prominent Duroc-Jersey breeder of Iowa, who has taken membership with us, that in all probability he would not have done so had it not been for the constant tirade made against the new association by the head officers of the old association.

"Gentlemen, when we look upon the record system of the Duroc-Jersey hog for the past decade, we are all surprised to see what little progress had been made before the National Duroc-Jersey Record Association came into existence. The National has enlarged the field for progressive usefulness as the work has already clearly shown. Never before since the advent of Duroc-Jersey swine has there been among farmers and breeders such a strong tendency to breed and raise the Duroc-Jersey hog. It is encouraging to note that the Duroc-Jersey breeders are advertising more extensively and that more hogs are being recorded, and all this has been accomplished by the new association while hogs were at their lowest figures and corn at a high price. In proof of the facts just stated there has been males from 1 to 177 and females from 2 to 426 recorded in the new association since it was organized.

"The growth of the National Duroc-Jersey Association has been almost phenomenal. Never before in the history of the red hog has such a strong organization been formed, even after ten or twelve years of work. Why has the National met with such encouragement? The reason is plainly to be seen. It was organized for the good and benefit of the Duroc-Jersey swine breeders generally, and that every breeder of the red hog should have the same privilege of recording his stock as his neighbor and record it as cheaply as possible, without partiality to a favored few. The Secretary must

be outside of the breeders' ring, according to our by-laws, so that any herd cannot be advertised at the expense of the association, and the President cannot hold office more than two terms in succession. I would here suggest that our constitution be changed so that the President can hold but one term. I think it would have a better and more beneficial influence, and each State that is represented by five or more stockholders could in turn be honored with the Presidency. I only offer this for your consideration.

"In reviewing the successful work and growth of the National since first organized, I cannot place too high an estimate or too much credit to the efficient labors of our Secretary, for his work shows that he has labored faithfully and well. He has proved himself worthy and capable of filling the position. His management of the advertising of the association has been excellent and it has been a source of interest and benefit to the breeders of Duroc-Jersey swine, but the members are no doubt fully acquainted with the foregoing facts, and it is useless for me to state them here.

"The Board of Directors have managed their part well and by their conservative acts deserve no little praise, and especially have they done well in granting an extension of time in which to sell stock at a low rate, thereby allowing all breeders of red hogs an equal chance to become members on a fair and equitable basis. It is wise legislation that wins and gives strength to any organization. A Board of Directors of this kind gives stimulus to each stockholder to work for the best interests of an association to which he belongs in the upbuilding and sustaining of the same.

"I would suggest to the association not to be parsimonious but to continue to advertise in a judicious and economical manner, as I believe the old board has done.

"With special premiums offered by the National, to be awarded at the World's Columbian Exposition, was a step in the right and proper direction. Animals competing for these specials must be recorded in the National.

"I have now taken up more than my share of your time and beg to be excused, thanking the retiring Board of Directors for their wise legislation in guarding the interests of the association, the Secretary for his diligence and good work, the stockholders for encouraging and aiding the association by recording their stock, and more particularly do I thank you all for the many kind favors and friendships shown to your humble servant."

Experiments in Feeding Calves.

An interesting account of an experiment in feeding calves is given by F. L. Marshall, a Minnesota farmer, who gives the details to his local paper, as follows:

"We had fifteen calves, ten of which had followed their mothers and five were fed skim-milk. Those that had run with the cows were fat, and we decided to experiment with them in feeding; but it being more convenient, we fed altogether, not expecting to make much out of the skim-milk calves. After learning them to eat oats, we gave them a daily feed of about four quarts each for six weeks, then increased to six quarts. At the end of two months commenced giving a ration of two parts oats to one of corn, and fed that way for about sixty days longer, increasing the quantity of each a little. The last ten weeks they had two parts corn and one part oats, and at the very last they consumed ten quarts or more apiece. We have averaged up the feed and find that they ate about fifty bushels of grain and one ton of hay each in the 200 days they were fed. Their ages ranged, when sold, from 10 to 14 months, and weights from 725 to 995 pounds. We have estimated the kinds of grain on the average as about half and half. Corn at 23 cents per bushel and oats 17 cents, making the measured bushel of mixed feed worth 20 cents. The average value of the calves was about \$10; fifty bushels of grain, \$10; ton of hay, \$3; making \$23. With the exception of two of the skim-milk calves they sold for \$4 per 100,

and averaged 780 pounds each, making \$31.20, less \$2.75 expense of shipping. The net profit was \$5.45 each. I realized nearly 11 cents a bushel more for my grain than it would have brought at the elevators. The manure we have not considered, but it must be borne in mind that the manure now days has an intrinsic value and much more than pays for trouble of feeding cattle. The calves were dehorned in the spring and fed in the open air, in a trough, having a straw pile to run to and a warm shed to go under when too cold—not one was ever tied up. After getting used to the grain it was constantly kept before them. As to sex, my calves were two-thirds heifers and one-third steers; if they had all been steers they would have brought more money."

The Best Gait.

The most useful gait for a farm horse is a good walk. It is the same for heavy teaming. The steady, good, four miles an hour walk is the gait that gets there with the least amount of wear and tear of team and vehicle. The team that walks steadily and well, and is not required to mar the walk by trotting over part of the road, invariably reach the destination before the one that divides the distance into periods of brisk trots and very slow walks. This fact is well known to country people everywhere. The advantage of a brisk walk is just as great in cultivation. It is claimed by some that good work cannot be done with the plow at a faster rate than two miles an hour. By the use of suitable plows, and of fenders, nearly every such case can be eliminated from the calculation. It should be borne in mind that a team drawing a plow three and a half miles an hour will do as much work in six and a half hours as one walking two miles will in ten and a half hours. This is too great a saving to be overlooked. To improve the walk of a team it should never be worked at any other pace. To alternate the walk and trot spoils both.

What a Horse Would Say.

Don't hitch me to an iron post or railing when the mercury is below freezing. I need the skin on my tongue.

Don't leave me hitched in my stall at night with a big cob right where I must lie down. I am tied and can't select a smooth place.

Don't compel me to eat more salt than I want by mixing it in my oats. I know better than any other animal how much I need.

Don't think because I go free under the whip that I don't get tired. You would move up if under the whip.

Don't think because I am a horse, that iron weeds and briers won't hurt my hay.

Don't whip me when I get frightened along the road, or I will expect it next time and perhaps make trouble.

Don't trot me up hill, for I have to carry you and the buggy and myself, too. Try it yourself some time. Run up a hill with a big load.

Don't keep my stable very dark, for when I go out into the light my eyes are injured, especially if snow be on the ground.

Don't say "Whoa!" unless you mean it. Teach me to stop at that word. It may check me if the lines break, and save a run-away and smash-up.

Don't make me drink ice-cold water, nor put a frosty bit in my mouth. Warm the bit by holding it a half minute against my body.

Don't ask me to back with blinds on. I am afraid to.

Don't run me down a steep hill, for if anything should give way I might break your neck.

Don't put on my blind-bridle so that it irritates my eye, or so leave my forelock that it will be in my eyes.

Don't be so careless of my harness as to find a great sore on me before you attend to it.

Don't lend me to some blockhead who has less sense than I have.

Don't forget the old book that is a friend to the oppressed, that says: "A merciful man is merciful to his beast."

Agents wanted for Gearhart's Family Knitter. For particulars address J. E. Gearhart, Clearfield, Pa.

Keeps Leather

as good as new—

Vacuum Leather Oil.

25c. worth is a fair trial—and your money back if you want it—a swob with each can.

For pamphlet, free, "How to TAKE CARE OF LEATHER," send to VACUUM OIL CO., Rochester, N. Y.

Points in Sheep-Feeding.

Fattening sheep for market is engaged in extensively in some parts of Pennsylvania, Ohio, Indiana and Illinois; that is, many farmers make it a point to feed from half a car to one or more car-loads. They usually select wethers two or three years of age, gather them in the fall, feed all winter, shear early in spring and then sell. Generally something is made or the business would cease. There is a science in fattening sheep for best results which seems to be not understood or else ignored.

In the first place, instead of feeding four or five months, seventy-five days is sufficient. They will take on all the flesh in the latter time that it is possible for mature sheep to do. Feeding sheep four or five months is on a par with feeding fowls a month to fatten them, when half the time is all that is necessary. Feeders got into this rut because wethers can be bought cheaper in the fall; and then they have a crop of wool in spring as well as a carcass of mutton. They forget that the wool is worth just as much on the sheep's back as it is off, and good salesmen usually get the value of it too. And then mutton will bring more in spring than any other time. This used to be the case more than it is now; but granting all these claims, just as much is gained by not commencing grain-feeding until sixty or seventy-five days before selling. There is a waste of nearly half the grain when sheep are fed five months, as in the case of fowls that are fed a month. It must be remembered that a ninety or one hundred-pound wether cannot be made to gain more than twelve to twenty pounds, no matter how long fed.

Sheep-feeders would do better to step out of this rut and feed younger animals. The following well-authenticated data ought to be convincing: Sheep of the age of 7 to 10 months for each 100 pounds of digestible material consumed made a gain of 14 pounds live weight; those 10 to 13 months of age made a gain of 12½ pounds; those from 13 to 18 gained 10.7 pounds, and those from 1½ to 2 years old made a gain of 5.4 pounds. It is seen that it is far more profitable to feed sheep of from 7 to 12 months of age than to feed those that are older. Lambs are of quicker sale any time of year than older sheep and always bring better prices, weight for weight. Lambs can be fed profitably all winter and sheep not. Wethers will be eliminated from the sheep trade ere long. There is more profit in ewes and lambs. If sheep-feeders will try a bunch of lambs and a bunch of mature wethers next winter, keeping strict but separate accounts of all outgoes and incomes, they will abandon wether-feeding in the future and feed lambs instead.—Galen Wilson, in *National Stockman*.

Kansas Swine Breeders.

EDITOR KANSAS FARMER:—The semi-annual meeting of Kansas Swine Breeders' Association will be held Monday, January 7, at 3 o'clock p. m., in Topeka. An interesting program is being prepared. The Kansas Swine Breeders' Association is the oldest and strongest live stock association in the State. The proceedings of its meetings in the past have been of the highest order, entertaining, social and of wide influence. All who are interested in swine-growing are invited to be present at the coming meeting.

GEO. W. BERRY, President.

Get up a Club for KANSAS FARMER.

Agricultural Matters.

ALFALFA ON KANSAS UPLAND WITHOUT IRRIGATION.

By H. R. Hilton, of Topeka, Kas., in *Alfalfa Bulletin of Kansas State Board of Agriculture.*

The alfalfa plant is not limited in its choice of soils to one or two special varieties. It is at home in any moist soil, whether light sand, dark loam, or any variation of either or both, regardless of location. It loves best an open, friable subsoil, where its roots can readily penetrate and range to great depths in search of water. Hence its greatest productiveness in sandy valley lands, and lesser returns where subsoil is hard or compact.

It is a plant that responds readily to a bountiful supply of water; at the same time, there are few plants that can maintain their existence on so limited a water supply. But, in order to secure satisfactory returns, the alfalfa plant must have some moisture, not only in the surface soil, but also continuously for several feet into the subsoil.

The valley lands, by reason of their nearness to permanent water supply and greater moisture content, usually offer the most favorable conditions for growth of alfalfa; but there are also many upland soils in Kansas which can, by special preparation, be made to produce it successfully, at least more certainly than any other crop that can be grown. Alfalfa is a deep rooter, and to this fact is probably due its great power to resist adverse conditions. This habit of the plant must be recognized and provided for in the preparation of the soil for seeding. Any upland soil, whether sandy or loam, capable of maintaining a moist subsoil at all times, can be so prepared as to successfully grow alfalfa. Where the subsoil is dry from near the surface to the level of the ground water which supplies the wells, as in many parts of western Kansas, the difficulties become greater, but with special treatment there are many soils that will so conserve the moisture as to make alfalfa the most profitable crop to grow.

Thorough preparation of upland soil is imperative. On sandy soil, which takes in all the rain that falls, it may be grown on sod, or, if old cultivated ground, after a good plowing and thorough harrowing, but as a rule sandy soil cannot maintain a percentage of moisture high enough to insure profitable growth, outside of river valleys, west of the central counties. The plan outlined in the following is intended for that much larger area of upland soil, common to central and western Kansas, which has just enough sand to distribute the water freely through it, and sufficient silt and organic matter to hold back a good percentage from drainage. The soil is rich in all the elements of fertility and the surface works up mellow and loamy. The subsoil is oftentimes compact or hard, into which water finds its way slowly—oftentimes too slowly to save all of the water supplied by many of our thunder showers.

For such soils the following is suggested: Use only land that has been in cultivation for several years. Plow as early in summer or fall as feasible, following the surface plow throwing a four-inch furrow, with a subsoil plow that will loosen the ground underneath ten to fifteen inches deeper. Follow this plowing with float, and, after every good, soaking rain, give it a light harrowing. If prepared early in summer, and good rains come before October to soak it as deep as plowed, then it may be seeded to fall wheat; out if only light rains fall after subsoiling, then save the ground for a spring crop the following season. Give the land surface cultivation only during this second season. After crop is removed, harrow with disc or spring-tooth two or three inches deep. When this is dried out, let a heavy roller be passed over it, following the roller immediately with a plow. If windy, roll only a few rounds at a time in advance of the plow. Plow deep—seven to nine inches—turning the fine, dusty soil prepared by the roller into the bottom of the furrow. Level promptly with float, and mulch by giving the ground a light harrowing. The fine soil turned

under holds the highest percentage of moisture.

It is important that the rainfall get into the soil, and this fine soil helps to pull it down and hold it below the surface. The next important thing is to save it. If the falling rain hardens or compacts the surface, it should be loosened at once, to form a mulch, and prevent waste, but this must be done promptly, while there is some moisture in the surface soil, to prevent its pulverizing too much and being blown away. If this preparation follow wheat or oats, and ground has had sufficient rain, the alfalfa may be seeded early in September of this year, being about one year from date of subsoiling; but if the ground is still dry, then defer the seeding till rains have well moistened the soil through and below the soil loosened by the subsoil plow, which will usually occur during the winter or following spring months. Seeding with press drill will probably give best results in most localities, but use whatever plan has given best results on similar soils in the vicinity.

When a good stand has been secured a good work has been done. When a good stand has been maintained for several years a better work has been done. Heavy showers tend to harden most soils. Hard surfaces encourage rapid evaporation. Every time a crop of alfalfa hay is cut, if surface has compacted, run the harrow over the field to loosen the surface again. The harrow cannot injure the alfalfa plant, and the effect of harrowing is to mulch the exposed surface and save moisture, till the plant gets sufficient growth to shade the ground again. This should be repeated after every cutting. The clover field should be visited while heavy showers are falling, to see if the soil takes in all of the rain as fast as it falls. If any runs off, then the soil needs to be harrowed deeper, at the first opportunity, so that all the rainfall be retained for service.

With thorough preparation before seeding, and good care after stand is secured, alfalfa should be a profitable crop, in most of the seasons, as far west as the ninety-ninth meridian; and, if the plan outlined is strictly adhered to, soils capable of retaining a high percentage of moisture after rainfall, in any part of western Kansas, can, by judicious handling and guarding well against excessive evaporation, be made to give better returns than from any other crop now cultivated in western Kansas and not irrigated.

Handling Kaffir Corn.

EDITOR KANSAS FARMER:—Please allow me to give my experience as to cost of threshing Kaffir corn. Taking F. C. Burtis' price for threshing (4 cents per bushel), it would make the cost of threshing a fraction over \$4.59 per acre. I raised a crop on my Shawnee county farm in 1892, and this is the result at the above named price: For threshing 440 bushels at 4 cents, \$17.60; four teams to haul from field, \$8; two men in field to load, \$2; one man to stack fodder, \$1; two men to take care of grain, \$2; one-half ton of coal for engine, \$1; with one team to haul water and three men with machine, in all eleven men and five teams, and at the lowest price, \$5, for board, making a cost of \$36.75 for eight acres handled per day. In threshing, it will go nearer six acres per day than eight, and the only reduction in expenses will be in the less number of bushels threshed. The fodder will go somewhat farther than when headed, but not enough to pay the difference in cost. The cost of heading is about as follows: One man and team one day, \$2; three men and teams to crib after headed grain is cured, \$6; board and feed for teams, \$2.40, making the expenses for heading and cribbing ten acres, \$10.40, or \$1.04 per acre.

We did not have any Kaffir corn to experiment with this year, but cut sorghum instead, and are running it through a feed-mill without threshing, and making good feed without any inconvenience whatever. I think there is no need of threshing to grind in a mill that has a forced feed. I expect to raise forty acres in Auburn township, Shawnee county, and head and run through feed-mill the coming season.

R. B. FRANKLIN.
Fort Madison, Ia.

Sugar at Zero Cost.

EDITOR KANSAS FARMER:—In your issue of November 21 appeared a letter on "Beet Sugar in Kansas." Whilst I would not for a moment seek to discourage attempts to make the extraction of sugar from beets profitable, and do not seek to controvert the statements of your correspondent, yet inasmuch as he has claimed superiority for beets over sorghum as a sugar-producing plant, I am tempted to make some observations upon the point.

It is, I think, incontrovertible, that whilst the soil of Kansas is capable of growing beets to perfection, the required moisture is sadly deficient for the purpose. The fate of the crop in Nebraska during the present year is an illustration of what might be expected in Kansas without irrigation five years out of every seven. The care and cultivation of beets also must be so intense as to deserve the name of horticulture rather than of agriculture. Our experience of their cultivation at Medicine Lodge went to show that the average Kansas farmer would not take the necessary pains to grow them. This necessary intense cultivation results in a high price. At Chino, this year, the average price has been \$4.63 per ton, and since the extraction of sugar has been about 200 pounds per ton of beets, it needs no elaborate calculation to show that each pound of sugar in the raw beets costs 2.31 cents. Then, as shown by the figures of your correspondent, the working plant of a beet sugar factory is necessarily a most expensive one. The fixed charges for interest, calculated at 10 per cent. for the capital outlay of \$1,000,000 and for wear and tear calculated at 5 per cent., amount to \$150,000 per annum, or on an output of 9,000,000 pounds to 1.66 cents per pound. I need not prolong the calculation to show that the total cost of making sugar from beets is at least 6 cents per pound, an estimate which is fully borne out by Mr. Oxnard himself, and by figures quoted recently in the *Louisiana Planter* from the season's run at Chino.

