



Volume XLIV. Number 21

TOPEKA, KANSAS, MAY 24, 1906

Established 1863. \$1 a Year

THE RAILROAD RATE BILL PASSES THE SENATE.

After one of the most notable contests of its history, the U. S. Senate on last Friday passed the bill conferring additional powers upon the Interstate Commerce Commission. There were but three dissenting votes. The bill received several amendments after it came from the House, which body it had passed by a vote almost unanimous, there being but four opposing votes.

It is conceded that most of the Senate amendments strengthen the measure. The most prolonged contest was over the court-review amendment. It is believed, however, that this amendment but expresses and defines the constitutional authority to review the findings of the commission.

The principal purpose of the railroad rate bill passed is to permit the Interstate Commerce Commission to fix rates. The provision conferring this authority is found in the fourth section of the bill which amends section 15 of the interstate commerce law so as to accomplish this result. That section directs the commission to investigate complaints of unjust and unreasonable charges on the part of the common carriers in the transportation of persons or property, or of regulations or of practices affecting such charges. It also authorizes an inquiry as to whether the rates or practices are "unjustly discriminatory or unduly preferential or prejudicial or otherwise in violation of the act," and in case any of these conditions are found to exist, the commission is empowered to determine and prescribe what will be the just and reasonable maximum rate, and what regulation or practice is just, reasonable, and fair. Further authority is given the commission to enforce its orders, and they are to go into effect within thirty days and continue in force for two years unless suspended, modified, or set aside by the commission or by a court of competent jurisdiction. Other powers conferred by this section are to apportion joint fares, establish through routes and maximum joint rates and prescribe their division, and to determine the compensation to be paid to shippers doing service for carriers.

Section 16 of the present law is so changed as to provide for an award of pecuniary damages to complainants found entitled, and in case payment is not promptly made in accordance with this award, the beneficiary is authorized to file suit in a United States Circuit Court to compel compliance. The finding of the commission is to be received as prima facie evidence of the facts in such suits, and the petitioner is absolved from all liability for costs. Another provision renders legal the service of the orders of the commission through the mails, and provides that these orders shall take effect thirty days after service unless suspended or modified by the commission or suspended or set aside by the courts. A penalty of \$5,000 for each offense in disobedience of the order is imposed, and the penalty is to accumulate at the rate of \$5,000 a day in case of continuous violation. Orders other than those for money payments are to be enforced by the Federal courts through writs of mandamus or injunction, and in case of appeal to the Supreme Court these cases are to be given preference over all others except those of a criminal character.

The bill was amended by the Senate so as to give the United States Circuit Courts jurisdiction to entertain suits brought to annul or change the orders of the commission, and to provide

against the granting of interlocutory decrees without hearing, and making appeals from such orders direct to the Supreme Court.

Other provisions extend the definition of the word "railroads" so as to make it include switches, spurs, tracks, terminal facilities, freight depots, yards, and grounds, and defines the word "transportation" so as to make it embrace cars and other facilities for shipment or carriage, "irrespective of ownership or of any contract," the intention being to make the railroads responsible for all special car service. It is made the duty of carriers to furnish special car service upon reasonable request.

Senate amendments include oil pipelines, express companies, and shipping-car companies under the head of "common carriers," and make them amenable to the requirements of the bill. Other Senate modifications prohibit the issuance of passes or the granting of special favors to one class of passengers over another, prohibiting railroad companies from transporting commodities produced by themselves; require such companies to put in switches at the reasonable request of shippers; prohibit the granting or acceptance of rebates, and reinstates the imprisonment penalty for violation of the law.

There are also changes in the law relative to the reports to be required of common carriers; and a penalty of \$100 a day is imposed for failure to comply with the report requirement.

The commission is given access to the accounts of the companies affected by the act, but examiners are forbidden, under penalty of heavy fine and long imprisonment, from divulging the facts ascertained. Fines of \$500 for each failure to keep proper accounts is provided. A falsification of accounts is made punishable by fine and imprisonment.

Circuit and District Courts of the United States are given jurisdiction over all complaints by the commission on failure to comply with its orders, and such courts are required to issue writs of mandamus compelling such compliance.

The bill will now go back to the House, where the Senate amendments will be considered. These amendments are believed to make the bill a more effective measure than when it left the House. There may be some discussion of various provisions; but the two houses are practically agreed on the leading features of the bill. They will doubtless concur in a wise and effective measure which will soon become a law.

The opponents of the bill had no hope of defeating it when it should come to a vote in the Senate. Their tactics heretofore have been by repeated delays and postponements to prevent a vote until adjournment killed the bill. But for the persistence of President Roosevelt in centering public attention upon this important subject, the program of delay would probably have been again effective. The tremendous influence of the President as the exponent and leader of the people finally became irresistible and prevailed. It is worthy of note that in their desperation the apostles of delay placed the management of the bill in the hands of a Democrat, and that nearly all of the minority Senators supported the President in the contest. In common with most other Western Senators, Senator Long, of Kansas, was heartily with the President, and was recognized as a leader in the contest, not only to bring the bill to a vote, but in favor of such amendments and such only as would give an effective measure.

SENATORS AND THE RATE BILL.

Following is the record of the vote in the Senate on the passage of the rate bill:

Yeas—Alger, Allen, Allison, Ankeny, Bacon, Bailey, Berry, Beveridge, Blackburn, Braden, Bulkeley, Burkett, Burnham, Carmack, Carter, Clapp, Clark of Montana, Clark of Wyoming, Clarke of Arkansas, Clay, Crane, Cullerton, Cullum, Daniel, Dick, Dillingham, Dooliver, Dryden, Elkins, Flint, Foster, Frazer, Frye, Fulton, Gallagher, Gearin, Hale, Hansbrough, Hemmaway, Hopkins, Kean, Knox, La Follette, Latimer, Lodge, Long, McCreary, McCumber, McInerney, McLaurin, Mallory, Martin, Millard, Nelson, Newlands, Nixon, Overman, Penrose, Perkins, Piles, Rayner, Scott, Simmons, Smoot, Spooner, Stone, Tallaferro, Teller, Tillman, Warner, Wetmore—71.

Nays—Foraker, Morgan, Pettus—3.

The absentees were:

Messrs. Aldrich, Burrows, Burton, Depew, Dubois, Gamble, Gorman, Heyburn, Kittredge, Money, Patterson, Platt, Proctor, Sutherland, and Warren.

RIGHTS CONCERNING STREAMS.

EDITOR KANSAS FARMER:—I live at the Junction of the Big and Little Blue Rivers. My farm lies on both sides of the river. The lines cross the rivers, that is, the rivers are a part of the farm. Is the river in this case a public way and has any person a right to boat up and down the river through my farm? Our county attorney seems to think the public has a right to the river. Please publish the law on this point. It will be a benefit to others. J. L. RODKEY, Marshall County.

The ordinance of Congress of July 13, 1787, providing for the government of what was then called the "North-west Territory" including the country north and west of the Ohio River, declared it to be a fundamental principle, forever unalterable, that the navigable waters leading into the Mississippi and St. Lawrence, and the carrying-places between the same, should be common highways and forever free. To make sure of this provision it was declared in no less than eight subsequent acts of Congress, that all navigable waters in the Western States and Territories shall be public highways. These precautions may have been deemed necessary in consideration of the fact that, according to the Common Law, a navigable stream usually meant only that part of the stream in which the tide ebbs and flows. The acts of Congress made applicable the Civil Law definition which extends the use of the term "navigable" to "any stream capable of and useful for commercial navigation."

So great pains on the part of Congress to declare the rights of the public on Western streams, capable of and useful for commercial navigation, almost implies the non-existence of these rights on streams not capable of commercial navigation.

The uncertainty in the minds of some with reference to these matters probably results from confusing the doctrine of riparian rights, namely, rights to the use of the water in a stream for domestic and industrial purposes—with rights of navigation. Riparian rights apply to all streams, both great and small.

There are streams which are not navigable under any accepted definition from which no man has a right to exclude other persons. Thus the Kansas River is not used nor is it capable of use for "commercial navigation,"

but the land under this river belongs to no individual; the surveys of the United States extended only to the banks or to the water's edge, and the fractional subdivisions bordering on the river were sold as such. Streams on which the surveys thus terminate are called "meandered" streams. Some of them are at times destitute of surface water, but their beds are "common" property, owned by the public. The upper Arkansas River is a prominent example of this class of streams. Streams not meandered were sold with the land, and control of their occupancy goes to the owner to the same extent as if there were no water flowing over the land owned. It is true that the owner of the land is bound under the law of riparian rights to abstain from wasting the water; he may not divert it from its natural channel to the hurt of others either above or below him on the stream, but he has the same right to protect his property from trespass or intrusion as if riparian rights did not exist. He may extend his fences across the stream, and may resort to all means of exclusion that he might use as to any other part of his possessions.

The Blue River was meandered only to the south line of Marshall County. North of that line the land under the streams was sold by the Government, and is subject to control by those who have succeeded to its ownership.

EAVESDROPPING.

EDITOR KANSAS FARMER:—Will you please answer through the columns of your valuable paper the following questions: What is the law regarding eavesdropping in Kansas? Is it punishable? If so what is the penalty? Is "rubbering" over the telephone considered the same as eavesdropping? Cloud County. J. T. S.

Flagrant and persistent eavesdropping may amount to a disturbance of the peace, an offense punishable under the laws of Kansas which provide, chapter 100, section 318, as follows: "Every person who shall willfully disturb the peace of any person, family, or neighborhood, shall upon conviction thereof be fined in a sum not exceeding one hundred dollars, or by imprisonment in the county jail not exceeding three months."

The Supreme Court held, 35 K. 387, that where the conduct complained of is directed primarily against some person other than the prosecuting witness and his family, and is wrongful and wilful, and the natural and necessary consequence of such conduct is to disturb the peace and quiet of the prosecuting witness and his family, the accused may be convicted.

Eavesdroppers are defined in the criminal law to be such persons as wait under walls or windows or the eaves of a house to listen to discourses, and thereupon to frame mischievous tales. The common-law punishment for this offense is fine and finding sureties for good behavior, as stated by Blackstone.

The term eavesdropping may well be applied to the detestable practice of listening to others' conversation on a party-line telephone. The sense of degradation which every right-minded person must feel after such eavesdropping—if, indeed any right-minded person were ever guilty of so detestable a practice—ought to be sufficient punishment to prevent repetitions of the act. Whether the courts would hold such offense punishable as a disturbance of the peace would probably depend upon the degree of disturbance inflicted. It is easily believable that such acts

might become so grievous as to be punishable at law.

On most party telephone lines there is a general call to which all may and should answer. This general call has many uses. On some lines frequented by tramps or other undesirable persons, the general call has been used to give notice all along the line of the presence of such persons. So, too, interesting news is communicated. A case was reported a few months ago, in which the general call brought quick and abundant help in a time of need. A widow was disturbed at night by a drunken man who insisted on seeing her. She sent a general call along the line and stated the case. In a few minutes horses' feet were clattering over the road and neighbors were arriving armed with rifles, shot-guns, revolvers, pitchforks, rakes, neck-yokes, single-trees, etc.

The ethics of the telephone should confine all listening to messages intended for others strictly to those announced by the general call.

BURTON.

The Supreme Court of the United States rendered a decision last Monday sustaining the finding of the lower court in the case against Senator Burton, of Kansas, charged with receiving money for appearing before the Post-office Department in the interest of a St. Louis "get-rich-quick" concern, while holding the office of a Senator of the United States.

Such practice is forbidden by a law of Congress.

Five years ago J. Ralph Burton had been elected to the United States Senate. He had ability, ambition, opportunity. To-day he may well say that, without the fine of \$2,500 and the six months in jail to which he has been sentenced, his punishment is great. Ambition is shattered, opportunity gone.

It has been pleaded in extenuation that others have committed like offenses. Perhaps Burton is unfortunate in being the first victim of the awakening determination of the country to purge corruption out of high places of trust.

The court has granted sixty days in which to make application for a rehearing. This with other delays may carry the case over to near the end of Mr. Burton's term. It is intimated, however, that the Senate will declare his seat vacant. While drawing his salary as a Senator, he has not performed the duties of a Senator since his first conviction many months ago.

MEASURING HAY IN THE STACK.

EDITOR KANSAS FARMER:—Please give me the rule in THE KANSAS FARMER for measuring prairie hay in the stack. Also the number of cubic feet in a ton of prairie hay in the stack.

IVERSON NITTS.

Montgomery County.

G. E. Goddard, Cochrane, Alta Vista, gave to the Nor-West Farmer the following rule: "Add the width to the overthrow, divide by 4, square the result, multiply by the length and divide by 512. This will give you the number of tons after the stack has settled for thirty days. The advantage of this rule is that the shape of the stack does not matter. By adding the average width to the average overthrow, you practically put the tape round the stack. Taking a fourth of this gives you one side of the square, which, multiplied by itself, gives the square feet in the end of the stack. This again multiplied by the length, would, of course, give the number of cubic feet in the stack, 512 of which is the general measurement allowed to a ton here thirty days after putting up; or 420 cubic feet for hay that has been up over six months."

Roop's Commercial Calculator speaks of the number of cubic feet in a ton of hay as follows:

"The quantity of hay in a mow or stack can only be approximately ascertained by measurement. Good timothy hay, when thoroughly settled, will take about 350 cubic feet to make a ton. If only partly settled, from 400 to 450 cubic feet; while new hay will take 500 cubic feet and over."

ROAD WORK QUESTION.

EDITOR KANSAS FARMER:—Please answer the following question through the columns of the KANSAS FARMER: If a man works out his poll tax in an outside district and receives a receipt for the same can the road-overseer in his own district compel him to work out the tax again the same year?

Saline County. O. R. O.

The new road law enacted by the last Kansas Legislature places the roads of

the township under the control of the township board and requires such board to receipt for all labor performed on the roads. This new law specifically continues in force the old law which requires that each able-bodied man between the ages of 21 and 45 years do two days' work on the road each year. These two laws are not neatly joined together. The old law requires the road-overseer to receipt for work done in his district. The new law authorizes the township board to divide the township into not more than four road-districts, and to appoint an overseer to direct the work in each district, but it does not authorize such overseers to issue receipts for labor.

It is difficult to predict what construction the courts will put upon the overlapping provisions of the two laws. The latest enactment constitutes the township the unit with authority to subdivide it, and requires the township board to issue receipts for work done in the township. A fair construction would give credit and a receipt for work done under legal direction in any part of the township.

The case is not worth the expense of a lawsuit, and officers in charge should look at the equities and govern their actions accordingly.

BLOCKS OF TWO.

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, and one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, The Kansas Farmer Company, Topeka, Kans.

As THE KANSAS FARMER goes to press this week, a generous rain is falling upon the thirsty soil. To this time the season's deficiency of precipitation is about three inches. In Eastern Kansas the first crop of alfalfa is well grown; small grains are well advanced, and the opportunity has been used to press work with the corn well to the front. Fruit prospects are excellent. Live stock is in fine condition.

Miscellany

Morningglories vs. Corn.

"Morningglories" What an appropriate name from the artist's viewpoint, but had the naming been left for a corn-grower, we should doubtless know this persistent pest by some less artistic but more emphatic title.

"Probably no other weed has so much to do with increasing the expense of growing corn as this hardy vine, every joint of which detached from the parent vine produces a separate healthy, and vigorous climber, ready to wind itself around and choke the life out of whatever stands within its reach.

"A facetious farmer told us recently that 'glories' pulled up and hung on the fence until thoroughly dried, then burned and the ashes thrown on the ground would produce a vigorous crop next year. Of course this is overdrawn, but it illustrates the almost life-everlasting qualities of this pest.

"To the corn-growers of Illinois, Iowa, Missouri, Kansas, Nebraska, in fact, in all the corn-belt, where the land is becoming more and more valuable each year and must be made to produce profitable crops to pay an interest on the investment, the solution of this problem, Morningglories vs. Corn, is of vital interest."

The above is from an interesting pamphlet just received from the Emerson Mfg. Co., Rockford, Ill., which suggests an easy way to free your corn-fields of this pest.

The company will send to every reader of THE KANSAS FARMER who will send the names and addresses of three or more of his neighbors who are bothered with morningglories, not only the pamphlet above mentioned, but a free copy of the most excellent book, "How to Grow Corn." It is well worth your while to take advantage of this offer, for if THE KANSAS FARMER can be instrumental in assisting the corn-growers to conquer this troublesome pest, it will feel that it has performed a service that will be heartily appre-



THE FARMERS' HANDY WAGON

MADE IN SAGINAW

This wagon is just what its name implies—a wagon for the farmer and "handy" because it can be used for all farm purposes with greater ease than any other. It's a farmer's invention for a farmer's benefit and it beats anything on wheels for convenience and utility. Bad roads are no obstacle and there's no reasonable load that it won't carry. When buying a handy wagon be sure of one point, viz. that it's MADE IN SAGINAW. Then you will get the best in material, workmanship, durability, strength, everything in fact for there is no low wheel, wide tire, short turn, light draft farm wagon made that equals ours. Our prices are reasonable. Send for catalog.

FARMERS' HANDY WAGON CO., SAGINAW, MICH.
Makers Handy Hay and Stock Backs and Handy All-Steel Frame Silos.
Branches, Kansas City & Des Moines.

dated by every corn-grower in this State.

The Farmers' Independent Grain-Dealers of Kansas, Nebraska, and Oklahoma.

EDITOR KANSAS FARMER:—The Farmers' Independent Grain-Dealers' Association of Nebraska, Kansas, and Oklahoma, the greatest cooperative effort ever undertaken in the Central West, will hold three meetings as follows: At Enid, Okla., May 31, 1906; at Hutchinson, Kans., June 7, 1906; at Lincoln, Neb., June 14, 1906. Able speakers will be in attendance, and the following program is presented. It will be divided up and carried out as nearly as possible, and completed at the three meetings:

"Economic Production and Distribution of Farm Products," C. W. Peckham, Haven, Kans.

"To What Extent May the Farmer Be Benefited by Cooperation?" E. M. Black, Preston, Kans.

"The Farmers' Elevator Manager, His Duties and Responsibilities," F. L. Farnsworth, Cullison, Kans.

"What Shall We Do to Be Saved?" (from the Grain Shark), J. H. Johnk, Solomon, Kans.

"The Farmers' Elevator, as an Economic Quality," W. W. Bowman, Pawnee Rock, Kans.

The following gentlemen will present papers on subjects of their own choosing: Chas. Radenberg, Clarin, Kans.; M. Parkhurst, Kinsley, Kans.; L. E. Ross, Carmen, Okla.; E. E. Van Slyke, Red Rock, Okla.; W. H. Smith, Alva, Okla.; E. B. Benfield, Prosser, Neb.; Geo. E. Miller, Prosser, Neb.

Every farmers' elevator company west of the Missouri River is urged to send delegations to these meetings, to the end that pending arrangements affecting the marketing of this year's crop will be perfected. Farmers, we need your help. You need ours. Negotiations for special railroad rates are pending, and the most favorable rates are expected. Ask for a certificate when you purchase your ticket. Come! C. W. PECKHAM, Pres., Haven, Kans. E. M. BLACK, Sec., Preston, Kans.

Table of Contents

Alfalfa on alkali land.....	556
Alfalfa of weeds, to rid.....	555
Alfalfa on limestone soil.....	556
Alfalfa, seeding.....	556
Alfalfa profitable for forage-produc- tion, varieties of.....	555
Alfalfa, frosted.....	557
Alfalfa, curing.....	557
Bacteria for alfalfa-field.....	558
Birds that pay.....	554
Burton.....	560
Children's rights.....	567
Cherry, the.....	568
Chickens, overfeeding.....	568
Chicken talk.....	566
Corn, infected.....	554
County union, call for.....	556
Cows, water for.....	556
Devesdropping.....	553
Education vs. ignorance.....	556
Field-peas, information regarding.....	555
Fleetfoot; the autobiography of a pony.....	561
Forest belts of Western Kansas and Nebraska.....	567
Gasoline engine in irrigation work.....	557
Grain-dealers, the Farmers' Inde- pendent.....	554
Hay in the stack, measuring.....	554
Indian legend.....	562
Indian Runner ducks.....	568
Johnson gages, how to kill.....	555
Milking-machine.....	566
Morningglories vs. corn.....	554
Moths in furs and woollens, preven- tion of.....	560
Mutual Helpers.....	562
Outdoor life.....	560
Parent's fancy, a (poem).....	560
Poultry notes.....	569
Railroad rate bill passes the Senate.....	553
Recipes, seasonable.....	560
Roads, the movement in Kansas for better.....	563
Road-work questions.....	554
Rust on wheat.....	557
Silo questions.....	566
Simple life and how to live it, the.....	569
Squaw-apple, the.....	567
Streams, rights concerning.....	553
The world (poem).....	562
Thistles, to destroy.....	556
Van Pelt, H. G., elected.....	556
Veterinary department.....	372
West Side Study Club.....	562

Well Drills and Drillers' Supplies

The best on the market. Manufactured by
THATCHER & SONS, Stillwater, Oklahoma.
Write for circulars and prices.



LAWN FENCE

Made of Steel. Lasts a life-time. We have no equals. Sold to users at Wholesale Prices. 7 cts. a foot up. Cheaper than wood. Catalogue Free. Write for circulars. Box 399, Ellettsville, Ind.



\$10.00 Sweep Feed
Grinder.



\$14.00 Galvanized
Steel Wind Mill.

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

COURRIE WIND MILL CO.,
Topeka, Kansas.

CEMENT FENCE POST or Building Blocks

WITH THE

CROUCH \$10 MACHINE

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

Collections made in all parts of the United States
No fee charged unless Collection is made
BOTH PHONES No. 1577

The Kansas Collection Agency

415 Kansas Avenue.

TOPEKA. KANSAS.
Special attention given to stock-breeders account
Reference furnished on application.


THE 20TH CENTURY GRADER

Best Light Grading Machine made. Grades Roads, Cemeteries, Lawns, Parks, Race Tracks, Levels, and for Irrigation. Cuts Ditches, Glance Feed Lots, Barn Yards, Etc. Easily operated by one man. Light, practical and low priced. For general use about the farm or for grading town streets or country roads this grader is unequalled. Descriptive Catalogue FREE.

The WHITE CITY GRADER CO.
Box F-7
WHITE CITY, KAN.

The Best Fruit Paper

Is The Fruit-Grower, published monthly at St. Joseph, Mo. The regular subscription price is a dollar a year but if you will write for free sample copy and mention this paper, you will receive a proposition whereby you may secure it one year WITHOUT COST. Every one who has a few fruit trees or a garden, should read



THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

Every issue is handsomely illustrated and from 22 to 64 pages 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; February, Spraying; March, Gardening; April, Small Fruits. Any one of these numbers will be worth a dollar to you. We publish the "Brother Jonathan Series" of fruit books. Send your name and address to BROTHER JONATHAN and we will send you these books free.

Fruit-Grower Co. 169 S. 7th, St. Joseph, Mo.

Two Years Guarantee



AND A BARGAIN

Send direct to our factory for catalog, make your selection (many styles) and we will ship it, freight prepaid, for you to try 30 days. If it doesn't stand the test, if quality isn't high and price low (about half local dealers'), if you are not satisfied, ship it back at our expense.

You Deal With the Factory

when you buy our vehicles. Not a mail order house or agent. And you can buy just as safely from us as from any local dealer. Be sure you send for catalog. We make it all plain there. We pay the freight. Address Dent, D. The Apex Mfg. Co., Bloomington, Ill.

Agriculture

To Rid Alfalfa of Weeds.

This spring I sowed alfalfa on corn-stalk ground and secured a good stand, but the weeds are coming up thick also. How shall I handle this piece of alfalfa to best get rid of the weeds? Shall I cut it early or late?

W. F. SCHUERMAN.

Dickinson County.

Do not be in any hurry to cut the weeds on the newly seeded alfalfa-field. It is better to let the alfalfa get well set and make considerable top growth before the mower is run over the ground. It is well, also, to mow the weeds on new alfalfa during a period of wet weather. Raise the sickle three or four inches high so as to cut off the young plants. Unless the weed-growth is very rank and heavy, it is not necessary to remove the weeds from the ground.

Although too early or too frequent cutting the weeds on alfalfa ground may not be desirable, neither is it desirable to leave the weeds until they have made a rank, thick growth which will tend to smother the alfalfa and leave the tender plants exposed to the hot sun when the weeds are cut. In cutting the weeds on newly seeded alfalfa, the purpose should be to clip the weeds often enough and at sufficient height so as to keep the alfalfa from being shaded and smothered by a rank growth of weeds. It is not advisable to cut the first crop of weeds close to the ground, especially when the weeds have made a rank growth and are approaching maturity. The tendency will be, of course, to destroy that crop of weeds, but the cutting of the alfalfa plants close to the ground weakens them also, and another crop of weeds will start, including such weeds as crab-grass and fox-tail, and often this second growth of weeds will injure the alfalfa more than the first, and it is practically impossible to destroy crab-grass or fox-tail by mowing. The purpose should be, therefore, where crab-grass or fox-tail is prevalent, to prevent the crab-grass or fox-tail from starting by leaving the undergrowth of weeds and alfalfa, which is accomplished by raising the sickle bar several inches above the ground, as stated above. I have known of excellent stands of alfalfa being entirely destroyed by a single close cutting during hot, dry weather, while upon a part of the same field which was not mowed, but on which the weeds were allowed to grow and were not cut during the season, the alfalfa made a good stand.

I would answer your question in this way: That you should cut the weeds on this field as soon as they appear to be shading or smothering the alfalfa, and that at two or three intervals during the balance of the season the mower be used, as it may appear necessary. Probably this alfalfa will make so rank and rapid a growth that by the time it is necessary to clip the weeds the third time, the plants will have developed sufficiently so that the alfalfa may be cut for hay, and this may be done without injuring the alfalfa, provided the young plants have reached the stage of maturity when alfalfa should be cut for hay, namely, after the plants have begun to bloom. When alfalfa has made such a growth it may be cut close to the ground without injury to the plants. It is preferable, however, to cut this first crop of hay during a favorable period of weather, when the soil is rather moist. Hot, dry weather immediately after cutting may sometimes enfeeble or destroy some of the alfalfa plants.

Last season at this station we cut two crops of hay from early spring-seeded alfalfa, and the weeds were clipped twice previous to the cutting of the first hay-crop. Both crops of hay were rather weedy and the yield was light. This alfalfa passed through the winter in good condition and the first crop is now (May 15) nearly ready to cut for hay.

A. M. TENNEYCK.

Information Regarding Field-Peas.

Will you kindly give me information regarding field-peas. I wish to sow five acres. Where can I get the seed, and how much will be required to plant an acre?

C. W. HOOKER.

Kingman County.

It is now getting rather late (May 15) to sow field-peas. The crop should have been seeded the last of April or first of May. Field-peas are really a crop which is better adapted for grow-

ing in the Northern States than in Kansas and is the States further south, and if sown in this State it is well to plant rather early in the spring. At this station we usually plant field-peas soon after the seeding of early spring grains. Prepare a seed-bed the same as you would prepare for sowing any small grain. The peas may be sown broadcast or with the grain-drill. Some drills break the peas badly, while others plant them in good condition. Set the drill to sow about two bushels of oats per acre; it will require about a bushel and a half of seed-peas to plant an acre when seeded in this way. In a well-prepared seed-bed cover the peas to a depth of three inches. The crop should be given little or no cultivation; it is possible to harrow the field before the peas come up, but later harrowings destroy the plants.

Field-peas are rather difficult to harvest for forage, since the vines often lodge and are difficult to cut with the mower. It is usually advisable to seed the peas with oats or some grain-crop, the grain tending to hold the pea-vines off of the ground, so that the crop may be readily cut with the mower. The combination of peas and oats makes a very good fodder. It will be necessary, however, to seed the crop early in the spring in order that the grain may grow successfully with the peas. When sown in combination, it is usual to sow 3 or 4 pecks of peas with about a bushel of oats per acre. If you want to sow the peas for seed-production, thinner planting may be advisable.

Varieties of field-peas commonly grown are the Yellow Canada and the White Canada. The Green field-peas are also a good producing variety at this station. You can secure seed from almost any seed-dealer.

For your part of the State cow-peas are better adapted for growing than field-peas, and it is yet early for seeding cow-peas. For information regarding the planting and culture of cow-peas, I enclose copy of a circular letter answering questions on this subject.

A. M. TENNEYCK.

Bacteria for Alfalfa-Field.

I would like to secure information concerning bacteria to inoculate the soil in alfalfa-fields, where to obtain and how to use it. I have a field of alfalfa which does not seem to be doing well, there being no tubercles on the roots. I would like to get culture to inoculate twenty acres.

C. B. GUFFY.

Pottawatomie County.

Probably the only way in which you can successfully introduce the bacteria into the soil of the field in question will be by distributing infected soil taken from some old alfalfa-field. It would have been well to have spread this infected soil early in the spring and mixed it with the soil of the field by disking and harrowing. This may be done now, immediately after taking off the first crop of alfalfa.

If you can secure soil from some old alfalfa-field not far from your neighborhood, I would recommend to use a considerable quantity of the infected soil, say six or eight hundred pounds per acre. The usual method of distributing the infected soil is to sow by hand. Usually on new seeding, two to three hundred pounds of the infected soil per acre is sufficient to use.

The nitro-culture preparations may only be used successfully in inoculating the seed before planting. I have mailed you copies of letters giving further information regarding the inoculating of soil with alfalfa bacteria, both by the use of nitro-culture preparations and with infected soil.

A. M. TENNEYCK.

Seeding Alfalfa.

Last spring I sowed four acres of Brome grass and alfalfa according to your instructions for pasture. The Brome seed was not good, and is a thin stand, but the alfalfa is fine. Will the Brome grass thicken and increase?

We want to sow six acres of alfalfa for hay this spring. The ground was plowed last fall, and dragged to keep down weeds and conserve moisture. It has been harrowed twice this spring. Will disking once and harrowing put it into good condition for seeding?

Please give me all the information you can on alfalfa, Brome grass, and English blue-grass, and send bulletins.

W. A. OSLER.

Smith County.

It may not be necessary to disk the ground which you describe in preparing a seed-bed for alfalfa. If the weeds have started, it may be necessary to disk and harrow as you have

suggested, but I would not advise to loosen the ground very deep, not over two inches, if it is possible to disk so shallow. A better implement than the disk harrow to prepare this ground is the Acme harrow. The Acme harrow is an excellent weed-killer and a good cultivator, but it does not necessarily loosen the soil so deep as it would usually be loosened with the disk harrow. The seed-bed for alfalfa, as you understand, should not be too deep and mellow, but rather only mellow about as deep as the seed is planted or a little deeper and below the seed the ground should be rather firm, making good connection with the subsoil so that the seed and young plants may secure an abundant supply of moisture, which has been stored in the deeper soil. With such a condition of seed-bed the seed may sprout and the alfalfa start with little or no rain.

I would have preferred to sow the alfalfa earlier in the spring. Later seeding is more apt to be injured by heavy rains which pack and firm the soil at the surface, or by hot weather, which may destroy the young plants before they are strong and well rooted. However, the field in question, which was fall plowed and has been harrowed several times during the spring, ought to be in good physical condition for starting alfalfa, provided the weather conditions are not too unfavorable after the seeding.

