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KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. MCAFEE.....Vice President
D. C. NELLIS.....Secretary and Treasurer

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E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

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UNION LABEL

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Display advertising, 15 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, $1.54 per inch per week.

Special reading notices, 25 cents per line.

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

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.

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It again becomes necessary to print a reminder that communications to the KANSAS FARMER go to the waste basket unread unless signed by the real name of the person responsible for the statements made.

HOW TO ADVERTISE.

If you toot your little tooter and then lay aside your horn, there's not a soul in ten short days will know that you were born. The man who gathers pumpkins is the man who plows all day, and the man who keeps a humping is the man who makes it pay. The man who advertises with short and sudden jerks is the man who blames the editor because it never works. The man who gets the business has a long and steady pull and keeps his trade and paper from year to year quite full. He plans his advertisement in thoughtful, honest way and keeps forever at ot until he makes it pay. He has faith in all the future, can withstand a bankrupt stock and, like a man of Scripture, has his business on a rock.

WHERE DID CORN ORIGINATE?

EDITOR KANSAS FARMER:—Will you kindly favor us with some information regarding the origin and discovery of corn? Thanking you in advance.

Allerton, Ill. R. E. BURGER.

There is little doubt that corn originated in Central or Southern Mexico. This is the conclusion reached by Harshberger in his book entitled, "Maize, a Botanical Study." He says on page 151: "The evidence of archaeology, history, ethnology and philology which points to Central and Southern Mexico as the original home of maize, is supported by botany and meteorology." Corn was found by the first Europeans who came to America, and its cultivation was reported from all parts of America, at least as far north as Montreal and as far south as Chili. It was not known in any other country before the discovery of America. There it had been long cultivated and highly prized, as evidenced by the fact that ears of corn are occasionally found in vessels placed in ancient Indian mounds in Chili and Central America. The Mexicans had a Goddess of Maize, who was known, according to the authorities, as "she who sustains us." In a temple in Mexico containing seventy-eight chapels, the forty-fifth edifice contained a statue of the "God of Maize." The history of corn since the discovery of America by Europeans has been one of distribution and modification of varieties to suit varying environments.

AN OLD CONTRIBUTOR COMES AGAIN.

Mr. H. R. Hilton was formerly a frequent and valued contributor to the discussions of the problems of the soil. His experiments appealed to the common sense of the practical farmer. When he spoke at a farmers' institute or at a State meeting he always had a large and appreciative audience. His writings were eagerly sought. For several years Mr. Hilton has been manufacturing glass at Port Allegany, Pa. In a letter to the editor he says:

"I do not know that a deserter from Kansas has any right to use the columns of the KANSAS FARMER, but I am still a constant reader and still interested in all that is going on in an agricultural way in Kansas. It is possible that I have been standing still while the Kansas farmers have been marching on to more scientific and practical knowledge, but the enclosed copy is submitted, and if you think it will be of interest to the Kansas people, you are at liberty to publish it. It is probably too long to appear in one issue, and so you are at liberty to divide it, and to change or strike out the subheads to suit yourself.

"The last article I wrote for the FARMER appeared in a March issue in 1901. I may have felt then that I could afford to leave the State, but I certainly feel now that I can not afford to be forgotten entirely by the farmers of Kansas. If you should publish this, and it should raise any questions, you are at liberty to refer them to me for such light as I may be able to throw upon the question."

Mr. Hilton's contribution appears on page 500 of this issue.

THE AMERICAN SOCIETY OF EQUITY.

EDITOR KANSAS FARMER:—There is being organized now in this county an organization known as the American Society of Equity, and its objects and aims you know better than I can tell you. Is there any good reason why we as farmers should not join it? We look to the KANSAS FARMER as our legitimate adviser. If we should not combine for the purpose of obtaining a profitable price on all we raise, why not? Please answer through your columns, and oblige a subscriber.

Rice County. R. O. STEWART.

The KANSAS FARMER confesses to a plentiful lack of exact information about "The American Society of Equity," except that its promoters are energetic and plausible and have employed methods much like those of schemes who seek to transfer the farmers' cash to the said schemers' pockets. Not many months ago the editor of the KANSAS FARMER was urgently solicited to join in this scheme. It was represented that part in it would be profitable, etc., etc. The letter said: "Wherever the idea is born, it is like a lighted match in a pile of kindlings—the whole neighborhood is inflamed. . . . . The plan of the American Society of Equity is the best. It has been most widely advertised. It has the best propaganda material that any farmers' movement ever had." Further on the letter to the editor said: "You can, if you wish, become a stockholder in what can be made the most valuable publishing plant in the country AND ALL WITHOUT A DOLLAR INVESTED ON YOUR PART."

In a lengthy enclosure with the letter occurred this seemingly frank admission: "Even though farmers can not control marketing when the trial is made, what harm will be done?"

Many platitudes and truisms accompanied the sentences here quoted. But do worldly-wise men knowingly place their interests in the keeping of those who make such representations as those here quoted?

The KANSAS FARMER has often had occasion to commend local cooperative enterprises. Of these the farmer may know the purposes and methods and may be acquainted with the men in charge. But the last half century is varigated with the wrecks of colossal schemes for controlling market prices of farm products. The KANSAS FARMER has yet to make the acquaintance of a farmer who, five years after he joined one, would advise his son to invest in it. These schemes are sometimes profitable to the schemer, but who, after becoming ecquainted with their inside purposes and workings, would expect them to be profitable to the farmer? The KANSAS FARMER does not like to be a knocker, but our suggestion is to avoid buying gold bricks, and to be careful about investing with strangers.