As an instructive comparison with these figures, let us now turn to sorghum. Your correspondent says, "the sucrose in sorghum is not in a form which can be worked out easily enough to make it a successful product for sugar." Whilst I fully admit that up to date a satisfactory proportion of the known sugar content of sorghum has not been extracted, we, at Medicine Lodge, at any rate, are not prepared to say *non possumus*. During one whole week's run the extraction of sugar per ton of field cane was ninety-eight pounds, and the experiments which were made during the season point to the extreme probability that this will be increased by 50 per cent. by certain improved methods of clarification, with a description of which I need not trouble your readers. Sorghum can be raised at a profit at \$1.50 per ton. With an extraction of 150 pounds per ton, therefore, the cost of the sugar per pound in the raw cane is 1 cent, as contrasted with 2.31 cents in the case of beets. I could show that the expense of extraction is less than one-half of that for beet sugar. But finally, and most important of all, there is virtually a certainty that every fibre and drop of the by-products of the manufacture, such as leaves, bagasse and molasses, will, in a short time, be so utilized as to bring down the net cost of a pound of sorghum sugar to something very near zero. It is sound philosophy which says "never prophesy unless you know." In spite of this, or rather in accordance with this caution, I venture the assertion that within the limits of the present century there will be, in Kansas, scores of mills making out of sorghum not only sugar, but paper and spirits, at such low rates of cost as to defy competition from any other plant known at the present time. To whomsoever it concerns, I am prepared to show how this can be done.

W. H. REVIS.
Medicine Lodge, December 4, 1894.

SINGERS AND ARTISTS GENERALLY are users of "Brown's Bronchial Troches" for Coughs, Colds, Hoarseness and Throat Irritations. They afford instant relief. Avoid imitations.



Saved Her Life.

Mrs. C. J. WOOLDRIDGE, of Wortham, Texas, saved the life of her child by the use of Ayer's Cherry Pectoral.

"One of my children had Croup. The case was attended by our physician, and was supposed to be well under control. One night I was startled by the child's hard breathing, and on going to it found it strangling. It had nearly ceased to breathe. Realizing that the child's alarming condition had become possible in spite of the medicines given, I reasoned that such remedies would be of no avail. Having part of a bottle of Ayer's Cherry Pectoral in the house, I gave the child three doses, at short intervals, and anxiously waited results. From the moment the Pectoral was given, the child's breathing grew easier, and, in a short time, she was sleeping quietly and breathing naturally. The child is alive and well to-day, and I do not hesitate to say that Ayer's Cherry Pectoral saved her life."

AYER'S Cherry Pectoral

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.
Prompt to act, sure to cure

Inside Fences and Crab Grass.

EDITOR KANSAS FARMER:—The great value of crab grass for pasture is perhaps not so well known by all your readers as it is to some of my neighbors who have been taking advantage of the past two years. Horses that are run down by a hard summer's work, if allowed to graze on oat stubble will soon be rolling fat, though the crab grass seems to be short and thin, as it was this year before the rains. It comes at a time when prairie grass pasture is poor, and puts all stock that have the advantage of it in excellent condition to begin winter. With a small outlay for wire and posts for inside fences and a little forethought as to sowing and planting crops in the spring, most farmers could manage to pasture their oats and flax stubble land and get the good of the crab grass that comes spontaneously thereon, and is certainly one of the best forage crops we have. Cut and cured for hay it makes a feed equal to or better than the best clover and timothy hay. I know from experience. I. F. HILL.
Coffey Co., Kas.

William Henry Ott, alias "Mustang Bill," says that he used Ayer's Hair Vigor for nearly five years, and owes to it his splendid hair, of which he is justly proud. Mr. Ott has ridden the plains for twenty-five years and is well known in Wyoming and the Northwest.

When the Kicks Come In

Is not the title of a new song, nor does it refer to the backward action of that much-maligned animal, the mule.

It is a phrase used by the inhabitants of Oklahoma to designate the approaching opening of the fruitful acres of the Kickapoo Indian reservation.

If you wish to find out all about the Kickapoo lands, as well as those belonging to the Wichita and Comanche tribes—where cotton, wheat and fruits will pay handsomely—ask G. T. Nicholson, G. P. A., Santa Fe Route, Topeka, Kas., for a free copy of Oklahoma folder.

CONSUMPTION SURELY CURED.

TO THE EDITOR—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy free to any of your readers who have consumption if they will send me their express and post office address. Respectfully,
T. A. Slocum, M.C.,
No. 183 Pearl Street, New York.

Irrigation.

IRRIGATING ORCHARDS ON SLOPING LAND.

Three different systems have been used to irrigate orchards on sloping land. First, the underground pipe system. Second, the system of grading the land until the surface is a plane and running the rows of trees in the direction that will give the ditches the proper fall. Third, the system of planting the trees in straight rows up and down the hill and running the ditches the same way. In using the third method a very small stream of water is turned into the ditch and it is allowed to run for a much longer time than if the ground was more nearly level. The second system was described in a recent issue of the *Irrigation Age*. The expense that generally attends the use of the first and second methods forbids their use except at experiment stations, and in the case of wealthy men who plant orchards for a diversion. The third is a poor man's method, but if the ground is at all steep it is difficult to keep the ditches from washing into gullies and there is generally an unnecessary waste of water. In the system here described the expense is trifling, while the results will compare favorably with the more expensive methods.

The accompanying sketch represents an orchard planted in accordance with this system. The upper half is steep,

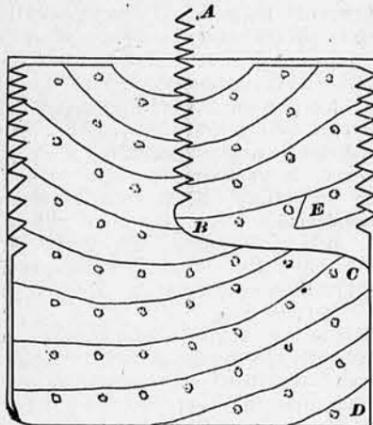


DIAGRAM.

with a ridge running down the middle, while on the lower half the slope is gentler and the ridge disappears.

A B C D represents the ditch which supplies the water. To prevent waste, the water in the supply ditch should have as great a velocity as the ground will stand without washing. In the more compact sage brush land a ditch to carry one-half a cubic foot per second can be given a fall of four feet in 100. In sandy ground the fall should be less. In order that the ditch may have a fall of four feet in 100 it is made in a zigzag with an angle every twenty-five feet until it reaches the point B, where the proper fall can be given by running to the right. The ditches at the sides are to carry off the waste water. The curved lines represent the furrows which carry the water to the trees. These should be run on a uniform grade with an engineer's level. The fall they should have depends on their length. If they are but a few rods long they may be made level. I have found that for furrows forty rods long a fall of .8 of a foot in 100 feet does very well. These furrows should be run before the trees are planted and their distance apart should be the same as required between the rows, although the distance will vary somewhat with the change of slope. After the furrows are run the trees may be planted in straight rows up and down the hill with a tree below each furrow. To run these furrows rapidly and accurately, the ground should be rolled and points located with the level every twenty-five feet, the rod-man pacing the distances. To avoid the use of stakes the rod-man may be followed by a man with a hand plow, running a furrow through the points located by level-man. It is well to run a horse-plow twice over these marks, throwing the furrow the last time down the hill. If the furrows become too far apart by reason of the ground becoming flatter,

a short furrow may be run between, as shown at E.

A useful implement in work of this kind is a short roller, three or four feet long, with a bulge in the middle to run in the furrow. It packs the ground and prevents the water from breaking out on the lower side.

The ground in the angles of the supply ditch is a good place to plant asparagus, hazel bushes, or anything requiring much moisture. Fruit trees may be planted in the angles of the waste ditches and cultivated by hand.

After the trees are planted the yearly plowing of the ground can be best done in lands running up and down the hill. The cultivator can be run both ways, but if the ground is cultivated up and down the hill the first time in the spring and the last time in the fall and the other way during the summer, the work of remaking the furrows is avoided.—*Irrigation Age*.

Irrigation--Greenbacks.

EDITOR KANSAS FARMER:—I enclose herewith a check for \$2 to pay for the KANSAS FARMER for 1895 and for *Breeder's Gazette*, which you offer to send a year for the amount of \$2.

The KANSAS FARMER is doing good work in giving the farmers valuable information about irrigation and alfalfa and the raising of other crops, and I am glad to see that you devote so much space to these subjects. They are important. What the farmers want is practical information in regard to getting at the water, the best method of sinking wells, the best and cheapest power and machinery for pumping, and also of distributing the water on the land.

I see that Prof. E. B. Cowgill was the Secretary for the irrigation convention that recently held a session at Hutchinson, Kas. Will he be kind enough to send me a copy of the proceedings of that association as soon as published? I am not a member of the Irrigation Association, but perhaps will be if I learn the terms on which members are permitted to join. If not, I will remit the price of the book, whatever it is, when received. [Membership fee is \$1.00. Should be sent to the Secretary.—EDITOR KANSAS FARMER.]

In the editorial on the "Irrigating of Farms," in KANSAS FARMER of December 5, you speak of parties who are willing to make contracts to put in irrigating plants for a fixed amount. I have a farm of 640 acres at Goddard, about sixteen miles west of Wichita. It is a mulatto soil, sandy loam with a sandy and black clay subsoil. The deepest wells on the farm are about thirty-three feet, and there seems to be an abundant supply of water for stock purposes at that depth, and I judge that there is an abundant supply even for irrigating purposes. Now, I would like to make a contract with some man to put in a pump that will irrigate 160 acres, and if it works well, would make arrangements to have the whole farm irrigated. If you can put me in communication, or put somebody in communication with me, in regard to the matter, I shall be glad to correspond with them.

I have another farm down in Barber county, that is reddish clay and sandy loam soil, about one quality of the soil down twenty to forty feet. It is a very rich soil, and will raise big crops if we had an abundant supply of water. There is nearly a thousand acres in the farm that irrigation would do well on. Some of it is on the Medicine river bottom, and water could be had on the first bottom at about ten or twelve feet; on the second bottom it would be somewhere from twenty-five to forty feet. I should like to make similar arrangements to have a quarter section on this irrigated, with the intention of having the whole of it irrigated if the plant works successfully. It looks to me as though irrigation and alfalfa would be the salvation of western Kansas.

I should be pleased if you could manage to give a little more practical information in regard to subsoling in Kansas. You have published several articles within the last year or two by a correspondent, who I had a suspicion was interested in the subsoil plow, but

IRRIGATION SUPPLIES.



Windmills, Steam Pumps,

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WE WILL ERECT PLANTS COMPLETE, GUARANTEEING RESULTS.

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I may be wrong about it. Now we want information from practical farmers who have used these subsoilers and experimented in regard to crops. Suppose you put a card in the FARMER asking for special information in regard to subsoiling?

I want to call your attention to one matter in regard to the money question, that I think is important just now. The report of the Secretary of the Treasury recently sent to the President, and the President's message recently sent to Congress, both indicate that a warfare is to be made upon the greenbacks, with a view of supplanting them by national bank notes. I think the people of the entire country ought to raise their protests against any such proceeding as that. Instead of retiring the greenbacks and replacing them with bank notes, they ought to retire every bank note and replace them with greenbacks. What do you think about it? I know that you do not agree with me on the silver question, but it is simply because you are not as well posted on the subject as I am, for every honest man must take my view of the question when he understands it. New York City. E. P. MILLER.

Wants Irrigation Pushed.

EDITOR KANSAS FARMER:—Mr. Eli Benedict, of Medicine Lodge, tells us that winter is closing in on us. I will say that it has come—to us out in Seward and Meade. The snow which fell yesterday and last night to the depth of six inches, found our wheat and rye needing moisture very much. He (Benedict) tells us, after his twenty years' experience in the swim, how to do. Now, if Mr. Benedict can grow Kaffir corn, cane, millet and broom-corn without rain, he must have a new variety. I have tried these I have mentioned, and I cannot make them grow without rain. We can raise cattle and horses out here, and to-day, while the ground is covered with snow, our horses and cattle are doing their own mowing and feeding. I do not suppose they look quite as fine as the cattle on that 320-acre farm he speaks of as belonging to that honorable gentleman (Simpson). He (Benedict) makes quite a distinction between the 320-acre farm and 150 head of nice cattle, and Chester I. Long's law library. As for me, I want to mix a little politics with my farming. I want to urge all of my brother farmers to write to their Senators and Representatives in Congress to do something for western Kansas in the way of an appropriation, so we may know the cheapest and best way to irrigate enough land to subsist on. W. F. NEWHOUSE.

West Plains, Kas.

The demand for information as to practicable method of applying water to land is constantly becoming more pressing. Were fields even in surface and slightly sloping the problem would be an exceedingly simple one. But tracts which at first sight appear to be of

even surface are found on examination, and especially on undertaking to run water over them, to possess many previously unnoticed variations. Scarcely two fields will be found alike, so that each must be treated as a case by itself. Some sort of instrument to be used in determining levels and slopes is necessary in any case. In another place on this page we present by courtesy of the *Irrigation Age*, a description and a diagram which will be found suggestive.

STATE OF OHIO, CITY OF TOLEDO, } ss.
LUCAS COUNTY.

FRANK J. CHENEY makes oath that he is the senior partner of the firm of F. J. CHENEY & Co., doing business in the City of Toledo, County and State aforesaid and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of HALL'S CATARRH CURE.

FRANK J. CHENEY.

Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1896.

SEAL

A. W. GLEASON,
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Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

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EXPRESS PAID, for \$17. Will spray a 10 acre orchard per day. Endorsed by the leading Entomologists of the U. S. 60,000 in use. Satisfaction guaranteed or money refunded. Illustrated catalogue on spraying free. Rapid sellers. Our agents are making from \$5 to \$20 per day. Mention this paper. Address P. C. LEWIS MFG. CO., Box 76. Catskill, N. Y.

WATER PIPE.

Our Hard Burned Vitrified and Glazed Clay Pipe is everlasting. With our Improved Joints this pipe will stand same pressure as iron and costs about one-fourth as much. Write for particulars.

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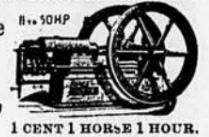
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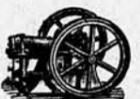
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will elevate water in any quantity to any height at any distance. Made in all sizes, for all purposes, and will deliver more water than any other ram under same conditions. Ill. Catalogue and estimates free. Rife's Hydraulic Engine Mfg. Co., ROANOKE, VA.

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That is what "WEBER" GASOLINE ENGINES COST to run per horse-power. Simple, Safe, Reliable, Economical. GET POSTED. Weber Gas and Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.



The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

Answers to Correspondents.

(NUMBER 26.)

FAMILY DOCTOR:—About a year ago I was taken with a severe kidney and bladder trouble; had a doctor, but he failed to give much relief, but got better during the summer. About two months ago it came on again. Have to go to the closet often, but only pass a few drops sometimes; always scanty, with great distress, which goes all over me. Have distress across the abdomen and back, also left hip and limb, with considerable bloating all over me; also have pain in heart and chest. I am nearly 77 years old. If you think you can help me please reply through the KANSAS FARMER. Lincoln, Kas. E. A. L.

Yes, but would need to see you and make a careful study of the case.

FAMILY DOCTOR:—I have had, for two years and a half, more or less dull neckache. It is worse in the evening. I can hardly go to sleep. In the morning it is not so bad. I have had a spell of scarlet fever this summer, but I am well otherwise. I very seldom have headache. I am 27 years old. Please answer through the KANSAS FARMER. Antelope, Kas. Mrs. A. M.

Your trouble is too obscure to prescribe for, without a personal study of your physical condition and history.

HENRY W. ROBY, M. D.:—My wife, 51 years old, is afflicted in a strange way. Her right thumb goes stiff, often wakes her up in the night, the end joint being crooked; it is painful; she can open it only by taking the other hand, when it will open with a jerk, which can be heard. Constant using in the day time helps it, but when she takes a little rest, it gets bad again. She often has sharp pains in both hands, more so if they are cold. Can you prescribe a remedy through the KANSAS FARMER? Elgin, Kas. HENRY POTTER.

There is some local nerve irritation in the thumb, possibly a needle point or a thorn or breir point that has worked down and pricked a motor nerve. Galvanism ought to help it. As to drugs, Rhus toxicodendron, internally, should allay such irritation.

New Books.

"Footprints of Four Centuries," is the history of the greatest nation on earth, from Columbus to Cleveland. Within the keep of its two covers, not two inches apart, is the story of a most wonderful people, a story more fascinating than that of the Arabian Nights or Robinson Crusoe. It is the story of our forefathers and ourselves. Following the "Footprints of Four Centuries," we are shown where the Anglo-Saxon giant first set foot on the continent, and then walked up and down its rivers, over its plains and mountains, through its forests and gardens, along its lakes and gulfs and bays and rolling seas, and knit and wove himself into the complexus of its social, industrial and political fabric, which we to-day call the United States of America.

As every word in the dictionary stands for something, so every man fit to be called such, stands forth for something in life. He embodies some idea or some combination of ideas. Columbus, Washington, Lincoln, Grant, stand for great epochs in our history, and every other man stands for something, like or unlike to them.

What story can one tell more fascinating than that of a few pilgrims, walking to and fro, multiplying and conquering wild nature, and wilder men and beasts, and bringing up at the turn of the fourth century at the high station our seventy millions occupy on the planet?

Within these lids are set forth every important event of our national life. Every historic event in the political arena, on the field of battle, in the laboratory of science, in the dream-chamber of invention, in the studio of art, in the shop of the artificer, in mine and mill, in forest and field, by sea and land, is here set forth in faithful portraiture. Here is a whole library between two lids. It tells who you are and among whom you dwell. Every farmer in Kansas should have a copy of this book alongside of the Bible in his home and have some member of the family read a chapter from it on each of the long winter evenings. If I could place a copy of "Footprints" in the hands of every farmer's son in Kansas, I could thereby make some future President of the United States. We climb to greatness by our knowledge of men and things. Here we find that knowledge.

The book is by Hamilton W. Mabie, of Johns Hopkins University, assisted by a score of able writers. It has over 350 illustrations, and the Family Doctor commends it to every farmer and farmer's son in Kansas. It is better than a salt or silver mine, for out of it you may quarry that everlasting fortune that enriches the mind.

Mr. John D. Knox, of Topeka, is the Kansas agent for the book.

Get up a club for KANSAS FARMER.

All Distributed.

OFFICE STATE BOARD OF AGRICULTURE, TOPEKA, KAS., December 17, 1894.

EDITOR KANSAS FARMER:—I greatly regret to inform you that the reports of the State Board of Agriculture on "Feeding Wheat to Farm Animals," and "Alfalfa-Growing," are exhausted—the latter within a week from the time of its completion by the State Printer. The editions of these were limited by the printing fund to 12,000 and 10,000 copies respectively, and there is no further printing fund now available to the board for printing so much as even a leaflet on any subject.

The demands, many of them appeals that are well-nigh pathetic, from our own people for these documents, containing what they deem information immediately and immensely important to them under the conditions now prevailing, suggest that editions several times larger could be used with much profit to the State, to say nothing of properly responding to the requests received from inquiring people, the press, educators and educational institutions in other States, and all parts of the world.

Future applications will be carefully filed, and if the Legislature should make provision for the printing and distribution of a further edition of either report the department will have much pleasure in responding as promptly as the work can be done.

F. D. COBURN, Secretary.

Can the Gold Standard be Maintained?

EDITOR KANSAS FARMER:—With the continued flow of gold to Europe to pay interest on the five billions of dollars of bonds of various kinds, held in England, Germany and France against the people of the United States, together with additional sums necessary to pay dividends to English stockholders in manufacturing and other enterprises in this country, the question arises, can we much longer maintain a gold basis for our currency?

