Volume XLIV. Number 11

TOPEKA, KANSAS, MARCH 15, 1906

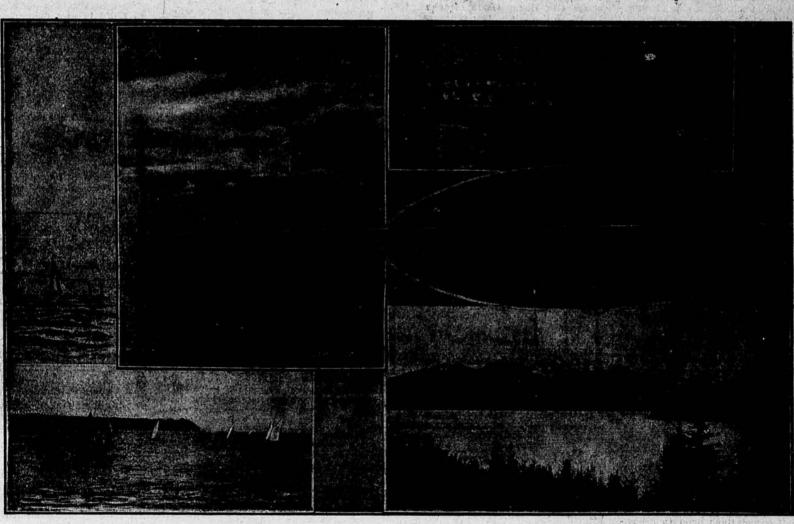
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RAILROAD CATTLE-GUARDS AND FENCES.

EDITOR KANSAS FARMER :- I Would like to have some information in regard to fencing the railroad. The Missouri Pacific railroad runs through my farm and I requested the superintendent to put in cattle-guards at the crossfor all damages arising from neglect or refusal to comply with section 18.

Section 28 of Chapter 70 reads as follows: "Any person owning land by or through which any railroad has been or may be constructed, who has or may inclose the same or any part thereof, and adjacent to the line of such railforward it to the proper higher official of the Missouri Pacific railroad; that he make a memorandum of the fact and date of giving the copy to the station agent, and then go home and await results. There is scarcely a doubt but that this matter will receive prompt and proper attention. If, how-

by agreement of the owners; the second is by assignment by the official fence-viewers of the township. These tence-viewers are the township trus-tee, clerk, and treasurer. Section 14 of this Chapter provides that "Any such assignment or agreement, duly recorded as provided in this article,



At Anchor in Everett Harbor. Cruising Among the Islands of Paget Sound.

Sea Gulls' Roll Call. A Georgeous Sunset. Olympics from Everett.

Scenes on Puget Sound, in the Vicinity of Everett, Washington.

He would not answer me, but wrote or talked to the section boss and would give me no satisfaction. The section boss told me to put a wire across the right of way on either side ing through. I did this, but a new boss has taken everything off the right of way and left it clear for stock or people to go through. We want to make hog-pasture of one side: can we make them put up a hog fence along that part? How should I proceed to have the road fenced? Can I make them put in cattle-guards at the crossings without fencing the road through?

I have been reading the Kansas FARMER for a long time, and think your information will be more reliable than I can get elsewhere. F. DILTS.

Harvey County. Section 18 of Chapter 70, General

Statutes of Kansas reads as follows: "When any railroad runs through any improved or fenced land, said railroad company shall make proper cattleguards on such railroad when they enter and when they leave such im-proved or fenced land." The next section makes the railroad company liable

road, with either a lawful or a hogtight fence, may demand of such railroad company that it inclose its line next thereto with a lawful fence, or a hog-tight fence, and maintain the provided, that the hog fence de fined in section 3064, laws of 1889, shall be and constitute a hog fence for the purposes of this act.'

Other sections provide methods of procedure in case the railroad company fails to comply with the law. This procedure is such that the services of an attorney will be needed in enforcing the law; but Section 30 provides that where the railroad is in the wrong it shall pay a reasonable attorney's fee which becomes a part of the judgment.

But it will not probably be necessary for this correspondent to go to law to secure his rights in this matter. The editor suggests that he write a full statement of his desires and make two copies of the writing; that he cut out this inquiry and answer from the KAN-SAS FARMER and attach it to one copy of his statement; that, in company with a neighbor, he hand the statement and the clipping from the KANSAS FARMER to the station agent and ask him to

ever, nothing is heard from the rail-, road officials within a reasonable time, write to the KANSAS FARMER the facts in the case, inclosing the other copy of the statement handed to the station The editor will look into the matter and try to get the case before the higher officials of the railroad and has no doubt but that the proper action will be taken including needed attention to such employees as may not have pursued the right course

Avoid going to law, if possible.

REMOVAL OF PARTITION FENCE.

EDITOR KANSAS FARMER:-A. and B. own adjoining farms. B. sells a portion next to A.'s portion of line fence. Can A. remove his former portion of line fence, compelling C. to buid onehalf of fence between him and A., or how should the division be made?

O. A. RHOADS. Cherokee County.

The law-General Statutes of Kansas, Chapter 153-provides two methods for determining what portion of a division fence each of the adjacent owners shall build and keep in repair. The first and best of these methods is shall be binding upon the parties and all succeeding occupants of the lands.

In 36 Kan., case of Robertson vs. Bell, the Kansas Supreme Court, in an opinion by Justice Valentine, concurred in by the entire bench, recognized an agreement for division of fence as good without questioning whether it had been recorded.

This is equitable and fair. The last clause making the assignments "binding upon the parties and upon all succeeding occupants of the lands." Gives permanency to the divisions as made. This provision seems to make it a matter of indifference to A. what disposition B. makes of his land. The letter of this section directs A. to continue to maintain his agreed or assigned portion of the fence, while B. and his successors are left to make such arrangement as suits them for the maintenance of B.'s portion.

But in the case stated by our correspondent, desire for a new agreement comes not from the side of the fence on which a division of ownership has occurred, but from A. who might be expected to wish the old agreement to continue. If the old agreement has been abandoned, then a new assign-ment will have to be made. The best way to do this is for A. and B. to agree upon the division of the fence separating their lands, and for A. and C. to agree upon the division of the fence separating their lands. If they can not so agree, the matter may be taken to the fence-viewers as provided in Sections 10, 11 and 12 of said Chapter 153.

The law nowhere confers upon either party the right to remove a partition fence so long as it is used as a partition fence by the other party. a change be made in the division of the fence on account of partial change of ownership or other cause thus requiring different assignments, an old fence may be removed by mutual consent, but if mutual consent be not given for removal, the better way is to ascertain the value of the portion of the fence which changes ownership, such ascertainment to be followed by sale and transfer in the usual way. The fence law provides for such ascertainment of value if the parties can not agree.

The law in this case is a good guide to equity and may be followed by agreement between the parties without expense if neighbors will all try to do what is right.

A CONCESSION FROM GERMANY.

The threatened elevation of yet higher tariff barriers against the importation of American food-products into Germany has been postponed for a year. This will give time in which the American Reciprocal Tariff League may be able to secure such reasonable modifications of the American tariff as will make it possible to secure a continuance of trade relations between this country and Germany. The American farmer needs the German market. The German consumer needs American foodstuffs. It has been assumed that even if great barriers be maintained against the admission of products of German industry into this country, the necessities of the case would compel the admission of American breadstuffs and meats into German markets without an increase of import duties. There has even been manifested in some quarters a disposition to neglect the interests of American farmers, and to arrogantly say that no concessions will be made even though we lose the German markets for farm products.

The German seemed willing to make it possible to arrange mutual concessions. He enacted a dual-tariff schedule, the lower rate to be applicable to products from countries which make similar concessions, the higher rate to apply to all others. The American Reciprocal Tariff Leagus was organized for the purpose of advocating similar reasonable enactments by the American The action of Germany in postponing the date at which in the absence of concessions from this country the higher rate should prevail, is a manifestation of a disposition to be reasonable and if possible to avoid a tariff war.

It will be remembered that in reply to inquiries from the editor of the KAN-FARMER, Senator Long and every Kansas Congressman took positions favorable to keeping the German and other foreign markets open. This matter, affecting as it does the prosperity of the farmer, should be kept freshly in mind. It will do no harm to cause suitable resolutions to be introduced in the Congressional conventions soon to assemble. The farmer constituent is never more important in the eyes of the candidate than at nomination and election

ALFALFA ON LEASED LAND.

EDITOR KANSAS FARMER:-A rented a farm from B for cash rent, which has a few acres of alfalfa on it. Can A fence alfalfa hog-tight and pasture with hogs without asking B? Please publish in your valuable paper next week.

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G. M. SCHMIDT. Ottawa County. This case is not covered by statute. The equities, however, may be determined and should guide the parties at interest and would very likely guide the court in case the parties were so unfortunate as to go to law over the mat-

ter.
While it is not so stated, the inference from the statement made is that the acre of land had been seeded to alfalfa before A rented it. Unlike other meadow or pasture crops, alfalfa, if a good stand, is in the nature of a permanent improvement. To destroy or even to impair the stand of alfalfa would be unjust to the owner of the land. It is well known that hogs, especially if allowed to pasture alfalfa closely, are likely to impair and even destroy the stand. This would be un-just to B. An old stand of alfalfa may be pastured with hogs to a reasonable extent and at proper times without se-

rious danger of greatly injuring the stand. There is, therefore, possible an agreement between the parties that may be greatly to the advantage of the tenant without damage to the landlord. The landlord's consent should, however, be obtained for the use of the alfalfa for any purpose that might injure the stand unless there has been a definite agreement waiving the landlord's interest.

STUDENTS' STOCK-JUDGING CON-TEST.

Recognizing the importance of interesting young men in the study and improvement of the various breeds of domestic animals, the Agricultural Association, in connection with the Animal Husbandry Department of the Agricultural College held their third annual stock-judging contest on March 5. The contest was open to all agricultural students, and great interest was taken.

Gold medals, valued from \$5 to \$20 were given as prizes to the ten men having the highest averages. The merchants and business men of Manhat tan donated very liberally to the fund for the purchase of the medals.

Each contestant was required to pass judgment and write reasons on two classes of horses, cattle, sheep, and swine. The highest possible score was 600 points and the results of the contest are as follows: W. J. Brown was first with a score of 563; J. S. Montgomery, second, 488; A. J. Milham, third, 479; T. T. Baker, fourth, 478; C. F. Blake, fifth, 472; M. D. Snodgrass sixth, 470; Harry Oman, seventh, 466; H. W. Hull, eighth, 465; Clarence Lambert, ninth, 457; W. T. McCall, tenth,

TO PROMOTE THE DEVELOPMENT OF THE SOUTHWEST.

A convention of the Southwest is held at Saint Louis on April 16 and 17, for the purpose of securing concerted action for the further development of the great section of the country that will be represented. It is stated that the assurance of such general cooperation is received from the country interested, that there is certain to be a successful inauguration of a movement which will tend to bring into use the vast as yet undeveloped resources of a quarter of the most potent area of the United States.

The purpose is a worthy one. There seems little need for overcrowding in any industry or in any section, while there remains, only half developed, a resourceful section the use of whose potentialities needs only intelligence, skill, labor and capital to produce abundant sustenance for millions of people.

A few years ago it was not known what wealth of coal, lead, zinc, and salt in this region had waited for the hand of the developer. Yet more recently has it become known, that oil and gas in prodigious quantities, the extent of which has not yet been learnneeded only the application of the What is yet under the surface of the Southwest to repay exploration can not be guessed.

The finding of these rewards for enterprise has in no wise abated, but has added to the prosperity of agriculture in the Southwest, and promises to bring to the very doors of the farmer, the market which he has sought in the distant East and beyond seas.

There ought to be an immense gathering at Saint Louis April 16 and 17, and it ought to mark an epoch in the progress of the country represented.

THE SANTA FE GOOD ROADS TRAIN.

Notice the advertisement of the Santa Good Roads train in this issue, While this advertisement announces the final meeting of the series only, it is to be understood that the same condi-tions apply at all other points where the train stops. No expense will be spared to make a succes of this series of lectures. D. Ward King, of "Splitlog drag" fame, and other well-known experts will be on the train to give free lectures and demonstrations in practical road-building at each town. Stops of one day will be made at each of the following named cities: Olathe, March 26; Wellsville, March 27; Ottawa, March 28; Iola, March 29; Girard, March 30; Erie, March 31; Coffeyville, April 2; Independence, April 3; Chanute, April 4; Lawrence, April 5; Emporia, April 6; and Topeka. April 7.

There is a proposition to induce the Topeka Street Railway Co. to extend. its Washburn college line a mile or two to the west so as to serve the densely peopled suburb called Seabrook. That such extension is desirable for the people of Seabrook and vicinity there is no doubt. The many dairymen of that

quarter will welcome the possibility of a daily milk car. The advent of the railroad will lead to further division of the land into small holdings, to closer cultivation, to increased population, and to greatly enhanced values of real estate. Many residents of the city like to get out into the country and do a little farming or gardening. especially true of clerks and laborers. The near future should make the extension a paying line for the railway company. To the layman there is no apparent reason why city railways may not extend to serve suburban communities and to do the interurban service which has proven so profitable further east.

"Concrete Construction About the Home and on the Farm," is the title of a book of 127 pages published by The Atlas Portland Cement Co., 30 Broad St., New York, whose advertisement appears in the Kansas Farmer. This little book gives in understandable form the information which has been sought by very many inquirers among the readers of this paper. It gives specifications for mixing and handling Portland cement and for applying it to the many purposes for which it is rapidly coming into use. Write to the above-named company for a copy of the book, stating what you wish to construct of concrete.

Reports from Canadian and Kingfisher Counties, Oklahoma, state that wheat is being seriously damaged by cut-worms. The entomologist of the experiment station has visited fields where the worms are at work, and recommends spraying a strip of the wheat just ahead of the worms with Paris green at the rate of one pound to 100 gallons of water. The spraying should be done while the worms are feeding on the wheat and, of course, no stock should be allowed to pasture on the sprayed wheat.

EDITOR KANSAS FARMER :- In your issue of March 8, 1906, is a communication from G. B. Taylor, of Dickinson County, on cane hay. I have raised it for ten years and have fed it to my mares and all kinds of horses summer and winter, and I have raised colts every year. I never had any trouble. believe that cane is as healthy as any hay that I ever fed. I have never known a horse to cough or have heaves as a result of eating it. I have, been a reader of the Kansas Farmer for four or five years. I could not do without it. I think it is the best farm paper I have ever read.

Potter, Kans.

The regular subscription price of the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be en-tered, both for one year, for one dollar. Address. The Kansas Farmer Company, Topeka, Kans.

BLOCKS OF TWO.

Imported Percheron Mares for Sale.

Watson, Woods Bros. & Kelly Company, the well-known draft-horse importers of Lincoln, Nebraska, have a new announcement in this issue, calling attention to an extra good lot of im ported mares they now offer to sell. It will be remembered that this firm made an importation of mares for the great sale held in December, but on account of an unavoidable delay the mares did not arrive in time for the sale. This is the only importation of mares that we know of, and it affords our readers a rare opportunity to buy our readers a rare opportunity to buy imported mares, as very few import anything but stallions. As will be noted, the offering includes a pair of ton 5-year-old mares in foal to one of the most famous stallions in France. the most ramous stallions in France. Also a pair of matched black 3-year-old mares weighing 2,500 pounds, one of them with a black filly colt at foot and the other due to foal within six and the other due to foal within six weeks. Also a 2-year-old black mare weighing 1,700 pounds and with extra good bone and finish. Others include a pair of gray yearling mares weighing 3,000 pounds that are described as the making of a show team. The mares are described as absolutely sound and with described as absolutely sound and with the best breeding to be found in the old country. Their prices range from \$500 to \$1,000, including colts at foot. The opportunity to secure imported draft mares is very limited, and those interested in buying should not delay, as the demand for all kinds of good draft mares is very strong. See advertisemen and kindly mention KANSAS FARMER when writing.

Miscellany

(CONTRACTOR CONTRACTOR Money can be lost in more ways than

Blood is not much thicker than water when money is at stake.

When a man is a sneak all through, he knows it, and the fact that he knows it makes him a sneak all

Never look for truth on a tombstone. Man's christianity to man makes countless thousands mourn.

Every man pays for what he gets in some kind of coin.

A man may be measured by the

things he seeks. It is easy to mistake gas works for

good works. He can bear a great trust who can bear little trials.

The smaller a man's mind, the longer it takes him to make it up.

The seven ages of man: Baby, Willie, Will, William, Billie, Bill, Old Bill. Many try to drown their troubles in

drink; but trouble is a good swimmer. Because a man is polite to you, don't presume that his time is without value.

Think of your own faults and you will talk less about the faults of others. Our thoughts about others are of less importance than our thoughfulness for others.

The difference between a strong will and a strong won't: The first is firmness; the second, obstinacy,

George Washington was so opposed to lying in any, form that he refused to establish a weather bureau during his administration.

When a man reaches the age of about forty years, he then spends much of his time taking inventory of those things which he thought he knew, and sifting out that which is of no account.

Philosophical.

Dennis-" "T is the ear-ly bur-rd gets th' wur-rm, Misther Casey."

Casey .- "'Tis that. If ye wa-ant to keep yere head above wather these days, ye ca-ant let th' grass grow under feet, Misther Dinnis."-Detroit yere

"Where's that twelfth juror?" exclaimed the judge, on the court's resuming business after an adjournment, scowling as he spoke at the eleven jurors in the box, one of whom rose and said: "Flease, my lord, it's John Simmons as is gone. He had to go on private business; but he's left his vuddick with me!"—Londen Tit-Bits.

To some true and faithful lives, the divine word never comes with any rapture or any ecstasy at all, but only like "daily bread,"-a simple, quiet faith, arming the soul for duty and keeping it unshaken before all danger. -G. S. Merriam.

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Agriculture

THE REPORT OF THE PROPERTY OF Barley-Hog Pasture.

I have been watching the results of experiments as stated in your paper, and find them of great help; but there are some things I do not see in it, and would like to suggest a change in the small-grain crop for Kansas farmers, also to get a little advice concerning the same. It seems to me that we could use other small grains beside millet, oats and spelt, and that we could realize fully as large a profit as from any of these by sowing barley. I would to know if barley is adapted to this section of Kansas, and the best method of sowing and harvesting it. It is said to make one of the best feeds for all kinds of stock raised on the farm. I would like to hear from some one who has had experience with this crop and the best variety for this country,and to know where seed can be obtained.

I wish to prepare a permanent pasture for hogs by sowing some kind of grass with clover, and have been advised to sow in June in growing corn just before the last plowing and that by next spring it will be ready for hogs to be turned into. Do you recommend this, or would it be better to spring with a nurse-crop? For summer pasture I usually sow equal parts of rape, oats, and cane-seed. Can you suggest an improvement on that? One more: is the Mammoth White Dent corn adapted to this section of Kansas? OTIS WARRENSBURG

Nemaha County.

Barley succeeds very well at this station. As an average for three crops of common Stx-rowed barley, the best producing barley tested at this station, a yield of 35.8 bushels per acre has been given; this is 1,518 pounds grain per acre. In the same period the Sixty-day oats, the best-producing variety of oats out of some thirty tested, has given an average yield of 46.8 bushels per acre, or 1,498 pounds of grain per acre each year. While several other varieties of barley have yielded nearly as much as the Sixrowed, the Texas Red oats which are really the standard variety in Kansas, have yielded only 39 bushels per acre as an average at this station; this is ony 1,248 pounds of grain per acre. On the whole, therefore, barley has proved be the superior crop. At this station consider barley hardier than oats. The claim is that when chinch-bugs are prevalent, barley is the crop most attacked, and this may be an objection to the crop in some years; but barley is certainly a better drouth-resister than oats and will stand more hot weather; and in trials at this station has produced, on the average, not only larger yields but a better quality of grain than oats. At this station the hest-producing varieties in the threeyear test are: Common Six-rowed, 35.8 bushels; Bonanza, 34.4 bushes; Mansury, 34.1 bushels; Mandscheuri, 32.2 bushels; and Success Beardless, 35.5 bushels per acre respectively. We have seed for sale of the Bonanza, common Six-rowed, and Mandscheuri varieties at prices given in circular which I mail you under separate cover. You can secure seed barley from Western seedsmen.

Barley is sown and handled very much as oats. We usually sow about 2 bushels per acre as early in the spring as we sow any grain. Barley makes good feed for stock, ground and fed with other feeds; or it makes a very fair fattening food when fed alone to hogs and cattle. When the grain is ground it should be soaked when fed to stock.

Alfalfa makes excellent pasture for ogs. If vou have been recommending a combination of English blue-grass, Bromus inermis and red clover; sow, about 12 pounds of each of the grasses with 3 or 4 bounds of the clover per acre. I prefer to sow early in the spring without a nurse-crop. Grass sown in this way on fairly clean land, will make a good start and furnish considerable late summer and fall pasture. If sown with grain as a nurse-crop, about three times out of five you will fail to se-cure a stand, and you get no use of he grass the first season.

Early-fall seeding of the grasses lamed is also practicable. Sow about he first of September without a nursecrop on a well-prepared seed-bed. Clover, however, should be seeded in the spring and not in the fall. Bromus inermis seeded in the spring at the station yielded 1% tons of hay the next season and furnished considerable fall pasture. It is not advisable, however, to pasture spring seeding until late in the summer, or in the fall and then only lightly. It is true also of fall seeding that it should not be pastured too early the next season, but if possible should produce a hay crop before the field is turned to pasture. I do not favor the method of sowing in corn at the last cultivation. In a wet season it may answer very well, but there are too many chances of losing the seed, and at least of getting a poor stand of grass or clover.

Your combination of rape, oats and cane for a summer pasture is a good you might include field-peas in the combination named. At this station cow-peas alone make good latesummer and fall pasture, also a com-bination of cow-pens and corn, or cowpeas and cane. The cow-peas are a little later crop than the rape, oats, and cane combination. We have found that sowed sorghum, or sowed Kafir-corn, or sowed corn makes good late-summer and fall pasture.

Mammoth White Dent corn is a latematuring variety and may not be so well adapted for growing in your part of the State as some earlier maturing sorts, such as Boone County White, Silver Mine, Farmer's Interest, or Mc-Auley's White Dent. The Hammett White Dent is also well adapted for growing in Northern Kansas. This is a native Kansas corn and has been grown in Marshall County for fifteen or twenty years. A. M. TENEYCK.

Starting Alfalfa.

U. H. ELLING, SUPPRINTENDENT FORT HAYS EXPERIMENT STATION

As alfalfa is costly to seed, it pays the farmer little to experiment along this line, but he should rather benefit by the experience of others. Of course is imposible to lay down a set of iron-clad rules on account of the great variation in soil and climatic condi tions, although there are some general principles that apply to a wide range of conditions. Many failures to get a stand of alfalfa are due to not giving it a fair trial. Alfalfa is a difficult to cultivate; its needs must be carefully studied, and it should be given every possible care and attention.

The first important step in the selection of the field is to secure a convenient location, one that is adapted for growing this crop. As alfalfa, well started, will be a profitable crop for ten to twenty years without reseeding, it is quite an item to have the field so situated as to best improve the many advantages it affords to the farmer. If possible, locate it near the farm buildings, as alfalfa is a very profitable pasture for all kinds of farm poultry, as well as hogs and horses; and if bees are kept, they not only make honey from it, but are a necessity in the production of seed. It is also good for the eye to look upon. The field must be well fenced to keep off wandering cattle or sheep, as to these it is dangerous for pasture, frequently causing instant death by bloat.

The chief essential to be considered in the choice of field is the nature and lay of the land. Alfalfa will grow anywhere in the State so far as altitude is concerned. If possible, select a smooth, level tract which is well drained and not swampy. While alfalfa needs water and needs it in large quantities, it will not grow on wet, soggy ground, or with the water-table too near the surface. Rich river and creek bottoms, if not subject to prolonged overflows and well drained, afford ideal conditons for growing this crop, though smooth upland if rich, produces a very profitable yield of a choice quality of hay, being less stemy than that grown on the bottom-lands. Do not save your most fertile land for what you believe to be the "money" crop; for if you get alstarted on the right kind of land, no other crop will bring better income; while, on the other hand, few other crops will cause one to lose money faster, than will alfalfa when repeatedly seeded on thin, shaly land.

The well-test auger might often be used to advantage in examining the lower soil before sowing alfalfa-seed. If we find that the ground is underlaid with a layer of rock, a stratum of dry sand, or a tough, hard layer of shale close to the surface, we may rest assured that alfalfa will not reach its highest perfection. On the other hand, if we find a deep, alluvial, sandy loam of calcareous origin, with the underflow anywhere from 10 to 50 feet below the surface, the conditions are ideal and alfalfa will be one of the most profitable crops a farmer can put on such land.

Alfalfa will grow on a variety of soils, though usually it yields better on

light than on heavy soils; but in many localities it grows on the heavy, gum Lime is an essential element in the soil; consequently alfalfa is better adapted to localities with "hard" water than those with "soft" water. It thrives well on very sandy soil pro-vided the water-table is near the surface and within easy reach of the While alfalfa roots deeply, it is plant. not absolutely necessary for the soil to be of great depth, providing of course that it is sufficiently moist and contains plenty of plant-food.

SEED-BED

While the mature alfalfa is a vigorous, deep, gross feeder, renovating and enriching the soil, the young plant, on the other hand, is tiny, delicate, and frail, and must have ideal conditions for the first year of its life. The soil must be in a perfect physical condition, containing plant-food in an easily available form and moisture sufficient so the young life of the plant will not depend entirely upon the rainfall.

It is absolutely useless—a waste of money and human effort—to sow alfalfa on a poorly prepared seed-bed. A good stand is frequently secured on newly broken land if the seed-bed has been well prepared; while on the other hand, many failures to get a stand on old ground are due entirely to the shiftless preparation of the land. alfalfa is costly to seed, it is desirable to get the land into the best physical condition possible, even if it takes two or three years to do it. Summer fallow, clean culture is important, or the ground should be free from weeds by growing on it some cultivated crop which requires frequent cultivation, as it promotes the germination of the weed-seeds so they may be destroyed and the land made clean for alfalfa.

The seed-bed should be gradually deel ad until the desired depth is reach, which is about 6 to 8 inches, thus airming a good reservoir for moisture which is an important factor in the West. The subsoil should be mellow, yet compact and covered with a two-inch mulch of fine soil. seed-bed should always be considered as the home of life. Air is an absolute necessity for all living things, though the amount of ventilation or aeration necessary for the best results depends largely on the nature of the soil, the crops grown and the climate. Some soils are tight, firm and run together, needing proper cultivation, and the addition of humus to bring about the desired conditions. Other soils are too open and porous, thus allowing a too-free circulation of air and causing excessive loss of moisture by evapora-This latter conditon is more prevalent in the semi-arid regions. Summer fallow is often desirable in regions of light rainfall, not only to kill the weeds but to conserve moisture for one entire season, so that the young alfalfa plant will have sufficient moisture to develop its root-system, after which it is able to withstand many hardships. Where the annual rainfall averages from 15 to 25 inches the water must be handled very economically and the soil must be in such a mechanical condition as to take it up when it comes, and such methods of cultivation must be applied to the soil to best preserve the moisture for the use of the crops.

Before seeding, be sure to have good supply of moisture in the soil; otherwise, the seed is worth more in the sack. We find the early spring the best time to sow. I should rather risk the frosts of early spring than the weeds and dashing rains later. In some parts of the State, fall-seeding is desirable because of the absence of crab-grass and other troublesome weeds. In this section and in the West, early fall seeding has proven successful, and has this advantage: that the weeds need not be mowed sary with spring sowing, thus saving labor and time, and the next year a fair crop of hay is secured. Fall seeding had best be done early-about August -and the seed-bed should be in ideal condition, containing sufficient moisture so that the young plants be rapidly developed and able to withstand the winter freezes. Even then, alfalfa is often winter-killed by severe weather.

The kind of seed is a very important consideration because our success or failure will depend largely upon the seed; and since we have already put much work on the land and since alfalfa-seed is expensive, we should select judiciously. It should be tested for purity and germinability. Alfalfa is difficult to clean thoroughly and it often contains obnoxious weed-seed such as crab-grass and foxtail. In handling alfalfa intended for seed it is often allowed to heat, either in the stack or





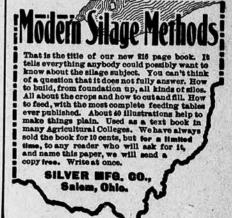
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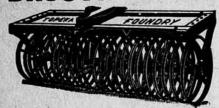
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sack and the result is that only a low per cent will germinate. Such seed is usually of a brownish yellow or dark color, while good alfalfa-seed is of a greenish yellow, or brown color. Since alfalfa has a peculiar habit of adapting itself quickly to change of envir-onment, it is no doubt best to obtain seed from plants grown under the same climatic conditions as those of your own locality. A nurse-crop is usually undesirable as it robs the young alfalfa of its plant-food and moisture.

By mixing alfalfa-seed with cornof about the same fineness as the seed, in the proportion of two parts seed to three parts cornmeal, seeding may be done with a common graindrill, setting the drill to seed two pecks of wheat per acre. We use the Superior disk-drill with press-wheels. It is best not to put the seed in too deep, but just to the moisture, then cover shallow, about one inch. The press wheels help to firm the soil about the seeds and stimulate germination.

The amount of seed required per acre is dependent upon the condition of the soil, the manner of seeding, and the quality of the seed. It is my opinion, however, that much alfalfa-seed is being wasted annually in the State of Kansas by putting it on too thick. Ten pounds per acre of good alfalfa-seed is

We have three strains of alfalfa wellstarted on the highest upland at the branch station and it gives promise of a profitable crop. While it does not yield so many pounds to the acre as the hay on the bottom-lands, yet it is of a choice quality with a large percentage of leaves and is, therefore, richer in protein than more rank alfalfa.

On account of alfalfa's being a rather coarse plant and difficult to keep when put in stack, we bale it directly from the field and store it in the barn. After it is wilted in the swath we use a side-delivery rake to put it in the windrow, and if the weather is threatening rain we put it in shocks to cure; otherwise we leave it in the windrow until it is well cured, then with a sweep-rake draw it to the baler. The man who ties puts the bales from the press on a low, flat wagon, and at noon and evening they are hauled in This method and put in the barn. proves to be almost as economical as stacking, and is more satisfactory. At Manhattan the silo is used, and when the alfalfa is ready to cut and the weather is unfavorable for haying, the alfalfa is put directly into the silo and is a very valuable feed as silage.

In rotation with our common crops, alfalfa is very worthy of consideration. Unfortunately, the subject of crop rotation is very much neglected in this section of the country, but it is an important topic if the fertility of our soil is to be retained. It is an enricher of of the soil because it belongs to the famous family of leguminous crops which have the power under certain conditions, of gathering free atmospheric nitrogen and storing it in the soil, or building it into their tissues for the nourishment of growing animals,

Alfalfa increases the nitrogen in the soil. It improves the soil tilth by shading the ground, and by adding humus through the decaying of its large, deepgrowing roots, and at the same time it frees the land from weeds. If you have no alfalfa on your farm, study the plant, its needs, your soil, and try hard to make it one of your farm crops. Alfalfa is good for the farmer's soil, it is good for the farmer's stock, and it is good for the farmer's pocketbook.

Directions for Destroying Pocket Gophers.

DAVID E. LANTZ, ASSISTANT, U. S. BIOLOGI-CAL SURVEY.

Pocket-gophers infest all the States and Territories west of the Mississippi, and parts of Illinois, Wisconsin, Florida, Georgia, and Alabama. They occur also in Southwestern Canada and over the greater part of Mexico. All the species live underground in ramifying tunnels, and all bring to the surface quantities of earth, which is heaped up in the shape of mounds. The habits of these animals are everywhere much the same.

Throughout their range, pocketgophers are very destructive to crops. They eat the roots of fruit-trees and in this way sometimes ruin whole orchards. They eat both roots and tops of clover, alfalfa, grasses, grains, and vegetables, and are especially harmful to potatoes and other tuberous crops. In addition to all this, they throw up innumerable mounds of earth in meadows, pastures, and grain-fields, which cover and destroy far more of the crop than is eaten by the animals or killed by having the roots cut off. These

mounds also prevent close mowing, so that much of the hay-crop is lost, and the pebbles they contain often break or injure farm machinery. The loss due to gopher mounds in the clover- and alfalfa-fields in some of the Western States has been conservatively estimated at one-tenth of the entire crop. In many of the fertile valleys where they abound the animals are by far the most formidable of the farmer's mammalian

Pocket-gophers may be destroyed by

the pocket-gophers are active, all the animals should be destroyed by the first application of poison.