THE A B C OF BEE CULTURE.

Probably no other bee-book in any language has had the immense sale the A B C of Bee Culture has enjoyed. The last edition, bringing its sales up to 100,000, is just from the press; and so rapid are the sales that frequently editions have been exhausted before the new ones could be taken from the press. Of the last three or four editions, so great has been the demand that anywhere from 1,500 to 2,000 copies have been ordered before these editions were even off the press.

It contains over 500 double-column octavo pages bound in cloth, half morocco, or full leather, to suit the taste of the purchaser. It is not an A B C in the sense that it is written for beginners only, but an exhaustive cyclopedia for the veteran as well, covering every subject relating to the practical management of bees.

The latest edition, that for 1905, was revised and rewritten after the reviser had traveled some 10,000 miles among bee-keepers in various parts of the United States to study the methods and practices in vogue among the most successful honey-producers. Photo's were taken by him, and the major part of all the material gathered has been incorporated in this volume. The articles are prepared in such a way that they fit every locality in the United States. The subject of swarming, for instance, has been modified to fit the peculiar conditions as they exist in Texas, California, and the far West, as well as in the Eastern and Central States of the North. The chapter on wintering now applies to every locality in the country. Then there is a special article on "Location," and its bearing upon methods and practices in different parts of the United States. Besides the methods of management of the bees themselves, the general subject of preparing the crop for market and selling the same is exhaustively considered in all its phases.

Some of the new subjects that have been incorporated in the new edition are the following: Beginning with Bees; Bees as a Nuisance; Bees, Stingless; Bellflower; Black Brood; Foul Brood; Canada Thistle; Candied Honey; Eucalyptus; Gloves for Handling Bees; Guajilla; Logwood; Marigold; Orange-blossom Honey; Organizations of Bee-keepers; Overstocking; Profits in Bees; Queen-rearing; besides a large number of changes, more or less extensive, important ones too, in nearly all of the older subjects.

The book is fully illustrated and indexed and is published by The A. I. Root Company, Medina, Ohio.

Price in cloth, postpaid, $1.20; in half leather, $1.75; in full leather, $2. If sent by freight or express, deduct 20 cents from any of the above prices.

N. B.—Gleanings in Bee Culture, semi-monthly, one year, and a cloth-bound "A B C," postpaid, for $2.

Agriculture

Tillage and Tools.

H. R. HILTON, PORT ALLEGANY, PA.

Some tools wear out. Some become obsolete. Every recurring season brings to the farmer the perplexing problem as to which one of the many improved implements now on the market is best adapted to his use and too often a decision is made in favor of the tool of lightest draft or the one easiest to work, regardless of the condition in which it leaves the soil.

OBJECT IN VIEW.

No one can intelligently purchase a farming tool who does not have a definite idea of what he wants to accomplish with it. There are certain soil-conditions that the observing farmer has found to be favorable to plant development, and he wants the tool that will bring these favoring conditions within the plant's reach.

FAVORABLE CONDITIONS.

When the compact soil mass, into which a majority of soils tend to settle, is thoroughly broken up; when such separation of the soil granules takes place as permits them to rest loosely one against the other, like meal in a barrel, without being bound to one another; when moistened soil-particles fall apart in the hand; then the mechanical conditions have been provided that favor a vigorous and healthy growth to plants. The more uniformly the soil-particles arrange themselves, so that there may be many points of contact and few intervening cavities or spaces, the greater the quantity of water held by capillary force in a given bulk of soil, and this in turn insures a richer food supply, and highly favorable conditions for root development.

WHERE THE ROOTS GROW.

The zone of greatest root development is that portion of the cultivated soil lying between two and three inches in depth from the surface and the bottom of the furrow. If the land is plowed six inches deep, the roots of plants have three inches of moist, cultivated soil in which to develop. If the land is plowed nine inches deep, then there are six inches, or just double the area of prepared moist earth from which the fibrous feeding roots of the plant can draw nourishment for its growth. The place, therefore, to put the pulverized water-holding, plant-nourishing soil, is just below the three-inch surface mulch, and just as deep down as it can be prepared without sacrificing thorough granulation.

WHAT THE ROOTS TELL.

An examination of the corn roots in place reveals a preference of the fibrous feeding rootlets for the finely granulated soil at the greatest depth of tillage when temperature is normal. This means a soil so divided that on the average one thousand granules of individual soil particles may be laid side by side within the space of one inch. Early in the season the roots develop close to the surface where the soil is warm. As the season advances, the roots follow the maximum water-supply and warmer temperature into the lower levels of the tilled soil.

CAUSE AND EFFECT.

For every effect there is a cause. A healthy, vigorous growing plant evidences a well-developed root-system. A good root-system evidences a fertile soil in which the granules rest loosely but uniformly against each other, providing a large aggregate surface over which the soil-water can spread itself and still leave as much space as the water occupies for air circulation. It evidences a finely divided soil, capable of holding back a high percentage of capillary water against gravity, and consequently the largest measure of available plant-food that is obtainable from that particular soil. If these are the physical requirements of the highest plant-development, there is certainly among the farmers of Kansas enough ingenuity to devise the tools that will bring about the desired conditions, if such tools are not already in use.

AN OLD FORMULA.