I have requested Professor J. T. Willard, director of the station, to mail you bulletins giving information regarding alfalfa and the grasses which you have named.

Referring to your last spring's seeding, Brome grass will gradually thicken up and occupy all space not filled with alfalfa, and the grass will doubtless finally crowd out the alfalfa, although this will not occur for several years.

A. M. TENNEYCK

How to Kill Johnson Grass.

I should like to learn how to kill Johnson grass. We have a rich garden spot which has become infected with it. It is impossible to cultivate it out, for it is so deep rooted. I had thought of mulching it heavily with wheat straw. The seed was sown on an adjacent plot a number of years ago, having been recommended as an excellent grass for hay and pasture, but it has proven good for nothing. I saw it advertised in some agricultural paper not long ago. I hope no reader of the Kansas Farmer will experiment with it, for it is a nuisance.

Allen County. CHAS. M. FUNK.

It is almost impossible to entirely eradicate Johnson grass where it has once obtained a foot-hold, provided the soil and climate are favorable for its growth. At this station we have little difficulty in destroying the grass, because it is not perfectly hardy and will often winter-kill. Possibly in your section of the State the grass may be destroyed by winter-killing, provided it is not protected with a cover of trash or manure. Although under field conditions it may be very difficult or practically impossible to eradicate the grass, as is the general statement of those who have had experience, yet it seems to me you should be able to destroy the grass in a garden spot. I know of no weed that can not be destroyed if the plants are not allowed to grow above the ground, but are kept continually cut with the hoe. It might take two or three seasons of careful hoeing to entirely destroy the grass, but it surely may be destroyed in this way. Perhaps your garden is something like other gardens which I have observed, well cultivated during the early part of the season but neglected during the latter part of the season, when the grass makes a renewed growth and gets a good start so as to store up nourishment in the roots to continue the growth and propagation another season.

A. M. TENNEYCK.

Varieties of Alfalfa Profitable for Forage-Production.

How many varieties of alfalfa are there that are profitable for forage-production? How may they be distinguished? If there is any difference, which is the best? Will alfalfa seed grown on irrigated land germinate as well as seed grown on unirrigated land? On April 4, 1905, I sowed Brome inermis on spring plowing, sowing about 12 pounds of Brome grass and 4 or 5 pounds of alfalfa-seed per acre, but failed to get a good stand. On the same day I sowed alfalfa on fall plowing, 15 pounds per acre, and secured an excellent stand. I write this simply to give you my experience, thinking perhaps you would like to

SAVE YOUR BACK

Save time, horses, work and money by using an **Electric Handy Wagon**. Low wheels, broad tires. No living man can build a better. Book on "Wheel Sense" free. Electric Wheel Co., Box 48, Quincy, Ill.



SCALES

ALL STYLES LOWEST PRICES

30 DAYS FREE TRIAL. AMERICAN SCALE CO. 304 FIDELITY TRUST BLDG., KANSAS CITY, MO.

Send for 84-Page Catalog



Buggies \$28.00
Harness \$5.60

Erhardt Carriage and Harness Co., Atchison, Kansas

A Stronger Fence At Lower Prices

ADVANCE Continuous Stay

Advance Fence is sold direct to users so you can save the retail man's profit. It's a stronger fence, too, for the stay wire is continuous, not cut at the top or bottom or anywhere else, but twisted into the margin cables from one stay to the next. Advance fence is practically one piece. Try it 30 days and if you don't like it we'll refund your money. Satisfy yourself of its value before buying. Our Free Fence Book tells all about it. ADVANCE FENCE CO., 3781 Old St., PEORIA, ILL.

Get Our New Book

Plans for Farm Buildings and Poultry Houses by A. F. Hunter, the well known editor.

Before You Build

It shows how to build with the greatest economy and durability. FREE to you if you mention this paper and enclose a 2c stamp for postage.

F. W. BIRD & SON, (Established 1817) Chicago, Ill.

\$35.00 Split Hickory

Top Buggy, guaranteed 2 years. Sold on 30 Days Free Trial. The highest buggy bargain of the year. 100 other styles, vehicles and harness. 1906 catalogue free. The Ohio Carriage Mfg. Co. H.C. Phelps, Pres. Station 261 Cincinnati Ohio

WELL DRILLING MACHINES

Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engine or horse powers. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog.

WILLIAMS BROS., Ithaca, N. Y.

don't have to help it, it helps itself if I put the hay in the hopper. J. H. Akers, Sibley, Mo.



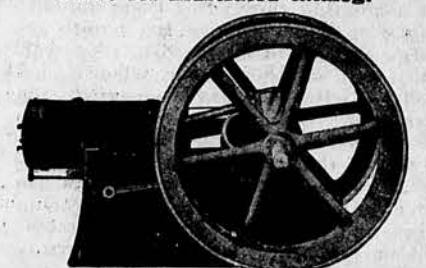
Satisfaction guaranteed. Manufactured by the AUTO FEDER MAY PRESS CO., 1804 Jefferson St., Topeka, Kansas

The Waterloo Gasoline Engine

A popular engine at the right price.

Also Power and Sweep Feed Grinders

Write for illustrated catalog.



WATERLOO GASOLINE ENGINE CO. 1014 Cedar St., Waterloo, Iowa.

have farmers' experience in different parts of the State. E. S. RALSTON, Cloud County.

Two varieties of alfalfa are generally recognized in this country, namely common alfalfa and Turkestan alfalfa. The Turkestan alfalfa is really only a strain of common alfalfa, which has been grown in the dry plains of Turkestan until it has become adapted for growing under these climatic and soil conditions, and this strain of alfalfa when sown in our Western Plains region seems to be a little harder and better adapted for growing under the dry climatic conditions of the West than common alfalfa. Also the Turkestan alfalfa is harder to resist cold than the common alfalfa, and may be successfully grown further north, being hardy and productive in North and South Dakota, where common alfalfa usually winter-kills.

At this station the Turkestan alfalfa has not produced quite so large crops of hay as the common alfalfa. At the Hays Experiment Station, in Ellis County, Turkestan alfalfa sown a year ago on the upland has made an excellent stand and promises a large crop of hay this season. The common alfalfa has been grown at the Hays Station for several years and does well on the bottom-land. The common alfalfa is being grown successfully not only in Ellis County, but in Trego, Gove, Logan, and Wallace Counties, as I learned by a trip through these counties two weeks ago. Some even have succeeded in growing alfalfa successfully on the upland in the above named counties, but usually the crop is being grown on bottom-land.

In my judgment there is little difference between Turkestan alfalfa and common alfalfa, other than that the seed of the true Turkestan alfalfa came originally from Turkestan. The plants of the two varieties look almost exactly alike. I believe that the common alfalfa grown and seeded in the West for a few years may be as hardy and as well adapted to Western conditions as the imported Turkestan alfalfa.

From actual experience I can not answer your question regarding the relative vitality of alfalfa-seed grown by irrigation as compared with seed grown in dry climate without irrigation. We have been intending to make a trial on this point at the Experiment Station, but have not yet undertaken this experiment. From examination of different samples of seed and also from general tests of the germination of seed without any special reference to whether it was grown under irrigation or not, I conclude that a good quality of alfalfa-seed grown by irrigation is just as vital and just as capable of germinating as seed of a like quality grown without irrigation. As a matter of fact, however, the seed grown without irrigation is often inferior in quality compared with the seed grown by irrigation. Usually there is a larger percentage of shrunken seeds in the alfalfa which has been grown on dry land. For seeding in this part of the State, I prefer to use seed of good quality and of high germinating power, without much reference to whether it was grown by irrigation or otherwise; but if I were to sow alfalfa in Western Kansas on dry land where it could not be irrigated, I would prefer to sow seed which had been grown under similar conditions, not because such seed would germinate better than other seed, but rather because having been grown and produced under similar conditions, such seed will produce plants which are likely to be more hardy and better adapted for growing under the same conditions again.

A. M. TENEYCK.

To Destroy Thistles.

Not quite a year ago I wrote you for information regarding ridding pastures of thistles. You kindly responded with much valuable information. I carried out your suggestions so far as I had time and feel that I have taken first steps toward ridding the pasture of this pest. I write to ask your opinion concerning the following method of combating them: Hoe them up, hoeing deeply, as soon as the plants are large enough to distinguish, then wait until fall, say September, when a second growth will have appeared, and again hoe them up thoroughly. This is claimed to be a sure method of destroying them for good. I am interested to know whether the college has ever known of this treatment being used, and if so whether it was successful or not.

C. D. SMITH.

Marshall County.

Doubtless two thorough hoeings a year, as you suggest, will largely de-

stroy the thistles in the course of two or three years. It may be necessary, however, to go over the ground with the hoe during the summer in order to destroy such thistles as may escape the spring hoeing. The main object is not to allow any more thistles to seed. When you destroy a plant by cutting its root deep in the ground that plant is gone, and the thistles will only be renewed by the sprouting of seed which is already held in the soil. I know that hoeing thistles has been entirely successful in destroying them on small fields.

A. M. TENEYCK.

Infected Corn.

EDITOR KANSAS FARMER:—I have this morning received from W. J. Janney, of Burlington, Kans., a sample grain of germinated corn from the field, and with it a specimen of a small ground-beetle known as *Clivina*, apparently the species impressifrons. The beetle has no common name, but belongs to an extensive family that is well known to contain chiefly carnivorous species. Any departure from the carnivorous habit in a member of this family (*Carabidae*) is well worth noting, but it is especially important that we shall become acquainted with any species thereof, that display any tendency to destroy sprouting corn, as several kinds of these beetles are among the most abundant insects in plowed fields the State over.

Mr. Janney evidently believes this *Clivina* to be responsible for the destruction of the sprouting corn in his 80-acre field, as he sends the beetle with his letter of inquiry, but it is difficult for me to believe that he has found the right insect.

The object of this note is to request that farmers who observe any injury to germinating seed-corn will send abundant specimens of the insects found in connection, mailing them in a baking-powder can or other tin box addressed to the Entomologist, Experiment Station, Manhattan, Kans., and thus give us material aid in the solution of a very important question.

E. A. POPENOE.

Alfalfa on Limestone Soil.

Please send me your Bulletin No. 114, on growing alfalfa in Kansas. How is Butler County for alfalfa-production? How is soil underlaid with lime rock for alfalfa?

F. E. BAILEY.

Buffalo County, Nebraska.

The supply of Bulletin No. 114 is exhausted, but you will receive a copy of Bulletin No. 134, on "Seeding Alfalfa and Saving Alfalfa for Seed." This bulletin has not yet been published, but will be mailed in a few days.

Alfalfa is well adapted for growing in Butler County. Col. J. W. Robison, Towanda, Butler County, Kansas, has thousands of acres in alfalfa.

Soil underlaid with limestone rock, provided the rock is not too near the surface, should make excellent alfalfa land. Alfalfa is a heavy feeder on the mineral elements of plant-food, and requires an abundant supply of lime in the soil. Ideal conditions in this respect are secured in a soil which has been formed by the disintegration of limestone.

A. M. TENEYCK.

Alfalfa on Alkali Land.

I had thought of sowing alfalfa on some alkali land. Would you advise that this be done? GEO. M. HULL.

Saline County.

I have had no experience in sowing alfalfa on alkali land. If the alfalfa could be started on such land, I believe that it is as likely to stand as any other crop which you can grow. The difficulty will be to start it, as the young plants will probably be destroyed by the alkali early in their growth. Probably if such land could be plowed deep about a year to six months previous to seeding, then receive a dressing of manure, which should be well disked into the surface soil, it could be put into such condition that the alkali would not bother much for a season, during which the alfalfa might be started and well established. As to whether the alfalfa would continue to live and grow in such soil when once started will depend upon the amount of alkali in the soil, and also upon the tendency of the land to accumulate alkali. If such land is not well drained, and the drainage of the surrounding country tends to carry on to the land more of the soluble alkali salts, then the alkali may continue to accumulate and increase in amount, above that which is removed by the crop, in which case it will be only a matter of time until all vegetation on such land will be destroyed.

If this is the white alkali, it is much less likely to destroy the alfalfa-plants than the black alkali. I would advise

SAVE HALF THE TIME

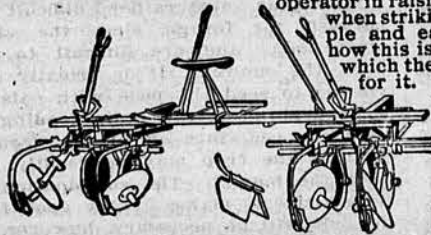
Half the Work

The farmer who is looking for machines that will do his work in less time—that will increase his working force one-half by enabling him to do the same work in half the time, cannot afford to overlook the time-saving features and up-to-date improvements embodied in the

Do Better Work

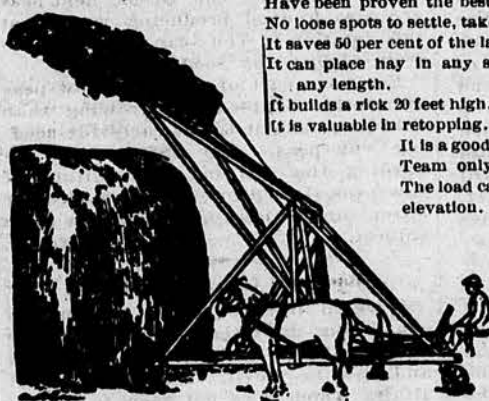
"St. Joe" Double Row Disc Cultivator

This improved cultivator is equipped with our new patent Seat Board, which runs on Rollers and will adjust itself much easier than any other seat board—a vital point in its favor. Four Levers make this machine handy to operate—always under complete and perfect control. Four Coil Springs are used—two to assist operator in raising Discs, two to cushion the Shovels when striking obstructions. Adjustment is simple and easy—to suit the work—we describe how this is accomplished in our free circular which the farmer can have simply by asking for it. Tells of more good cultivator features than any other machine on the market has. Write for the circular to-day and see how this machine saves you time and money.



ST. JOSEPH PLOW CO.,
Box 12 St. Joseph, Mo.

THE JAYHAWK STACKERS AND RAKES



Have been proven the best by test. No loose spots to settle, take water and spoil. It saves 50 per cent of the labor on the stack. It can place hay in any spot on a rick of any length. It builds a rick 20 feet high. It is valuable in retopping.

No troublesome pulleys. No stakes to drive. No trouble with winds. No time lost moving. No upsetting. No bother with long ropes.

It is a good wagon loader. It has only 18 foot of rope. Team only travels twice as far as the load is raised. The load can be carried and dumped at any point of elevation. It is a great labor saver.

We also manufacture two patterns of

Sweep Rakes

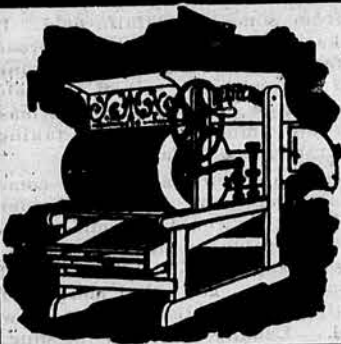
We Ship Responsible Parties on Trial

Give us a chance to do so by letting us know your wants.

YOURS FOR A SQUARE DEAL

The F. Wyatt Mfg. Co., Salina, Kas.

Mention Kansas Farmer.



Richland, Kans., April 17, 1906
The Lewis-Tuttle Mfg. Company

Dear Sirs:

Reg to thank you for prompt shipment of machine and am much pleased with same. My neighbors say it is the best machine they ever saw.

Yours respectfully,

F. A. DEZINS

Now is the time to find out

What "Perfection" Will Do.

We will tell you just how to raise a 100 per cent crop if you ask us. Be sure to tell us what kind of grain you raise. Write to-day. All it costs you is the trouble of asking.

Lewis-Tuttle Manufacturing Co.

305 C Kansas Avenue.

Topeka, Kansas

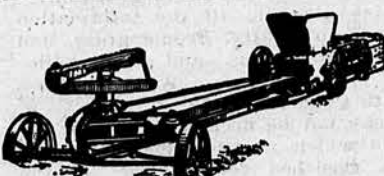
LAKE BREEZES MANITOU

Can be enjoyed in safe delight
ON THE STEEL STEAMSHIP

FOR COMFORT, REST AND PLEASURE

It offers an unequalled opportunity
First Class Only—Passenger Service Exclusively

Modern comforts, electric lighting; an elegant boat equipped for people who travel right. Three sailings weekly between Chicago, Frankfort, Charlevoix, Petoskey, Harbor Springs and Mackinac Island connecting for Detroit, Buffalo, Duluth and all Eastern and Canadian Ports. Ask about our Week-end Trips for Business Men. For Terms, Booklets and Reservations, address,
JOS. BEROLZHEIM, G. P. A. Manitou Steamship Co., Chicago



LIGHTNING HAY PRESSES

meet all demands in Hay Baling. Used over 20 years

SIMPLE, STRONG, DURABLE, RAPID

The Best is most Profitable.

Send for catalogue showing all styles. Horse Power and Belt Power

Kansas City Hay Press Co., 129 Mill Street, Kansas City, Mo.

that you try seeding alfalfa on this land in a small way, and I should be pleased to know the results of the experiment. A. M. TENNEYCK.

Frosted Alfalfa.

Will alfalfa bloom as usual after being frosted? We had a hard frost here. Should alfalfa be cut at once or wait until the usual time? F. M. BROWN.

Butler County.

If the alfalfa has simply been checked by the frost and the plants have not been killed to the ground, I would not cut it until it has reached the stage of maturity to make the best hay, namely, about the beginning of the blooming period. There is no reason why the alfalfa will not bloom, although, if the plants have received a severe check, the blooming is likely to be a little late, and perhaps the number of blossoms will be less than would have been the case without injury by frost. However, your judgment as to whether or not it is best to cut the alfalfa now should be of more value than my suggestions. If the plants do not seem to recover from the effect of the frost in a few days, possibly it would be best to cut the alfalfa and allow it to start a new growth, even though the present crop may not be of much value for hay. A. M. TENNEYCK.

Rust on Wheat.

Can you explain why some fields of wheat are badly affected with rust while adjacent fields are but little affected? Are some varieties of wheat more susceptible to rust than others? If so, what kind would you advise sowing in order to avoid this disease? I have two varieties, sowed at the same time, and one field is badly affected, while the other is not.

Neosho County.

SILAS HUMMER.

Some varieties of wheat seem to be more rust-resistant than others. This is particularly true of the durum wheats. Probably the hard red Turkey or Russian wheats are somewhat more rust-resistant than the varieties of soft wheat grown in this State. You did not state in your letter what different kinds or varieties of wheat you had sown.

Other conditions may also affect the development of rust. For instance, if the wheat on one field started a little earlier than the other, due to more moisture in the soil or better conditions for growth, the grain may have become infested with rust last fall and the fungus, living through the winter, developed early in the spring and rapidly spread, infecting the whole field. Doubtless, the adjacent field will be as badly infected a little later.

So far no remedies for the prevention of rust have been discovered. Certain soil and climatic conditions evidently favor the development of rust, but there is no way to absolutely destroy the fungus or to prevent its attack. It is now known that the fungus passes the winter in the straw and stubble, and the burning of the stubble has been recommended for destroying the rust spores. But the fact that rust develops so rapidly and is so easily spread with the winds makes it practically impossible to prevent its ravages to any appreciable extent by a local destruction of the spores, by burning the straw or stubble on certain infected fields. Probably the only remedy will be to breed rust-resistant varieties.

Early-maturing grain is usually less attacked by rust than later-maturing grain or later-maturing varieties. This is especially true of oats and barley. It is advisable, therefore, to grow varieties of oats and barley which mature early. I can name no particular variety of wheat, oats, or barley which may be considered "rust-proof." This name is sometimes attached to different varieties of grain, and it may be true that certain varieties of oats and other grains are less susceptible to the attacks of rust than others, as stated above. However, the difference in the date of maturity of the grain is probably one of the main factors which determines whether or not it rusts badly, the earlier-maturing sorts escaping the attacks of rust in a large degree.

A. M. TENNEYCK.

Curing Alfalfa.

It should always be borne in mind that curing hay is one thing and drying it quite another. By the ordinary methods, hay is dried to a crisp in the swath and windrow, and then hauled in. This is a very expensive method to follow with alfalfa. It results in a loss of a large proportion of the leaves, and still the hay is not cured. All of the legumes, especially, need to be cured away from the sunlight and heat. To do this effectively, we rake into windrows as soon as it is wilted

enough to handle well on the rake. It is still quite green and the stalks are full of juice. It is then cocked up in about 100-pound cocks and covered with the cotton cloth hay-cap with weights at each corner. The alfalfa goes through the first sweat in the cock, is away from the rays of the sun, and really cures, keeping its bright green color and retaining all its protein. It remains thus from three to five days. If rainy weather sets in, it stays in the cock until a clear day, when it is opened to the sun for an hour or so and then hauled into the barn or to the stack. Handled in this way, we believe Eastern-grown alfalfa contains greater feeding value than that harvested in the irrigation districts. We are certain we have seen none anywhere that is of finer color and quality than the cap-cured alfalfa of Wisconsin.—Hoard's Dairyman.

Gasoline Engine in Irrigation Work.

Below is given a table from a paper of the United States Geological Survey entitled "Observations on the ground waters of Rio Grande Valley." This table shows the results of tests of a number of plants used for irrigation in the valley of the Rio Grande in Eastern New Mexico and trans-Pecos, Texas.

Under the head location is given the post-office nearest the ranch on which the pump is located. The fuel used by these pumping plants is gasoline which term as here used includes the "distillate" manufactured from Texas Crude Oil, which is extensively used for fuel purposes. Its calorific value is somewhat less than the gasoline used in Eastern States. The price of gasoline is given in cents per gallon in barrel lots.

In all of the plants except the one of F. J. Hadlock, water is raised by means of centrifugal pumps which are usually coupled to the top of the well casings.

This table shows in a striking manner the adaptability and cheapness of the gasoline engine for this purpose.

Name of plant.	Location.	Fuel.	Make of Eng.	H. P.	Cost of plant.	Price of fuel.	Gals. per minute.	Total lift feet.	Cost of fuel per hour.	Cost of fuel per 100 ft. gallons.
E. M. Boyer.	Las Cruces, N. M.	Gasoline.	Olds.	12	1200	\$0.17	658	40.30	\$0.163	\$0.000192
E. M. French.	El Paso, Texas.	Gasoline.	Charter.	8	800	0.14	269	30.70	0.112	0.000327
W. J. Hadlock.	El Paso, Texas.	Gasoline.	Charter.	8 1/2	800	0.14	269	30.70	0.112	0.000327
E. A. Smith, No. 2.	El Paso, Texas.	Gasoline.	F. M. Co.	22	2200	0.14	1255	27.80	0.074	0.000172
J. J. Barker.	El Paso, Texas.	Gasoline.	Columbus.	15	1500	0.14	658	41.45	0.350	0.00106
F. F. Burke.	Las Cruces, N. M.	Gasoline.	Otto.	21	1800	0.17	131	35.87	0.210	0.00049
J. C. Carrera.	Mesilla Park, N. M.	Gasoline.	Otto.	8	1300	0.17	725	45.58	0.340	0.00092
J. W. Hager.	Mesilla Park, N. M.	Gasoline.	Otto.	8	1300	0.17	725	45.58	0.340	0.00092
A. L. Hines.	Mesilla Park, N. M.	Gasoline.	Otto.	8	1300	0.17	725	45.58	0.340	0.00092
Horace Ranch Co. 1.	Berino, N. M.	Gasoline.	Webber.	12	2000	0.17	371	36.05	0.255	0.00073
Horace Ranch Co. 2.	Berino, N. M.	Gasoline.	Webber.	12	2000	0.17	371	36.05	0.255	0.00073
Horace Ranch Co. 3.	Berino, N. M.	Gasoline.	Webber.	12	2000	0.17	371	36.05	0.255	0.00073
Felix Martinez.	El Paso, Texas.	Gasoline.	Webber.	12	992	0.17	791	33.89	0.260	0.00077
J. A. Smith, No. 1.	El Paso, Texas.	Electricity.	Gen. Elect.	28	3000	0.05	938	32.36	0.243	0.00070
T. Roualt.	Las Cruces, N. M.	Crude Oil.	F. M. Co.	28	1200	0.03	938	32.36	0.037	0.00058
Agricultural Col.	Mesilla Park, N. M.	Wood.	Wood.	20	1600	2.25	1000	29.55	0.223	0.000312
									0.520	0.00294

\$19 to Boston and Return, \$19

Plus \$1 from Chicago, via Nickel Plate Road, May 31 to June 9, inclusive; also via New York City at excursion rates. Return limit of July 15 by extension of ticket. Folders, rates and all information furnished by applying to John Y. Calahan, General Agent, Room 295, 113 Adams St., Chicago.

Tools That "Count"

You can dig more ditch, hoe more corn, with a Keen Kutter shovel or hoe than with any other shovel or hoe made. No tools are so well adapted to their various uses as Keen Kutter tools.

Every stroke made with a Keen Kutter tool counts—there's no time lost from breakage or false motion. To accomplish the most—in the quickest way—at the least cost, use

KEEN KUTTER TOOLS

See this Keen Kutter Shovel—blade, socket and strap are rolled from a bar of best crucible steel, and oil tempered to give wear, resisting power and elasticity. This shovel has a perfect "hang" for easy handling and great working capacity.

Keen Kutter Hoes, Forks, Shovels, Garden-trowels, Grass-shears, Rakes, Manure-hooks, Axes, and a complete line of Carpenter Tools are all of the same high-grade steel, oil tempered and beautifully finished, handles of first growth, selected Hickory. Every Keen Kutter tool is of the highest Quality—the best in the world. If not at your dealer's write us.

TOOL BOOK FREE.
SIMMONS HARDWARE COMPANY
St. Louis and New York,
U. S. A.



BLACKLEG AIDS

THE SIMPLEST, SAFEST, SUREST AND QUICKEST WAY TO VACCINATE CATTLE AGAINST BLACKLEG.
No dose to measure. No liquid to spill. No string to rot. Just a little pill to be placed under the skin by a single thrust of the instrument.
An injector free with a purchase of 100 Vaccinations.
For Sale by All Druggists. Literature Free—Write for it.

PARKE, DAVIS & COMPANY.
DETROIT, MICHIGAN, U. S. A.
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis, U. S. A.; Walsbyville, Ont.; Montreal, Que.

Save Money on Oil

We Sell Premium Machine Oil at Less Than Half the Price You Now Pay.

Our Premium Machine Oil is sold at \$3.50 per barrel. Thousands are using it and find it all right.

Every barrel guaranteed, and you be the judge. Other oil costs 35c to 40c per gal.; ours costs \$3.50 per barrel. Freight rate is 82c per barrel all points within 100 miles of Benedict, Kans. For each additional 25 miles add 2c.

After receiving and using 5 gal., if not satisfactory, return the balance, with bill of lading, and I will refund full price paid for said oil.

We Can Save You Money on Cylinder Oil. Write for Particulars.

T. C. Davis, Benedict, Kansas

\$31,500,000.00 at Risks

30,000 Members

The Farmer's Alliance Insurance Company of McPherson, Kansas

We furnish insurance at cost; 18 years of successful business. Why carry your insurance with others when you can get it in this company at much less cost? Write for full particulars of our plan.

C. F. Mingenback, Sec., McPherson, Kansas

Destroy the Gophers

In Your Alfalfa Fields by Using

Saunders' Gopher Exterminator

It is a machine which forces a deadly gas through their runways and is warranted to kill gophers within 100 feet of operation. With it a man can clear from five to six acres of gopher-infested land in a day at a cost of twenty cents per acre. The poison we use can be gotten at any drug store. Satisfaction guaranteed or money refunded. Complete outfit for \$5.

Flint Saunders, Lincoln, Kansas

Mention The Kansas Farmer.

Stock Interests

PURE-BRED STOCK SALES.

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

May 29-June 1, 1906—Sale of all beef breeds, Kansas City sale pavilion, D. R. Mills, Mgr., Springfield, Ill.

June 7, 1906—F. M. Marshall, Blackwater, Mo. June 12-14, 1906—Sale of all beef breeds at Sioux Falls, S. D., D. R. Mills, Mgr., Des Moines, Iowa.

June 19-20-21, 1906—Dispersion of Tebo Lawn Shorthorns, K. B. Mitchell, manager, Clinton, Mo., at Kansas City.

June 28-29, 1906—Sale of all beef breeds at Des Moines, Iowa, D. R. Mills, Mgr., Des Moines, Iowa.

October 2-4-5, 1906—Glasco Live Stock Association sale of pure-bred stock, Glasco, Kans.

October 10, 1906—H. L. Faulkner, Jamesport, Mo. October 17, 1906—W. J. Honeyman, Madison, Kans.

October 17, 1906—Poland-Chinas, W. A. Pruitt, Asherville, Kans.

October 18, 1906—Poland-Chinas, W. A. Davidson, Simpson, Kans.

October 20, 1906—W. R. Dowling, Norcat, Kans. Poland-Chinas.

October 23-24, 1906—E. A. Eagle & Sons, Agricola, Kans.

October 24, 1906—Poland-Chinas, Frank A. Dawley, Waldo, Kans.

October 25, 1906—D. W. Dingman, Clay Center, Kans., Poland-Chinas.

November 1, 1906—Frank Zimmerman, Centerville, Kans.

November 5, 7, 8, 1906—Sale of all beef breeds, Kansas City Sale Pavilion, R. A. Ford, Lawson, Mo., Manager.

November 8, 1906—T. P. Sheehy, Hume, Mo.

November 13, 1906—Howard Reed, Frankfort, Kans.

November 16, 1906—G. M. Hebbard, Peck, Kans.

November 20-23, 1906—Blue Ribbon sale of all beef breeds, D. R. Mills, Mgr., Des Moines, Iowa.

November 27, 1906—L. C. Caldwell, Moran, Kans.

December 4, 1906—Poland-Chinas, Lemon Ford, Minneapolis, Kans.

December 11-12, 1906—James A. Funkhouser and Charles W. Armour, sale pavilion, Kansas City.

Improved Stock Breeders Association of the Wheat Belt—November 13, 14, 15, 1906, at Arkansas City, Kans., I. E. Knox, Nardin, O. T., manager.

Dec. 5, 6, 7, 1906, at Anthony, Kans., Chas. M. Johnston, Caldwell, Kans., manager; Dec. 18, 19, 1906, at Wichita, Kans., J. C. Larimer, Derby, Kans., Manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

excellent for the production of lean meat.—EDITOR KANSAS FARMER.]

In the States outside of the corn-belt proper, and especially in those of the Northwest, where corn is produced only to a limited extent, wheat, peas, and barley, all nitrogenous or muscle-forming foods, may be grown abundantly, hence the farmers in these States may properly decide to meet the conditions already at hand and produce the type of hog which has been found to give best results under like conditions in older sections of the country.

The high degree of excellence in bacon production from Denmark, Great Britain, and Canada where the supply of feed is quite similar to that in the Northwest demonstrates the desirability of handling the type of swine which has given profitable results in those countries. In these same countries it would be a mistake for the farmers to introduce and persist in breeding the lard-type hog since not only would it be impossible to maintain a high standard of the type under their conditions, but seeing that a high class of bacon hogs fitted for the finest export trade may be produced, it would be a mistake financially.