The growing demand for gold, arising from its increasing use by European nations, and the general expansion of business in this and other gold-using countries, has, according to the best authorities given in the present year's report of the Senate Committee on Currency, increased the purchasing power of that metal during the last twenty years from 43 to 50 per cent. This implies a great shrinkage in values of all products, prices of which cannot be maintained by trusts or agreement, and this shrinkage falls more heavily upon agriculture than upon any other interest, and as the United States is the greatest agricultural country on the globe, it follows that this country more than any other is the sufferer from appreciation in value of gold with corresponding shrinkage in price of agricultural staples.

Supply and demand determine all values, that of gold no less than of other commodities, but prices are determined by the value of both gold as commodity priced, price being but the ratio of exchange between given amounts of the two commodities. Hence, with the world's growing demand for gold, falling prices for agricultural staples, measured by that standard, must inevitably follow. The farmer sells 90 per cent. of his products for home consumption, and yet he is parting with all the products of his labor at prices measured by a world's appreciating standard, the result being falling prices for his labor.

Shrinking values will not be checked until there shall be abandonment of the gold standard. Nothing, therefore, but a domestic currency with other than a gold basis can restore domestic prices and compensate agriculture for the enhancement of the cost of its purchases under protective tariffs. The gold standard threatens destruction to the two great staple crops, wheat and cotton, while shrinkage in prices of these has brought the value of our exports down almost to a level with our imports, thus leaving the people of this country to pay their entire interest charge abroad in gold, which, with the gold necessary to pay dividends to foreign stockholders in

American enterprises, makes a sum estimated at not less than \$300,000,000 annually, drawn from the gold supply of this country. As there is no channel for a return flow, how long can the people of the United States maintain a gold standard currency?

The advocates of protection make a pretext of sustaining shop labor, and in the same breath advocate the world's gold standard of value, with the full knowledge that as this appreciates the value of the American farmer's labor depreciates. The London Times expresses a doubt as to the ability of this country to maintain a gold basis, and who, looking at conditions as they exist, can for a moment assume that we shall be able to maintain a gold standard in view of the drainage of gold which, through the magnitude of the debt, has doubtless become permanent? The Eastern manufacturer is not subjected to this shrinkage, as the profits upon his capital are protected by tariffs and trusts. Hence, when he can buy his food supplies, cotton and other raw materials cheap, while selling his wares at good figures, he says "times are good," and for him this may be true, but for agriculture, ground between the upper and nether millstones of tariff and gold standard, it is the reverse.

H. B. KELLY.

Gossip About Stock.

Mr. L. M. Monsees, of Smithton, Mo., proprietor of the Limestone Valley farm, writes to our field man, Mr. Brush, among other things: "All our Poland-Chinas, except our younger ones, 3 to 4 months old, are gone. The youngsters are promising first-rate, and if any one desires something cheap and wait on them awhile we are ready to fill such orders. I lately sold two jack colts by Superior Mammoth 124 to an Ohio man for \$700; also a Peidmont colt for \$150. I have nine jacks that are ready for service and thirty jennets—all good ones. You will call to mind the young bear that we bought of Shellenberger, of Ohio. I refer to the son of the noted World's Fair winner, J. H. Sanders. He is growing in all his points and is as smooth and blocky as he was when you were here on your visit. If any KANSAS FARMER reader wants a first-class jack or a string of jennets I can fill his wants with first-class stock at reasonable prices."

Among others reporting to our field man last week was Mr. R. S. Cook, of Wichita, Kas., and among other points noted he stated that he yet had a lot of extra fine gilts, a major portion of which are bred to one each of three choice males. The youngsters' dams were sired by such noted boars as Lawrence's Perfection 27899, the sire of all his World's Fair winners; Cook's Royalty 31437, a half brother of Free Trade; Tecumseh Duke 33231, a richly-bred Tecumseh—a grandson of old Tecumseh. Tecumseh Duke won first prize at the Topeka, Kansas, State fair. Another grandsire of some of these young gilts was World Beater, who was sired by a grandson of Black U. S., and is one of the most prolific breeders he ever owned. The smallest litter by him this season was eight, and they ranged up to twelve. He was out in the show ring this fall and won first in class, first sweepstakes, and first at head of herd at the late State fair held at Wichita. There are yet a few choice young boars that are ready to go. His sales have been extensive and very satisfactory this year and he anticipates a tip-top line of offerings for his customers in 1895.

Publishers' Paragraphs.

The *Youth's Companion* promises to be exceptionally strong in its fiction during the coming year. Among the famous story-writers who will contribute to it are Robert Louis Stevenson, J. M. Barrie, Rudyard Kipling, W. D. Howells, J. T. Trowbridge, Clark Russell, Harold Frederic and C. A. Stephens.

MUSK-MELONS.—A finely flavored, well developed musk-melon is a treat, and, to produce them, one should secure the best seed obtainable. Regarding the White Persian, advertised elsewhere in the KANSAS FARMER by the Larkin Commission Co., of Wichita, Kas., Mr. Larkin says that it is the best in size and flavor of any melon of its kind ever discovered. They are keepers, much larger on an average than other melons, and possess a delicious flavor. They guarantee the melons to prove as advertised.

A WORK OF ART.—About the handsomest calendar issued for 1895 is that of the Hartman Manufacturing Co. (Western office, Manhattan building, Chicago), and is entirely a Chicago production. The engraving is done by the Chicago Photo Engraving Co., and the printing by Colbert & Dittman, a young firm whose color work is astonishing even the experts who are familiar with that of Paris. The design is exquisite, and

Babies

and rapidly growing children derive more benefit from Scott's Emulsion, than all the rest of the food they eat. Its nourishing powers are felt almost immediately. Babies and children thrive on Scott's Emulsion when no other form of food is assimilated.

Scott's Emulsion

stimulates the appetite, enriches the blood, overcomes wasting and gives strength to all who take it. For Coughs, Colds, Sore Throat, Bronchitis, Weak Lungs, Emaciation, Consumption, Blood Diseases and all Forms of Wasting. Send for pamphlet. Free.

Scott & Bowne, N. Y. All Druggists. 50c. and \$1.

the whole result is well worth three times the price asked for it, 8 cents in stamps.—Chicago Tribune.

THE ORCHARD.—There is not a reader of this paragraph but what is interested in the matter of fruit production. Every one loves a choice apple, pear, peach, plum, cherry, etc. Yet how few take the pains to provide the means by which a bountiful supply of this important food can be had. So many farms there are upon which an orchard is unknown; and, fruit for table use upon such farms is almost as scarce as the proverbial hen's teeth. Now, why is this, when our country abounds in such nurseries as the Lee's Summit Star, in which are grown the very best trees for either home or market orcharding? There is no one but what realizes the importance of having a good orchard, then why not take steps tending to the planting of a suitable tract into fruit, and soon it will be that you can have, of your own production, plenty of the best fruit, of which you may well feel a pride, justifiably overstepping the border of admiration and entering into the realm of joy such as only the continual partaker of fruits can possess. Now, then, write to Mr. M. Butterfield, Lee's Summit, Mo., requesting from him a catalogue, examine and make your selection and add unto your happiness, peace and prosperity by the planting of an orchard. Notice his advertisement in this and subsequent issues of the KANSAS FARMER, and in writing mention our paper. It will pay you.

LIVE STOCK AUCTIONEERS.

J. M. HOSMER, Live Stock Auctioneer, Maryville, Mo. Fine stock a specialty. I respectfully solicit your business and guarantee satisfaction. Terms reasonable. Secure Cates early.

F. M. WOODS, Live Stock Auctioneer, Lincoln, Neb. Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

JAS. W. SPARKS, Live Stock Auctioneer, Marshall, Mo. Sales made everywhere. Reference to the best breeders in the West, for whom I have made sales. Catalogues compiled and printed. Terms reasonable.

ELI ZIMMERMAN, Hiawatha, Kansas, Live Stock and General Auctioneer. Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

S. A. SAWYER, FINE STOCK AUCTIONEER—Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Complete catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

CANCER Tumors and Ferofula cured without knife, plaster, caustic or poison. Send 2 cents for certificates of cure, mentioning this paper.

DR. H. C. W. DESHLER, 306 VanBuren St., Topeka, Kas.

KANSAS TANNERY.

ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me.

M. C. BYRD, Lawrence, Kas.

THE LEAN ALL STEEL Harrow

Entirely of Steel. No castings to break. Strongest and simplest Lever Arrangement on the market. Write for descriptive Circular.

Roderick-Lean Mfg. Co., Mansfield, Ohio.
Keystone Mfg. Co., Gen. Agts., Kas. City, Mo.

The Home Circle.

To Correspondents.

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

AT CHRISTMAS-TIDE.

So blithe this hour, when once again
The Star glows steadfast in the sky;
So hope attuned, when human pain
Grows less, for faith that help is nigh;
So hallowed, when the angel train
With song and harp are passing by.

Once more, between the midnight's gloom
And the pale rose of breaking dawn,
Heaven's matchless lilies wake and bloom,
And far athwart the east are drawn
The pencilled sunbeams which illumine
All pathways men must journey on.

Again the Sages and the Seers
Bend low before a little child;
And o'er the long and stormful years,
The desert spaces vast and wild,
The strife, the turmoil, and the tears,
He looks, and smiles, the undefiled.

'Tis Christmas-tide! At Mary's knee
The shepherds and the princes meet!
Love-bound in dear humility,
To clasp the Infant Savior's feet.
The Star is bright o'er land and sea;
The Gloria song is full and sweet.

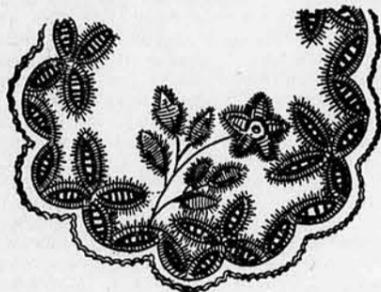
—Margaret E. Sangster.

LITTLE KNICKKNACKS.

Dainty Gifts Which Are Appropriate for the Holiday Season.

As the holidays approach we are all interested in pretty little gifts appropriate for this season. It is wise, too, to begin early, for it takes a good deal of time if we make our little gifts. A token made by the hands of one we love will be more appreciated than a much handsomer one if bought.

The illustration, No. 1, shows a doily in the new honiton braid. The materials required are one square of linen 7x7, one skein of filo silk, two skeins of



etching silk and two-sizes of honiton braid.

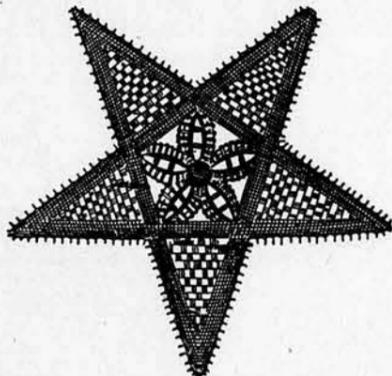
Baste the braid on the linen as shown in the pattern.

Now you are ready to begin the work. Buttonhole the outer edge in scallops with the etching silk, taking care to only confine the outer thread of the honiton.

The inner edge of the honiton is buttonholed in long and short stitches with filo silk. The flower and leaves are buttonholed in filo with an even stitch, which gives the effect of a silk edge, the stems are in outlining stitch.

When the work is finished carefully cut away the linen from under the honitons, taking great care not to cut the lace threads, and you will have a charming lace flower.

The second design gives a lace star, which will be pretty in the corner of a table spread. The linen can be either hemstitched or fringed and the star made in any size to suit the fancy. Braid one-half of an inch wide, I should fancy, would be suitable for a cloth thirty-six inches square. Baste on the plain point lace braid to form a five-pointed star, the honitons in the middle, as illustrated. Buttonhole with a close, long and short stitch in filo silk on both sides of the braid. When this

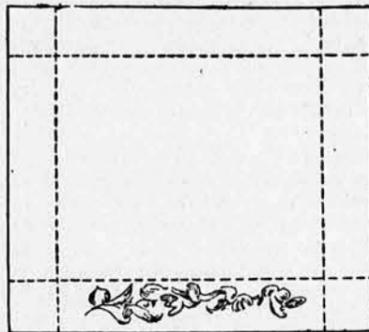


is finished, fill in the points with lace stitch, that shown in the design is the

Venetian stitch, and each stitch is twisted twice. Remove the linen from between the honitons and beneath the lace itself, also from under the lace stitch in the points, and you have a lace star.

The design can be elaborated upon by a circle of honitons outside of the star or a line of the honitons running across the corners as far from the star as the star is from the hem.

Another pretty table cover is shown in design 3, made of blue denim; it is pieced up in one of the designs our grandmothers used for their quilts. The center is a dark blue, also the corner blocks, but the sides are the reverse side of the denim. Now sketch in a design on these side pieces and block in the shadows with a wash of blue



paint, thinned with turpentine, and outline it with white rope floss—or, instead of outlining, work with long and short stitch. The corner is very effective.—Jesse Porter Wood, in Providence Journal.

TO CHRISTMAS GIVERS.

Suggestions as to Appropriate Holiday Presents.

The gift which harmonizes with its future surroundings and just fits in a vacant spot is the one which is most valued. The same rule applies to articles of dress. To the young brunette, whose evening gowns are generally pink or crimson, the pale blue fan, although lovely in itself, would not be as serviceable as a plainer one which she could use with her existing wardrobe. Before you embroider the dollies or centerpieces for the housewife's table consider the color of her china and try to bring your work into affinity with her possessions.

The friends in mourning and the invalid appreciate the thoughtfulness which adapts the gift to their saddened lives. The book, with its comforting message; the potted palm to brighten the darkened room, the soft knitted shawl or slippers—in fact, anything that evidences consideration for their feelings, and does not jar by incongruity, is priceless.

It is astonishing to note how much is frittered away on perishable trifles when the Christmas gift, of all others, should be something enduring. The elaborate card and beribboned booklet are practically useless, aside from the remembrance which prompts their giving. Almost every one has a collection of satin hand-painted vanities, lovely to look at, but the care of which is the despair of both mistress and maid. But some say: "Other things are beyond my means. I cannot afford to give substantial presents." It is a fact that the shops, especially during the hot months are filled with at least three articles which delight the hearts of home-makers the world over, and which many young girls love to collect against the wedding day. What are they, pray? Dainty individual coffee cups, harlequin spoons and single plates, suitable for the serving of fruits, cream or salad.

Co-operation is a boon to the average purse. If the members of the family or a set of friends accustomed to exchange gifts unite their finances, they can give one handsome article in the place of several makeshifts.

Good taste discriminates between the needs of country and town and does not send an opera glass or party bag to the farm house. Neither does it give the boy a book which he ought to like, but tries to select one to complete his favorite series. Children's stockings are sometimes filled from the standpoint of maturity. Utility and not suitability governs the choice of their contents. There has been many a disappointed, sorrowful heart on Christmas morning because the powers that be, forgetting their own childhood, had catered to the tastes of those of 40 instead of to those of 4.

On the principle of like attracting like, the most valuable gift too often finds its way to the one who needs it least. In some cases good judgment dictates the giving of money as the kindest thing to be done. How often some poverty-straitened one has sighed over the expensive gift, "If I only had the money this gift cost!" No field affords a wider opportunity for the exercise of common sense than Christmas giving.



FORTY MILLION CAKES YEARLY.

THE PROCTER & GAMBLE CO., CINTI.

Women, by exercising judgment, not only benefit themselves, but are a positive blessing in their example to the entire sex, and Yuletide of 1894 will be a happy one indeed if common sense is more employed in Christmas gifts.—A. L. Fleming.

CHRISTMAS IN GERMANY.

A Week of Successive Feasts and rollicking Festivities.

Christmas in Germany is not limited to one day, but extends over a week of successive feasts and festivities. The family gatherings are usually very large and the merriment correspondingly great. The observances are usually inaugurated on Christmas eve with a supper.

The tree, which is comparatively small, is placed in the center of the table, where it stands until after the New Year, retaining its tinsel decorations. The gifts are not suspended from the tree, but are placed in parcels about it and under the table. The presents are distributed amid great hilarity by an elder son or brother who makes up as a jovial St. Nicholas. The children, like children everywhere, enjoy their toys, which are less expensive and more practical than ours, and their elders rejoice in additions to their personal wardrobes and household belongings.

The supper is a comparatively plain one. The table is set forth with backerl, meat or sausage, herring salad, French cake or German tart and light beer or wine. After healths have been drunk and songs and choruses sung, the final ceremony is to bid every one "Froehliche Weihnacht," and the party disperses.

The Christmas dinner is on a more elaborate scale. The piece de resistance consists of roast goose, the national dish. It is stuffed with apples or chestnuts and preceded by a soup and accompanied by kartoffel (potatoes), blumenkohl (cauliflower) or rosenkraut (Brussels sprouts) and sauer-kraut, the latter cooked and seasoned, and a compote of plums or other fruit cooked with vinegar, sugar and spices. The dessert upon so important a day may consist of two dishes beside fruit, a pudding and apfel krapfen. This will perhaps be of rice stewed until tender in milk, and then blended while hot with fine chopped and sifted beef suet, raisins and eggs, whites and yolks both well beaten. This is a sort of German plum pudding, for it is boiled in a cloth or mould and served with hot and sweet wine sauce.

These feasts are renewed every day until the inception of the New Year, and then whoever you meet, wherever you are, the greeting is passed, "Prosit Neujahr" (Happy New Year), and the Christmas season comes to an end.

YULETIDE OF ROYALTY.

How Queen Victoria and Family Celebrate the Day.

Christmas at Osborne is passed in a stately manner and quite in keeping with the routine of Queen Victoria's everyday life. On Christmas morning the zenith of excitement is reached in the royal domestic circle, for it is then that Her Majesty sees every one and gives to each his or her gift with her own hand and also receives the family offerings in return. During the forenoon all the Queen's own gifts are arranged in the library, with large cards attached in the handwriting of the giver. Attendance at church is the next feature and no excuses hold good for any one's non-appearance there, even the smallest royal baby having to be present. Luncheon is rendered important by the enormous baron of beef which is then served and which forms a piece de resistance for many days to come. A wonderful boar's head, much truffled and pistachio-nutted, usually from the Emperor of Germany, and an enormous pate de foie gras from the Grand Duke of Mecklenburg-Schwerin, which might contain the pigmy knight one sees in pictures

of medieval feasts, who jumps out and challenges the table.

Between tea and dinner is the busiest time, and then the great event of the day takes place—the grand Christmas tree in the Indian room. Every one in the immediate royal circle receives a gift from it, and each has a suitability that shows a kind thoughtfulness on the part of her Majesty. Dinner on Christmas is always a very lively meal, Queen Victoria, who is a brilliant conversationalist, capping one story with another and throwing the ball of clever repartee now to one member of her family, now to another.

The dinner is dished and served up in the usual royal ancient style, and the rolling-pin is struck three times upon the kitchen dresser by the first master cook, which summoned the servants to carry to the royal dining-room the Christmas dishes:

In this nick the chief cook knocked thrice,
And the royal waiters in a trice
His summons did obey;
Each serving man, with dish in hand,
Marched boldly up with royal hand
Presented and away.