The advice given to the wheat-growers of Reno County at the Irrigation Convention held at Hutchinson in December, 1894, seems to be good advice for to-day, so far as the method of tillage is concerned in cases where wheat follows wheat, viz: (1) "Have disk follow harvester or binder to loosen top soil, mix it with the stubble and form a mulch to conserve what moisture still remains. (2) To prepare the soil in which the roots of the wheat are to grow while it is on the surface where the farmer can get at it, by reducing the top three or four inches to a finely pulverized condition, just ahead of the plowing, and turn this prepared seed-bed into the bottom of the furrow, bringing the coarser soil on top to form the dry-earth mulch. The disk should follow the plow, with axles nearly in line, so as to cut into the fresh plowing, firm the soil around the stubble and press the soil into any cavities the plow might have left, and at the same time leave the surface rough to break the force of the rain drops from the next shower of rain."

This was a wild theory eleven years ago and it is not known that a single farmer who heard it ever acted on the suggestion. The same idea has since been brought to the attention of the Kansas farmers, as one of the essential features of the Campbell method —for the "plains-marl" and "Dakota-sandstone" soils of Central and Western Kansas. It was a crank's fad in 1894. It has become part of the gospel of good farming in 1905.

THE MISSION OF THE PLOW.

If the furrow slice does not naturally crumble and fall over in a loose mass in plowing, the mold-board should press against it with sufficient friction to communicate a vibratory or jarring motion that will loosen the adhering soil particles, and cause it to crumble readily under touch of the disk or harrow-tooth that promptly follows. The great mission of the plow is to destroy the cohesion of the soil-particles that has taken place through frequent settlings of the soil in heavy rain-storms that have fully saturated the soil for a time. The mold-board must press against the furrow hard enough to set up the vibration necessary to destroy this cohesion and the plow that does this work best may not always be "easy running." If there are to be any jars on the farm, concentrate them in the mold-board of the plow, where they can be made to serve a good purpose.

MULCHING TOOLS.

The great variety of tools on the market to-day seems to be ample for the purposes of preparing the seed-bed on an endless variety of soils but there is yet room for improvement in the making of tools for the conservation of moisture. Manufacturers have fully supplied the demand for tools to loosen the top soil for the alleged purpose of breaking up "capillary tubes," through which the soil-water was supposed to escape to the surface. They have also heard of the "dust mulch" to prevent escape of moisture, and dust-making implements are on the market. Both operations are important to conservation of soil-moisture when they supplement each other, but their greatest value is in their cooperation.

WATER MOVEMENT.

From the writer's view, the object in stirring the top two or three inches of the surface soil immediately after a good wetting, is to dry it out. When a soil is in condition to cultivate, it is less than half saturated; that is, it contains less in the average soil than three inches in depth of water, to one foot in depth of soil. Fully saturated, a foot of soil would contain six inches in depth of water. When the soil is more than half saturated, the water occupying the spaces between the soil granules, is known as gravity water, which finds its way into the subsurface drainage, rapidly, if the soil is porous—slowly if it is compact.

When drainage has removed the water of gravitation, which is about one-half full of saturation, what remains is known as "capillary water," or the water film held by the force of tension against all the exposed surfaces of the soil granules. Capillary water can move in any direction, upward, downward, or laterally, so long as there is a continuous, unbroken film of moisture along which the movement can take place. The movement is always from the point in the soil where the water films are thickest (half saturation) toward the point where these are thinnest (quarter saturation). When drier than this, the movement of water in the soil practically ceases, and plant-growth is practically at a standstill.

FORMING THE MULCH.

If these controlling factors in the movement of the water in the soil are kept in mind, it will be easier to understand the importance of prompt stirring of the surface soil after soaking rains. This stirring loosens the top soil and admits the warm air freely, thus rapidly drying it. Dry soil becomes an effective mulch, because water in a soil less than half saturated can not rise by capillarity through a dry soil. The value of the mulch is in its dryness, not in its looseness; but the loosening is necessary in order to get the surface soil dried out quickly. But this loose covering may be a source of great danger to the water-supply if left in this condition. The cultivation two inches deep leaves three inches of soil, by adding one inch of air space to the stirred mass of soil. Its value is in checking the upward movement of the soil-water to the surface, but it does not prevent the warm air from finding the soil-moisture through this honeycombed covering, which has only delayed the operations of the moisture thief. A second stirring of this soil within one or two days after the first one, crumbles down the honeycombed condition of the soil, brings the soil granules closer together, and forms what is known as the dust-mulch, which lessens the air circulation without cutting it off from the moist soil beneath.

DUST VERSUS PUDDLES.

The honeycomb mulch alone has its drawbacks. The dust-mulch also has its drawbacks, especially in fine textured soil. One of these is that the dustier the mulch is made, the more readily it puddles when a shower falls upon it. The dust-mulch is a great necessity to protect the water-supply between showers, by limiting ingress of warm surface air; but when a good shower of rain comes along, it manifests its hostility by delaying the rain-water in getting into the soil through its puddled surface. A puddled surface, if not promptly stirred, becomes a baked surface, which, ignoring the weeds, is probably the hardest condition with which a growing crop has to contend. The writer does not recall having ever seen in any United States or State bulletin, or in any agricultural paper, any suggestion as to how to prepare the soil or cultivate the soil for the next shower, and yet, this is one of the problems every tiller of a fine-textured soil has to meet. He needs the dry-earth mulch to protect the water in the soil against waste, but he does not need a puddled surface, or the baked surface sure to follow. The problem is, how to get the one without the other.

A PARTIAL REMEDY.