Each of our large market centers has practically its own standard or type of market swine. Of late years the various types have gradually been narrowing down to one uniform type which will give best results, not only to the producer and packer, but which is also most desirable for our modern markets.

Until recently our domestic markets demanded heavier meats than those called for by the British consumer. The British market has demanded lighter, leaner meats, finished at early weights. The heavy hams, shoulders, and fat backs of the lard hog find slow sale in Great Britain. When we seek bacon hogs suitable for the production of export-bacon sides, we must look outside of the corn-belt for the type that is most desirable. While it is true that under favorable conditions, some desirable bacon hogs may be produced in the corn-belt, we can not reasonably expect this seeing that they have been bred persistently for widely different purposes. In the last ten years our home markets have undergone a decided and permanent change. The American consumer has learned that tender, juicy ham and bacon are among the most palatable and nutritious food-stuffs available if produced from animals not overloaded with fat. The most critical American trade is calling for practically the same grade of ham and bacon as is demanded by the British consumer. Without doubt the tendency will continue in this direction; consequently we turn to the bacon hog to fill the requirements. An ideal bacon hog must be smooth and even throughout and with a smooth, even covering. The back should have an even covering of fat running from three-fourths to one and one-fourth inches in thickness, evenly laid from the crest of the neck to the tail head and not thickening into a heavy patch behind the shoulders or over the loins. Given first-class bacon hogs, the packers, with their present perfected facilities for curing and handling the product and placing it upon the European markets, would, without doubt, soon command for the American farmer prices which would compare favorably with those now paid for the finest English and Danish hogs.

As to the cost of producing bacon hogs; while numerous experiments at Canadian experiment stations have shown that under their conditions, bacon hogs cost no more per pound to produce than hogs of the lard type, it is only fair to say that Canadian conditions are more favorable for bacon hogs than are those in the American corn-belt, but Minnesota and North Dakota having conditions the same as Canada, results will be the same; so the farmers outside of the corn-belt, and especially in the Northwestern States, where nitrogenous feeds are abundant and cheap, can produce hogs at a cost which will compare favorably with the cost of heavy hogs in the Middle Western States. We are satisfied it will pay hog-raisers everywhere not producing pure-bred animals, but hogs for market only, to introduce some bacon-type blood in their herds. It is a well-known fact that where corn has been fed continuously for generations, swine have become deficient in bone and muscle and lacking in ability to yield a reasonably large proportion of edible, juicy, lean meat in their carcasses. In such cases, experiments already tried have demonstrated conclusively that it will pay to use bacon-type sires for one or two crosses. It was once

thought that desirable firm, light bacon sides might be secured from undersized, underfinished lard hogs. This experiment was unsuccessful and the work has been discontinued. The most desirable cross, if a cross be desired, is with a Yorkshire boar and a Berkshire sow. The large improved Yorkshire has many qualities to recommend him as the ideal bacon-type hog—first his color is the best: white hogs dress out cleaner and yield more attractive carcasses than hogs of other breeds. They are remarkably prolific, the writer having seen in his own experience numerous litters of sixteen to eighteen pigs with an average covering ten years of more than ten reared. Yorkshire dams are remarkably good mothers; hence, we find the young pigs are started so well in life that at 8 weeks old they should be heavier than pigs of other breeds. Some charge the Yorkshire breed with being slow in maturing, in view of the fact that a thrifty Yorkshire will take on weight until the age of 4 or 5 years, but compared with other breeds at the age of 8 to 10 months, which is the most desirable age to fulfill the packers' demand for bacon products, I am satisfied that they can not be surpassed for rapidity of growth and development.

As to their place in the United States; I do not recommend their general introduction all over the country to the exclusion of present types, which in many cases are producing maximum results with great profits. In any section of the Northwest where the production of bacon hogs is already a well-established and profitable industry, the Yorkshire is strongly in demand, and this demand will continue as the requirements for bacon types are constantly increasing.

The writer bred and handled large Yorkshires and their grades and crosses for ten years on his own farm and is thoroughly familiar with them from the farmer's point of view. Several years subsequently spent in careful study of our breeds of swine from the market standpoint in the world's greatest packing business is referred to merely to assure the American farmer that the opinions here expressed are founded on actual experience and fact.

Mr. Andrew Boss, professor of animal husbandry at the Minnesota Agricultural Experiment Station, endorses the Yorkshire breed in the following letter to Swift & Company, South St. Paul, Minn.:

"I am glad to see that you are interested in inducing the farmers of the Northwest to grow better hogs. I have been an admirer of the Yorkshire breed ever since I learned their good qualities. They are adapted to general farm conditions. I think their prolificacy and good breeding qualities make them a very desirable farmer's hog. . . . In our experience with them they have averaged I should say from three to five pigs more per litter than the lard type of hogs. . . . The feed raised on Minnesota farms is well calculated to make a first-class quality of bacon, and I believe that the product of flax, wheat, and cornfields will yield more profit per acre if fed to the bacon-type hog than it will if fed to any other class of stock.

Swift & Company, of South St. Paul, Minn., endorse the Yorkshire breed and have for some time been encouraging the farmers of the Northwest to produce more bacon hogs to help fill the increasing demand of this class of product.

Gossip About Stock.

Volume 41 of the American Poland-China Record is just received. It contains records of boar pedigrees numbered 100001 to 101901 inclusive, and sow pedigrees numbered 249002 to 256000 inclusive. Secretary W. M. McFadden, Union Stock Yards, Chicago, will be able to supply this book to breeders.

Chas. Storms, of Goffs, Kans., one of the younger breeders of Duroc-Jerseys, has some nice spring pigs. He is not doing much at the business this year, owing to the fact that he has not the facilities to handle it properly, but he will move this fall to a farm better adapted for raising pure-bred pigs, and will then go into business on an extensive scale.

H. J. Northrup, of Frankfort, Kans., has some fine spring litters of Poland-China pigs. He takes good care of his hogs and he will have some bargains this fall to offer to the public. Mr. Northrup has recently added a Nemo L's Dude boar to his herd, which is one of the finest individuals we have seen this season, and if no ill luck overtakes him, we predict that he will be one of the notable herd-sires of the breed in Kansas.

This week we start the advertisement of Col. John Brennen, of Eabon, Kans. Colonel Brennen is one of the most popular of Kansas auctioneers, having officiated at most of the pure-

Horse Owners! Use

GOMBAULT'S

Caustic Balsam

A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Cleveland, O.

No More Blind Horses For Specific Ophthalmia, Moon Blindness and other Sore Eyes, BARRY CO., Iowa City, Ia., have a cure

STOLL'S STAY-THERE EAR MARK.
The best and cheapest ear-mark made. It possesses more points of merit than any other make. Send for samples. J. S. Stoll, Bostons, Neb.

SECURITY GALL CURE
POSITIVELY CURES
SORE SHOULDER
SORE NECKS OR BACKS ON
HORSES AND MULES
IT CURES THEM ANYWAY.
IN HARNESS, UNDER SADDLE OR IDLE
IF NOT SOLD IN YOUR TOWN WE WILL SEND YOU
FREE SAMPLE. If you send us the name of your dealer.
Put up in 25c, 50c and \$1.00 Cans
MONEY BACK IF IT FAILS
SECURITY REMEDY CO.
MINNEAPOLIS, MINN.

BICKMORE'S GALL CURE
BE SURE AND WORK THE HORSE
Is sold by all dealers and they will pay the money back if it does not cure harness and saddle galls, wire cuts, speed cracks, scratches or greases heel while you work the horse. Nothing better for bruises, rope burn, old sores or cracked cow's teats. No substitute one half so good. Write today for Bickmore's Sample box Gall Cure for 10 cents to pay postage on both. Sold by dealers. Bickmore Gall Cure Co., Box 916 Old Town, Maine.

KRESO DIP KILLS LICE
ON ALL LIVE STOCK
EASY & SAFE TO USE

BLUE CATTLE LOUSE
KRESO DIP KILLS THIS AND ALL OTHERS
RED CATTLE LICE, HORSE LICE, HOG LICE, SHEEP LICE & TICKS, POULTRY LICE, DOG LICE AND FLEAS
Write For Free Booklets For Sale By All Druggists

PARKE, DAVIS & CO.
HOME OFFICES AND LABORATORIES: DETROIT, MICH.
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis, U.S.A.: Walkerville, Ont.; Montreal, Que.

When writing advertisers please mention THE KANSAS FARMER.

Our Stationery Specialty

Owing to the frequent demands for fine job work in the line of stock printing, we are now prepared to fill such orders and as a starter offer to breeders of pure-bred stock a line of stationery, neatly packed in a special case and delivered to any express office prepaid. The work will be high-class printing, first class stock. We furnish stock cuts representative of the breed. Our stationery specialty consists of

250 bill heads, printed.
500 business cards.
1,000 envelopes.
1,000 letterheads.
1 stationery case.
Kansas Farmer one year.
Shipment free to your express office.
All complete for \$10.

Address all orders to

The Kansas Farmer Company

Stock Printing Department

Topeka

Kansas

bred hog sales of Northern Kansas for some years. Colonel Brennan is always able to get good prices, and his knowledge of pedigrees and his extensive acquaintance makes him an auctioneer who is always in demand. If you are needing an auctioneer for your coming sales it will pay you to write him for dates.

One of the valuable herds of Short-horn cattle, which has been established for a number of years in Kansas, is the Meadowbrook herd owned by E. C. Kingsley, Dover, Shawnee County, Kansas. The herd now numbers 65 head of uniform red Shorthorns. The herd is headed by one of the best sires ever used in the herd, the Scotch bull, Baron Goldsmith 224633. At the present time Mr. Kingsley has for sale nine choice red Shorthorn bulls, also a number of cows and heifers that will be sold at attractive figures to the intending purchaser.

John Black, of Barnard, Kans., has just purchased a new boar from Frank Michael, the popular breeder of Summerfield, Kans. He is an August pig sired by Champion Chief 32207, by King Do Do 29307 by Expansion. Unless this animal meets with bad luck he will make a great boar. Champion Chief, his sire, was one of the good ones at Lincoln last fall, and without being fitted for show purposes won sixth place. Of course, sixth place does not sound big, but at Lincoln you may be proud if you have an animal that the judge thinks enough of to give a place and premium.

Last week we visited the herd of Frank Mitchell, of Summerfield, Kans. Frank knows how to grow pigs, and when he gets fixed for it he is going to show others that he understands the business. He has some great sows in his herd; among them being May Expansion by Expansion Black Bonnie 98853 by Champion Chief, Lady Blackfoot 76866 by B. B. Victor 2d, Henrietta 80501 by Expansion by Expansion, and Bessie B. by Expansion 3d. Mr. Michael's spring pigs are sired by Ganet's Best by Proud Monarch by Chief Perfection 2d, Champion Chief, a grandson of Expansion, and Blain's Wonder 38717 by Johnson's Chief 35774, winner of sweepstakes at Nebraska State Fair in 1902 as a yearling. When you want a good pig it will pay you to write Mr. Michael.



Herewith is a picture of C. F. Hutchinson, of Bellaire, Kans., one of the directors of the Standard Poland-China Record Association. Mr. Hutchinson has been raising pure-bred swine for more than thirty years. Some of the noted hogs he has raised are Bright Look, winner of sweepstakes and first at Nebraska State Fair 1900, Guy's Price 26037, winner of first and sweepstakes Nebraska and Kansas State Fair 1903, Hutch 52287, who won second under six months at Nebraska State Fair, and Tecumseh White Face 89670, who won first and sweepstakes Kansas State Fair in 1903.

Folz & Son, of Marysville, are new members of the Duroc breeding fraternity. They purchased most of their stock from John Hunt, which is ample assurance of its good quality. They have one hundred and thirty fine pigs, and intend to hold a fall sale some time in October. When the Folz's go into anything they go in to stay and to win, and we predict that in a short time they will be in the front ranks as breeders of the Durocs. When a man makes a success of one thing he is pretty apt to succeed when he starts a new venture. Mr. Folz has been one of the successful farmers of Northern Kansas for many years. He recently came to Marysville from Oketo, Kans., and has erected a large, modern house that is one of the prettiest residences in the city. Put Folz & Son on your list of coming breeders.

A. B. Garrison, the well-known breeder of Poland-Chinas of Beattie, Kans., has some fine spring pigs. While he is a little shy on numbers, he is making it up on quality, and will surely have some fine fellows for his fall sale. Mr. Garrison has as fine a lot of brood sows as we have seen this year. Among the good ones are Dude's Daughter 90779, Ringtail 78338, Miss Blain 67268, Flashy Lady 82100, Minnie Faultless 82103, Beauties Coe 2d 84449, and Lady You Tell 4th 64954, who is the mother of one of his great herd-boars, Prince You Tell 32204 S. This boar deserves more than casual mention. He is one of the big fellows with splendid back, hams, and legs, and well-sprung ribs. Judging from some of the gilts we saw that were sired by him, Prince You Tell's pigs will be in great demand this fall. Mr. Garrison's other herd-boar, Prince We Know 33598 S, was out of condition last fall, and Mr. Garrison has only a few pigs in his spring litters that were sired by him.

The enormous loss of pigs during the

past spring emphasizes the fact that the breeders of pure-bred hogs must make provision for the better care of their sows during farrowing time. Many breeders report the loss of from 25 to 50 per cent of their spring crop and in many instances the death loss can be traced directly to lack of protection from the weather. One of the lucky breeders of the State is Mr. Ben Bell, of Beattie, Kans. While Mr. Bell is one of the men who has been breeding good hogs for many years, it is only recently that he has gone into the business on an extensive scale. In a conversation with Mr. Bell a few days ago he said: "When I decided a year ago to again go into the hog business I made up my mind to start right, and at once began the erection of a modern hog-house." With the determination to spare no expense he went to work and completed one of the most up-to-date houses in the State. It was erected at a cost of about a thousand dollars. The main building is thirty feet square and twenty feet high, this part being built for the purpose of a sale pavilion. In it the seats are arranged like the seating of a circus tent, and will accommodate 300 people. Buyers attending his sale will have no fear of the storms and cold, but will be as comfortable as though by their own fireside. From the main building three wings extend, one to the east, one west, and the other south. In these wings the sows are kept during farrowing time, and the comfort and advantage of this plan is proved by the small percentage of loss of small pigs. Mr. Bell has over 200 head from his spring litters, over 60 of them being early March pigs. They are large, growthy fellows, and should bring big prices in his fall sale. He says that the saving on the loss of spring pigs alone will almost pay for his hog-house. Mr. Bell will have some fine stuff to offer this fall through the columns of THE KANSAS FARMER.

Grain in Kansas City.

Receipts of wheat in Kansas City yesterday were 57 cars; Saturday's inspections were 27 cars. Early sales were at unchanged prices; later there was an advance of $\frac{1}{4}$ c to 1 c. The sales were: No. 2 hard, 3 cars 84c, 1 car 83c, 2 cars 82 $\frac{1}{2}$ c, 6 cars 82c; No. 3 hard, 1 car 82c, 1 car 81 $\frac{1}{2}$ c, 5 cars 81c, 3 cars 80c, 3 cars 79c, 1 bulkhead car 78c; No. 4 hard, 1 car 78c, 4 cars 77c, 5 cars 76c, 2 cars 75c, 1 car 74c, 1 car 71c, 1 car 70 $\frac{1}{2}$ c; rejected hard, 1 car 76c, 1 car 69c, 1 car 68c, 1 car 66c, 1 car 62 $\frac{1}{2}$ c, 1 car 62c, 1 car live weevil 76c; No. 2 red, 1 car 93c; No. 3 red, 2 cars 92c; No. 4 red, 1 car 83c; rejected red, 1 car 76c, 1 car 75c; No. 2 mixed, 1 car 83c; No. 3 white spring, 1 car 82c.

Receipts of corn were 115 cars; Saturday's inspections were 61 cars. Offerings were heavy. Prices were unchanged to $\frac{1}{4}$ c lower, as follows: No. 2 white, 8 cars 48c; No. 3 white, 2 cars 48c, 3 cars 47 $\frac{1}{2}$ c; No. 2 mixed, 14 cars 47 $\frac{1}{2}$ c; No. 3 mixed, 17 cars 47 $\frac{1}{2}$ c; No. 4 mixed, 1 car 46 $\frac{1}{2}$ c, 1 car 46c, 1 car 45 $\frac{1}{2}$ c; No. 2 yellow, 1 car 48 $\frac{1}{2}$ c, 12 cars 48c; No. 3 yellow, 7 cars 47 $\frac{1}{2}$ c.

Receipts of oats were 11 cars; Saturday's inspections were 10 cars. Sales were made slowly at Saturday's prices, as follows: No. 2 white, 1 car 35 $\frac{1}{2}$ c, 4 cars 35c; No. 3 white, 3 cars 34 $\frac{1}{2}$ c, 4 cars 34 $\frac{1}{2}$ c, 1 car color 34 $\frac{1}{2}$ c, 1 car color 34 $\frac{1}{2}$ c; No. 2 mixed, nominally 33 $\frac{1}{2}$ c @ 34c; No. 3 mixed, nominally 33 @ 33 $\frac{1}{2}$ c.

Barley was quoted 40 @ 43c; rye, 56 @ 58c; kafir-corn, 80 @ 82c per cwt.; bran, 81 @ 84c per cwt.; shorts, 85 @ 88c per cwt.; corn-chop, 92 @ 94c per cwt.

South St. Joseph Live-Stock Market.

South St. Joseph, Mo., May 21, 1906. The trade in cattle to-day showed very little change from the close of last week, although all other markets were reported lower on account of excessive supplies in Chicago. Local receipts were not large enough to supply the demand, consequently bidding was spirited and prices were well in line with last Friday. Included in the offerings to-day were good long-ford 1490-pound steers that sold at \$5.65, and there was quite a showing of good medium and plain heavy steers that sold at \$5.15 @ 5.25, while some common to fair short-fed grassy offerings sold at \$4.75; spayed heifers light in weight and of good quality sold at \$4.30, and a pretty desirable kind of spayed heifers sold at \$4.25 @ 5.00; these, together with good cows, sold fully steady, but commonish grasser cows and canners were weak to 10c lower on bulk. Bulls and veals are unchanged. The trade in stockers and feeders is practically at a standstill. There was no country demand and regular dealers insisted on a further decline of 15 @ 25c, making a decline of 40 @ 50c from the best time of last week. There was some demand for stock cows and heifers and stock bulls at unchanged prices.

Receipts of hogs at the five points to-day aggregated 75,500, a gain of 22,600 over the corresponding day last week; two-thirds of this number were centered in Chicago, where prices broke 10 @ 15c, and this precipitated a sharp decline at all other markets. Demand here is sufficiently strong to keep values from breaking proportionately with Chicago, prices generally ruling 7 $\frac{1}{2}$ @ 10c lower than the general market of Saturday. Trading on this basis, however, was rather dull, and a few loads were unsold at the close. Quality offered was somewhat better than Saturday and weights were somewhat stronger. The supply consists largely of strong weight butcher lots, and good mixed packing grades. Prices ranged from \$6.20 @ 6.35, with the bulk selling at \$6.25 @ 6.30. Pigs were in poor supply and steady.

Offerings in the sheep division to-day were mostly lambs on which the market ruled 5 @ 10c higher. Both woolled and shorn lambs made a new high notch for the season, the former selling up to \$7.75 and the latter up to \$6.80. Demand is strong for sheep, and had there been any off-price would have ruled somewhat higher.

WARRICK.

Kansas City Live-Stock Market.

Stock Yards, Kansas City, Mo., May 21, 1906. Receipts of cattle last week were moderate at 32,600, a decrease of 4,800 from the preceding week. The supply

FREE TRIAL

MUELLER'S MOLASSES GRAINS



25-lb. pail.

MUELLER'S MOLASSES GRAINS is a feed for all live stock. Horses, cows, hogs, sheep, colts, pigs, and poultry thrive on it. It is made of barley-sprouts, brewer's grains and molasses, scientifically prepared and mixed—easily digested, free from drugs or medicine of any kind. It keeps live stock in a healthful, thrifty condition.

MUELLER'S MOLASSES GRAINS takes the place of corn, oats, and other mill-feeds at a saving in cost of full one-third. It is being fed more and more by the largest stock-raisers and horse-owners, and is giving universal satisfaction.

Molasses and sugar have always been recognized as containing properties of the greatest feeding value, but the problem has been, how to put them in such shape that they could be fed easily at a cost in keeping with other feeds. Mueller's Molasses Grains accomplish this, and is superior as feed to corn, oats, bran, and other mill-feeds, as it accomplishes better results at one-third less cost. It contains all the desirable properties of feed in just the right proportions to make a perfectly balanced ration when fed with hay, fodder, or other farm roughage. Molasses is one of the very few articles of food that is entirely assimilated by the digestive organs. It is all digested. It nourishes, strengthens, and fattens horses, milch cows, and other live stock, keeping them in the pink of condition, and free from disease.

It is not a medicine, but a natural vegetable food, palatable, nutritious, and economical. To prove that all claims made for Mueller's Molasses Grains are true, I will send one hundred pounds of it to any owner of live stock, that he may try it for himself. If it does not prove to be all that I claim and perfectly satisfactory, it need not be paid for.

Surely this is sufficiently liberal that I ought to hear from every live stock owner who reads this advertisement. May I send you a 25-pound pail on free trial? Fill out and mail coupon below.



Trade Mark.

E. P. Mueller,

Commerce, Street

Milwaukee Wisconsin

FILL OUT—CUT OUT—MAIL TO ME TO-DAY.

Your Name	Your Dealer's Name	No. Horses Fed
P. O. 503	P. O.	Cows
County	County	Sheep
State	State	Hogs

St. John's Military School

Salina, Kansas

A school for boys and young men who desire to prepare for college. A school that prepares its students in mind and body so that they may enter college with intelligence and vigor.

Send for catalogue, and other information to

Rev. ROBERT H. MIZE, Rector, Salina, Kansas

was bunched on Tuesday, when receipts were upwards of 14,000, causing a 10 @ 15c decline on beef steers. This was fully regained before the week's close, with some additional advance on light and medium weight grades. Top steers ranged from \$5.15 @ 5.75, against \$5 @ 5.25 the preceding week. A good quality of 1,100- to 1,350-pound steers brought \$4.85 @ 5.25. Yearling steers and heifers of good quality were active at the close of last week, and the opening of this. Mixed loads sold up to \$5.30, straight heifers to \$5, and choice heavy cows at \$4.25 @ 4.75. The stocker and feeder market was dull, closing weak to 10c lower than the preceding week's close. Stock cows and heifers closed 10 @ 15c under the high level of the week, and stock calves lost 25c, closing dull. Veals ruled steady, at \$4.50 @ 6. Butcher bulls and best bolognas were firm and active.

This week opens with a moderate run of cattle, 9,000 to-day, but the local market was handicapped by a heavy run, 31,000, at Chicago. Light and handy weight steers of good quality and finish sold fully steady with last week's close. Good heavy steers were slow and weak, plain heavy ones weak to 10c lower. Top \$5.60. Butcher stock was mostly steady, but heavy cows were slow and weak to lower. Common light stockers were draggy and weak, other stocker and feeder grades steady.

Hog receipts for the week were 64,500, an increase of 6,500 over preceding week. On Saturday top was \$6.45 and bulk \$6.30 @ 6.40, against a top of \$6.42 $\frac{1}{2}$ and bulk of \$6.32 $\frac{1}{2}$ @ 6.37 $\frac{1}{2}$ the preceding Saturday. To-day's receipts were fairly liberal at 8,000, but market declined 7 $\frac{1}{2}$ @ 10c in sympathy with Chicago, where receipts were very heavy at 50,000 and the market was 10 @ 15c off. Top to-day \$6.35, bulk \$6.25 @ 6.32 $\frac{1}{2}$.

Sheep receipts to-day were liberal at 5,000, but the market was firm and active. Spring lambs bringing \$8, shorn Westerns \$6.65, woolled Westerns \$7.65. Receipts for the week show a slight gain at 28,300. Prices advanced 20 @ 30c and all of the gain was held. Woolled lambs reached \$7.70, and shorn lambs \$6.65. Arizona grassers, first of the season, brought \$6 @ 6.10, against \$5 @ 5.25 a year ago. Texas grassers \$5.67 $\frac{1}{2}$ against \$5 a year ago.

J. A. RICKART.

A Home For Half the Money

In the Pacific Northwest. A handsomely illustrated 88-page book,

"OREGON WASHINGTON IDAHO AND THEIR RESOURCES"

Telling about the three States, and contains a good map of the section. Write for it today, send four cents in postage. :: :: :: ::

A. L. Craig,

ROOM 212 WORCESTER BLDG.,

PORTLAND, OREGON.

KENDALL'S SPAVIN CURE

Continues to be the one reliable remedy for Spavins, Ringbones, Curbs, Splints and all forms of lameness.

KENDALL'S SPAVIN CURE cures promptly, permanently, without pain. It is a bottle, 50¢ for 50¢. All druggists. Unsolicited for daily use. Sent, 4¢ free on the basis, from Dr. J. C. KENDALL CO., Danbury, Vt., Vermont.

Home Departments

CONDUCTED BY RUTH COWGILL.

A Parent's Fancy.

Eight boys and girls I call my own,
And flaunt the fact with ringing tone.

With less than eight my joy were less;
But eight will do, I do confess.

Of I am bold enough to state
I have but one, instead of eight—

One perfect child, so I maintain,
Instead of eight, with spot and stain.

I take the good in each dear soul,
And add all up to make one whole.

And that one, you may plainly see,
Is just as good as good can be.

Thus 'tis not eight I have, defied,
But only one, a perfect child.

How now? Say not the bad, combined,
Makes, likewise, one of demon mind.

Such view, indeed is not from me;
Such view my fond heart can not see.

I know but this: My eight possess
A rounded orb of nobleness.

—J. E. Everett.

Children's Rights.

It is considered by some that the children of the present day have too many rights, and they long for the good old days of their grandsires. Perhaps some of the rights allowed them are not the ones best for them. The most important ones and the ones which are most often disregarded are those about which the child can have nothing to say and have no choice in the matter, and about which too many parents feel no responsibility. A child deserves, first of all, to be well born. One of the greatest blessings parents can bestow on their children is the right choice of their ancestors, as far back as grandparents at the least.

It is not necessary that the great grandparents were among those who came over in the Mayflower and settled in or near Boston, or that in their veins flows some of the old Virginia blood, but to be well born is to be placed in the world with a sound, healthy body and well-balanced and perfectly shaped brain; with no taints nor hereditary curse to follow them through life. Farmers and stockmen have learned to produce finer horses and cattle and even hogs by giving thought and practice to these things. Is a boy or a girl—a human soul—of less value than these?

It is not my intention to enter into a discussion as to which is the most important—to be well born or to be well trained—and if I should we would be no nearer a conclusion than before, for both are important. But I am satisfied that a child that is well born has a great deal better chance in life than the one who has in his body the ills of generations behind him, or their moral taint to battle with. He is handicapped to begin with. It is unkind of the father and mother to neglect the training of the children, and in after life when the truth of the matter dawns upon these same children they will blame and censure them for this neglect. Have you not seen the child who is left to his own sweet will without restraint or discipline? How unhappy he is! He is discontented, hard to please, and selfish. And when he goes out into the world of temptations—where will be his strength to battle against them? He has never practiced self-denial. He has always had his own way and followed his inclination. Why not now? To discipline a child is not to break his will, and crush his self-respect. To do that is the other extreme to which some go, but it is not discipline. It is to teach him to be master of himself, to make him strong and self-reliant. Burbank has spent years of study and toil to produce the best results in plant-life. Why is so little attention given to the birth and training of our boys and girls?

Once upon a time a farmer had among his many swine a little pig that was puny and weak, and he thought it was not worth while to bother with it, and he gave it to John. John had never had any live thing of his own before, and was delighted to have it. He cared for it patiently and devotedly, and it lived and flourished and became in time a real hog—of the swine family—and John felt rich. But father sold the hogs and this one among them, and pocketed the money. Were they not all his—and John, too? Could he not do what he pleased with his own?

But John did not look upon it in

that light. The hog was his. Father said it was, and he felt that he had suffered an injustice in the transaction. He had laid great plans about what he should do with the money—perhaps invest in more of the same kind, his plans reaching far into the future. Can you wonder if a little later he leaves the farm and goes out into the wide world to see if it is any kinder?

Seasonable Recipes.

Strawberry Blanc Mange.—A few berries may be made to go much farther made into a blanc mange. Make the blanc mange in the usual way (there is always a recipe on the corn-starch box) and when ready to pour out stir into it a cup of strawberries cut into small pieces. Cut a few of the larger berries in halves and place three or four in the bottom of each cup before pouring in the starch to mold, so that they will be on the top when turned out. Nice served with strawberry sauce made by crushing strawberries and adding syrup of white sugar to thin and sweeten.

Strawberry Shortcake.—For five persons, wash one quart of strawberries, drain well, add one-half cup sugar and crush. For the crust, sift three teaspoons baking powder with one quart flour, rub in butter the size of a large egg, add sweet milk to make a soft dough. Bake in three layers, put the strawberries between the layers, saving a little to put on top, enough to moisten it; then cut large strawberries in halves lengthwise and cover the top with them. Nice either with plain cream or with whipped cream.

Escalloped Asparagus.—Boil asparagus until tender, then drain, and place a layer in a buttered baking dish which has been well sprinkled with bread-crumbs. Sprinkle the asparagus with chopped hard-boiled eggs, pepper, salt, and grated cheese, and proceed in this way until the pan is full, having the top layer of asparagus. Pour over it a cupful of thin white sauce, sprinkle with buttered crumbs, and brown delicately in a hot oven.

Asparagus with Eggs.—Boil asparagus until tender, then place in a buttered baking-dish; season delicately with salt, pepper, and a pinch of nutmeg. Beat the yolks of four eggs until light, add two tablespoonfuls of cream, two level teaspoonfuls of butter, a little more seasoning, and the whites of the eggs beaten to a froth. Pour over the asparagus, set in a hot oven, and bake until the eggs are set.

Asparagus and Green-Pea Croquettes.—Mash one cupful of cooked asparagus tips with one cupful of cooked green peas; season with salt and pepper, add one-half tablespoonful of melted butter and one beaten egg. Let get cold, mold into small croquettes, roll in bread-crumbs, then in egg, and again in bread-crumbs. Fry in hot oil or fat, drain a moment on unglazed paper, and serve at once.

Asparagus Salad.—Ice cooked asparagus tips and mix them lightly with finely-minced young onion. Serve ice-cold in little nests of tender lettuce leaves with a little French dressing poured over. A cream mayonnaise is also a delightful accompaniment, and especially if the iced asparagus tips are mixed with an equal amount of iced green peas.

Outdoor Life.