TRAPPING POCKET-GOPHERS.

Trapping is a successful method when followed intelligently and persistently. It is especially adapted to small fields, orchards, and gardens, where only a few gophers are present; but in the case of large areas that are badly infested, the method involves too



GOPHER RUNAWAY .- a, mounds of loose soil; b, laterals leading to mounds, usually closed with earth; c, main runaway, usually clean.

polson, by traps, and by the use of carbon bisulfid.

POISONING POCKET-GOPHERS.

Poisoning with strychnine is the most effective means known for killing pocket-gophers, and, as it involves the least expenditure of money and labor, the Biological Survey recommends it for general use. As a rodent poison to be used by farmers, strychnine has several advantages. Its action is sure, its deadly character known to most persons, and its bitter taste is an additional safeguard against mistaking it for a harmless drug. Strychnia sulfate is the most convenient form of the poison, since it is freely soluble in hot water and in the natural juices of veg etables used as bait. To disguise its bitterness so that rodents may not be deterred from eating the baits, sugar is often employed, or the strychnine may be mixed with its own bulk of commercial saccharine. A sugar sirup poisoned with strychnine may be used with excellent results. It is prepared as follows: Dissolve an ounce of strychnia sul-

fate in a pint of boiling water. Add a pint of thick sugar sirup, and stir The sirup is usually thoroughly. scented by adding a few drops of oil of anise, but this is not essential. If preserved in a closed vessel, the sirup will keep indefinitely.

The above quantity is sufficient to poison a half-bushel of shelled corn or other grain (corn recommended). The grain is steeped in hot water and allowed to soak over night. It is then drained and soaked for several hours in the poisoned sirup. Before using, cornmeal may be added to take up the excess of moisture.

Dry crystals of strychnine also may be used. They are introduced, by means of a knife, into small pieces of potato, carrot, or sweet potato, or into entire raisins or dried prunes. A single large crystal (or several small ones) is enough for each bait. Raisins are especially recommended because they are easily handled and contain enough sugar to disguise the bitterness of the poison.

The prepared baits are introduced into the underground runways of the

gophers and are conveniently handled with A stout dibble is spoon. used to make holes into the runways. This consists of a spade handle shod with a metal point and having a strong bar for the foot of the operator about 15 inches from the point. Having located the runway by use of the dibble, it is moved from side to side to make the soil firm about the hole, and then withdrawn. oisoned po or raisin or a teaspoonful

of the poisoned corn is dropped into the hole, which is left open. Some farmers prefer to cover the holes, but the experience of the writer is against the practice. By this method but lit-

tle labor is necessary, and the operator soon acquires skill in finding the runways. The bait should be placed in the main runways and not in the short

laterals near the mounds

(fig. 2). If placed in the laterals, the animals are likely to cover it with soil or throw it out without finding it. A skillful operator can go over 20 to 40 acres of badly infested land in a day, and, if the work is carefully done at a time when

For trapping gophers an ordinary No. 0 steel trap may be employed, but there are a number of special gophertraps on the market that are better adapted for general use.

In using the ordinary steel trap, the first step is to make an opening into the main gopher tunnel. The trap should then be sunken so that the jaws are level with the bottom of the runway and lightly covered with green clover or alfalfa or grass, or loose soil, care being taken that these do not clog under the pan, or trigger. No bait is required. The hole should be just large enough to receive the trap and should be covered so as almost to exclude the light.

Besides the ordinary steel trap, various gopher-traps have found favor with farmers. Several traps are on the market whose main advantage lies in the ease and simplicity of operation and in the fact that they kill the animals instantly. All of them have been found to be excellent, but the simpler ones have advantages over those with closed sides. These special traps should be set in the laterals leading into the main tunnel of the gopher, or at the entrance of open burrows where fresh earth is being thrown out. The trapper should choose the freshest of a series of mounds and dig along the lateral until it is found clear of soil.

CARBON BISULFID.

Carbon bisulfid has been employed for killing pocket-gophers, and under favorable conditions its use is recom-mended. If the burrows are extensive or the soil dry, the gases are dissipated so rapidly that a large quantity of the liquid is required to kill the animals and the method becomes too expensive. If, however, the burrows are simple and the soil moist, bisulfid may be used successfully. For pocket-gophers an ounce of the liquid for each burrow is sufficient. The carbon bisulfid is poured over a bunch of cotton. rags, or other waste material and this quickly pushed into the burrow, which should be closed at once.

Any farmer may readily rid his premises of gophers by the use of poi-Unless, however, the son or traps. entire community unites in active and intelligent cooperation in the destruction of the animals, the cleared area will be sooner or later invaded from neighboring premises, and the work of destruction must be repeated. Cooperation only will effect a radical cure. When cooperative efforts for the extermination of gophers over a considerable area are attempted, careful attention must be given to waste lands along fences, streams, public highways, and railroads. Such places are favorite haunts of the animals, because in them are found loose, sandy soil, moisture, and suculent roots for food is from such resorts that adjoining farms are often restocked with pocketgophers.

Essential Features of a Good System of Crop Rotation.

D. H. GRIPTON.

Since no two farmers own farms with exactly the same kind of soil, or have the same circumstances under which to labor, or have the same desires or ideals which they wish to reach, it would be impossible to outline a deflnite system of crop rotation that would apply to each and every farm. In presenting this subject, therefore. I shall not endeavor to lay down any hardand-fast rule for crop rotation, but will give some general principles which each individual farmer should apply to his own conditions.

The reasons that crop rotation is

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usually a good practice may be divided into two classes:

1. Those which concern the immediate profit of the farmer. Under this head we may consider the following principles . (a) Crops should rotate so as to make the best use of the moisture in the soil. (b) Crops should rotate so as to distribute the labor through the different seasons of the year. (c) Crops should rotate so as to keep down weeds and eliminate diseases and insects. (d) Strong feeding crops should follow the weaker feeding ones.

2. Those which relate to maintaining or increasing the fertility of the soil. Under this head we may consider the following principles. (a) Crops should rotate so as to use preceding crops' residue. (b) Rotations should contain legumes in order that the nitrogen of the air may be transferred into the soil. (c) The rotation should not contain a large proportion of exhaustive crops. (d) Deep- and shallow-rooted crops should alternate.

In explanation of the principles of the first group we offer the following discussion:

Crops should rotate so as to make the best use of the moisture in the soil. Perhaps as good an illustration of the non-observance of this principle as any under common observation, may be seen when a farmer grows wheat on ground from which he has just harvested a luxuriant growth of Kafircorn or cane. The poor crop of wheat following these crops is generally attributed to the exhaustive effect of the latter upon the soil, and this may be true to a certain extent, as these crops mature late in the season and produce so abundantly that they probably draw heavily upon the available amount of plant-food, but the greater defect generally lies in the fact that the Kafircorn or cane made a rapid growth late in the season, and being rather deeprooted crops drew most of the moisture from the soil. It would be far better to put the fall crops on ground that had been plowed immediately after harvesting some earlier crop, or if put in stalks it should be put in the field that mtured earliest. If there are aboundant fall rains, this precaution may not be necessary, but it is generally a safer plan to farm so as to save as much water as possible whether it may be needed or not.

To realize the importance of distributing farm work, it is only necessary to visit a locality where wheat alone grown. There we see at harvest at high wages, horses are worked be-yond reason and everything gives way to the harvest of the great crop. The rush abates somewhat when the wheat is in the stack, but there is extremely hard work until the thrashing, plowing and seeding are done in the fall, when comparatively all labor ceases until the next harvest. The man who keeps some stock and raises a variety of grain and forage crops, does not have such a rush of work at any time, but has his work distributed so as to permit him to do a good share of it himself or to keep a regular force of men throughout the whole year.

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The necessity of keeping down weeds is evident to any intelligent farmer. If any crop is conducive to the propagation of certain weeds, it is best to follow it by a crop that will permit of the most effectual operations against the weeds, or will so shade the ground or make such a vigorous growth as to choke or crowd out these pests. general, small grains should be followed by cultivated ones for the above reasons.

If smut, rust, or other diseases are had in small grain, rotation should provide for a crop to follow them which not effected with these diseases. If wheat is infected with the Hessian flies, a year or two of cultivation will eradities near-by continue to raise wheat this will do little good.

Farm crops may be divided, according to their ability to take plant-food from the soil, into strong feeders and weak feeders. After a legume or grass crop has been plowed under, we find that the soil contains more humus and more plant-food than it did before the grass or legume was sown on the Rotating the crops in accordance with the principles as named in the outline, we sow our weakest feeding-crop after the grass or alfalfa, but this is not always best, as some weakfeeding crops are over-stimulated under such conditions. For instance, if our rotation consists of alfalfa, oats, or corn and wheat, we should sow them in the order named, according to the above principle. But if we were to sow oats after alfalfa, they would undoubtedly make such a rank growth

that they would lodge and rust badly. Corn would not be thus effected, hence we would grow the corn after the alfalfa. making the rotation alfalfa, corn, osts and wheat. The shove rule, however, would hold good in most other cases. For instance, cane and Kafircorn should be placed at the end of the rotation, that is, when it is intended to be sown to alfalfa or grass again.

Crops should rotate so as to use the preceeding crop's residue. The grass and legume crops produce more humus than they use. In the tillage of the cultivated crops more humus is oxidized than these plants produce, hence it is important that these plants should alternate, as all soils should have a liberal supply of humus since it aids in holding moisture, furnishes plant-food, and gives a good physical texture to the soil. The legumes, through organisms that live on their roots, gather nitrogen from the air and deposit it in the growing plant, and the decomposition of these plants adds available nitrogen to the soil. By alternating these legumes with the grain-crops, the latter are furnished with nitrogen which is so essential to their maturity.

Deep- and shallow-rooted plants should alternate. This principle is very important for two reasons. It gives the subsoil a better texture and makes it more easily permeated by water and by the roots of plants. The deep-rooted plant brings the plantfood from the subsoil to the surface and deposits it where it is available for shallow-rooted plants. Grain and cul-tivated crops tend to make the soil open in texture. Grasses and legumes tend to bind the soil particles together. All soils should undergo periodic compacting and loosening processes. Sandy are most improved by those methods which compact and bind the soil particles together, while heavy clay soils are most benefited by the opposite treatment. Those crops which add humus will improve the texture of almost any soil.

On account of the varying conditions, there are no hard-and-fast rules for farming; but if the above discussion is applied with common sense it will probably be found not far wrong. The question has been settled that we must have a rotation of crops, but the problem is, what that rotations shall be.

Seeding Questions.

We wish to sow several acres to clover, redtop and English blue-grass this spring, and later to try alfalfa, although we are told that alfalfa and brome-grass are failures in this coun-

Please send such bulletins as we need, including one on cow-peas. Our soil is somewhat sandy. The permanent pasture and parts of the bluestem meadow are more or less studded with outcropping sandstone. Would an application of lime pay? If so, please publish instructions. If soil is taken from an alfalfa-field where leaf-blight has been, is there danger of transmitting the leaf-blight where the soil is D. NEWBY.

Cherokee County.

I would leave out redtop from the combination of grasses and clover which you name, except perhaps on the lowest, wettest land. Redtop is not likely to succeed well on the sandy land which you describe. This grass is adapted to wet land and is really a grass of poor quality as compared with others, and should not be sown where better grasses will grow. On well-watered land in your section of the State, timothy might be used in place of redtop, but on the sandy land described perhaps the timothy will not succeed so well as English blue-grass. The Bromus inermis should succeed well on the sandy land, and I would recommend sowing the Bromus inermis with English blue-grass and clover. Supposing the Bromus inermis should not succeed so well as the English blue-grass, you might sow less of it, sowing 5 to pounds of the Bromus inermis with 20 pounds of English blue-grass and 4 or 5 pounds of clover per acre. would continue to try alfalfa on welldrained land, but not on wet, sub-irrigated land. A light application of lime on the land in question, previous to seeding alfalfa, might give some bene-

There would be danger of transmitting the leaf-blight fungus by using soil for inoculating the new land in which leaf-blight has prevailed. I think it advisable, however, to try inoculating the seed or the soil with the bacteria which grows on the roots of the alfalfa plants. It may not be advisable to try inoculation on a large scale at first, but try an acre or so by

WHO SHE WAS

SKETCH OF THE LIFE OF LYDIA E. PINKHAM

And a True Story of How the Vegetable Compound Had Its Birth and How the "Panic of '73" Caused it to be Offered for Public Sale in Drug Stores.

This remarkable woman, whose maiden name was Estes, was born in Lyan, Mass., February 9th, 1819, coming from a good old Quaker family. For some years she taught school, and became known as a woman of an alert



and investigating mind, an earnest seeker after knowledge, and above all, possessed of a wonderfully sympa-thetic nature.

In 1843 she married Isaac Pinkham. builder and real estate operator, and their early married life was marked by prosperity and happiness. They had four children, three sons and a

In those good old fashioned days it common for mothers to make their own home medicines from roots and herbs, nature's own remedies— calling in a physician only in specially urgent cases. By tradition and ex-perience many of them gained a won-derful knowledge of the curative properties of the various roots and herbs.

Mrs. Pinkham took a great interest in the study of roots and herbs, their characteristics and power over disease. She maintained that just as nature so bountifully provides in the harvest-fields and orchards vegetable foods of all kinds; so, if we but take the pains to find them, in the roots and herbs of the field there are remedies expressly designed to cure the various ssly designed to cure the various pressly designed to cure the body, and ills and weaknesses of the body, and it was her pleasure to search these out, and prepare simple and effective medicines for her own family and friends.

Chief of these was a rare combination of the choicest medicinal roots and herbs found best adapted for the cure of the ills and weaknesses pecu-liar to the female sex, and Lydia E. Pinkham's friends and neighbors learned that her compound relieved and cured and it became quite popular among

All this so far was done freely, with-out money and without price, as a labor of love.

Lynn. Its length and severity were too much for the large real estate interests of the Pinkham family, as this class of business suffered most from fearful depression, so when the Centen-nial wear desired. nial year dawned it found their property swept away. Some other source of income had to be found.

At this point Lydia E. Pinkham's Vegetable Compound was made known to the world.

The three sons and the daughter, with their mother, combined forces to

women of the whole world.

The Pinkhams had no money, and little credit. Their first laboratory was the kitchen, where roots and herbs were steeped on the stove, gradually filling a gross of bottles. Then came the question of selling it, for always before they had given it away freely. They hired a job printer to run off some pamphlets setting forth the merits of the medicine. Now called Lydis R. Pinkham's cine, now called Lydis E. Pinkham's Vegetable Compound, and these were distributed by the Pinkham sons in Boston, New York, and Brooklyn.

The wonderful curative properties of the medicine were, to a great extent, self-advertising, for whoever used it recommended it to others, and the demand gradually increased.

In 1877, by combined efforts the family had saved enough money to commence newspaper advertising and from that time the growth and success of the enterprise were assured, until today Lydia E. Pinkham and her Vegetable Compound have become household words everywhere, and many hold words everywhere, and many tons of roots and herbs are used annually in its manufacture.

Lydia E. Pinkham herself did not live to see the great success of this work. She passed to her reward years ago, but not till she had provided means for continuing her work as effectively as she could have done it

During her long and eventful experience she was ever methodical in her work and she was always careful to preserve a record of every case that came to her attention. The case of every sick woman who applied to her for adviceand there were thousands—received careful study, and the details, includ-ing symptoms, treatment and results were recorded for future reference, and to-day these records, together with hundreds of thousands made since, are available to sick women the world over, and represent a vast collabora-tion of information regarding the treatment of woman's ills, which for authenticity and accuracy can hardly be equaled in any library in the world.

With Lydia E. Pinkham worked her daughter in law, the present Mrs. Pinkham. She wascarefully instructed in all her hard-won knowledge, and for years she assisted her in her vast correspondence.

To her hands naturally fell the direction of the work when its originathat her compound relieved and cured and it became quite popular among a feem.

All this so far was done freely, without price, as a bor of love.

But in 1873 the financial crisis struck ynn. Its length and severity were too Pinkham continues this great work, and probably from the office of no other person have so many women been ad-vised how to regain health. Sick women, this advice is "Yours for Health" freely given if you only write to sak

Such is the history of Lydia E. Pink-ham's Vegetable Compound; made from simple roots and herbs; the one great medicine for women's ailments, and the fitting monument to the noble an whose name it bears.

carefully spreading 300 or 400 pounds of the infected soil on an acre and mixing it with the soil of the field by cultivation previous to seeding the alfalfa, or you may use the nitroculture preparation and inoculate the seed before seeding.

I have mailed you copies of press bulletins Nos. 125 and 129, giving information regarding the preparation of seed-bed and the seeding of different grasses. I have also mailed you copy of bulletin No. 114, treating on alfalfa. We have no bulletin on cow-peas, but I have mailed you a copy of a letter answering questions on the planting and culture of this crop, and have sent you a circular letter giving instructions regarding the use of lime as fer-A. M. TENEYOR.

Stock Interests

PURE-BRED STOCK SALES.

PURE-BRED STOCK SALES.

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

March 20-23, 1908—Combination sales of Shorthorns, Herefords, Aberdeen-Angus and Herefords at Kansas City; R. A. Ford, Manager, Lawson, Mo. March 28, 1908—Shorthorns by Shawnee Breeders Association at Topeka State Fair Grounds, I. D. Graham, Secretary, Topeka, Kans.

April 3, 1908—Janes Stock Farm, Willard, Kans., trotting bred horses.

April 18, 1908—Shorthorns by the Southeastern Breeders Association at Fredonia, Kans. H. E. Bachelder, Manager.

April 26, 1908—Shorthorns at Manhattan, Kans. F. M. Gifford, Wakefield, Kans.

May 1, 1908—Geo. Allen, Omaha, Neb., Shorthones.

A Feeding Ration for Beef.

I am feeding 27 calves and 5 cows and want to get the best gain possible. I have been feeding them about forty days and have them on full feed, but they do not seem to gain as fast as I am feeding between 9 they should. and 10 bushels (by weight) per day of corn-and-cob-meal with alfalfa for roughage. The last week I fed 2 quarts per day of Wilbur's Stock Food, mixed with the meal. Do you think it best to feed all the alfalfa they will When I keep plenty of alfalfa before them they do not eat so much meal. Do you think it would be better to feed oil-meal in place of the stock food? This is my first attempt at cattle-feeding, and 'any suggestions you make will be gladly received.

ERA C. HITT. Trego County. ERA C. HITT.

I could hardly suggest a better ration for your cattle than corn-and-cobmeal with alfalfa for roughage. I think you will find it more economical to let them have all the alfalfa they will eat, but the cattle will not finish so quickly. If you are feeding nine or ten (seventy bushels) bushels per day of corn-and-cob-meal per head, seems to me that the cattle are consuming an unusually large amount of grain. I would advise you to so regulate the amount at each feeding that it will all be consumed before the next time, in order that the cattle come to each feeding-time with keen appetites. It will take constant observation to secure the best results in cattle-feeding. The old proverb, "The eye of the master fatteneth the cattle," is a true one and you should be constantly on the lookout to see that the animals are in good thrift and have good appetites. If you note that they are not thrifty, reduce the quantity of feed a meal or two.

As to the stock food. I do not believe, as a general thing, healthy animals require it. A number of experiments have demonstrated this fact where alfalfa hay of good quality is fed, and in the production of baby-beef it will pay to use the best quality of roughage. I would not advise feeding oil-meal from the standpoint of economy. Alfalfa supplies protein in sufficient quantity. It may help you to secure a little better finish to feed a litoil-meal at the latter end of the feeding-period.

As you are a beginner in cattle-feeding, it would have been better if you had made your first attempt with old-

er cattle, as special care is required to

successfully produce baby-beef. G. C. WHEELER.

Feeds for Hogs,-Feeding Stock on Shares.

Would you oblige a reader by anthe following questions swering through the KANSAS FARMER?

1. Can hogs be matured successfully on Kafir-corn and Milo maize? What would be the best way to feed it? If any addition is needed to make it a good or sufficient food, what would it be?

2. In keeping one or more brood sows for a share of the increase, what would be a fair deal of that kind?

3. In keeping cows for a share of the increase, what are the usual con-

4. Is there any way to prevent a cow from urinating while being milked? 5. What would be a good mixture to sow, to cut green for hogs, when they

C. M.

can not be pastured. Barton County.

The question of maturing and fattening hogs on Kafir-corn is one which has been made the subject of a number of experiments here. Bulletin No. 95 on "Fattening Hogs on Drouth-Resisting Crops," gives the results of a series of seven or eight experiments in which twenty-one lots were fed Kafir-corn either as a whole or a part of the ration. In some of these trials Kafir-corn showed a value of 89 per cent of that of Indian corn. The digestible nutrients contained in Kafircorn vary little in proportion and

quantity from those of Indian corn, being slightly less in carbohydrates and fats. Neither Indian corn nor Kafircorn supply enough of either protein or mineral matter for the proper growth and development of swine; and in order to mature hogs on Kafir-corn it will be necessary to feed some protein feed in connection with it, such as alfalfa-pasture, skim-milk, soy-bean-meal, shorts, or tankage. Kafir-corn has been fed at this station both whole and ground, wet and dry. Wetting the whole grain at feeding-time was found to be a very sucessful way of feeding especially where skim-milk can be As a rule, we prefer to grind it and mix it with some of the protein feeds, soy-bean-meal being one of the best for this purpose. Hogs will tire of Kafir-corn rather quickly if kept on it as a steady diet, but where it is fed in connection with rather laxative protein feeds this result is not apparent. Alfalfa hay may be fed to fattening hogs to supply the required protein. In Bulletin 95, Professor Cottrell stated that Kafir-corn and skim-milk made the best gains in the series of experi-

Regarding the share of increase to be retained for the keeping of brood sows, it would seem to me that onehalf would be a fair deal for both owner of the sows and for the man feeding and caring for them; however, I have not given the subject very close attention and may be wrong in this. In the case of cows kept on shares, I believe half of the increase is the usual condition for the care and keeping.

I know of no method of curing the disagreeable habit of the milch cow mentioned. I would suggest that something be tried that will keep her attention attracted in a different channel, somewhat on the theory of the plans suggested for overcoming the balky horse.

Alfalfa would be the best plant to cut and feed to your hogs green. to use some annual be necessary plant, I would suggest using the Dwarf Essex rape or oats or sorghum, or a combination of two These may be sown at different periods through the summer and will supply considerable green forage.

G. C. WHEELER.

EDITOR KANSAS FARMER :- I am in possession of a clipping cut from the KAN-SAS FARMER, issue of March 17, 1904, which I have preserved. I refer to the article by N. S. Mayo, pertaining to warbles or grubs in cattle.

The annual loss estimated at from 50 to 60 millions of dollars in the United States on account of grubby hides, would suggest that more than passing interest should attach to the scientific study of the matter, with a view to remedy as soon as possible.

With this object in mind, I wish to state that it is my belief after studying for years, that Mr. Mayo is mistaken in his theory. I was at one time an ox-driver, and spent the years of early settlement handling driving oxen. I have also handled thousands of cattle; and being a lover and a close student of nature, the result of years of study on this matter suggests the possibility of throwing some light on the subject, and correcting some of the erroneous theories concerning the same.

Mr. Mayo states that "warbles or grubs are the larval form of the ox bot-fly, or the heel-fly (Hypoderma lineata)," and following with a life history, states that they are "a little larger than a house-fly, and deposit their eggs late in summer in the region of the heels. Being uncomfortable, these eggs are licked off, passing into the throat or gullet, thence boring their way through the animal tissues, locating finally under the skin of the back."

I first wish to state that nothing in common between the heelfly, as we know it, and the fly that lays its eggs in the backs of cattle. scientific name, Hypoderma lineata, does not apply to the family Oestridæ leach or bot- or breeze-flies, one of which family is known to us as a heel-This fly appears in early spring, on hot, sunny days, and seems to work with the wind. Its course of flight is very swift, and its presence is soon noted by the wild, nervous flight of the cattle, many of which run until nearly exhausted, taking shelter in the shade or near some inanimate object. But the only sure defence seems to be mud or water, and many is the beast have lost or released after being mired from this cause, in March, April or May.

The heel-fly seldom appears here before March, but this year on a hot day in February some were at work. They seldom bother later than May, and seem

to appear at once and leave in the same way. They may work later in the summer in other localities, but not here.

The Hypoderma bovis Deeger, or bot-fly of the ox is black, and densely The larvæ are found during pilose. the month of May and often before, and in the summer in the tumors on the hacks of cattle. And when fully grown, which is generally in July, work their way out and fall to the ground." Packard (Edition 1872, Page 405.)

During the long, hot summer days driving oxen are pestered by this big black fly, often an inch in length. He is a regular gourmand, and picking out a spot where neither horn nor tail can dislodge him, commences to bore through the hide. After gorging himself with blood, he can hardly fly, but either falls or buzzes off. I have often seen a smaller fly, more slender, of the same kind, alight on the drop of blood oozing from the aperture, its action leading me to believe it deposited an egg. We have marked the spots, and a warble always springs into existence

The foregoing facts can be substanitated here, and I hope a closer study of the matter may obtain.

The remedy proposed by Mr. Mayo is all we have been able to use so far, but I will watch with interest the cattle that have been dipped.

CHAS. H. JACKSON.

Hodgeman County. [This letter was referred to Dr. Mayo, now chief of the Department of Animal Industry of the Republic of Cuba, who writes as follows:]

In reply to the above letter by Mr. Jackson criticising a press bulletin published by me some two years ago, I can only say that the "theory" advanced is not mine, and that it is not a theory at all but a demonstrated fact. The only ox bot-fly found in the United States of America is the Hypoderma lineata, unless a new one has been found in the past two years. belongs to the family Oestridæ, "botflies or breeze-flies" and is called the "ox bot-fly or heel-fly." It is possible that in different localities it may have a local name or some other fly may be called a "heel-fly." The authority quot-ed by Mr. Jackson is nearly thirty-five years behind the times. If Mr. Jackson will write his Senator or Representative in Congress, and ask for Bulletin No. 5, New Series United States Department of Agriculture, Division of Entomology, he will find some valuable information on this interesting subject and he will also find that there have been many scientific discoveries made

since 1872. I may add that the ox bot-fly has been recently introduced into this Republic from the United States, and so far as I have been able to determine. the adult fly may deposit the eggs upon the hair of cattle at any season of the year in this land of perpetual summer.

N. S. MAYO. Chief Dept. Animal Industry, Republic of Cuba, Santiago de las Vegas.

Alfalfa for Horses and Brood Mares.

Is alfalfa hay considered good feed for young horses and brood mares? Our hay crop was short last summer and I have to buy. I had intended to buy alfalfa, but some of our people have the impression that it is not good for horses. Personally they know nothing about it for it has never been used here. I feel at liberty to ask you the question because I am one of your subscribers and know that you will give me the information. W. R. DELANEY.

Johnson County, Missouri. There seems to be considerable prejudice against alfalfa hay as a horsefeed in some sections. This prejudice is without foundation as is evidenced by the experience of many practical feeders and horsemen. J. W. and J. C. Robison, the Percheron horse-breeders of Kansas, depend upon it almost exclusively for the production of their famous draft-horses. Henry Avery & Son, of Wakefield, Kans., rely almost exclusively upon alfalfa hay and pasture for the production of their Percheron horses.

Alfalfa hay contains digestible nutrients per 100 pounds as follows: Protein, 11 pounds; carbohydrates, 39.6 pounds; ether extract, 1.2 pounds. Timothy hay contains digestible nutrients per 100 pounds as follows: Protein, 2.8 pounds; carbohydrates, 43.4 pounds; ether, extract, 1.4 pounds. Wheat bran contains digestible nutrients per 100 pounds as follows: Protein, 12.2 pounds; carbohydrates, 39.2 pounds; ether extract, 2.7 pounds.

At the Utah Experiment Station the comparative merits of alfalfa hay and timothy hay has been investigated in

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knocks the price of the horse. Usually his ser vices are lost too, 99% of these, including Spavin, Ringbone, Curb and Splint are cured by Kendall's Spavin Cure

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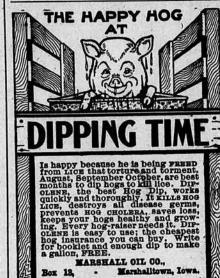
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tests with work-horses and drivinghorses for a period extending over four years. It was found that the timothy ration was more expensive and the horses did not maintain their weight so well as on the alfalfa-hay ration. Tests were made in which alfalfa hay was also fed without grain, it being found that twenty pounds daily of alfalfa was sufficient to maintain a 1,400pound horse where no work was per-formed. It required 33 pounds of al-falfa to maintain the same horse while performing hard work. It was found impracticable to maintain a horse do-ing very severe work on alfalfa hay alone, some grain being required.

Experiments conducted at the Wyoming Station gave similar results, much less grain being required where alfalfa hay was used in the ration.

The California Station, in discussing the results of alfalfa-hay feeding for horses, states that where alfalfa hay is available, the protein required can be supplied with much less grain than where the coarse fodder consists of the cereal hays or meadow grasses.

For the feeding of colts and growing horses I would not hesitate to recommend the feeding of good-quality alfalfa hay, giving them practically all that they will clean up. The brood mares will do well on this hay and it will be more economical than to purchase prairie hay or timothy hay, much less grain being required. G. C. WHEELER.

Cottonseed-Meal.

Will you be so kind as to send me 39, 47, 51, 53, 61, 67, 111, 118, and 124? ing cottonseed-meal or oil-meal for fattening steers? If you have anything in regard to that, will you please

send it to me and oblige? Saline County. C. C. KNUDSON. You have undoubtedly received the builetins requested and by studying them carefully you will be able to secure considerable information on this

Cottonseed-meal and oil-meal have very high values in the fattening of steers especially, where alfalfa hay or clover hay are not available as roughage. These meals contain a very high percentage of digestible protein and if you are feeding corn and corn-stover, Kafir-fodder, or prairie hay as roughage, at least 10 per cent of your grainration should be cottonseed- or oilmeal for the best gains and most economical results. Cottonseed-meal is the richer of the two and is also slightly cheaper. It may be fed to mature steers up to three pounds daily with perfect safety and even larger amounts may be fed to mature cattle for short periods. Your feed-bunks must be so arranged that no cottonseed-meal will be wasted on the ground so as to be eaten by the hogs, or you will be liable to lose some of them.

If you have alfalfa hay for roughage, I would feed little if any cottonseed-meal, alfalfa supplying the required protein more economically.

G. C. WHEELER.

Signs of the Zodiac, Have They Influence?

What influence have the signs of the zodiac on animal husbandry, particularly in relation to castration and weaning of young? C. F. C.

Mitchell County.

Answer.-If the signs of the zodiac have any influence on animal husbandry, we have never heard of it. We do not study the signs of the zodiac in connection with animal husbandry, and it is our opinion that its signs have absolutely nothing to do with the castration and weaning of young animals. R. J. KINZER.

Feed and Care of Breeding Horse.

eron) which has been out all winter with a herd. What is the cheapest and best feed? There is no alfalfa here but there is good prairie hay. Is Kafir-corn fodder good for a horse during breed-

How many mares can be bred during three months? What is best to keep the hair in good condition or what would be best to make him shed, and grow new hair?

Please give your advice on feed, how much to feed, breeding, in what kind of a place to keep him, and the number of W. N. KINZER. mares per day.

Stevens County.

nes.

It is never advisable to feed a breeding stallion much corn; but if this horse is in thin condition, he can be built up cheaper with corn than with any other feed. Alfalfa would be a most excellent feed to give him, but if this can not be had, oil-meal and bran can be used in connection with prairie hav to add protein to the ration and im-

prove his condition. Oil-meal also help to shed earlier, and will make his coat look sleek and bright.

A stallion of this age, during the season, should serve from 80 to 100 mares and oftentimes he is allowed to serve even more than this. He should be given a good, roomy box-stall and have plenty of exercise. It is a common practice to give a stallion a yard or paddock in which to take exercise, but there is some danger of a horse's injuring himself, and with a valuable horse it is preferable to lead him out for

A grain ration of about 50 per cent corn, 30 per cent oats, and 20 per cent bran, with a little additional oil-meal should put the horse in good condition.
R. J. KINZER.

Hutchinson's Poland-China Sale.

R. J. KINZER.

Hutchinson's Poland-China Sale.