The study of this problem has led the writer to advocate the use of such tools for the second cultivation after each soaking rain, as would sift the finest of the dry soil to the bottom of the mulch and leave all the clods, coarse granules, and trash on the surface to break the force of the impacting raindrop and thus minimize the tendency to puddle.

IMPROVING MULCHING TOOLS.

Next to the plow, the potato-digger that picks up the soil, sifts out the finest and then leaves the coarsest on the surface, is probably nearest the ideal farm implement of to-day. Its heavy draft makes it impracticable for general farming, but it gives the suggestion as to the lines along which improvement may be looked for. A cultivator that would run like a mole


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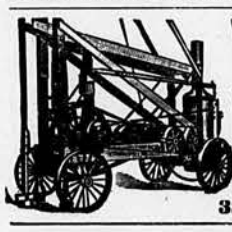
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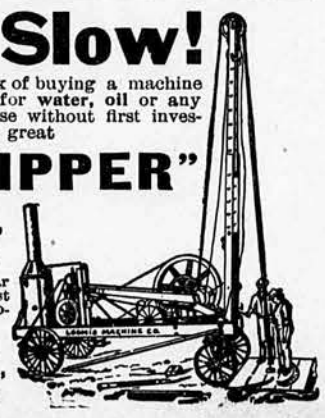
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just beneath the surface, slightly elevate and deliver the soil onto steel rods, so arranged as to secure a vibratory motion that would sift the soil as the potato-diggers do, and without excessive draft, would certainly mark an advance in mulching tools or in the preparation of shallow seed-beds for early-maturing crops.

PACKING THE SOIL.

The farmer on sandy soil can never pack his soil enough. Water and air circulate freely under the most compact condition. The effort of the farmer on clay, silt, or shale soils is to prevent compaction—to prevent this fine-textured soil from taking too close an arrangement. Sandy soils that average less than one one-thousandth of an inch in diameter, admit air and water freely, and fall apart readily when stirred. Clayey soils may average less than one five-thousandth of an inch in diameter, and if closely arranged, admit air and water slowly. This soil compacts too readily when saturated.

It may seem paradoxical, but the soil that is pulverized and stirred into uniformity, will hold its moderately loose form and compact more slowly than the same soil will if amply plowed and left full of large cavities at the bottom and between the furrow slices. These cavities are waste places in the soil. They work mischief by drying out the soil. They also work mischief when it rains hard by favoring the formation of little pools of water in which the finest clay settles, forming sediment similar to that formed at the bottom of shallow ponds after the water has evaporated. There is a tendency to separate the coarse from the fine into layers when these very loose soils are fully saturated, and the whole tilled area is made more compact than where the soil was first settled with implements.

The subsurface packer is a necessity where the plowing leaves the soil full of diminutive caves; but if the farmer is careful not to build caverns in the soil, then there is no necessity for the subsurface packer. It is a fine tool, however, to correct the errors made by careless plowing.

It is well to bear in mind that a pulverized soil in loose, uniform arrangement may be much more compact than any furrow-slice could ever be made by the pressure of tools. Where the soil granules touch, however lightly, they are capable of bearing up an enormous weight, and will not yield readily to pressure.

In preparing land for seed, the pressure of the tools should be downward to chush the clods, fill unduly large air spaces, and firm the soil. This means using tools like the disk, acme, and slanting-tooth harrows, the roller and the plank-drag. In cultivating after rain to establishe the dry-earth mulch, the tools should, in the writer's judgment, cut the soil clean from that below, with a lifting motion, so as to leave the top soil in loose form for drying out. Eagle-claw and knife cultivators and straight-tooth harrows are familiar forms of tools now in use for drying the top soil.

CRUSTS.

In defining soil-conditions, the formation of crusts and the baking of the soil are too often used as meaning practically the same thing. There is, however, a wide distinction to be made between them. Any soil, however rich, except very sandy soil, may form a crust, which is a loose, dry shell on the surface, formed by the puddling of the finer particles in a very heavy rain. It crushes or breaks in under pressure and is nature's effort to form a clay board for the protection of the moisture beneath. The trouble is, however, that it is never thick enough and its shade draws the moisture too near the surface. In fallow cultivation before the fall seeding and in harrowing growing wheat in the spring, the breaking up of this crust and leaving it on the surface is an excellent protection against puddling by the next shower. If a shower falls on a dry-earth mulch but does not wet through the dry soil, it should not be disturbed even if it forms a crust. Under such conditions the crust can do no harm, and may be a benefit.

BAKED SOILS.

Baking of the surface soil in hot weather after heavy rains is common only to very fine-textured soils, especially the shale soils of Eastern Kansas that lie above the limestone outcrops, and more especially in those in which alkali is present. Such soils dry out hard at the surface and continue drying out deeper and deeper into the soil. Then it cracks open as deep down as the drying-out process has affected it. These cracks let in the surface air and still further facilitate the drying out and the hardening. If these soils can not be stirred at just the right time, and cultivation has been delayed till the hard-baked surface has been formed, then there is not much that can be done with it till rain softens it again. To break up this baked surface in corn rows is to do the crop more harm than good. Under such conditions a log dragged in the furrows or a plank-drag made to conform to the furrow that would grind enough loose soil from the surface to fill the cracks, will accomplish much more good, than to break up the hard soil.