The magic breath of spring is in the air, even though it be a little chilly for the passing moment, and beauty is budding and blooming everywhere. The outdoor season is at hand. Good Health, an excellent publication, suggests that as soon as the weather will permit everybody should live on the porch, do their reading, sewing, eating, lounging, and napping there. There is nothing more healthful than living in the open air. Condensing Good Health's suggestions the Baltimore Sun says:

"The parlor ought to be deserted in summer for the open air, and the dining-room likewise. With hammocks and easy chairs a delightful existence there is practicable, and a stay there is much more health-giving than in the contaminated air of a bedroom. Many persons nowadays spend the night on the porch in summer, and not a few find the air better there in winter also. There are porches and porches. A bare, bleak porch exposed to the sun has its drawbacks, but it

can be made attractive by planting around it in the spring quick-growing vines. Clematis, woodbine, trumpet flower, ivy, and honeysuckle can be planted later for perennial shade. The morning-glory is a rapid grower and will give in a few weeks the desired privacy and shade. The scarlet creeping bean is said to grow six and three-quarter inches in one night. One of its merits is that it attracts humming-birds all the summer long. Porch furniture is now made in many styles, including the indispensable table for books, magazines, etc. Hanging baskets with flowers and ferns have a decorative effect. Everything is to be added that will charm the household from the house into the open air."

Outdoor life, exercise, is better than medicine. It is good for the body, the mind, and the soul. The approach of the outdoor season should be also the cleaning season. The spade and the hoe, the broom and the paint brush should be brought into activity. Nature always does her part; let man do his. Clean yards and lawns, rear as well as front, clean streets and sidewalks, trees, grass, flowers, vines, these are necessary to cleanliness and beauty, such as give satisfaction to the eye and repose to the mind. There are many ways of living. Some do not live; they merely exist. Some persons of wealth only half live. To labor to live may be a necessity, but to live to labor is a duty. There is a wealth of beauty and loveliness that may be enjoyed by all. But there is no beauty without cleanliness, and outdoor life with dirty surroundings can not be attractive.—Nashville American.

Prevention of Moths in Furs and Woollens.

The moth insect begins to fly freely about the house as soon as warm weather begins, usually the latter part of March for Rochester, N. Y. After this date it is not safe to have furs or woolen clothing hanging about where the moths can get at them. The moth fly lays its eggs in the furs of woolen garments, which hatch into little maggots which feed upon the wool or fur, or the hide itself, thus ruining it in a short time.

Remedy: Take ordinary tarred paper fresh from the roll and cut it in such shape that it will cover the under part and the upper part of the garment when properly folded to go into a box. Place the fur or the woolen garment inside this fold of tarred paper, then place it in a tight paper box with a tight-fitting cover. Or, better, place it in a tightly sewed bag and tie the open end of the bag so tight that no insect can enter. If a tight paper box is used after the cover is put on, paper should be pasted over the crack or lamb in such a way as to make it impossible for the smallest insect to get into the box.

At the fur stores you can have your garments taken care of by paying from \$1 to \$5 each for the summer season, but this is expensive. At the fur stores they examine the garments each month, and if they see the slightest indication of moths working, they apply suitable remedies, whipping the garments lightly and exposing them to the sunshine for a brief time only.

Garments worn once in two to four weeks are seldom attacked by moths for some reason. If you have valuable furs to care for it is best to examine them at least once a month. Dyed furs, like sealskins, moths do not attack. Furs of natural colors, such as mink, the moths will attack freely. —Green's Fruit Grower.

Refined Pork.

Harold was playing "keep store" and had prevailed upon his grandmother to become one of his patrons. When she appeared in the role of customer he said:

"Have some nice vegetables or fruit or meat? Here is some extra nice boiled ham. Have some?"

"No, thank you," she said, "I don't like ham."

"Oh, but I think you'd like this, Ma'am. It is hardly a bit hammy." —Lippincott's.

Butter with a fishy taste has aroused complaint in Australia, where investigation has shown that the flavor has no connection with fish, but is due to one or more of four micro-organisms. The rusty iron of cans was found to have a bad effect on milk and cream.

One Fare for Round Trip

Plus \$1 from Chicago to Boston and return, via Nickel Plate Road, May 31 to June 9, inclusive. Also excursion rates via New York City. Extended return limit July 15. John Y. Calahan, General Agent, Room 298, 113 Adams St., Chicago. (3)



Why

go on a wild goose chase for Shot Shells? U. M. C. Shells double your chances because they bring them down "just out of range." U. M. C. are the Shells for your gun.



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, 318 Broadway, N. Y.

Death of Floral Lawn Cause, Smothered by Dandelions

The dandelion pest has had its day. Forgone dollar you can get an instrument that can be used by women and children as well as men that will pull dandelions and other noxious weeds at the rate of one thousand an hour, and leave not a drop of dirt nor a visible tear in the sod. No stooping nor bending and is a pleasure not a task to operate it; dandelions are automatically pulled, and your hands are not soiled, nor your back tired, no grunting nor humping around to do your work. Pulls any dandelion or weed when tap root does not exceed 16 inches in length. Send one dollar and we will deliver free at your door.

The Standard Incubator Co.

PONCA, NEBRASKA



YOUNG MEN AND WOMEN Here is a school in its own home, costing \$40,000. Steam heat, electric lights thoroughly modern equipment. Our Employment Bureau places all competent graduates. We send stenographers, bookkeepers, and commercial teachers to all parts of the world. Business, Stenographic, preparatory, Civil Service and Special Pen Art Department. Tuition low, good board cheap, advantages unsurpassed. Special summer rates. Write Kansas Farmer for particulars. T. W. Roach, Supt., Box D, Salina, Kans.

If You Educate For Business

you will naturally select the best modern business training school to be found.

The Central Kansas Business College

Why? Because its graduates are successful. Teachers professional. Methods new. Equipment largest in the Middle West. Indorsed and recognized by all commercial schools in America. Employment department through which every competent bookkeeper and stenographer from our school is secured a position. The mecca for fine penmanship and training of commercial teachers. Location of school and city most excellent. Tuition moderate. Board and room cheaper and better than elsewhere. No vacations, school in session every day in the year. Moral tone of the college unequalled anywhere. For further particulars address,

H. A. Andreson, M. A.
Abilene, - - Kansas

The Kansas State Agricultural College

OFFERS courses in Agriculture, Domestic Science, General Science, Mechanical Engineering, Electrical Engineering, Architecture, and Veterinary Science. Also short courses in Agriculture, Dairying, and Domestic Science. Admission direct from the country schools. A preparatory department is maintained for persons over eighteen. Necessary expenses low. Catalogue free. Address

PRES. E. R. NICHOLS,
BOX 50. MANHATTAN, KANS.

The Young Folks

As You Go Through Life.
Don't look for flaws as you go through life,
And even when you find them,
It is wise and kind to be somewhat blind.
And look for the virtue behind them.
For the cloudiest night has a hint of light.
Somewhere in its shadows hiding:
It's better by far to hunt for a star
Than the spot on the sun abiding.

The current of life runs ever away
To the bosom of God's great ocean—
Don't set your force 'gainst the river's course,
And think to alter its motion.
Don't waste a curse on the universe,
Remember, it lived before you;
Don't butt at a storm with your puny form,
But bend and let it go o'er you.

The world will never adjust itself
To suit your whims to the letter;
Some things must go wrong your whole life long,
And the sooner you know it the better.
It is folly to fight with the Infinite,
And go under at last in the wrestle;
The wiser man shapes into God's plan
As water shapes into a vessel.

—Ella Wheeler Wilcox.

Fleetfoot; the Autobiography of a Pony.

MARION SEWELL.

CHAPTER XII.—THE NAME WAS MAUD.
I made no mistake when I prophesied for myself a sleepless night in Mr. Floyd's stable. While I was still nibbling at the hay piled high in my manger, flashes of light repeatedly quivered before my eyes, and about the same time loud, rumbling sounds which I recognized as thunder caused me to prance around nervously, but the disturbed condition of the elements affected the yellow mule a great deal more than it did me, for he seemed to have lost all control of himself. The present excitement, added to his fiendish temper, served to make him anything but a comfortable companion. Every time the lightning flashed he would rear up on the manger and snort viciously, and the thunder which followed gave him an excuse to kick either the partition which separated us, or the wall behind him.
After about four hours of this strenuous performance, a heavy board was hurled across the stable, striking me with some violence on the knee. The next time my stall was lit up I observed that the dividing wall was completely shattered, and the fact that there was now no barrier between us worked his muleship into an added fury.

Presently the rain commenced coming down in torrents, and aside from the endless pouring sound upon the roof, all signs of storm disappeared. In the beginning of the blessed peace, the yellow mule suddenly became calm. Whether he had exhausted himself to the point of sleep or whether he dropped in a fit of apoplexy, I neither know nor care; all I am sure of is that he was quiet at last.

The next morning when I awoke in the light of a calm and beautiful day it seemed as if some tragic wreck had taken place in the night, for splintered boards were scattered everywhere, and a window, jarred from its casings, filled my stall with fragments of broken glass. In the midst of the debris the yellow mule lay with neck outstretched, sleeping the sleep of the unjust.

Later on, when Marcella was leading me into the barnyard, I could not resist a final glance at the mischief-maker. He hadn't as yet stirred and I could not see that he breathed. A wicked sense of elation for a moment took possession of me, but I banished it at once, for I am a good pony and not in the habit of wishing any one evil. However, I did not think it possible for this mule to be alive and at the same time so peaceable. I was debating this question in my mind when Daisy, who was holding a gate open, grew impatient. "Oh, come on!" she called to Marcella. "My feet are freezing in this old mud. Pony takes such an interest in Maud that we will have to hitch them up together one of these days."

I passed quietly through the gate, but at the same time I had positively decided that if the day ever came when I should be "hitched" with this new acquaintance, there would be some kicking done, and Maud wouldn't do it all, either.

CHAPTER XIII.—TURBULENT WATERS.

In spite of the kind treatment I had received at Daisy's house I was overjoyed to turn my head in the direction of home. The thought of Big Jake

with his fund of good humor and hard sense filled me with pleasure, and I wondered, if he had been in my place the night before, if Maud would not have learned a valuable lesson in self-control.

But now that my unhappy experience was over I was willing to forget it as far as possible, and waited restlessly for Marcella to saddle me and mount. Daisy, not liking to part with us, kindly offered to accompany Marcella home, and in consequence seated herself cozily behind.

With a light heart and feet that were by no means heavy, I started off. The roads were beaten firm by the recent rain, and here and there large pools had formed through which I trotted gaily, spattering mud in all directions, much to the merriment of my little friends.

The houses which we passed looked as if they had been newly painted, and the fields of grass, that yesterday presented a dried and dead appearance, were now all shining in their dresses of soft green. At times racing along smooth turf, and again stopping a moment on the top of some convenient hill to admire the glowing scenery, we in good season came to where the creek, which was almost a river, crossed the highway underneath a broad, wooden bridge. Just now this structure was not in sight, for the creek, influenced by the heavy down-pour, had left its banks and rushed in a wide and roaring current over the bridge and created a sea of water on both sides. The scene, which I considered one of grandeur, impressed more than frightened me, and it took very little urging to bring me to the very side of the overflowed district.

Marcella and Daisy, both being of a mermaid tendency, were greatly pleased with what they saw, and clapped their hands and shouted at the various things that floated by. Several short, round logs sailed past in majestic rotation, and the little girls called them vessels on the Atlantic Ocean, and tried to give them names; sometimes they had to hurry with the christening process, for the so-called ships were going very fast. Once a live pig bobbed squealingly along, an occurrence which called forth exclamations of pity, and I am sure a rescue would have been attempted by my young riders had not the pig been hurried out of sight. Then came a small flock of geese, and as they did not seem to be in any particular distress, the girls laughed and called a loud "quack, quack," whereupon one impudent old fellow flapped his wings and screamed "quack, quack." After that there were more logs and rails and a little house that was built for sheep. As it was getting near noon, Marcella suddenly remembered that her mama desired us home before dinner time, and wondered what we had better do.

"Why, go on, of course," advised Daisy, unconcernedly. "How else do you propose to get there?"

"But," remonstrated Marcella, "we might get drowned."

This cowardly suggestion caused Daisy to fall into convulsions of laughter. "Why, Marcella," she gasped, "ain't you 'fraid you'll get drowned in your teacup?"

"I don't know as there is anything so funny about it," returned Marcella, in an injured tone. "The water's roaring horrible, and we can't see the bridge at all."

"Course we can't see the bridge, because there's a few inches of rain over it, but if you'll change with me and let me have the reins I can make a pretty good guess where the bridge is."

Reluctantly Marcella consented, and Daisy, seated in the saddle, gave the sharp command, "Go on now, Pony." With some misgivings I obeyed, slowly at first, but finding that the water reached only to my knees, began to make more haste. Like Daisy I could form "a pretty good guess where the bridge was," and after some little maneuvering I placed my feet on the hard boards. Here, too, the water was not very deep and I gained confidence every moment. But alas! the time of my triumph was but short, for when I had proceeded only a few paces, the bridge began to rock and sway, and instantly, with the horrified screams of the little girls ringing in my ears, we sank down into the raging waters and were all covered up with foam.

Blinded and choking, I plunged wildly until my feet struck something hard, which I naturally supposed might be the missing half of the bridge. This was surely what it was, and by climbing upon it entirely, I was sufficiently elevated to keep my head above water. Standing there, trying to recall my breath, which the shock had momentarily swept from me, I was relieved to hear Daisy say, "You cling to me,

LOWELL INGRAIN CARPETS

"The all wool kind"

We have been telling you for weeks WHY you ought to insist upon getting a LOWELL INGRAIN the all wool kind—when you buy a carpet. Thousands have taken our advice and are highly pleased

ISN'T IT TIME FOR YOU TO CONSIDER BUYING

Remember these points: Cover the whole floor—it's warmer, and easier to take care of; can be used on both sides, a great saving. LOWELL INGRAINS are made that way; can be had in newest styles and colors, just like high grade carpets. If it is wound on a hollow stick, it's a genuine LOWELL INGRAIN.

When you buy carpets, ask the local dealer for LOWELL INGRAINS. Look for the hollow stick and run no risk. Don't accept any other.

Manufactured by **BIGELOW CARPET CO.,** New York



A CONCRETE SILO
Gedney Farms, White Plains, N. Y.

Portland Cement Concrete has become the recognized building material where strength, durability and sanitary conditions are demanded. Our new book

"Concrete Construction About the Home and on the Farm,"

has just been received from the printers. It contains photographs, descriptions, specifications and sectional drawings for many of the smaller structures that can be built without the aid of skilled labor by the suburbanite or farmer; also much general information and many valuable hints to small contractors.

A copy of this book will be sent free upon request

THE
ATLAS PORTLAND CEMENT CO.
30 Broad Street :: New York, N. Y.

Cheap Excursions Southwest

Low Rates each first and third Tuesday, monthly

Round-trip tickets sold from nearly all Rock Island points in the North and Central West to practically all points Southwest.

Rate about half the regular fare.

Pluck means sure success in the Southwest. An illustrated book or two will help you to a better acquaintance with the country. I'll be glad to send them on request. State the section which most interests you.



A. M. FULLER, C. P. A.
TOPEKA, KANSAS

EXTREMELY LOW RATES

To California, Oregon, Washington, and Points East

Home-seekers rates to points in Arizona, Colorado, New Mexico, Texas Indian Territory and Oklahoma, on 1st and 3rd Tuesday of each month.

Steamship Tickets To and from all parts of the world. Lowest rates and best lines represented. Address

W. H. KING, C. P. & S. A., TOPEKA, KANSAS

Marcella, and I'll hold to the saddle," and brave Marcella answered, "Yes, if we can hold tight I know Pony will save us."

Encouraged by my little mistress' faith in me, I started to swim down the stream, dodging with much difficulty the many things which were beginning to collect along the creek's side. Keeping in mind the precious burdens depending on me, I put forth my best efforts, taking long and careful strides in the direction of safety, and before I realized the possibility of such a happening I was standing on dry land.

"Oh, Pony! Pony!" spluttered Marcella, and between hysterical laughing and crying both girls slipped off my back down on the ground.

Just then Mr. Dearcot drove up, the horses steaming and panting, his appearance frightening me a great deal more than did my experience in the water.

"Oh, children! what have you done?" he asked brokenly, as he gathered up both excited culprits, and wrapping them snugly in a warm blanket he turned his horses' heads and drove rapidly home, leaving me in deep meditation on the side of the bank. I was a little lonely as I made my way later on to the barn, but my slight heart-ache was forgotten when I went into Big Jake's stall and received his warm greeting.

The next day I was made happy again, for Marcella and Daisy were both on hand, neither being any the worse for their recent adventure.

(To be continued.)

The Little Ones

The World.

The world is such a pleasant place
For any child to be,
With pleasant things to sing about
And pleasant things to see,
And other little children near
And pleasant roads to go,
And many things a-happening
Which only children know.

The world is full of apple-trees
And stony walls to climb,
And buttercups and meadow-sweet
And all the summer time,
And singing brooks where cowslips
grow
And children wade and fish,
And blackberries as large and sweet
As any child may wish.

The world is full of giants bold
And princesses and elves,
When little children sit alone
And whisper to themselves.
The world is full of blocks and dolls
And toys a rainy day,
And little children everywhere
Who always want to play.

The world is full of lullabies
And loves for little heads,
And mother-dears to sit beside
The sleepy trundle beds,
And pretty dreams to run among
As far as you can see—
The world is such a happy place
For any child to be.

—Carolyn S. Bailey.

An Indian Legend—the Fox and the Rabbit.

There was a village, and in the village dwelt a pretty girl. All the young men were courting her, but none had been able to marry her. Even the animals were in love with her. So one day a fox thought he would go and visit the girl. So he started, and on the way he met a jack-rabbit. The fox asked the rabbit where he was going, and the rabbit said: "I am going to see the pretty girl in the village." "Well," said the fox, "I am going there, too, so we might as well go together." "Very well," said the rabbit. So they went on together.

When they came to the lodge, the rabbit was the spokesman. They were invited into the lodge. The rabbit did all the talking to the girl. The rabbit whispered to the girl and said: "Do you see yonder fox? I rode him when I came to see you." So the rabbit soon left and went to his home.

The fox then went up to the girl, and said: "What did the rabbit have to say?" The girl said: "The rabbit said he sides you whenever he comes to see me." The fox was mad when he heard what the rabbit had said.

So the fox went to the home of the rabbit and when the rabbit saw him coming he knew that the girl had told him what he had said and also knew that the fox was mad. So the rabbit lay down and began to groan, as if he were in great pain. When the fox got there he said: "What have you been saying to the girl? You never rode me, and I want you to go with me and tell and I want you to go with me and tell the girl that you told a lie; that you do not ride me." "But," said the rabbit, "I can not go for I am sick. I can

not walk." But the fox wanted the rabbit to go. So the rabbit said, "Let me ride you, and when we get to the girl's lodge then I can get off." So the fox let the rabbit ride him. The rabbit kept on falling off, so he asked the fox if he could put a rope around him, and the fox said: "All right." So the rabbit went for a rope and got his quirt also. The rabbit rode the fox until he got to the entrance, then the rabbit jumped off and handed the rope to one of the servants.

The girl saw the rabbit, and received him. She took him in. She talked to the rabbit a long time, then said: "Mr. Rabbit, I refuse to marry you, for you have such a big nose." The rabbit went out and never returned.

The fox then tried to marry the girl, and she refused him, for the rabbit rode him. Then the fox left and went into the timber. The fox felt so badly that he kept on running, and ever after that was afraid of people.—Indian School Journal.

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

President.....Mrs. May Belleville Brown, Salina
Vice-President.....Mrs. L. H. Wihard, Iola
Cor. Secretary.....Mrs. N. I. McDowell, Salina
Rec. Secretary.....Mrs. W. D. Atkinson, Parsons
Treasurer.....Mrs. H. B. Asher, Lawrence
Auditor.....Mrs. Grace L. Snyder, Cawker City

Our Club Roll.

Women's Literary Club, Osborne, Osborne County (1902).
Women's Club, Logan, Phillips County (1902).
Domestic Science Club, Oage, Oage County (1902).
Ladies' Crescent Club, Tully, Rawlins County (1902).
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1898).
Chaltee Club, Highland Park, Shawnee County (1902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literature Club, Ford, Ford County (1902).
Saban Club, Mission Center, Shawnee County (1899).
Star Valley Women's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, Route 8 (1902).
Fortnight Club, Grant Township, Reno County (1902).
Progressive Society, Rosalia, Butler County (1902).
Pleasant Hour Club, Wakarusa Township, Douglas County (1899).
The Lady Farmer's Institute, Marysville, Marshall County (1902).
Women's Country Club, Anthony, Harper County.
Taka Embroidery Club, Madison, Greenwood County (1902).
Prestis Reading Club, Cawker City, Mitchell County (1902).
Cosmos Club, Russell, Kan.
The Sunflower Club, Perry, Jefferson County (1902).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Oage County.
The Mutual Helpers, Madison, Kan. (1902).
West Side Study Club, Delphos (1902).
Domestic Science Club, Berryton, Shawnee County (1902).
Mutual Improvement Club, Vermillion, Marshall County (1902).
(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

It is a gratification to me to receive so many encouraging reports from the clubs. I am sure it is interesting as well as encouraging to the other clubs

Food to work on is food to live on.
A man works to live. He must live
to work.
He does both better on

Uneeda Biscuit

The soda cracker that contains in the
most properly balanced proportions a
greater amount of nutriment than any
food made from flour.

Uneeda Biscuit

NATIONAL BISCUIT COMPANY

5¢

RENT PAYS FOR LAND

FERTILE SECTIONS OF THE SOUTHWEST, WHERE
LAND SELLS FOR \$15 AND RENTS
FOR \$5 PER ACRE

One of the remarkable things about Eastern Arkansas and Northern Louisiana is the fact that cleared land rents for \$5 per acre cash, and can be bought for \$7.50 to \$15 per acre. It costs from \$6 to \$10 an acre to clear it. Other improvements necessary are slight and inexpensive.

The soil is rich alluvial, or made. It produces a bale of cotton per acre, worth \$45 to \$60. This accounts for its high rental value. Other crops, such as corn, small grains, grasses, vegetables and fruits thrive as well.

Alfalfa yields 4 to 6 cuttings, a ton to a cutting, and brings \$10 to \$16 per ton.

In other sections of these States, and in Texas as well, the rolling or hilly land is especially adapted to stock-raising and fruit-growing. Land is very cheap, \$5 to \$10 per acre; improved farms \$10, \$15, to \$25 per acre.

The new White River country offers many opportunities for settlers. High, rolling, fine water—it is naturally adapted to stock- and fruit-raising. Can be bought as low as \$3 per acre.

See this great country for yourself and pick out a location. Descriptive literature, with maps, free on request.

The Missouri Pacific-Iron Mountain System Lines sell reduced rate round-trip tickets on first and third Tuesdays of each month to points in the West and Southwest, good returning 21 days, with stop-overs. For descriptive literature, maps, time tables, etc., write to

H. C. Townsend, G. P. & T. A.,
St. Louis, Mo.

A Great Fountain Pen Offer

Our Best \$1 Fountain Pen and the Kansas Farmer one year, both prepaid.....\$1.50
Our best \$1.50 Fountain Pen and the Kansas Farmer one year, both prepaid.....\$2.00
Our best \$3 Fountain Pen and the Kansas Farmer one year, both prepaid.....\$3.00

Fitted with solid gold pens, will last 15 years. All pens guaranteed. Our stock is the largest west of Chicago. We refer you to any bank in Topeka or the Kansas Farmer.

M. L. Zercher Book and Stationery Co.
Topeka, Kansas

Combination Thief-Proof Whip and Walking Stick

The Greatest Novelty of the age. No buggy; it complete without one. Price, \$1; postage paid any part of U. S. Address
E. T. Davis Co., Tippoeconee City, Ohio
Send your orders quick.

The West Side Study Club.

We have always held our club meetings in the winter, but this year we have decided to meet once a month for the whole year.

We use the club programs as printed in THE KANSAS FARMER. We have taken the Household programs, History of Kansas programs, and the poets. This year, 1906, we have taken some of the programs as outlined in THE KANSAS FARMER, among them being Famous Women, Present-Day Literature, Temperance, Reform, Mission Work in the World, and Educated Motherhood. We have not taken any of the art programs. We all felt that we had so little time (all of us are mothers) that the ones we selected would be more beneficial to us. Our president, Mrs. Eames, said we could select enough programs out of our back numbers of THE KANSAS FARMER to do this summer. There are so many good ones that we have not selected yet. They have been such a help to our club that we would like very much to have them continued after the summer is over. There have been several good papers read at our club. I will see if the parties will let me send them to be published, and will try to give you a report of our club once in a while.

MRS. ANNA GOODWIN.

Delphos, Kans.

Mutual Helpers.

On Wednesday, May 9, the Mutual Helpers met at the home of Mrs. Lyman, with fifteen members present.

After singing the club hymn and repeating the 23d psalm, business matters were disposed of.

One of the things we did was to instruct our art instructor to send for a color card showing the various shades of silk, and a flower book, giving instructions for embroidering over seventy kinds of flowers. These books are to be the property of the club, and by their aid we expect to be able to select the correct shades of silk in all our embroidery work.

As this was our "club news" day, the recording helper called the roll and all but two responded with some sort of club news. Many of the items used were clipped from the club columns of THE KANSAS FARMER. When we read of these other clubs and club women and what they were doing, it inspired us to aim still higher, and we are proud to be counted as one of the clubs of Kansas.

Last, but not least, on the program was delicious ice-cream, cake, and iced tea served by Miss Ruby Lyman and Mrs. Hugh Hemphill.

Our next meeting will be at the home of Mrs. Martin on May 23.

Our subject, "A Short Story," was read by Miss Lucie Wilson.
Madison, Kans. A. EMMERS.

Miscellany

The Movement in Kansas for Better Roads.

PROF. W. C. HOAD, KANSAS STATE UNIVERSITY.

(Continued from last week.)

IMPROVEMENTS ON THE PRESENT SYSTEM.

In the past in a majority of the counties both the property tax and the poll tax have been allowed to be "worked out" on the road. The writer believes, in the first place, that all road taxes, including the poll tax, should be paid in money. When such taxes are worked out, it is well known that between the lack of skill in the workers, the inability of teams to work well together, the doing of practically all road-work in the late summer or fall, when people are less busy with farm work, instead of when the roads need the attention, practically half the tax is wasted. This is so thoroughly recognized that it scarcely seems worth while to mention the various advantages of a tax paid in money, the same as other taxes, but one point in favor of the plan is sometimes overlooked, and may properly be spoken of. Every one who has had to work the soil in any way, whether it be to farm a crop or to dig a ditch or to work a road, knows that more important than machinery or methods is the matter of taking advantage of favorable soil-conditions, and of working with nature instead of against her. The road-overseer finds that with the cash in his hand he can get the road-work done not only in the right way, but also at the right time, which is of even greater importance. Almost any trustee or road-overseer will tell you that he could get better results with from one-half to two-thirds the amount of the tax if it were paid in cash instead of in work; and this is just as true of the poll tax as of the property tax.

In the second place, the writer feels sure that the prevalent methods of road-work are by no means the best possible. Too much reliance has been placed upon the plow and scraper and grading-machine, and too little attention paid to matters of drainage and continuous repairs. It is now pretty generally recognized that the method of road-maintenance usually practiced—that of a general tear-up in the late summer or fall—is based upon an entire misconception of the scientific principles involved in the problem of adapting a soft material like earth to the purpose of a road-surface.

The county, and not the township, should be the unit of road-administration. The township is too small to be the most efficient unit, for the main roads usually traverse two or more townships whose interests or inclinations in the matter of improvement may be very divergent; or the people of one township may largely use a thoroughfare to town lying almost wholly in another township. With the county as a unit, systematic methods of improvement and maintenance can be more easily applied, and standards for road cross-sections, ditches, culverts, and subdrainage can be adopted and maintained. Moreover, and perhaps more important than these, if the county is the unit it will be possible to place all road- and bridge-work under a county engineer. Ordinary road-work, as now, could be under the direct charge of the township trustee, who would be assisted by the proper number of road-overseers. All culvert- and bridge-work, however, and all special road-work should be under the county engineer, who should make surveys, draw up designs, prepare plans and specifications, inspect work, and make reports to the county commissioners. This would relieve the township trustees of a large part of the work connected with bridges and drainage, while it would place these larger matters of special road-work requiring technical knowledge under the charge of an expert. This county engineer should be a practical man, well informed and experienced in all matters relating to drainage, rocks and soils, grades, concrete, and all forms of construction work. He should give his whole time to this work, and could earn his salary two or three times over.

The writer does not believe it to be practicable or advisable that the State should be looked to for any direct financial aid in the building of hard roads. The conditions in Kansas are very different from those in the closely built-up Eastern States, where State aid to road-building is deservedly so popular a movement. He does believe, how-

ever, that there should be a permanent State Highway Commission, whose duty it would be to study the road conditions of the State, to collect and disseminate information concerning the plans and systems of highway improvement and maintenance best suited to the needs of the different sections of the State, and to the different classes of roads; to study and test the various stones, gravels, and other materials available for road-making; and to make the information available to any county officials or others undertaking road-improvement.

Now let us see how this would work out in a concrete case, that of our typical county. The county has, as before stated, a population of 21,400; the population of the county seat is about 5,000. Besides this there are about a half dozen small towns with populations of from 300 to 1,000. The area of the county is 708 square miles, and its taxable valuation is something over five million dollars.

The county has 1,416 miles of roads, or two miles of road per square mile of area. Of these 1,416 miles, about twenty per cent, or 282 miles, are what may be called main-traveled roads. These are the thoroughfares of the county—the main roads leading from the well built-up communities inward to the county seat or other town, the direct interurban roads, and usually a main road along each important stream-valley. Along this twenty per cent of the road mileage, and within a mile of the thoroughfare, will live probably fifty per cent of the total rural population. More than this, these main roads will carry probably seventy-five per cent of the rural traffic of the county. The writer believes that the system of road-administration of the county should be broad enough and far-sighted enough to look forward to the building of permanent roadways, along at least half of these thoroughfares. By permanent roadways the writer means in general broken stone or gravel roads. Of course, this can not and should not all be done at once, but a start should be made as soon as the conditions warrant it, and an increasing amount should be completed in each succeeding year.

In view of our present makeshift methods and our customary attitude toward the whole road question, this seems a rather large thing to undertake. And yet it is a perfectly practicable and a very reasonable thing to do. The valuation of our typical county is about five million dollars. Suppose a three-mill levy were regularly imposed for permanent work on these thoroughfares. The \$15,000 a year resulting from this tax would be sufficient for the construction of five miles of broken stone road, or, if the real estate on each side and within a half mile of the thoroughfare were to bear, say, five per cent of the cost of the improvement, the \$15,000 would provide for about six miles of permanent road each year. If good gravel could be obtained, the length of road built with the same funds could probably be increased to eight or ten miles. These estimates assume that the broken stone or gravel would be hauled an average distance of not over three miles, and that an excessive amount of grading would not have to be done.

The writer speaks of a general tax levy of three mills over the entire county only by way of illustration. In his judgment in planning for hard roads, it would usually be better to have it arranged so that for any particular road-improvement, such as the macadamizing of three or four miles of thoroughfare, a special road-district would be formed in very much the same way as in the case of a drainage-district. The whole improvement would then be placed in the hands of a district commission, who would attend to the building of the road, and assess the cost in proportion to the benefits received from the improvement.