The sideboards are set under chivalric royal trophies, on which is a display of the royal plate, that vies with Belshazzar's parade of the vessels of the temple—flagons, cans, cups, beakers, goblets, basins, ewers, the gorgeous utensils of good companionship that have accumulated through many generations of Kings and Queens.

The royal boar's head, the baron of beef and woodcock pie which are indispensable for a British sovereign's Christmas feed are all sent from Windsor ready cooked. The boar's head is brought in in solemn state preceded by choir boys singing a carol as follows:

The Queen's boar's head in hand I bear,
Bedecked with bays and rosemary;
And I pray you my people be merry,
Quot eatis in convivio
Caput apri defero
Reddens laudem Domino.

Lord steward has provided this
In honor of the King of bliss,
On Christmas to be served
In Regine's Atrio
Caput apri defero
Reddens laudem Domino.

The day ends with the Christmas "waits," composed of the choir of the parish church of Whippingham. These sing carols and madrigals for an hour or so and then all lights are put out, and at 11 p. m. Queen Victoria and her court are all between the sheets.

Christmas day at Sandringham differs from that at Osborne, but is none the less a happy and pleasant time for the family there. The affection between the Princess of Wales and her daughters is more that of an elder sister than a mother. She is like all her own family, of a most affectionate disposition, which is lavished on the few that are dear to her in a very touching way. It has always been a joke with the Princess that her birthday coming so near Christmas she has been deprived of the amount of gifts enjoyed by those born in spring or summer, but any one seeing her very splendid array of presents on both occasions would think otherwise. The Princess never gives a gift that she has not bought or made herself and takes endless trouble to get the right thing.

Singers, public speakers, actors, auctioneers, teachers, preachers and all who are liable to overtax and irritate the vocal organs, find, in Ayer's Cherry Pectoral, a safe, certain and speedy relief. A timely dose of this preparation has prevented many a throat trouble.

Interesting circulars sent to farmers. Send name to Bureau of Immigration, Spokane, Wash.

The FARMER has made arrangements by which we are enabled to make a number of good Premium Offers for new subscribers. Those interested in raising a CLUB should send us postal card for Premium Supplement.

INCORPORATED OCTOBER 29, 1894.

LOCATION, 1103-1105 NORTH FOURTH AVENUE.

HOME OF REDEEMING LOVE,

WICHITA, KANSAS.

Object.—To provide a home for penitent fallen women, and to rescue them from lives of shame; to reclaim, educate and instruct them in industrial pursuits, and to restore them, when possible, unto their homes and parents. BENEVOLENT FRIENDS, this institution is non-sectarian and non-salaried—each worker freely doing her part to "rescue the perishing, lift up the fallen and tell them of Jesus, the mighty to save." God is blessing the work and good is being done. Now, we want you to "help just a little" and enable us to do still greater good. The erring daughters must be reclaimed—they are more often stoned against than stoned. The Savior said, "Neither do I condemn thee; go in peace and sin no more." Address REV. LYDIA A. NEWBERRY, WICHITA, KAS.

The Young Folks.

JES' FORE CHRISTMAS.

Father calls me William, sister calls me Will,
Mother calls me Willie—but the fellers call me
Bill!
Mighty glad I ain't a girl—rather be a boy
Without them sashes, curls an' things that's
worn by Faunteroy:
Love to chawnk green apples an' go swimmin'
in the lake—
Hate to take the castor-ile they give f'r belly-
ache!
Most all the time the hull year roun' there ain't
no flies on me,
But jes' fore Christmas I'm as good as I kin be!
Got a yaller dog named Sport—sick him on the
cat;
Fust thing she knows she doesn't know where
she is at!
Got a clipper-sled, an' when us boys goes out to
alide
'Long comes the grocery cart an' we all hook a
ride!
But, some-times, when the grocery man is wor-
ried and cross,
He reaches at me with his whtp, and larrups up
h's hoss;
And then I laff and holler: "Oh, you never
touched me!"
But jes' fore Christmas I'm as good as I kin be!
Gran'ma says she hopes that when I git to be a
man,
I'll be a misio'erer like her oldes' brother Dan,
As wuz et up by cannib'ls that lives in Ceylon's
isle,
Where every prospeck pleases an' only man is
vie!
But gran'ma she had never been to see a Wild
West show,
Or read the life uv Daniel Boone, or else I guess
she'd know
That Buffalo Bill an' cowboys is good enought
f'r me—
Excep' jes' fore Christmas, when I'm good as I
kin be!
Then ol' Sport he hangs around, so sollum like
and still—
His eyes they seem a-sayin': "What's er matter,
little Bill?
The cat she sneaks down off her perch a-won-
derin' what s become
Uv them two enemies uv hern that use ter make
thi' go hum!
But I am so per-ite and stick so earnestlike to
biz,
That moth-er says to father: "How improved
our Willie is!"
But father havin' been a boy hisself, suspi-
cions me,
When jes' fore Christmas, I'm as good as I
kin be!
For Christmas, with its lots an' lots uv candies,
cakes an' toys,
Wuz made, they say, f'r proper kids, and not f'r
naughty byes!
So wash yer face, and brush yer hair, an' mind
yer p's and q's,
An' don't bust out yer pantaloons, an' don't wear
out yer shoes;
Say yessum to the ladies, an' yessir to the men,
An' when they's company don't pass yer plate
f'r pie again,
But thinkin' uv the things you'd like to see
upon that tree,
Jes' fore Christmas be as good as you kin be!
—Eugene Field, in Ladies Home Journal.

TIGER'S MERRY-GO-ROUND.

A Cat Has an Exciting Ride on the Wings of a Windmill.

Frank Dellan has an amusing story of the adventures of a cat named "Tiger" in St. Nicholas. The cat was in disgrace from having been caught in an attempt to purloin a bluefish from the kitchen. So it set off for an adjacent mill, to console itself with a meal of mice.

The trip to the windmill was not, however, a purely pleasant task; in the first place, the tall mill itself was not a homelike, familiar place, like a house or a barn, particularly on windy days when the four great sails were going around with a creaking noise, up on



TIGER DID A DESPERATE THING.

one side and down on the other, flinging shadows that hurried over the ground and up along the sides, while from within the building came great rumbling and buzzing sounds. Another trouble was the fact that Mr. Hedges, the miller, had a dog. This dog, "Jack," was in Tiger's eyes an ugly and dangerous brute. But Tiger was no coward; his fears of the sails were simply nervous, and he was not the cat to go

out of his way to avoid a dog. So he set out for the mill.

But it was one of those days when everything seems to go wrong. Over the corn field Tiger saw that the sails were not at rest, but wheeling around in a brisk wind, and when opposite the miller's house, although he kept himself carefully in the high grass, he was espied by Jack, who challenged him with a sharp bark. Tiger pretended not to hear this, and passed slyly on beyond the mill, to deceive the dog, who, as he well knew, would object to his hunting there, although it was sheer malice on Jack's part to grudge his neighbor a few mice, for the miller's cat was old and lazy, and he himself despised any smaller game than rats.

At length, by keeping under cover of the beach-plum and bay bushes, Tiger reached his goal, and soon took up a position near a promising-looking hole by the shady side of the shingled mill; this happened to be also on the leeward side, so that the huge arms as they wheeled around were not in sight. It was a good, quiet place to compose his ruffled nerves. Tiger no longer felt too restless to lie in wait, so he tucked his feet comfortably under his body, curled his tail around them and settled down to await some foolish mouse.

But the windmill mice were probably well fed and in the habit of taking noonday naps, for not the tip of a nose or the faintest squeak came from the hole. Tiger grew drowsy. Luckily for himself, he did not fall quite asleep, for he was in more danger than the mice for whom he had set an ambush. Jack, the cross terrier, divining the poacher's intentions, was stealing a march on him. Without a growl of warning he had crossed the road from the miller's house and, noiselessly gaining the little rise on which stood the mill, caught sight of the unsuspecting cat calmly seated, his nose toward the mouse hole and his back toward the coming danger. With a startling yell Jack sprang toward his victim.

It was shabby of Jack to take Tiger off his guard, and it is not a matter of the slightest reproach to the courage of Tiger that, roused to his peril at the last moment, he gave a desperate bound and fled.

It was a race for life! Around the mill they flew—there was no tree, no place of refuge near, but Tiger's smaller size gave him an advantage on the circular race track. Five times the race had gone around the mill when suddenly Tiger did a desperate thing. The lower end of one of the great sails happened to sweep near the ground just ahead of him; he made a great forward and upward bound, clutched the framework and canvas, and instantly was borne aloft toward the clouds as if by the arm of a friendly giant; it was enough to make a cat's head swim, but Tiger was safe if he could keep his hold, for in a few moments the baffled terrier was barking furiously forty feet below him.

Nearly Drowned in Molasses.

A Maryland lad of ten came pretty near dying a sweet death recently. His father keeps a grocery store, and the boy was amusing himself by leaping from the head of one hog'shead to another in a group placed on the sidewalk. All at once one of the heads gave way and let him down into three feet of molasses. He was a short boy and the molasses came up to his chin, and it was only by holding his head well back that he kept his mouth clear. His position was really precarious, but his shouts brought a man to his aid, who fished out the strangest-looking boy that had ever been seen in that town.

A Palace for His Dogs.

Baron Franchetti, the father of the composer, has had a dog kennel erected in his palace at Venice, made throughout of marble. The ceiling is decorated with a splendid mosaic entitled: "The Chase of Diana." The eating and drinking vessels of the dogs are said to be of embossed silver. Of course, the kennel is lighted by electricity.

Tit for Tat.

Bishop Vincent used to tell a story about his son, now grown to useful manhood, to whom he was accustomed, on leaving home, to say: "Remember whose boy you are," and who on one occasion anticipated the conventional injunction by saying: "Good-by, papa; remember whose father you are."

Highest of all in Leavening Power.—Latest U. S. Gov't Report.

Royal Baking Powder

ABSOLUTELY PURE

TELLING FORTUNES.

How It Is Done by Means of a Gold Ring and a Hair.

A pretty way to tell fortunes is to hang a gold ring—a plain one is best—



RING FORTUNES.

on a long hair just taken from some one's head, and, resting your elbow on a table where a glass tumbler or goblet is set, let the ring hang down until it swings just below the top of the glass. Hold the ends of the hair firmly between the thumb and forefinger and keep the hand perfectly still. In a little while the ring will begin to swing back and forth, going faster and farther until it strikes the side of the tumbler with a tinkling sound.

Now the questions must be asked by the one who holds the ring or anyone watching the performance. All questions must be such as can be answered by yes or no. For example, you could not ask: "When am I going away?" but: "Am I going away at such or such a time?" One tap of the ring on the glass means "no;" two means "it is uncertain;" three means "yes." Try it, boys and girls, and see what fun you will have.—N. Y. Advertiser.

A CHRISTMAS GAME.

It Is Called the "Escape from Prison" and Is Very Interesting.

Children in New York are devising games to be played during the holidays. Usually in the gathering together of families there are a host of young folk who need to entertain themselves.

One game that I think is going to be unusually interesting is the escape from prison.

It requires children who are "up" on geography, still, if need be, it is a lesson in the disguise of pleasure.

The game proceeds after this fashion: A map is held by the judge, usually a grown person or an older child; then two children are chosen and placed in separate corners.

Says the judge: "Now, Carrie, you represent New York in this corner, and Richard, you are in Moscow, imprisoned; you want to get away and reach home by Christmas. You have gotten from behind the walls—but what is your directest route home?"

Then Richard has to tell each sea, country and ocean he crossés to get home for the turkey and cranberry sauce. If he can't do it successfully he must remain right on the spot in the floor where stopped until he thinks out his escape.

Other members of the game are placed in prisons at various parts of the country. The favorite jails now are located in China and Japan on account of the interest in the war. A leading question is: "If you were put in a Yokohama prison, how would you get back to Pekin?"

Soon the room becomes filled with prisoners, all trying to get home, half of them are "stalled" in the center trying to think of the boundary line which brings freedom, others are just leaving the prison walls.

It has the same interest when gotten

well into it as the southern children find in "Runaway Negro" or "Prisoner's Base."

When the game has been played frequently, those who join in get very familiar with the junction of countries, and learn many straight lines and clever jumps that had not appeared feasible before. For those who are not quite conversant with geography, easy tasks are given; for instance, to be placed in a Paris prison and find their home in Boston.

Some large games are to be arranged for holiday parties, with favors for those who come out of three prisons successfully.—Claire Claxton, in Chicago Inter Ocean.

Cat Causes a Blockade.

A black cat caused the blocking of the trolley cars on one of the Brooklyn lines. The animal sprang from a fence, and seated himself between the rails in front of an approaching car, and refused to budge. The motorman, who believed that to kill a black cat is unlucky, stopped the car so violently that many of the passengers were thrown from their seats. Canes and umbrellas were flourished at the animal, but it refused to move, and it held to this determination even when the motorman pushed the front of the car over it. Finally, after nine cars had been blocked, a conductor seized the cat by the tail and threw it on the sidewalk, and the procession moved on.

Ella Had a Great Head.

When Ella and Gussie, two small maidens of three and five years, went with papa and mamma to see the big reservoirs, Gussie looked a long time, and then said: "Why, papa, what makes them have two big places for the water?" But before papa could answer little Ella said: "Well, Gussie, I fought you knew dat! Why, one is hot and one is cold water!"—Youth's Companion.

Pond's Business College.

Topeka, offers to give farmers' boys three months' tuition this winter for only \$15, and then next year, if they wish to come again and finish the course, they can do so for only \$15 more. Now, boys, here is your chance.

Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for homeseekers.

The Uintah and Uncompahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

Six Thousand Square Miles of Wealth.

The vast fertile valleys of the two Indian reservations in northeastern Utah, soon to be open to settlers comprise about 8,500,000 acres of the finest agricultural and grazing lands. The direct line to Uintah and Uncompahgre reservations is by the Union Pacific system via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

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KANSAS FARMER CO., Topeka, Kas.

Each subscriber finds in this number of the *KANSAS FARMER* an elegant calendar for 1895. Its artistic excellence speaks for itself and needs no mention. The calendar gives not only the day of the week and day of the month, but also the day of the year, thus adapting it especially to the needs of the farmer and stockman. Hang it on the wall for reference and because it is pretty.

Mayor T. W. Harrison, of Topeka, one of Shawnee county's most extensive and really successful farmers, will address the annual meeting of the State Board of Agriculture upon the very interesting theme of "The Kansas Steer and His Brilliant Future."

Some of the finest specimens of apples exhibited at the annual meeting of the State Horticultural Society at Fort Scott, last week, were the production of irrigation orcharding in Kearney county, and were from the orchard of C. H. Longstreth, of Lakin.

We print in this paper a thoughtful paper from ex-Senator H. B. Kelly, on the maintenance of the gold standard. We also present a brief statement of a currency plan proposed by Treasurer Wilder, of the Santa Fe system, and in still another letter from Dr. E. P. Miller, of New York, a protest against the retirement of the greenbacks. The modification suggested to Mr. Wilder's plan doubtless make it cover the demands of all three of these able gentlemen, who will doubtless agree with the writer that because money is an essential agency in effecting exchanges among the people it should be made as nearly as possible unvarying in its relation to the average price of useful commodities, and that to give it this uniformity is under the constitution one of the highest duties of our government.

As arrangements progress for the annual meeting of the State Board of Agriculture, in January, it becomes very evident that it is to be one of the greatest meetings of the kind ever held. It is to be a "general round-up" farmers' institute, in which will be represented every interest in which he is concerned. It will be worth some sacrifice to attend and should not be missed by any tiller of the soil who proposes to keep up with the progress of the times. Farming is continually demanding greater intelligence and more thought from those who would succeed in it. Indeed, the man who will not read, observe, study and progress must inevitably in the contest that is coming drop from the rank of the farmer to that of the hireling. The *KANSAS FARMER* will do all it can to extend to its readers the benefits of the great January meeting, but it is impossible to get its spirit and inspiration without attendance.

UNITED STATES SUPREME COURT OLEOMARGARINE DECISION.

The saying that the yellow color of butter was pre-empted by the cow more than 6,000 years ago has been confirmed by the highest tribunal of the American judiciary. One of the most important and far-reaching decisions has just been rendered by the United States Supreme court, Justice Harlan delivering the opinion, which is not only of vital interest to oleomargarine producers, but also in a measure upsets the effect of the original package decision, and affirms in the broadest terms the power of State governments to protect their citizens against imitations of articles of food. The original case was that of Benjamin Plumley, a Boston dealer in oleo, who undertook, as the agent of Friedman & Co., to introduce oleo, which had been colored to imitate butter, into Massachusetts. The law of the State prohibits the sale of any compound not produced from unadulterated milk or cream which shall be an imitation of yellow butter. The law allows the sale of oleo in a separate and distinct form, free from coloring or any ingredient that causes it to look like butter. Plumley was found guilty of the offense charged, and the case, which was a test one, came up on a writ of *habeas corpus* before the Supreme court of Massachusetts. Plumley's attorney alleged that the statute of Massachusetts was repugnant to the clause in the federal constitution granting Congress power to regulate commerce between the States; to the clause declaring citizens of each State entitled to all the privileges and immunities of the citizens of the several States; to the clause forbidding a State from making laws abridging the privileges or immunities of the citizens of the United States; to the clause declaring that private property shall not be taken for public purposes, and to the act of Congress regulating the manufacture and sale of oleomargarine. The Massachusetts Supreme court upheld the judgment of the court below, and an appeal was taken to the Supreme court of the United States. Justice Harlan, in rendering his decision affirming that of the Massachusetts court, declares the taxes prescribed by the oleomargarine act were imposed for natural purposes, and did not give authority to those who paid them to engage in the manufacture or sale, or to disregard any regulations which any State might prescribe in reference to that article. The act of Congress, he says, was not intended as a regulation of commerce among the States, nor does it have special application to transfers from one State to the other. The Massachusetts statute does not prohibit the manufacture or sale of all oleo, but only such as is colored in imitation of butter. If free from color the right to sell it in such manner as will advise the consumer of its real character is not prohibited. The oleomargarine sold by Plumley was artificially colored. Justice Harlan says: "The real object of coloring oleo to make it look like genuine butter is that it may appear to be what it is not, and thus induce unwary purchasers who do not closely scrutinize the label upon the package in which it is contained, to buy it for butter. The statute seeks to suppress false pretenses and to promote fair dealing in the sale of an article of food." Justice Harlan cites a number of decisions in different States and goes on to say that if there be any subject over which it would seem that the States ought to have plenary control and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products.