We desire to call attention to the advertisement in this paper of the great Poland-China sale of James Hutchinson of Bellaire, Kansas, which he will hold at Norton, Kansas, Saturday, March 24. Breeders of this popular type of hog should remember that the greatest objection to the Poland-China is the size. For several years the leading breeders have overlooked this necessary quality in their efforts to breed something fancy. The result has been that the farmer has taken up the Duroc, not because of his admiration for him, but because he knows that the end of all is the pork-barrel, and that size is an absolute necessity.

Mr. Hutchinson is a veteran in the hog business. He has showed at all the important fairs in Nebraska for several years, and has always carried away his full share of prizes. We regret that we have not the space to give a complete list of them. If you are a breeder, look over his advertisement and note some of the great animals he has raised. His brood sows are all of the large heavy type, are good mothers and producers of large litters.

When at his farm last week, Mr. Hutchinson took us to the barn where his sows were farrowing. One had farrowed thirteen another nine, another seven, and still another, ten pigs. We were surprised at the large litters, but he informed us that nearly all of his sows farrowed nine pigs or more. A few years ago a farmer drove to Mr. Hutchinson's place and bought a sow; some days later he came back and bought several more. From this foundation stock he started, and is now one of the coming breeders of the State. At his sale this spring his bred gilts brought an average of over sixty dollars per head.

If you want to put some new blood in your herd, or are just starting one, take this opportunity to get some of these large-boned hogs. Arrange to attend this sale, or if you are unable to attend, write your wants to C. E. Shaffer of the Kansas Farmer and they will receive careful attention.

Ward Bros. Duroc-Jersey Sale.

Ward Bros. Duroc-Jersey Sale.

Ward Bros. sale of Duroc-Jersey swine, held at Republic, Kansas, on Tuesday, March 6, was very successful, though the day was stormy and many buyers were undoubtedly prevented from attending. The Ward Bros. are among the old-time breeders of Duroc-Jersey swine, and they have the confidence of the people. The bidding was lively. The stock offered was highly-bred and in good condition and buyers were anxious to get the good things offered. Following is a complete list of purchasers at this sale which averaged \$49.36 for the entire offering, Albert Ward, Belleville, Kan.; James Logan, Frankfort, Kan.; T. Mendenhall, Fairbury, Neb.; C. E. Shaffer, Topeka; John Jones & Son, Concordia, Kan.; J. F. Lane, Guide Rock, Neb.; A. A. Nire, Republic, Kan.; T. J. H. Fight, Republic, Kan.; Fred Collins, Belleville, Kan.; J. T. Chandler, Frankfort; Geo. Kerr, Wakefield, Kan.; Mac Wesley, Bancroft, Kan.; John Jones, Clyde, Kan.; A. Prue, Republic; James Logan, Onaga, Kan.; W. L. Vick, Junction City, Kan.; Ben Lebold, Republic, Kan.; Dick Ward, Belleville, Kan.; Henry Collins, Republic, Kan.; Emmet Price, Republic, Kan.; G. W. Sollenberger, Woodston; Marshall Bros., Burden, Kan.; H. H. Howell, Republic, Kap.

Herefords at Kansas City.

The combination sale of Hereford cattle at the Fine Stock Pavilion, Kansas City, held under the management of Secretary C. R. Thomas, last week resulted in the disposal of 87 head. The 45 bulls averaged \$104.50 and the 42 females averaged \$108.25. Good judges of Herefords pronounced these values to be at least \$25.00 too low for the quality of the animals offered.

The top price of the sale was \$400

quality of the animals offered.

The top price of the sale was \$400, which was paid for Steele Bros.' cow, Princess May 2d, who went to S. W. Anderson, Blakers Mills, West Virginia. Steele Bros. also sold the second highest female for which they received \$215.

est female for which they received \$215.

The highest price paid for a bull was \$305 given for Preceptor 232358, who went to Iowa.

The list of buyers is as follows: Thomas Brown, Ottawa, Kan.; J. B. Dale, Pleasanton, Iowa; H. H. Snyder, North Branch, Kan.; C. A. Stannard, Emporia, Kan.; R. T. Pence, Napton, Mo.; J. A. McKittrick, Greenwood, Mo.; Thomas Benson, Topeka, Kan.; Chas. W. Embry, Ottawa, Kan.; Joseph T. Clark, Platte City, Mo.; H. Kallor, Longton, Kan.; A. L. Weston, Colorado Springs, Colo.; John, Murphy, Frankfort, Kan.; F. W. Preston, Blue Rapids, Kan.; W. L. Lacey, Kansas City; Suter Bros. Zurich, Kan.; R. M. Dobson, Independence, Kan.; H. F. Kilburn, Tyro, Kan.; L. E. Potter, Springfield, Minn.; Jones Wren, Keytesville, Mo.; A. Metzger, Lone Star, Kan.; Oscar L. Mills, Fort Smith, Ark.; Mrs. K. W. Cross, Emporia, Kan.; J. A. Larsen, Everest, Kan.; T. P. Whittenberg, Pleasant Hill, Mo.; S. L. Brock, Macon, Mo.; J. Laivuette, Florence, Kan.; L. J. Johnson, Halbut, Iowa; R. M. Hall,

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U. S. Ison, W. G. Sellon and J. L. Gere

34 Poland-Chinas

Twenty-two sows and gilts by Goldfinder 37913 (litter brother to Corrector 2d) and Royal Perfection 2d 36427, bred to Goldfinder and Despatcher 38736 (by Chief Perfection 2d and out of the highest priced litter sold last year and a \$1,010 dam). A choice gilt by Meddler sold open, seven boars by Goldfinder, one by Corrector 2d and two by Royal Perfection 2d. All are out of well-bred dams.

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Great Combination Sale

At Kansas City, March 20-22, 1906

of all beef breeds of thoroughbred cat-tle, embracing noted strains of

HEREFORDS SHORTHORNS ABERDEEN-ANGUS GALLOWAYS and POLLED DURHAMS.

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H. A. FORD, Sale Mgr., Lawson, Mo.

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110 Head of Pure-bred Shorthorn Cattle 110 Head of Pure-bred Shorthorn Cattle
Fifty cows, principally all young and bred to
Rosemary Victor 12th 136313 and Waterloo Chief
247541; also 20 bulls, 8 to 18 months old and 48 heifers
the same age as the bulls. Mostly all reds. The
oldest and one of the best herds in the State of Kansas. Also 40 number 1 Poland-China Sows, mostly
all bred and 10 boars, 6 months old. Barred Plymouth Rock eggs for hatching, \$1 a sitting. George
Channon, Hope, Kans.

Eggs for Hatching

Send for my special Barred Rock circular; also ten other varieties of choice standard leaders. All free. Write me your wants. ; ; ; ; ;

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I accept your trial offer to new subscribers to send me the Kansas Farmer three months free. At the end of the three months I will either send \$1.00 for a full year from that date or write you to stop the paper, and you are to make no charge for the three months' trial.

Name

P. O. Address

Cambridge, Neb.; Geo. B. Baker, Mary-ville, Mo.; Guy Jones, Bigelow, Mo.; Miss Lou Goodwin, Blue Rapids, Kan.; Oscar Miles, Fort Smith, Ark.; Wood Roberts, Dearborh, Mo.

The Berkshire Love Feast and Sale.

18. Fred Parcher, Maryville, Mo. 150.00
52. W. O. Knapp, Guthrie City, Iowa. 52.50
16. David Page, Topeka. 82.50
49. W. H. Rhodes, Tampa. 70.00
23. Homer Waters, Dawson, Ill. 112.00
6. Fred Parcher. 80.00
5. F. W. Morgan, Beloit, Wis. 110.00
5. F. W. Morgan, Beloit, Wis. 110.00
523. W. J. Grist, Ozawkie. 37.50
112. A. C. Dugan. 97.50
46. R. K. Carey, Denver, Col. 115.00
11. R. K. Carey, Denver, Col. 115.00
23. W. J. Grist, Ozawkie. 65.00
24. H. W. Hamilne, Orion, Ia. 205.00
25. R. A. Schote, Bunch, I. T. 20.00
26. T. Jacquman. 65.00
27. J. D. Robinson, Burtrand, Neb. 22.50
28. W. J. Grist. 90.00
29. C. N. Jacquman. 65.00
41. L. E. Trost, Moberly, Mo. 37.50
38. C. W. Elyea, Jewell. 50.00
39. Jerome Seland, Springfield, Ill. 50.00
The 42 head sold for \$3,352.50, only a few cents less than \$80 per head.

Monsees' Record-Breaking Sale.

Beston 957, J. W. Stookeye, Gans-Beston 957, J. W. Stookeye, Gansing.
Senator J. 958, S. Ballander, Cleburn.
King Debo 200, L. M. Emerson.
Mammoth Boy, G. B. Mahon, Silver Lake.
Captain Shanks, L. M. Emerson.
John L. Sullivan, M. C. McMahill,
Tabor, Iowa.

JENNETS.
Toddie 500 tack colt at side, R. E. JENNETS.
Toddie 500, jack colt at side, R. E.
Deer, Buffalo, Mo.
Mary Jumbo 404, G. L. Cooper,
Linstead, Mo.
Lady Garrett 3d 369, L. M. Emer-\$565 Lady Martin 696, G. A. Thompson, 405 275 Cairo, Mo.

Ida Bright 403, B. Q. Moore, Linkville, Mo.

Lady Compromise 2d 352, D. B.

Moore.

Jenny Simpson 421, C. M. Meals,
Green City, Mo.

Baby Lee, G. A. Thompson.

Beasman, Mo.

Beasman, Mo.

Sallie 641, R. K. Thompson.

Frany Clairmont 639, G. A.

Thompson.

Susan 640, J. F. McKinney.

Frany Clairmont 639, G. A.

Thompson.

Spickards, Mo.

Spickards, Mo.

Black Daisy 703, L. M. Emerson.

Spickards, Mo.

Spickards, Mo.

Black Daisy 2d, G. L. Cooper.

Spickards, Mo.

Black Daisy 2d, G. L. Cooper.

Spickards, Mo.

Spickards, Mo.

Black Daisy 2d, G. A.

Thompson.

Spickards, Mo.

Honeyman & Reed Poland-China Sale.

Following is a complete list of sand buyers.

1. F. Peese, Madison.

2. (substitute)—Kno & Roberts,
Nardin and Deer Creek, Okla.

3. H. L. Faulkner, Jamesport, Mo.

4. F. A. Dawley, Waldo.

5. Leon Calhoun, Potter.

6. H. L. Faulkner.

7. T. P. Sheehy, Hume, Mo.

8. J. W. Myers, Galva.

9. L. C. Caldwell, Moran.

10. J. B. Myers, Canton.

11. H. L. Faulkner.

12. O. T. Calvin, Bolcourt.

12½, F. Long, Madison.

14. F. Long, Madison. 11. H. L. Faulkner

12. O. T. Calvin, Bolcourt

12. J. F. Long, Madison

14. F. Long, Madison

15. D. V. Stoll, Lone Elm.

16. L. V. Martin, Belle Plains

17. F. Long.

18. W. N. Messick & Son, Piedmont

19. F. Long.

20. F. Long.

21. B. D. Freeman, Madison

22. Dietrich & Spaulding, Richmond

23. R. W. Abbott, Madison

24. A. B. Huffman, Reece

25. Wm. Murry, Madison Junction

26. Dyck Bros., Writewater

27. Ira Allen, Strawn

28. F. Long.

29. J. R. Young, Richards, Mo

30. J. Q. Wilson, LeRoy

31. F. Long.

32. John Haughton, Madison

32. John Haughton, Madison

32. John Haughton, Madison 32. John Haughton, Mauison 32½. F. A. Dawley 33. J. J. Keating, Hamilton 34. F. Long. 35. J. W. Myers, Galva. 36. J. W. Myers, Galva.
36. H. L. Faulkner
37. J. Q. Wilson.
38. D. V. Stoll.
40. D. V. Stoll.
41. At.
42. J. Q. Wilson.
43. D. V. Stoll.
44. At.
49. At.

On and On Poland-Chinas.

On and On Poland-Chinas.

At Richards, Mo., on March 7, Mr. J. R. Young, Misouri's noted Poland-China breeder, held another of his recordbreaking bred-sow sales. This sale has not been exceeded in average price in the whole corn-belt except by the record made by Mr. Young himself in his December, 1905, sale. In these two sales, which aggregated nearly \$15,000, he disposed of 63 sows bred to the great boar On and On, at an average price of \$196.18. Nearly every State in the cornbelt was represented by buyers or mailorder bids at this sale.

The top price in this sale was \$355, paid by J. W. Honeyman, of Madison, Kans., for No. 1 in the catalogue, Lady Foster 67332, an extra fine sow by Foster's Chief Perfection 48021 and bred to On and On.

The sale was conducted by Cols. D. P. McCracken, H. O. Correll, J. W. Sparks,

HOLD UP and consider THE POMMEL FISH SLICKER LIKE ALL TOWERS ! WATERPROOF CLOTHING. Is made of the best materials, in Mark or yellow-fully quaranteed and sold by reliable dealers everywhere 417 STICK TO THE SIGN OF THE FISH TOWER CANADIAN



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the kind that makes rural lines, successful. Write for book 129-J, "How the Telephone Helps the Farmer," and also for the book, "How to Build a Rural Telephone Line." They will furnish you valuable information you can get in no other way. Simply drop us a postal postal for the m, and for any for the m, and for and sking for the m, and for any formation. Talking @ Saves Walking



The Best Fruit Paper



ST. JOSEPH.

Svery issue is handsomely illustrated and from 32 to 48 tages a month are filled with interesting matter pertaining to fruit-growing and gardening. The first four issues of 1906 will be handsome special numbers devoted to the following subjects:—January, The Horticultural Societies; Feb Lugary, The Horticultural Societies; Feb Lugary, The Small Fruits. Any one of these months of the services of the first books. Send your name and BEO. JONATHAN learn how to secure these books free.

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Lafe Burger, W. D. Ross, and Snyder.		
Following is a complete list of	88	les
and buyers: 1. W. J. Honeyman, Madison\$ 2. W. R. Crouther, Garden City,	355	.00
.Md		.50
4. Ed. McDaniel, Parsons		2.50
4. Ed. McDaniel, Parsons 11. John Bollin, Leavenworth		.00
13. Line Lukins, Disco, Ind	300	0.00
5. A. Glenn	250	0.00
6. A. Glenn		2.50
26. N. M. Anderson, Lathrop, Mo. 27. A. P. Wright, Valley Center.	150	0.00
27. A. P. Wright, Valley Center. 29. W. S. Babcock, Rockwell	11:	2.50
City, lowa		0.00
15. J. A. Wilson, Milo, Mo 16. Frank Zimmerman, Center-	12	0.00
ville	12	0.00
22. F. M. Scatter, Terra Haute,	99	5.00
7. E. E. Honeyman		0.00
Ind. 7. E. E. Honeyman. 15. C. E. Ogg, Auburn, Ill. 15. Walker & Carmack, Pattons- burg, Mo. 42. E. E. Axline, Oak Grove, Mo.		6.00
, burg, Mo.		0.00
42. E. E. Axline, Oak Grove, Mo		0.00 5.00
34. J. C. Larrimer, Derby	NO.	
H., Ohio,	16	2.50
31. Frank Zimmerman.	13	7.50
20. Ira Garrison, Rushville, Ill 21. James Mains, Oskaloosa		5.00
32. E. L. Jimison, Oneida, Ill		7.50
24. C. M. Hulbert, Oakland, Neb		0.00 7. 3 0
44. F. Long, Madison		6.00
9. Dr. R. W. Thomas, St. Joe, Mo		0.00
36. W. S. Babcock, Rockwell City,	10	
37. A. L. Ambrose, Lexington, Ill.		7.50
39. T. P. Sheehey, Hume, Mo	7	7.50
39. T. P. Sheehey, Hume, Mo 14. Frank Fites, Denver, Ind	8	6.00
33. E. O. Miller, Eldora, Ia 46. J. A. Wilson, Milo, Mo		5.00 7.50
46. J. A. Wilson, Milo, Mo 47. Walker & Carmack		1.00

Frank Georgia's Sale.

Frank Georgia's sale.

Frank Georgia's sixth annual bredsow sale was held at Mankato on February 24. Everything favored a good sale and it was one of the best ever held in that part of the State. The weather was fine, the crowd large and ready to buy, and the offering was one not to be excelled in any sale-ring. Thirty head were sold within a very short space of time, making an average of \$25 and a few cents. The buyers were chiefly among the neighboring farmers, who are acquainted with Mr. George's hogs, and appreciate their good qualities and excellent breeding.

Following is a list of the highest bidders and the prices paid for them:

No.										Pri	ce
4.	Jno.	Steph	ens.	Cav	vke	. (11	tу		\$26	.00
		Stepl								26	.50
10.	Jno.	Stepl	iens,	Cav	vke	r (Zi.	ty	 	24	
5.	Jno.	Stepl	iens.	Cav	vke	r (Ci	ty	 	23	.00
7.	Jno.	Stepl	iens.	Cav	vke	r (Ci	ty		24	.00
21.	Jno.	Stepl	iens,	Cav	vke:	r (Ci	ty		22	.50
18.	G. F	. Hul	l, Ior	na					 	25	
31.	G. F	. Hull	l							23	
14.	E. R	. Boll	inger	, Io	na.						.50
9.	E. F	. Bol	linge	r					 		.00
2.	E. F	. Boll	linge	r						22	.00
		d Bro								34	
11.	J. P	. Fair	r, Ma	nka	to.					28	
		npson								25	
		mpson									.00
22.	Tho	mpsor	Bisl	hop						21	.00

Some Record Prices at Avery's Percheron Sale at Manhattan, Kan., February 24, 1906.

Fifteen Percheron stallion (with six under I year of age), \$9225.00, making an average price of \$615; twenty-five Percheron mares (from 15 years of age to four head under 1 year), \$15,-200.00, making an average for mares, \$608.40; a grand average for stallions and mares of \$611.70.

The following records were broken for Percherons at public auction in this sale:

for Percherons at public auction in this sale:
Bosquet 40105 (46612), highest Percheron stallion, \$2825.00; Lena 40417 and Mina 31721, highest pair of Percheron mares, \$2250.00; Fanchon 42853, highest yearling filly, \$750.00; four mares in sale that averaged, each \$1000.00; the highest average on collection of Percheron mares, \$608.40.

Gossip About Stock.

H. H. Hague of Newton, Kansas, reports that in the Harvey County sale his Duroc-Jerseys made an average price of \$33.60, one sow selling for \$46. He also reports the arrival of two litters aggregating 24 pigs, 22 of which have been saved.

An event that will interest many of our readers will be the Janes Stock Farm sale of 34 trotting-bred horses and Standard-bred mares to be held at the State Fair grounds, Topeka, Kans., on Tuesday, April 3, 1906. The horses will be shown at the State Fair grounds prior to the sale. A great many of the horses in the offering are sired by General Evans 13166, 2:26%. For information and catalogue address C. N. Janes, Willard, Kans.

E. E. Axline, the big Poland-China breeder at Oak Grove, Mo., and Dr. O. L. Kerr, the breeder of the Champion O. I. C.'s, Independence, Mo., will hold a sale of these two breeds at Independence, Mo., on April 5, 1906. There will be 30 head of each breed in the sale. Mr. Axline has selected some excellent animals for this sale and requests breeders and all who contemplate purchasing to send for a catalogue which is free for the asking. A cordial invitation is extended to all who are interested in either breed to attend this sale.

Any one needing a farm should read the advertisement of the Norton Land Company in this paper. They desire especially to call attention to the last two farmes in the list. If you want something worth the money, write them at once. These farms are in Norton County, which has 30,000 acres of allegand where every farmer is projected. County, which has so, our acres of alfalfa and where every farmer is prosperous. One bank alone at Norton has over \$450,000 in deposits which belongs to the farmers. It will pay you to write them and mention THE KANSAS FARMER.

R. F. Norton & Son, owners of the Orchard Hill herd of Duroc-Jerseys write as follows: Can any one beat it:

"I noticed the mention of a big pig raised by Taylor and Wolff in your paper of March 8. We have one sired by Tip Top Notcher Championship boar at the World's Fair at St. Louis which we think is making a good gain. For the seven days ending February 24, he gained 17 pounds. He hext week ending March 3, he gained 16 pounds. Thus making 33 pounds actual growth (not fat), in 14 days. He is now six months old and weighs 175 pounds beside losing three weeks on account of having been hurt in shipping."

We recently visited the stock farm of Chas. Morrison & Son at Phillipsburg, which is one of the best kept stock farms in Kansas. Mr. Morrison is a breeder of Red Polls and Polard-China hogs. His cattle are among the best in the State and he has built up a reputation among breeders that enables him to dispose of all his young stuff as fast as he can produce it. Mr. Morrison carries a yearly card with the Kansas Farmer and says it has brought him excellent results. Of the large number of bulls he raised last year he only has four or five left. If you need anything of his breeding it will pay you to write him.

The Diamond Creek Stock Farm, owned by J. W. Creech of Herington, will have a sale of 50 head of Standard-bred horses at Herington, Kans., on Monday, March 26, 1906. The offering consists of brood mares, young stallions, geldings and fillies ranging from 1 to 3 years old. The leading farm stallion is Escobar 2:13%. He is a grandly-bred sire and his get show splendid style and finish. Catalogues may now be had on request and contains some special attractions including Angelbar. lot 4. Matched teams, lots 6, 8, 14, and 16, comprise two matched teams that will interest discriminating buyers.

G. M. Scott, Rea, Ho., held a very successful jack sale at Savannah, Mo., the 8. He sold jacks and mules for a total of \$18,057.50, a pretty good day's business in the disposition of the produce of a part of the Quiet Glenn Farm. The 21 jacks sold for an average of \$582.56; Two sold for \$1,200 each, and another for \$1,000; half the offering were 2-year-olds. Kansas got some of the best, No. 5 of the offering going to Henry Loeb, Baxter, at \$1200. A. D. Sanders, of Parnell, Kansas, was another purchaser; others were W. C. White, T. G. Sanihg, Yorktown, Ia.; G. E. Hanks, Nebraska, Clay, Neb.; Oliver Ott, Allena, Mo.; W. C. Martin, Pleasant Hill, Mo.; as. Millen King City, Mo.; Ollie Iverson, Blaken, Neb.; W. L. Nixon, Pleasant Hill, Mo.; W. J. Rhodes, Lee's Summit, Mo.; W. R. Hillman, Hebron, Neb.; Dysart Bros., Barnard, Mo.; Henry Ferguson, Westmoreland, Kan; Allen Cunningham, Clyde, Mo., and Nels F. Pearson, Stanton, Ia. The sale was conducted by Jas, W. Sparks, and William Brooks, and is considered one of the very successful sales of the season.

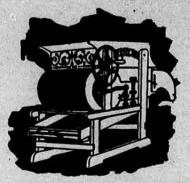
U. S. Ison, W. G. Sellon and J. L. Gere will hold a sale of Poland-China hogs and Shorthorn cattle at Butler, Mo., March 23. These gentlemen are selling an excellent lot of stock. Mr. Ison sells one cow and three young bulls, twenty-nine head of hogs, twenty-three sows and gilts, including one by Meddler, one by Corrector 2d, others by Goldfinder, a litter brother to Corrector Goldfinder, a litter brother to Corrector Goldfinder, a litter brother to Corrector Goldfinder or Despatcher, one of the same breeding. Sows and gilts are bred to Goldfinder or Despatcher, one of the litter that sold for \$2,250 last fall, and whose dam recently sold for \$1,010. A litter by this great pig should be an attraction in any herd in the land. Mr. Sellon sells nine lusty young bulls of serviceable age. Most of them are old enough for range use and eight 2-year-old heifers. These are all by the Scotch bull, Chief Elector 2d, and bred to a son of Imp. Conqueror, one of the best Scotch-topped American families, nearly all Young Marys. Mr. Gere sells five fall boar pigs by Goldfinder, four of them are out of a Mischief Maker dam. All in all the breeding and individuality of the offering gotten together by these gentlemen, should attract good breeders and farmers wishing to buy the best foundation stock. It is not expected that it will be a high-priced offering, so we think it a good place to go to get good Poland-Chinas and Shorthorns. If you can not attend, send bids to auctioneers, Sparks and Snyder.

The Shorthorn sale of E. D. Ludwig, held at Sabetha last week, served to attract a large crowd of buyers in search of his good cattle. Owing to the fact that the amphitheater containing the crowd of buyers fell with a crash almost immediately after the opening of the sale, and this was followed by a heavy windstorm which practically destroyed the sale-tent, the buyers were more or less demoralized and the prices realized were much bepractically destroyed the sale-tent, the buyers were more or less demoralized and the prices realized were much below what they might otherwise have been. Some of the animals in the sale were consigned by the local breeders. The 26 head sold by Mr. Ludwig brought \$2,872.50, an average of \$110.48. The total offering of 39 head made an average of \$100.40. The top was \$255, paid by J. O. Kimmel, of Sabetha, Kans., for the herd bull, Barmpton Knight 148795. The young bull, Scotchman 245103, was well sold, going at \$225 to J. P. Lahr, Sabetha, Kans. A. B. Simms of Troy, Kans., paid the next higher price, buying Sir Victor 253142 for \$140. J. O. Hunt. of Marysville, Kans., topped the female section, paying \$130 for the Cowslip cow, lot 6. Mr. Hunt and Everett Hayes bought several of the best cows and heifers. Among other good buyers were: William Pecht, Morrill, Kans.; T. A. Isenbise. Morrill; J. A. Windle, Falls City, Neb.; John Lascumbe, Circleville, Kans.; Rufus Miller, Morrill, Kans.; A. B. Lanning, Sabetha, Kans.; A. B. Lanning, Sabetha, Kans.; A. Smith, Summerfield, Kans.; Ed. McCoy, Sabetha; Roy Isenbise. Morrill; R. A. Smith, Summerfield, Kans.; Ed. McCoy, Sabetha; John Draney, Sabetha: William Davis, Morrill; T. K. and George Masterson, Sabetha; W. N. Ord, Sabetha; tell.

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The Grange

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Conducted by George Black, Olathe, Secretary Kansas State Grange, to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

KANSAS STATE GRANGE.

KANSAS STATE GRANGE.

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MASTERS' ANNUAL ADDRESS.

Words of Aaron Jones on Retiring From the Position of Worthy Master of the National Grange.

We have assembled in the thirtyninth annual session of the National Grange representing the agricultural industry of the country, not only to discuss its condition and to devise ways and means of advancing the interests of this great basic industry and thereby promote the welfare of the tillers of the soil, but in a broader sense to advance the interests of the American people, whatever promotes the welfare of agriculture promotes the welfare of every other industry. It is peculiarly appropriate to come together with this laudable ambition within the borders of the productive State of New Jersey and upon the shores of the broad Atlantic, prolific with commerce made posby the products of American farms. The conditions surrounding our meeting place should inspire a comprehensive view of the general situation without detracting in the least degree from the well-established reputation of the Grange for loyalty to the industry it represents.

CONDITION OF THE ORDER.

Since our meeting one year ago upon the Pacific Slope, there has been constant and substantial growth of the organiza-tion in membership and activity in all sections of the country. Many dormant granges have been revived, new granges established and over 60,000 added to the membership. This growth has not been confined to any locality but is observed in the States on the Pacific Coast, in the great agricultural States of the Middle West, in the South and in the Central and Eastern parts of the country. The progress of the organization in social and mental development among the rural people, and in influence upon public affairs, can be cited in every State where the organization is established. A recital of the victories won in promoting culture and refinement, intelligence and thrift, exemplary citizenship and happy homes, and in securing wholesome legislation and the fearless enforcement of laws, would reveal an influence exerted without a precedent by the farmers of the country in the battle for social advancement and that justice and equality vouchsafed to all by the constitution of our country. I congratulate you up-on the present condition of the order and its favorable position for effective work in the future.

EDUCATION.

The corner-stone of our organization is education, affording its members the opportunity, through cooperative effort to study the principles of advanced agriculture, including the relation of the elements of the atmosphere to the elements of the soil; the relation of elements of food to the requirements of plant and animal life; the combating of plant diseases and the suppression of injurious insects and fungus growth; as well as the opportunity to study domestic science, political economy and that form of politics known as the science of government. The improvement of rural schools, the introduction of the principles of agriculture in the public school curriculum, the policies of agricultural colleges, and the investigations of experiment stations are educational matters that come with the scope The ritual ceremonies, of our work. which for sublimity and pathos are unexcelled by the ritual ceremonies of any organization, are educational in their

effect upon all who participate in them These matters contribute to mental development after school days are past, and supplement the cause of public education with a system of such practical utility as has been unknown in the history of the world. As an organization we advocate that form of public education that teaches the boys and girls how to do things as well as why things are done. We reiterate that clause in our Declaration of Purposes, made in 1874, which says, "We especially advocate for our agricultural and industrial colleges, that practical agriculture, domestic science and all the arts which adorn the home be taught in their courses of study, and so far as is practicable we advocate instruction as a means of mental development in our public school system."

AGRICULTURE.

The present season has been favorable for crop-production and producers of nearly all kinds of crops have secured abundant harvests. The fruit and grain crops of the Pacific Coast, the corn and wheat crops of the Middle West, the cotton crop of the South and the dairy feeding crops of the Eastern States have yielded aboundantly, and the barns and storehouses are bursting with plenty. Business prosperity is unprecedented and on every hand the transportation, manufacturing and commercial affairs through the operations necessary in transferring those crops to the consumers, and in furnishing those engaged in growing and handling them with supplies is being carried on. Agriculture being the only industry that produces things, is the only industry that can increase the real wealth of the country. Manufacturing may change the form, transportation the location, and trade the ownership of property. and each industry may afford profitable employment for a vast number of people; but it is agriculture that furnishes the base of these operations by bringing into existence real property that did not exist before. In view of these facts, agriculture is entitled to greater consideration than any other industry in fixing the policies and enacting the laws of the Nation, and to secure a recognition of this principle is one of the prime objects of organization among farmers.

AGRICULTURE A PROFESSION.

At no time in the past has agriculture been in a position to be classed as a profession so much as at the present time. The old-time practices which might be appropriately termed muscle farming, have given way to modern methods, which require mental activity as the chief requisite. Farm machinery has taken the place of manual labor and nitrogen-gathering plants in an intelligent rotation of crops have partially superseded dependence upon natural soil fertility or the application of elements of plant-food to the soil. The development of desirable characteristics by intelligent breeding of animals and consequent elimination of undesirable characteristics, requires knowledge and skill in animal industry unknown even to scientists a generation ago. The protection of fruit and vegetable crops from injurious insects by the application of poisonous substances, and making available plant-food in the soil through the admission of air and the conservation of moisture, have come into general use in recent years and are as essential to profitable agriculture as planting the seed or harvesting the crop. These and other practices have become an absolute necessity for successful husbandry, and require an intimate knowledge of the science of agriculture. This may be obtained at home through courses of study of agricultural text books, or by close observation of the methods of those who have acquired the knowledge through one or more of various sources. Even the extensive cereal producers of the great prairie States, and the extensive livestock growers of the more remote sections of the country, are finding that an intimate knowledge of the principles underlying their respective branches of agriculture is essential to success. Attention to this matter is raising the occupation of the farmer from one of muscular exertion without mental discipline. to an occupation requiring mental exertion of the most elevating character, and is placing the tillers of the soil in the class from which leaders in public matters requiring mental development may be selected. It is changing farming from drudgery to pleasure, and the farmer from a "hewer of wood and drawer of water" to the peer of professional men in mental capacity and equipment. It causes him thereby to respect his occupation more, and causes people engaged in other occupations to place a higher estimate upon him as a man and a citizen.

THE PRESS.

The rapidity with which the agricultural press has advanced in recent years, both in circulation and efficiency, is evidence of the enterprise of publishers in keeping pace with the general agricultural progress and of the increased interest among the people in reading agricultural matter. Even a more general interest in such publications than now exists would be of advantage to intelligent and successful farming. Frequent and regular reading of good agricultural papers by farmers with sufficient discrimination to determine what is reliable and applicable to their soil and conditions, and changing their methods in accordance therewith, is a matter of the greatest importance and may render valuable assistance to them. Many of these papers conduct grange departments in which articles of special interest to members of the organization regularly appear, and in the aggregate give wide publicity to grange matters. These departments are mutually advantageous to the publisher of the paper and to the grange read-The Quarterly Grange Bulletin, issued by the lecturer of the National Grange, under the direction of the executive committee, has now been issued ten years and has regularly carried the suggestions of the National Grange to the members of every grange in the country. This publication is unifying, stimulating and directing thought and discussion along practicable and profitable lines, and was, and is of very great value to the order and the people in developing a better type of citizenship. I recommend that this publication be continued and issued weekly. Many of the agricultural papers have quoted largely from its columns, and one, the American Grange Bulletin and Scientific Farmer, has published it in full, and I am advised has sent sample copies to every grange in the United States. As Master of the National Grange, I desire to extend the grateful thanks of the order to all papers that have assisted in disseminating grange thought.