THE ADVANTAGE OF EARTH ROADS.

What has been said concerning hard roads relates only to the thoroughfares of the county, constituting only perhaps twenty per cent of the entire mileage. Some over-enthusiastic good roads advocates have assumed that all, or practically all, roads should ultimately be macadamized, and have pictured a golden age of life on earth when that time should come. The writer maintains, however, that for this remaining eighty per cent or more of the total road-mileage, the dirt road is the proper and the best form. He believes thoroughly in the usefulness and efficiency of the plain dirt road, and he resents the suggestion, sometimes made, that it is only a makeshift



Simpson - Eddystone Shepherd Plaids

Dainty checks that make bright, beautiful Spring and Summer dresses. The standard of quality. Permanent, fadeless color.

Ask your dealer for
Simpson-Eddystone Shepherd Plaids

Three generations of Simpsons
have made Simpson Prints.

The Eddystone Mfg Co (Sole Makers) Philadelphia



How About YOUR Ensilage?

"OHIO" Ensilage Cutters cut two ways—cut and elevate the corn into silo at an amazing speed; and cut off huge slices from your ensilage expenses.

How does it "cut" expenses? By its immense capacity, its self feed mechanism, its power-saving direct draft blower, its simply operated silage distributor, its minimum use of power for maximum results.

Silage as a milk and beef producer is far superior to grain. Our book "Modern Silage Methods" (10c) tells all about it. Our Ensilage Cutter Catalog will easily convince the man who wants the best. Send for it. Manufactured only by
The Silver Manufacturing Co.,
Salem, Ohio.



The Lowell Manufacturing Co.

SALINA, KANSAS

Leather and rubber belting and thrasher supplies of every description. We have for sale at a bargain ten second-hand thrashing outfits, many of them as good as new. Long distance phone 432. Mention Kansas Farmer when you write.

Thirty-One Styles of Farm Fencing

Sold direct to consumers on thirty days trial at wholesale prices. Catalogue free.

THE FARMERS' FENCE CO.
Box 26. Melvern, Kansas

Great American Desert Seeds

are best for general use, are grown in the very heart of the region once known as the Great American Desert, at an altitude of over two thousand feet above sea level and without irrigation. They are time tried and drought tested and have proved producers of profitable crops of both grain and forage. Write for list of specialties and prices.
M. G. Blackman, Grower and Dealer, Hoxie, Kans.

ALFALFA SEED

MOBETH & KINNISON.

Pure Kansas Grown Seed. Crop of 1906. Also Cane and Millet. Macaroni Wheat and other Field Seeds in carload lots or less. Write for prices
GARDEN CITY, KANSAS

CATALPA AND OSAGE FOR POSTS

Every farmer should grow his own post timber. Get the true catalpa speciosa. We have it. We also offer fruit trees, shade trees, small fruits, grape vines, flowering shrubs, etc. Tell us what you want. We will make the price right.
PETERS & SKINNER, No. Topeka, Kans.

PIONEER GUARANTEED NURSERY STOCK AT WHOLESALE PRICES.

All stock guaranteed disease free and true to name.

Hart Pioneer Stock is pure bred and produces heavy crops. Value received for every dollar sent us. No Agent's Commission. WRITE FOR COMPLETE PRICE LIST. WE WILL SAVE YOU MONEY.
HART PIONEER NURSERIES, Established 1865. Fort Scott, Kan.

WALNUT GROVE FARM ...FOR SALE...

Upon the advice of several specialists I am going to New Mexico for my health. On this account I must dispose of all my Kansas property, including the famous Walnut Grove farm, the most complete and profitable stock farm in Kansas. This includes 130 acres of the best land in Kansas, two miles from Emporia. Over 200 good O. I. C. hogs. All our Barred Plymouth Rocks, 36 Collies, 44 head of cows, 8 head of horses, the best farm house in the State. Also one small farm house, 2 large barns, 2 large cattle-sheds, one 300-foot hen house, one 250-foot broiler house, 20 brooder houses, capacity of plant, 4000. The best hog house in the West, double-deck cement floors, many small hog houses. This is not an experiment, but a successful stock farm. Price, \$20,000 cash.

H. D. NUTTING, Emporia, Kans.

When writing our advertisers please mention Kansas Farmer

DIVIDENDS

Dividends will commence in less than six weeks on the stock of the Uncle Sam Oil Company of Kansas. There is only about one-tenth of this valuable stock left unsold and that is being taken every hour. Money received on stock and from sales of refined oil for week ending May 6 totaled \$15,600.00, while for week ending May 12, with one good mail to hear from, was over \$17,000.00. Over one-quarter of million dollars have been subscribed for this stock at the same price asked herein of you.

Thousands are figuring on purchasing part of this stock, and record-breaking remittances are certain to follow during the next few weeks. Better send your order in early and secure some of this dividend stock before it is all sold or doubled in value.

Dividend Will Be Paid June 20, 1906.

There are few weeks left yet that you can secure stock in the Uncle Sam Oil Company, and participate in the first dividend to be paid by the company. If the stock is not all sold by June 20, it is safe to figure that it will be much higher or quickly picked up after the first dividend is paid. There are now nearly eight thousand stockholders, and they are continually increasing their holdings and inducing their friends to buy. The days are limited that you or any one will be able to secure Uncle Sam stock. Better send in your remittance while the price is right.

Why Uncle Sam Offers You a Good Deal.

It is the common talk among business men that this stock could be sold for more money. However, this company has a great work to complete and by selling the balance of the stock at even the 20 cents per share will be able to place itself where it can build, too, as large as it desires. For the past five months the stock has been selling at 20 cents per share until now close to one-quarter of a million dollars has been subscribed at that price. This money has all gone into the enterprise, and every one knows that under these conditions the stock is a good buy even at 35 cents per share. However, the company figures that by rushing the work to completion it can soon make back all that it loses on the low price of stock. Consider what the company has accomplished in the past five months and you will have to admit that you are offered a rare opportunity of investment herein. One that is commanding respect and consideration from investors from all over the United States, and one that you will have to avail yourself of at once or it will be all sold.

Remittances Are Strong.

Up to date there has been paid into this company over 1/2 million dollars. Men are buying stock to-day that purchased stock on the start. Over one thousand inquiries have been received for this stock during the last few days. There

are thousands of the stockholders who will buy stock during the next ten days. There will be others who will wait too long and be too late. Remittances for the past two weeks total over thirty-two thousand dollars (\$32,000). Next week they will not run under twenty thousand and may go a half higher. The faster the remittances are received that much faster the work will be crowded. We solicit you to join our band and help push the good work on to success.

Big River Refinery Nearly Completed.

On the banks of navigation, where it will be free from any criminal combines of the railroads and the oil trust, Uncle Sam Refinery No. 2, at Atchison, is nearing completion. The material is all on the ground, and it is just a question of days until this plant will be ready for business. Don't wait until this great revenue getter is fully completed, and then expect stock at even 50 cents per share.

First Pipe Line Pumping Station Nearly Completed.

During the last week two more of the mammoth pipe line pumps have arrived. Uncle Sam will have five large pumping stations and 135 miles of main trunk pipe line completed during the next sixty days. The first pumping plant to be built was completed this week just north of Uncle Sam Refinery No. 1 at Cherryvale. The men are now at work on another pumping station near Tyro, Kans., and will go from there to Bartlesville some time next week.

More Pipe Line Arriving Daily.

Two more car loads of pipe line were unloaded yesterday and eight miles more are on the road. Fifty miles more will be shipped during the next four weeks. It takes lots of money to complete refineries and build miles of pipe line, but when they are once completed they are the biggest money makers on earth. The quicker we can place the balance of this stock the quicker we can unload pipe line, and the company will make a special effort to raise sixty

thousand dollars for the pipe line department alone during the next fifteen days, after which this stock may be advanced to a half dollar per share.

Strikes Another Great Oil.

As was to be expected, Uncle Sam drillers completed another fortune-maker in Eleven Hundred Acre Lot 43, Osage. At this writing the drills are lined up double-breast, following close on the trail of what oil men believe will develop the greatest oil pool of the Osage country. One of the drills is now within 48 hours' run of the pay dirt. It is going deeper every hour and is operating day and night. The oil sand has been increasing for several locations towards where the drills are now going down. Big gushers have been found in the past, and Uncle Sam may have one before another quotation is made on this stock. If you delay until a three thousand (3,000) barrel well puts this stock out of your reach it will be your fault. While you hesitate the drill may penetrate the oil pool. Uncle Sam already has a settled production in this one property of nearly five hundred (500) barrels per day. This oil, when manufactured into the different by-products will bring nearly \$5 per barrel. There is merit back of this stock on every hand, and you will make no mistake if you invest a few hundred or a thousand dollars now while the stock is certain to grow into great value.

Sixty Thousand Oil Burners Will Be Installed in Kansas by Early Fall.

For the past six months Uncle Sam men have been working on an oil burner for cook stove and heater. One that is a success has now been completed. An order has already been placed for 15,000 of these burners, and at least 60,000 of them will be installed in that many Kansas homes by early fall. This burner feeds the oil so as to generate a gas and burns the gas so that 100 gallons of oil is equal to one ton of the best coal. It looks very much like this burner would revolutionize the fuel business in Kansas and adjoining States and will open up in

During the next sixty days the earnings increased Ten Times by the completion of the Uncle Sam refinery No. 3 at Bartlesville. Its producing capacity will again be increased by the completion of the third refinery. The Uncle Sam chain of three great refineries will increase the value of the stock sold at the old price of \$1.00 per share to where it can safely be sold at \$2.00 per share.

time a market for domestic oil. It makes Kansas too valuable to force the large coal and oil wars who are struggling for labor. At the time of the oppression of the larger market from all the oil of the United States.

Uncle Sam, with its stations already at work, is rounding territory, prizes ahead for the oil. On this burner—no fuel burner—no nation to give the best fuel, but has the same. This great Uncle Sam into existence of producing companies being blacklisted, secured control of the Uncle Sam advance. Should Build Up.

It takes time to thoroughly on Uncle Sam time and year refining capacity and barrels daily has reached its peak. There is an open Uncle Sam is going to be easily made in domestic fuel business will be handled by the Uncle Sam hour, and the stock company advance.

that must be put up with. When in good condition an earth road is a fine road—smooth, noiseless, affording good foothold to horses, but yet not too unyielding, pleasant to the eye, and comfortable to drive over. The great problem of the dirt road is that of maintaining it in this good condition, and this is largely a problem of surface and subsurface drainage. If this good earth road were to be protected from the water above and below, it would remain in good condition until it fairly wore out, like a well-built broken stone road.

It was stated at the outset that the soil in our typical county of Eastern Kansas was good for agriculture, but too clayey and too retentive of moisture to make the best natural roads. Roads in this kind of soil always need subdrainage, and by subdrainage is meant some condition either naturally or artificially created that will act promptly and certainly to lower the plane of saturation of the soil to a depth of several feet below the surface of the road. This requirement is often supplied by natural conditions, as a gravelly or sandy stratum underlying the road, or a deep, porous subsoil, or a deep ditch alongside the road. But sometimes the natural subdrainage is inadequate or entirely lacking, and the requirement must be met by artificial means. Right here is one of the weak points in the present system of road-improvement, for artificial subdrainage is seldom thought of and more seldom still employed. For the ordinary case of boggy road a single longitudinal line of four-inch or five-inch farm drain-tile laid from two to four feet under one of the side ditches, with a slight fall and free outlet, is a sure and permanent cure. Surface drainage should be provided, first, by side ditches of proper shape, size, and fall, and properly kept clean; and second, by a smooth and hard crown to be given and maintained on the road-surface. This crown should be about ten or twelve inches in height for an ordinary clay loam road, less for sandy soils, and more for gumbo; somewhat less perhaps on level roads, but more on hill slopes here.

THE USE OF THE SPLIT-LOG DRAG.

One of the features of the scheme of road-administration, which the writer

is advocating, in a system of thorough and scientific maintenance for the earth roads. The tool strongly recommended for this is the road drag, variously referred to as the King drag, the split-log drag, the Missouri drag, and the Western road drag. This tool is too well known to require a description here, but it may be stated that while it is doubtless true that there is no better form of drag than that made from a split log, in the manner advocated by Mr. King, it is also true that good drags can be made of plank. In either case a light drag is preferable to a heavy one, and the forward end of the front slab should be shod with a flat piece of steel about four feet long to serve as a cutting edge.

After a rain the first teams on a road cut up the surface more or less, and ruts tend to be formed. Now if at about this time, after the surface has dried somewhat but while it is still moist and crumbly, a drag is run over the surface, down on one side of the center and up on the other, the edges of the planks will plane off the projections and fill up the hollows. In addition, the diagonal position of the planks will force a little dirt toward the center of the road, where it will help fill up the ruts and holes and restore the impaired crown. Moreover, this smoothing action, followed by the wheels of the vehicles which now ride on the surface instead of following the ruts and cutting them deeper, on a clay or gumbo road produces in time a sort of puddled surface that is nearly impervious to water. The road then absorbs much less water and dries off much more quickly than an undrugged road, is always smooth, except for the slight cutting up of the surface immediately after a rain, has the traffic somewhat uniformly distributed over its surface, always has the proper crown and a good surface to shed the next rain, and eventually develops a degree of hardness that is almost beyond belief. It is in first-class condition for probably more than ten months in the year, and in fair condition for the most of the remaining two months.

These results are certainly worth paying something for, but as a matter of fact the cost of maintaining a road with the drag is very small. The estimates usually made are from three dollars to six dollars per mile per year.

This would not be in addition to the work at present done, but would take the place of a very large part of it, so that the entire cost of maintaining the dirt roads would be decreased. The writer believes that he is conservative in estimating that by the proper and systematic use of the drag wherever possible, at least one-half of the fifteen dollars per mile per year spent for roads under the present system would be saved. For the entire county this would mean a saving of over ten thousand dollars a year, which sum could be used for such work as subdrainage, the grading down of bad hills, or other permanent improvements.

OTHER IMPROVEMENTS.

There are several other definite lines along which important improvements might well be made. One of the most notable of these relates to the use of some permanent form of culvert for the smaller waterways, instead of the common form of wood stringers with their ends resting on dry stone walls, and the whole covered with plank. Eastern Kansas is abundantly supplied with good stone, and there are several plants in the State that are manufacturing high-grade Portland cement. For most localities, good rubble masonry laid up in Portland-cement mortar will not cost over 15 cents a cubic foot, and Portland-cement concrete not over 20 cents a cubic foot. These figures are based, in the case of the stone masonry, on good, substantial random rubble work, with a mortar composed of one part cement and three parts sand; and in that of the concrete, on a mixture of one part cement, three parts sand, and six parts broken stone. An arch properly built of either of these materials is practically a permanent structure, and it may usually be shown in comparing it with the wooden culverts with dry-laid side walls that the larger first cost of the concrete or masonry arch is much more than counterbalanced by the very great saving in repairs and renewals.

Other desirable improvements, such as the subdrainage of wet places, the better looking after of highway fences, the mowing of all roadsides, the—may the writer dare suggest it?—setting out of shade-trees along the highway in places where their presence would add to the beauty or utility of the highway and would not be a source of in-

jury to adjoining property, all these and other things might be done in time if road-administration were placed on a little broader and more permanent basis.

It has been the writer's observation and experience that we have not been thinking of our roads in the right way, nor allowing to them the importance they deserve. If we took them a little more seriously, as we do our schools, we would search out the weak places and the wasteful places and the inefficient places in our present system of road-management, and remedy them. The writer is strongly of the belief that by the application of good business methods and strict scientific principles to the road question, all the improvements suggested in this paper excepting that of macadam or gravel surfacing could eventually be had at a cost not exceeding what is being spent now for the bare maintenance work.

The Parcels Post—Can We Have It?

EDWIN TAYLOR, EDWARDSVILLE, KANS., BEFORE THE MISSOURI VALLEY HORTICULTURAL SOCIETY.

The answer to the above question is: Most anything can be had when people have the price and are willing to put it up.

The manner in which we are divided upon this and kindred subjects—divided according to our interests, our associations, and our predilections—is shown by a little occurrence that happened the past winter "over there in Kansas."

The Kansas Agricultural College held last year its most successful series of farmers' institutes. The especial reason of their success lay in the fact that last year, for the first time, the college employed an advance agent, director, manager, press-agent, and chaperon. For this responsible and various position, the college had the good fortune to secure the services of J. H. Miller.

Well, in all the meetings held under Mr. Miller's management, it was the published policy to eschew subjects of a controversial or political nature. But it wasn't always the case that Mr. Miller could keep the cavoring Kansans off the forbidden "grass."

For instance, at a certain town which may be called Blankville, the institute was numerously attended, with marked interest in the discourses and

Successful Oil Burner for Cook Stoves and Heaters Secured by Uncle Sam---Will revolutionize the Fuel Business of the Missouri Valley and Sound the Death Knell of the Oppressive Oil Trust

Another great oiler was completed last week on Eleven Hundred acre Lot 43, Osage, and another Uncle Sam drill is down to-day within 48 hours' run of the pay dirt, and may develop the greatest oil pool in the Osage country. This stock is not only offered at a price that is right, but by development the assets back of it are continuously increasing. Miles of pipe line are arriving daily. Pipe line pumping stations are being completed, and it is to crowd all this great work to final completion that this stock is offered at the present low price. By investing a few hundred dollars in Uncle Sam now you will not only help a good cause on to grander success but will secure a safe dividend investment that you will not have the opportunity to procure right away again.

growing enterprise will have been refinery, Uncle Sam No. 2, by Atchison, Mo.; and sixty days longer the earnings will continue to increase until Uncle Sam's daily capacity. With the balance of the share, will place this great industry to time to this capacity.

of oil daily Missouri Valley. Territory crude oil will return to buy coal mines for their grip will open a secured in the

ge distribut- build large apply the sur- happy sur- oil trust for a domestic comes of the at of nature's and smooth- expected. Uncle Sam was forced in large pro- oil district g trust, has that may ad- greater price ped for.

and Barrels prise to get on Uncle ears that the eight thou- the oil trust down hill. and Uncle millions to be the great do- certain that different re- longer every ease as the quence. Let

reason reign, and no matter whether you live in New York, Canada, Florida, California, you can invest in Uncle Sam stock and you will get a square deal and almost certain great returns for your investment, for the company is following safe, practicable course and will continue that way.

Work Progressing on Uncle Sam Refinery No. 3.

On the banks of the Arkansas by Tulsa, in the very heart of the greatest oil field in the West, Refinery No. 3 for Uncle Sam will be completed during the next sixty days. The big boilers arrived this week. Several carloads of structural steel will be shipped the first of next week and the other shipments will follow rapidly. A large lubricating plant will be built at Tulsa and a refined oil line built down the Arkansas River to Fort Smith, from where refined oil will be shipped by light barges to the Southern markets, after supplying all of Oklahoma, and Northern Texas and Arkansas.

Million Dollars Cash and Ten Thousand Stockholders.

Will soon be back of Uncle Sam. With this vast strength it will be able to protect the interests of the smallest stockholders. If you have money to invest—and most every one has—don't scare at shadows, but remember that Uncle Sam with its pipe lines and river barges completed can market oil just as economically as the trust, and considerably more so, for the public in general despise the methods of the trust and favor Uncle Sam wherever given a chance, and they will soon have the chance in every principal city in Kansas and neighboring States.

Why You Should Invest Now.

The time for any investor to secure a good deal is when the other fellow needs money. Now while Uncle Sam is raising more money than any time during the life of the company, still just at this time we need more in order to crowd the work. Just look ahead sixty days and consider what will be the condition then. Both of the last two big refineries will be completed and paid for. At least eight more large

producing oilers will be completed, and the 135 miles of pipe line will be completed. Thousands of oil burners will be installed. More distributing stations completed and the cash sales of oil will be close to two thousand dollars per day and all other departments of this great organization advanced accordingly. Certainly you can not afford to turn down an investment in Uncle Sam stock under these conditions, which can be proven unless you desire to insult your own pocketbook.

Write or Wire for Particulars and Pictures.

This company has just what is advertised. In the different departments, at the refinery, on the pipe line, in the oil fields and at the different distributing stations over one hundred men are crowding the great work of the company on to success. We have about eighty pictures taken from real life in the different departments showing part of the great work; also more complete reports. We will be glad to mail them to any investor in the United States or any foreign country, and any other information desired. We stand ready to prove any statement made herein and solicit your investment in this stock in good faith and will see that you get a square deal in fact as well as in words. The company will not sell over thirty thousand shares to any one man, and reserves the right to reject any offer by returning the remittance. Would rather have five men subscribe \$200 each than one man \$1,000, for this company is a common man's organization and wants as large a number of stockholders among the middle class as possible.

Price of Stock.

50 shares.....	\$ 10	2,000 shares.....	\$ 400
100 shares.....	20	3,000 shares.....	600
250 shares.....	50	4,000 shares.....	800
500 shares.....	100	5,000 shares.....	1,000
1,000 shares.....	200		

Special Offers.

10,000 shares.....	\$1,975.00
15,000 shares.....	2,800.00
30,000 shares.....	5,600.00

Monthly Payment Offer.

From the start Uncle Sam company has made it possible for men of limited means to join the company, and in addition to offering treasury stock at the above-mentioned cash price, will sell on monthly payments as follows:

Shares.	Six Monthly Payments.
50 \$ 2.00 cash.....	\$ 1.50 each
100 3.00 cash.....	3.00 each
250 7.50 cash.....	7.50 each
500 15.00 cash.....	15.00 each
1,000 30.00 cash.....	30.00 each
2,000 60.00 cash.....	60.00 each
3,000 90.00 cash.....	90.00 each
5,000 150.00 cash.....	150.00 each
15,000 500.00 cash.....	400.00 each

In Conclusion.

Charter name of this company is "The Uncle Sam Oil company"; authorized capitalization is ten million shares; par value, \$1.00 each. The stock is non-assessable and there is no personal liability and each share of stock draws the same amount of dividends as any other share. James Ingersoll is president; J. H. Ritchie, vice president, and H. H. Tucker, Jr., secretary and treasurer. These officers constitute the board of directors. References: Mr. Walker, president Atchison Savings bank (oldest state bank in Kansas), Atchison, Kan.; T. R. Clendenin, president committee of forty, Atchison, Kan.; William Stryker, editor Tulsa Democrat, Tulsa, I. T.; Montgomery County National bank, People's National bank, Cherryvale State bank, all of Cherryvale, Kan. Also Bradstreet or Dun agencies.

How to Send Money.

Make all drafts, checks or money orders payable to "The Uncle Sam Oil Company," or H. H. Tucker, Jr., secretary, and your stock will be sent promptly by return registered mail. For further particulars, write or wire.

The Uncle Sam Oil Co.

Or H. H. TUCKER, Jr., Sec., Cherryvale, Kan.

discussions, till an uninvited individual butted in with this resolution: "Resolved, That the best interests of the farmers of America and of a great majority of the American householders, in town or country, would be much benefited by the establishment of the parcels post." Then he took the floor to exercise the constitutional prerogative of every free-born Kansan, namely, to speak in behalf of his own resolution.

He said the parcels post, in connection with the free delivery, which is now practically universal, would enable that great commercial emancipator, Montgomery Ward, to extend his counter right down to every farmer's front door, as it were; and whether the farmer wanted a pound of tea, a pair of gum boots, or a baby wagon, he could have them any or all of them, delivered to him out of one of the biggest and freshest stocks of goods in the world, with the biggest Government on earth to run the errand for him. The resultant economy for the producing classes, he said, would largely compensate for low prices for products and low wages for work. When the parcels post was once established, he (the speaker) would not be obliged to hitch up and drive four miles, through the mud, down here to Blankville and then have to pay double price to a local skiffint, whose little, measly stock of goods, as to the size of it, was in inverse proportion to the cost of it. And there was another pirate, he said, besides this Blankville merchant, that the resolution, when it was realized, would put down and out, and that was Tom Platt. He used Tom Platt's name merely in representing the express combines of the country—a combine which, by its extortions and discriminations, had forfeited the right to exist, and which, on account of its political corruptions, with a lobby in every State capitol, and a representative in every important party convention, he had come to regard as a positive menace to democratic institutions.

Tom Platt had no spokesman on the ground, but the Blankville merchant was more fortunate. His father-in-law, a neighboring farmer, was in the front row of seats, and when he struck the floor to reply it was like a voice out of a whirlwind.

That "pirate," as he had been called,

in Blankville, was his son-in-law, he said, and he wa'n't no pirate, neither! He just charged for his goods what he had to to make a decent living for his family. And did they want to take the bread out of his children's mouths, so to speak, by bringing him into competition at close range with millionaires concerns that would overwhelm him like a wave? His son-in-law, he said, had as good a right to live as the farmers around him, if they were fifty to one. The very friction and delay and expense attendant upon supplying individual wants, of which complaint was made, was the basis, largely, of the business prosperity that the Blankville merchant and his fellows in all other small towns enjoyed; the conditions of trade referred to were in the nature of assets of these men, in fact those conditions might almost be said to stand in the relation of vested rights. And he would never cease to denounce a Government that would use its great strength to break those little merchants up. Now, it is proposed to overthrow the rights of those men because it is convenient to the majority to have them despoiled. When did it come about, he wanted to ask, that the rights of the minority ceased to have consideration?

And as for the express company—that some people wanted to see destroyed, he would like to know who it was but that same company which gave our people a reduced rate from Blankville to Kansas City, that year we had the peach-crop, and saved the Blankville fruitmen several thousand dollars (some reports said \$8,000) in that one season? Why, some people, as it looked to him, didn't know when they were well off or when they were well used, and he wanted that institute to "set down" on all such socialistic schemes as that proposed in the resolution just introduced. And as for keeping express people and railroad people out of politics and conventions, he wanted to inquire who would be left to run the politics of the country if all men of substance and experience in large affairs were to be barred? Why, who, indeed, would be left but agitators like the preceding speaker, whose only equipment for public affairs was the possession of an iron jaw?

How Mr. Miller got his team back in the traces and under control is another story, but the incident shows the direc-

tion the line-fence takes that runs down between the advocates and the opponents of the parcels post. Most country consumers want the parcels post; most country dealers want it—not!

OPPOSITION TO THE PARCELS POST.

In the city the need of it and the dread of it are both less than in the country. But it is from the cities that the great opposition comes which prevents the parcels post from coming. If there were no influences or interests involved but the direct interests, namely, country people, including those from the country towns, on the one hand, and the express companies and small retailers upon the other, the parcels post would be established before Oklahoma is admitted as a State.

The opposition that controls comes from several sources. One is that large fraction of society which is against anything that promises to disturb the existing order. They reason thus: If a part of the express business may be absorbed by the Government, why not all of it? If the Government may take over that part of our transportation commonly called express, why not go a step farther and appropriate all kinds of carriage by rail? Where is this thing going to stop? Then there is that silent, but influential class, who look with dread and distrust upon any movement tending toward greater equality among men. The parcels post would be a step toward equality. With it the poorest farmer on the rural route could buy, to the extent of his small means, just as efficiently as the richest banker, and then have his purchases delivered to him by the same power that directs the Army and the Navy. The prospect is pregnant with hope or abhorrence, according to the way you look at it.

It was a fine tribute the British Government paid to Sir Walter Scott when its proud warship bore that distinguished author through summer seas in the last months of his fatal illness in a vain quest for strength. Such attentions, hitherto, have been paid exclusively to the learned, the powerful, the rich, the valiant. But now come these iconoclasts and propose that a Government agency, more powerful and more significant than a man of war, namely, the mail service, with an industrial attachment, shall be put at the

beck and call of any Farmer Cornfassel who can lick a stamp. When the father-in-law in my storyette called the parcels post a "socialistic proposition," he spoke with exactness. It is socialistic. For what is socialism, calmly considered and clearly defined, but a reversal of the procedure as old as history which has made the bee rather than the hive the center of concern, substituting therefor an effort on the part of organized society—that is the Government—to give to the public welfare that paramount consideration which hitherto has been given to private advantage?

EFFECT OF THE PARCELS POST.

Men are like horses in shying at what is new to them. Many people shy at the parcels post because it is paternalistic. The same people go right along past the public schoolhouse every day without picking up their ears and yet the public school at which all the children, regardless of property or poverty, are taught, and to the support of which all taxpayers must contribute alike, regardless of parenthood, guardianship, celibacy, or sterility, is the extremist limit of paternalism that Americans have yet incorporated into law or custom. The point is the public school, with all its leveling and socialistic attributes, is accepted because we are used to it. The parcels post won't be a particle more scary when we grow accustomed to it. In my estimation there is no more question about the effect the parcels post will have upon the storekeepers of cross-roads villages and country towns than there is about the closing up of the private schools which took place when the public schools came in. When the parcels post gets into full action, the merchants I have referred to will have lots of leisure to sit on their lonesome counters and watch the Government mail-carriers drive by delivering to their quondam customers the parcels put up by Jones Bros. and Montgomery Ward.

It is only fair to say that the little dealer, wherever he may be located, is threatened with extinction by a variety of causes besides the parcels post—causes that in the main go to make up what we call "progress." The department store, the trolley car, the asphaltum pavement, the electric light, the

(Continued on page 576.)

Dairy Interests

Water for Cows.

An exchange urges very properly that inasmuch as it has been proved by actual experiment that the average cow will drink 1,600 pounds of water a month, great care should be exercised to provide her with water. That is true enough, but there are two other points that need to be also included.

1. This water should be pure. Impure water is just as hurtful to the health and vigor of a cow as it is to a human being. It produces disease just the same. It reduces the amount of milk the cow would naturally give.

Where it is impossible to have springs of pure, running water, a good substitute is a well, windmill, and tank, with a float which throws the mill out of gear when the water in the tank rises to a certain height.

2. The water should be easy of access for the cow, both in the pasture and the barnyard. With a large herd of cows, say 30 to 50, it is a good plan to have two or three watering tanks in the yard, where the cows are watered out of doors. It is worth while also to have a man remain in the yard while they are drinking, to drive the master cows away from the tanks as soon as they have drunk their fill. In turning cows out to drink, it is a good plan to first turn out the underlings and the most timid ones, giving them plenty of time to get what water they want undisturbed. Lots of money can be lost with a herd of cows by being indifferent or careless on this water question.

Education vs. Ignorance.

A Kansas creamery reports that for a year just past it has paid one patron \$60 per cow for each cow milked in a herd of sixteen, and five of the number were heifers milking with first calf. To another patron it paid \$25 per cow in a herd of twenty, and to another \$17 per cow in a herd of thirteen. The latter herd is not to be considered in our remarks, for the cows were allowed to "rough it," and no man who pretends to do dairy-farming will so handle his cows. The \$25 cows were given good roughage and grain in abundance, were warmly stabled, and kindly treated. The \$60 cows were bred for the dairy, fed a balanced ration, and otherwise treated about as their \$25 neighbors. The cows of each herd were neighbors, belonging to farmers of the same community, kept on the same kind of land, and the climatic conditions were identical.