The opinion handed down by Justice Harlan declares that the effect of the original package decision does not in any way justify the broad contention that a State is powerless to prevent the sale of articles manufactured in or brought from another State and subjects of traffic and commerce, if their sale may cheat the people into purchasing something they do not intend to buy and which is wholly different from what its condition and appearance im-

port. Attention is called to the fact that States may legislate to prevent the spread of crime, and may exclude from their limits paupers, convicts, persons likely to become a public charge, and those afflicted with contagious or infectious diseases. These and other like things having immediate connection with the health, morals and safety of the people may be done by the State in the exercise of the right of self-defense. The decision concludes as follows: "And yet it is supposed the owners of a compound which has been put in a condition to cheat the public into believing it is a particular article of food in daily use and eagerly sought for by people in every condition of life are protected by the constitution in making a sale of it against the will of the State in which it is offered for sale because of the circumstance that it is in an original package and has become a subject of ordinary traffic. We are unwilling to accept this view. We are of the opinion that it is within the power of a State to exclude from its markets any compound manufactured in another State which has been artificially colored or adulterated so as to cause it to look like an article of food in general use, and the sale of which may, by reason of such coloration or adulteration, cheat the general public into purchasing that which they may not intend to buy. The constitution of the United States does not secure to any one the privilege of defrauding the public."

This decision leaves no ground of argument for the oleo men to stand on in saying that a State has no right under the constitution to pass laws prohibiting the coloring of a substance in imitation or semblance of the yellow color of butter, and goes far in helping States to pass restrictive laws against the fraudulent traffic.

MR. WILDER'S CURRENCY PLAN.

Mr. Edward Wilder, of Topeka, has recently contributed to the discussion of the currency problem, a plan which is open to fewer objections than any now prominently before the public, and which, with some amendment, would, undoubtedly, not only tend to relieve the government of all anxiety about the gold reserve, but also tend to stop the depreciation of values which has wrought and is still working havoc with industrial prosperity, and that, too, without danger of unsettling values by inflation.

Lack of space prevents the reproduction here of Mr. Wilder's paper in full, and even compels the omission of the argumentative part. The following paragraphs set forth the essential features of the proposed plan:

Suppose, instead of selling 5 per cent. bonds at a premium to replenish the gold reserve, we should, under suitable legislation, sell 2 per cent. gold bonds at par, to retire all our forced non-interest loan or legal tenders and Sherman certificates, replacing them, dollar for dollar, by a circulation based on the new bonds, under suitable amendment of the national bank act.

The change could be accomplished without any disturbance, by permitting national and State banks to surrender for cancellation in sums of \$25,000 or upwards, legal tenders and Sherman certificates, and receive immediately an equal amount in bonds to be left on deposit and an equal amount of the new circulation in denomination of \$10 and upwards only.

A bank desiring to liquidate could assign its bonds and circulation to a successor without any disturbance of the circulation; or it could present any of the circulation and take up its bonds under proper restriction as to notice, so as to avoid a disturbing reduction of currency.

In case of failure of a bank with loss of part or all its capital in final wind-up, the bonds covering any currency they were unable to surrender would be set aside and the interest thereon would accrue to the government, though the principal would be subject to call upon a surrender of an equal amount of circulation.

The currency would be so secure that it would remain out from choice, but be redeemable in 2 per cent. gold bonds if desired.

There can be no doubt about such a currency remaining at par with gold. Mr. Wilder's argument (here omitted) clearly establishes that point. But why sell the the bonds to banks? They will be just as good security for legal tender government notes as for national bank notes. Let them remain the property of the government in the hands of the Comptroller until required

to redeem legal tenders. Let legal tenders take the place of all other forms of paper money and make the 2 per cent. bonds proposed obtainable for gold or silver, but only on surrender of legal tender paper of the government. It is not unlikely that legal tenders would in that case be at a premium over gold and that the tendency would be to accumulate too large a proportion of this currency in the Treasury. In that case the interest rate on the redeeming bonds should be reduced to such a figure as to overcome this tendency. Perhaps a rate of 1.825 per cent. or 5 cents per day on \$1,000, would be found suitable. It would be a convenient rate to compute.

Doubtless Mr. Wilder will see the advantage of the proposed amendment to his plan, for it is surely much less desirable to issue government bonds, sell and retain them as security for bank notes guaranteed by the government, and good on that account, than to make and hold the bonds and issue government notes direct. There appears to be no sufficient reason for the government to pay interest for the privilege of guaranteeing anybody's credit. If the government furnishes the paper money, as Mr. Wilder proposes, and by placing its interest-bearing bonds behind it makes it good, why should not the government have the profit?

Suitable provision for increasing the currency to keep pace with the increase of population is a mere incident of the proposed legislation.

A large number of our subscribers during the year have taken advantage of our liberal clubbing offer for *KANSAS FARMER* and *Irrigation Age*, at \$2. Many of our earlier subscribers for this combination will note that their year is completed and they ought to renew. We can still offer the same rate to old or new subscribers. Send to us before end of the year.

IMPROVED STOCK BREEDERS' ASSOCIATION—ANNUAL MEETING.

The Improved Stock Breeders' Association will hold its annual meeting at Topeka on Tuesday and Wednesday, January 8 and 9. The breeders are expected in great numbers and the Secretary requests that any breeder who cannot attend at least write a letter to show that he is still in the ring and to contribute to the interest of the meeting and the advancement of improved stock breeding in Kansas.

The new officers of the State Horticultural Society, elected at the annual meeting at Fort Scott, on last Thursday, are, President, Judge F. Wellhouse, of Topeka; Vice President, J. W. Robinson, of Butler county; Secretary, Senator Edwin Taylor, of Rosedale; Treasurer, Major Frank Holsinger, of Rosedale. These men are prominent horticulturists and are known for their energy and success as horticulturists. The candidates who were in the race with such men as these need feel no chagrin at defeat, for to be defeated by such competitors were more honorable than to win in some races.

The State Board of Agriculture is planning to set apart one evening of its annual meeting (Thursday, January 10) largely for the benefit of the ladies. Mrs. Nellie S. Kedzie, of the State Agricultural college, is to give one of her wonderfully interesting talks upon "Domestic Science," and Miss Gertrude Coburn, a Kansas girl and graduate of the Kansas Agricultural college, who has for four years had charge of the Domestic Science and Household Economy departments of the noted Stout Manual Training school, at Menomonee, Wis., will lecture on "Manual Training for our Girls." Senator S. O. Thacher is also on the program of the same evening for an address on "The Farmer and the Professional Man," which is sure to be excellent. As before stated, all of the following day and evening, Friday, will be given to the discussion of matters pertaining to irrigation. A very large attendance is expected at each session, and reduced railroad rates are hoped for.

KANSAS HORTICULTURISTS.

Special correspondence KANSAS FARMER.

The twenty-eighth annual session of the Kansas State Horticultural Society convened in Fort Scott, Tuesday, December 11, at 10 a. m. President Judge L. Houk, of Hutchinson, called the meeting to order in well chosen remarks. George C. Brackett, the veteran Secretary, was at his accustomed post.

Committees were appointed as follows: On credentials, E. P. Diehl, Olathe; W. T. Jackson, Topeka; C. M. Irwin, Wichita. On special program, Samuel Reynolds, Lawrence; E. J. Holman, Leavenworth; H. S. Coley, Oswego. On membership, Horace J. Newberry, Topeka; John H. Rice, Fort Scott. On resolutions, C. M. Irwin, Wichita; Geo. Munger, Eureka; J. T. Tredway, La Harpe. On obituary, A. Willis, Ottawa; Samuel Reynolds, Lawrence. On suggestions for the benefit of the society, Geo. W. Bailey, Wellington; Martin Allen, Hays City; J. F. Cecil, North Topeka. On constitution, B. F. Smith, Lawrence; Fred Wellhouse, Fairmont. On addresses and reports, J. W. Robinson, El Dorado; Francis Goble, Pleasant Ridge. On exhibited articles, Frank Holsinger, Rosedale; E. J. Holman, Leavenworth. On auditing accounts, Fred Wellhouse, Fairmont, E. P. Diehl, Olathe.

Secretary Brackett's report said, in part, that "during the past year a new insecticide has been discovered, which promises to be a rival of Paris green, London purple and other applicants in cheapness and simplicity of application. It is known as gypsiene. Thirty counties reported the results of spraying in 1893. Twenty of this number unhesitatingly reported favorably, two partially successful and eight a failure. Some of these attributed the failure to want of experience, and others were of the opinion that they will succeed with another year's trial."

Regarding the biennial reports of this society, he said: "Only 2,500 copies were authorized to be printed by the last Legislature, or one copy to each 500 population, and this, the third biennial report, is acknowledged to be one of the most valuable publications received at the experiment stations, horticultural societies and public libraries for the year 1893. Why so stunted an edition should be published becomes a question worthy of investigation. No other State Legislature treats its horticultural society so shabbily. Our people are as fully interested in and as devoted to the development of horticulture as are those of any other State, and are as fond of the orchard, vineyard and garden."

In reference to the late J. W. Byram he said: "He was, at the time of his death, a life member, and had served the society during fourteen consecutive years as Vice President, representing Chase county. He was a devoted friend of the society and a prominent worker in the promotion of our State horticulture; a practical, intelligent enthusiast in all that pertains to the industry. He has passed from us, but, throughout the county in which he lived, there will ever remain monuments to his good works, in the trees, vines and shrubs of his own planting and growing."

At the suggestion of the Secretary's report, the President appointed a committee, consisting of Hon. Fred Wellhouse, Senator Edwin Taylor and E. J. Holman, to procure rooms in the State capitol in which to open permanent headquarters for the Secretary of this society. The Secretary was also instructed to write to the Vice President in each county, regarding needed legislation, and requesting them to see their representatives and advise them of what is required.

On convening of the afternoon meeting Horace J. Newberry read a short sketch of the life of the late J. W. Byram, one of the pioneer horticulturists of Kansas. It was referred to the committee on obituary.

Treasurer Frank Holsinger, of Rosedale, reported receipts and expenditures, which indicated the society to be in good financial condition.

Next in order was the report on "Orchard Culture." E. J. Holman, of Leavenworth, opened the subject by

opposing close planting. He believed that the small fruit, produced from ill-nourished trees, was not a good investment, even though a larger quantity be gathered from the same space of ground.

Hon. Fred Wellhouse, of Fairmount, the "apple king of America," followed Mr. Holman in an interesting and instructive talk on the success of a commercial orchard without applied fertilization. He simply cut the weeds and surplus clover and left them where cut, thus forming a mulch affording sufficient fertilization. His orchards have produced fourteen crops in the past fifteen years, and the trees are in good condition at this time. From one block of sixty-five acres he gathered 23,000 bushels this autumn. He grades his apples, allowing none but sound apples, two and one-half inches in diameter and above, to go into the first grades. To get rid of gophers, he said, take very small potatoes, and with a sharp knife cut nearly through the center of each, then dip the blade of knife into strychnine and draw it through the incision. Enough poison will adhere to the freshly-cut surface to kill any gopher. Before dropping the potato into the hole, be sure to wipe off all poison that may cling to the outside of the potato.

The report of delegates on condition of crops, orchards, vineyards and small fruits in 1894, and prospects for 1895, brought out considerable discussion. In many parts of the State the Ben Davis apple tree is dying out extensively; also the Willow Twig. The first named is more apt to fail in heavy soils. The condition of orchards is unusually good for 1895. Unless something out of the ordinary happens, there will be a bountiful fruit harvest in Kansas for the season of 1895.

Hon. W. R. Biddle, of Fort Scott, delivered the address of welcome at the evening meeting, to which J. W. Robinson, of El Dorado, responded on behalf of the society. Both addresses were ably rendered and received merited commendation. Next in order was the annual address of President Houk, which was listened to attentively, being a valuable document and alive to the promotion of the best interests of the Kansas State Horticultural Society.

At the morning meeting of the second day, the subject of "Orchard Culture" was resumed, and a paper prepared by J. Nixon, of Kellogg, was read. This paper stirred up the members concerning the "whole-root" system of propagating trees. They didn't believe in it, but thought the "whole-root" business a fraud and an imposition upon the public.

Major Holsinger, of Rosedale, expressed himself as being very much surprised to find any intelligent Kansas fruit-grower advocating the fraudulent system of "whole-root" practice.

A. Willis, of Ottawa, said that his experience with patrons wanting the so-called "whole-root" trees was unprofitable. The system was a delusive bait to catch those who were susceptible of being humbugged.

A. H. Griesa, of Lawrence, said that those who advocated the "whole-root" system, or "oak root process," invariably misrepresented facts from beginning to end, and that all such were frauds upon the public.

E. J. Holman, of Leavenworth, here introduced a motion—"That the 'whole-root' theory is a humbug, a delusion and a snare." He then spoke on the motion, denouncing in severe terms the various methods adopted by unscrupulous nurserymen to advance their personal interests at the expense of their customers, in the disposal of scrawny so-called "whole-root" trees, at three prices asked for honest trees by trustworthy nurserymen.

Jacob Faith, of Montevallo, Mo., thought if it were not for the oily-tongued fruit tree agent, there would not be very many orchards in Missouri to-day. Through them the orchards have largely been founded, notwithstanding the fact that a good many get humbugged at times.

Secretary Brackett offered an amendment to Mr. Holman's motion: "That this society disapproves of the claims set forth by nurserymen in regard to the propagating of trees by the 'whole-

root' system or theory." The amendment was lost, and the motion offered by Mr. Holman prevailed by a large majority.

Hon. J. C. Evans, L. A. Goodman and other prominent men of the Missouri State Horticultural Society, having entered the room, the President at once tendered to them the freedom of the society and invited them to take part in the deliberations of the meetings—the invitation extended to all visiting horticulturists.

The paper on "Geology and Soils," by Prof. Robt. Hay, of Junction City, was excellent and received close attention. Secretary Brackett read a paper on "Nomenclature and New Fruits," after which B. F. Smith, of Lawrence, presented a paper on "Strawberries by Irrigation." It was good and proved that it pays to irrigate for small fruits.

Martin Allen, of Hays City, being called to the chair, Judge Houk offered the following resolution, which prevailed:

Resolved, That, in the opinion of this society, provision should be made by law, for the appointment of a geologist, whose duty it shall be to make a physical survey of the State of Kansas, with special reference to its soils; to describe and classify them according to their character in the various districts; and to indicate by maps the local situation of each class of soil.

The report of Committee on Small Fruits, by J. F. Cecil, of North Topeka, was received. After dinner a paper was read by S. W. Gilbert, of Thayer, Oregon county, Missouri, entitled "Growing and Marketing the Strawberry." I secured the copy, so as to reproduce it in a subsequent issue of this paper. Secretary Brackett discussed the different varieties of strawberries, and suggested a conference of nurserymen of the State to secure a greater reliability and uniformity in the naming of plants.

The time for electing officers for the ensuing two years having arrived, the President arose and in a few words expressed his deep sense of appreciation of the high honor paid him by the society, in making him its President for eight consecutive years. He stated that though the office carried no salary, and that he had performed its duties as a labor of love, he now felt that the honor of holding the position should be given to some other of the many able members, who deserved recognition and honor at the hands of the society. He wished the delegates to understand that he did not desire to be considered a candidate.

An informal ballot was had for President, resulting in Hon. Fred Wellhouse, of Fairmount, getting the most votes, whereupon a motion prevailed suspending the rules and instructing the Secretary to cast the unanimous vote of the society for Mr. Wellhouse. The vote was cast and duly announced by the President. Mr. Wellhouse thanked the society for the honor thus conferred upon him, and expressed his hope to merit the confidence of each one by his action as President.

J. W. Robinson, of El Dorado, was elected Vice President without a dissenting vote. He responded in appropriate remarks.

The next place to be filled was that of Secretary, for which there were several candidates. Secretary Brackett arose and said that ill health would compel him to seek a change of climate, and thanking the society for honors bestowed upon him in the past, he said that he preferred not to be a candidate for re-election, having served as Secretary since 1867. An informal ballot showed Senator Edwin Taylor in the lead, with Horace J. Newberry and George C. Brackett next. On motion of Mr. Newberry, the rules were suspended and the Secretary instructed to cast the full vote of the society for Senator Taylor.

Major Frank Holsinger was re-elected Treasurer and Geo. W. Bailey, of Wellington, was re-elected Trustee for the Southern district.

A paper from Prof. E. A. Popenoe, of the State Agricultural college, at Manhattan, was next on the program. He dealt largely with the scale louse, which was interesting to each present. Spraying, or a wash with strong preparations, will kill the young lice in the spring time when they are in motion

over the trees and shrubs. At times a scurvy appearance on a tree indicates the presence of scale lice. The red lady bird is an enemy of the scale louse and is an efficient agent in its extermination.

A short discussion followed this paper, after which the President read a letter from Chas. P. Murtfeldt, of St. Louis, an honorary member of the society, in which he regretted his inability to be present.

A message was received at this juncture from Col. U. B. Pearsall and Major G. W. Combs, inviting the society to make a visit to the south plant of the Hart Pioneer nurseries on the ensuing morning and as guests of their company. The invitation was unanimously accepted.

The main topic of the evening meeting was an essay entitled, "Beautify Your Homes," by Mrs. M. J. Coventry, of Fort Scott. It was productive of a general expression of ideas in which almost every member participated. The essay will be published in this paper soon.

At the suggestion of the writer, assisted by W. E. Brooks and Bert Combs, two wide-awake gentlemen of the "Solid City," a colored glee club was secured and the evening's program enlivened by choice vocal music in Southern dialect. In addition thereto, Major Holsinger's solo songster from Montevallo, "brought down the house" in his rendition of the "Danish Jubilee." Long live the memories of this occasion.

Major W. R. Savage, of Wellington, being recognized, tendered the hospitality of his city to the society in a choice speech, as the place for their next annual meeting. On motion of Captain Diehl, the Trustees were instructed in favor of Wellington.

Judge Houk called the society to order at 10 o'clock, after the members had enjoyed a visit to the Hart Pioneer nurseries, succeeded by a drive to the old government building and plaza. The subject of "Vegetable Gardening" was then taken up and occupied the attention of the meeting all forenoon. Before adjourning for dinner, a note was received, by carrier, from Col. Pearsall and wife, inviting the society to an informal reception and banquet at their residence, in the evening, at 9:30 o'clock. The invitation was unanimously accepted.

The afternoon meeting convened at 1:30 o'clock. Samuel Reynolds, of Lawrence, introduced a resolution demanding of the State Legislature the passage of a bill regulating the size of apple barrels and pounds per bushel in measurement of apples. It was referred to Committee on Needed Legislation.

Prof. S. C. Mason, of the State Agricultural college, at Manhattan, addressed the society on "Experimental Horticulture," illustrating his subject by diagrams, embracing the following data as to irrigation: "I used 27,000 gallons of water for each inch per acre of area, in my experiments, and put on three solid inches. In irrigating strawberries I used one and one-half inches of water, placed on the surface when the berries were half grown. This amount of water does more good than three inches between the rows. Water in clayey soil will not percolate so far laterally as in sandy soil. I apply water directly to the roots, and any method that will do this will be successful."

Judge Wellhouse, of Fairmount, gave his experience on insecticides. He said that spraying with London purple had effectually exterminated the canker worm and the tent caterpillar. It was of advantage in the destruction of all leaf-eating insects. He used about one pound to each 150 gallons of water, with the addition of a small quantity of slaked lime, spraying each tree just enough to cover the leaves without dripping. He sprays just after the bloom falls and once or twice later.

E. D. Wheeler, of Ogallah, State Forestry Commissioner, read an interesting paper on "Forest Culture." He said that forest growth increases rainfall, and much interest is being taken in it. Kansas forests are suffering from two things—live stock and the reckless use of the axe. A forest once destroyed can hardly be replaced in a

(Continued on page 12.)