The baking of the soil is not the cause of its drying out. It is simply the evidence that the much-needed moisture has already been evaporated. In land occupied by growing crops there is but a very small percentage of water lost by evaporation from the surface of the soil after five dry days have elapsed. The value of the dry-earth mulch is determined by the promptness with which it can be established after every soaking rain. In July weather, the heaviest evaporation occurs on the first day after the rain. Each day thereafter shows a gradually diminishing loss.

WORKING TO AN IDEAL.

The writer is aware that it is not always possible to carry out on the average-sized farm all the suggestions that have been made, but all the same we should know what is ideal, and work toward it; for if we are not working up to an ideal all the time, we are not making progress.

If every farmer would work one acre ideally, regardless of cost, and discover that it was possible to increase the yield 50 per cent, he will in time find the method by which he can work the whole farm on the same plan, and with greater margin of profit, even if the single acre was worked at a loss. The first thing for every farmer to learn is the possibilities of his soil. Until he knows this, he is working in the dark.

SOIL DIAGNOSIS.

Laying down definite rules or formulating one definite method for tillage to suit all soils and seasons, is a good deal like using one prescription for the cure of all manner of diseases. It takes the skilled physician to vary the medicine to suit the disease, and so it takes the observing, studious farmer, who reads what the roots and stems and leaves and seed tell him, to diagnose the soil conditions and apply the remedy, whether it be surgical or medicinal, that will fit the case.

Soil fertility has been ignored in this article because its scope has been limited to tillage and tools, but it is unquestionably true that where the soil is rich in humus and in fertility, tillage is a small problem compared with what it is in a poor soil that is deficient in humus. There are no better soil implements than barnyard manure, the legumes and all the weeds, stubble and vegetable matter turned under and in process of decay.

Which Alfalfa Crop for Seed?

Will you kindly advise me which crop of alfalfa to leave for seed, whether first, second or third crop? I have some seventy-five acres and would like to save seed. H. L. NYE.

District No. 19, I. T.

It depends largely upon the climate and the season as to whether the second or third cutting of alfalfa should be left for seed. In latitude and longitude which will allow the maturing of the third cutting probably it is the best crop to save for seed. The weather conditions throughout the Central and Eastern portions of the State are usually more favorable for developing

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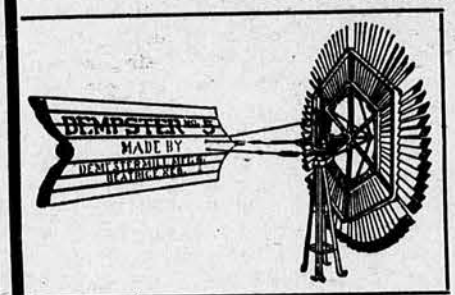
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WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER.

seed on the third cutting than on the second cutting, but in a dry season the second cutting should be preferred, as the third crop is likely to make a small growth. Usually when the third cutting is left for seed the crop may be harvested early enough in the fall so that some growth of the alfalfa will be made to act as winter covering.

In order to seed well, alfalfa requires rather dry weather-conditions during the period of blossoming and seed-formation; also it is necessary to have favorable weather when the crop is harvested in order to secure a good quality of seed. By using the third cutting for seed, the farmer is enabled to take two hay crops and one seed crop off of the land in a season; while when the second cutting is left for seed, the growth after harvesting the seed crop will hardly be sufficient to furnish another hay crop that season, although it may furnish fall pasturage.

If the third crop is the one left for seed the second hay crop should be harvested early in order to allow as long a period as possible for the growth of the seed crop. Such observations as have been made on this point would indicate that when the third crop is left for seed the results are even more favorable than when the second cutting made the seed crop, and the saving of the third crop for seed does not seem to decrease the vigor of the alfalfa more than the cutting of the second crop for seed. It would be my judgment that in your latitude you will be safe in using the third crop for seed, although knowing your soil and climatic conditions you will probably be best able to judge when the time comes, as to whether it will be better to leave the second cutting or to depend upon the third crop for the production of seed.

A. M. TENEYCK.

Air Passages in Alfalfa Stacks and Mows.

EDITOR KANSAS FARMER:—In looking over the KANSAS FARMER I notice an inquiry concerning air-passages through an alfalfa stack. Possibly I may be able to give some of the desired information, as we have been experimenting along this line for the past two years.

We use three poles, placed as follows: Lay two of the poles flat on the hay, about one foot apart, then lay two or three short pieces of wood crosswise of them and lay the third pole on top. If poles are not at hand posts will do.

Last fall when our hay-shed had been filled, we built four round stacks, 14 feet at the base and 15 feet high; one was built without an air-passage and the others with air-passages. In the third stack we put a layer of dry hay, about six inches deep, and the fourth was built with an air-passage and a layer of hay about six inches deep, across the stack and over the air-passage. The bottoms of the stacks were built on poles, so that the air could circulate under the stacks; and all stacks were topped out well with slough grass.

The alfalfa was cut on two days and stacked in the same order, weather conditions being about equal, with possibly a little more dew on the morning of the last day's stacking. The alfalfa was not cured out so it would shatter the leaves or crumble the stems.

The difference between the first two stacks—one with and one without air-passage—was not as great as I had expected, as it was apparent soon after stacking that a very large amount of hot air was working out through the air-passage. The alfalfa was discolored in both stacks, with the exception of the bottoms which seemed to cure from beneath. The last two stacks showed a marked improvement, especially the one with air-passage and the layer of hay above air-passage. From hay and air-passage down to the bottom of the stack, four and one-half feet, the alfalfa was cured out almost perfectly, but the hay was slightly colored about three feet above the air-passage. The stack with the layer of hay had also been greatly benefited, but not to so great an extent as the other. Two years ago we also experimented with air-passages through a stack and part of a shed; but as the hay and condition of weather differed, we could tell very little about it.