What produced the difference in the earnings of these cows? It was the difference in the owner. The feeder of the \$60 cows was a student. He studied the question of breeding a good cow, what and how to feed and how to care for her. He read a dairy paper weekly, read and filed away for future reference bulletins from agricultural colleges, and studied a book on "Feeds and Feeding," which cost him \$2. He owned and operated a Babcock test, and scales being convenient to his milk-can in the barn, the weight of each cow's milk night and morning was recorded. In payment for this exercise of brains, he received \$35 more per cow from his milk for the year than did his neighbor. A profitable dairy was the reward of his study.

The \$25 man used to laugh at his \$60 neighbor and call him a book farmer, saying that he'd see the day when he could afford to spend his time in the corn-field rather than with his cows, but that time seems farther off than ever. The \$25 man didn't believe in

studying dairy questions. He knew a cow would give plenty of milk on any kind of feed; all she required was plenty of it. He knew that it didn't pay to pump warm water for the winter drink, and he was very sure that the weighing and testing business was a humbug and unnecessary. The result is pitiful. That man received \$25 each per year from his cows in milk; it was \$5 per head more than the feed cost. He and his children worked and tugged all summer making feed for those cows, and realized a mere pittance for their trouble.

The \$25 man is grumbling—dairying don't pay. His test does not suit him and the butter-fat prices are too low. It is impossible to make that man see that the creamery is not to blame for his condition. His is a plea of dissatisfaction and so it will be ten years from this time. The milk from each of these herds was handled in the same creamery and the butter packed in the same tub. It went into the common market and sold for the same price. For one man the creamery made a living and allowed him money besides; for the other it paid little for feed and trouble, yet the fault lay not with the creamery. The \$60 man was a dairyman, the \$25 man ran a steer dairy. He wouldn't take a year's subscription to a dairy paper as a gift. He would do nothing to educate himself. The low results from his herd was his punishment for his ignorance.—Nebraska Dairyman.

Milking-Machine.

Will you please tell me through the KANSAS FARMER where I can secure the milking-machine (spoken of in the KANSAS FARMER of March 22) that was used at the National Dairy Show, also the price of the same? E. C. P. Harper County.

A milking-machine, such as was exhibited at the National Dairy Show in Chicago, may be seen in operation at the dairy-barn of the Kansas State Agricultural College in a few weeks. This machine is expected to arrive here in a few days, and will be installed as soon as possible. The dairy-barn will have to be equipped with air-pipes and connections and the gasoline engine set up. These will be the only requirements necessary for the use of this machine in our barn, as our stalls are arranged for the machines without any further change. C. W. MELICK.

Silo Questions.

Can you give me the size and cost of a silo that will supply four cows for a period of eight months? Also the manner of storing silage and other particulars pertaining to the silo? Butler County. C. M. Cook.

I would advise you to build a 50-ton silo for your four cows, but if you intend to go into the dairy business it will be less expensive in proportion to the size of your herd to double the number of cows and build a 100-ton silo. We have two 100-ton silos here at the Experiment Station, which cost about \$150.00 apiece. These were made with cypress staves, using a cement foundation and bottom to the silo. The staves are dove-tailed together with iron bands around the outside to make them air-tight.

In filling a silo, corn is cut and thrown onto a low wagon, immediately hauled to the silo, run through an ensilage cutter, and carried through a tube by means of an air blast into the silo window. It is delivered into the middle of the silo and tramped around the outside while being filled, for in settling the ensilage tends to adhere to the sides of the silo which prevents packing around the periphery, while it settles perfectly air-tight in the center.

The essential feature to preserving silage is the same as that of canned products, that is, the exclusion of air. We have found corn to make the most satisfactory crop for storing in the silo, although alfalfa, soy-beans, Kafir-corn, or most other forage-crops are kept more succulent and juicy, therefore, making better feed than when in their natural state. The use of a silo means the production of more and cheaper protein per acre and succulent feed during the dry summer months and during the winter, storing the greatest amount of feed in the smallest space, and increasing the capacity of the farm. Silage is one of the most palatable feeds for the dairy cow. C. W. MELICK.

H. G. Van Pelt Elected.

At a recent meeting of the board of trustees of the Iowa Agricultural College, Mr. H. G. Van Pelt, who graduated in 1903, was elected to the position of assistant professor of animal husbandry and superintendent of the dairy-

DE LAVAL CREAM SEPARATORS

Save \$10 to \$15 Per Cow
Every Year of Use
over all Gravity and Dilution Systems

And at Least \$5 Per Cow
Every Year of Use
Over all Other Cream Separators

While They Last
From Two To Ten Times Longer
Than any Other Machine

Catalogue and any desired particulars
to be had for the asking.

THE DE LAVAL SEPARATOR CO.

Randolph & Canal Sts.,
CHICAGO.
1213 Filbert Street,
PHILADELPHIA.
9 & 11 Drumm Street,
SAN FRANCISCO

General Offices:
74 CORTLANDT STREET,
NEW YORK.

109-113 Youville Square
MONTREAL.
75 & 77 York Street,
TORONTO.
14 & 16 Princess Street
WINNIPEG.

Peerless Cream Separators

Reasons Why the PEERLESS is the Best

- 1st—Twice the capacity of any other bowl. That is to say two times smaller than any other bowl of equal capacity.
- 2d—Compound feature, two bowls in one, hollow bowl, and disk bowl, combining all the features of the tubular and disk machines.
- 3rd—Enclosed frame. Free from dust. Injury resulting from machine impossible.
- 4th—Perfectly noiseless.
- 5th—Heavy enough and strong enough to lift a box car, which insures durability.
- 6th—The bushings made of phosphor bronze—the most serviceable material for the purpose. Fitted and guaranteed to be accurate to $\frac{1}{4}$ of 1-1000 of an inch.
- 7th—Every journal bushed with brass or phosphor bronze. This fact together with the fine adjustment described above, accounts for the light draft of the Peerless machines. Each bushing is made in duplicate and interchangeable and if at any time they show wear they can be replaced at small cost.
- 8th—At normal temperature the skimmed milk will always show less than 5-100 of 1 per cent of butter-fat and generally less than 1-100 of 1 per cent butter fat. PEERLESS CREAM SEPARATORS are guaranteed to anybody—everybody, any where—everywhere.

For further information, write

BRADLEY, ALDERSON & CO.,
Tenth and Hickory, KANSAS CITY, MO.



Ship Your Cream Direct

Where They

PAY SPOT CASH

And Always

Protect Your Interests

No long waits for your Money

No danger of losing a month's pay

See that Your Tag Reads

BLUE VALLEY CREAMERY CO

ST. JOSEPH, MISSOURI

TUBULAR Starts Fortune

If you had a gold mine would you waste half the gold? Dairies are surer than gold mines, yet farmers without separators only half skim their milk. Tubular butter is worth 25 to 35 cents. Cream is worth one cent fed to stock. Are you wasting cream?

Sharples
TUBULAR
CREAM SEPARATORS

Like a Crowbar

Tubulars are regular crowbars—get right under the trouble. Get the cream—raise the quantity of butter—start a fortune for the owner. Write for catalog U-165

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA.
TORONTO, CAN. CHICAGO, ILL.

farm. The college authorities consider themselves most fortunate in securing the services of so well-trained a man as Mr. Van Pelt. He is a worthy example of what hard work and a determined purpose will do for a young man. He entered the college in 1898, a poor boy. By working in the barns during the school year and on stock farms during his vacations, he earned enough money to defray all of his expenses for a complete college course.

Upon graduating, he entered the employ of Swift & Co. as salesman in their animal food department. He made good, and was rapidly advanced. In the spring of 1904 when the Jersey cattle breeders were scouring the country in search of the most competent man to be had to take charge of their cows in the famous St. Louis dairy test, Van Pelt was given the preference over all others and was induced to take up the work. In this work he won for himself an international reputation as a feeder and manager of dairy-cattle. The cattle under his charge won everything in sight. Since completing the test he has prepared for publication a comprehensive statement of the methods of feeding and management practiced in the St. Louis test, which has been very widely copied by many of the leading agricultural papers in this and other countries. During the winter of 1904 and 1905 he was instructor in animal husbandry at Purdue University, Lafayette, Ind. Since then he has been employed on the Auten Farm, at Jerseyville, Ill., and the Hartman Stock Farm, at Columbus, Ohio.

In his new position he will devote his sole time to instructional and investigation work in connection with dairy-cattle. He will be in charge of the Iowa College dairy-farm which is now being equipped with buildings and cattle. It is believed that this addition to the animal husbandry staff will materially strengthen the same.

Horticulture

The Squaw-Apple.

EDITOR KANSAS FARMER.—I wish to call the attention of the readers of your paper to a plant we have that has many valuable qualities, but the fruit of which is quite tasteless. I refer to the common squaw-apple.

It grows freely on the thin soil of our hills. It is quite hardy, and even this dry spring has an abundant crop of attractive red and green berries.

Could some of our scientifically inclined farmers experiment with this plant, as Luther Burbank has with his plants, we might by crossing it obtain rich results.

Here is a wide field for some experimenter, with a possible fortune as the result.

Chase County.

The Cherry.

E. F. STEPHENS, CRETE, NEBRASKA.

The cherry has less to contend with than the apple or plum. The tree attains nearly all of its growth during the early portion of the summer while there is an ample supply of moisture in the soil. It ripens its crop of fruit and ends summer growth before the dry periods of July and August. Hence, it is better suited to dry climates and dry soils than such varieties of trees as require a longer season for maturity. The cherry is peculiarly suited to dry soils and to the higher and drier elevations.

VARIETIES.

In Nebraska we can grow only the sour and sub-acid varieties of the Morello type. Among these the Early Richmond for early, Large Montmorency for medium, and the English

Morello for late are the three most reliable varieties. Since all of the red-juice cherries in humid climates are subject to the shot-hole fungus, it is not wise to plant the English Morello in Eastern Nebraska or in other climates where there is a large amount of moisture in the atmosphere during the summer season. The Early Richmond and Montmorency can endure a greater degree of humidity than English Morello or any other variety having red juice. This fact has led planters of Eastern Nebraska to drop out the English Morello and confine their planting mostly to the Early Richmond and to a moderate proportion of Montmorency.

The writer has found it utterly impossible to grow the sweet varieties of cherry in Nebraska, because the trees are not hardy in our climate. A sweet cherry may be made to live perhaps three to five years, but is almost invariably destroyed by the first severe winter. It is not wise to plant any of the Duke family of cherries. They are not as hardy as the Morello type and not nearly as productive.

METHODS OF PLANTING.

Since the tree does not attain large size in the farm family-orchard, the cherry may be planted sixteen feet apart each way. In town gardens where the trees are not likely to receive cultivation and therefore will not attain as large size, they are sometimes planted as closely as twelve to fourteen feet.

In planting the trees care should be taken to dig the holes at least two and a half feet across. It is also wise to dig them eighteen inches in depth. If the subsoil is of poor quality, it should be thrown to one side and in refilling the hole use surface soil of the best quality. It is admissible to use a couple of shovels full of very fine old manure. That from the cow-yard is best suited to the purpose. It is practicable to use fresh manure on the surface around the trees, allowing the rains to dissolve the application and leach it into the ground.

In planting be sure to set the tree with great solidity, tramping the earth firmly about the roots. After the tree has been solidly set and several inches of earth above the roots, it is admissible to apply two or three pails of water. After this has soaked away, finish filling the hole, leaving the surface loose.

PRUNING THE TREES.

After the trees have been planted, they should be pruned the same day. In forming the head of the tree it should be remembered that the cherry suffers more from bad methods than any other tree. The head should be left as close to the ground as possible. Do not cut away any of the lower branches. It is wise to shorten all of the limbs, trimming in such form that each branch will have three or four good, strong buds remaining. The central shoot should not be shortened as much as the others, since this should be allowed to make an upright, vigorous growth and help form a symmetrical head.

It is well to bear in mind that if the side branches are removed and the trunk of the tree exposed to the full force of the winter's sun, the tree will suffer from sun scald. The bark on the south side of the tree would be killed. The cherry-tree should be headed within eighteen to twenty-four inches of the ground. In its after care the cherry requires less pruning than other fruit. Simply remove the cross branches that tend to crowd or rub each other. The removal of large branches from the cherry-tree should be avoided.

CULTIVATION.

If planted in a climate where there is not always an ample supply of moisture, it is better not to grow any crop among the cherry-trees; rather conserve all possible moisture. Where trees receive suitable care and culture, they should the first season make a growth of eighteen to thirty inches.

The tree should commence bearing when three or four years planted, and when five or six years of age should be yielding a very fair crop of fruit. At the age of nine years from planting, the writer has picked more than a hundred quarts from a single tree.

When the trees are too large to cultivate both ways, the writer has found it to be decidedly advantageous to mulch the row one way with stable litter or strawy manure and continue to cultivate between the rows. Should the planter mulch the entire area of the orchard, it would have a tendency to bring the feeding roots to the surface. Cultivation one way compels a considerable portion of the feeding

FREE TO YOU

New book telling how to get more milk money; how to care for cream; how to make butter and a hundred other things. Free if you mention this paper and give name of neighbor who keeps cows.



OMEGA SEPARATOR

produces better cream, is more easily turned and more easily washed than any other. We let you prove it on your own farm before you buy. Send for catalogue and Free Trial offer.

The Omega Separator Co.,
23 Concord Street, Lansing, Mich. or
Dept. F Minneapolis, Minnesota.

FREE BOOK ABOUT U.S. CREAM SEPARATOR

Tells plainly the "WHY" of it. Shows

- WHY** the U. S. Skims Cleanest
- WHY** the U. S. Holds the World's Record
- WHY** the U. S. Wears the Longest
- WHY** the U. S. Is Simple in Construction
- WHY** the U. S. Is Easy Running
- WHY** the U. S. Is Easy to Clean, Easy to Handle and Perfectly Safe to Operate

48 pages of well-printed, easy reading, finely illustrated facts for the farmer who wants to make his cows pay the biggest profit. One cent brings you new Catalogue No. 91. Write the postal today.

VERMONT FARM MACHINE CO.
Bellows Falls, Vt.
Eighteen centrally located distributing warehouses throughout the U. S. and Canada. Prompt delivery.

rootlets to keep below cultivation and comparatively a small proportion of the rootlets are brought to the surface through the mulching.

Should the conditions as in town planting be such that it is not practicable or convenient to cultivate, weed-growth should be mowed two or three times each season. If the trees stand in grass, it will probably be necessary to assist them somewhat from year to year by mulching. Wood ashes or ashes from straw piles are quite beneficial to the cherry-tree because of the potash contained.

SPRAYING.

Should cherry-trees be inclined to shed their foliage from the ravages of the shot-hole fungus or any other leaf disease, it is wise to spray with Bordeaux, using three-fourths strength, or three pounds of sulfate of copper and five pounds of lime to fifty gallons of water. Make the first application just after the petals fall while the young cherries are still in the sheath. Repeat this application two weeks later, using only half of the sulfate of copper with the same amount of lime and water as the first application. After the fruit-crop has been gathered, then spray once more.

Forest Belts of Western Kansas and Nebraska.

That the forests will extend, of themselves, even under disadvantageous conditions, over the moister soils of Western Kansas and Western Nebraska, and that this natural extension may be fostered with profit, are the interesting facts brought out in Bulletin No. 66 of the U. S. Forest Service, of which Royal S. Kellogg is the author.

The climate of nearly all this region is essentially semi-arid, being characterized by light and unevenly distributed precipitation, high winds, excessive evaporation, and great fluctuations of temperature—conditions clearly unfavorable to the thrifty growth of forest-trees. Fortunately, however, most of the scanty rainfall, which would otherwise often prove insufficient, comes during the growing season. As regards trees, the result of adverse climatic factors is that the common hardwoods are confined closely to the water courses or to comparatively wet situations. Even the permanent subterranean water is not sufficient for all species; the excessive evaporation also limits plant-distribution. Trees have been killed in seasons of severe drought.

The bulletin deals in detail with the two forest types of the region—the valley type and the pine type—and with the process of reproduction, by which they maintain themselves. This study is followed by an explanation of the working of the natural forces by which the forest continues to extend itself.

The steps by which forestation begins are often apparently insignificant and unobserved. On the streams, the sand-bar willow and the false indigo play an important part, their roots holding the banks and bars from shifting until tree species can get a foothold. After the sand is fixed and other species have started, the willow dies, but its mission has been fulfilled. Its seed is carried by the water as

Cleveland Cream Separator

Direct to you
30 Days Test

Reasons Why You Should Buy a Cleveland

You want an easy running separator and the Cleveland is the only all ball-bearing separator made. You want an easy cleaning separator and the Cleveland is the first separator and the only one that uses aluminum in its skimming device. The only metal that milk will not stick to. No coating to wear off. Non-corrosive, non-poisonous. The metal recommended by scientists for cooking utensils.

You want a long lived separator and the Cleveland has the longest parts of any separator made and gets results at slowest speed. Fewer parts, less wear, less repairs. The Cleveland is a guaranteed perfect skimmer. You want to save money and the Cleveland is the only high grade separator that is sold at a reasonable price. And we'll let you prove this for yourself before you invest one cent by trying a Cleveland on your own farm. No money in advance. Our catalog tells you how to get a Cleveland and save money. Write for it.

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

well as by the wind, so that the same flood which makes the sand-bar often seeds it with the tree which will redeem it. In heavier soils other shrubs, such as the smooth sumac, the wolfberry, and the wild plum, which grow in clumps and are able to win in the fight against grass, are forerunners of the forest.

The one thing which, above all others, makes for improved conditions on the plains, and gives assured hope for better tree-growth in the future than in the past, is the cessation of fires. Before the country was settled, fires were both frequent and extensive. Only the trees along streams could survive, and, at best, make a stunted, scrubby growth. Reproduction was extremely uncertain, owing to the loss of seedlings, and grass gained the ascendancy over all other forms of vegetation. But with the nearly complete stoppage of fires since the country has been permanently settled, conditions are greatly improved. Several tree species have succeeded, despite other most adverse circumstances, in forcing their way into the very heart of the plains by following up the water courses tributary to the Missouri River. It is, therefore, quite certain that with protection they will in the future steadily gain new territory.

As a result of the study, it becomes clear that the forests of this region are much more restricted in area and poorer in character than they need be. That it takes a long time to grow trees fit for any practical purpose is true, yet a region without trees is seriously handicapped, and few farmers can do better for their property than to establish groves upon it. The Government is so well convinced of the practicability of growing trees from seed in this region that it has created two forest reserves, containing 208,000 acres, in the sand-hills of Nebraska for this purpose.

The tables contained in the bulletin make it possible to learn how land now given over to stock can be made, in a comparatively few years, to produce a stand of trees whose value will exceed the accumulated rents as pasture.

The bulletin closes with an account of the tree species found in Western Kansas and Nebraska.

MAKE EVERY DAY COUNT

no matter how bad the weather.
You cannot afford to be without a

TOWER'S WATERPROOF OILED SUIT OR SLICKER

When you buy look for the SIGN OF THE FISH



TOWER'S WATERPROOF OILED SUIT OR SLICKER
TOWER'S WATERPROOF OILED SUIT OR SLICKER
TOWER'S WATERPROOF OILED SUIT OR SLICKER

PLYMOUTH ROCKS

BARRED PLYMOUTH ROCK EGGS—From free range stock, no other fowls kept on the farm. Price \$1 for 15; \$5 for 100. Mrs. C. F. Brown, Box 61, Manchester, Oklahoma.

BLUE BIRDS—Barred to the skin. Hawkins Ringlet strain. Eggs, \$1 per 15, \$5 per 100. Minnie K. Clark, Lyndon, Kansas.

BARRED PLYMOUTH ROCKS—Large pure-bred good laying strain. Male, weight 11 to 13 pounds. Have free range. Fresh eggs packed carefully. \$1 per 30; \$1.45 per 45. Emma Rauer, Beattie, Kans.

EGGS FOR SALE—Buff Rocks, exclusively farm range; 50 cents per 15; \$3 per 100. Mrs. W. Lovelace, Muscotah, Kans.

BARRED PLYMOUTH ROCKS—Bradley strain prize winners; won 1st on chl. last three years at Harvey county poultry show. Eggs from pen \$2, yard \$1 per 15. R. Harmsen, R. R. 8, Newton, Kan.

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

WHITE PLYMOUTH ROCK exclusively—Eggs for hatching from a pen of fine birds. Satisfaction guaranteed. J. A. Kauffman, Abilene, Kans.

EGGS FROM MAMMOTH BARRED PLYMOUTH ROCK CHICKENS \$1.50 per 15. A. D. Wynooop, Bendena, Kans.

B. P. ROCKS AND BUFF ORPINGTONS—Eight grand matings. Send for price list on eggs and Collie pups. W. B. Williams, Stella, Neb.

FOR SALE—After May 1, best Barred Rock eggs in State for \$1 for 15; \$5 for 100. A. C. Rait, Junction City, Kans.

Barred Plymouth Rocks

Exclusively—"Superior Winter Laying Strain" noted for size and quality. Seventeen years of careful breeding. Eggs, 15 for \$1; 30 for \$1.50. E. J. Evans, Route 4, Fort Scott, Kansas.

BUFF ROCK EGGS

Here they are. Good ones. Fifteen for \$1; 45 for \$2.50; 100 for \$5. Orders filled in rotation as received. Eggs ready now. H. M. Stephens, Mauden, Republic County, 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.

A. H. DUFF,

Larned, : : : Kansas

White Plymouth Rocks
EXCLUSIVELY.

Good for Eggs, Good to Eat and Good to look at. W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 289 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96%, and as good as can be found anywhere. Eggs only \$2 per 15; \$5 per 45, and I prepay express to any express office in the United States. Yards at residence, adjoining Washburn College. Address: THOMAS OWEN, Sta. B, Topeka, Kans.

WYANDOTTES

FOR SALE—White Wyandottes, one pen high scoring; also eggs \$1 per 15. A. R. Gage, Minneapolis, Kans.

WHITE WYANDOTTE COCKERELS (Stay White), \$1 to \$5 each. Eggs, \$1.50 per 15. S. W. Arts, Larned, Kansas.

WHITE WYANDOTTES—the lay all winter kind. Bred to high score, large egg record cockerels. Dusty strain. Eggs 5 cents each. \$4 per 100. J. L. Moore, Eureka, Kans.

BARRED AND WHITE ROCKS—Seventeen years breeder of exhibition birds scoring 94% to 96%. Eggs, \$2 per 15; \$5 per 45. Chris. Bearman, Ottawa, Kansas.

PURE BRED White Wyandotte eggs for sale \$1.00 for 15. Mrs. C. E. Williams, Irving, Kans.

FOR SALE—Throughbred Gold-laced Wyandottes. Eggs, \$1 per sitting. H. A. Montgomery, 310 Parallel St., Atchison, Kans.

EGGS, EGGS—All kinds of fancy pigeons, also Toulouse geese eggs at \$1 per sitting. Pekin and Rouen duck eggs, 18 for \$1. Muscovy duck eggs, 10 for \$1. Turkeys, Peacocks, Barred Rocks, Buff Cochins, Houdans, S. B. Hamburgs, Rhode Island Reds, Orpingtons, White, Buff and brown Leghorns, White, Buff and Silver-Laced Wyandottes, Games, Golden-Sea-bright Bantams, Pearl and White guineas, hunting dogs. Poultry eggs 15 for \$1. Write D. L. Bruen, Platte Center, Neb.

SILVER LACED WYANDOTTES—Thorough bred cockerels, \$2; pullets, \$1.50. Jewett Bros., Dighton, Kansas.

FOR SALE—Golden Wyandotte eggs, from the best pen; \$1.50 per 15. E. Davis, 910 Madison, St., Topeka, Kans.

HIGH CLASS POULTRY Silver Wyandotte and White Plymouth Rock Eggs for hatching, \$1 for 15. R. F. Meek, Hutchinson, Kans.

SILVER LACED AND WHITE WYANDOTTES \$1 per sitting of 15. Eggs guaranteed. Circular free. R. C. Macaulay, Route 1, Frederick, Kans.

White Wyandottes Exclusively

Pen 1 headed by 1st prize cockerel. Topeka; hens scoring 93% to 95%; eggs, \$2 for 15. Pen 2, cockerel scoring 93%; hens, \$2 to 94%; eggs, \$1 for 15. All stock for sale after June 1. F. H. Sutton, Minneapolis, Kans.

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 of his cockerels. Stock for sale. Eggs, \$3 per sitting. Incubator eggs, \$5 per hundred. Duck eggs, \$1.50 per sitting.

M. B. CALDWELL, Broughton, Kansas

The Poultry Yard

Conducted by Thomas Owen.

Indian Runner Ducks.

Can you or any of your readers tell me anything in regard to Indian Runner, or leghorn ducks, their size, laying qualities, rapidity of growth, immunity from disease, and vermin?

Where could pure-bred eggs be obtained? Have read they were great layers, but thought it might be an advertising scheme. S. FRANCIS.

Osborne County.

ANSWER—There are several breeders of Indian Runner ducks in this State, and some of them advertise them in the KANSAS FARMER. O. C. Sechrist, Meriden, Kansas, breeds them extensively and is a reliable gentleman to deal with. He had them on exhibition at the State Show, taking all the premiums. A noted poultry writer has this to say of them:

"The best laying ducks undoubtedly are Indian Runners. The eggs from them are not so large as from the Pekin duck nor do they make such good table fowls, but where eggs are the object they are very profitable, being hardy both as ducklings and adults, and good winter layers. Their usual weight, though they are not very large, is about 4 pounds and they are fine in bone, usually have a good heart, and are of most delicious flavor. They do well on soft, marshy ground whenever they can have a free run, but in confinement they would be quite uneasy and uncomfortable. They are non-sitters and rarely if ever become broody." Writing on this breed, Matthew Hunter says: I can with confidence state that they are the ducks to supply the table with eggs, and to those who prefer duck's eggs to hen's eggs, they come as a boon, as they can almost be relied on all the year round, hence, one need never despair of not being able to have ducklings when others can scarcely get eggs. I consider them the most profitable breed to keep, as they will pick up almost all the food they require, returning for a little supper and bed, which saves much time in duck hunting. As to a morning meal they never look for any and can not be persuaded to stop and have it, preferring to find their own. They are not particularly fond of water, beyond a bath and drink, and their sole aim seems to be to roam about the fields in search of insects or animal food. They will pay well to cross with other breeds, to improve laying and early maturity for the table. They lay a large egg for the size of the duck, averaging about five to the pound, and are, in my opinion, the most profitable utility breed of ducks that can be kept." The color of the breed varies, but their points may be put down as follows: Head and neck, fine and long; beak yellow, bordering on green; duck that of leaden green; markings lustrous green; black on top of head and on each side of cheeks, going past the eye V shaped; in the duck it is dark brown, almost black; color, nice fawn breast and back, running much darker on duck by the aid of markings; wings white, when crossed, gives them the effect of saddles on the back; style and carriage upright, lively, and alert, better when startled; movement a perfect run, without the waddle; head carried very high. The origin of this variety of duck appears to be almost unknown, though we believe the first consignment was brought to this country by a sea captain from India.

Overfeeding Chickens.

I would like to know if you or any of the readers of your valuable paper can tell me what ails my chickens and what to do for them. They have been sick for about a month. Out of a flock of 175 I have lost about two dozen. Some of them die suddenly and some linger along for a couple of weeks. They first took with a dysentery and the droppings were either quite green or tinged with yellow. I do not see much of that color any more, but the droppings are quite thin and even sometimes watery yet. From the appearance under the roosts the whole flock must be affected, and yet the most of them look fine with red combs and voracious appetites. They lay well, but I notice every morning several eggs in all stages of immaturity under the roosts, indicating a weakness. Just before they became sick they were caught in a sudden rain storm and became drenched to the skin. Have been feeding them a soft feed in the morning and whole corn at night. Lately I have been taking

nearly all grain from them; letting them get what they can on the range, but they do not get enough that way to satisfy them. Have been giving coppers in the drinking water. Am now trying kerosene. Have also given condition powders. Will some one please advise me? The disease seems to me peculiar in that it hangs on so long, yet is not very fatal, although none that have been very sick have recovered. I remove all droppings at once. Mrs. T. H. IRWIN.

Saline County.

ANSWER—Your chickens are probably too fat, and it would be well to feed sparingly for a while. Feed no mash at all, but if you have lots of skim-milk, boil that and let them have all they will drink of it. When you feed grain see that none of it falls among the droppings of the fowls, as that is generally the way that disease spreads among a flock. The drenching in the cold rain storm probably started the trouble.

Birds That Pay.

Some hens are not worth their keep. Others produce enough to cover the cost of their handling. The hens that pay are those that more than meet the expense of money and time necessary to make them worth while. Here are three classes of hens, and the last is the one that we can have if willing to pay the cost.

What is necessary to own birds that pay? It takes more than money to do this. You can buy birds that can pay, but it is another thing to have them pay you after you own them. Not only must you have the right kind of hen, but you must use time and thought in caring for her to make her of the "paying kind." This kind is usually hatched from a paying strain. The paying hen that comes out of a flock of good-for-nothing birds is seldom met and is not worth hunting for. It takes time, it takes money, it takes born hen-sense, to produce a flock of paying hens. It takes a very little neglect to send this flock back to the class of non-paying birds.

Paying birds are a delight to the eye. You like to show them to your friends, and linger in your description of what they are and what they have done for you. This class of birds—because they pay—receive thought and attention from you. You gladly take good care of them; you are willing to properly mate and feed them; you look for fresh blood to improve your flock. They never make up a large part of your flock when you sell the cream of the chicks every year. Money-making flocks are made up of the best you raise, always letting the second quality go to market.

Paying birds live in houses free from vermin and supplied with pure air and water. They get food that is needed to bring the profit to the produce point. Cheap food, because it is cheap, never helped to produce the paying hen and keep her running to the nest. Hens that pay can be yours if you are willing to do your part. Hens that more than pay, that bring splendid profits, are what the world is asking for, is looking for, is demanding. Are you going to be among the breeders who fill the orders for this kind of bird?—Mrs. B. F. Wilcox on in Northwestern Agriculturist.

Chicken Talk.

Many of us in Kansas and surrounding territory have a good thing, and one that is cheap, right at home. I refer to crude oil. The writer is using it for the second season. Last year I used it freely about the roosts and hen-houses with good results. This year I am using it in coops and boxes for sitting hens. I use it sparingly on the inside of the nest boxes, but paint the bottom freely with it. I also use lice powder on hens and in the nest about once a week. One method or both has kept vermin away, and I have had good hatchings. In several instances every egg has hatched, and with two or three exceptions every fertile egg. In fact, my hens have averaged better than my incubator this season and have not caused much more trouble, as I find Plymouth Rocks good sitters and mothers.

To make a cheap coop with little trouble, take a coffee box or one of about that size. Take an inch board the length of the end of the box and 6 or 8 inches wide, saw it from corner to corner and with cleats nail it on top of the ends of the box. This will give the shape for the roof. Take narrow pieces of tin and with small lath nails, nail on in front, leaving spaces for lath to slip in. Make a little door. A single board will often do with cleats on, and with leather hinges

LANGSHANS

BLACK LANGSHAN EGGS—From main stock, 15 for \$1.00; 100 for \$5.00; from pen, \$2.00 for 15. Mrs. Geo. W. King, Route 1, Solomon, Kansas.