Horticulture.

Seasonable Strawberry Notes.

The berry patch in November begins its rest from setting plants and growing its fruiting crowns for next season's crop of berries. By the first of December the berry field will be at rest, and ready at the beginning of freezing weather to receive its winter dressing of straw, old hay or forest leaves for winter protection.

Old berry fields that have borne one or two crops do not need as much covering as a new field. The mulch should be put on when the ground is frozen. Many berry-growers neglect this important feature of berry culture till after several hard freezes; which should be done at the beginning of cold weather.

New berry-growers are very apt to put on too much straw. A light covering, sufficient to hide the plants, is all that is necessary. In the prairie regions of Kansas and Missouri the covering is frequently blown about in drifts or clear away from the field. In every instance it should be replaced as often as this occurs.

All practical berry-growers know that the soil should be turned up late in the fall season or during the winter, for the following spring's planting. It should be done when freezing occurs at night, so that the white grub worms and other enemies of the strawberry may have a cold bath that will end their existence. The ground, if possible, should be broken from eight to ten inches deep. If the prospective berry field has been in corn this year, dig the stalks up by the roots, shake the soil off and burn them. Many grub worms seek the protecting roots of a corn stalk for winter quarters.

When broken soil freezes hard enough to bear up a wagon and team, spread a thin coat of well-rotted manure evenly over the surface of the ground. Then it is in good condition for spring planting.—*B. F. Smith, in Fruit Farmer.*

The Fruit-Grower of the Future.

The fruit-grower who will supply the market of the future will be a scientific man, with a full knowledge of the habits of insects, blight, rot and other fungous diseases which affect the root, trunk, leaf and fruit of our fruit trees and vines. He must not only be acquainted with the various insecticides and fungicides, but he must possess a full knowledge of the habits of insects, able to distinguish friend from foe—not doing as the editor of the *Texas Farm and Ranch* says he saw a neighbor doing lately: "The melon aphid appeared in destructive numbers upon his vines. Keeping a sharp lookout he discovered the scarlet ladybugs in considerable numbers upon the same vines affected by lice. He immediately made war upon the ladybug. Our friend, seeing him industriously killing the bugs, inquired what he was doing, and was informed that he was destroying the bugs that were laying the eggs that made the lice. Now, if he had been an entomologist he would have known that the ladybug was one of his best friends and was ridding his vines of lice. Not a great while ago we found numbers of the dreaded basket worms on some arbor vines in our yard. We also discovered the ladybug and its larvæ in considerable numbers. We waited contentedly and the pleasure of seeing our predaceous friends kill out the basket worms, root and branch, without having to turn a hand ourselves."

In order to use remedies effectively with the sprayer, we shall need to train our trees to low heads, shortening in the branches annually so as to produce low, spreading tops. The tall-growing peach, pear and apple, to which we were accustomed in our childhood, will disappear, and the tree of low top will take its place. This, to the fruit-growers of these regions, will be fortunate, as the low-topped, stocky tree not only affords shade to the trunk, but tends to decrease evaporation from the soil and enables the tree to bear heavy crops of fruit without breaking down under their weight.

The knowledge of insects and pruning is destined to revolutionize our methods of growing fruits, and in the near future no one will venture to embark in the business without a previous scientific training, any more than a man would open a drug store without having previously studied the properties of the various drugs. In our agricultural colleges, especially, the entomologist and botanist will occupy more prominent positions. The curriculum will have to be changed so that more time can be devoted to the study of insects and fungoids, which is vastly more important to the farmer than the knowledge of how to parse correctly or the usual smattering of philosophical subjects; not that we underrate the value of the latter branches of study, but we wish to impress upon those in charge of our agricultural colleges that these institutions primarily exist for the purpose of turning out scientific and practical farmers, rather than incipient philosophers.—*Southwestern Farm and Orchard.*

The Orchard for the Small Farm.

By P. J. Spreng, read before the Thanksgiving meeting of Shawnee County Horticultural Society.

Such an orchard should be of such size and composition as may, under stress of unfavorable conditions, yet reasonably, be expected to afford its owner, as near as may be, a continuous supply of good fruit from the earliest ripe to the latest keeper, embracing a period of at least ten or more months of the year; and that, when the season shall have been propitious and the yield abundant, the surplus shall find a ready market by reason of adaptability and merit.

To such ends I would plant approximately 200 apple trees, about as follows:

- For early—Benoni, 5; Early Harvest, 5; Cooper's Early White, 5; Maiden's Blush, 5; Sweet Talman or Bailey, 5.
- Fall—Fameuse, 5; Jonathan, 10; Grimes' Golden, 10; Smith's Cider, 40.
- Winter—Ben Davis, 40; Winesap, 20; Missouri Pippin, 20; York Imperial, 20; Rawie's Genet, 10. Total, 200.

In pears I would confine myself to the Seckel and Kieffer; in plums to the Wild Goose and Leka, which ripens in October; of cherries I prefer the Early and Late Richmond, the common and English Morello; of quinces the Orange; currants, Red Dutch; gooseberries; grapes, Moore's Early, Dracut Amber, Worden, Concord, Elvira, Pocklington, Niagara and Goethe.

These I would plant where it would most nearly conform to the convenience of the family and the general arrangement of the premises, regardless of the generally expressed preference for a north slope (or any other slope, for that matter). I much prefer a site approximating the level, with a fertile surface and porous subsoil.

The apple trees should be set 30x30 feet. The trees in the rows north and south may be alternated with peaches at small expense to the owner and little inconvenience to the cultivator, and they will probably have outlived their usefulness by the time the apple trees have attained their growth, and may be removed without loss. I would plant in the spring, two-year-old trees that were not taken up (or disturbed) in the fall, and set them about two inches deeper than they stood in the nursery row, on such soil as above indicated. On a non-porous subsoil the tree should not be set so deep as to promote the accumulation of water about the roots. Plant popcorn, sweet corn, potatoes or cabbages in the plat, and cultivate thoroughly for from three to five years, then sow to red clover, mow twice a year and keep all stock out. Keeping the trees well pruned, shaped, and balanced from the start, will not be regretted later on. Wash the trunks with a solution of lye at least twice a year—April and last of June, and sprinkle flour of sulphur on the ground about the trunk, covering it (the sulphur) with sufficient earth to keep it moist, and few, if any, borers will work under that surface. Protect from rabbits. A good way to do this is to kill one, and cut in pieces and rub the trunk of tree with it. The pears may be set twelve feet apart in row,

the cherries twenty feet, the grapes eight feet in row, and rows twelve feet apart. The currants should have very rich soil, and be planted five feet apart in row, and protected from the sun by planting on north side of a board fence or row of trees. Quinces and gooseberries will do well anywhere in good soil. These suggestions are in line with my personal experience. Whether or not they merit the consideration of others in any degree, may be determined by investigation or personal experience, keeping in mind that loss and disappointment is the price of ignorance, negligence and sloth. This always has been, is now, and always will be, susceptible of verification at short range. Choose ye.

Some of our correspondents who have written about the valuable experience of Mr. Charles Guile, of Burlington, in the treatment of potato scab, have inadvertently written the name *Guile*. In the interest of accuracy let it be remembered that Charles Guile is the man who made the experiment and contributed the information.

New orchards in Oklahoma apparently suffered more during the summer of 1894 from scalding or sunburn of the young trees at or below the surface of the ground than from all other causes combined. It is the observation of nearly all nurserymen and orchardists, as reported by Prof. F. A. Waugh, of the experiment station, that this damage was greatest where orchards received least cultivation. Clean cultivation of young fruit trees will, beyond reasonable doubt, reduce damage by drought and by insects.

Grape trellising according to the Munson system has proved so successful at the Oklahoma Experiment Station this year, that Prof. Waugh unhesitatingly recommends it for adoption in general vineyarding. According to this system, posts stand six feet out of the ground. At the top a cross-piece two feet long is nailed, and at each end of this a wire is run. A third wire is run through the middles of the posts eight inches below these two, so that the three wires set in a sort of a broad V-shape, nearly six feet from the ground. This great height is an essential feature of the system, and should not be modified. On this trellis the grape vines spread out like they do where they grow wild in the woods. This furnishes a shade for the fruit. At the same time the fruit is so far above ground as to be safe from the intense reflected rays of the sun, which caused more damage in Oklahoma vineyards this year than all other causes combined. The trellis also has many other advantages and only a few disadvantages.

Dandruff is due to an enfeebled state of the skin. Hall's Hair Renewer quickens the nutritive functions of the skin, healing and preventing the formation of dandruff.

"Among the Ozarks,"

the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri scenery including the famous Olden fruit farm of 8,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address, J. E. Lockwood, Kansas City, Mo.

Gulina.

One of the finest sows of the Duroc-Jersey breed is pictured on first page. She is also one of the best animals in the great herd owned by Mr. John M. Stonebraker, of Panola, Ill. She is now about 2 years old and has won high honors at a number of the leading State fairs, including sweepstakes at the Illinois State fair. Her sire was Motor 2865, by Morton's Wonder 2217. Her dam, Ticy 7484, was by Model Prince 2565. Mr. Stonebraker has a large number of pigs and young sows on his farm near Panola and sells pigs all over the country. His new forty-four-page catalogue gives more information in regard to the origin, history and characteristics of this breed than anything we have seen; also much other useful information for breeders. Parties who breed swine will be interested in it. It will be sent on application and stamp. Write for it.

The Poultry Yard

Cheap Poultry House.

The following plan is taken from an excellent little work entitled: "Low-Cost Poultry Houses," published by the Fancier's Review, Chatham, N. Y. It was built by D. L. Somerville, of On-



FIG. 1.—ELEVATION.

tario, at a cost of \$32. It shows plans for two pens, but it can be duplicated or enlarged to any extent desired. Fig. 1 is the elevation. It is 10x16 feet, and 9 feet high in front and 5 feet in the rear. Tar paper is used as sheathing. The floor is double, with tar paper between. Roof, No. 1 shingles. If any-

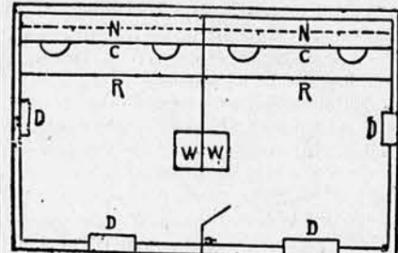


FIG. 2.—GROUND PLAN.

one prefers a ground floor, the cost will be that much less. The cost of material is as follows:

400 ft. common boards.....	\$ 4 00
2x2 " flooring.....	1 75
400 " common boards, lining.....	3 20
200 " spruce or hemlock.....	1 80
2 squares No. 1 shingles.....	4 00
200 ft. 2x4, 10 feet long.....	2 10
96 " 4x8, 18 " " sills.....	90
22 " 2x4, 18 " " plates.....	25
90 " 6x8, 10 " " window sills.....	60
64 " 4x4, 12 " " rafters.....	64
60 ft. common lumber for drop boards, nests, etc.....	48
Lath for partitions.....	60
Hardware.....	1 80
Windows.....	2 40
Labor of carpenter.....	5 00
Tar paper.....	2 10
Total cost.....	\$31 85

Preparing Poultry for Market.

Do not feed for at least 24 hours before killing. Open the veins of the neck and bleed freely or cut across the back of the roof of the mouth with a penknife. Scald enough to make the feathers come off easily, picking both feathers and pin feathers off nicely. Be careful not to bruise or break the skin in any way, as it injures the sale of the others. Leave the entrails in, head and feet on. After they are dressed, dip once in boiling water, letting them remain 10 seconds; then dip into ice-cold water 10 seconds and

UR invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

A. H. GRIESA, Prop'r Kansas Home Nurseries, Lawrence, Kas., grows trees for commercial and family orchards—the *Kansas Raspberry*, Blackberries, standard and new Strawberries—also shade and evergreen trees adapted to the West.

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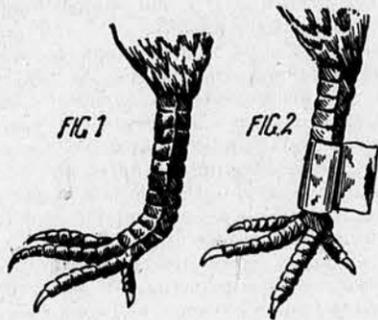
ORCHARD PRUNER CO., OTTAWA, KANSAS. [Mention KANSAS FARMER.]

hang in a cold place where they will become dry and stiff before packing. Pack in boxes or barrels in clean straw, not over 100 to 200 pounds per package. Pack with breasts down, using straw between each layer. Pack solid to prevent bruising in transit. As appearance sells the birds, it is best to give special attention to cleaning and packing.—Farm and Home.

Biddy's Broken Limb.

When a valuable fowl of some selected pure breed is injured, or the leg is broken, there is often no remedy and the bird is destroyed. In this connection we present illustrations sent to Farm and Field by Dr. D. E. Spahr, of Ohio, who writes:

"About a week ago my little boy came into my office with a woeful countenance, bearing in his arms a beautiful young white Leghorn pullet that had met with an accident and had a broken leg. Fig. 1 shows how the limb looked at that time. I took a



strip of surgeon's rubber adhesive plaster, which comes on spools one and a half inches wide, and while he held the limb straight and in position I wrapped it three times around the limb neatly and closely, but not too tightly. The layers adhered to the leg and to each other and made a light, neat splint that would not loosen or come off. The poor chick hobbled off at once and is now walking about taking its food with very little inconvenience. The strip of plaster should be of the proper width to correspond with the size of the chicken and can be applied by anyone using proper care and judgment."

Setting the Hen.

An exchange thinks that this is a subject that seems to admit of a wide range of opinion, notwithstanding it is something almost any child of ten or twelve years, brought up in the rural districts, could do successfully. There are many grown people, however, who look to their neighbors for information on this subject, and the neighbors think it such a trivial affair that they do not give the subject sufficient thought to enable them to enlighten those who seek the information. In other words, they only understand it practically and not theoretically. Josh Billings made one point clear when he wrote: "The best time to set a hen is when the hen is ready," but a difficulty presents itself just at that period. When the hen is ready the owner is not, owing to the fact that the hen has chosen an unsuitable place for hatching, and here is where the trouble is. The owner wants to move the hen to a more convenient place, and he finds she is very much "set in her ways," and will not be moved, and as a natural consequence in attempting to compel biddy to hatch where she does not want to, a sitting of eggs are spoiled and much valuable time lost. A very little training of the hen would avoid all the annoyance. When your hens begin to lay, suitable places should be arranged about the premises for nests, in secluded places on the ground, and when the hen has once appropriated one of these places to her own use all that is necessary is to let her alone. If there is danger of the eggs freezing, put a china egg in the nest, and when she begins to sit remove it and give her good eggs. In this way, success is probable if not certain.

WHERE rats are plenty a rat-proof hen house is a necessity. To make one sink twelve-inch boards their full depth around it, and see that no trash accumulates near or is piled against it.

Get up a club for KANSAS FARMER.

Poultry Notes.

Do NOT gorge the layers by over-feeding.

FEED as much cut or broken green bones as possible.

IF the hens are laying they require more food than if they are not.

KEEP a sharp watch on the layers and anticipate their every want.

THE soft food and cut bones should be fed in a clean narrow trough.

IT costs less to produce eggs than to furnish the market with poultry.

KILL the non-layers, for they are only eating away the profit margin.

WHEN necessary, take the chill off the drinking water and supply regularly.

LESS grain is to be fed when bones and vegetables are supplied in abundance.

KEEP only young, active, prolific layers and select from them to breed from.

LEAVE nothing to chance in keeping poultry. Have an intelligent system and attend to details.

NEGLECT the chickens and pullets and they cannot be expected to do as well as if well cared for.

THE evening ration should be a grain one and generously fed, the object being to keep the crops of the layers full during the long night.—Farmer's Voice.

In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

"Principles of Dairy Practice."

The foregoing work has recently been issued from the press of John Wiley & Sons, No. 53 East Tenth street, New York city. The opening chapters are devoted mainly to a study of the history, development and importance of bacteria in milk and cream. That these minute forms of organic life exert a marked influence in every grade of dairy work is admitted by those who have made this subject a special study. Prof. F. W. Wall, of the University of Wisconsin, the authorized editor of the American edition, has set forth in the above treatise all the researches and discoveries of Gosta Grotenfelt, President of the Mustiala Agricultural college, Finland. In the advanced science of dairying the Scandinavian countries have taken the foremost steps in developing and turning to practical use these minute bacteria plants, the basis of all fermentation.

In the rapid growth of creameries and dairies, which has called for a better understanding of the ripening process of cream, this work will save much uncertainty on the most abstruse points. In chapter 2 it sets forth that milk when drawn from the cow's udder is sterile, and only does it become infested with micro-organisms by coming in contact with unclean surroundings. It then gives the source of infection in the stable, and its prevention; and says, the better we succeed in preserving the original qualities of the milk before the process of manufacture begins, the finer will the product be, and above all the better will they keep; however intelligent and experienced a dairyman may be, he cannot make first-class products from milk that has been carelessly handled. Since bacteria are found everywhere, some one may object that it cannot be worth the trouble to fight them; a fight against omnipresent and even invisible enemies must at any rate be hopeless. This reasoning is not, however, justified, for we do possess strong means of fighting the bacteria. In several kinds of manufacturing enterprises it is already possible to limit and govern the activities of the bacteria. As an example may be mentioned that the standpoint was long ago reached by the manufacturers of beer, that they no longer need fear being disturbed in the normal progress of their work through invasion of bacteria, but, on the contrary, may determine at will the kinds of yeast that are to start the fermentation desired. Not until after this was reached was it possible to make well-keeping and always uniform products in this industry

—a goal toward which dairying, of course, also must aim.

The precautions used against infection of bacteria are of two kinds: (1) Such as aim at the protection of milk from infection from without; (2) such as aim to check the development and multiplication of the micro-organisms already found in the milk. Of two sterilized culture plates with nutritive gelatine, which had been freed from bacterial life by sterilization, one was placed five or six feet away from the milker and the cow, and the other directly under the udder, next to the upper rim of the milk pail; when the milking began both plates were uncovered at the same time, so that the bacteria gained free access to the gelatine. After a moment, both specimens were again covered at the same time. The bacteria were then allowed to develop in the gelatine for twenty-four hours or more, when they formed colonies; and it could be observed with the naked eye that a many times larger number of bacteria fell into the dish placed under the belly of the cow than into the one placed farther away. If this experiment is made in a stable filled with cows, the infection arising from the bodies of the cows will be shown still more plainly, as the cows are then far more infested by bacteria than in the free air.

These lessons show the truth of the fact known long ago, but often overlooked, that it is very important to keep the skin of the cows as clean as possible. Particular attention is called to the necessity of bedding of clean, dry straw. Following this is a long list of the impurities that are found in the milk, such as manure particles, cow hairs, parts of insects, woolen threads, molds and other fungi, down from birds, soil particles, etc. Attention is next called to the manner of milking and the necessity of clean hands, and speaks against milking with wet hands.