AUTOMOBILES.

No innovation in modes of travel has caused more general comment, both favorable and otherwise, than the appearance of automobiles upon country roads and the consequent disturbance of travel upon those roads. Accidents of the most shocking nature have been of common occurrence as reported by the press, and an innumerable array minor disasters on account of fright of horses from these machines, might be presented. In fact, in some sections of the country, travel upon country roads has been reduced to the driving absolutely necessary for the conduct of business, cutting out all pleasure driving because of fear of accidents. There is no doubt of the right of autoists to legitimate use of the highways, but that use should be regulated by wise laws vigorously enforced and the penalties for their violation should be sufficiently severe to serve as an effectual warning against violations by others. The reputable autoists owe it to themselves to join with the people in this movement against the reckless for the protection of life and property, and their own reputation as honorable, law-abiding citizens. It would be well to have uniformity in such laws in the various States, and a uniform policy for their vigorous enforcement; for the lives of our people are of more importance than the pleasure of a few people from rapid and reckless riding.

AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

By common consent the grange is the representative of the farming class in discussing the work of agricultural colleges and experiment stations, as well as in securing appropriations for their support. The recent rapid develpoment of an agricultural science and the awakened public interest in agricultural education renders it of the utmost importance that the colleges and the farmers have a true conception of the aid that each can render the other. If the chief aim of an agricultural college is to educate out of agriculture into other industries, it will render but little aid to agriculture; if the farmers fail to comprehend the advantages of an agricultural education, they will secure but little !enefit for their industry from these colleges. With a just appreciation of the fact on the part of the managers of these institutions that the primary object in their establishment was the advancement of agriculture, and on part of the farmers that they should avail themselves of the opportunity afforded by these institutions for educating their boys or other boys in this great science, there will be such an impetus given to intelligent and profitable agriculture as can come from no other

(Continued on page 288.)



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Miscellany

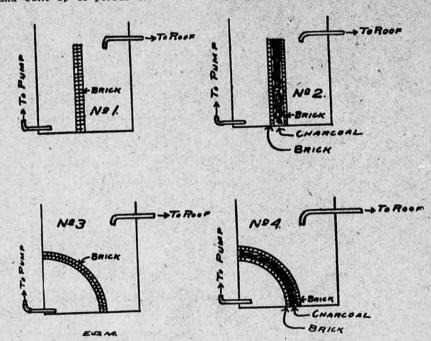
Filters for Cisterns.

EDITOR KANSAS FARMER:-I enclose four sketches showing methods of filtering cisterns. The method shown in No. 1 is the simplest and cheapest and consists of a single or double wall running through the center of the cistern, and built up of porous brick. No. 2

heading, "Remarks on Work With Insects," the reader is referred to one of the bulletins just mentioned, "Common Injurious Insects of Kansas."

HOUSE-FLIES, AS CARRIERS OF DISEASE GERMS.

With the approach of warm weather, house-flies will appear again, and the danger arising from their agency in conveying disease germs increases as they multiply. Wherever the accumulated filth of horse-stables is allowed to remain from winter, especially in thickly populated communities as cities



shows a double brick wall with a space of 2 inches to 6 inches between. This space is filled with clean charcoal. This is a more expensive method than the first one, but the water will be purified to a far greater extent. Both of these methods have the objection that the filtered side as well as the unfiltered, is open at the top, thus admitting more or less dirt.

Nos. 3 and 4 show methods by which the filtered part is entirely enclosed. They differ from each other in that No. 4 has a layer of charcoal between the two brick walls which No. 3 has not. No. 4 is the best method of filtering a cistern. If the filtered portion is thoroughly cleaned out before the arch is completely closed, there need be no trouble whatever with dirty water. The water should be supplied near the top of the unfiltered portion and drawn from the cistern near the bottom of the filtered portion, as indicated in the cuts. E. B. McCormick, Mechanical Engineering Department,

Kansas State Agricultural College.

Timely Remarks About Insects and Nature Study for Spring Months.

ELBERT S. TUCKER, MUSEUM ASSISTANT IN SYSTEMATIC ENTOMOLOGY, UNIVERSITY OF KANSAS, LAWRENCE.

The following letter to the KANSAS FARMER was referred to me for answer: "Do you know of any remedy to exterminate grasshoppers, either before or after they are hatched. I was told a remedy was given by a reader of your paper, in some of the recent issues, but if so I failed to see it. Please answer in the columns of your paper. From one who wishes to know.
"J. H. SHULL."

Rawlins County.

A review of the methods of combating locusts was presented in my article entitled "Remarks About Injurious Grasshoppers," which appeared in the KANSAS FARMER of September 22, 1904.

The editors can not always supply back numbers, but further information can be readily obtained in the form of insect bulletins which are offered for free distribution by Prof. F. H. Snow, of the Department of Systematic Entomology, University of Kansas, Lawrence, to any applicant who encloses stamps for the required postage. The three bulletins which particularly treat of grasshoppers are, "Common Injur-ious Insects of Kansas" (postage 5 cents); "The More Destructive Grasshoppers of Kansas" (postage 1 cent); "Alfalfa, Grasshoppers, Bees-Their Relationship" (postage 7 cents). NOTICE OF THE SPRING CANKER MOTH.

A warning that the time has come for the spring canker moth to appear was observed February 19, at night, when the first moth of the season was noticed. The enforcement of precautions is now advisable, both for shade-trees and orchards. As a valuable source of information in regard to this pest, other than my notes about it which were published in the KANSAS FARMER of April 20, 1905, under the

and towns, every spot of this kind be comes a menace to the public health in affording breeding-places for the flies. Hence the importance of cleaning such premises at an early date is A very pointed reference apparent. bearing on the case attracted my eye in reading "The Terrible Horse," an article by Rene Bache in The Saturday Evening Post of November 25, 1905; the portion quoted here was headed "A Purveyor of Disease:"

"A discussion of dangers attributable to horses would be incomplete without some reference to the fact that they are responsible for the existence of the multitudes of house-flies which, apart from the discomfort they cause in summer, are known to be carriers of disease germs. Every stable in warm weather is a fly factory, in active operation night and day. It is safe to predict that within a few years—say a quarter of a century hence at furthest -this nuisance, which continues to exist simply because we have not taken the small amount of trouble necessary to suppress it, will have been practically done away with by the adoption of preventative measures.

"When the annual fly plague ceases to recur, a serious menace to the health of the community-for which we ourselves, and not the poor horse, are really to blame-will have been removed." INDUCEMENTS FOR NATURE STUDY IN SPRING

In springtime Nature bestirs herself, and the reviving of life in the trees, plants and wild creatures especially attracts the eager interest of children. No better time is offered for connected reading-courses than when Nature's own object lessons are being most forcibly demonstrated. Two little books that are just adapted for the instruction of the child are called "Plant Life" and "Animal Life," both being written Florence Bass and published by D. C. Heafh & Co., Boston, Mass. Their cost is trifling, the first being priced at 25 cents, the other at 35 cents. They are printed in large, readable type, besides containing numerous pictures in which children delight, and are bound in board covers. The importance of nature study has required the preparation of special books for children, and these two are written in such simple language as to be readily understood by the child of the second and third school grades. What investment to greater advantage can be made for a child than for such aids that train the juvenile mind for accurate perception concerning how and what to observe to the best purposes?

In regard to insect study, since insects are our most abundant forms of life, young people and particularly teachers will find the work by Hyatt and Arms of "Insecta," also published by the same company, price \$1.25, as a compact, yet efficient guide, which, initself, is a series of replies to questions that are apt to be asked concerning the structure and habits of insects in all their orders.

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Home Departments

Towser Shan't Be Tied To-Night.

(Reprinted by Request.) Cheprinted by Reduest.)

Slow the Kansas sun was setting
O'er the wheat fields far away,
Streaking all the air with cobwebs,
At the close of one hot day.
And its last rays kissed the foreheads
Of a man and maidon fair,
He with whiskers short and frowsy,
She with red and glist'ning hair.
He with shut jaw stern and silent,
She with lips all cold and white,
Struggled to keep back the murmur,
"Towser must be tied to-night."

"Papa," slowly spoke the maiden,
"I am almost seventeen,
And I've got a real lover,
Though he's rather young and green.
But he has a horse and buggy,
And a cow and thirty hens.
Boys that start out poor, dear papa,
Make the best of honest men.
But if Towser sees and bites him,
Fills his heart with sudden fright,
He will never come again, pa;
"Towser must be tied to-night."

"Daughter," firmly spoke the farmer,
Every word pierced her young heart
Like a carving knife through chicken
As it hunts a tender part.
"I've a patch of early melons,
Two of them are ripe to-day,
Towser must be loose to watch them,
Or they'll all be stole away.
I have hoed them late and early,
In dim morn and evening light.
Now they're grown I must not lose
them,
Towser'll not be tied to-night."

Then the old man ambled forward,
Opened wide the kennel door,
Towser bounded forth to meet him,
As he oft had done before,
And the farmer stooped and loosed him,
From the dog-chain short and stout,
To himself he softly chuckled,
"Bessic's feller must look out."
But the madden at the window
Saw the cruel teeth show white,
In an undertone she murmured,
"Towser must be tied to-night."

Then the maiden's brow grew thoughtful,
And her breath came short and thick,
Till she spied the fam'ly clothes line,
And she whispered, "That's the
trick."

trick."

From the kitchen door she glided
With a plate of meat and bread,
Towser wagged his tail in greeting,
Knowing well he would be fed.
In his well-worn leather collar
Tied she then the clothes line tight,
All the time her white lips saying,
"Towser must be tied to-night."

"There, old doggie," spoke the maiden,
"You can watch the melon-patch,
But the front gate's free and open,
When John Henry lifts the latch,
For the clothes line tight is fastened
To the harvest apple tree.
You can run and watch the melons,
But the front gate you can't see."
Then her giad ears hear a buggy,
And her eyes grow big and bright,
While her young heart says in gladness,
"Towser, dog, is tied to-night."

Up the path the young man saunters, .
With his eye and cheek aglow,
For he loves the red-haired maiden,
And he aims to tell her so.
Bessie's roughish little brothers,
In a fit of boyish glee,
Had untied the slender clother-line
From the harvest apple tree.
Then old Towser hears the footsteps,
Raised his bristles fixed for fight,
"Bark away," the maiden whispers,
"Towser, you are tied to-night."

Then old Towser bounded forward,
Passed the open kitchen door.
Besic screamed and quickly followed,
But John Henry's gone before.
Down the path he speeds most swiftly,
For old Towser sets the pace,
And the maiden close behind them
Shows them she is in the race.
Then the clothes line—can she get it?
And her eyes grow big and bright,
And she springs and grasps it firmly,
"Towser shall be tied to-night."

Oftentimes a little minute
Forms the destiny of men,
You can change the fate of nations
By the stroke of one small pen.
Towser made one last long effort,
Caught John Henry by his pants,
But John Henry kept on running,
For he thought that his last chance,
But the maiden held on firmly,
And the rope was drawn up tight,
But old Towser kept the garments,
For he was not tied to-night.

t

Then the father hears the racket,
With long stride he soon is there,
Where John Henry and the maiden
Crouching for the worst prepare.
At his feet John tells his story.
Shows his clothing soiled and torn,
And his face so sad and pleading,
Yet so white and scared and worn.
Touched the old man's heart with pity,
Filled his eyes with misty light,
"Take her, boy, and make her happy,
Towser shall be tied to-night."
—Duroc Bill.

-Duroc Bill.

Facts About Japan.

While Russia is about twice the size of the United States, Japan is only about the size of the States of Missouri and Kansas combined. It is smaller than Texas. Alaska would make three countries of the size of it. California and Japan are about equal in size. fact, there are no two political divi-sions of the earth anywhere which are so nearly alike in extent as California,

and Japan. Missouri and Kansas together have a population of 4,500,000; Japan has a population of over 40,000,-000, and this, too, without counting the Japanese population that has settled in Korea, in the island of Formosa, and the country adjacent. The idea pre-vails that Japan is a flowery kingdom and that it is the garden spot of the world. That it has flowers in profu-sion is a fact, but only one acre out of eight is fit for cultivation. . The country is too mountainous and the soil too rocky to permit of being an agricultural country.

The people of the Western States, upon their first view of Japan would never be led to believe that the country was fit for agriculture. However, no portion of the soil is neglected. Every foot of ground is made to yield every iota of substance that it is possible to extract from it. Were this not strictly adhered to the majority of the people would starve, if dependence were not placed on outside sources. The average farm is about the size of the ordinary town lot in America. greatest food production of the country is fish. It is thus that a country so small, comparatively, with a population so great, is compelled to seek new areas of expansion upon which to cast its ever increasing population. The possession of Korea, right at its side in a large measure affords the relief desired. In fact, for long periods in the past Japan has depended upon Korea for subsistence. Its food supplies came largely from the soil of its nearby neighbor. In consequence of this state of affairs the possession of Korea is vitally necesary to the existence of Japan .-- Town and County Journal

Japanese Discipline.

The late war has revealed many things about the Japanese that we might copy and be the better and wiser for so doing. Mr. Lafcadio Heam, in "Japan," says in regard to the government of children:

"Not merely up to the age of school life, supposed to begin at six years, but considerably beyond it, a Japanese child enjoys a degree of liberty far greater than is allowed to Occidental children. The general rule is that the child be permitted to do as he pleases, providing that his conduct can cause no injury to himself or others. He is guarded, but not constrained; admonished, but rarely compelled. In short, he is allowed to be so mischievous that, as a Japanese proverb says, Even the holes by the rodeside hate a boy of seven or eight years old.

"Punishment is administered only when absolutely necesary, and on such occasions, by ancient custom, the entire household—servants and all—intercede for the offender, the little brothers and sisters begging in turn to bear the penalty instead. To frighten a child by loud, harsh words or angry looks, is condemned by general opinion. All punishment ought to be inflicted as calmly as possible, the punisher gently admonishing the while. To slap a child about the head for any reason is a proof of vulgarity and ignorance.

"It is not customary to punish by restraining from play or by a change of diet or by any denial of accustomed pleasures. To be perfectly patient with children is the ethical law.

"At school discipline begins, but it is at first so very light that it can hardly be called discipline. The teacher does not act as a master, but rather as an elder brother, and there is no punishment beyond a public admonition. Whatever restraint exists is chiefly exerted on the child by the common opinion of his class, and a skillful teacher is able to direct that opinion.

"Each class is nominally governed by one or two little captains, selected for character and intelligence, and when a disagreeable order has to be given, it is the child-captain, the kyuucho, who is commissioned with the duty of giving it. In higher classes the pressure slightly increases, and in higher schools it is very much stronger, the ruling power always being class sentiment, not the individual will of the teacher

"It is never the domination of the one over the many that regulates class life. It is always the rule of the many over the one, and the power is formidable. The student who offends class sentiment will suddenly find himself isolated, condemned to absolute solitude. No

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one will speak to him or notice him even outside the school until such time as he decides to make a public apology, when his pardon will depend upon a majority vote."

Japanese Currency.

The coins now chiefly used in Japan are copper, nickel, silver and gold; but in the country districts it is still possible to find brass coins of less than a mill in value. The copper pieces are ½ sen, 1 sen and 2 sen; the 5-sen piece is the only nickel coin; the silver pieces are 5 sen, 10 sen, 20 sen, 50 sen and 1 yen; and the gold coins are 5 yen, 10 yen and 20 yen. There are also paper notes of 1 yen and upwards. One yen is \$0.4935, and 1 sen equals one-half cent. An American dollar equals 2.006 yen, and an American cent equals 0.02 In 1897 the Japanese adopted the gold standard, so that change fluctuations with the Occident are slight, and the Japanese currency has fixed value at the rate of about 50 cents for the

The favorite maxim of the Japanese is "See no evil, speak no evil, hear no

Tested Recipes.

Hominy.-Shell 6 ears of white corn; put 4 quarts of water and 1 tablesoon of lye in an iron kettle; let come to the boil; put in corn and stir well; boil till the lye is thick like jelly and drain through collander and wash the corn through several waters: use a stick or spoon at first as the lye will hurt the hands, then wash with hands till the eyes are all out, and put back on stove and boil all day till the corn is soft and tender. Salt to taste. Keep in earthen dish in cool place. Season with meat fryings or butter and milk.

—Mrs. May Ross, Alden, Kans.

Mush.-Three quarts water, 1 tablespoon salt, 1 quart meal; boil till stiff enough to eat with milk or let cool and fry.-Mrs. May Ross, Alden, Kans.

Corn-Bread .- Three cups meal, 1 tablespoon lard, 1 teaspoon salt, 1 teaspoon soda, 1 egg, and sour milk enough to make a thin batter. Bake in a hot oven .-- Mrs. May Ross, Alden,

Apple Tapioca Pudding.-Soak 1 cup tapioca 3 or 4 hours, take 1 quart of stewed apples and mash fine, add the tapioca, 1 cup sugar, 1 teaspoon cinnamon essence; have the apples pretty juicy, as the tapioca takes it up; bake in not too hot an oven until the tapioca is clear. Eat with cream. Sisters, try it .-- Mrs. A. B. Wright, Route 1, Plevna, Kans.

Rice Pudding .- One cup rice, 1 cup sugar, 1/2 gallon sweet milk: stir all together in a pudding pan, grate on nutmeg and bake.-Mrs. Katie Wright, Route 1, Plevna, Kans.

Old-Fashioned Apple Butter.-Eight gallons cider boiled down to 4 gallons,

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8 gallons of apples after they are peeled and quartered and cooked tender in 2 gallons of weak cider, 1% gallons sugar; put all together and boil down to 5 gallons.—Mrs. May Ros, Alden, Kans.

The Young

If the skies look dull to you,
Get to work;
If the atmosphere is blue,
Get to work.
Fostering your discontent
Will not pay the landlord's rent,
Will not gain for you a cent—
Get to work.

Brooding doesn't help your cause,
Get to work;
Nothing gained by picking flaws,
Get to work.
Weak are trampled by the strong?
You a victim of man's wrong?
"Stand the storm, it won't be long"
Get to work.

If success shall come you must
Get to work;
There's no other way but just
Get to work.
It may yield no wealth nor fame;
Much or little, just the same,
If you perish you'll die game—
Get to work. -Nebraska State Journal.

A Japanese Boy's Letter.

The awakening of Japan which occurred about half a century ago has been much written about in a general way of late. To fully appreciate the spirit that stirred the people of the Land of the Rising Sun," one needs to know the motives that stirred an individual. The following is an account in "broken" English given in 1864 by one who afterwards arose to prominence in Japan. The letter was written to the man who soon after became Neesima's benefactor in America:

"I was born in the house of a prince (Itakura) in Yeddo. My father (Neesima Tamiharu) was writing master of the prince's house and his writer, and my grandfather was an officer of the whole*, the prince's servant. I began to learn Japan, and China too, from six years age but at eleven years age my mind had changed quite to learn sword-exercise and riding horse. At sixteen years age my desire was deepened to learn China and cast away sword-exercise and other things. But my prince picked me up to write his daily book, although it would not have been my desire. I was obliged to go up to his office one another day, and I must teach small boys and girls, too, instead my father at home. Therefore I could not get in China school to learn China, but I read every night at home. A day my comrade lent me an atlas of United States of North America, which was written with China letters by some American minister.† I read it many times, and I was wondered so much as my brain would melted out from my head, picking out President, Building, Free School, Poorhouse, House of Correction, and machine-working, etc., and I thought that a governor of our country must be as President of the Unit-ed States. And I murmured myself that, 'O Governor of Japan! why you keep down us as a dog or a pig? We are people of Japan. If you govern us you must love us as your children.' From that time I wished to learn American knowledge, but alas, I could not get any teacher to learn it. though I would not like to learn Holland, I was obliged to learn it because many of my countrymen understood to read it. Every one another day I went to my master's house to learn it.

"Some day I had been in the prince's office and I got none to write at all. Therefore I ran out from the office and went to my master's house. By and by my prince stepped into the office, wanting to see me; but he saw nobody there, and he stayed me until I came back into. When he saw me he beated 'Why you run out from the office? I would not allowed you to run out from there.' After ten days I ran out from there again, but he would not about it. But alas! in the next time he found out again I ran out from the office, and he beated me. Why you run out from here?' Then I answered to him that 'I wished to learn foreign

*That is, a steward, in charge of the private servants and attendants of the prince, pages, carriers, cooks, kagobearers, etc.—an office of considerable dignity and responsibility.

†What is here called an "atlas" was a history of the United States, written by Dr. Bridgeman, of Shanghai, in China. After Dr. Bridgeman's death, his widow visited Dr. Brown, in Yokohama, and left with him a few copies of her husband's history, which were distributed by Dr. Brown. It was doubtless one of these copies which fell into Necsima's hands.

knowledge, and I hope to understand it very quickly; therefore, though I know I must stay here, reverence your law, my soul went to my master's house to learn it, and my body was obliged to go thither, too.' Then he said to me very kindly that 'you can write Japan very well, and you can earn yourself enough with it. If you do not run out from there any more I will give you more wages. With what reason will you like foreign knowledge? Perhaps it will mistake your-self.' I said: 'Why will it mistake myself? I guess every one must take some knowledge. If a man has not any knowledge I will worth him as a dog or a pig.' Then he laughed very hard about it, and said to me: 'You are a stable boy. Besides him, my grandfather, parents, sisters, friends and neighbors, beated or laughed for me about it. But I never took care to them, and held my stableness very fast. "After few months I got many busi-

ness in the office, and I could not get out from there. Ah! it made me many musings in my head and made me some sickness, too. I would not like to see anybody, and would not desire to go and play myself, but I liked only to stay in a peaceful room. I knew it is bad sickness, therefore I went to some doctor, hoping to get some medicine. After he stay my sickness many times, he told me, 'Your sickness comes from your mind, therefore you must try to destroy your warm mind, and must take walk for healthfulness of your body, and it would be more better than many medicines.' The prince gave me many times to feed my weakness, and my father gave me some money to But I went every day to play myself. my master's house to learn Holland. read up Holland grammar, spending many times, and I took a small book of nature, and I pleased to read it so much as I would saw that this book would be more better than doctor's medicine to my sickness. When my sickness got better, after few months, the prince picked me up again to write his daily book, and I must stay in the office every day against his order. Ah! I could not get out from there to learn Holland, but I got many times to read book at night, and I read through the book of nature at home, taking a dictionary of Japan and Holland. Alas! the study of night-time caused me weak eyes, and I was obliged to stop it, too. After ten weeks my eyes recovered entirely, and I began to read the book again; but I could not understand some reasonable accounts in it. Therefore I proposed to learn arithme-But I had not any times to learn it. A day I asked to the prince, 'Please get me some time to take knowledge.' Then he let me get out from there thrice a week, although it was not enough for me. I went to some arithmetical school to learn it, and understood addition, division, subtraction, multiplication, fractions, interest, etc. Then I took the book again, and understood some reasonable accounts

"Some day I went to the seaside of Yeddo, hoping to see the view of the I saw largest man-of-war of Dutch lying there, and it seemed to me as a castle or a battery, and I thought, too, she would be strong to fight with enemy. While I look upon her one reflection came down upon my head: that we must open navy, because the country is surrounded by water, and if foreigners fight to my country, we must fight with them at sea. But I made other reflection, too: that since foreigners trade, price of everythings got high, the country got poorer than before, because the countrymen do not understand to do trade with foreigners. Therefore we must go to foreign countries, we must know to do trade, and we must learn foreign knowledge. But the government's law neglected all my thoughts, and I cried out myself: Why government? Why not let us be freely? Why let us be as bird in a cage or a rat in a bag? Nay! we must cast away such a savage government, and we must pick out a president as the United States of America. But, alas! such things would have been out of my power.

"From that time I went to a marine school of government to learn navigation a week thrice. After many months I understood little algebra, little geometry, to keep log, and to take sun, to find latitude. Ah! the study of night-time caused me weak eyes again, and I could not study at all during the time of one year and a half which would not come again in my life. After my eyes got better I was obliged to go in the prince's office. That time was very hot and sickly season of Yeddo. A day the sun shined very hard, Simpson - Eddystone Black & Whites

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and in the evening it rained very Then I felt cold and chilled myself. The next morning my head began to ache, and my body was so hot as a fire would burn within me. I could eat nothing, but drank cold water only. After two days measles raised up all over my body. When the measles got better my eyes began to spoil, and I played and spent many times very vainly. A day I visited my friend, and I found out small Holy Bible in his library that was written by some American minister with China language, and had shown only the most remarkable events of it. I lend it from him and read it at night, because I was afraid the savage country's law, which if I read the Bible, government will cross whole my family. I understood God at first, and he separated the earth from firmament, made light upon earth, made grass, trees, crea-tures, fowls, fishes. And he created a man in his own image, and made up a woman, cutting a man's side bone. After he made up all things of universe, he took a rest. That day we must call Sunday, or Sabbath Day. I understood that Jesus Christ was Son of Holy Ghost, and he was crossed for the sins of all the world; therefore we must call him our Savior. Then I put down the book and look around me, saying that: Who made me? My parents? No, God. Who made my table? A car-penter? No, my God. God let trees grow upon the earth, and although God let a carpenter made up my table, it indeed came from some tree. Then I must be thankful to God, I must be-lieve him, and I must be upright against him. From that time my mind was fulfilled to read English Bible, and purposed to go to Hakodate to get English or American teacher of it. Therefore I asked of my prince and parents to go thither. But they had not allowed to me for it, and were alarmed at it. But my stableness would not destroy by their expostulations, and I kept such thoughts, praying only to God: 'Please let me reach my aim.' "And I began to read English from

some Japanese teacher. A day I walked some street of Yeddo, and suddenly met a skipper of a schooner, who knew me well and loved me, too. I asked to him, 'When your vessel going?' He answered, 'She will bound to Hakodate within three days.' him, I got warm heart to go thither. If you please, let me go thither.' He said me: 'I will take you to go thither, but perhaps your prince and your parents will not allow it to you. You must first ask to them.' After two days I took up some money, little clothing, and little books, and left quite my home, not thinking that if this money was gone how I would eat, or dress myself, but only casting myself into the providence of God. In the next morning I went on board of the schooner that would bound to Hako-date. When I came to Hakodate I searched some teacher of English, but

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could not find him with many ways. Therefore, my head was quite changed to run away from the country. But one thought stayed me, that my grand-father and parents would sorrow about it, and it balanced my mind little while. But after one reflection came upon my head, that although my parents made and fed me. I belong indeed to Heavenly Father; therefore I must believe him, I must be thankful to him, and I must run into his ways. Then I began to search some vessel to get from the country.

"After many labors I got into an American vessel which would bound to Shanghai, After I came in Shanghai River, I joined to the ship Wild Rover, and had been in the China coasts with her about eight months; with the passage of four months, I come in Boston harbor by the kindnes of God. When I saw first the ship's captain, H. S. Taylor. I begged to him if I get to America: 'Please let me go to school and take good education; therefore I shall work on the board as well as I can, and I will not take any wages from you;" and he promised me if I get home he will send me to a school and let me work on the board as his servant. Although he not give me any money, he bought for me any clothing, cap, shoes, and any other thing. At sea he taught me to keep log, to find out latitude and longitude. When I came here the captain let me stay on the board the while, and I had with rough and godless men who kept the ship, and every one on the wharf frightened me. No one on the shore will relieve you, because since the war the price of everythings got high. Ah! you must go to sea again. I thought, too, I must work pretty well for my eating and dressing, and I could not get in any school before I could earn money to pay a school. When such thoughts pressed my brain I could not work very well, I could not read book very cheerfuly, and only looked around myself long while as a lunatic. Every night after I went to bed I prayed to the God: 'Please do not cast me away into miserable condition. Please! let me reach my great aim.' Now I know the ship's owner, Mr. Hardy, may send me to a school, and he will pay all my expenses. When I heard first these things from my captain my eyes were fulfilled with tears, because I was very thankful to him, and I thought, too: God will not forsake me."

Neesima.

In the miracle and romance of missions not much surpasses the story of Neesima. He was born in the capital of the Empire of the Rising Sun-Tokoyo, Japan. February 12, 1843. At this time a strange passion to see the Occident, especially the United States, took possession of him while reading a geography. At the same time a stray copy of the Bible in the Chinese language came into his hands. The reading of it led to his conversion. In his twenty-first year, at great personal peril, he fled from his native country. En route he sold his sword for a Chinese New Testament. The owner of the ship on which he landed in Boston Harbor, the Hon. Alpheus Hardy, befriended the young foreigner and put him in the way of the education for which he thirsted. In his twenty-sixth year he graduated with honor from Amherst College. In a most unexpected way he had the privilege of supplementing the teaching of the school by personal observations in the capitols of every nation on the continent of Europe. He was attached to the Japanese embassy, especially commissioned to study the educational systems. He returned to America and graduated from the theological seminary of Andover, Mass., in 1874. He was ordained as the first Japanese Christian evangelist and returned to his native land the same year. His most marked achievement was the founding of the great Japanese Christian University and Theological School at Kyoto. In spite of persistent opposition and great peril he succeeded. The school bears the name "Doshisha," meaning "One Endeavor." It was opened in 1875, and has 700 students. Neesima dicd January 23, 1890, whispering the words, "Peace! Joy!- Heaven!" Governor and Buddhist priest joined Christians in his

A Fellow-Feeling.

"I am hurt more than you," said the father,

punish you, son," and thereat

The boy raised his head as he sobbingly said,

funeral procession.

"Well, there's some consolation in that."-Woman's Home, Compan-

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Mud Ples.

Of all the enjoyments under the skies, There's nothing so jolly as making mud pies.

Prepare a nice shingle, or short, nar-row plank, Lay it carefully down on a bright, sun-ny bank.

Take the freshest of earth and the cleanest of sand
And mix them up thoroughly well with your hand.

Add a cupful of water, then stir with a stick, A little more water, if it seems too thick.

Now take up a lump of this beautiful dough, About just enough for a mud pie, you know.

Roll it softly around, and give it a pat. Don't have it too humpy and yet not too flat.

Lay it down on the board to bake in the sun, Then make all the others just like this one.

Then sprinkle white sand over each little cake,
And leave them about fifteen minutes to bake.

And when they are done, you'll certainly say:
"That's the most fun I've had for many a day."

-Unidentified.

Only an Ant-Hill. MRS. A. D. GRAY.

"Don't-Oh, don't Helen! You'll kill them; and that's their house, mother said so." The sound of a teasing laugh came to me.

"I guess it doesn't matter," said Helen's voice. "It's only an ant-hill, and I don't s'pose they know if they are killed. 'Sides, I don't believe its their house; ants don't have houses. My mother didn't tell me 'bout it."

two litt the steps of the side porch. Helen had a tiny parasol in her hand, and she was just about to poke it into an ant-hill at the end of the steps, when Ruth caught her hand.

She looked very much relieved when she saw me at the window. Ruth never takes any pleasure or finds any amusement in hurting anything that has life, but, strange as it may seem, there are some little children who do. 'If you two little girls wish me to, I will tell you something about ants, "They are the funniest little things to study, and they have some They seem habits much like people. to plan and to think. They have different trades, too, as people do. There are soldier-ants, and farmer-ants, and carpenter-ants, and a lot more."

"Oh my!" said Helen in astonish-ent. "It's right funny that I never heard about it. P'raps my mother doesn't know-but of course my father knows-he knows about everything.

It's funny he didn't tell me." Helen was inclined to doubt my statement, but too polite to say so.

"Well, I'm going to draw my chair close to the window-like this- and while I sew, I'll tell you about-which shall it be-farmer-ants? I read it in a book called "Our Friends by the Wayside.' It is a nice book for children to own, too, because it teaches them to be interested in the life and habits of the tiny, living things about them. It teaches them to be kind, too." get my father to buy me one," said Helen in an undertone.