BLACK LANGSHANS—Hens scoring 93 and upward—headed by 2d and 4th prize cockerels from Kansas City 1905 show. Eggs, \$2 for 15; \$5.50 for thirty; special price by hundred. Can fill orders at once. Mrs. C. S. Cross, Fair Acres Farm, Emporia, Kansas.

WHITE LANGSHANS \$4.00 per 15 eggs, \$20.00 per 100.

White \$2, Black \$2, \$1 and \$5 per 100; Buff Langhorns, Orpingtons, Cochins, S. & D. C. B. and White Leghorns, B. and W. Rocks, W. and S. L. Wyandottes, L. Brahmas, \$1.50 to \$2.00 per 15. Toulouse Geese eggs 25c each. M. B. turkey eggs, \$1.50 and \$2 per 9. Imported and native high-scoring blood in our yards. Mention Kansas Farmer when writing. America's Central Poultry Plant, J. A. Lovette Mullinville, Kans.

LEGHORNS

ROSE COMB BROWN LEGHORN EGGS, 15 for \$1.50 for \$2.50, 100 for \$4. Mrs. John Holshey, Bendena, Kans.

BUFF LEGHORNS AND BUFF ORPINGTONS. Catalogue free. W. H. Maxwell, 1240 Quincy St., Topeka, Kans.

STANDARD-BRED SINGLE-COMB BUFF 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.

STAY WHITE—S. C. W. Leghorns and Buff Rocks. Winners at State Fairs. Eggs, \$1 per sitting. J. W. Cook, Route 8, Hutchinson, Kans.

SINGLE-COMB WHITE LEGHORN cockerels, \$1 each; two or more, 80 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, 80 cents each. All of our customers are very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Countryside, Illinois.

EGGS FOR SALE—S. C. W. Leghorns, W. Wyandottes, \$1 per 15. W. E. turkeys, \$1.50 per 9. Em-den geese, 25c 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, 517 Osage street, Leavenworth, Kans.

Pure Single Comb Brown Leghorn Eggs—50 for \$1; 100 for \$3. F. P. Flower, Wakefield, Kans.

S. C. Eggs, 30 for \$1.25, 100 for \$3. John A. Reed, Route 3, Wakefield, Ks.

Johnnie Chase, Glasco, Kas.

Breeds Black Minorcas, S. C. Brown Leghorns and Barred Rocks. Second to none in the state. Eggs, \$2 per sitting.

PRIZE-WINNING S. C. BROWN LEGHORNS

Exclusively. (Short's strain.) Farm stock eggs from pen scoring 100, \$2 per 15; \$1 per 15 as they run. Incubator eggs a specialty.

MRS. W. O. MAGATAGEN, BEATTIE, KANS.

Mention KANSAS FARMER when writing.

Rose Comb Brown Leghorns
EXCLUSIVELY

Farm raised. Eggs, per sitting of 15, \$1. Incubator users write for special prices in 100 lots. P. H. MAHON, Route 3, Clyde, Cloud Co., Kans.

ROSE COMB BROWN LEGHORNS AT READING, KAN.

Pure stock. 15 eggs \$1.00; 50, \$2.75; 75, \$4.00; 100, \$5.00. Main flock farm range. Have pen to furnish eggs no relation to stock or eggs sold last year. These are for my last year's customers.

MRS. IDA STANDFELD, "Up-To-Date" Farm.

Rose and Single Comb White Leghorns and White Wyandottes IN ALL THEIR PURITY Unsurpassed in every respect for beauty, utility as winter layers. At State show, the largest in the U. S., just held at Topeka Kansas, 26 prizes were awarded me. Write for my catalog, giving prices on stock and eggs. W. S. YOUNG, McPherson, Kansas When writing mention this paper.

BUFF COCHINS

BUFF COCHIN EGGS—From high scoring prize-winning stock, \$1.25 per 15; \$5 per 100. Stock for sale. A. R. Gage, Minneapolis, Kans.

MAMMOTH BRONZE TURKEYS

EGGS FOR HATCHING from large high-scoring M. B. turkeys, \$2 per 9; S. C. and R. C. Brown and S. C. White Leghorns, S. Spangled Hamburgs, S. C. Black Minorcas. Prize-winners in every pen. Eggs, \$1 per 15. Vira Bailey, Kinsey, Kans.

Eggs for Hatching

M. B. turkeys, \$3 per 10. Golden Wyandottes, \$1.50 and \$1.25 per 15. Satisfaction guaranteed. Mrs. A. B. Grant, Emporia, Kansas.

Eggs For Hatching

WHITE HOLLAND TURKEYS, MAMMOTH PEKIN DUCKS AND BARRED PLYMOUTH ROCKS. \$1 per setting for any of the above, fresh eggs carefully packed and safe arrival guaranteed. A. F. Huse, Manhattan, Kans.

SAVE YOUR CHICKS.

Use the Itamar Mite and Lice Killer, a mite and lice destroyer. Guaranteed to kill mites and lice if properly used. If not satisfied return bottle and label and money will be refunded.

CHAS. E. MOHR, Glendale Park, Hutchinson, Kans.

CHICK FEED

The cleanest, purest feed for baby chicks on the market. Every day egg producer owes a mass of what the hens to laying and keeps them laying. Wholesale poultry supplies. Send for circular.

The Otto Weiss Alfalfa Stock Food Co. Wichita, Kansas

BRAHMAS

LIGHT BRAHMAS

More prizes than any breeder in the state; 10 firsts this season. Eggs, \$1.50. Cockerels, \$2 to \$4. T. F. Weaver. Blue Mound, Kansas.

Light Brahma Chickens

Choice pure bred cockerels for sale. Write or call on Chas. Foster & Son, Eldorado, Kan. Route 4

GEESSE

BROWN CHINA GEESSE, Indian Runner Ducks, also Barred Rock cockerels. Prize winners at State Poultry Show. O. C. Sechrist, Meriden, Kansas.

SILVER SPANGLED HAMBURGS.

MY SILVER SPANGLED HAMBURGS led their class at the last three State Shows; also have Worlds Fair Premium. Eggs \$1.25 to \$2.00. Mrs. Fay Finkle, Galva, Kans.

INDIAN RUNNER DUCKS.

Indian Runner Ducks and White Wyandottes Eggs. Fresh, fertile and from high-class stock. Price reduced to \$1 per sitting. L. D. Arnold, Enterprise, Kans.

INDIAN GAMES

Cornish Indian Game Eggs. Write L. C. Horst, Newton, Kansas.

RHODE ISLAND REDS

RHODE ISLAND REDS EXCLUSIVELY—Cockerels \$1. Eggs, sitting \$1.50; for incubators \$5 per 100. Address Ben Warren, Maple Hill, Kans.

ONE DOLLAR buys 15 eggs of either Rose Comb R. I. Reds or Barred Rocks from prize-winning stock at the college show. Mrs. A. J. Nicholson, Manhattan, Kans.

IN ALL THEIR BRILLIANCY—Rhode Island Reds, Rose-Comb and Single-Comb. Write for circular describing origin, prices of eggs, etc.; it is free. H. A. Sibley, Lawrence, Kansas.

RHODE ISLAND RED EGGS for sale at \$1.25 per 15 eggs, or \$2 per 30 eggs. Mrs. G. F. Kellerman, "Vineyard Farm," Mound City, Kans.

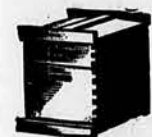


Subscription, 25 Cents a Year.

"OUT THERE IN KANSAS"

All about the chicken industry in Kansas, the bees and pigeons. Full of information illustrated and made plain for the people. Practical, by and for practical people. The paper that reaches the chicken folks. If you are interested in poultry, bees or pigeons, THE HEN will interest you. Address THE HELPFUL HEN, Topeka, Kansas.

BEE SUPPLIES



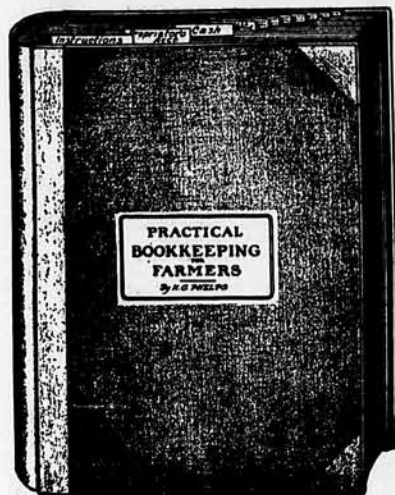
We can furnish you bee and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders.

Topeka Supply House
7th and Quincy, Topeka, Kansas



THE FAMOUS OLD TRUSTY

More than your money's worth in incubators during the summer. We have them all best; 40, 60 or 90 days to prove it. 5 year Guarantee. Now is the time to write to M. M. JOHNSON, The Incubator Man, Clay Center, Neb.



The farmer's guide to success in farming. A book for actual use in keeping all farm accounts in. A full set of farm and live stock accounts worked out in detail. Any farmer can use it. Every farmer, who wants to keep track of his business, should have one of these books. Price delivered.....\$3.00 Kansas Farmer, one year.....1.00

Total.....\$4.00 Both for.....\$2.50

Address KANSAS FARMER CO., Topeka, Kans.

PATENTS.

J. A. ROSEN, PATENT ATTORNEY
418 Kansas Avenue, Topeka, Kansas

fasten to the front to let down at night. If you want a bottom in the coop, nail cleats on and make the floor to slip in. I always want floors removable, and do not use them unless the ground is wet or there is danger from rats. The above is little more trouble to fix than a common box, and you have a convenient coop with a good roof. I have a number of larger and heavier coops made much on the same plan, but find these light and handy and quickly made. If the good man is too busy, get the boys to make up several or the woman can make them herself. I paint these coops over with crude oil which preserves them and is a hint to lice and mites that they are not wanted. I do not use much oil inside excepting on the floor and I cover that over with about an inch of fine soil.

When many chicks are raised, I find the brooders take less work, but I use both methods and, unless one is well fixed with brooder-houses, think perhaps one method is as good as the other. D. S. THOMPSON, Anderson County.

Poultry Notes.

The profit from poultry depends largely upon economical feeding from utilizing materials which would otherwise be wasted. When grain must be purchased to supply their needs, close figuring is necessary if a fair profit is realized.

Linseed-meal is highly nitrogenous and is excellent as an egg-producing food, and if given when the eggs are well supplied with grass or other bulky food, is excellent. If too much is given, however, it will make the hens too fat. A teaspoonful to each hen three times a week is sufficient.

A small box of charcoal kept where the hens can have access to it will serve to arrest disorders of the bowels from overfeeding. The charcoal should be broken to small sizes so that the fowls can swallow it readily, and should be freshly burned. There is no danger of their eating too much.

Too many of those who go into poultry to make a specialty of eggs are too ready to overrate the importance of the breed and underrate the value of proper food and shelter. High prices are paid for pure-bred fowls and then no care is given them and in a short time they are ready to declare there is no money in them.

One object in keeping poultry is to use it as an agent for converting some cheap article into another that is more salable. As a rule there is no necessity for growing food especially for poultry, when it can be procured so low as to permit of utilizing the land for the growth of something better.

The practice of discarding the hens and keeping the pullets may be carried too far and result in a degeneracy of the stock. This may not be noted at once, as it will not be a rapid process, but after a time lack of vigor and vitality will be discernable. Keep a sufficient number of well-matured, vigorous hens to supply the eggs needed for hatching.

One of the best means of removing lice from fowls is to make them do it themselves by having a lot of dry earth where they can dust themselves whenever they feel like it. Sprinkle the earth with diluted carbolic acid. This acid proves too much for the lice and they leave the premises at once, or it causes them to give up the ghost.

One great source of unfertile eggs is due to the fact that too many females are yarded with one cock. His vitality is exhausted, only a limited number of eggs hatch, the chicks are debilitated, and not a few are so weak that they can not break the shell, and die without being hatched.

The guinea fowl is one of the best foragers known on the farm. It industriously seeks its food without scratching and not only eats the seeds of noxious weeds and unpalatable grass, but its quick movements enable it to be very successful in destroying winged insects. A flock of guinea fowls will do very effective service in this direction and are also attractive and pretty fowls, even though they are noisy at times.

\$18.00 to New Haven, Conn., and Return,

Plus \$1 from Chicago, via Nickel Plate Road, June 2, 3, 4, and 5; also via New York City at Excursion rates. Return limit June 30, by arranging for extension. Nickel Plate office, Room 298, 113 Adams St., Chicago. (5)

Biennial Meeting General Federation of Women's Clubs at St. Paul, May 30-June 7.

The Chicago Great Western Railway will on May 28 to 31 inclusive, sell tickets to St. Paul at one fare plus \$2 good to return June 9 (with the extension privileges. For further information apply to any Great Western agent or J. P. Elmer, G. P. A., St. Paul, Minn.

The Grange

"For the good of our Order, our Country and Mankind."

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.

Master.....N. J. Bachelder, Concord, N. H.
Lecturer.....Geo. W. F. Gantt, Mullica Hill, N. J.
Secretary.....C. M. Freeman, Tippecanoe City, Ohio

KANSAS STATE GRANGE.

Master.....E. W. Westgate, Manhattan
Overseer.....A. P. Beardon, McLouth
Lecturer.....Ole Hibner, Olathe
Steward.....B. C. Post, Spring Hill
Assistant Steward.....Frank Wiswell, Olathe
Chaplain.....Mrs. M. J. Ranney, Arkansas City
Treasurer.....Wm. Henry, Olathe
Secretary.....George Black, Olathe
Gatekeeper.....J. H. Smith, Lone Elm
Ceres.....Mrs. M. L. Allison, Lyndon
Pomona.....Mrs. S. M. Phinney, McLouth
Flora.....Mrs. S. J. Lovett, Iarned
L. A. S.....Mrs. Lola Radcliffe, Overbrook

EXECUTIVE COMMITTEE.

O. F. Whitney, Chairman.....Topeka, Station A
E. W. Westgate.....Manhattan
George Black, Secretary.....Olathe
Henry Rhoades.....Gardner
J. C. Lovett.....Bucyrus

STATE ORGANIZER.

W. B. Obryhm.....Overbrook

The Simple Life and How to Live It.

READ BY MRS. MARY M'DONALD, BEFORE MANHATTAN GRANGE.

The simple life, I find, is not a very simple subject to treat. I suppose because it is something we have never thought much about. We never think about it, because all our thoughts are absorbed on what we suppose are our needs. Anyway we are almost wholly absorbed in the gratification of our desires; or in trying to overcome the many obstacles to the attainment of our desires. We do not discriminate between our desires and our real needs. But as individual tastes differ, so will each person have his own ideas as to what constitutes the simple life. Our idea is this: The simple life has for its basis simple thought; and simple thought is thought evolved from our inner consciousness, is home thought; thought that is not borrowed.

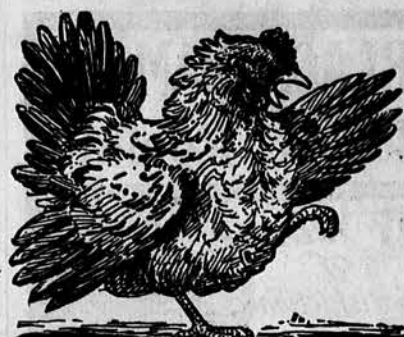
In this day of many books, when the floods of cheap literature throng our desks, it is hard to know whether we are voicing our own thoughts or the thoughts of some one else. But let us not underestimate our great advantages over past ages of the world. We can take what is most congenial to our tastes and leave the rest out. And if we make proper use of the means within our reach, we will find much help in the attainment of a simpler and less complex form of life than we have yet attained. To know a thing we must study it. Study it from our own point of view. Each and every individual should be master of the situation for himself. Each can simplify his or her own life according to his or her desires or needs.

The real remedy is to give the subject our earnest thought, and the means fitted to each case will not be found wanting. No hard and fast rules can be laid down to simplify life. Each must be his or her own judge. But it is well to discuss the subject, for it is a most important one. In this day of hurry and rush, this day of competition in all lines of business, of arduous labors, and many cares, we are overlooking a subject that is of real interest to us all.

In order to get the clearest idea of the simple life, we must go back to primitive man, when, according to the information we have on the subject, our race lived in tents; lived, of course, in the most simple manner imaginable in all the details of their lives, and it seems that this simple life was considered by the wise and experienced ones as the better way; indeed as the only way to attain the higher or spiritual life. As in one instance, at least, they were commanded to build no houses and to plant no vineyards or to sow no seed.

Each age has its own work to do; each age has its improvements; and is in advance of the last. This age is the age of work. We work more than ever before, but we do not always work wisely, for we cumber ourselves with much that is unnecessary; much that we soon tire of and wish we had not taken so much pains to acquire. Our time thus spent is a waste to ourselves and no good to any one.

The trouble is that our tastes are exaggerated; our imagination distorted; our thoughts are given a loose reign and lead us a pretty chase. We should train our thoughts and prune our desires to meet the simple demands of nature. We have heard people say that they could not help their thoughts, but we must or we will never attain the new, the true, the



A Crazy Hen

eaten alive with lice can't lay eggs, and is a most wretchedly unprofitable bird. Instant Louse Killer in the nests, on the roosts and in the dusting places will work wonders in restoring peace and harmony. The egg basket will show better and the flock will do better in every way.

Instant Louse Killer

(Powder or Liquid)

costs little to use and does much. It kills lice on stock and ticks on sheep. It destroys bugs on cucumber, squash and melon vines; cabbage worms, slugs on rose bushes; is harmless when applied to eatable plants. Instant Louse Killer is the original powder Louse killer put up in round cans with perforated top. Be sure of the word "Instant." See that it is on the can—there are over 25 imitations.

1 lb. 25c. { Except in Canada
3 lbs. 60c. { and extreme
West and South.

If your dealer cannot supply you we will forward 1 lb. by mail or express, prepaid for 35c. Sold on a written guarantee.

DR. HESS & CLARK,
Ashland, Ohio.

\$16.00 AN ACRE in Western Canada



is the amount many farmers will realize from their wheat crop this year.

25 Bushels to the Acre will be the Average Yield of Wheat

The land that this was grown on cost many of the farmers absolutely nothing, while those who wish to add to the 160 acres the Government grants, can buy land adjoining at from \$6 to \$10 an acre.

Climate splendid, schools and churches convenient, railways close at hand, taxes low.

Send for pamphlet "20th Century Canada" and full particulars regarding rate, etc., to Superintendent of Immigration, Ottawa, Can.; or to the following authorized Canadian Government Agent

J. S. CRAWFORD, 125 W. 9th Street, KANSAS CITY, MO. Mention this paper.

This Keeps Lightning Out Of Telephones



This picture shows our "No Risk" Lightning Arrester. Pull the knob and your telephone is absolutely out. The lightning cannot enter your house.

Trade Mark

"No Risk"

Simple of course. But positively sure because so simple. Pulling the knob connects the telephone with ground-wire—leaves line wire free and clear—just switches the current. The knob pulled before a storm saves the phone, protects the house same as a lightning rod, avoids fire, insures safety for the family.

Book About It FREE

Our book sent to anyone free. Just send your name and address. It explains everything, tells how you can try the "No Risk" Lightning Arrester FREE, etc. Or send us \$2 and get the complete arrester. Fully guaranteed to work and protect as we say or money back. Reliable Agents wanted. One man sold 15 one day. Another 35 in 5 days.

W. E. ASHBY TELEPHONE CUT OUT CO.
111 Square Street, Charlton, Iowa.

ANYONE WISHING
UNITARIAN SERMONS and PUBLICATIONS
SENT FREE, may address Mrs. F. O. Leland, Concord, Mass.

More Money Made as Local Agent
FOR FARMERS FIVE YEAR ACCOUNT-BOOKS
Also Five Year Diaries. Address
Chas. H. Allen Co., Rochester, N. Y.

BLACK DIAMOND Ready Roofing

17 Years
of
Satisfaction

That was Black Diamond's record on the building of the Davis Bros. Manufacturing Co. at Milwaukee. And it is the kind of service it always gives.

Black Diamond is the oldest and best ready roofing on the market. For over thirty years it has been giving solid satisfaction.

Send for free Sample and Booklet showing buildings of all kinds covered with this famous roofing. Address nearest office.

BARRETT MANUFACTURING CO.
New York Chicago Philadelphia St. Louis
New Orleans Cincinnati Kansas City
Cleveland Minneapolis Allegheny

higher, simple life. In the life that is honestly and really simple, just common sense is all that is required. Life ordered according to common sense is not to have more possessions, not to desire more than one mind can comprehend at a glance. Anything that adds to mental confusion is not simple, is not natural, and therefore not necessary. Great material possessions bring confusion, distortion, lack of harmony, and undue desire for such things, and rob the mind of its highest, noblest aspirations.

Our age of the world is a peculiar one. Never before was there such a mad rush for material things. It seems that every one is striving to gain the whole world, even if he should lose his own soul. Time was when only kings and princes could live in luxury. The common people did not aspire to a life so seemingly unattainable. American freedom and equality have set the world on fire. The highest gifts of life belong not alone to royalty, but all from the highest to the lowest are free to compete for the prize. What wonder then that all join in the mad chase. What wonder that the world has overstepped the bounds of reason and that extravagance and vulgar show take the place of common sense. Too quickly have the leaders in this mad chase, those who have obtained wealth by their wits, emerged from indigence to affluence. They were not prepared for the sudden change. Simple, natural taste is thus demoralized. Imitation has taken the place of the real. Time was when it was considered a disgrace to work. But now that the shame is taken away, a new danger threatens us. We are taking upon ourselves too much. We have not learned to regulate our lives according to our strength. We have passed from simple to complex at a bound, and are altogether unprepared to appreciate our position. Our ancestors were wise, but their lives were simple. We have sought knowledge rather than wisdom, and have invented many things to lessen labor or to enable us to do our work more easily. But lacking in wisdom, we have let our wants go far ahead of our needs. Knowledge is from without while wisdom is from within. It behooves us to inquire within and heed the voice of reason. To curb our desires and train our thoughts to the simple natural needs of life which brings only peace, hope, happiness. We trust that the next step in the advancement of the human race will be a return to primitive simplicity, embellished by the intelligence acquired in the intervening ages.

The Shawnee County Fruit- and Truck-Growers' Association has been formed. A central market will be established at Topeka to handle the products of the members. The officers of the association are: B. F. Van Orsdal, president; O. F. Whitney, secretary; A. B. Smith, J. M. Kennedy, and W. J. Kearney, trustees.

Cheap Rates

To New Haven, Conn., from Chicago direct and via New York City, June 2, 3, 4, and 5. Extended return limit June 30. Write Nickel Plate Road, Room 298, 113 Adams St., Chicago, for particulars.

The Parcels Post—Can We Have It?

(Continued from page 565.)

telephone, the auto delivery wagon, all are unfavorable to small businesses. By merely taking up a little stick of black rubber with a diaphragm in one end and a wire at the other the housewife in the extremest limits of the city, without leaving her kitchen, can, with the celerity of Ariel or of a disembodied spirit, summon to her ear the downtown merchant to price his wares for her, to discuss their qualities with her, discovering by the very tones of his voice whether he tells her the truth or no, and then the order that she may place with him will presently be delivered in a wagon that propels itself. Is it any wonder she trades at the trade-center, or that the deserted grocer at the end of the car-line tells his casual visitor that times are hard? The tolls are also tightening around the country merchant, as well. Every rod of macadam, every mile of suburban railway, every reduction in the cost of travel and whatever tends to eliminate time and expense and friction in supplying the needs of the public, all these are hostile to his thrift. Between the high tides of metropolitan commerce and the rural tradesman the principal barrier now remaining is the delay, and cost and vexation of transit. That barrier would be removed in large measure by the establishment of the parcels post.

Call for County Union.

EDITOR KANSAS FARMER:—I hereby call a Farmers' Union meeting in the city of Topeka, to convene on Saturday, May 26, 1906, at 2 o'clock p. m., at Industrial Council Hall, over the "Fair" store, 618 Kansas Avenue, for the purpose of organizing a Farmers' Union in Shawnee County, and to take steps to organize a Farmers' Union Exchange, at Topeka, Kans., for the sale and exchange of garden produce, fruit, and other products of the farm. All members of the Farmers' Union, truck gardeners, fruit-growers, and farmers who are favorable to organization and in sympathy with the Farmers' Union are invited to attend. Each local Farmers' Union in Shawnee County should send five delegates to aid in forming a County Farmers' Union.

Objects of the Union:

To teach true cooperation; to practice justice, equity, and the Golden Rule; to assist members in buying and selling; to discourage the mortgage and credit system; to secure and maintain profitable and uniform prices for grain and live stock and other products of the farm; to eliminate gambling in farm products by boards of trade and other speculators; to bring farming up to the standard of other industries and business enterprises; to labor for the education of the agricultural classes in the science of crop diversification and scientific agriculture; to constantly strive to secure entire harmony and good will among all mankind; and brotherly love among ourselves; to form a more adequate union with those in authority for a more rigid and impartial enforcement of the law, that crime, vice, and immorality may be suppressed; to garner the tears of the distressed, the blood of the martyrs, the laugh of innocent childhood, the sweat of honest labor, and the virtue of a happy home as the brightest jewels known.

This is in no sense a political party, and we shall forever abstain from so much as a discussion of partyism, yet we do not feel it is our right to place shackles upon the mind nor a padlock upon the lips of any one who may wish to discuss for educational purposes the science of government, because upon this great rock must rest all important structures for either mental, moral, social, or financial development.

JAMES BUTLER,

State Organizer for The Farmers' Educational and Cooperative Union of America.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, Davis W. Clark.)
SECOND QUARTER, LESSON VIII.
Mark 6:14-29. May 20, 1906.

Death of John the Baptist.

Extremes met in the fortress-palace of Herod Antipas on the occasion of his birthday banquet. Nazarite abstinence kept vigil in the dungeon. Herodian wantonness blazed and reeled in the banquet-chamber. Self-oblivious devotion below is matched by an overweening ambition above. The forgiving spirit, ready to pray for despicable users, is offset by a vindictive thirst for the blood of one whose very life was a rebuke to sinners. On the inky agate of the Herodian court the character of John Baptist stood out in high relief, a clear-cut cameo of smoky luster. . . . If any Herod ever needed a post-graduate course in the art of luxury, this one had it. He received his finishing touches during his visit to Rome. At that capital of debauchery he contracted the incestuous and adulterous connection which called forth the Baptist's stern and constant, "It is not lawful." . . . This banquet seems to have been, in part at least, a military affair. Antipas was toasting and feasting his chieftains. He was putting them in heart for the war into which his unnatural crime had plunged him. The ivory couches rested upon tessellated floor of banquet-hall in the marble palace, within the impregnable fortress of Machærus. The tetrarch's couriers had brought in haste from every quarter the daintiest viands of fish, flesh and fowl, while wine filled the golden goblets to their brim, and the air was scented with jet and spray of perfume. . . . Herodias was in her boudoir. Ambition was her ruling vice. She had discarded her rightful husband, father of her beautiful daughter, because, forsooth, he had no title. She married one who already sustained the relation of uncle and brother-in-law to her, and in doing so displaced a loyal wife from her husband's side. . . . At length, Herodias had a title and numerous palaces and fawning courtiers, but she had also a Nemesis, whose imperious, "It is not lawful," neither threat nor cajolery nor bribe could silence. Her strait was desperate. The uncompromising preacher of righteousness was making progress with her paramour. If he converted him she would be discarded and all lost. She had secured the Baptist's imprisonment. But locks and bars seemed no restraint to his subtle influence, while his dungeon walls seemed to echo his "It is not lawful!" with ever louder detonations. . . . The desperate and wicked woman baited her hook with her daughter's modesty, and went angling in the pool of drunken revelry. When Antipas found himself caught, he lacked moral courage to snap the hook. He feared to vex Herodias, and had superstitious scruples about breaking his oath. He doubted the effect of his vacillation upon the courtiers and chieftains whom he was seeking by this very banquet to attach more closely to himself. On the other hand, he was apprehensive of the effect on the people of the murder of a man who stood so high in their regard. Wretched man! This was the turning-point in his career. With the infamous choice of this hour he began the descent which terminated in disgrace, exile, death. . . . A moment later, Salome, a paragon of voluptuous beauty, flushed with her lascivious dance, carries, with an inhumanly steady hand, a golden platter from the banquet-table, on which rests the ghastly head of the martyr. A choice dish that for Herodias! It was her share of the banquet.

Money Kings Like the De Laval.

The De Laval Separator Co. have just issued a neat folder containing the names of some of the prominent people of the United States who use their machines. This list is a wonder, and reads like a directory of millionaires. It includes the Vanderbilts, Rockefellers, Carnegies, Morgans, Wanamakers, Lawsons, Harrimans, Hills, Belmonts, Goulds, Tiffanys, Pops, Mackays, Armours, Swifts, and Havemeyers names with many others of equal prominence. It also includes the Continental Creamery Co., the largest creamery company in the world. As these men have unlimited wealth they can buy the best machines in the world. They have selected the De Laval.

Cheap Rates to Boston.

\$19 for round-trip from Chicago (plus \$1), via the Nickel Plate Road, May 31 to June 9, inclusive, with privilege of extension of return limit to July 15. \$24 via New York City, all rail, or \$23 via New York City and steamer in both directions between New York and Boston. Stopover at Niagara Falls and Chautauqua Lake points, if desired, within limit of ticket. Tickets good on any train on above dates. No excess fare charged on any train on Nickel Plate Road. Meals in Nickel Plate dining-cars, on American Club Meal Plan, ranging in price from 35 cents to \$1. Mid-day luncheon 50 cents; also à la carte. Three through trains daily, with modern Pullman sleeping-cars to Fort Wayne, Findlay, Fostoria, Cleveland, Erie, Buffalo, New York City, and New England points. Trains depart from La Salle St. Station, Chicago, the only depot on the Elevated Loop. Write John Y. Calahan, General Agent, Room 298, 113 Adams St., Chicago, for reservation of berths, in through standard and tourist sleepers, and full particulars. (2)

\$15 St. Paul and Minneapolis and Return.

From Kansas City via Chicago Great Western Railway. Tickets on sale June 1 to September 30. Final return limit October 31. Equally low rates to other points in Minnesota, North Dakota, Wisconsin, and Lower Michigan. For further information apply to Geo. W. Lincoln, T. P. A., 7 West 9th St., Kansas City, Mo.

CORDIAL INVITATION

ADDRESSED TO WORKING GIRLS

Miss Barrows Tells How Mrs. Pinkham's Advice Helps Working Girls.



Girls who work are particularly susceptible to female disorders, especially those who are obliged to stand on their feet from morning until night in stores or factories. Day in and day out the girl toils, and she is often the bread-winner of the family. Whether she is sick or well, whether it rains or shines, she must get to her place of employment, perform the duties exacted of her—smile and be agreeable.

Among this class the symptoms of female diseases are early manifest by weak and aching backs, pain in the lower limbs and lower part of the stomach. In consequence of frequent wetting of the feet, periods become painful and irregular, and frequently there are faint and dizzy spells, with loss of appetite, until life is a burden. All these symptoms point to a derangement of the female organism which can be easily and promptly cured by Lydia E. Pinkham's Vegetable Compound.