I will send you the plan of an alfalfa-shed, and would like your criticism on it. The plan in part is one we used in building a shed last spring. The shed is 45 feet long and 18 feet wide, built in divisions 9 feet long. Air-passages are built about 4 feet above the bottom in each division and again about the middle of the mow, which is 22 feet in height. In filling shed with first cutting we filled every other division to the top of shed; and from the second cutting we filled up the two remaining divisions, putting balance on top of all the divisions.

I fed out the hay last winter and we found that for ten or eleven feet in depth at the top of the mow the hay was bright and well cured, but from that place down, the deeper we got the darker and more discolored the hay became, and near the bottom it was about like plug tobacco. In building an addition to our shed this spring we are going to avoid that heavy packing from the top weight, but we are still going to retain the nine-foot division and utilize it with our old hay and air-passage experience, only we will use old alfalfa hay. The plan is very simple: The shed will be 30 feet wide, 54 feet long, and 22 feet to eaves, built in 9-foot divisions; this will leave a 10-foot division through the center from end to end and a division 10 feet wide on each side. We will fill the bottom 5 feet deep with alfalfa, then from a load of poles will make air-passages as described above. These air-passages are about two feet high, so as to allow for settling; the hay will settle some with air-passages. We will then cover with about six inches of old alfalfa, and another year we will leave this old alfalfa hay in the shed so we can lift it with the hay fork. Above the old hay we will fill with five feet more alfalfa, at first cutting, and in center division we will lay poles crosswise so as to make a platform, and build this up 10 feet as before; this will prevent such heavy packing. With second cutting we will fill divisions one and three about six feet high, then we will pitch out of center division two feet of the first cutting, so as to fill divisions one and three about one foot deep with dry hay, and fill up to the eaves again. When this settles we can fill up with the third cutting.

The sheep men here are feeding 100,000 head of sheep, and are paying $8 and $9 per ton for bright, well-cured alfalfa hay, while for damaged or bleached alfalfa hay, or that which became too dry, causing it to shell or shatter while stacking, they pay $4 to $5 per ton; and if you want to make them smile, haul them a load of bright alfalfa hay. J. T. MARTIN.

Washington County.

I am not able to offer much criticism on your plan, having had no experience in using air passages in the stack or mow; however, it seems to me that your plan of stacking the hay in bents, so as not to make the mow so wide as it would be if the hay was spread across the whole building, may not be a good one. You should remember that the settling and compacting of the hay is influenced by the height of the mow, and there would be less settling and compacting if the first crop were spread over the whole bottom of the mow than if it were piled into one bent.

Hon. J. W. Berry, a member of our board of regents, was successful in curing green alfalfa by spreading it three or four feet deep over the floor of a shed which allowed thorough ventilation at the bottom—as would be allowed by the pole bottom which you describe. He spread the second crop over the first, and the third over the second, etc., filling up the shed with green alfalfa. When this alfalfa was taken out in the winter it was all prime hay, showing scarcely any discoloration. We have not tried any experiments like this at the station, but Mr. Berry's results indicate that in the ordinary storing of alfalfa in a more or less cured condition it might be better to fill the mow only a few feet at a time, spreading the hay over a wide area, rather than to follow the method which you are practicing.

I am pleased to have received your letter, and thank you for the same.

A. M. TENEYCK.

Sulfate of Iron as a Fertilizer.

Do you know anything about sulfate of iron as a fertilizer for potatoes, grass, etc? The American Steel & Wire Co., have it as a by-product; they claim it will double the crop of potatoes, hay, etc.; that 20 to 30 cents worth will make a ton of manure worth from $20 to $25; that it is a great fertilizer; that it takes this to return the iron taken out of the soil by wheat, each crop taking over seven pounds of iron each year. We can not find any one here who knows about it, and would like to know if this is a fact.

Shawnee County. LUKENS BROS.

I have a little pamphlet published by the American Steel & Wire Co., Chicago, Ill., and have examined it with interest. It appears from the discussion in this pamphlet that sulfate of iron has been used with great benefit in the growing of potatoes and other crops.

Iron is a plant-food and there is no doubt that its presence in the soil is necessary in order that plants may thrive. Usually soils contain a large amount of iron—more than is sufficient for the use of the crops, and it has not been considered necessary to supply this element as a food for plants. Sulfate of iron is an antiseptic and it has usually been considered as such, and has been used for antiseptic purposes, and as a fungicide, also to destroy undesirable vegetation, as weeds, etc.

Apparently a light application to the soil or in combination with other fertilizers, as with manure, may have beneficial effect; I think it well worth while to try the application of iron sulfate in a small way, as recommended by the American Steel & Wire Co. If you do not have a copy of the publication referred to, you can secure one by writing to the company, Chicago, Ill.

For further answer on this subject relative to the properties of the iron sulfate and its uses, I have referred your letter to Professor J. T. Willard, chemist at this station.

A. M. TENEYCK.

I have seen the pamphlet issued by the American Wire and Steel Co., and have given it some attention. It seems to be written in a reliable manner, though more attention is given to the possible benefits to be derived from the use of iron sulfate than to possible inquries. Considerable experimentation has been carried out with this substance, which is commonly known as copperas, but more exactly, chemically, as ferrous sulfate, and there is no question but that it is a benefit in some circumstances and injurious in others. It must, therefore, be used with care and intelligence. It should never be applied to soil that is not well drained and areated. It has some beneficial effect in destroying organisms, or preventing their growth. Its use as a preservative of manure both solid and liquid depends partly on this germicidal power. A further effect of ferrous sulfate as a fertilizer preservative is that it prevents to a certain extent the escape of ammonia by converting it into ammonium sulfate.