"Ants live in nests in the ground. The part that is above the ground is like a small, rounded hill, and this gives it the name ant-hill. This is their home. They are the most industrious of any living thing of which we know. The queen-ant selects the place for her home, and builds away at it, until her children are large enough to help with the work. When she has decided where to build her home, she takes off her wings, for they would be so in her way while she is digging, and she knows that she has a big job before her. She chooses very carefully the place for her home, for the earth must be of just a certain kind. Did you ever see a dog after a rabbit? Well, that's just the way an ant begins to dig. She puts her head close against the ground, and digs away very fast with her fore feet, tossing the dirt back between her hind legs. the hole becomes too deep to use her feet alone, she uses her jaws for biting off the earth. She rolls the dirt up into hard balls, and carries them out, one by one. After a hallway two or three inches long is made, she begins on rooms. These are for the food, for eggs, and for the young. By this time, some of the baby ants have grown big enough to help, and the work goes faster. The jaws of an ant have tiny teeth. Sometimes in an old work-ant, the teeth become entirely worn off. Their feet and jaws are made for digging. The feet are covered with small, crawl over glass, or upside down on a

The rooms in an ant-house are sometimes round, sometimes square, and are even shaped like a horseshoe. have bedrooms, pantries, nurseries and dining-rooms. Sometimes they line the walls with a sticky kind of glue, which they make, and this makes the wall very hard and smooth. When house is finished, the queen is done with work; but they take her wings away so she can never leave home again. If she starts to crawl away, an ant that is kept always on guard picks her right up, and carries her home. This seems a little hard. If we visit an ant-hill and have a magnifyinggiass to help us to see better, we will find the halls full of working ants, running about, bringing in the food, waiting upon the queen or carrying out balls of dirt. There are always guards kept at the top of the house to give warning if any danger comes,

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J. A. ROSEN, PATENT ATTORNEY

The idle queen drops her eggs anywhere, and the litle work-ants pick them up carefully and take them into one of the soft, warm bedrooms.

"In cold weather they all stay at home, and if it begins to rain when they are out, how they all do scurry for the house! Doesn't this seem as though they could think and plan things? In the hottest hours of the day, they stay in and rest.

'If you will put a nest of ants into a large, glass jar, and put in some earth for them to build with, and some sugar for food, and then cover the jar with brown paper, they will make a home. When you take the paper off, you can see the rooms and hallway. You must keep the jar on a shelf out of doors, the back porch is a good place. People who know a great deal of ants and their habits, study them in this way.

"Ants have always been known to be very wonderful little insects. Even ago as Bible times, a very wise man said, 'Go to the ant, thou sluggard, consider her ways and be wise." Suppose we put a little yard of sticks around this ant-hill, so that nothing can destroy it, and then we will see what we can learn of their habits."

"Oh-lets do!" said Helen, "and when I am coming over here, I'll say, 'I must go see my ants,' and nobody will un-derstand. But you didn't tell about farmers and the carpenters."

"I'll save that for next time. I'm sure this is quite all you'll remember now.'

"I'm glad I didn't poke my parasol into their house," said Helen, "and I'm going to tell my mother about this."

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Women's Club Logan, Phillips County (1902).
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Route 2 (1899).
Star Valley Women's Club, Iola, Allen County

(1902).
West Side Forestry Club, Topeka, Shawnee County, Boute.8 (1903).
Fortnight Club, Grant Township, Reno County, (1903).
Progressive Society, Rosalia, Butler County (1903).
Pleasant Hour Club, Wakarusa Township, Doug-

las County (1899).
The Lady Farmer's Institute, Marysville, Marshall County (1902).
Women's Country Cluo, Anthony, Harper Coun-

Taka Embroidery Club, Madison, Greenwood County (1902).
Prentis Reading Club, Cawker City, Mitchell County (1903).
Cosmos Club, Russel, Kans.
The Sunflower Club, Perry, Jefferson County (1904).

The Sunnower Cuts, (1905).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Osage County.
(All communications for the Club Department should be directed to Miss Ruth Cowgili, Editor Club Department.)

FAMOUS WOMEN. Queen Elizabeth.

Roll Call-Names of notable people of the Elizabethan era.

I. Woman as a sovereign. Il. Establishment of the Church of England.

III. Progress and prosperity of Eliz-

IV. Elizabethan era. If Elizabeth had lived in our age, she would have wicked and scheming woman-heartless and cruel, but compared with other rulers who preceded her, and considering the age and the circumstances surrounding her, she was really a remarkable woman, and her accession to the throne was hailed with great Very little is said about rejoicing. her life before she became queen of England. She was the daughter of Henry VIII and Anne Boleyn, was a precocious child, and was, next to Lady Jane Grey, the best educated woman of the time.

I. As a sovereign she was counted the first among the great rulers of the world; and a study of her life and the times during her reign, considering the existing conditions and seemingly insurmountable difficulties she overcame, of her finesse and patience, convinces one of the fact. A paper discussing the policy she pursued, her administration

of justice, and her influence upon the times, would be interesting and in-

II. A discussion of the religious conditions in England at the time when Elizabeth ascended the throne, and the growth and development of the same, giving a brief history of the establishment of the church of England, might constitute a paper under this second

III. England made great strides in civilization during the forty-five years of Elizabeth's reign. At its beginning everything was in a very crude stateagriculture, commerce, and manufactures were in their infancy. The comforts of life were wanting even by the Enterprise of all kinds was restricted to narrow limits. It will be interesting to note the progress made during this period.

IV. Under this subject could be written most anything transpiring or developing during Elizabeth's sovereignty, but let that pertaining to the literature and art, and about the great thinkers and writers of the time, come under this subject. Shakespeare, Ben Jonson, Francis Bacon, Lord Burleigh, Sir Walter Raleigh and Cranmer are some of the great men of that time.

The Jewel Rending Club.

"Mutual Improvement Club" made its demise. It did not occur to me upon my return after an absence of almost a year, that it was incumbent upon me to attempt to resuscitate it. Since then we have a new club, "The Jewel Reading Club," a nice country club with a membership of fourteen. Mrs. Dorr Blood, president; Miss Leona Shaw, vice-president; Mrs. Sherman Young, secretary; and Mrs. M. Pollard, treasurer. The club meets on Thursday afternoon of each week, the club home being with Mrs. M. Pollard as occasion demands; otherwise, the meetings are held with the members in turn. The president appoints three readers for each meeting. The Dictionary is an important part of each meetand if there is any question about the right pronunciation, it is soon settled. Another thing which has been of

much interest is to bring words which are incorrectly pronounced, and after giving each one an opportunty to correct, the person presenting the word is expected to do so, as she is supposed to have prepared herself before giving the word. The club began its labors by reading "Little Jewel," by Clara Louise Burnham, followed by its sequel, "The Right Princess." by the same author. The next was "Dr. Jeckyl and Mr. Hyde," and last "Ben Hur." Each reading has been discussed and the interest has been something wonderful. We have found that the attendance has been regular, no one wishing to miss a meeting, lest the thread of the narrative be lost. Music is also a part of each meeting and occasionally a varied program is given.

This club is located along the boundary lines of Shawnee and Osage Counties, and is federated with "The Osage County Federation."

We wish every locality might have as intersting and helpful a club as this one is to its members.

EMMA TROUDNER.

Carbondale, Kans.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, 1906, Davis W. Clark, D. D.) First Quarter-Lesson XI-March 18, 1906.

The First Quarterly Review.

"The Finding of Jesus" might be taken as the general topic for all the lessons of the three months just clos-The shepherds found Him. Their very occupation led them to be reverand contemplative. They were much in the solemn stillness of the night and in the company of the heavenly planets. These mystic star-gazers may have been in communion with heaven at the very time of the nativ-The Wise Men found Jesus. On the dark background of Herod's murderous jealousy and Jerusalem's cold indifference the moral earnestness of the Magi shines with pleasing luster. They took a thousand-mile journey to find the babe. Neither Herod's jealousy nor Jerusalem's indifference nor the mean place of the nativity daunted them. . . . 'The Boy Jesus finds himself. Arriving in Jerusalem at the feast, it was not the prodigious mass of humanity assembled there, not the golden and marble temple, not even the solemn and speaking ceremonialnot these, but the Messianic idea and the dawning consciousness, "I am He," absorbed Jesus and made Him oblivious to time and place and human relationships. . . . John the Baptist

finds Jesus. When he was at the very zenith of his power, his congregations largest and his influence widest, unexpectedly one day Jesus stood before him asking baptism. John started back in self-depreciation, at once recognizing and acknowledging the infinite superiority of the one who stood before him. . . . The tempter found Jesus: It is indifferent whether one believes this an approach of a literal devil, or a figurative description of a moral struggle entirely subjective. It is enough to know that Jesus tri-umphed. It was the victory of humanity, not of deity-and so was our victory as well as His. . . . The disciples found Jesus: Their previous calls had been preliminary and progressive, but this was final. He had had a rupture with the ecclesiastical establishment and must needs organize His followers. He prefaced this last call with a thrilling pictorial miracle which significantly taught them what they must be and do. . . . Sufferers find Jesus: A miracle mercifully wrought upon a poor possessed one in the synagogue at Capernium was a silver bell whose notes had sounded in every shadowed home. In obedience to its encouraging call, when the setting sun had absolved the people from their overstrained ideas of Sabbath observance, they came to Him whose sovereign power had had such a conspicuous exemplification. Power to forgive is found in Jesus: To the paralytic, let down through the roof by the faith and persistence of his friends, Jesus' first words were indescribably comforting: "Son, be of good cheer." But there is a surprising change in the formula. It is not a rebuke to disease. It is a categorical, authoritative remission of sin. The starting words could not escape the notice of the inquisitorial coterie of Scribes and Pharisees. It was not intended they should. It was Jesus' gauntlet at their feet. They picked it up, but not in audible words of dissent. It is equally as easy to forgive as to heal, and vice versa. But that you may know that I have authority and power to do both, I will also say to this utterly powerless person, "Arise." He spake and it was done. The people find Jesus a divine teacher: The Sermon on the Mount is an inaugural. As such it takes on a dignity and importance all its own. irradiates the fundamental principles of the kingdom of God and prescribes the character and conduct of its subjects. Jesus' ideal was the exact reverse of that popularly entertained. The people wanted an objective kingdom. He showed them only a subjective one. They wanted one of brute force; He unveiled one of meekness, unarmed with carnal weapons.

Extravagance.

Bill.—"Say, John, who is the most extravage person you know?"

John—"That's easy. It's my wife,
Sallie."

Bill—"No, it's Tom Allen. He blowed in a hundred dollars this spring just for nothing." John—"You're joking. Sure Tom never spent a cent foolishly in his life."

Bill—"Well, there he comes now and I'll leave it to you. See that horse he's driving. That's that 6-year-old mare I sold him this spring for \$250, and she was worth it; but he let her get sore shoulders and she ran right down till snoulders and she ran right down till now you, nor me, nor no one else wouldn't offer more than \$150 for her, and if it isn't extravagant to knock a hundred dollars off the value of a mare when 25c for a box of Security Gall Cure would have saved it, then I don't know what extravagance it."

The remarkable growth of Tacoma, Washington, is well shown in the advertisement of that city and its tributary country, that will be found upon another page of this issue. The city itself has increased in population from 37,714 in 1900 to 85,000 in 1906. This great growth is caused by its having become a large manufacturing center, and by its unequalled position as a seaport.

Just at present five great transconti-nental railroads are crowding into that nental railroads are crowding into that city and its growth has become still more stimulated. The remarkably mid climate, where the grass is green and flowers bloom the year round, makes it an especially desirable place of residence, while its school facilities are of a high class. Every one who reads this should at once write to Secretary Pratt of the Tacoma Chamber of Commerce for the beautiful descriptive merce, for the beautiful descriptive books he is issuing describing Tacoma and its opportunities, and the incredible results received by its fruit- and berry-growers in the rich valleys surrounding the city.

No Complaint in Four Years.

Clarence, Mo., Jan. 10, 1905, The Lawrence-Williams Co., Cleveland,

Ohio:

I sell Gombault's Caustic Balsam, and lots of it, too. I do not hesitate to guarantee Caustic Balsam to do everything it is guaranteed to do, for once used, they use it altogether, and I have nexer heard any complaint in four years past.

M. H. SCRUTCHFIELD.



Do your roofs leak? We wouldn't ask this question if we knew your buildings were covered with Congo Ready Roofing, because Congo can't leak.

It's waterproof, wind proof, weather It looks well, wears better and is alto-

gether the best ready roofing made.

If its cost were more than any other roofing (which it isn't), it would still be the cheapest roof covering because it is so much better than the others.

If you haven't seen it write to-day for sample and Booklet.

BUCHANAN-FOSTER COMPANY

METALLIC Serious Business

facing a bear without U. M. C. cartridges in your gun. They have terrific striking force and are sure fire. Buy of your dealer. U.M.C. cartridges are guaranteed, also standard arms when U.M.C. cartridges are used as specified on labels.

THE UNION METALLIC CARTRIDGE COMPANY

BRIDGEPORT, CONN. Agency: 313 Broadway, New York

A Living Monument.

If we were to assemble all those who have been cured of heart disease by Dr. Miles' Heart Cure, and who would to-day be in their graves had not Dr. Miles' been successful in perfecting this wonderful heart specific, they would populate a large city.

What a remarkable recorda breathing, thinking, moving monument, composed of human lives,-that for which every other earthly possession is sacrificed.

The Miles Medical Co. receive thousands of letters from these people like the following:

'I feel indebted to the Dr. Miles'

"I feel indebted to the Dr. Miles'
Heart Cure for my life. I desire to call
the attention of others suffering as I
did to this remarkable remedy for the
heart. For a long time I had suffered
from shortness of breath after any
little exertion, palpitation of the heart;
and at times terrible pain in the region
of the heart, so serious that I feared
that I would some time drop dead upon
the street. One day I read one of your
droulars, and immediately went to
my druggist and purchased two botdiroulars, and immediately went to my druggist and purchased two bottles of the Heart Cure, and took it according to directions, with the result that I am entirely cured. Since then I never miss an opportunity to recommend this remedy to my friends who have heart trouble; in fact I am a traveling advertisment, for I am widely known in this locality."

J. H. BOWMAN,
Manager of Lebanon Democrat,
Nashville, Tenn.

Dr. Miles' Heart Cure is sold by your druggist, who will guarantee that the first bottle will benefit. If It falls he will refund your money.

Miles Medical Co., Elkhart, Ind.

Miles Medical Co., Elkhart, Ind

We have a new relief of rupture,

thing in his line ever invented, the price of which is less than for a common truss. We state a few plain facts in our free book containingvaluable information that will interest you

IDEAL TRUSS CO., 2286 Auburn Ave.

REAL ESTATE.

FARMS FOR RENT—Wheat farm and two dairy farms. Would rent cows to good men; also want to get 300 acres of prairie broken up at \$1.50 an acre. W. W. Cook, Russell, Kans.

I HAVE for sale a 1760 acre stock farm or ranch; bottom and alfalfa hay; good buildings and a 840 acre stock and hay farm. Write me and let me send you descriptions and prices. E. H. Boyer, Meade Co., Meade, Kans.

FOR SALE.—820 acres in Kiowa Co., 80 in wheat, hich goes with the place. Six miles from county eas. Price, \$3,100. C. W. Phillips, Greensburg, Ks.

FOR SALE.—Forty-two acres of land adjoining the city of Erie, Kansas, county seat of Neosho. This land was formerly the old fair grounds, and has about \$8,500 worth of buildings on it; some timber, good soil, and plenty of water. Will make the finest place in Kansas for a hog farm. Will sell or rent or go in partnership with a good man with some money who understands raising pure-bred hogs. C. E. Shaffer, care of Kansas Farmer.

TO TRADE for stock, good 160-acre farm Cherokee County. H. H. High, Faulkner, Kans

Cherokee County. H. H. High, Faulkher, Kans.

READ, CONSIDER, COME, OR WRITE—
80 acres of good land, with nice, comfortable buildlings, \$2,200. 160 acres, 120 cultivated, good land for
corn, wheat, and alfalfa, new \$400 barn, good five
room house, close to school and town, \$4,200. 240
acres, well improved, all good land, \$5,000. Small
payment down, balance to suit. \$20 acres improved,
one-half bottom, will grow any farm crop, \$5,000.
680 acres, 15 acres tame grass, fine improvements,
\$10,000. 683 acres, bottom and second bottom, fine
improvements, one mile from town, timber, alfalfa,
orchard, water, hog fence, easy terms, \$25,000. We
have a large list of all sizes and kinds. Write for
list, \$4 cane. Minneapolis, Florence, or Salina,
Kans. Garrison & Studebaker.

▶FOR SALE—Improved farms, at prices from \$24 to \$50 per acre. Write, stating exactly what you want, and we will send description. The Nordstrom-Heusted Realty Co., Clay Center, Kans.

KANSAS LANDS—I have a choice lot of well-improved farms in Marion County, varying from \$20 to \$50 per acre. Also large lists of Western Kansas lands. For full particulars, address A. S. Quisenberry, Marion, Kans.

FOR SALE—220 acre well improved farm, 6 miles from Emporia. Price \$25 per acre. Write Hurley & Jennings, Emporia, Kans.

A 220 ACRE FARM within two miles of good town. Good new house, barn, stables, all bottom land, the best of alfalfa land, two artesian wells, one at house and one at barn; good orchard, good for any kind of crop; a good fish pond near the house with plesty of fish. J. Bainum, Arlington, Kans.

440-ACRE FARM—Close to good town, very good buildings, with growing crops, at \$17 per acre. Other bargains in improved farms with crops. Missouri farms for sale. California land for sale. Western Kansas land at \$2.50 to \$20 per acre. Write or come and see what I have in the way of bargains in city property. J. Bainum, Arlington, Kans.

FOR SALE—The Dean Bartlett ranch, consisting of 3,200 acres on the New Topeka and Northwestern railway. Near the town of Emmet, Pottawatomic County, Will sell all or a part. Address Dean Bartlett, St., Marys, Kans.

FOR SALE—80 acres Arkansas second bottom, 4 miles east of Great Bend. All in cultivation. Fine affairs land. Address R., care Kansas Farmer, Topeka, Kans.

FIFTY farms in Southern Kansas, from \$15 to \$70 per acre; can suit you in grain, stock, or fruit farms. I have farms in Okiahoma, Missouri, and Arkansas for sale or exchange. If you want city property, I have it. Write me. I can fix you out. Wm. Green, P. O. Box 966, Wichita, Kans.

LAND FOR SALE in western part of the great wheat State. H. V. Gilbert, Wallace, Kans.

FINE STOCK FARM FOR SALE—840 acres one-half in cultitivation, balance in pasture, mostly seeded to Kentucky blue-grass, well watered, about 40 acres in aifaifa, all fenced and cross fenced, beautiful awn with shade, large eight-room house, commodious barns for stock and hay, fuel, poultry, and ice houses and other outbuildings, feed yards, corrais, stock sheds, one tenant house; convenient to church and school, on Rural route; 1½ miles from station on double track railway, 12 miles east of Topeka, the State capital, 54 miles west of Kansas City, in the midst of a spiendid farming country. It is now occupied by the owner, who has lived there for more than thirty years. Price \$37.50 per acre. Rasy terms. Address WILSON & NEISWANGER, 116 W. 6th St., Topeka, Kans.

FOR SALE—Dairy Farm in Loudoun County, Virginia. Between three and four hundred acres. Less than one and one-half hours' ride from Washington. Good railroad facilities. Outbuildings complete in every respect and in first-class condition. Good fencing. Large silo, filled for winter. Two dwellings on place for manager, etc. Good watering facilities with large storage tank. Excelent herd of cattle and well-equipped dairy. Good land and whole farm can be cultivated. Excellent opportunity to purchase first-class well-equipped dairy farm. M. V. Richards, Land & Industrial Agent, Washington, D. C.

FOR SALE—2½ sections 1,600 acres, 6 miles from Sharon Springs, Wallace County, Kansas. Greatest bargain you ever heard of at \$1.25 per acre. You can't buy anything addoining for less than \$5 or \$6 per acre. Will take \$1.25 per acre, balance in U. P. contract running 9 years. I need some money and will sacrifice for quick sale. If you haven't got all cash might take your note for \$300 or \$1,000 payable \$200 every six months.

I have 160 acres nice smooth land in Wichita County. Will take \$650 for it.

160 acres No. 1 farm near Oakley. Logan County, 130 acres in cultivation, at \$10.50 per acre—these are bargains. Adress J. W. Ferguson, R. F. D. 1, Topeka, Kans.

SEVEN miles from Emporia we have for sale at \$50 per acre 125 acres of creek bottom land with 2 wells, 2 windmills for stock, well and cistern at the house. House is two story, frame, shingle roof; 6 rooms and summer kitchen. Barn 32 by 40, large tool house, cattlesheds about 20 by 120. Stone wall along the entire north side. Large granary, Fairbanks scale, good timber, plenty for fuel; 10 acres of growing alfalfa; 20 acres of pasture, good apple and pear orchard. One mile to school and 3 miles to the station. Telephone in the house—can talk to 2,800 people for \$5 per year. Everything here is in good repair; orchards in their prime. Hurley & Jennings, Emporia, Kans.

CASH HOME, BUSINESS OR OTHER PROPERTY. We can sell it for you, no matter where it is or what it is worth. If you desire a quick sale send us description and price. If you want to buy any kind of property anywhere send for our monthly. It is free and centoins a large list of desirable properties in all parts of the country. CHARLES A. WILSON, REAL ESTATE DEALER, 415 Kansas Avenue, Topeka, Kans.

The Master's Address.

(Continued from page 282.) source. It is a matter of the greatest importance to the advancement of agriculture and the welfare of all the people of the country, that a mutual understanding of this matter be fully established, and that the great influence of those liberally endowed and splendidly equipped institutions, established in every State and Territory, be exerted in this direction. The bulletins of the experiment stations carry the valuable results of costly and important experiments to a vast number of students in farmhouses, and they should be carefully studied and the information applied to farm operations.

NATURE STUDIES IN PUBLIC SCHOOLS.

The general trend towards the use practical, in place of simply theoretical, studies for mental development in educational methods, renders it an opportune time to urge the introduction of the principles of agriculture, or in other words, nature studies in the curriculum of public schools. However desirable may be the form of education that contributes to culture and refinement, unless such training is accompanied by knowledge of nature's processes, the possessor of such education may find himself able to shine in society, but be unable to make the best use of his faculties, and thereby contribute useful service to the community as a citizen. The general adoption of this feature of education depends more upon a public sentiment favorable to it than upon forced legislation, and we recommend that the subject be given frequent and earnest consideration by the subordi-nate, Pomona and State Granges, as well as in the deliberations of this body.

COOPERATIVE BUSINESS.

In addition to cooperation in its broader sense, as applied to church, school, grange, and citizenship, in varied relations to town, county, State and Nation, there is a necessity for business cooperation. I said in my annual address, one and two years ago:

"Individual members may form cooperative or stock associations, such as mutual insurance, fire and life companies, savings banks, trust or loan associations, building and loan companies, elevator associations, cold storage plants, warehouses, and may establish feed stations, stock exchange and sale yards, butter, cheese, and condensed-milk factories, and such other business arrangements as may be found necessary to facilitate the speedy and economical sale or purchase of the products and supplies of the farm. All business associa-tions should be established on sound business principle, and managed by honest men with large experience and qualifications, and all transactions should be conducted on the cash system. Under no circumstances should the credit system be encouraged. Neither the Order of the Patrons of Husbandry, subordinate, Pomona, State or National Granges should, as an organization, be involved in any of these business enterprises."

These cooperative enterprises, when established and conducted upon sound business principles by capable and honest men, afford farmers an opportunity to escape contributing to such extortions as have recently been uncovered in some of the great financial institutions of the country. Such extravagance as has been brought to light in the management of life-insurance matters, involving the financial interests of a vast number of policy holders, is a convincing argument in favor of mutual insurance.

NATIONAL AID FOR HIGHWAYS.

The policy of national aid for the improvement of transportation facilities is as old as the government itself, and as fully recognized by Congress as any national policy. Great railroad companies have been granted aid in the form of land and money to construct railroads and improve transportation facilities across the continent thereby; millions of the people's money have been appropriated to dredge rivers and harbors, and still greater sums of money are to be expended in the construction of the Isthmian Canal. This money is expended not to open avenues of travel, but to improve those already in existence by allowing transportation over the same routes by improved means of conveyance made necessary by the greater volume of traffic. This is an exact contrast with the conditions existing in regard to our main high-The increased demands upon ways. these highways for the transportation of commodities render them inadequate in their present condition, and it is beyond the resources of local propertyowners to properly improve them. Increased traffic brings no increased revenues, as in the case of transportation

FOR SALE—A good farm of 230 acres in Anderson County, Kansas, main line Missouri Pacific Railway, R. F. D., near to school and church. American community, good improvements; \$22 per acre. A bargain. Address O. J. Prentice, 156 Wabash Avenue, Chicago.

FOR SALE.
640-acre ranch. 4 miles from Stockton, Kans.; big bargain of 320 acres at \$8 per acre. Write
STEVENS & RUBY, Stockton, Kans.
Mention Kansas Farmer.

WANT A HOME

Write HAYES, "The Land Man,"

Drawer K, -- Almena, Kans

Nemaha County Farms Nemaha County, Kansas cannot be excelled in the production of Corn, Oats, Millet and Speltz. Here Alfalfa, Clover and Blue Grass have no equal. Write for prices and description. KNIGHT & SPICKELMIER, Centralia, Kan.

FOR SALE

Farm 2,160 acres, 570 acres in wheat. 1,800 can be farmed. I also have 150 steers, horses and outfit. Will sell at a bargain. C. W. Phillips, Greensburg, Ks.

A CORN AND ALFALFA FARM. FOR SALE — One of the richest improved farms on Prairie Dog Creek. Soil is black loam that yields big crops every year. This year an average of 60 bushels of corn, about thirty acres in pasture and timber, 15 acres in alfalfa, balance corn land. Good house and barn and other farm buildings. On account of change of business the owner desires to sell soon. Address

M. E. Beall, Woodruff, Kans.

Norton County Alfalfa and Corn Farms

We sell Norton County lands where wheat, corn and alfalfa grow in abundance. Write us for list of farms and full particulars.

LOWE & BOWERS, Almena, - - Kansas

If you have any farms, ranches, or city properties for sale or trade anywhere in the State, we would like to have you list the same with us by sending a thorough description together with lowest prices and best terms. We have a fine list of city properties in Topeka and farms around the city, some for trade.

MOON, CHARLES & MOON, REAL ESTATE AGENTS.

116 E. Fifth St., Topeka, Kans.

Who Is H. P. Fitzgerald?

He is the man who can sell you land anywhere in Kansas. One hundred and sixty acres 2¼ miles from Jamestown. Fine improvements, also best of wheat land. This farm can be had for 30 days at \$4,000, also 160 acres of farm adjoining, same price, all under culti-vation.

Rooks County Land
Where Wheat, Corn and Alfalfa grow
to perfection. 37,500 acres fine farm
land for sale. For list and county maps
address, C. H. DEWEY, Stockton, Kans.
(R. R. fare refunded if you buy of me.)
Mention Kansas Farmer.

Come to Downs, Kans., a thriving city of Kansas, 200 miles west of Atchison, on the Missouri Pacific railway, in the celebrated Solomon Valley, in Osborne County, where we raise corn, wheat, alfalfa and other cereals, successfully.

THE DOWNS REALTY CO., Downs, Kansas.

Hurley & Jennings' Land Bargains

For Sale—40 acres improved orchard, 4-room house and stable, 3 miles from College of Emporia, for \$1,200, on terms if sold at once.

HURLEY & JENNINGS, Emporia, Kansas.

Holton Real Estate and Loan Co.

Holton, Kansas, Make a specialty of Texas ranch and farm lands. Western Kansas lands in any quantity. Send for descriptive

NO ONE WHO VISITS COLORADO CAN AFFORD TO MISS A TRIP OVER THE

SWITZERLAND TRAIL OF AMERICA. The Colorado and Northwestern R. R.

DENVER to Eldora and Ward Takes you to the CONTINENTAL DIVIDE; to the land of perpetual snow and through the great Gold, Silver and Tungsten Mining Camps of Northwestern COLORADO. Challenges the world for Scenic Grandeur and

REAL ESTATE.

KANSAS LAND FOR SALE. 640 acres of fine wheat land, price \$10 per acre, \$1,800 cash, balance in small yearly payments, 6 per cent in-terest. Niquette Bres., Salina, Kansas.

GEO. M. NOBLE & CO.

Real Estate, Loans, Insurance.

Some Special Farm and City Bargains.

485 Kansas Ave., Opposite Postoffice, Topeka, Kans.

The Wonderful Ozarks

Present safest and best opportunities for investment. Our paper tells all about resources, farming, timber, min-eral lands. Copy free.

OZARK COUNTRY,

819 Wainwright,

St. Louis.

H. C. BOWMAN.

SHAWNEE COUNTY FARMS. TOPEKA RESIDENCE AND MERCAN-TILE PROPERTY.

VACANT LOTS. TEXAS RANCH LANDS,

42 Columbian Bldg.,

PRESIDENT ROOSEVELT SAYS:

"There may be some place in the world equal to Puget Sound, but I don't know where it is."

Best year-around climate in the United States.. Fertile soil and immensely rich and varied

Send 4e for finely illustrated 64 page free booklet on this wonderful section of the United

Chamber of Commerce. Everett, Wash.



BUY IRRIGATED LANDS Sunny Southern Alberta

Where the "rainfall" is always under your control, when you want it, where you want it and as much as wanted.

100,000 ACRES of the finest irrigated land in the finest section of country on the face

of the earth at from \$18. to \$25. an Acre

on easy terms with perpetual water rights guaranteed forever by the Canadian Pacific Railway at only 50c Per Acre Per Annum.

Do You Know? of an irrigated proposition that will equal this and actually the finest land lying "out of doors," Deep, Black Loam Soil with Clay Sub-soil; produces 30 to 55 bushels hard wheat to the acre, magnificent crops of alfalfa and sugar beets, These lands are along the main line of the Canadian Pacific Ry. at Gleichen. Remember these lands are not in a wilderness, but within easy access to good markets, schools and churches. We have some attached areas of nonirrigable land which are covered with a rich growth of grass and are perfect for grazing lands, which we will sell inconjunction with their rigated land making an ideal combination for farming and stock raising.

THERE ARE BUT A FEW of these combination farms. It would be well for you to make selection at once. For maps, descriptions and certificate for low railway rates, address

Canadian Pacific Irrigation Colonization Co. Ltd.

CALGARY, ALBERTA, CANADA

lines owned by individuals, or water-

ways used by public carriers. The farmers of the United States are prac-

tically unanimous in their request for National aid in the improvement of highways over which all of the people travel free, as has been accorded for

the improvement of the great railroads and waterways over which people who

travel are required to contribute to

private enterprises. It is as important

to improve a thousand miles of road over which a hundred thousand people

travel daily without contributing to its

maintenance, as to improve ten miles of waterways over which people and

commodities are transported only by contributing to the profits of private transportation companies. This matter

will receive earnest consideration at

RURAL MAIL DELIVERY.

resenting the farmers of the country, would be incomplete without reference to rural mail delivery, which is one of our grandest achievements. have seen this branch of the postal ser-

vice expand from an experiment of doubtful success to a comprehensive

system, reaching nearly one-half the rural population, largely through the work and influence of the grange. Its

success in breaking up the isolation of

farm life and in advancing farm values has been phenomenal, and entitles the Grange to refer to it as one of its greatest victories. Over 30,000 rural mail carriers serve 15,000,000 people better than the people served themselves, at a fraction of the cost, and enable them

to receive their daily mail without coming in contact with demoralizing influences that often lurk in centers of

population. Rural mail delivery is a promoter of intelligence as well as a great financial benefit to the farmers of the country. We recommend its still

further extension and development. THE PARCELS POST. This organization has repeatedly en-

dorsed the parcels post as an appro-priate sequel to rural mail delivery,

and we have only to refer to its success in all the leading European countries

as evidence of its practicability. The Postoffice Department of the United

States Government has recommended its establishment upon rural routes, which probably would meet with but little opposition from sources from which opposition will come on the establishment of a general parcel post, for it would to that extent interfere with the

profits of no corporations doing busipublic carriers. The parcels post

would be of special advantage to farmers as they are generally unable to have

packages delivered to them by express companies. It seems incredible that the

financial interests of a comparatively small number of people engaged in the carrier service, should long prevail against the interests of 80,000,000 people who would derive benefit from the

parcels post, especially in view of the success it has achieved in almost every

other civilized country in the world. It only requires an aroused public senti-

ment upon its probable advantages to our people, to cause our National law-

makers to give serious consideration to

this matter, and we urge a vigorous

INFLUENCE ON LEGISLATION.

fluence of the Grange has been exerted

for many years, moulding public opin-

the benefit of agriculture, the farmers,

and people in general. Among the laws

lishing an interstate commission to reg-

ulate transportation on a basis of equality between shippers and localities,

to secure fairness between shippers and

common carriers, and to prevent discrimination between individuals and lo-

The securing and continuous exist-

The act of February 19, 1903, enlarging the powers of the Interstate Commerce

The so-called Sherman "anti-trust"

The act of February, 1903, creating the

Department of Commerce, having authority to secure full information re-

garding the organization and operation of corporations engaged in interstate

The Hatch act for the establishing of

The separation of the agrcultural

schools from the classical colleges, directing that additional appropriations

for agricultural colleges be confined to

instruction in agriculture and mechanic

The Grout bill, protecting the dairy

Commission, and of the courts, to pre-

law of 1890, and the various amend-

ments since that time enacted.