Miss Abby F. Barrows, Nelsonville, Athens Co., Ohio, tells what this great medicine did for her. She writes:

Dear Mrs. Pinkham:—

"I feel it my duty to tell you the good Lydia E. Pinkham's Vegetable Compound and Blood Purifier have done for me. Before I took them I was very nervous, had dull headaches, pains in back, and periods were irregular, I had been to several doctors, and they did me no good.

"Your medicine has made me well and strong. I can do most any kind of work without complaint, and my periods are all right.

"I am in better health than I ever was, and I know it is all due to your remedies. I recommend your advice and medicine to all who suffer."

It is to such girls that Mrs. Pinkham holds out a helping hand and extends a cordial invitation to correspond with her. She is daughter-in-law of Lydia E. Pinkham and for twenty-five years has been advising sick women free of charge. Her long record of success in treating woman's ills makes her letters of advice of untold value to every ailing working girl. Address, Mrs. Pinkham, Lynn, Mass.

ONE MINUTE STOCK DIP

LIVE STOCK INSURANCE

The cheapest insurance you can get is a disease PREVENTIVE. Don't wait to cure disease—keep it away from your live stock. You can do it with

Dipolene

which kills all disease germs, sheep ticks, scab, lice, fleas and all vermin. Perfectly harmless. Promotes health—sprinkled about barns and lots keeps them sanitary, wards off disease. Write for FREE book, "DIPPING FOR DOLLARS."

MARSHALL OIL CO.,
Box 13
Marshalltown, Ia.

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste

To remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable, bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists,
319 Union Stock Yards, Chicago, Ill.

Weather Bulletin.

Following is the weekly weather bulletin for the Kansas Weather Service for the week ending May 21, 1906, prepared by T. B. Jennings, station director.

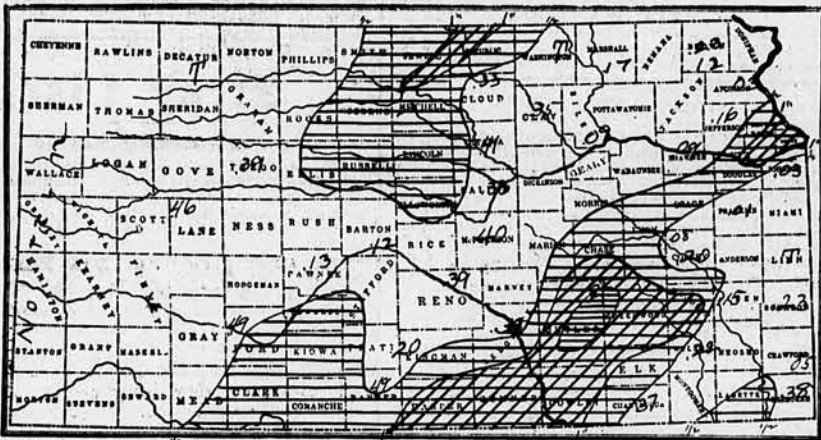
CLIMATOLOGICAL DATA FOR THE WEEK.

	Temperature.			Precipitation	
	Maximum.	Minimum.	Mean.	Departure from normal.	Total.
WESTERN DIVISION.					
Colby.	90	44	67	.....	.....
Coolidge.	94	44	69	.....	.....
Dodge City.	90	51	72	+10	0.49
Dresden.	93	46	68	.....	.....
Farnsworth.	91	46	70	.....	0.46
Norton.	92	38	68	.....	.....
Scott.	93	49	69	.....	0.79
Wakeney.	92	49	69	.....	0.89
Wallace.	90	41	64	.....	.....
MIDDLE DIVISION.					
Burr Oak.	87	47	70	.....	.....
Clay Center.	85	54	71	.....	0.35
Concordia.	85	53	70	+10	0.33
Ellinwood.	86	54	70	.....	0.12
Ellsworth.	87	53	71	.....	0.73
Hanover.	85	49	67	.....	T
Hutchinson.	82	44	63	.....	0.50
Macksville.	87	52	69	.....	0.50
Medicine Lodge.	92	57	72	.....	0.49
Norwich.	87	57	70	.....	0.90
Republic.	87	45	69	.....	1.44
Salina.	85	54	70	.....	0.33
Wichita.	89	58	70	+6	0.30
EASTERN DIVISION.					
Atchison.	88	56	72	.....	0.03
Burlington.	91	57	72	.....	0.20
Columbus.	89	59	71	.....	0.38
Cottonwood Falls.	88	59	71	.....	0.74
Emporia.	87	56	68	.....	0.53
Frankfort.	85	48	70	.....	0.17
Fredonia.	88	60	71	.....	0.22
Iola.	89	60	72	.....	0.15
Kansas City.	88	59	72	+8	1.18
Oswego.	86	60	70	.....	0.53
Ottawa.	90	56	72	.....	0.01
Pleasanton.	87	60	72	.....	T
Sedan.	88	59	71	.....	0.37
Topeka.	88	58	72	+10	0.09
Valley Falls.	88	57	70	.....	0.16

GENERAL CONDITIONS.

The first part of the week was cool in the extreme southwestern counties but over the rest

RAINFALL FOR WEEK ENDING MAY 19, 1906.



SCALE IN INCHES:

Less than 1/4. 1/4 to 1. 1 to 2. 2 to 3. Over 3. T, trace.

of the state the coolest part of the week occurred on Friday or Saturday; the lowest temperature was 38° at Norton on the 18th. The maximum temperature for the week occurred in the west portion of the State on the 16th and in the east portion on the 17th, except in the extreme southeastern counties where they occurred on the 18th. The maximum temperatures were 90° or above in the western half of the State, but below 90° in the eastern half except in Osage, Franklin, Coffey, Woodson, and Bourbon Counties; the highest temperature for the week was 96° at Toronto on the 18th. Showers have occurred in nearly every county of the State. Good showers occurred in the central northern counties with heavy rain in the northwestern part of Republic County. Good showers occurred in most of the southern counties with heavy rains in Harper, Sumner, Butler, Greenwood, and Woodson Counties. Good showers fell in Chase County and thence northeastward through Lyon, Osage, and Douglas Counties with heavy rain in Wyandotte County. Hamilton, Wallace, Thomas, and Norton Counties report no rain. Decatur, Washington, and Linn Counties report a trace of rain.

CONDITIONS IN DETAIL.

EASTERN DIVISION.

Allen.—It was a moderately warm week with strong southerly winds till Friday. Light showers fell on the 15th and 18th. Rain is very much needed. Three days were clear and the rest partly cloudy.
Anderson.—Uniformly warm weather prevailed. No rainfall occurred.
Atchison.—The week was very dry, only .03 of rain falling, and the sun being visible less than half the time. The first part of the week was characterized by high winds. Rain is needed badly.
Brown.—Three days were clear, two cloudy, and two partly cloudy. High winds prevailed the first four days. .012 of an inch of rain fell on the 15th. The dry weather is becoming serious.
Chase.—It was dry up to the 15th when a good rain fell. The highest temperature was 88° on the 17th and the lowest 52° on the 12th.
Chautauque.—This has been a very pleasant week with light showers on the 15th and 16th. Maximum temperatures generally ranged in the eighties and minimum temperatures in the sixties.
Cherokee.—The week was warm and the days generally partly cloudy. A light shower fell on the 15th and .03 of an inch on the 18th.
Coffey.—The week was warm and dry. The highest temperature was 90° on the 17th and the lowest 55° on the 18th. The rainfall was .008 of an inch.
Crawford.—Only one light shower of .05 of an inch fell during the week. Maximum temperatures ranged in the eighties on all but one day and minimum temperatures in the sixties. All the days were clear.
Elk.—A good shower fell on the 15th and light ones on the 14th, 16th, and 18th, making the to-

tal for the week .06 of an inch. The temperature the first part of the week was about normal, the latter part above normal.
Franklin.—The week was warm and dry with only .01 of an inch of rain. The temperature exceeded eighty on five days and fell below 60° on only one morning.
Greenwood.—There was a fine rain of .90 of an inch on the 14th and light showers on four other days. The week was warm, the latter part being warmer than the first part.
Jefferson.—It is getting very dry. The rainfall for the week was only .016 of an inch. The weather has been very warm, the temperature being above 80° every day but one, and the minimum not falling below 60° any night.
Johnson.—The week has been warm, dry, and cloudy. A light shower of .003 of an inch fell on the 15th and a trace of rain on the 18th. The highest temperature was 87° on the 17th and the lowest 55° on the 19th.
Labette.—The week was dry and windy up to the 18th when .53 of an inch of rain fell. The days were partly cloudy but rather warm.
Linn.—There was a good local rain in the southeast part of the county Friday afternoon, but only a trace fell during the week in the east central part. The temperature was uniformly high.
Lyon.—Rain fell on four days, the total for the week being .05 of an inch. Warm weather prevailed throughout the week.
Marshall.—Showers fell the first three days, the total being .017 of an inch. Three days were clear, three partly cloudy, and one cloudy. The temperature was uniformly high.
Osage.—Showers fell on four days as follows: 15th, .06; 16th, .08; 18th, .05; and 19th, .24. The highest temperature was 90° on the 17th and the lowest 60° on the 13th.
Riley.—Light showers fell on the 14th, 15th, and 16th. The weather was warm throughout the week.
Shawnee.—The week was warm and dry with southerly winds on six days and high winds on the 13th, 14th, 16th, and 17th. The temperature for the week averaged about 7° above normal daily. Only one light shower, .09 of an inch on the 15th, was received. Rain is very much needed.
Wilson.—The week has been partly cloudy and warm with a strong southerly wind most of the time. .017 of an inch of rain fell on the 15th and .05 on the 18th.
Woodson.—Showers fell on five days, the weekly total being 1.16 inches. The highest temperature was 92° on the 18th and the lowest 60° on the last three days.
Wyandotte.—On the whole the week was pleasant and seasonable and needed rainfall in the shape of a refreshing thunderstorm occurred on the evening of the 17th. During this storm hail fell, at intervals, for ten minutes but no damage resulted therefrom. Light showers fell on the 15th and 19th.

MIDDLE DIVISION.

Barber.—Strong winds have been experienced. A thunderstorm occurred on the 17th. Light showers on five days have been very beneficial. The weather was warm all week.
Barton.—This has been a very windy week. Dust storms occurred on the 12th, 13th, and 16th, and thunderstorms on the 13th and 18th. Very

Clay.—Southerly winds prevailed on all but one day and temperatures were uniformly high. .035 of an inch of rain fell during the week.
Cloud.—The temperature ranged from 4° to 17° above normal every day. Four days were cloudy and three partly cloudy. Light showers fell on the 14th and 15th, the total being .034 of an inch.
Ellis.—Light showers fell in the northwestern part of the county the first of the week and heavy rains fell in the southern part. There was considerable sunshine and warm weather.
Ellsworth.—A light shower fell on the 18th and a good rain of .53 of an inch on the 15th. The weather was warm every day.
Harper.—The week was cool and pleasant with 1.85 inches of rain. There was a little hail on the 17th but no damage was done.
Harvey.—The week has been cloudy and threatening but only a small amount of rain has fallen.
Jewell.—Showers fell on the 13th, 14th, and 15th, the total being .56 of an inch. The weather was warm and generally clear.
Kingman.—Showers fell on every day but two, the total being .90 of an inch. There was considerable cloudiness and the weather was warm.
McPherson.—There was a refreshing rain of .40 of an inch on the 15th but more is needed. The temperature was moderate.
Ottawa.—It was a very warm, dry week with .41 of an inch of rain. More rain is needed. There was considerable cloudiness and the temperature was moderate.
Pawnee.—Strong southerly winds prevailed till the 17th when the wind shifted to the north. There were a few light scattered showers making about .013 of an inch.
Reno.—There were high southerly winds on the 12th, 13th, and 16th, and light showers on the 13th, 14th, 15th, and 18th, making a total of .018 of an inch. There was much cloudiness but the weather was warm.
Republic.—A trace of rain fell on the 13th, .82 on the 14th, and .62 on the 15th. The highest temperature was 87° on the 16th and the lowest 45° on the 18th.
Russell.—The days were uniformly warm, the highest temperature being 91° on the 16th and the lowest 53° on the 19th. Refreshing showers fell on three days, the total being .64 of an inch.
Saline.—Light but beneficial showers fell on the 14th and 15th, making a total of .033 of an inch. There were high winds on the 14th, 15th, and 16th. The weather was warm.
Sedgewick.—The cloudiness was above the average, with showers on the 14th, 15th, and 16th, and sprinkles on the 13th and 18th. During the thunderstorm of the 17th a fine rain fell north and south of Wichita. The daily temperatures ranged from normal to 16° above normal.
Smith.—The week was warm. It was clear all week except on the 14th when we had half an inch of rain. The highest temperature was 87° on the 16th and the lowest 49° on the 15th.
Stafford.—Showers fell on the 13th, 14th, and 19th, making a total of half an inch of precipitation. The week was warm.
Sumner.—Rain fell on four days. During a thunderstorm on the 17th, 3.30 inches of rain fell in less than an hour. The total rainfall for the week was 1.68 inches.
Washington.—Warm and clear weather prevailed. It was a dry week, only a trace of rain falling. The highest temperature was 85° on the 18th, and the lowest 50° on the 19th.

WESTERN DIVISION.

Decatur.—Warm, dry weather prevailed. Four days were clear and three partly cloudy. Only a trace of rain fell.
Ford.—.05 of an inch of rain fell on the 13th, .02 on the 14th and .42 on the 19th. The daily temperature ranged from 2° to 15° above normal. The weather was generally clear.
Hamilton.—It was a warm week with no rain. The highest temperature was 94° on the 16th and the lowest 44° on the 13th.
Lane.—With the exception of the 15th and 17th this has been a very warm week. A fine local shower fell on the 14th. The total rainfall for the week was .046 of an inch.
Norton.—It was a very warm, dry week with strong southerly winds. There was no rain but it is badly needed. The days were generally clear.
Scott.—Very beneficial rains fell on the 13th and 14th. The total precipitation was .079 of an inch. The highest temperature was 93° on the 16th, and the lowest 49° on the 18th.
Thomas.—There were strong winds during the week but no rain fell. The highest temperature was 90° on the 16th and the lowest 44° on the 18th.
Trego.—On the 14th .39 of an inch of rain fell but no other precipitation occurred during the week. The weather was warm, the highest being 92° on the 16th and the lowest 49° on the 18th.
Wallace.—It was a very dry week with no rain and southerly winds most of the time. The maximum temperature was 90° on the 16th and the minimum 41° on the 18th.



An exhibit which testified with waving banners and fluttering flags to the magnitude of Kansas manufacturing enterprise came into Ottawa this week in a shipment by special train of the largest single order of fence-wire ever executed by the Pueblo mills. The shipment is said to have been the largest of the kind ever made. The shipment was consigned to the Warner Fence Company, of Ottawa, for manufacture into the various kinds of fencing turned out by that institution. Twenty-seven cars, fully loaded, brought 675 tons of wire. The train, with the addition of special coaches for the railroad officials and business men who accompanied it, made a day-

light run from Pueblo, stopping at all the principal towns on the Santa Fe lines. A profuse decoration of banners told of the train's destination. Mayor Halloran and representatives of the business men's association met the train at Emporia, and the band and an enthusiastic crowd of citizens welcomed it home.
It is estimated that the wire contained in the special train would build a fence of nine wires entirely around the State of Kansas, and leave considerable surplus for cross-fencing. The accompanying photograph shows something of the magnitude of the fence industry in one town in Kansas.
A. L. MILLER, Editor Ottawa Herald.



OLDS ENGINES

There is no gas engine as simple as the Olds—Compare it with others and this statement is proved. The repairs cost practically nothing.

The Most Economical Engine

for pumping, sawing wood, feed grinding, churning and all farm work. The reason why is interestingly told in our catalog mailed on request. Tell us your requirements and we will help you figure out what you need. Send for our catalog showing Type A (2-8 h. p.) Type G (8-50 h. p.) Types K and N (12-1200 h. p.) used with our Gas Producer, it will reduce fuel cost 75 per cent.)

Celebrated Picture Free
For 4c in stamps to pay cost of mailing we will also send you Rosa Bonheur's "Horse Fair," the most celebrated animal picture in the world, size 16 x 20, beautifully colored, suitable for framing.

OLDS GASOLINE ENGINE WORKS
920 Chestnut St., Lansing, Mich

\$20 and less

From St. Louis and Kansas City to all points Southwest via M. K. & T. Ry, June 15th and 19th. Tickets good 30 days returning with stopovers in both directions.

To Dallas, Ft. Worth, Waco, Houston, Galveston, San Antonio, Corpus Christi, Brownsville, Laredo, and intermediate points. \$20
To El Paso and intermediate points. \$26.50
To Kansas, Indian Territory, Oklahoma, and Northern Texas points, one fare plus \$2, but no rate higher than. \$20

Correspondingly low rates from all points: From Chicago, \$25; from St. Paul, \$27.50; from Omaha and Council Bluffs, \$22.50.

Write for full particulars.

W. S. ST. GEORGE
Gen'l Passenger Agent, M. K. & T. Ry
St. Louis, Missouri



"SOUTHWEST"

Generous Combination Offer

The Kansas City Post, a new, metropolitan, Democratic Daily (per year) \$3.00
Poultry Culture an interesting monthly poultry journal (per year)50
The Kansas Farmer 1.00
\$4.50

We have completed arrangements whereby we can furnish **ALL THREE PUBLICATIONS** for only **\$2.50**

THE POST is a good live, Democratic Daily paper containing all the news of importance, complete and accurate market reports; a page devoted to the women folk and the home as well as a page devoted to sports.

THE POULTRY CULTURE is one of the best poultry journals published and is of particular interest to those already engaged or about to engage in the poultry raising business.

Here is a splendid opportunity for you not only to get a good live Daily, a splendid poultry and the "Old Reliable" Kansas Farmer about half price.

SUBSCRIBE AT ONCE

Address
THE KANSAS FARMER COMPANY
Topeka, Kans.

Tamworths

Lincoln Park Herd
of pure-bred Tamworth Hogs
Stock for sale. Write to E. L. Lindner and F. L. Waterman, Clay Center, Kans.

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 animal, 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 Veterinarian Department of The Kansas Farmer, Topeka, Kans., or to Dr. C. L. Barnes, Veterinarian 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."

Callous on Horse's Shoulder.—I have a horse that got his shoulder blistered while plowing; the blister was on right side of shoulder, and the size of my hand. I opened it at the bottom, and bathed it with hot water and arnica for ten days. It is about one-fourth the original size and is hard and calloused. How can I remove this callous?

Clearwater, Kans. S. P. T.
Answer.—I would advise cutting the callous part off the shoulder, then secure from a druggist the following: 1 ounce tannic acid, 2 ounces boracic acid, and 1 ounce acetanilid; mix and dust on wound daily.

Ailing Horse.—My 10-year-old horse is thin in flesh; his breath is foul at times; I feed him on corn and prairie hay; I do not work him much; he runs in pasture. I think there is something wrong with his stomach, but have done nothing for him.

A. READER.

Rice County.
Answer.—If you will have the horse examined I think you will find that there is a bad tooth, and would therefore advise your having the teeth properly treated by a competent veterinarian.

Heifer Gives Bloody Milk.—I have a heifer that gives bloody milk; calf is a week old. What will cure the trouble?

J. E.

Lyons, Kans.
Answer.—If you will melt together 2 ounces of gum camphor and 4 ounces of lard, and stir until cool, then apply to your cow's udder, three times daily, I think you will remedy the trouble. Your cow has evidently had a little inflammation in the udder from some injury which has caused the bleeding.

Poll Evil and Ailing Chickens.—I have a mare that I think is getting poll evil.

Also have some good, healthy chickens that are looking spry. They break down and lose all control of their legs; they turn over after first day of illness and lay on the other side, but still look healthy. Look as though they were paralyzed in the back, but can use legs freely for kicking.

Jamestown, Kansas. O. W. C.

Answer.—(a) We are sending you press bulletin on fistulous withers and poll evil which we trust will give you the desired information.

(b) The only chickens I have ever known to act in this manner were those having crops bound from eating too much oats. Examine the crops, and if you find them full and hard make an incision in the skin over the crop, make a slit in the same so that the two cuts will not be in the same place, then empty the crop by inserting a finger. You may draw the outer incision together with thread and feed the fowl soft food for a few days.

It is possible that your fowls may have epilepsy, caused by intestinal parasites. It is characterized by fits. During the fit the fowl will make beating movements with its wings, its legs will draw up, and it will fall down and flutter around, but seldom dies. A few grains of bromide of potash or sulfur and turpentine given in the drinking water will prove beneficial in removing the worms.

Lame Mule.—My 5-year-old mule has been lame in hind leg for two weeks; holds leg up as though in great pain. I examined the foot carefully but could find nothing; the foot and leg is carried well forward and up. I think the trouble is in the hock joint, but no well-defined soreness was discovered. Am I correct in diagnosing the trouble as spavin?

Leavenworth, Kans.

Answer.—From the fact that you did not find any soreness in the hock joint, and also that the mule carries foot well forward and up would largely remove the idea of the seat of the trouble being in the hock joint. From the history of the case I would be inclined to think the trouble is from a stone bruise, and before long you will notice a decided swelling above the foot and about the fetlock. In that event the best thing

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.

Display advertising, 20 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, \$1.82 per inch per week. Special reading notices, 50 cents per line. 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. Electrotype 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.

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

Change of copy for regular advertisement 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 Want 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.

CHOICE D. S. Polled Durham bulls, 5 to 16 months old. C. M. Albright, Route 2, Overbrook, Kans.

25 BEAUTIFUL RED MULEY BULLS FOR SALE—John Marriage, Mullinville, Kans.

HOLSTEINS—One yearling bull, extra choice, H. B. Cowles, Topeka, Kans.

A BUTTER-BRED Holstein bull calf—The best purchase for grade dairy herd. See report Santa Fe Dairy Educational Special. Start right in your breeding. Sixty-five head to choose from. Geo. C. Mosher, Hillcrest Farm, Greenwood, Neb.

REGISTERED HOLSTEINS and Jerseys of best milk and butter families. Youngsters at reasonable prices. Burton & Burton, Topeka, Kans.

FOR SALE—Some good young Shorthorn bulls just a year old by the 2000 pound Marshall Abbotts-burn 5rd 183305. Cheap, breeding and individual merit considered. D. Ballantyne & Son, Herington, Kans.

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

FOR SALE—The pure Cruickshank bull, Violet Prince No. 145647. 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 yearling bulls. Sires—A son of Besse Lewis, 32 lbs. butter 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 also Island winner in class for two years. Her four dams 22 to 26 quart cows, and all winners. Sayda Polo Jersey Farm, Parsons, Kansas.

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

FOR SALE Five pure-bred yearling Shorthorn bulls. Will be pedigreed in name of buyer; sired by Teddy Roosevelt 196274. Good, useful bulls at living prices. Henry Haub, Whiting, Kans.

to do is to poultice the foot with bran and linseed-meal, keeping the poultice wet; as soon as pus forms it will break at the heel at the place where the frog is attached to the bars. The foot at this place is rather soft and allows the pus to escape. Failing to find the trouble in this location, let us hear from you again, as you may be able to notice additional symptoms which will aid in the diagnosis of the case.

Lumpy Jaw.—Is there any remedy for the lumpy jaw in cattle that can be given internally that will cure it? One of my neighbors told me he saw something of the kind in your paper. Derby, Kansas. A. W. P.

Answer.—A similar inquiry was answered in the KANSAS FARMER of May 4, 1905, as follows:

"Lump jaw in cattle is caused by a fungus known as the Ray Fungus (actinomyces) which is found on fodder, gaining access to the mouth on the food. If any abrasion is in the mouth, this fungus readily develops in the gums and later on in the jaw bone, causing it to become honeycombed, with a formation of abscesses, the jaw becoming greatly enlarged—thus the name 'lump jaw.' Treatment consists of opening the swelling and injecting the pockets where the pus is, with a tincture of iodine daily; giving internally, one-half dram of iodide of potash in a pint of water daily for about two weeks; then withhold the medicine for a few days and begin again."

C. L. BARNES.

CATTLE.

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

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

FOR SALE—Registered Galloways. Bulls, cows and heifers, 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. Rents, Leavenworth, Kans.

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

HORSES AND MULES.

FOR SALE—A good black heavy-boned jack. Price, \$250 if sold soon. Do not write but come and see him. I also have others for sale cheap. Address Joseph Pizinger, Box 14, Omitz, Kans.

ILLINOIS HORSE COMPANY, Des Moines, Ia., can supply 60 Imported and American Bred Pedigreed draft stallions and 20 coach stallions, 40 jacks at one-half the regular price. Time given, will take part trade. Write for bargains.

FOR SALE—At reasonable prices, Black Imported Percheron stallions. E. N. Woodbury, Cawker City, Kans.

FOR SALE—Registered French draft and Percheron stallions, mares and colts; bays, browns and blacks. One gray stallion, 13 years old, sound and sure. Jake Howard, Hoyt, Kans.

LOST OR STRAYED—Brown mare, weight 1,100 pounds, white spot in forehead, barb wire cut on side, somewhat waybacked. Suitable reward for return. J. W. Gillard, 836 Highland Ave., Topeka, Kans.

AGENTS WANTED.

SALESMAN WANTED TO SELL SOUTHERN CALIFORNIA REAL ESTATE—Specialties, farm lands, acre and town lots. Hustlers make \$500 to \$2,000 monthly. Southern California land sell all without effort. Every one wants them. We furnish free instructions, strong endorsements, up-to-date illustrated literature and adequate help from office. Exclusive territory. Sub-agents coin you money. Unusually liberal commissions. No competition. No experience necessary. No investment but energy required. Free course in Scientific Salesmanship. A. A. Peterson Realty Company, 514 Stimson Bldg., Los Angeles, California.

Wanted—Gentleman or lady with good reference, to travel by rail or with a rig, for a firm of \$250,000 capital. Salary \$1,075 per year and expenses; salary paid weekly and expenses advanced. Address with stamp, Jos. A. Alexander, Topeka, Kans.

HELP WANTED.

FARM and ranch hands furnished free. Western Employ Agency, 704 Kansas Ave., Topeka, Kans.

SEEDS AND PLANTS.

ONE DOLLAR will buy enough of McCauley's white seed corn to plant seven acres if you send to A. J. Nicholson, Manhattan, Kans.

PLANTS FOR SALE—Cabbage, Henderson's Early Summer, Succession, 30 cents per 100, \$2.50 per 1,000. Tomatoes, Early Dwarf Champion, 20 cents per 100, \$2.00 per 1,000. Sweet Potatoes, Yellow Jersey, Yellow Nansemond, 20 cents per 100; \$1.50 per 1,000. Red Jersey, Red Bermuda, Black Spanish Southern Queen, Vineloss 25 cents per 100; \$1.75 per 1,000. F. P. Rude & Son, Box 671, North Topeka, Kans. Ind. Phone 4008.

SWINE.

CHOICE BERKSHIRE BOARS FOR SALE—Of the best breeding and from 125 to 240 pounds in weight. G. D. Willems, Inman, Kans.

FOR SALE—20 good strong spring and yearling Berkshire boars that are just what the farmers want. Prices right. Address E. W. Melville, Eudora, Kansas.

SCOTCH COLLIE PUPS.

SCOTCH COLLIE PUPS for sale from registered stock. G. B. Gresham, L. Box 102, Bucklin, Kans.

REAL ESTATE.

FREE—Hundred-page illustrated book on British Columbia. Accurate information about its wonderful natural resources. Send postal to The World Printing & Publishing Co., Ltd., Vancouver, B. C.

Do You Want a Farm Free?

Your chance is as good as anyone's. Millions of acres of Indian Reservation land will be given away by the U. S. Government. Write to us for information free of charge.

Homeseekers' Information Agency

Steele Block - Denver, Colo.

Fine 800 Acre Ranch

A fine 800 acre tract, 6 miles from county seat, 2 miles from station. All fenced, one half mile of Arkansas River front, 300 acres of fine river bottom land, nearly all of the balance of the land good farm land; 8 acres of good timber. River bottom land, good sugar beet or alfalfa land. Good neighborhood. An ideal ranch. Price, \$20 per acre. Would consider a trade for a good farm near town, nice clean stock of merchandise or good rental property. Call on or address G. L. Bryant, owner, Cimarron, Kans.

MISCELLANEOUS.

NOTICE—My application for a permit to sell intoxicating liquors, according to law at 115 E. 5th St., in the 2d ward of the City of Topeka, is now on file in the office of the Probate Judge of Shawnee Co., Kansas. The hearing of the same is set for May 23, 1906, at 9 o'clock a. m. C. R. Hoyt.

DOGS AND BIRDS—For sale dogs, hogs, pigeons, ferrets, Belgium hares, all kinds; 8c 40-page illustrated catalogue. C. G. Lloyd, Sayre, Pa.

PRIVATE DEMONSTRATORS—Men and women for every county in Kansas. Same route each year. Salary and bonus. Address J. C. Messinger Co., Bethlehem, Pa.

WANTED—A good second-hand grain separator. Dr. Barker, Chanute, Kansas.

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 \$7.50 to as high as \$155.50 per month. Wanted—400 young men and sound men of good habits to become brakemen and firemen. 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.

AGENTS WANTED—Sell \$1 bottle Sarsaparilla for 35c; best sellers; 200 per cent profit. Write to-day for terms. F. P. Greene, Dept. 40, 25 Lake St., Chicago

Stray List

Week Ending May 10.

Stafford County—W. W. Hall, Clerk.
HORSES—Taken up by T. S. Maupin, in Ohio tp., (P. O. St. John), April 17, 1906, one dark brown gelding, 15 hands high, weight 1000 pounds; blaze in face, three white feet, about 8 years old; valued at \$100; one coming 2-year-old gelding, light bay, 13 hands high, weight 650 pounds, blaze in face, roached mane, and bon tall; valued at \$20.

Week Ending May 24.

Lyons County—W. F. Eggers, Clerk.
MARE—Taken up by Frank Frencher in Center tp., (P. O. Olpe), 2 ponies, one about 17 years and the other 3 or 4 years old, both dark bay in color, the older mare has saddle mark and left hind foot white, the young mare, no mark or brand; valued at \$15 and \$35.

LEGAL NOTICE

Notice of Stockholders' Meeting.
Notice is hereby given that the annual meeting of the stockholders of The Topeka Northwestern Railroad Company will be held at the office of the company in the Office Block in the City of Topeka, Shawnee County, Kansas, on Tuesday, the 12th day of June, 1906, beginning at 10 o'clock a. m. H. A. Scandrett, Secretary.

THE

COLUMBIA RIVER

WONDERLAND

With its incomparable scenery is best reached via the

UNION PACIFIC

Whose fast through dall trains run 200 miles in broad daylight along this matchless river. An opportunity of visiting

Yellowstone Park en Route.

THE SHORT LINE TO

PORTLAND

AND THE NORTHWEST

INQUIRE OF

F. A. LEWIS, City Ticket Agent. or J. C. FULTON, Depot Agent.