While iron is abundantly distributed in soils, there seems no doubt that at times available compounds of it are lacking, and that under such circumstances the application of copperas in quantities of from fifty to one hundred and fifty pounds per acre produces a beneficial effect. Because of its fungicidal properties, copperas should have a beneficial effect in repressing potato-scab and other diseases, but as far as I have been able to learn, it has not been notably effective in this respect. I think experiments with it are well worth trying and suggest that they be made on a small scale at first. Copperas is apparently more beneficial on loamy soils than on very sandy ones.

J. T. WILLARD.

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Thrashing Grass-Seed.

In the KANSAS FARMER of March 23 your reply to W. C. Williams of Osage County, in regard to Bromus inermis fits our case exactly, as we contemplate sowing ten acres of corn ground by cutting off the corn and disking next fall. Please send us Bulletins No. 125 and 129, that you speak of, and any other information you may have.

We have about fifty acres of English blue-grass that we expect to reap a crop from this year. Can you give us any information in regard to thrashing it? Our thrashermen do not seem to know how to separate the seed from the straw without blowing the seed away, and the same would probably occur with the Bromus inermis seed.

Montgomery County. SETH STARR.

I have mailed you copies of bulletins Nos. 125 and 129. Relative to thrashing English blue-grass or Bromus inermis, I have not had much experience in thrashing English blue-grass, but it is not a very difficult operation to thrash Bromus inermis with the ordinary grain-separator. We use the same set of sieves as are used for oats, and shut the wind off almost completely. Of course, the seed is not well cleaned by thrashing in this way, but you will practically get all the seed, and it should be cleaned by running through the fanning-mill later.

A. M. TENEYCK.

Sowing Alfalfa on Oat Stubble.

EDITOR KANSAS FARMER:—In a recent KANSAS FARMER was an inquiry about sowing alfalfa on oats stubble. Having had some experience, I want to remind all those who sow in that way that they need to be sure and cut their oats as soon as it will do to cut them, so there will be no shattered oats on the ground to come up after harvest. It sometimes happens in this county that there is not rain enough after harvest to sprout the volunteer crop of oats until the fall rains come, when the alfalfa-seed should be sown, and if both oats and alfalfa come up together, the oats will be hard on the alfalfa. Rain soon after harvest would remove the danger, as the oats would sprout and could be disked. But I once lost over fifty acres of nicely started alfalfa by a thick growth of volunteer oats, there being no rain from harvest until September 1, and the alfalfa-seed was sown as soon as it rained. A. MUNGER.

Riley County.

Surface Soil for Inoculation.

Will you kindly inform me through the columns of your paper at what depth the soil from an old alfalfa-field should be used in inoculating another field. W. C. HENNIGH.

Lipscomb County, Texas.

We find from examination that the tubercles appear on the root of alfalfa in much larger numbers in the surface six to eight inches of the soil, and it is customary to use only about six inches of the surface soil from an old alfalfa-field for spreading over other fields for the purpose of inoculating the soil with alfalfa bacteria. Choose a spot in the field where the alfalfa is a good stand and vigorous in growth, preferably a lower portion of the field rather than an elevated or sloping portion. A. M. TENEYCK.

The Stock Interest

THOROUGHBRED STOCK SALES

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

May 16, 1905—First annual Shorthorn sale by Shawnee Breeders' Association, Topeka, Kans., I. D. Graham, secretary.

May 16-19, 1905—Blue Ribbon Cattle Sale at Dexter Park, Chicago, Ill., D. R. Mills, Manager, Des Moines, Iowa.

June 6-9, 1905—Blue Ribbon Cattle Sale at Kansas City, Mo. D. R. Mills, Des Moines, Iowa, Manager.

Feeding Value of Speltz.

Having sown some forty acres of speltz I would like to know how to get the most money out of the grain. Can you recommend feeding it to cattle, horses, hogs, and sheep, and how is it as an egg-producer Do you think it as good as oats pound for pound, or bushel for bushel? Any information you can give us along this line will be appreciated.

Pottawatomie County. ADAM SCOTT.

The grain can be used as feed for cattle, horses, hogs, and sheep, and also for poultry food. For all stock, it is well to grind the grain, and it should be fed in combination with ground corn, barley or oats rather than fed alone, in order to get the best results.

According to the chemical analysis of speltz it is about equal to oats in feeding-value, pound for pound. This would make a bushel of speltz contain really more food elements than a bushel of oats, since the speltz usually weighs about forty pounds per bushel (forty-five pounds are usually sold as a bushel.)

Some feed speltz successfully by soaking it; it is not well relished by stock when fed whole without soaking. As a poultry food you will find that it pays to soak the grain, if you do not grind it, and feed it in combination with other ground feed.

Speltz will not take the place of oats as a grain feed, especially for horses, but it may be used in combination with oats and other grains as food for horses and other stock.

For bulletins giving results of feeding experiments with speltz, I refer you to the Agricultural Experiment Station, Brookings, South Dakota. If you grow a good crop of speltz this season, it is probable you will be able to sell a good part of the grain to neighboring farmers for seed. For further answer, as regards the feeding of speltz at this station, I have referred your letter to Professor O. Erf, of the Animal Husbandry Department.