State experimental stations.

The interstate commerce law estab-

already secured might be cited:

ence of free rural delivery

vent secret rebates.

Along the line of legislation the in-

and crystalizing it into laws for

campaign for securing it.

calities.

A message to this organization, rep-

this session of the National Grange.

REAL ESTATE.

Phillips County and Western Kansas

280 acres fine, level land, fair improvements, 2 miles good Phillips County town, worth \$35 acre; my price \$25. 160 acres with 110 acres fine farm land, \$15 acre. 160 acres Western Kansas fine alfalfa land, \$65 acre. About 70 other good tracts in Western Kansas at \$4\$ to \$7\$ a. W. B. Gaumer, Phillipsburg, Kas.

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Partial List of Farm Lands For Sale By

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NORTON, KANSAS

No. 106—160 acres, 7 miles out, farm house with four rooms, good stable and sheds, all fenced and cross fenced, 80 acres in oultivation, good well and mill, 10 acres alfalfa, two One-half cash, balance to suit purchaser, possession at once if sold soon.

No. 109—320 acres farm, 200 acres in cultivation, good new frame house, 120 acres pasture all fenced, good well and windmill, stature all fenced, price \$4,500. Terms given.

No. 196—160 acres farm, 120 acres in cultivation all in wheat, one-half of wheat goes with farm. This is a number one farm practically all smooth, no buildings. Price \$3,500. One-half cash.

half cash.

No. 209—680 acre ranch, 110 in cultivation, 20 acres in alfaifa all fenced and cross fenced, new frame house 24x24, barn 16x36, two sheds, feed lots, corrals, etc. Price \$14 per acre if taken soon.

acres in alfalfa all fenced and cross fenced, new frame house 24x24, barn 16x36, two sheds, feed lots, corrals, etc. Price \$14 per acre if taken soon.

No. 182-160 acres, 100 acres in cultivation, all smooth land, good house with 5 rooms, stable, sheds, corral, etc., all fenced, some alfalfa. Price \$25 per acre.

No. 125-40 acres, close in, fine land, mostly alfalfa. Price \$1,700.

No. 175-160 acres in cultivation, balance pasture, all fenced, frame house with four rooms, good well and windmill, stabling, corral, all smooth land. Price \$4,000. \$2,400 cash, balance on time to suit.

No. 206-320 acres, 200 acres in cultivation, balance pasture all fenced, frame house with 4 rooms, granaries, sheds for 100 head of cattle, stable for 3 head of horses, well and windmill, fine grove. Price \$22.50 per acre, within three miles of station.

A GOOD HOME PLACE AT A GREAT BAR GAIN.

180 acres, well improved, good frame house with four rooms; good barn, room for 20 head of horses, granary room for 7,000 bushels of grain, fine bearing orchard, all kinds of fruit. Two feed lots, corn cribs, etc. Well and windmill, 300 barreis' tank room, 40 acres alfalfa, all fenced and cross fenced, all smooth land. One of the best farms in the county and situated in as good a farming community as there is in the West. This farm can be bought for \$5,500 if taken within the next 30 days. If you want this, a real good farm, well improved, come and see this one quick.

A CHOICE FARM OF 320 ACRES.

All smooth land, fenced all around with three wirespand good cedar posts. Good frame house with four rooms, good barn for six head of horses, granary for 4,000 bushels of grain, with drive between, all new. Well and windmill, two fifty barrel tanks. Fine young orchard, 45 acres in alfalfa, 40 acres sown to rye, 100 acres pasture. This land can all be farmed and there is no better land in the country. Telephone in house, and on rural route. This farm can be bought for \$3,500 if taken soon. If you are looking for a number one all round farm, it will pay

see this.
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interests against the fraudulent selling of colored oleomargarine as butter.

The act of 1902 to prevent the false branding of food-products, protecting farmers and other consumers from fraudulent imitations.

NEGATIVE INFLUENCE OF THE GRANGE POTENT.

Not only in securing good laws was Grange influence potent, but in preventing the enactment of laws that would have been detrimental to public welfare. The preventing of the extension of many patents beyond a reasonable limit has saved millions of dollars to the people in the lowering of the prices of articles in common use, the patents of which would have been extended.

It was instrumental in the defeat of the ship subsidy bill, and in preventing the ratification of reciprocity treaties, that were manifestly unfair to the American farmer.

In the reports of the United States Circuit Courts will be found the record of Grange influence in defeating the pretended claims for royalties on slide gates and driven wells. In the reports of the Supreme Court of the United States will be found that important decision establishing and affirming the right of legislative supervision and control by Congress in interstate commerce and legislative supervision of all corporations.

Substantially, every State in the Union has evidence of Grange thought and influence in equitable laws passed

(Continued on page 296.)

Stand Up for Osborne County

In the great Solomon River Valley, the richest section of the Northwest. The best all-purpose county in the State. The home of Alfalfa, the king of all grasses, where land values are always increasing, where prices now are very low. The most productive soil the sun ever shown upon ideal climate, abundance of pure water and timber. Prices \$10, \$15, \$20, \$25 and \$35 per acre. These prices will double inside of two years. Write me for full particulars and list of farms. A. L. BROWN, (the man who sells Osborne County Isnds),

We do not deal in extreme Western lands, hot air, hot winds, sand, sage brush and blue sky, but handle Osborne County lands, exclusively. That's what makes our business grow.

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In GOVE, SHERIDAN, and LOGAN COUNTIES at \$4 to \$20 PER ACRE.

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FARMS THAT PAY 25% TO 50%

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Horticulture

The Gentle Art of Gardening.

A. T. DANIELS, TOPEKA, KANS., BEFORE THE
WEST SIDE FORESTRY CLUB.

It is a very interesting thing to study the growth and development of a city or a State or a Nation; and it is, or should be, a much more interesting thing to be able to take some part in promoting that growth in such a way that it shall be towards the attain-

promoting that growth in such a way that it shall be towards the attainment of the best results. Such a part in this work for the betterment and refinement of this community is the work of the West Side Forestry Club.

I take it that the aims of the Forestry Club.

I take it that the aims of the Forestry Club are not so much to teach the rules and practice of the art of forestry, as to create and help to grow in this community a knowledge of and an interest in trees and shrubs and things that grow out of doors.

I am in full sympathy with the work of this club, and I am sure that the example and influence of such an organization as this can not fail to be of great value in building up our city to be a beautiful and wholesome place in which to live.

In our own city, full of fine public buildings and beautiful private residences with artistic furnishings and evidences of refinement, taste, and culture, we seem only just to be coming into that period of our civilization which finds one expression of its refined taste in the symmetrical, appropriate, and pleasang surroundings of a beautiful building. As Lord Bacon said in his quaint "Garden Essay," "As ages grow in civility and elegancy, men come to build well sooner than to garden finely, as if gardening were the greater perfection."

I have no doubt that in the work which you have done among your friends and neighbors, to enlist their sympathy and cooperation in beautifying their parks and lawns and in planting trees and shrubs, you have found that most people are also in sympathy with your work. Every one enjoys the shade or fruit of a tree and the fragrance and beauty of a flower, even if they have never tasted the joys of planting or caring for a garden. The work that may be done by those who have the true gardener's spirit is to imbue their neighbors and friends with an enthusiasm that shall lead them to turn some attention, time, and effort to planting and cultivating something to grow out of the ground; not only to stimulate a love for the beautiful things of nature, but to a practical realization of the pleasure that comes from a more intimate knowledge of and acquaintance with out-door life.

INFLUENCE OF GARDENING.

The love of nature, the reverence for the forest and the groves that were God's first temples, and the appreciation of the beauty and usefulness of a stately tree or a graceful flower, are all attributes of character that are worthy of cultivation in every person. The influences of a taste for things out of doors are gentle and refining and inculcate a quiet, friendly, charitable

Gardening is a generous art and prompts unselfishness. A good gardener is a good neighbor and a good neighbor is a good citizen. Gardens have been associated with the finer and tenderer feelings of our natures ever since the days of Adam; and in all the ages, every period of peace and enlightenment has been characterized by the planting and care of gardens—as if it were natural for us to return to the original occupation of man.

In the bustle and hurry of modern life much of our natural inclination is repressed, but there is still in the hearts of most of us a tender feeling for a garden and what grows therein, and a hope that some day we may really have a garden and participate in the joy that comes from digging in the ground and from watching the unfolding of leaf and bud and flower, and the ripening of fruit.

Almost all civilized people are born with a love for flowers and trees and a garden. A garden, even though it be small, is closely associated with our idea of home; and the people who have been foremost in pioneer life in these United States, those whose work has been of permanent value in laying the foundations of good government, have been people who have recognized and appreciated the value of the home and its influence for good in the community, and whether they were Puritans in New England, Cavaliers in the Sunny South, or Dutch along the Mohawk or the Hudson; or in later years, if they

were of those who settled in the forests of the Central States or on the Western prairies, they were people who came from homes whose influences have been and still are mighty forces for good in making new homes in new lands.

PIONEER GARDENING.

The work of these pioneers, however, was hard. It was to subdue the land and to prepare the soil to produce a living; towns and roads were to be built; schools and churches must be established; and all the necessaries and comforts of life provided for. One of the first things to be done was to plant a garden, and the garden was a prominent and essential feature of the new home. Not only for its welcome addition to the daily fare, but the garden furnished almost the only means of recreation and decoration. Plants and flower-seeds were often brought from the old home with a few roots or cuttings or scions from a favorite tree or shrub, so that their first fruits and flowers helped to keep fresh the recollection of the old home.

A home implies a family, and a family implies something besides the daily work, the daily eating and sleeping. Where there is a family, there is always something necessary as a diversion or recreation to vary the monotony of the daily toil and the routine of living, and to make the home attractive; something that helps to keep all the members of the family interested; something the memory of which will last long after the toil and hardship of daily work are forgotten.

In those earlier days, too, when it was a hardship to travel, people were kept at home, and were compelled by the conditions under which they lived to find their recreation and diversion there. Thus it was that the garden came to be very closely associated with home life, and that we, the descendents of those people, have inherited a love for the trees and the grass and the flowers.

SOME NOTED GARDENS.

Some of the gardens of those early days were quite extensive and elaborate, planted with many trees and shrubs imported from English nurseries, strangely overlooking many of our native trees much better suited to their purpose. One of the first, planted largely with native trees and plants, was that established about two hun-dred years ago by John Bartram on the banks of the Susquehanna in Philadelphia. There were no express companies nor rural deliveries in those days, and John Bartram collected his specimens from the forests and mountains and swamps from the Alleghanies to the coast and from New York to the Disma Swamps and even to Florida; and when we know that all these journeys were made on foot or horseback, carrying the trees and plants, we can know that he was such a lover of the trees that it is indeed worthy of his memory that the city of Philadelphia should do as it has done-set apart his garden forever as a public park.

GEORGE WASHINGTON'S GARDEN.

Probably the most widely celebrated of the gardens of years ago is that which was planted at Mt. Vernon by George Washington, and which is still preserved much as he left it, and is one of the most interesting features of that historic spot. There are here many fine specimens of trees of different species. Especially attractive are the formal beds of old-fashioned flowers, bordered with low hedges of box in a style much used in those days.

There are many gardens in the older sections of our country, that are still preserved with a fine reverence for their many charms and old associations. A very interesting book on the old-fashioned flowers and flower lore of these old gardens is by Mrs. Alice Morse Earle, entitled "Old Time Gardens."

At the present time the wholesome lesson of decorative gardening are appreciated more than ever before, not only by indivduals on their home grounds, but by municipalities in public parks and streets, and by corporations and companies who know the cash value as well as the aesthetic importance of improved surroundings.

Railroad yards and grounds are adorned with plants, shrubs, beds of flowers and smooth lawns. The demand for plants has been greater than the supply, and the inquiries for more information on garden topics all indicate the popular taste. Henry Ward Beecher said thirty years ago, that it is a sign of health and wisdom when men love pleasures and enjoyments that do not rush and roar, but distil as

Of public gardens or parks the one best known is probably Central Park of New York. Although some planting

EALTHY TREES Hones in quality.

Grafted Apples 69;

de; Budded Cherries, 15c each; good varieties,

Ouncord Grapes, 61 per 100; Black Locust and

Buss Mulberry, 81 per 1000. We pay freight. Complete

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World's Premium Seed Corn,

Awarded first and third premium at State Corn Show in St. Louis 1904, and gold medal at World's Fair in 1904. Has won all premiums wherever shown for the past six years. Hand nubbed and graded, making all grains uniform in size. For particulars address,

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There are many points to be considered in selecting seed corn; some of the most important are outlined in the above cuts; namely, well filled out at but end with small to medium sized shank; the tip of ear well capped or covered over with fair sized of are well capped or covered over with fair sized grains; the kernels should be wedge shaped from cap to where it rounds off at point or germ and and the rows should be close together but sill not so tight as to smother the germ and cause mould. The grain must be deep and set on a small cob which is of such texture that it will dry out easily and quickly. These points are all brought the nearest to perfection in the new

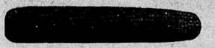
is of such texture that it will dry out easily and
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ever sent out and it will pay you well to try it. Ask
for copy of our large catalogue, illustrating and describing the above and many other varieties of seed
corn, oats, wheat and all kinds for this reason.







Worlds Fair Prize Winning Corn ON FIRST PREMIUM, at the Corn Breed Show at Manhattan, also first on Farmers te and second on Boone Co. White. Sam atalog tells how to raise Corn every year D. Ziller, Hiawatha, Kar HE RAISES CORN.







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Syringa (Lilac)
Japan Snowball
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1 Rhododendron 1 Azalia Mollie 1 Weigela 1 Rose of Sharon

RUNNING VINES. 1 Japan Honeysuckle 1 White Star Clematis 1 Dutchman Pipe 1 Ampelopsis 1 Boston Ivy

20 Hardy Plants from \$ to 5 ft. tall. This entire collection, only \$5.00. Send your order early and we will send this fine collection, worth twenty-five dollars, enough plants to beautify your home, for only \$5.00. It is a great bargain. Order quick and be sure of them. NATIONAL PLANT CO., Somerville, Mass



Plants \$2.50

10 Currant Bushes 10 Gooseberry Bushes 10 Raspberry Bushes 10 Blackberry Bushes Concord Grape Vine 1 Niagara Grape Vine Greatest Bargain yet, 49 plants, all grown ady to bear fruit, for only \$9.50. Every one ould have these lovely fruits growing in their den. Now is your chance. Order early, and sure of them.

BAY STATE PLANT CO., Boston, Mass

was done in New York about the year 1800, when the city was scarcely larger than Topeka, it may be a surprise to know that it is less than 60 years since work on Central Park was commenced; but we need not be surprised to know that its inception was largely due to that poet of nature, William Cullen Bryant, whose home and garden at Roslyn, Long Island, were among the most beautiful in America.

Shaw's garlen at St. Louis is not only the most famous garden in the West, but is one of the most complete col-lections of trees, shrubs, and plants in America. It has been for many years the Mecca to which all good gardeners have hoped to make a pilgrimage. Here are found almost every tree, shrub and plant that can be made to grow. They are grown in a natural arrangement with sufficient plan to make access convenient, and with sufficient formality to make an orderly and artistic display. All the plants are plainly labeled so that those who wish to study them may do so intelligently.

Any collection of trees or plants is to most people much more interesting and surely more instructive if plainly and carefully labeled.

The Arnold Arboretum near Boston and the new Bronx Park and Arboretum near New York will undoubtedly be the leading public gardens of the East in a few years, as the Golden Gate Park of San Francisco is of the West.

Mr. Downing, one of the first and most charming writers on gardening in the United States, said that a cultivation of taste for rural embellishment could be brought about by individual effort, by the direct work of the nurseryman and by the horticultural societies, and of course, if he were saving it now, he would have included the Forestry Club.

Gardening was defined by Downing as "refined nature assisted by man through a taste for that which is orderly, symmetrical and harmonious in form and color."

MODELS.

A garden may be planted in some informal plan without having the natural disorder of the jungle; the best examples of artistic gardening in this country have little of the formal of mechanical arrangement in laying out and planting beds and walks, that is seen in some of the pictures of French and Italian gardens. It is likely that in America the type of garden that will be most popular and satisfactory, is the English rather than the more formal and expensive styles of the Italian and French.

The English idea of a garden is one of enjoyment and not of formal and expensive show; a garden where one may rest or walk and pluck a flower, where all is quiet and harmonious without extravagance, display or undue expense; a garden, the plan, planting, and management of which shall be liberal in proportion to the purse of the owner, and his ability to care for it. The size of the garden would of course be limited somewhat by the cost of planting and maintenance. Lord Bacon's model garden was to contain thirty acres and. indeed, with all the desirable trees and shrubs and flowers that one would like to have, thirty acres would be none too large if one were not obliged to count the cost.

For the many small or less pretentious residences on small plots of ground which comprise a great majority of Topeka homes, the general advice that may be offered is that the parks and lawns near the house be well sodded and kept in grass, with a few trees not too near the house for shade or ornament. There may be space for a few shrubs or beds of flowers at the side, and especially over the porch a Prairie Queen or Crimson Rambler rose or a Clematis Paniculata; and for a rear trellis or screen, a grapevine, a hopvine, or a honeysuckle is a luxuriant and rapid grower. A portion of the rear yard should be given to perennials and annuals for cutting.

If one really enjoys these things, he will plan for them, and the results that come from cultivation of even a small place, will be very gratifying.

The real pleasure that comes to the true gardener is, fortunately, not measured by the size of his garden. One end or a corner of a twenty-five foot lot may be made to produce a wonderful succession of flowers and many a dish of fresh and tender vegetables for the table. Even with no space at all out of doors, a recreation that lasts all the year round, with changes and surprises each week, comes to many a shut-in person from the cultivation and care of a window garden of house plants.

In the smaller towns where the dooryards are not cramped for space, I have

(Continued on Page 297.)

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BUFF, BLACK AND WHITE LANGSHANS, Buff Leghorns, Buff Orpingtons, Light Brahmas, M. B. turkeys, and Toulouse geese. From prize-winners and imported fowls; are extra fine. Write today. America's Central Poultry Plant, J. A. Lovette, Proprietor, Mullinville, Kansas.

R. C. RHODE ISLAND RED EGGS—Farm range, \$1.00 per 16; pen, \$2.00 per 16. I. W. Pulton, Medora, Kansas.

WHITE PLYMOTTH ROCK EGGS from high-scoring show birds, \$1.50 per 15; \$2.50 per 30. Incu-bator eggs, \$5.00 per 100. M. B. turkey eggs, \$3.00 per 11. J. C. Bostwick, Route 2, Hoyt, Kansas.

GREAT BIG S. C. BUFF ORPINGTONS are the winter layers. Eggs \$1.50 per 15; \$2.50 per 30. Mrs. J. R. Cotton, Stark, Kans. 225 Main Street.

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WHITE WYANDOTTES—the lay all winter kind.
Bred to high score, large egg record cockerels. Dustin strain. Eggs 5 cents each. \$4 per 100. J.L. Moore
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BARRED ROCKS—40 cockerels, \$2 will buy a good one 50 pullets, \$1 each, stred buy a pure Bradley cock. I have an orchard flock of 50 pullets match with large, standard males, eggs \$1 per 15; \$5 per 100. A. C. Rait, R. R. 4, Junction City, Kans.

BARRED ROCK EGGS-Pen No. 1, \$1.50 per 15; pen No. 2, \$1 for 15. Mrs. W. A. Shreler, Argonia, Ks.

PURE single comb brown leghorn eggs; 30 for \$1; 100 for \$3. F. P. Flower, Wakefield, Kans. BLACK LANGSHANS—Hens scoring 93 and upwards—headed by 2d and 4th prize cockerels from Kansas City 1908 show. Eggs, \$2 for 15; \$3.50 for thirty; special price by hundred. Can fill order at once. Mrs. C. S. Cross, Fair Acres Farm, Emporia, Kansas.

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BARRED AND WHITE ROCK EGGS for hatching from choice birds; farm raised. White Rock eggs, 15 for \$1,30 for \$1,85; 45 for \$2.85. Barred Rock eggs, 15 for 75 cents; 30 for \$1.45; 45 for \$2.10. D.S. Thompson, Welda, Kansas.

FOR SALE—White Plymouth Rock cockerels from high-scoring birds, and a few hens and pullets. Eggs for sale at reasonable price. Mrs. M. Luse, Nortonville, Kansas.

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MY R. I. REDS won seven prizes on eight entries at Kansas City. Circular. H. C. Kellerman, 3516 Smart Ave., Kansas City, Mo.

S. C. B. LEGHORNS—Some choice cockerels for sale, \$1 each. Eggs in season. Mrs. L. C. Peterson, Route 1, Osage City, Kansas.

WHITE WYANDOTTE EGGS for sale; \$1.50 per 15. Only breed of birds kept. Mrs. John W. Smith, Lawrence, Kansas. PURE-BRED Barred Plymouth Rocks at reasonable prices. J. A. Sawhill, Edgerton, Kansas.

WHITE HOLLAND TURKEY EGGS-\$1.50 per T. J. Sweeney, Route 2, Maple Hill, Kansas.

FOR SALE—Young M. B. turkey toms from high-scoring, prize-winning stock, Book your orders now and secure early eggs for hatching, \$2 per 9. S. C. Brown and White Leghorns, S. Spangled Hamburgs, S. C. Black Minorcas, \$1 per 15. Vira Hamburgs, S. C. Black M Bailey, Kinsley, Kansas.

SILVER LACED WYANDOTTES—Thoroughbred cockereis, \$2; pullets, \$1.50. Jewett Bros., Dighton, Kansas.

MAMMOTH BRONZE GOBBLERS.—Extra nice large young toms, \$5 each. Buy one to improve your flock. C. E. Durand plantation, Hutchinson, Kansas.

GEM POULTRY YARDS—C. W. Peckham, Haven, Kans. Pure-bred Buff Plymouth Rock eggs, 15 for \$2; 30, \$8.50. M. Bronse turkey eggs, 11 for \$5.

The Poultry Yard

Roup.

EDITOR KANSAS FARMER :- J. E. Harbaugh states in the KANSAS FARMER of February 8, that his turkeys are affected with swelling in the head. I have learned by reading agricultural papers that this disease is called roup. My remedy is a success on chickens, and certainly will not fail on turkeys. Take a sharp knife and out right into the swelling and take out the lump of matter found in a sack next to the If there is any substance formed back in the roof of the mouth, closing the holes of the nose, cut it off with the knife. The nose may be closed on the outside. I never apply anything after the operation. One application of carbolated ointment may be good. I have seen chicken's eyeballs pushed out by the enlargement of the lump. This is a sure remedy and easily performed. BEN HAMPTON.

Indian Territory.

Poultry Notes.

The hatching season is now on and complaints will soon be made that the eggs are infertile and will not hatch. One great cause of the infertility of eggs in the early season is that the hens are too fat, but after they lose some of their flesh by laying, the eggs will become fertile. The remedy is not to feed so highly but make the hens scratch for their feed.

We are of the opinion that in feeding young chicks the dry-food system is much better than the old-time, sloppy-food system. For the first two weeks feed pin-head oatmeal, millet and cracked wheat. After that time, whole wheat and Kafir-corn with cracked corn given occasionally, will make them thrive. See that the chicks always have plenty of grit or oystershells with occasionally some meat-scraps. Pure water should always be provided for them.

Fowls are quite likely to contract disease in the spring by allowing them to gorge themselves on grass and green plants, after having been closely confined all winter. They should be allowed to forage in early spring by remaining outside only a short time at first, which can be gradually increased as they become accustomed to it. At first they should run just a few moments before dark, giving them their liberty, turning them out a little ear-lier each evening. Internal fever, diarrhea, and sometimes chicken chol-era are induced by allowing fowls to eat too much green food at one time in spring, before they have gradually become accustomed to it.

How to Use an Incubator.

We reprint the following from the Successful Poultry Journal, from the pen of Milton O. Adams, Hiawatha,

The successful manipulation of an incubator is no difficult task. Any one with common sense can operate one; it's just the same as running any other machine, minus the manual labor, and an abundance of scientific knowledge. Incubators as built to-day, are so nearly automatic in operation, that a watchful eye, attentive to minor details, will insure success. I take it for granted that you have hatchable eggs.

While speaking of the minor details of incubator operation, perhaps it would be well for us to go over the ground together, and enumerate them. There are several little things, seemingly, that close observation our attention. To begin with, there is the lamp. Incubator lamps are simple, common, every-day house lamps, of the best sort, though; there is nothing mysterious about them, and they are much safer than other coal-oil lamps. Be careful, though, to see that only the best quality of oil is used, and that the wick is regularly trimmed, daily. Cheap oil is the foundation of most burner troubles. Good oil goes further, burns more steadily, and throws off less obnoxious gas. Wicks cost but little, so use a new one each hatch, and, always keep the mica clean, so that you have no difficulty in seeing the flame. It's almost needless to remind you of the necessity of keeping the heater free of soot, should poor oil cause it to collect.

Incubator regulators are just about perfection, relieving the operator of a great deal of worry and care. But they must be properly adjusted in order to perform the duty they were designed for. A good thermostat will maintain an even temperature with scientific

POULTRY BREEDERS' DIRECTORY.

A Charles Services

CHOICE B. P. ROCK cockerels and pullets. Collie pups; send for circular. W. B, Williams, Stella, Neb.

EGGS FOR SALE—S. C. W. Leghorns, W. Wyandottes, \$1 per 15. W. H. turkeys, \$1 50 per 9. Emden geese, 200 each. W. African guineas, \$1 per 17. All guaranteed pure-bred. A. F. Hutley, Route 2, Maple Hill, Kansas.

FOR SALE—Exhibition S. C. Black Minorca cockerels, \$2. I guarantee them. Address George Kern, \$17 Osage street, Leavenworth, Kans.

STANDARD-BRED SINGLE-COMB BUFF LEGHORNS-Headed by first prize pen Chicago LEGHORNS—Headed by first prize pen Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs \$3 for 15. S. Perkins, 801 East First street, Newton, Kansas.

S. C. W. LEGHORNS AND BUFF ROCKS—Winners at State Fairs. Eggs, \$1 per sitting. J. W. Cook, Route 3, Hutchinson, Kansas.

TO GIVE AWAY—50 Buff Orpingtons and 50 Buff Leghorns to Shawnee county farmers. Will buy the chicks and eggs. Write me. W. H. Maxwell, 921 Topeka Avenue, Topeka, Kansas,

FOR SALE—Choice S. C. B. Leghorn cockerels, \$1 each. J. N. Sheldon, Route 1, McPherson, Kansas.

WHITE WYANDOTTES—Choice cockerels, pullets or hens for sale cheap. S. W. Artz, Larned-Kansas.

BLACK LANGSHAN EGGS—From birds scoring 33% to 95%; \$1.50 and \$2 for 15 eggs. Wm. C. Knapp, Pleasant Hill, Mo.

BARRED ROCKS EXCLUSIVELY-Leffel strain. Large, heavy-boned, fine, clear; Barry's first-class birds, \$i to \$5 each. Satisfaction guaran-teed. Write for catalog to Lawndale Poultry Yards, John D. Ziller, Hiawatha, Kansas.

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MAMMOTH BRONZE TURKEYS for sale. Inquire of Mrs. T. M. Fleming, Fontana, Kansas.

SINGLE-COMB WHITE LEGHORN cockerels. SINGLE-COMB WHITE LEGHORN cockerels, \$1 each; two or more, \$0 cents each. Fine white, pure, thoroughbred birds. Also a few Barred Plymouth Rocks, barred to the skin—fine, pure and vigorous; hens. cocks and pullets, \$1 each; two or more, \$0 cents each. All of our customers are very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Coulterville, Illinois.

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For Salk—Young toms and pullets, healthy and well-bred stock. Inspection and correspondence invited. Address J. E. Miller, Burdette, Kansas.

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Farm raised. Eggs, per sitting of 15, \$1. Incubator users write for special prices in 100 lots.
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R. C. Rhode Island Reds At the State Poultry Show, Topeka, Kansas, January, 1906, won first and second prizes on cock, cockerel, hens, pen; fourth on hen and pullet. Cockerels all sold. Eggs for hatching, \$1.00 to \$3.00 per 16. Egg circular free. NO STOCK FOR SALE.

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If you will separate the young chicks, and to one lot feed Dr. Hess Poultry Pan-a-ce-a regularly as directed, you will find that they will make a remarkable gain in growth over a similar number that do not receive the Pan-a-ce-a, and besides the Pan-a-ce-a will prevent loss from disease. Dr. Hess Poultry Pan-a-ce-a cures gapes, cholera, roup, indigestion, leg weakness and all poultry diseases due to digestive troubles or infection. Poultry Pan-a-ce-a positively destroys the germs of disease, besides increasing the digestive powers so that the maximum amount of the food is converted into bone, muscle, feathers, eggs.

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SHOEMAKER'S BOOK

AND ALMANAC FOR 1906. There is nothing in the world like it. It contains 224 largo pages, handsomely illustrations 224 largo pages, handsomely illustrations of the large pages, handsomely illustrations of the large pages, handsomely illustrations, and prices of same. It tells all the like illustrations, and prices of treat all diseases common among them. It gives working plans and illustrations of convenient Poultry Houses. It tells all about

Incubators and Brooders.
It gives full instructions for operating all kinds of Incubators. This chapter is marvelously complete and worth dollars to anyone using an incubator. It gives descriptions and prices of Incubators, Brooders and all kinds of Soulary Rupplies. In fact, it is an encyclopedia of chickendom and will be mailed to anyone on receipt of mily 16 cents. Your meny returned if not pleased.

precision when properly set. Too many operators, beginners especially, are in such a hurry to get the incubator at work, that sufficient time is not given to adjusting the regulator. It is best to see that everything works nicely, and that the machine will hold the proper temperature, and to run it witheggs, for a few days, than to start the machine setting, before you can keep a uniform heat. Be sure that the conneca uniform tions are properly fitted, and that the lever is carefully adjusted according to directions acompanying the machine. The damper must fit down evenly over the flue, or bend the connection so that it does. When you have everything about the regulator working smoothly, turn your attention to the thermometer, and locate it in your machine as per your instructions.

It is understood that you have picked out a desirable location for the machine to begin with. As to whether your machine should be operated in a cellar, or above ground, follow the advice of the maker of your machine, but all times look well to the ventilation of the room. Foul air is conducted right into the machine, and can not help but work to the detriment of the forthcoming hatch.

While there is a difference of opinion among incubator manufacturers as to the wisdom of testing the eggs, rest assured that it can do no harm. Beginners, especially, can learn a great deal relative to the theory of incubation, by studying the embryo chick, and its wonderful development. It is not my purpose to advise anything contrary to the directions of the man who made your machine, but there are so many little, seemingly unimportant details, that are too often slighted, to the detriment of the hatch, that it is well to keep ever fresh in your memory the absolute necessity of attention

While incubators hatch as large a per cent of the eggs as the average hen does, yet a machine not coming quite up to this average is even more profitable than hatching with hens. Many times it requires as much time and care to attend to a single hen covering but thirteen eggs, as it does to properly operate an incubator containing from fifty to four hundred. Figuring your time, and feed bills, when using hens, against the oil and time for operating an incubator, shows a handsome saving favorable to the incubator.

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The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of the Kansas Farmer. Kindly give the age, color, and sex of the animals, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department of the Kansas Farmer, Topeka, Kans., or te Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans.