Several pages are devoted to milk from tuberculous cows, and other kinds of diseased milk, delay in removing milk from stable and when to cool, care of milk pails and the use of soda in cleaning all milk vessels.

A considerable part of chapter 3 is devoted to the kinds of bacteria of most importance; nearly all of chapter 5 is directed to milk for city consumption, adding that it is fortunate that milk from filthy cows and stables is usually consumed at once, otherwise injurious results would be the consequence.

The remainder of the work is devoted to sterilization and Pasteurization of milk, cream-ripening and skim-milk, treatment of cream previous to churning, the manufacture and handling of butter, bacteria in cheese-making, old and new method cheese-making. The work deals throughout with all the modern ideas of dairy practice from a scientific standpoint, and should be consulted daily by progressive dairymen who would know more of those natural laws that hold so important a place in this great industry. The price of the book is \$2.

Salting and Working Butter.

EDITOR KANSAS FARMER:—Salting and working butter is an important factor in making a good article, and one cannot give the matter too much attention. At the recent Kansas State Dairy Association's annual session this subject received careful consideration, and as a result I deduce the following:

Butter must be salted to suit the taste of consumers. Usually one ounce of salt to a pound of butter gives the best results.

Salt the butter on the worker, it being the right place to salt butter most economically. If salted in the churn, and only one ounce is used to the pound, the butter does not get the full force or portion of salt.

In salting on the worker, if the butter is not well drained it operates the same as when salted in the churn. If the butter is well drained, and one ounce of salt is used, the butter gets the full benefit of it; and, when worked, the salt brine does not run from the worker, like a stream of buttermilk, but stays in the butter.

Drain the butter well in the churn

DE LAVAL CREAM SEPARATORS

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and then salt on the worker to suit the trade—success will follow.

Work butter until you think it is all right and then cease. Do not dash the butter on the worker and salt at random, and then start the worker and at the same time dive into it with the hands until you are butter above the elbows as I have often seen. Stay out of the butter with your hands as much as possible.

Balance or weigh the butter and salt before putting it on the worker; then one knows just how much salt is being used. In working always use a ladle and sponge; by so doing you can handle the butter nicely and cleanly. One's hands are apt to be more or less soiled, and when put in contact with butter the result is injurious to the production of a choicely article and the effect upon the health of the consumer is certainly not of the best.

In working butter it goes through several stages, hence the importance of care. Cleanliness is the all-important factor to be ever kept in mind.

Get the butter in such shape that when you market it, it will be just what you represent it to be, and not go to market one-fourth or one-fifth water or buttermilk, as is often the case, or like some tubs, that when turned over the brine runs out as if a pail of water had been turned over.

HORACE.

Dairy School.

The following is a sample of the replies that are being received by the Dairy department of the FARMER, in answer to the article that appeared in the issue of November 28, in regard to a dairy school:

EDITOR KANSAS FARMER:—I have read about the dairy school in last week's KANSAS FARMER, and I am highly in favor of it, and I will be one of the first to attend the school if we ever get one. I am 16 years old; I am milking every day. We have a No. 2 Baby separator. I am now making all the butter, and now know a little about the dairy business. I think one winter's education would benefit me highly.

MARY A. HANSON.

Osage City, December 7, 1894.

Dairy Notes.

There is a big loss in making butter that sells at the lowest price on the list.

A large portion of the output from the big creamery at Albert Lea is consumed in that city.

And now it is said that the oleo men are at the bottom of the tuberculosis scare. If they can get people to believe that butter is a dangerous article of food on account of the diseased condition of the cows they will have a better market for their greasy compound.

The oleo men have cheek enough to claim that they intend to have the national law governing its sale repealed; they say the law prevents a great many people from buying oleo who prefer it to butter. The farmer's only chance is to send only honest men to Congress and the State Legislatures.

The United States now export annually about 52,000,000 pounds less cheese than fifteen or sixteen years ago, or in value a falling off of some \$7,000,000. This year is showing a further decrease. A writer in the *Country Gentleman* attributes this serious shrinkage in part to the turning out of skim-milk cheese.

Out of sixty-four samples of butter collected at public shops in Gloucester, England, and submitted to the public analyst, fifteen were found adulterated with from 20 to 50 per cent. of foreign fats. A great deal of Danish butter has been adulterated in that way, by English dealers, it is alleged.

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SOLD ON MERT.
Send for Special Introductory Offer.
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Clinton, Iowa

Hart Pioneer Nurseries.

Thursday morning, December 13, was set apart by the members of the twenty-eighth annual session of the Kansas State Horticultural Society, in assemblage at Fort Scott, for a visit to the Hart Pioneer nurseries. At 8 o'clock carriages stood in waiting at the Tremont House, headquarters of the horticulturists; and as soon as the members, delegates and visiting fruit-growers were comfortably seated, the train of carriages, under leadership of Superintendent Brooks and Major Combs, proceeded to National avenue, passing through the business portion of the city, thence south on National avenue to the largest nursery plant west of the Mississippi river—making a detour of two blocks *en route*, so as to pass the home of Col. Pearsall, who, on account of illness, was restrained from meeting with the society. On passing the home of Col. Pearsall, the horticulturists, with up-lifted hats, extended to him and his accomplished wife a warm salutation of glad recognition, as they appeared in the doorway.

On arriving at the nursery a halt was made near the entrance to give each a bird's-eye view of the grounds, comprising the south plant of the Hart Pioneer nurseries, a 560-acre tract. This place is admirably adapted to nursery use, being undulating in every direction, with valley lands through the central parts; besides, two railways pass through the center from north to south—the main line of the Kansas City, Fort Scott & Memphis, and the Minden division of the Missouri Pacific, and each has side-track and depot privileges near center of the grounds, thus affording the best of shipping facilities at nominal cost.

Superintendent W. E. Brooks drove ahead, accompanied by the writer, and proceeded across the railway tracks to the right of a fine block of 400,000 one-year-old apple trees; thence over a peach tree plat, to an enclosure containing 100,000 budded trees, heeled in for spring delivery. On examination of these trees, each person expressed himself satisfied that the Hart Pioneer people knew how to propagate, plant, grow and care for the peach tree to perfection.

Next was seen a choice plat of ornamental shrubs, evergreens, etc.; thence came a block of over 600,000 two-year-old apple trees, among the finest ever grown. It seemed as though none could speak too highly of this extra fine lot of trees, as they passed along its side. Next was observed a plat of grape vines, in excellent condition, consisting of 500,000 Concord—one and two-year-olds, and 200,000 of other choice varieties. Their blackberries consist of 300,000 plants, mostly the Early Harvest, Kittatiny and Snyder, and all doing fine. Next came a plat of peach trees, in the best of condition, and consisting of 250,000 trees in dormant bud. At this juncture an examination was made of a new device for planting peach pits, by which one person and a team can perform the work of thirty persons in the old way of hand-planting. Doubtless Col. Pearsall can give particulars concerning this labor-saving planter to all who may wish to know more about it.

The Hart Pioneer nurseries attribute their wonderful success largely to the fact that they diversify their plats—never planting the same class of trees, or other stock, twice in succession in one place. And, besides making a specialty of the apple, peach, grape and blackberry, they also grow in very large quantities the plum, cherry, quince, apricot, pear, strawberry, raspberry, and last, but not least, a full line and assortment of finely-developed forest trees.

It will be well to remark here that the Hart Pioneer nurseries were established in 1865, and that the present officers are: President, Maj. G. W. Combs; Vice President, Hon. W. R. Biddle; Secretary and General Manager, Col. U. B. Pearsall; Treasurer, C. F. Drake, Esq.—all practical business men of acknowledged ability and sterling integrity, and leading personages in anything that tends to promote the best interests of the city or State in which they live. Col. Pearsall is a member of the National Association of Nurserymen and was its President last year.

The company has 16,000 feet of cold storage and their business extends into every part of the United States, and, besides their immense retail trade, they do a large and profitable wholesale business. They are prepared to fill orders, on receipt of same, from October until May. Their packing grounds are the most complete and extensive to be found anywhere in the West.

Our readers will understand that those who visited the Hart Pioneer nurseries on this occasion are all practical horticulturists from different parts of the country, hence what they say in regard to this plant is worth repeating in connection herewith. Hon. Fred Wellhouse, of Fairmount, owner of one of the largest apple orchards in existence, says: "This plant is one of the largest and best that I know of, and I find the trees and plants in uniformly fine condition. Every plant I have examined

is in good condition and fine form. Such trees can be relied upon as first-class and true to name."

Judge L. Houk, of Hutchinson, whom every one in Kansas honors as an able jurist and horticulturist, thus speaks: "I am more than pleased in seeing the hundreds and thousands of two-year-old apple and peach trees and all well grown and as fine as I have ever seen. The splendid condition and unusually choice variety of stock can only be appreciated by a visit. I shall place an order for early delivery."

Geo. M. Munger, of Eureka, owner of one of the largest farm ranches in the State, says: "I have 600 acres and over planted in orchard, nearly all the trees for which came from the Hart Pioneer nurseries. Am well pleased. Never saw better trees, and all doing fine. Their two-year-olds cannot be surpassed. Shall order more for an additional orchard."

W. J. Cook, of Pleasant Ridge, a farmer and fruit-grower, says: "I am surprised at finding such choice stock. It certainly is all that any one could ask for, and as to condition there's hardly room for improvement, so well does everything appear."

Martin Allen, of Hays City, ex-Commissioner of Forestry, said: "I cannot speak too highly of this magnificent nursery plant, nor of the gentlemen who comprise the company. The nursery is one of the most complete I have ever seen, and is a credit to the city and State. It has an excellent reputation both far and near."

B. F. Smith, of Lawrence, the well-known small fruit producer, stated: "It is second to none anywhere in the West. The best varieties, fine growth and prompt delivery, in good condition, have won for the Hart Pioneer nurseries a large and increasing business."

Would space permit, a volume might be given in commendation of this reliable and favorably-known firm of nurserymen and their extensive plant and business; but this must suffice for the present. HORACE.

Walnut Grove Stock Farm.

There are but few of the veteran breeders of Kansas that are better known or have been more successful than has Mr. V. B. Howey, whose farm lies four miles southeast from the State house in Topeka. Fourteen years ago he laid the foundation of his Poland-China herd of swine by buying the best that was then obtainable and has been uniformly successful since. On account of his excellent trade during the present year, the Poland division has been reduced to about forty-five head, that are presided over by the two-year-old Challenge 28795 O., sired by Lawrence's Perfection 27899 O., he by Nick o' Time 9679 O.; dam Sedgwick Girl 2d 71170 O., she by Commander 17089 O. Challenge is a grand good individual and ranks well up to the front, having plenty of Poland character and quality. He weighed, in his show-ring coat this last fall, 730 pounds, and stood up well on short legs, compact feet. He is assisted by Corwin Index 31459 O., that was farrowed September 11, 1893, sired by Graceful's Index 27089 O., he by Seldom Seen 2d 28045 O.; dam Beauty 3d 77606 O., she by Seldom Found 28037 O. He is, in his conformation, a smooth, wide, deep, mellow fellow, and when under inspection in company with Challenge and Dandy Jim Jr. he is thought by some to be the best individual of the three. The late arrival, Dandy Jim Jr., 3493 S., that was bred by the noted west-central Kansas breeder, Dr. P. A. Pearson, of Kinsley, and was farrowed May 29, 1891, sired by Dandy Jim 5442, he by Climax 2d 3892 S. His dam was Broad Back (1913), by Great Western 2427 S., and out of First Choice 3d (3518). Many Kansans interested in swine husbandry will remember his sire, Dandy Jim, and his great show ring form when he won first place in a remarkably strong contest for honors at the Kansas State fair of 1892. Dandy Jim Jr. is perhaps the best remembered "big hog" at the World's Fair of any harem king now in the State of Kansas. He was in excellent show form there and many were the Kansas visitors at the Columbian that thought Dandy Jim Jr. was worthy one of the four class prizes in the strongest contest for honors the world ever saw. Of course his then master, Dr. Pearson, left no stone unturned in letting his merits be known in that way invented only by the proud and plucky Kansan and imitated feebly by those from other climes. The reader will at once recognize, after tracing up the breeding of these three harem kings now doing service in Mr. Howey's Poland herd, that the combination is a strong one, and, in connection with the twenty head of aged brooders, something more than common may be expected in next year's produce. In the brooder array are three—the two-year-old Nancy Hanks 75704 O. and the yearlings, Duchess 4th out of Howey's Duchess 63566 O. and Princess Corwin 82274 O.—that comprised the female ring of Mr. Howey's show herd. They were shown at the State fair held at Wichita. Nancy Hanks won second in class, Princess Corwin third, and the three, in a strong competitive ring, won second as herd. They are of the prolific kind. Nancy Hanks

has raised twenty-three sons and daughters since July a year ago. Of her last litter, farrowed July 20, she raised five, two sons and three daughters, all of which are good, broad-backed, deep-hammed, mellow ones and as good as one sees in his rounds anywhere. Duchess 4th and Princess Corwin are, in conformation and character, just what any swine-breeder hopes to and ought to have. Another one that is proving a valuable harem queen is Corwin's Maid 78700 O., but too many of them for notice at this writing. The visitor will find eleven good gilts of January, February and May farrows that are sure to be leeted out for close inspection.

THE BERKSHIRES.

The Berkshire division was founded six years ago and now, after the usual yearly sales, consists of twenty-five head, all ages. The very excellent harem king, Onward 2d 31136, is doing the honors of the up-eared herd. He was sired by Onward 25883, that was bred by the Dorseys; dam Royal Empress 27928, that was bred by Berry. Onward was bred by Geo. W. Berry, of Berryton. He is one of the best Berkshire sires now in the State, which we think will be agreed with after the visitor will have looked over his sons and daughters now on the farm. He is assisted by the young chap, The Poet 34247, one of Gentry's breeding, sired by Longfellow 16835; dam Pennock's Pride, she by Windsor Soferin 26576. His dam, Pennock's Pride, was a prize-winner in England. The Poet was farrowed March 24, 1894, and is a clean, smooth-turned, growthy fellow, and one of much promise. Among the females are the two yearling brooders, Stumpy Empress 32172 by Kansas 25089; dam Silver Tip 28096. Her full sister, Stumpy, was shown at Wichita and won second in the competitive ring as sow with litter. They are both of the broad-backed kind that are sure to be leeted out for inspection by the visitor. In the array of gilts are three smooth, growthy lassies, Duchess IV. 34305, Silver Tips XII. 34314, and Black Girl XL. 33681, that make a trio that are just hard to beat. Black Girl was sired by Ruby's Robin Hood 28603, and bred by Fulford, of West Virginia. Her dam was Black Girl XXIX. 28674. This youngster was out in her show ring dress this fall and won first in class and first as the best boar or sow under 2 years of age; also won the special prize of \$50 offered by the Metcalf Bros., of New York State. Among the youngsters are two boars farrowed April 19, 1894, Chance 34304 and Stumpy Duke 34307. They were members of a litter that won second prize at State fair at Wichita.

In conclusion, the visitor at Walnut Grove farm will find registered Jersey and Holstein cows, pure-bred and high-grade Short-horns, Shropshire sheep and high-class poultry, and a reliable and painstaking master caring for them all. The writer has known Mr. Howey for ten years or more, and is of the opinion that he is stronger than ever before in the general make-up of his swine herds, and it is but reasonable to expect something extra good in the next year's pig offerings.

W. P. BRUSH.

Kansas City Horse Market.

W. S. Tough & Son, managers of the Kansas City Stock Yards Co.'s horse and mule department, report the market during the past week as showing less activity than for some time this season. Southern buyers are mostly remaining at home for the holidays. There was quite a heavy run of stock, mostly of the cheaper grades, such as streeters and the common farm horse. Most all nice, smooth Southern mares, \$50 to 1,100 pounds, that were young and well broken, sold fairly well, but still a little off from last week. Anything like a nice actor, a fancy driver or a well-matched team suitable for carriage, were in strong demand and sold for rather improved prices. The prospects are that there will not be very much trading until after the holidays. Rough, thin and old stock was draggy and sold remarkably low. Southern buyers all clamor for finish and say they must have them well broken, single and double. From now on anything like good chunks, smooth and well broken, first-class draft horses from 1,500 to 1,800 pounds and well broken, nice drivers and roadsters will be the most sought after and bring the best price.

There was quite a considerable activity in mules with quality and finish. Prices, however, were unchanged.

The Kansas Weekly Capital publishes more Kansas news than any other weekly paper. A free sample copy will be sent on application to THE TOPEKA CAPITAL CO., Topeka, Kas.

Kansas Horticulturists.

(Continued from page 8.)

life-time. Other papers bearing on this same subject were presented by Martin Allen, of Hays City, and J. B. Schlichter, of Sterling. After which a discussion took place concerning forestry, both *pro* and *con*.

B. F. Smith, of Lawrence, next gave a short paper on fruit handling. He said in part, that no matter how well or how large fruit may be grown, if it is not put on the market and before the eyes of the consumer in attractive shape, the grower fails to receive the desired price. Handling fruit begins with the pickers. If it is carelessly picked or dropped two or three feet into a basket it is bruised and will not keep as long as if laid in the basket with the hand. Baskets for picking apples should be lined. Whatever is used for shipping should be neat and of uniform size. All small fruit should be as carefully handled as eggs. Good fruit sells below its value if shipped in old, weather-worn crates. Girls and women make the best berry-pickers. A noisy boy, berry-picker is a nuisance. He eats the large ones and the ones he puts in the box are not a credit to those of the careful pickers. Farmers are too careless about handling apples. Large shippers are buying orchards and bartering the apples themselves, because the farmer does not send the apples into market in good shape.

A motion prevailed changing the location of the principal office of the society from Lawrence to Topeka, and in compliance therewith the office of Secretary will be removed to the capital city.

The evening and closing meeting of the session was called to order at 7:30 o'clock. The report on "Vineyards" was read and discussed, followed by music from the glee club and Bro. Faith, of Vernon county. A paper on "Meteorology," by T. B. Jennings, Director of the United States Weather Service, at Topeka, was read by the President. Then came the report of special committees.

The time having arrived for adjournment, a few closing remarks were made by President Houk, after which the twenty-eighth annual session of the Kansas State Horticultural Society adjourned *sine die*.

Immediately after adjournment, the members of the society entered a special car that was in waiting and were soon at the residence of Colonel U. B. Pearsall, Secretary of the Hart Pioneer nurseries, where a reception and banquet was given in honor of the members by Colonel and Mrs. Pearsall, assisted by their daughter, Miss Clara, and Mrs. Major Combs, Mrs. M. J. Coventry and Mrs. H. B. Hart. The guests were happily entertained and enjoyed the occasion as only lovers of fruit and flowers can. After a season of pleasant conversation a sumptuous supper was served, consisting of oysters, salads, coffee, tea, apples, oranges, bananas, grapes and flowers. Each guest was also presented with a choice souvenir bouquet, furnished from the beautiful flower beds of Mrs. Coventry's greenhouse, two blocks away. The feast of good things lasted until 11:30 p. m., when the guests took their departure with pleasant remembrances of the hospitalities tendered them by Colonel Pearsall and his excellent wife and fascinating daughter.