If in addition to having the letter answered in the Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

Bog Spavin and Thoroughpin.-My 2-year-old mare colt has what I think is a bog spavin and thoroughpin; it is a soft bunch at the hock joint on both sides and on the front. It has had it thirteen months, but does not seem lame from it. I used a spavin cure on it at first, but it did not seem to be reduced any. Is there anything to remove the bunch? If not, will it make her lame to work her?

A. F. J.

Morganville, Kan. Answer.—A stimulating liniment containing considerable iodine in the form of the tincture, applied to your colt's bog spavin and rubbed in thoroughly will do more to reduce the enlargement than anything else I can recommend. The following makes a very good liniment: Sulfuric either, 6 ounces; oil of turpentine, 3 ounces; tincture of iodine, 4 ounces; compound soap liniment, 1 pint. Shake well before using; apply once daily until sore, then withhold for a few days and begin again.

Palisade Worm.—I have two mares that have been sick all winter. I have tried several kinds of medicine that have done no good. They get stupid but do not wabble. Some say it is malarial fever. Can you send me a bulletin giving remedy for same?

Weir, Kan. F. N. D. Answer.-We are sending you a press bulletin which we think will describe the bondition of your animals. If it

DON'T SEND EAST for your Single Comb Brown Leghorns. In four shows this see three of these shows have had highest scoring birdin the show. Scores as high as 36% to Owen and Atherton and 94% by Rhodes. Stock for sale. Eggs, \$1 for 13; \$5 for 100.

OHAS. C. SMITH, Manhattan, Kansas.

IG PROFITS in Farm Poultry If you raise it right, Mark the "B" and let us start you right with a new 1906-Pattern Standard Cyphers Incubator "the sonsation of the poultry world;" guaranteed to hatch more and healthfer chicks with less oil than any other er Catalogue and Poultry Guide, 23 pages, (Sxil) Free if you mention this paper and give addresses of two near by poultry raisers. Write nearest office.

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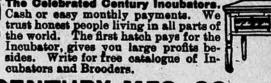
Freight Prepaid, Buys the Best Incubator Ever Made.

84.50 Buys the Best 100-Chick Brooder.

Both incubator and Brooder, if ordered together, cost but \$11.00. Double cases all over; best copper tank; hot water; self regulating; satisfaction guaranteed. Our book, "Hatching Facts," tells all about it. Mailed free. Wite for it.

Belle City Incubator Company, Box 18, Racine, Wisconsin.





CENTURY MFG. CO. Dept. 581 EAST ST. LOUIS: ILL.



QUEEN 1 Is not an incubator but the Incubator

THE HIGHESTGRADE INCUBATOR EVER OFFERED TO THE PUBLIC

The advent of these superior machines marks the departure of the hen-set chicks. if you want the best money will buy, get the QUEEN. Write today for free catalogue.

PINKERTON MANUFACTURING CO. BOX 56, LINCOLN, NEBRASKA

fails to meet the requirements in your case, kindly write us again and we will you additional information if possible.

The Palisade Worm.—Please give me some information about long, wire-like worms found on the outside of the intestines of a horse that died with what was supposed to be blind staggers. I could find nothing wrong with the horse, except for these long worms, and bots in the stomach; should judge that there were about 1,000 bots. bots cause the stomach to stop acting? The horse was sick only 9 hours, and reared and fought until he fell, and was held down, and then sweat until he died. I would like to know if the worms were the cause of death? Many horses have died in this neighborhood with this disease. D. B. R.

Seward, Kan.

Answer.—We are mailing you a press bulletin on the palisade worm, that was evidently the cause of the death of your horse. Bots oftentimes causes stopping of the stomach; whether it caused the trouble with your animal or not I am unable to state.

Swelling on Hock Joint.—My 3-year old filly got kicked or, hock joint February 8. I have been using a liniment of vinegar, turpentine, and lard, but this does not relieve the swelling. She is not lame. What can I do to remove the swelling? I also have a black mare that is always rubbing when in the stable or lot. I can find no lice, but there is a scab in the hair next to the skin, and she is falling off in fiesh. Holton, Kan.

Answer.-We would advise using Hime and sulfur dip in the proportions of 8 pounds of lime and 24 of sulfur to 100 gallons of water. Put the lime and sulfur together and add sufficient water to get as much of the sulfur into solution as possible; allow it to stand for 48 hours, dip off the surface liquid and add sufficient water to make 100 gallons. The dip should be applied as hot as the animal can stand. It will not be necessary to make up this entire formula but use it in the proportion indicated.

Try a poultice of antiphlogistine on the swelled hock. Failing to secure this preparation, use bran or linseed meal, changing the poultice as often as

POULTRY FEEDING AND FATTENING

A handbook for poultry keepers on the standard and improved methods of feeding and marketing all kinds of poultry.

The subject of feeding and fattening poultry is prepared largely from the side of the best practice and experience here and abroad, although the underlying science of feeding is explained as fully as needful. The subject covers all branches, including chickens, broilers, capons, turkeys and waterfowl; how to feed under various conditions and for different purposes. The whole subject of capons and caponising is treated in detail. A great mass of practical information and experience not readily obtainable elsewhere is given, with full and explicit directions for fattening and preparing for market. The broad scope of the book is shown in the following

TABLE OF CONTENTS

Thrifty Growth, Expert Chicken Feeding, Broiler Raising, Nutrition for Layers, Special Foods, To Finish and Dress Capons, The Art of Poultry Fattening, Lessons from Foreign Experts, American Fattening Methods, At Killing Time, Preparing of Market, Marketing Turkeys and Waterfowt, Finish and Shaping.

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Dairy Interests

Ö0000000000000000000000000000000 Making Skim-Milk Paint,

Of all the compounds that I have used, skim-milk is the cheapest and About twice a year I see the receint for government whitewash: I have found it expensive, not much bet er than ordinary whitewash, very dazzing to the eye when new, and easily washed off. Oil and lead are too expensive for old and unplaned buildings-as it is a good deal like pouring water into a rat-hole to try to fill the cracks with expensive paint. Paints last but a few years at the most for some reason unknown to me, unless it is that they are made to sell only, and the quicker they fade or peel off, the more can be sold.

The following mixture is so cheap and so quickly put on that one can afford to paint as often as needed; but from my experience, if properly made and put on, it is more durable than the others. It is made of skim-milk, (either sweet or sour) water lime, or a low grade of cement, and colored with yellow or red. There is no particular formula, and you just put some cement into the milk and a little of the color, and stir. The lime will settle to the bottom, and the mixture should be kept well stirred while using, and no more made than can be applied before leav-

I took a butter-tub and mixed milk and color well; then dipped out three quarts and put in some lime till it was a thin paint. The cement or water lime varies, and I cannot give the exact quantity. It should be thin, so as to spread easily and enter the surface. It should be well rubbed, and not enough left on to form a thick coat. It works best on rough surfaces, as rather more can be made to stay on and the wood shows through less than on the planed

The only danger is of getting it too thick and leaving on so much that later a sudden jar will cause it to flake loose and fall from its own weight. To get the best effect, there need not be enough on to allow one to split it off with a knife without taking the wood with it. We apply with a four-inch brush, or on old buildings with a scrub broom, and do a "wholesale job." At a short distance, after five years' wear, it has all the appearance of the best paint —C. E. Chapman, in 'Country Gentleman."

How You Should Dairy.

Address Delivered at Various Places on the Occasion of the Blue Valley Creamery Company Dairy Special Over the Chicago, Great Western Railway, August 2, 3, and 4, 1905, by R. M. Washburn, State Dairy Com-missioner of Missouri, Columbia, Mo.

When starting into any new or partly new work, or when in a work and realizeing that others with no better natural conditions, than we have, are making a more decided success than we are, we should go to these successful neighbors, either in person or through paper and books, and learn their ways of doing.

There are three factors which work for success in the dairy work: The man, the cow, and the market.

1. The man factor comes first because if he will, he can influence the others. First of all, he should be intellectually equipped, or, in other words, he must have the mental tools for doing the work. We may have been raised on the farm and among stock, and yet not know the business as we need to know it for success. Did you ever stop to think that all

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we know, all the knowledge of the human family is the experience of innumerable individuals, and that to you and me is given but a tiny part of this vast amount of experience? Our neighbor's experience is just as sound and to him as valuable as ours is to us. Let us, then, not scorn his words of warning or advice, even if we do not see them in a book or paper, but test them and use those parts that are useful to us. You have all read of the silo. Do you know its worth in the dairy? its strong and weak points? its cost, and how it should be built? If not, post yourself. Let me say, the silo is to the dairy farmer what the twinebinder is to the grain-raiser. You can still harvest your grain with the cradle, but you can do it much cheaper with the binder. You can dairy without the silo, but you can do it cheaper with one. The silo is not a new thing, even in this country. Write for Bulletin 155 Experiment Station, Wooster, Ohio, to learn the value of the silo in dairy-feeding, and to Experiment Station, Madison, Wis., for Bulletin 125, to learn how to build one.

Do you understand what is meant by the balanced ration? You can balance and not know it (many of you do), or you can dangle along at dairy work and not balance the ration at all; but you can produce more economically by feeding a balanced ration. We have little to say about the price butter-fat is to bring, hence it is necessary for us

to produce economically.

Did you know that the cow that freshens in the fall of the year will give fully 25 per cent more milk during the year than she would if she freshened in the spring? That the fall-fresh cow will then give butter-fat when it is high in price, thus making her fully 50 per cent to 100 per cent more valuable than she would be if she had calved in the spring? Last summer I paid 15 1/2 cents a pound for butter-fat and had twice as much as I wanted, and last winter I paid 33 cents and did not get half enough to supply my trade. Did you know that the fall calf, raised on sweet skim-milk and corn, will be as large at one year old as the spring calf that runs with its mother will be at 11/2 years? Try it, if you are skeptical.

Did you know that in nearly every herd of cows there are a few who do not pay their board, who are being supported for their company? It's a fact. Do you know how to operate the Babcock milk-test, and find out these ungrateful warders? For \$5 you can get a tester with full directions the way to run it.

2. The man must be in sympathy with his work, must be able to meet and treat his cows as intelligent friends, not as so many dead machines, or as a wheelbarrow to be used or let alone at will. The cow that has been taught that her master is her best friend, will give more milk than one who is half afraid of her keeper.

The calf, at the end of the first or second day, should be removed entirely from its mother to be raised on skimmilk. I have not time now to go into the question of raising calves on skimmilk, but you can raise a better dairy calf on skim-milk than on whole milk and for a fraction of the cost. Write to the Agricultural College, Manhattan, Kansas, for Bulletin 126 on calf-raising. When the calf is removed, the cow cries for her child; that is the golden moment for the dairyman. Go to her in kindness, treat her quietly, caress her, feed her, and relieve that pain in her udder by quietly milking her. She will soon look to you for this relief and will adopt you as her calf, will look for your coming and caress you as she would a calf. This is not a day-dream. I have done just what I am saying-have been adopted and complimented.

I am not able to tell you how many gallons of cow love it takes to bring a dollar, but I do know that sympathy has a commercial value; that a nervous cow so treated will give from 15 to 50 per cent more milk than one not so treated. The man must then be both mentally and sympathetically equipped.

The second factor in dairy success is The average cow of this country gives only about 175 pounds of butter a year, while the best cows give from 400 to 600 pounds, but yet these common cows are better dairy cows than the common owners are dairymen.

It has been demonstrated abundantly that these same 175-pound cows would, if well housed and liberally fed make from 225 to 275 pounds a year, and do that cheaper per pound than when they gave a small amount. Keep the cows you have, select them by means of scales and a Babcock tester. Keep calves from only those cows that you know to be best. Get a young bull of some pronounced dairy breed. THE SEPARATOR THAT PAYS FOR ITSELF Ocasionally the intending buyer of a cream separator who has but a small amount of ready cash to invest is tempted to put his money into one of the so-called "cheap" machines that are being largely advertised. Although he recognizes the superiority of the DE LAVAL machine and his need of a good separator, he invests in the "cheap" trashy machine because he does not happen to have ready the full amount which he supposes to be necessary to buy a DE LAVAL. This is where closer investigation of the matter would pay him well. A

DE LAVAL SEPARATOR

may be bought upon such liberal payment terms that it will more than earn its cost while the buyer is paying for it. In addition the DE LAVAL buyer has positive assurance that his machine will be good for at least twenty years of service. during which time it will save every possible dollar for him and earn its original cost over and over again. If he purchases the so-called "cheap" separator he must pay cash in advance and then take the chance of the machine becoming worthless after a year or two of use, to say nothing of the cream it will waste while it does last,—all of which means that the buyer has virtually thrown away the money invested in the "cheap" separator and wasted his time labor and product in the bargain. The DE LAVAL is THE separator that pays for itself,—lasts on the average ten times longer than any other machine and insures the greatest possible profits in the end. This being the fact there surely can be no economy in the purchase of the so-called "cheap" separator, however small its first cost may be. Remember that the DE LAVAL pays for itself. Catalogue and full particulars gladly sent upon request. Write to-day.

THE DE LAVAL SEPARATOR CO.

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Cream shipped to us is paid for immediately.

Our motto is:

CORRECT WEIGHT,

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and the highest possible price for butter-fat.

Under this banner we have established an enormous business. Through a continuation of this policy, we expect to increase our busi-

ness each month. A cordial welcome awaits every enterprising milk-producer, who appreciates having his product handled economically so as to get the greatest returns and that in Cash.

It's a pleasure to answer letters. Will be glad to hear from you.

BLUE VALLEY CREAMERY CO.,

ST. JOSEPH, MISSOURI.

PEERLESS CREAM SEPARATORS

Reasons Why the PEERLESS is the best

FIRST—Twice the capacity of any other bowl. That is to say two times smaller than any other bowl of equal capacity.

SECOND—Compound feature, two bowls in one, hollow bowl and disk bowl combining all the features of the tubular and disk machines.

THIRD—Enclosed frame. Free from dust. Injury resulting from machine tensestible.

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FIFTH—Heavy enough and strong enough to litt a box-car, which are durability.

SIXTH—The bushings made of phosphor bronze—the most serviceable masterial for the purpose. Fitted and guaranted to be accurate to ½ of 1-1000

of an inch.

SEVENTH—Every journal bushed with brass or phosphor bronze. This fact together with the fine adjustment discribed above, accounts for the light draft of the PEERLESS machine. Each busing is made in duplicate and interchangeable and if at any time they show ware they can be replaced at a small cost.

small cost.

EIGHTH—At normal temperature the skimmed milk will always show less EIGHTH—At normal temperature that and generally less than 1-100 of 1 per than 5-100 of 1 per cent butter fat. PEERLESS CREAM SEPARATORS are guaranteed to anybody—everybody, anywhere—everywhere. For further information, write

Bradley, Alderson & Company

10th and Hickory

Kansas City, Missouri

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THIS SKIMMING MACHINE takes the cream from the milk rrom the milk quicker than wringers squeeze water from clothes. It gets a quarter to ahalf more cream than by setting, because it uses centrifugal force—s force thousands of times stronger, quicker, more effective than the force that makes cream rise in pans. harples TUBULAR CREAM SEPARATORS Skimming finished five minutes after milking, because boy of ten can run Tubular during milking. No skim milk to warm, because skim milk is fed still warm from cow. Half less washing, labor and expense, because only cream is put away. Catalog X-165 explains clearly. THE SHAPPLES SEPARATOR CO.

Toronto, Can. West Chester, Ps. Chicago, III,

His pure blood is stronger than the mixed blood of the herd and the young will closely resemble him. Adopt a standard. Require that every cow give at least 200 pounds of butter a year, or get out of your barn. This, continued six or eight years, and you will have a herd of cows that will be making you each year a net profit of from \$40 to \$70.

Did you ever stop to think that when feed is eaten the first of it always goes to support the animal machine, and that it is only the excess of food, the overflow, that can be used to make milk? that an ordinary cow will require each day about 15 pounds of feed to keep its body, and that if the cow gets only 15 pounds of feed, she cannot give milk for any length of time? that if she gets 20 pounds of feed she has five pounds left for making milk; that if she gets 25 pounds of feed, she will have twice as much feed overflow with which to make milk as she would if she got only 20 pounds? The more feed you can make the cow eat with appetite, the more economically she can produce milk. But, if the cow be ill-treated and poorly housed, she may require all of the 20 or even the 25 pounds to keep her animal machinery. Send \$1 to the National Dairy Union, 154 Lake Street, Chicago, Ill., for a copy of "Creamery Patron's Hand Book" and study this question right. It will pay you.

3. The Market Factor-The importance of study still continues. With the old method of raising cream, from 15 to 50 per cent of the fat is lost in the skim-milk, and the skim-milk sours and gives pigs and calves the scours. The butter is sold for less than the cream will usually bring, and the overworked housewife is made a drudge; while with the centrifugal separator, only from 1 to 2 per cent of fat is lost, and the pigs and calves get sweet milk on which they grow nearly as rapidly as when fed whole milk. A farmer with 160 acres of land and 20 ordinary cows can sell from \$600 to \$800 worth of cream a year and still raise just as much corn and hogs and wheat and oats as he could if he did not sell a cent's worth of cream.

Concerning Milk Fever.

D. C. Rankin, Des Moines County, Ia., writes the Breeder's Gazette: some of your readers give a reason for the air cure for milk fever? Ten days ago my neighbor called on me to help him drag a fine Jersey cow away from a fence so she could die easy. I told him of the air treatment. We got an air pump and by the time we got to the cow she was straightened out and struggling, as an animal about to die. We filled the udder with air, and she got up in the afternoon, got well, and he has since sold her, and the pur-chaser is well pleased with the cow." Probably the veterinarians may be able to tell in time why air injection of udder cures milk fever, but their present lack of knowledge need not trouble the farmer. It is the result and not the reason that concerns cattle-breed-If a cow takes milk fever, do not wait to figure out how the treatment works, or why it cures, but pump her udder full of air, strip out all the air and milk you can in two hours and fill the udder again with air. Repeat treatment at this interval until improvement is marked. Keep the milk tube clean. Ed. Gazette.

Especial attention is directed to the advertisement of the Peerless Cream Separator now sold by Bradley-Alderson Co., Kansas City, Mo. This is one of the really effective machines that have been put upon the market for the lise of farmers and dairymen. It is well-made and the price is very reasonable. If you will mention the KANSAS FARMER and write Bradley-Alderson C., Station A, Kansas City, Mo., they will send you full particulars and prices. Do this now.

About the best thing for farmers' use that the writer has seen of late is the machine made by Edgar E. Crouch, Oakland Kans., for the manufacture of artificial stone fence-posts. With this machine each farmer can make all the posts he needs and they will ast for-ever. These posts are made of cement and are cheaper than good wooden posts. The machine with which these posts are made is much cheaper than many other on the market and will turn out posts more rapidly. It will make bosts for any kind of fence and is proof against fire, frost, rot and rust. These bosts get stronger and better with age and do not require repairs or replacing. Note the advertisement and write for particulars. Note the accuration

Special Homeseekers Excursion to Points in Michigan.

Via Chicago Great Western Railway. Tickets on sale March 13 and 27, April 10 and 25 and May 8 and 22, at greatly reduced rates for the round trip. For full information apply to G. W. Lincoln, T. P. A., 7 W. 9th St., Kansas City, Mo.

Sweetening friendship is a lifetime

undertaking.

MORE EMPIRE IMPROVEMENTS

Another Step in

Improvements That Revolutionize **Separator Construction.**

The wonderful popularity of the Empire Cream Separator is due entirely to its surpassing merit and worth. In it every need and every desire of the cow-owner is completely satisfied. It has always been known as the Easy-Running Separator, but the improvements found in the 1906 model make it as nearly frictionless as it is possible for mechanical ingenuity to devise.

Look at the accompanying cut of the machine.

You see no oil cup. There is none. Where the oil cup used to be, there is of necessity, a brake. The brake becomes necessary on account of the fact that the

Improved 1906

runs so easily that without a brake the bowl will keep in motion for more than thirty minutes after the turning of the crank is stopped. The only oiling necessary is to put two drops of oil in the neck bearing when the machine is started. There is no friction and no wear on the spindle as the spindle itself sets in a collar which revolves in a ball bearing. The construction is simplicity itself. It can't get out of order and the machine turns so easily that it is practically no work at all, but child's play.

The capacities have been increased 331/3% in EMPIRE machines, but there is no increase in the price. We offer in the 1906 MODEL IMPROVED EMPIRE more value for the money than has ever before been offered in cream separators.

We would like to tell you all about it, but there are too many good points to try to even mention half of them in this liberal space. Send for a catalog. Better still, send for a machine, and if you don't think after you see it that the 1906 Improved Frictionless Empire is the greatest cream separator that was ever built, don't buy it. Our catalogs and booklets on dairying are free.

EMPIRE CREAM SEPARATOR COMPANY.

BLOOMFIELD, N. J.

3II Temple Block, Kansas City, Mo.

Cleveland 🐟 Cream Separator

Easy Running:- In the Cleveland

Separator this isn't an empty claim. The whole thing is summed up in an honest, easy to prove reason. The Cleveland is the only ball-bearing separator made.

Easy Cleaning:— The Cleveland has fewest parts and skimming device is made of aluminum. Investigate. You will find this metal is non-corrosive, non-poisonous, milk cannot stick to it and there is no coating to wear off. We prove these things.

things.

Long Life: The Cleveland has the fewest parts of any separator made and gets results at the slowest speed. Parts can't wear out that are not there. The Cleveland is a guaranteed perfect skimmer.

How We Sell: To you from our own factory. The only manufacturers making a high grade separator and selling it at a fair, square price and a fair, square plan. No money in advance. No note to sign. No fuss of any kind. The catalog tells you. Write for it.

THE CLEVELAND CREAM SEPARATOR CO. Dept. B, 34 Michigan Ave., N. W.



SAVE ALL YOUR CREAM

A hired man who doesn't milk your cows dry every milking is pretty poor dairy help at any price. Isn't that so? And in the same way a cream separator that leaves part of the cream in the milk what you pay for it. The improved



U. S. CREAM SEPARA

Holder of World's Record for clean skimming

takes out more cream than any other separator. This is due to the exclusive construction of its skimming device. We want to show you about this, and prove that what we say is true. The best way to do it is to have you see one of our big, handsome free catalogues. Just write us a postal and we'll send you one by return mail. Better do it now while you think of it.

VERMONT FARM MACHINE CO., BELLOWS FALLS, VERMONT Eighteen centrally located distributing warehouses throughout the U. S. and Canada

Simple DAVIS

The separator sold on a plan to save you half the price. No middlemen's commission to pay Direct to you at factory prices. Just belt high. The hand separator for conveni-ence, easy running, and easy cleaning. 3 piece bowl and never can get out of balance. Write for mency saving Catalog No. 1254 Davis Cream Separator Co., 7. 54 O North Clinton St., Chicago, III. CEMENT FENCE POST or Building Blocks

CROUCH \$10 MACHINE

Any Farm Hand can use it. Will not rust or burn. Cheaper than wood, and will last for ages. Circulars Free. Elleworth Crouch, Oakland, Kansas

The Master's Addre (Continued from page 289.) and now in force, on taxation, transportation, insurance, pure food, and various protective measres.

No one can fully state or even approximately estimate the value of these various laws to the farming interests of this country and to the public welfare. It is safe to say that the laws secured by Grange influence are worth billions of dollars to the American people, and hundreds of millions to the farmers alone.

The following proposed legislation was considered, approved and urged at the 33d, 34th 35th, 36th, 37th, and 38th sessions of the National Grange:

1. Free delivery of mails in the rural districts, and that the service be placed on the same permanent footing as the delivery of mails in the cities, and the appropriations to be commensurate with the demands and the benefits of the ser-

2. Provide for postal savings banks. 3. Submit an amendment to the Constitution providing for the election of

United State Senators by direct vote of

the people.
4. Submit an amendment to the Constitution granting the power to Congress to regulate and control all corporations and combinations, thereby preventing monopoly and the use of their corporate power to restrain trade

or arbitrarily establish prices.
5. Enlarge the powers and duties of the Interstate Commerce Commission, giving it authority to determine what changes shall be made or what practices are discriminative or unreasonable, and their findings to be immediately operative and to so continue till overruled by the courts.

6. Regulate the use of shoddy.

Enact pure-food laws.

8. Provide for the extension of the markets for farm products equally with manufactured articles.

9. The enactment of the anti-trust law, clearly defining what acts on the part of any corporation would be detrimental to public welfare.

10. The speedy construction of a ship canal connecting the Missippi River. with the Great Lakes and the Great Lakes with the Atlantic Ocean.

11. Revising the fees and salaries of all Federal offices and placing them on a basis, of similar service in private

12. Provide for parcels post, telephone and telegraph in the mail service.

13. Provide for National and State aid

to improve public highways. I again recommend to the several

State Granges that they continue to urge upon their respective State Legislatures the enactment of appropriate legislation on the following important

1. Anti-trust law and provision for State inspection of all corporations.

2. Law on taxation that will compel all property to bear its just proportion

of taxation.
3. Pure-food law.

4. Provide State Railway Commission with full power of fixing maximum rates for freight and passenger service on all railways subject to their jurisdiction.

5. Such a revision of the fees and salaries as will place them on an equitable

The Grange stands as a unit for the principles involved in the above proposed legislation, all of which are important and should be speedily enacted into the laws of our country.

One of the most important acts of legislation to be secured at the coming session of Congress is the enlargement of the powers and duties of the Inter-Commerce Commission, so that it shall be given full power to give to the American people just and equitable rates on all railroads and other ansportation facilties. and absolutely prevent discriminations, rebates or advantages arising from the use of the private car system.

President Roosevelt in his last annual message to Congress, said: "The Interstate Commerce Commission should be vested with power where a given rate has been challenged and after full hearing found to be unreasonable to decide, subject to judicial review, what shall be a reasonable rate to take its place, the ruling of the commission to take effect immediately, and to obtain unless and until it is reversed by the

court of review." This is a full and complete approval of the position of the Grange on this most important matter, one that underlies the prosperity of every industry of the country, and especially does it underlie the prosperity of agriculture. Agriculture furnishes 60 per cent of all the freight of our internal and coastwise trade. Agriculture, more than any industry is interested in a just and reasonable rate. The value of every

product of the farm itself, as railroads are now managed, is absolutely in the hands of a few railroad managers. They can raise or lower the price of every product of the farm to the producer and consumer, raise or lower the value of every farm in America, make it possible for agriculture to be reasonably profitable, or practically pauperize the farmers of the country. Government has not given any adequate protection to this loyal and deserving class, but has left them absolutely at the mercy of these corporations.

The time has come when justice should be secured. Patrons, look well to the actions of those who represent you in the Congress of the United States! Observe their actions: listen to their voice; and mark well how they vote upon the pending measures. those who are for the people show it by their voice and vote; and let those who are against the people for the corporations be known also. Every true American citizen should stand for the right, stand for his home, his family, and the best interests of the entire

We live in an age of intense com-mercialism, an age where men will do what a generation ago they could not do and maintain their self respect. I refer to the frauds uncovered in the cities of New York, Philadelphia, St. Louis, Chicago, Milwaukee and other cities of our country, and the recent developments of betrayal of trusts in banks and the three great life insurance companies in New York. These exposures and developments undermine public confidence and will greatly injure the prosperity of our country unless law is vindicated, and those in official or private life who are guilty, are punished and the dignity of law maintained.

We believe all public officials should not only avoid dishonest practices, but should avoid doing anything that could give rise to these suspicions. We believe that officers of State or Nation ought not to accept, or be allowed to accept free passes from transportation We believe every State companies. ought to pay such compensation to all officers that they need not supplement their salaries by any such methods. We believe the public conscience ought to be aroused on this question and such laws passed as will prevent the practice. It is humilating to citizens of the State or Nation to know and believe and observe that their public officials have to accept such gratituties from corporations. It lowers the standard of independent manhood to see men occupying high official position and at the same time placing themselves under implied obligation to transportation companies.

IN MEMORIAM.

The silent reaper has invaded our homes and gathered sheaves of his own selection and borne them to the great storehouse into which all will sooner or later be garnered. We miss the cheerful words and fraternal hand clasp of several loved members who have met with us as members of the National Grange in previous years. Their voices are silent and their fraternal encouragement no longer cheers us in our annual sessions, but the influence of their work and devotion to the principles of our Order will remain forever as an inspiration to greater and better lives. We are called upon to mourn the loss of:

Brother Cyrus G. Luce, Past Master, Michigan State Grange.

Brother A. A. Smith, Past Master Rhode Island State Grange. Sister Perlea M. Dethick, wife of the

Master, Ohio State Grange. Sister A. J. Richardson, wife of Past

Master Tennessee State Grange. Sister C. E. Shipley, wife of Past Master Oregon State Grange.

Sister Emily J. Trimble, wife of Past Secretary of National Grange. Sister J. M. Thompson, wife of Past

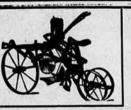
Master Illinois State Grange. Sister Patience B. Hunt, wife of Past Master Maine State Grange.

CONCLUSION.

Eight years ago I was elected Master of the National Grange, an honor, I assure you, I have always appreciated most highly. During this time I have tried to be loyal to agriculture, and to discharge the duties imposed by this Order faithfuly. These duties were easy and pleasant, made so by the fraternal courtesy and loyal support given me by the members.

The Order has prospered during this period, having made a net gain of membership of 78 per cent, and a net increase of the funds of the National Grange of 68 per cent. This gratifying success and prosperity came to the Order, not from any merit of mine, but on account of the united efforts of its members. No factional, sectional or partisan prejudices obtain in the Order to weaken its influence and power. It





The Best Lister

to buy is the one that will do the most satisfactory work with lightest draft and smallest outlay for repairs, these features are all prominent in

The Tongueless Tricycle

the only lister that can be used without a pole. Bottom hangs almost directly between the wheels, and a square corner can be turned with bottom in the ground. It is frameless and has no complicated parts to break or wear out. Driver sees every kernel of corn as it drops. Actual weight 356 pounds. Write to-day for booklet giving complete description and our proposition to

Rock Island Implement Co., KANSAS CITY, MISSOURI





Save Your Clothes

By Washing Them in

A Gee-Whizz Washer

SENT ON FREE TRIAL

It would surprise you to know how much wear and injury clothes receive when washed by rubbing between rollers or heavy lids, jerked around by pegs, or in fact by any friction method.

None of this in the Gee-Whizz as it washes by driving hot soapsuds through the clothing with force and speed, by means of water wheels. No friction on the clothes. Guaranteed to wash perfectly clean in from four to seven minutes.

Galvanized steel tank: No warping and no falling apart. Adjustable to wash anything from a napkin to a quilt, or a length of carpet. Write at once for full particulars and free trial proposition.

Gee-Whizz Mfg. Co., EWalker St. Des Moines, Iowa

has been the pleasure of our members to contribute what they could to increase the prosperity and happiness of each other, to elevate agriculture, promote general prosperity, improve society, and to make brighter, happier and more sunny farm homes in all parts

of our country. This session closes my official term. I return to you the gavel and other insignia of office and shall take my place as an humble member with the great army of Patrons of Husbandry. I need not bespeak for my successor the same loyal and cordial support and courtesy you have extended to me. Your devotion to the Order will inspire you to continue in the future as in the past, to loyally support the officers chosen to preside over your deliberations, to make more effective their efforts to extend, improve, and strengthen the Order that its helpful influence may be felt in every farm home in our land.

As the years come and go, industries of our country will prosper and decline, fortunes will be made and lost. Even government may change its form, but so long as the world stands agriculture will be the foundation of National wealth and prosperity.

There will be an open meeting of Indian Creek Grange at Indian Creek School House in Northern Shawnee County, on the evening of March 29. Following is the programme. Do We Favor National Aid to Highway Improvement?" C. D. Skinner; "Why Should Arbar Day Be Observed?" County Superintendent J. R. Carter. Music. Carl Ball. "Practical Poultry Raising." Mrs. H. K. Evans, followed by discussion by Mrs. O. F. Whitney and Mrs. Merritt. It is expected that Indian Creek Grange will dedicate its new piano at this meeting. Refreshments at the end of the

The Gentle Art of Gardening

(Continued from page 291.)

often found a garden of flowers that was not only pleasant to the passer-by, but which furnished almost the only variety and recreation in lives that had but little of other joys or pleasures. In cities where space and sunlight are at a premium, the roofs and housetops are sometimes utilized as space for

LITERATURE ON GARDENING.

The literature pertaining to the garden has been greatly enriched in recent years, which is another indication of a popular demand for information on things of the garden, and the shelves of any prominent bookstore now carry books and magazines on all branches of this subject. The flower and seed catalogues are handsomely gotten-up and richly illustrated, and while some allowance must be made for exaggerated descriptions, yet in the main they are reliable and full of information, and they have done more than any other one agency to spread a knowledge of and love for flowers and trees and gardens. If the description of a new variety seems too rosy, you may be surprised to find, as I have found, that with the proper care and attention, the new variety even surpasses the descrip-This, of course, may have been due to the superior qualities of our Kansas soil and sunshine. The first catalogue of plants was published nearly three hundred years ago by Gerard, an English botanist who grew and named more than a thousand varieties and species of plants. The first catalogue in the United States was published about one hundred years ago, and now there are many whose annual visits are welcomed as a friend bringing a message of joy and hope and anticipation of the good and beautiful things that may come through the year. The first flower catalogue of my recollec-tion was in the early sixtles when we received that sent out by James Vick, and the truthful descriptions of flowers and vegetables and the clear, practical, cultural directions of his catalogues were written with such a kind friendliness, that when he died thousands of people over this whole land whose lives had been made brighter by his flowers or his kind words, felt that they had lost a personal friend. Probably no man ever did more to spread a knowledge of flowers in this country than did

tmes Vick. Of all books giving practical information about everything to be planted in a garden and the different varieties of plants, whether trees, shrubs, flowers or fruits, with full directions for their care, no one book with which I am acquainted, is so complete as Professor Bailey's "Garden Making." Of other books there is no dividing line between those written for practical information about gardening, and those like the story of "Elizabeth and Her German Garden," or "The Garden of a Commuter's Wife," or "Ellwanger's, the Garden's Story," and many others which It was may be called garden literature. of this class of books that H. W. Beecher said: "Every book which interprets the secret love of trees and gardens, every essay that brings men nearer to the understanding of the mysteries which every tree whispers, every brook murmurs, every weed even hints, is a contribution to the wealth and happiness of our kind."

We have a fine prospect in Topeka of having a collection of trees of native and exotic growth that will soon a very interesting and instructive object lesson to all who care to study At Central Park a start has been made that promises much. Not only most of the ordinary species of trees, but many that are scarcely to be seen elsewhere, have been planted here and are growing well and have endured winters of unusual severity. Several species of magnolia, deciduous cypress, liquid amber, tulip tree, azalia, spinosa, and many choice specimens of shrubs and hardy plants are among the things already established. It is to be hoped that in the part yet to be planted, there may be found room for a specimen, not only of every tree native to Kansas, but of every tree that will grow in this climate.

In the new Willow Park which is to be planted in the near future, as a result of the efforts of the members of this club, it requires no stretch of imagination to picture a place of beauty and rest that will delight beholders for many generations to come.

PRACTICAL RULES.

Coming to a practical discussion of how to make a garden and what to plant in it, I know of no general advice any better than the twelve rules given by George H. Ellwanger, in his

delightful book, "A Garden Story." These rules are good for any garden, large or small.

I. Whatever is worth doing at all is worth doing well.

II. Study soil and exposure, and cultivate no more space than can be main-

tained in perfect order.

III. Plant thickly; it is easier and more profitable to raise flowers than

IV. Avoid stiffness and exact balanc-Garden vases and garden flowers need not necessarily be used in pairs. V. A flower is essentially feminine and demands attention as the price of

its smiles. VI. Let there be harmony and beauty of color. Magenta in any form is a discord that should never jar.

VII. In studying color effects do not overlook white as a foil. White is the lens of the garden's eye.

VIII. Think twice and then still think before placing a tree, shrub, or plant in position. Think thrice before removing a specimen tree.

IX. Grow an abundance of flowers for cutting. The bees and the butter-flies are not entitled to all the spoils. X. Keep on good terms with your

neighbor; you may wish a large garden favor of him some day. XI. Love a flower in advance, and

plant something every year. XII. Show me a well-ordered garden, and I will show you a genial home.

THE GARDEN OF THE FUTURE.

What of the garden of the future? With all the applications of modern science and other arts, what may we expect of improvement in the art of gardening, resulting from scientific re-search and experiment? Does gardening afford a field for the use of modern, scientific knowledge?

For reply: We may surely expect great improvements in all forms of plants, fruits, and flowers, as we become better acquainted with the characteristics and physiology of plants, and with the laws and processes of their growth and reproduction, and are able to make a patient application of their knowledge to the work of hybridization, selection and propagation. The work that has been done and is being done by Mr. Burbank, with his marvelous skill, is already furnishing substantial proof of what may be accomplished, and is probably only a beginning of this great work.

With the magnificent fund provided for research and experiment in this line, and with the attention which the work is receiving from the Government and from earnest men, trained in all branches of science which bear on it, results must surely come that will be full of pleasure and profit to the whole world.

Gardening, while it may be classed as a fine art, has two branches: one, the planning of grounds, the arranging of trees, shrubs, flower beds, garden and other embellishments, which more particularly would require the head and the heart and the eye of the artist; the other branch, that of caring for the plant, its propagation and improvement and the ability to select those plants which under proper conditions may be made to improve the race. Mr. Burbank seems to be a master of this branch of the art, and his success will stimulate others to work in this field.

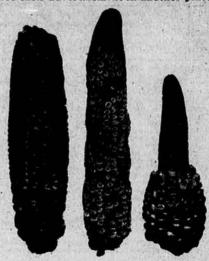
For practical results right here at home, it seems to me that most can be done by stimulating among our friends and neighbors an interest in all that helps in improving and beautifying the surroundings of every home, and especially to show them that there are no deep mysteries about the art, and that for an ordinary house, no great outlay of time or money or fort is necessary, and that for all the outlay given, large returns will surely come, especially to those who love the gentle art of gardening.

Don't Plant Scrub Corn.

Don't Plant Scrub Corn.

Like begets like, as surely as sunset follows sundown. This has been demonstrated a thousand if not millions of times in the kingdom of plant and animal breeding. In the face of this we have wondered a thousand times why some farmers will continue to breed to scrubs and continue to plant scrub varieties of seed-corn, especially when a bushel of seed-corn will plant 7 or 8 acres, and costs by 15 to 20 cents per acre for seed that will give an increased yield of 20 or 30 bushels per acre, making the increased yield at a cost of less than a cent per bushel. In another place in this paper will be found the illustrated advertisement of "Ratekin's Pride of Nishna" yellow dent, which has become so famous all over the Western and Central Western States. Every corn-grower should if he does not already grow it, send to the Ratekin Seed House of Shenandoah, and get a few bushels of this corn for seed the coming season. The price at which

they sell this seed is very reasonable indeed—\$1.25 per bushel, and in 10-bushel lots or more, \$1.25 per bushel See their advertisement in another place



in this issue, and send for their catalogue of all farm-, field- and gardenseeds. It is free if you mention this paper. Address, Ratekin's Seed House, Shenandoah, Iowa.

Both Expensive.

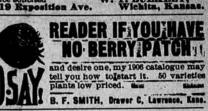
Maggie, "Just think of the money some folks spends on medicine an' things to make 'em well."

Mickey—"An' just think of the money some folks spends on suppers an' things to make 'em sick."—Woman's Home Compaion.

40,000 Apple Trees.

A fine lot of Jonathan and Missouri Pippin 4 to 6 feet high, for sale at Wellhouse orchard. Address H. S. Bul-lard, Tonganoxie, Kans. Price 4 to 6

SWEET POTATOES Yellow Nanse mond. Yellow Drasellians, Southern Queen, for sale. If you buy of me you get direct from the grower. Correspondence solicited W. T. BULKLEY, 319 Exposition Ave.



WRAGG TREES



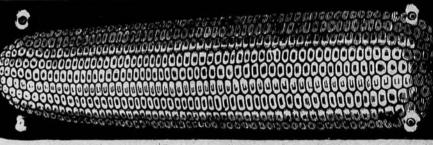
WE PAY FREIGHT. SEND for our handsome catalog of Trees. Shrubs, Roses, Ever-greens, Etc. We deal Direct. Our prices are lowest.

M. J. WRAGG NURSERY COMPANY, 307 Good Block, DES MOINES, IOWA.





nerville Nurs



Ratekin's Pride of Nishna Seed Corn

"Pride of Nishna" is a golden yellow, 16 to 24 rows; deep grains and small cob; matures in 95 to 100 days; of great vitality and strength to resist drouth and other unfavorable conditions, making from 60 to 100 bushels per acre. "Ratekin's Lowa Silver Mine," white, has made the greatest record for large yields of any white corn in the world—averaging 176 bushels per acre in seven states; full counterpart of Pride of Nishna.

Nishna.

Our Seed all grown by us from absolutely pure stock, especially for Seed purposes. All carefully selected, sorted, and butt and tip ends taken off and graded to uniform size. Seed shelled and graded or in the ear. Change your seed while you can get the best; grow bigger and betterforps. SPrice, \$1.35, shelled, sacked on board cars here; 10 bu, or more, \$1.25. Our big Illustrated Catalog of all Farm and Garden Seeds mailed FREE if you mention this paper. Write for it today.

RATEKIN'S SEED HOUSE, Shenandeah, Iewa.

SPECIAL

Homeseekers' Rates

VIA

Rock Island

March 6th and 20th

ROUND TRIP TICKETS at 75 per cent of the one way rate, with minimum \$10.00. ONE WAY TICKETS at 50 per cent of the one one way rate plus \$2.00, with minimum \$6.00.

To points in Arkansas, Oklahoma, Indian Territory, Louisiana, New Mexico and Texas. . . .



For full information see Rock Island Agents.

A. M. Fuller, C. P. A.

TOPEKA, KANS.

Dry Farming Magasine.

The Dry Farming Magazine published at Denver, Colorado, is devoted to scientific soil culture and is edited by Prof. H. W. Campbell, a renowned soil expert.

OUR MARCH OFFER.

To any of our readers who will send in two new subscribers for one year and \$1 we will send on the property of the property of

Colorado Farm and Ranch is the name of a new weekly publication at Sheridan Lake, Colo., edited by Leslie F. Randolph a prominent newspaper man formerly of Kansas. It starts out with a helpful list of Kansas subscribers who are interested in the wonders of Eastern Colorado. The Kansas Farmer has received many inquiries regarding this section of the country. All who are interested should write to Mr. Randolph.

R. F. D. Carriers Like Caustic Balsam.

Fair Grove, Mo., Jan. 30, 1905.
The Lawrence Williams Co., Cleveland, Ohio:
I used Gombault's Caustic Balsam for an extra bad case of ring bone and can say it did good from the first application. I believe it is all you claim for it.

JOHN W. HARTT.

Grain in Kansas City.

Receipts of wheat in Kansas City yesterday were 55 cars; Saturday's inspections were 34 cars. Offerings were small for Monday. The demand was light. Prices were irregularly higher, in some instances unchanged, in others up 2@3c per bushel. The greatest advances were on low grades. The sales were: No. 2 hard wheat, 1 car 76½c, 2 cars 75c, 4 cars 74½c; No. 3 hard wheat, 1 car 76½c, 2 cars 76c, 2 cars 74c, 3 cars 73½c, 1 car 78c, 1 car 72½c; No. 4 hard wheat, 1 car 70½c, 3 cars 70c, 2 cars 67c; rejected hard wheat, 1 car 64c, 1 car 63c, 1 car 62c; No. 2 red wheat, 1 car 63c, 1 car 62c; No. 2 red wheat, 1 car 90c; No. 3 red wheat, 1 car 80c; No. 4 red wheat, 1 car 75c.

Receipts of corn were 40 cars; Saturday's inspections were 29 cars. The demand was fair and the offerings small. Sales were made at ¼ @ ½c advance, as follows: No. 2 white corn, 1 car 40c; No. 3 white corn, 1 car 40c; No. 2 mixed corn, 1 car 38½c; No. 4 mixed corn, 1 car 38½c; No. 3 mixed corn, 12 cars 38¾c; No. 4 mixed corn, 1 car 36c.

Receipts of oats were 16 cars; Saturday's inspections were 15 cars. The increased offerings met with fair demand and prices were in the main unchanged, as follows: No. 3 white oats, 5 cars 30½c, 1 car 31c; No. 2 mixed oats, 1 car 30½c, 1 car 31c; No. 2 mixed oats, 1 car 20½c.

Barley was quoted 36@37c; rye, 56@5c; Kafir-corn, 58@60c per cwt.: bran, 36@37c per cwt.: shorts, 90@95c per cwt; corn-chop, 75@77c per cwt.

South St. Joseph Live Stock Market.

South St. Joseph Live Stock Market. South St. Joseph, Mo.. March 12, 1906.

Supplies of cattle at the five leading markets to-day were 16,000 less than the number in sight on last Monday, and as result of increased marketing, steer values dropped 10c all around. Cows and heifers were only in moderate supply, and the market ruled active to strong, 10c higher. Bulls and veals were in good demand and steady. Receipts of stockers and feeders were considerably larger than was expected, and buying was comparatively free of desirable qualities at prices fully steady with the low close of last week. Following are current quotations: Native steers \$4.10.76; Texas and Westerns \$3.75.75 (owns and heifers, \$1.65.76 (4.60; bulls and stags \$1.90.04.65; veals \$3.06.75; yearling calves \$2.50.03.75; stockers and feeders \$3.04.50.

There was a very general increase in supplies of hogs at all points to-day, as

yearling calves \$2.50@3.75; stockers and feeders \$3@4.50.

There was a very general increase in supplies of hogs at all points to-day, as compared with corresponding day last, week, and buyers took occasion to depress values. The opening prices were around 2½@5c lower than general trade of Saturday with more selling 5c lower than any other way. Prices ranged from \$6@6.25 with bulk selling at \$6.20 @6.25. The country should keep in mind that packers will depress values on any increased receipts, therefore, little rallies should not be followed very closely, and shipments should be made as soon as ready. Demand here contines very strong, and prices are being maintained at a very high level, as compared with competitive points.

The receipts of sheep are in excess of 10,000 to-day, and the market was active and steady on all offerings, lambs selling up to \$6.70 and ewes at \$5.40.

Kansas City Live Stock Market.

Kansas City Live Stock Market.

Stock Yards, Kansas City, Mo.,
Monday, March 12, 1906.

As a result of light cattle receipts last week, the market closed the week 15@25c higher on killing cattle than close of previous week. Some sales of helfers showed even a greater advance, while stocker and feeder trade slacked up a little after first of the week, account of absence of buyers. Yard traders were unable to make a good clearance, although the supply was light and they reduced prices 15@25c from the high time of the week. Bad country roads and muddy feed-lots and soft fields are given as the reasons for buyers staying at home.

The cattle run to-day is 12,000 head, containing a good proportion of beef steers. Market is steady to 10c lower. Buyers were unable to fill their orders last week and packing houses are killing up clean, but orders for meat are not as urgent as a few weeks ago. The supply to-day is three to four thousand greater than either of the last two Mondays, but the run for last week was only 31,000 head, a reduction of 10,000 from the week before. Top steers sold at \$5.90 last week, top to-day \$5.45, bulk of sales \$4.75@5.30. These prices are 25@40c higher than at this time last year, when we were en the eve of the

KANSAS FARMER.

Established in 1868.

Published every Thursday by the Kansas Farmer Co., Topeka, Kansas

SUBSCRIPTION PRICE: \$1.00 A YEAR

Entered at the Topeka, Kansas, postoffice as second-class matter.

ADVERTISING RATES.

ADVERTISING RATES.

Display advertising, 20 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, \$1.52 per inch per week.

Special reading notices, 30 cents per line.
Special rates for breeders of pure-bred stock.
Special rates for breeders of pure-bred stock.
Special want Column advertisements, 10 cents per line of seven words per week. Cash with the order.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

well known to the publishers, or when acceptable references are given.

All new advertising orders intended for the current week should reach this office not later than Monday.

Change of copy for regular advertisment should reach this office not later than Saturday previous to publication.

Every advertiser will receive a copy of the paper free, during the publication of the advertisement.

Address all-communications to

KANSAS FARMER CO., 116 West Sixth Ave., - Topeka, Kans.



Special Hant Column

"Wanted," "For Sale," "For Exchange," and small want or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials or a number counted as one word. No order accepted for less than \$1.00.

CATTLE.

HOLSTEINS—Bull calves 6 and 10 months old—good ones. H. B. Cowles, Topeka, Kans.

REGISTERED Aberdeen-Angus cattle for sale. Fifteen bulls from 10 to 20 months old; 15 heifers from 1 to 2 years old; 15 heifers from 2 to 3 years old; 25 cows some with calves at side. I am making farmers prices on all or a part of the above cattle as I do not have room for them this summer. Heather Eclipsen 33761 in service. A. L. Wynkoop, Hendena, Kans.

FOR Red Polled bulls or heifers write to Otto Young, Utica, Kans.

FOR SALE—Holstein-Fiesian bull calves. Address Hughes & Jones, Route 2, Topeka, Kans.

MILK COWS FOR SALE-By V. B. Howey, Route 1, Topeka, Kansas.

FOR SALE—A herd of registered Red Polled cat-tle at a bargain. I. Sandusky, Route 9, Wichita, Kan

FOR SALE.—Registered Hereford bulls, 18 to 24 months old, by Prime Rupert 4th; also car high grade yearling bulls. Duff & Sons, Horton, Kansas.

RED SHORTHORN BULL for sale. A. C. Rait, R. R. 4, Junction City, Kans.

FIVE REGISTERED HEREFORD BULLS for sale. all good individuals. Eight months, 9 months, 1 year, 20 months, and 4 years are their respective ages. Cooper Monroe, Lyons, Kaus., R. F. D. 5.

FOR SALE — One registered double-standard Polled Durham bull, 2 years old in March, 1906, color dark red. Will consider trade for females of the same class of stock. Address Jacob J. Yoder, Haven, Kans. R. R. 2.

FOR SALE—The great show and breeding buil, 198 Duke Wildwood 148143, that took 4th place at the Kansas City Royal in 1904; also 20 cows and heifers all choice individuals, some show stuff. George Manville, Fawcette, Mo.

GALLOWAY BULLS-4 head, 16 to 18 months old, suitable for service. All registered. Address C. A. Kline, R. F. D., Tecumseh, Kans.

FOR SALE—Hereford bulls, choice and blocky, aged 8 months to 2 years. J. W. Tolman, Hope, Kans.

ABERDEEN-ANGUS CATTLE and Percheron horses. Stock for sale. Garret Hurst, breeder, Peck, Sedgwick County, Kans.

FOR SALE—Registered Galloways. Bulls, cows and helfers, singly or in car lots. Dean Bartlett, St. Marys, Kans.

PEDIGREED SHORTHORN BULL 3 years old; sire Magenta, who cost \$1,000 at 8 months. Cheap. S. J. Rentz, Leavenworth, Kans.

CHOICE registered Shorthorn bulls and helfers, cheap. M.C. Hemenway, Hope, Kans.

boom prices paid in April. Heifers and steers mixed sold at \$5.35 last week, choice heifers bring \$4.50 @5, best heavy cows \$4.60, bulk of she stuff \$3.25 @4.40, bulls \$3@4, canners and stock cows and heifers \$2.25@3.25. Veals sell up to \$7 again. Feeders range from \$4@4.75, stockers \$3.35@4.50, some low grade stuff \$2.85@3.25.

Hog supply last week was 42,000 head, a decrease of 10,000 from the week before, and smallest run this year. Prices advanced 5@15c during the week. The run to-day is 7,000 head, market weak to 5c lower, tops at \$6.25, bulk of sales \$6.10@6.20, light weights up to \$6.15. At no time this winter have packers been able to accumulate any stocks of pork products, and it is believed that prices will continue strong even if the run improves with better shipping conditions in the country. Prices are \$1.25 higher now than a year ago.

Sheep and lamb run was 42,000 last

Prices are \$1.25 higher now than a year ago.

Sheep and lamb run was 42,000 last week, fully up to the average lately. Lambs sold a shade lower, but aged sheep continued scarce and firm. Supply to-day is 7,500, market strong to 10c higher, including lambs, which ranged from \$6.35@6.75 to-day. Ewes sold to-day at \$5@5.35, yearlings \$6, wethers not tested but quotable at \$5.70 @5.90. Bome thin lambs, shipped in because feeders ran out of feed, sold last week to be finished out at \$5.70 @5.90.

J. A. RICKART.

FOR SALE—The pure Cruickshank bull, Violet Prince No. 14547. Has been at the head of our herd as long as we could use him. An extra animal. H. W. McAfee, Topeka, Kans. 2 miles west of Kansas Ave. on Sixth street road.

FOR SALE—Registered Jersey cattle. Two year-ling bulls. Sires—A son of Bessie Lewis, 32 lbs. but-ter 7 days. and "Financial Count" (Imported); granddam held Island butter record 3 years. Sire's dam holds public milk record of 58 pounds daily, and his dam and Island winner in class for two years. Her four dams 22 to 28-quart cows, and all winners. Sayda Polo Jersey Farm, Parsons, Kansas.

REGISTERED GUERNSEY BULLS—Ready for service. Also pure-bred Scotch Collie pupples. Dr. J.W.|Perkins, 422 Altman Bldg., Kansas City, Mo.

I HAVE for sale about 1150 sheep, 800 ews, 800 mixed yearlings and 30 rams; large, smooth merinos; good shearers, at \$4.00 per head; come and see them, they are worth the money. E. H. Boyer, Meade Co., Meade, Kans.

HELP WANTED.

WANTED-Man to milk 25 cows and seperate cream. Will pay \$25 per month, steady job to the right man. Miller Bros., The 101 ranch, Bliss, O. T.

FARM and ranch hands furnished free. Western Employ Agency, 704 Kansas Ave., Topeka, Kans.

WANTED—Single man on farm, must be conge nial with stock. F. M. Linscott. Farmington. Kan

HORSES AND MULES.

FOR SALE—Black Mammoth jack, 3 years old past, 14½ hands high; perfect and first-class in every respect and guaranteed; \$600 if sold before April 1st. A. E. Cooper, Halstead, Kans.

FOR SALE CHEAP and must be sold—Two stal-lions, one black registered Percheron, sound and good, weight 1,700 pounds; one dark brown coacher, sound and good, weight 1,300 pounds. One clipping machine, can be run by engine, motor, or by tread power. Dr. Hugh S. Maxwell, Salina, Kansas.

FOR SALE OR TRADE—For stock cattle, two Jacks coming 3 years old, 15½ hands high; weight 950 pounds; also one 4 year old Jack 14 hands high. Good performers. Also pacing-bred stallion by Silkwood, 16½ hands high, weight 1,250. Address J. C. Hentzler, R. 2, Topeka, Kans.

FOR SALE—At reasonable prices, Black Imported Percheron stallions, E. N. Woodbury, Cawker City, Kans.

LEAVENWORTH COUNTY Jack Farm, 10 head of jacks and jennets for sale. Corson Brothers, Potter, Kans.

FOR SALE—Registered French draft and Percheron stallions, mares and coits; bays, browns and blacks. One gray stallion, 13 years old, sound and sure. Jake Howald, Hoyt, Kans.

LOST OR STRAYED—Brown mare, weight LOST OR STRAYED—Brown mare, weight 1,100 pounds, white spot in forehead, barb wire cut on side, somewhat swaybacked. Suitable reward for return. J. W. Gillard, 825 Highland Ave., Topeka, Kans.

SWINE.

FOR SALE—20 good strong spring and yearling Berkshire boars that are just what the farmers want. Prices right. Address E. W. Melville, Eu-dora, Kansas.

POULTRY. PARTRIDGE COCHINS—Toulouse Geese, pure-bred; farm raised. Eggs \$1 per 13 and 7. Mrs. O. A. Rhoads, R. 6, Columbus, Kans.

CHOICE WHITE WYANDOTTES - Farm range. Eggs 75 cents per 15. Henry Harrington, Clearwater, Kans.

TWENTY - SIX PURE Black Langshan eggs for \$1. Mary McCaul, Elk City, Kans.

BLACK LANGSHANS-Bred by W. F. Cox, Clifton, Kansas. Eggs for sale at \$2 per 15.

CORNISH INDIAN GAMES—Raise chickens for meat and eggs; not for fat and feathers. For the best meat and eggs in the world, buy a sitting of eggs, \$1.50 and \$2 per sitting. L. Horst, 400 West 10th, Newton, Kans.

STAY WHITE — S. C. W. Leghorns and Buff Rocks. Winners at State Fairs. Eggs, \$1 per sit-ting. J. W. Cook, Route 3, Hutchinson, Kans.

S. C. B. LEGHORNS—Beautiful fowls, fine markings, splendid layers. Eggs, \$1 per sitting; \$5 per hundred. Mrs. D. M. Evans, Edgerton, Kans.

BARRED PLYMOUTH ROCK EGGS—From large, beautiful, pure-bred chickens, only \$1 per, 15; \$5 per 100. Mattie Shearer, Frankfort, Kans.

RHODE ISLAND RED EGGS for sale at \$1.25 per 15 eggs, or \$2 per 30 eggs. Mrs. G. F. Kellerman, "Vinewood Farm," Mound City, Kans.

BARRED AND WHITE ROCK EGGS—\$2 per 15; \$5 per 45 from our best matings. Hawkins & Brad-ley strain, scoring 94 to 96. 17 years experience with poultry. Mr. and Mrs. Chris. Bearman, Ottawa, Ks.

FOR SALE OR TRADE—One good black jack, with white points, 15½ hands high, 7 years old, a good individual and a good breeder, or will exchange for good dary or pure-bred beef cattle. Address John L. Stanley, Nyhart, Bates Co., Mo.

BARRED PLYMOUTH ROCKS - Exclusively. Eggs, \$1 for 15; \$1.50 for 30; \$4 per 100. T. B. Wilson, Route 7, Osage City, Kans.

FOR SALE—Light Brahma and White Wyandotte cockerels. I have a few high-scoring ones left, as it is getting late I will now offer them at a bargain, \$2 to \$5, scoring 92 to 94. Satisfaction guaranteed. Eggs, \$1 to \$2 for 15; Buff Cochin Bantam eggs, \$1 to \$2. Mrs. J. R. Kenworthy, Wichita, Kas.

BARRED PLYMOUTH ROCKS — Either cockerel or pullet. Mating pens headed by 91½ to 93 point birds; females 91½ to 93¾. Eggs, \$2 per 15. Utility pen cocks, 91 to 92½; \$1 per 15, \$5 per 100. Silver Penciled Wyandottes headed by "Patsy." Ist cock Detroit 1904, score 94½; females 87 to 91. Eggs, \$2 per 15. Mrs. Chas. Osborn, Eureka, Kans.

Barred Plymouth Rocks

Exclusively—"Superior Winter Laying Strain" noted for size and quality. Seventeen years of careful breeding. Eggs, 15 for 81; 30 for \$1.50.
E. J. Evans, Route 4, Fort Scott, Kansas.

S. L. Wyandottes

Indian Runner ducks. Our Wyandottes have been line bred for 20 years and never fall in any company. Our yards are headed by Silver Prince, the 1st cock at the Kansas State Show, and three his cockerels. Stock for sale. Eggs, \$2 per sitting. his cockerels. Stock for sale. Eggs, \$2 per sitting.
Incubator eggs, \$5 per hundred. Duck eggs, \$1.50

M. B. CALDWELL, Broughton, Kansas

SEEDS AND PLANTS.

SIXTY-DAY OATS—Recleaned, \$2.00 per 100 lbs. sacked. C. E. Cheney, Manchester, Kans.

FOR GOOD SEED-Speltz, recleaned and fanned by hand. Write Adams & Walton, Osage City, Kan

FOR SALE—Speltz, 50 cents; macaroni wheat per bushel, f. o. b., sacked. One Sure Hatch incubator and brooder, all in good shape, 150 egg size, \$6.00 J. B. Keeley, Sterling, Kans.

FOR ONE DOLLAR—I will send you 300 straw-berry plants, 5 best kinds or 100 raspberry plants, 8 best kinds, or 100 blackberry or 200 asparagus or 25 grapes or currants or gooseberries; also have roses carnations and other flowering plants. Send for cat-alogue. A. J. Nicholson, Manhattan, Kans.

FOR SALE.—Kherson Seed Oats, recleaned, finest quality, 75c. per bu.; 10 bu. lots, 80 cents. Sacked, f. o. b. Achenbach Bros., Washington, Kansas.

ONE DOLLAR will buy enough of McCau-ley's white seed corn to plant seven acres if you send to A. J. Nicholson, Manhattan, Kans.

SMALL FRUIT PLANTS—For price list, which also contains a full description of the prize strawberry, Cardinal, send to Wm. Brown & Sons, Route 9, Lawrence, Kans.

FRUIT TREES half price, best quality. Cat-alogue free. Baldwin, Seneca, Kans.

FOR SALE—Spring of 1906 seed sweet pota-toes, six kinds. Prices on application; also a fine lot of eating sweet potatoes. I. P. Myers, Hayesville, Kans.

SEED CORN—"Hildreth yellow dent easily ranks first as the best producing variety."—Bulletin 123. Won three first premiums at Topeka and Hutchinson State Fair 1996. At the Kansas State corn-breeders' context 1996, won ist and 2d prise for the most productive acre—103 and 78½ bushels. Write to C. E. Hildreth, corn-breeder and grower, Altamont, Kans.

MISCELLANEOUS.

GOOD DATRY BUSINESS and route for sale or trade (only route in county seat); business amounts to five thousand yearly. Address D. S. Burnham, Minneapolis, Kans.

HOME Correspondence Club is reliable. Object matrimony. Send stamp for particulars. 236 Jefferson, Detroit, Mich.

236 Jefferson, Detroit, Mich.

SPECIAL ADVERTISING OFFER—Send your photo, any style, bust, or full figure, alone or in group, with 70 cents in stamps or money order and receive fifteen dainty ministure cabinet photos mounted on pretty, new style folder cards, sise about 2/325 inches, copied separately in bust form from your ploture. Original photo returned and copies guaranteed perfect reproductions. Don't miss this special offer. Hit of the season. If more than 15 wanted add 4 cents for each additional print. Cash must accompany order. Address E. R. Gregg, Gregg's Studio, Emporia, Kans.

STRATED OR STOLEN from my farm, 2 bay horses, weight about 14 or 15 hundred pounds, one with blaze face, glass eyes, feet white; other, one hind foot white, patch of hair off of right jaw. Suitable reward for return. Allen Flesch, Route 1, Garfield, Pawase County, Kans.

ENSILAGE CUTTER—For sale a nearly new Smalley cutter, self feed, 10 ton capacity per hour. Will sell at a bargain. Address E. W. Adams, Berryton, Kans. Topeka Indepen-dent 'phone 8502.

WANTED—At once, sound young men for firemen and 'brakemen on railways; high wages; promotion; experience unnecessary; instructions by mail at your home; hundreds of good positions now open. Write National Railway Training Association, 620 Paxton Block, Omaha, Neb.

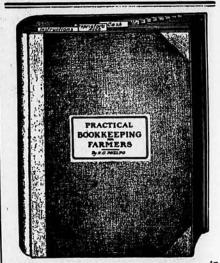
EARN FROM \$87.50 to as high as \$155.50 per month. Wanted—400 young men and sound men of good habits to become brakemen and fremen. Big demand in Wyoming, Nebraska, Kansas, Colorado, and Missouri. Instructions sent by mail; stamp for reply. Northern Railway Correspondence School, Room 202 Skyes Block, Minneapolis, Minn.

LADIES—To do piece work at their homes. We furnish all material and pay from \$7 to \$12 weekly. Experience unnecessary. Send stamped envelope to Royal Co., Desk 49, 34 Monroe St., Chicago, Ill.

Stray List

Week Ending March 15.

Sheridan County-Miles Gray, Clerk.
PONY-Taken up by Miles F. Rilley in Prairie
Dog tp., April 14, 1905, one black female pony.
weight 700 to 800 pounds, blaze face and 2 white hind
feet.



The farmer's guide to success in farming. 200 pages 10x13 inches. 20 pages of instructions and illustrations. A full set of farm accounts worked out. The remainder of the book for use in keeping accounts. The results of a whele year's business are shown on an epage which will show the farmer the cause of success or failure. Will last the average farmer three years. Price \$3.00. For a short introductory period the price will be \$2.00 delivered. Descriptive circular and testimonials free. Send us ten 2-cent stamps and we will mail you our latest book—2 50-page book on Business Writing and Lettering; or we will send you both books for \$2.15, regular price \$4.00.

Address H. G. Phelps & Co., Bessense,