HORACE.

Farmers!

Send your boys and girls to Bethany college, Lindsborg. From January 8 to April makes a convenient term. This splendid college has little red tape, but makes hard work and small extras popular. Twenty-five instructors. Eight departments. Just the school for the intelligent boys and girls from the farm. Over 400 attending now. Finest Music and Art school in the State. Strong normal, business and preparatory departments. Excellent classical college course. Write the President, Carl A. Swensson.

SPRAINS' Positive
and NEURALGIA'S CURE
ST. JACOBS OIL

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER.

LUMP ON COW'S JAW.—One of my cows has a swelling between the two lower jaws. I cannot see that it is attached to the bone, nor can I tell that it is hard.

Answer.—If the lump is soft rub on a little cantharidine ointment once a day till it is well blistered. If it is hard apply the treatment recommended for lumpy-jaw in last week's issue.

HOGS AILING.—I have some hogs, about four months old, that got stiff in the fore legs; some larger ones commenced to shiver and get sick; they do not eat or drink and their urine is like blood.

Answer.—Your letter is barely legible and the above is what I make it. If this reading of it is correct I fear your hogs have an attack of cholera.

SORES ON PIGS.—Our pigs have some sort of disease. Their ears become dry and hard like a piece of burnt leather, then, in a month or two, they drop off.

Answer.—The trouble with your hogs seems to be a species of dry gangrene, generally due to filthy pens or sleeping quarters. The sores should be washed twice a week with warm water and either carbolic or tar soap and a little of the following ointment rubbed on:

LUMPY-JAW—COUGH—WART.—(1) I have a steer, 3 years old, that I think is getting the big-jaw. What is your remedy? I have cured it with croton oil when first noticed.

Answer.—(1) You will find my remedy for lumpy-jaw in last week's issue of the KANSAS FARMER. I have had no experience with croton oil in this disease.

Horse Owners! Try GOMBAULT'S Caustic Balsam. A Safe Speedy and Positive Cure. The Safest, Best LISTER ever used. Takes the place of all liniments for mild or severe action.

MARKET REPORTS.

Kansas City Live Stock. KANSAS CITY, Dec. 17.—Cattle—Receipts since Saturday, 4,845; calves, 317; shipped Saturday, 1,639; calves, 149.

DRESSED BEEF AND EXPORT STEERS. 40.....1,361 \$4.75 42.....1,365 \$4.50 21.....1,219 4.40 20.....1,210 4.43

WESTERN COWS. 29 Col..... 691 \$2.75 145 N. M..... 925 \$2.95 21 N. M.....1,023 2.65 13 cf. N. M. 956 2.30

COWS AND HEIFERS. 1.....1,370 \$3.50 1.....1,020 \$3.35 1.....1,310 3.25 1.....920 3.00

TEXAS AND INDIAN STEERS. 21.....1,171 \$2.95 20.....1,152 \$3.67 93.....1,022 3.61 48.....1,113 3.55

TEXAS AND INDIAN COWS. 17..... 770 \$2.30 22..... 748 \$1.90 17..... 671 2.10 23..... 746 1.85

STOCKERS AND FEEDERS. 94.....1,044 \$3.50 3..... 863 \$3.15 23 west.....1,082 3.10 38 yr..... 651 3.00

Hogs—Receipts since Saturday 4,155 shipped Saturday, 420. The market was active and 10c higher, closing weak with part of gain lost.

Chicago Live Stock. CHICAGO, Dec. 17.—Hogs—Receipts, 37,000; official Saturday, 23,814; shipments Saturday, 4,280; left over, about 7,000; quality the poorest of the season.

St. Louis Live Stock. ST. LOUIS, Dec. 17.—Cattle—Receipts, 3,893; market shade higher: good native steers, \$4.75 @ \$5.00; light shipping and butcher grades, \$3.50 @ \$5.00.

Chicago Grain and Provisions. Dec. 17. Open'd High'st Low'st Closing Wh't—Dec..... 54 1/2 54 3/4 53 3/4 54

Kansas City Grain. KANSAS CITY, Dec. 17.—The receipts of wheat to-day were the smallest of any Monday's in many months.

Receipts of wheat to-day, 11 cars; a year ago, 164 cars. Car lots by sample on track at Kansas City at the close sold as follows: No. 2 hard, 52 1/2 @ 54c; No. 3 hard, 51 @ 52c; No. 4 hard, 48 @ 49c; rejected, 46 @ 47c; No. 2 red, 51c; No. 3 red, 49 @ 50c; No. 4 red, 48 @ 49c; rejected, 46 @ 47c.

Receipts of corn to-day, 81 cars; a year ago, 193 cars. Sales by sample on track at Kansas City: No. 2 mixed corn, 6 cars 41c, 9 cars 40 1/2c; No. 3 mixed, nominally 40c; No. 4 mixed, nominally 39c; No. 2 white, 10 cars 42 1/2c; No. 3 white, nominally 41 1/2c under No. 2 white.

Receipts of oats to-day, 8 cars; a year ago, 15 cars. Sales by sample on track at Kansas City: No. 2 mixed oats, 4 cars 31 1/2c, 1 car 31 1/4c; No. 3, nominally 30c; No. 4, nominally 27 @ 28c; No. 2 white, nominally 33 1/2c; No. 3 white, nominally 30 @ 31c.

Hay—Receipts, 70 cars: market weak. Timothy, choice, \$9.00 @ \$9.50; No. 1, \$8.00 @ \$8.50; low grade, \$6.00 @ \$7.50; fancy prairie, \$8.50 @ \$9.00; choice, \$7.50 @ \$8.00; No. 1, \$6.50 @ \$7.00; No. 2, \$6.00 @ \$6.50; packing hay, \$4.00 @ \$5.00.

Kansas City Produce. KANSAS CITY, Dec. 17.—Eggs—Market quiet, weak strictly fresh, 18c. Butter—Receipts lighter; the market is extremely dull; extra fancy separator, 20 @ 21c; fancy, 18 @ 19c; fair, 16 @ 17c; dairy, fancy, 14 @ 15c; fair, 13c; fancy roll, 12 @ 14c; fair roll, 10 1/2 @ 11c, mostly going to packers; packing, weak, 8 @ 9c.

Poultry—Receipts fair; chickens quiet; hens, 4 1/2c; mixed springs, 5 @ 5 1/2c; small, 6c; roosters, 15c; dressed chickens, 3 @ 6c; turkeys, steady, gobblers, 5c; hens, 5 1/2c; dressed turkeys, 6 @ 7c; ducks, steady, 5 1/2c; geese, 5c; pigeons, dull, 75c per doz. Apples—Receipts light, supply small and only sufficient for local trade; the market is very firm; standard packed ranged from \$2.25 @ \$2.75 per bbl.; others, \$2.00 @ \$2.25; fancy stand, \$3.00 @ \$3.50; Jennettings, \$1.50 per bbl.

Lemons, dull, \$3.25 @ \$4.50. Oranges, firm; Florida, \$2.40 @ \$2.50. Cranberries, firm; Cape Cod, \$10.00 @ \$11.00 per bbl.; Jersey, \$10.00 @ \$10.50. Vegetables—Potatoes, receipts light; market exceedingly dull; ordinary kinds, common, 45 @ 55c per bu.; sweet potatoes, red, 15 @ 20c per bu.; yellow, 25 @ 30c per bu.; Utah and Colorado, choice, 55 @ 60c per bu. Cabbage, scarce, market steady; \$1.00 @ \$1.50 per 100.

THE STRAY LIST. FOR WEEK ENDING DEC. 5, 1884. Rawlins county—A. K. Bone, clerk. MULE—Taken up by F. Taunton, in Burnwood tp., one dark gray mare mule, 3 years old, weight 750 pounds.

MULE—By same, one brown mare mule, 2 years old, weight 600 pounds, no marks or brands. MARE—By same, one sorrel mare, 7 years old, weight 900 pounds, white spot in forehead, left hind foot white; no other marks or brands.

Cheerokee county—P. M. Humphrey, clerk. HORSE—Taken up by M. W. Hallum, in Shawnee tp., November 14, 1884, one sorrel horse, 20 years old, shod all round, brand on left jaw, star in face.

COLT—By same, one bay colt, 15 months old, star and blazed face. HORSE—Taken up by J. F. Newton, in Shawnee tp., November 10, 1884, one dun horse, 4 years old, shod all round, lump on hind leg; had on bell.

Bourbon county—G. H. Requa, clerk. HORSE—Taken up by J. W. Moore, in Mill Creek

tp., one bay horse, 4 years old, sixteen hands high; valued at \$20. MULE—By same, one brown mare mule, 3 years old, thirteen hands high; valued at \$15.

Greenwood county—J. F. Hoffman, clerk. TWO STEERS—Taken up by J. G. Nichols, in Quincy tp., November 26, 1884, one red and white steer, 2 years old, branded (P) on left hip, valued at \$12.50; one black yearling steer, dim brand on left hip, valued at \$12.50.

FOR WEEK ENDING DEC. 12, 1884. Chautauqua county—G. W. Arnold, clerk. COW—Taken up by C. Oneslager, in Salt Creek tp., P. O. Colfax, one roan cow, no marks or brands; valued at \$15.

Cherokee county—P. M. Humphrey, clerk. PONY—Taken up by J. M. Turner, in Garden tp., P. O. Vark, November 16, 1884, one bay mare pony, fourteen hands high, white face, three white feet, white spot on belly, roached mane; valued at \$20.

Elk county—S. D. Lewis, clerk. STEER AND HEIFER—Taken up by W. J. Sexton, in Painterhood tp., P. O. Busby, November 25, 1884, two red yearlings, one steer and one heifer; valued at \$15.

Wabunsee county—J. R. Henderson, clerk. MARE—Taken up by Oscar Johnson, in Kaw tp., P. O. St. Marys, one gray mare, 2 years old, split in right ear.

Lyon county—C. W. Wilhite, clerk. COW—Taken up by G. W. Davis, in Center tp., November 1, 1884, one small black cow, 8 years old, both ears cropped; valued at \$12.

STEER—Taken up by Jas. Archer, in Jackson tp., November 19, 1884, one pale red yearling steer, white on hips, belly and lower part of tail; valued at \$12. Linn county—J. J. Hawkins, clerk.

MULE—Taken up by G. W. Elder, in Sheridan tp., November 26, 1884, one dark bay horse mule, mane roached, had on leather headstall; valued at \$10. Greenwood county—J. F. Hoffman, clerk.

STEER—Taken up by N. P. Bernard, in Pleasant Grove tp., November 29, 1884, one red steer, 3 years old, indistinct horseshoe on right hip; valued at \$20. Sumner county—Chas. Sadler, clerk.

MARE—Taken up by John W. Davis, in Fults tp., P. O. Corbin, November 8, 1884, one dark brown mare, 10 years old, weight 800 pounds, star in forehead; valued at \$15. COLT—By same, one iron-gray mare colt, weight 600 pounds, white forehead, three white feet; valued at \$15.

Logan county—H. G. Kiddoo, clerk. TWO MULES—Taken up by C. M. Howes, in McAllister tp., P. O. McAllister, July 8, 1884, two black ware mules, 3 years old; valued at \$50. Johnson county—Jno. J. Lyons, clerk.

MARE—Taken up by A. J. Crooks, in Mission tp., November 24, 1884, one bay mare, fifteen and one-half hands high, white hind feet, white spot in face; valued at \$25. Anderson county—J. T. Studebaker, clerk.

STEER—Taken up by Z. A. Taylor, in Indian Creek tp., one white yearling steer, medium size. FOR WEEK ENDING DEC. 19, 1884. Cherokee county—P. M. Humphrey, clerk.

TWO MULES—Taken up by James H. Deal, in Neosho tp., P. O. Melrose, November 14, 1884, two mare mules, brown and bay, fifteen and one-half hands high, 14 years old, mealy nose; valued at \$50. Woodson county—H. H. McCormick, clerk.

MARE—Taken up by D. D. Story, in Toronto tp., P. O. Toronto, December 12, 1884, one two-year-old filly. Greenwood county—J. F. Hoffman, clerk.

HEIFER—Taken up by L. N. Shook, in Janesville tp., December 1, 1884, one black heifer, 2 years old, white spot above left eye and white on left jaw; valued at \$12. THREE HORSES—Taken up by Thomas Bland, in South Salem tp., November 26, 1884, one iron gray gelding, 4 years old, valued at \$35; one light bay filly, blazed face, white hind feet, valued at \$30; one dark bay mare, 6 or 7 years old, in foal, valued at \$35.

STEER—Taken up by John M. Cochran, December 7, 1884, one red steer, 2 years old, branded O under straight line on right hip, crop and underbit of right ear, small white spot in forehead, dehorned.

tp., one bay horse, 4 years old, sixteen hands high; valued at \$20. MULE—By same, one brown mare mule, 3 years old, thirteen hands high; valued at \$15.

Greenwood county—J. F. Hoffman, clerk. TWO STEERS—Taken up by J. G. Nichols, in Quincy tp., November 26, 1884, one red and white steer, 2 years old, branded (P) on left hip, valued at \$12.50; one black yearling steer, dim brand on left hip, valued at \$12.50.

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Wabunsee county—J. R. Henderson, clerk. MARE—Taken up by Oscar Johnson, in Kaw tp., P. O. St. Marys, one gray mare, 2 years old, split in right ear.

Lyon county—C. W. Wilhite, clerk. COW—Taken up by G. W. Davis, in Center tp., November 1, 1884, one small black cow, 8 years old, both ears cropped; valued at \$12.

STEER—Taken up by Jas. Archer, in Jackson tp., November 19, 1884, one pale red yearling steer, white on hips, belly and lower part of tail; valued at \$12. Linn county—J. J. Hawkins, clerk.

MULE—Taken up by G. W. Elder, in Sheridan tp., November 26, 1884, one dark bay horse mule, mane roached, had on leather headstall; valued at \$10. Greenwood county—J. F. Hoffman, clerk.

STEER—Taken up by N. P. Bernard, in Pleasant Grove tp., November 29, 1884, one red steer, 3 years old, indistinct horseshoe on right hip; valued at \$20. Sumner county—Chas. Sadler, clerk.

MARE—Taken up by John W. Davis, in Fults tp., P. O. Corbin, November 8, 1884, one dark brown mare, 10 years old, weight 800 pounds, star in forehead; valued at \$15. COLT—By same, one iron-gray mare colt, weight 600 pounds, white forehead, three white feet; valued at \$15.

Logan county—H. G. Kiddoo, clerk. TWO MULES—Taken up by C. M. Howes, in McAllister tp., P. O. McAllister, July 8, 1884, two black ware mules, 3 years old; valued at \$50. Johnson county—Jno. J. Lyons, clerk.

MARE—Taken up by A. J. Crooks, in Mission tp., November 24, 1884, one bay mare, fifteen and one-half hands high, white hind feet, white spot in face; valued at \$25. Anderson county—J. T. Studebaker, clerk.

STEER—Taken up by Z. A. Taylor, in Indian Creek tp., one white yearling steer, medium size. FOR WEEK ENDING DEC. 19, 1884. Cherokee county—P. M. Humphrey, clerk.

TWO MULES—Taken up by James H. Deal, in Neosho tp., P. O. Melrose, November 14, 1884, two mare mules, brown and bay, fifteen and one-half hands high, 14 years old, mealy nose; valued at \$50. Woodson county—H. H. McCormick, clerk.

MARE—Taken up by D. D. Story, in Toronto tp., P. O. Toronto, December 12, 1884, one two-year-old filly. Greenwood county—J. F. Hoffman, clerk.

HEIFER—Taken up by L. N. Shook, in Janesville tp., December 1, 1884, one black heifer, 2 years old, white spot above left eye and white on left jaw; valued at \$12. THREE HORSES—Taken up by Thomas Bland, in South Salem tp., November 26, 1884, one iron gray gelding, 4 years old, valued at \$35; one light bay filly, blazed face, white hind feet, valued at \$30; one dark bay mare, 6 or 7 years old, in foal, valued at \$35.

STEER—Taken up by John M. Cochran, December 7, 1884, one red steer, 2 years old, branded O under straight line on right hip, crop and underbit of right ear, small white spot in forehead, dehorned.

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A plant that will pay land rent in honey alone has long been wanted. Figwort, the spider plant and many others have been tried and found wanting. At present German beekeepers are very enthusiastic over a new forage and honey plant, which it may be worth while to give a trial on this side of the water. A few seeds of this plant were sown this season by beekeepers in this country, and their experience with it will be gratefully received by this department. The American Bee Journal has the following to say concerning the plant: "It seems that a scientist named Wagner, of Munich, Germany, has been at work for the past thirty years crossing and



WAGNER'S FLAT PEA.

improving and from a bitter weed has developed a succulent forage plant unusually rich in sugar and relished by all kinds of stock. The illustration of plant shows its resemblance to the sweet pea, to which it is closely related.

"The roots are said to penetrate the hardest, driest and rockiest soils, reaching to the depth of ten or twenty feet. Drought has little effect upon it. Barren land occupied by it has its fertility improved. Those who understand how red clover takes so much of its nourishment from the air will have little difficulty in believing this as the flat pea, like the clovers belongs to the leguminosae family. Four tons of dry hay per acre can be obtained if three cuttings are made. The first cutting takes away all chance for an early honey crop, but, if we understand it correctly, the bees gather a rich harvest after the first cutting, and not until October is its yield of nectar over. A somewhat serious drawback to growing it in this country is the difficulty of getting a start, as it is very liable to be winter-killed during the first and second years."

UNITING SWARMS.

This Can be Done to Excellent Advantage in the Fall.

If I had four small colonies that I wished to unite, says a correspondent in American Bee Journal, I would move them together and let them get well established in their new location before disturbing them. I would move them in the evening, after all the workers had returned from the field, and put grass or straw in front of the hive entrance, so they could not leave as usual; a board in front, to bump their heads against, will cause them to notice a change in their location, and take their bearings. When established in their new home, I would remove all their queens but one, and cage them, choosing the best one to remain with the colony. When wanted to unite them I would remove the hives from their old stand, and place a new hive in the center of the place where they stood, placing a smooth board in front of it to brush the bees upon. Then I would remove the frames containing brood from all the hives, brush off all the bees, and put the frames promiscuously into the new hive, and pour all the bees together in front of it, and drive all the bees into it with smoke. As neither of the colonies lays claim to this home, they accept the conditions and unite peaceably. The frames containing honey I would uncap a few at a



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time and place them in the second story with a small aperture in the covering, over the frames of the lower story, to permit the bees to come up and carry the honey below. The honey that the four small colonies had may be sufficient for the united colony, which will be strong in bees, and be able another season to pay for the labor of uniting.

TIMELY BEE NOTES.

BEES gorged with honey never volunteer an attack.

GIVE plenty of room for queen and workers as fall storing commences.

BEES dislike any quick movements about their hives, especially any that jars their combs.

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COMB honey, that is to be kept through autumn or winter must be kept in a warm room or the comb will break from the section when handled.

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(Continued from page 1.)

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