A. M. TENEYCK.

Not very many experiments have been made to satisfactorily determine the feeding value of speltz. (We take it for granted that you have reference to grain speltz.) In composition it is somewhat similar to oats, but contains less protein and only half as much fat, and slightly more of the carbohydrates. It also contains a larger proportion of crude fiber which is the less digestible part of feed. Theoretically, it would appear that it would be slightly inferior in feeding-value to that of oats, but owing to its hard, flinty nature, cattle that have been fed on experiment have not made satisfactory gains.

For the past year we have carried on a number of experiments feeding speltz to hogs in connection with cornmeal and shorts. The hogs were divided into four lots.

Lot 1 received corn and shorts.

Lot 2 received corn and Swift's Digester Tankage.

Lot 3 received cornmeal and speltz.

Lot 4 received shorts and speltz.

Cost of feeding per one hundred pounds of gain for lot 1 was $3.60. For lot 2, $3.62. For lot 3, $4.26. For lot 4, $4.64—figuring speltz at $1 per hundredweight.

Comparative experiments have been made in feeding sheep which show that as a single grain ration the value of speltz is worth two-thirds as much per bushel as barley for fattening lambs. About twice the profit can be realized from fattening sheep upon barley as can be obtained from feeding on speltz under the same conditions where the expense of caring for the sheep is disregarded. Speltz has given some very good results as chicken-feed but cheaper feeds can be purchased which give approximately the same result, as far as egg-production is concerned. We have, however, no definite data to cite in regard to feeding poultry. O. ERF.

Relieving Stock from Flies.

The following is republished by request, from the KANSAS FARMER of July 23, 1903:

A number of mixtures are advertised in our agricultural papers which are claimed to rid the cattle of flies. We have tried several kinds at the Kansas Experiment Station, and while they serve to drive the flies away for a short time they are not lasting enough in their results.

We still find our own mixture to be the most effective and it is a cheap one also. It is as follows: Resin, 1½ pounds; laundry soap, 2 cakes; fish oil, ½ pint; water enough to make three gallons. Dissolve the resin with the soap in part of the water by heating; add the fish oil and the rest of the water. Apply with a brush.

In case it is desired to use with a hand sprayer, such as is sold at almost any hardware store, a pint of kerosene oil may be added to the above formula. A half pint of this mixture is enough for one application for a cow. From a standpoint of economy it might be applied only to those parts of an animal which are not reached by the tail. At first it will probably be necessary to give two or three coats per week or until the outer ends of the hair become somewhat coated with the resin. After that it need not be applied so freely.

G. C. W.

Oiled Roads.

The production in California of oil with an asphalt base has given us a means of cheaply and satisfactorily improving a considerable mileage of our roads. For the past four years its application has gone on with varying results in accordance with the means of construction employed. Close study of the successful and unsuccessful oiled roads of the State leads us to certain deductions which we must carefully regard if we are to make the progress this process offers.

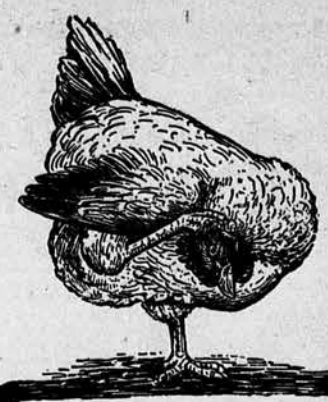
Numerous instances exist where the oil was applied to a road without any previous preparation, with the result that the dust was laid, but very little other improvement occurred. Again, wherever due care in the constructive work was exercised, and an interest taken, we find some excellent results of a permanent nature. With the earnest desire to bring road-oiling and work incident thereto to its proper place, the following suggestions are made:

Foundation.—No road which has been constructed without a proper foundation will ever be wholly successful. If a macadam road is being built, give thorough attention to the details of its base so that its capacity to resist the pressure from above is sufficient, and keep the density of the work as uniform as possible, so that weak spots or ruts may be reduced to a minimum. This applies equally to an earth road. Compact as much as practicable, the roadbed, keeping always in mind that a smooth, even foundation makes a smooth, even surface. The neglect of the foregoing stamps the work as incomplete and without good road value.

Drains and Ditches.—Whatever be the kind of road, it should be well drained and ditched so that the subgrade will be as free from water as it can well be made. In low, damp ground the roadbed should be raised high enough to prevent a saturated base; and on the roadside should be good, deep ditches conducting the water away from the road. With the oiled road the drainage should be such as to keep the water from getting under the oiled surface and creating a disagreeable oiled mud during the wet season. Experience with a number of oiled roads has proven this conclusively.

Surfacing.—The top layer should be worked down as perfectly as the means will permit. With the earth road heavy rolling can not be overdone. Saturate the road material with water, but not excessively; practice will soon determine how much should be used. In the damp winter climate of Central and Northern California, it is well to give a good heavy crown that the rain may be readily shed and thereby allow no chance for percoluation to the sub-grade. Preparatory to the oiling, the surface should be dried out to the depth of at least two inches, for oil will not mix with a wet material. Do not allow teams to pass over a road thus prepared and break the surface irregularly, but loosen evenly just enough of the road surface to allow for the absorption and retention of the oil, otherwise it would run to the sides of the road.

Oiling.—The application should be by means of an oil-wagon, which may be operated at will in spreading quan-



Lousy Hens

Lice are often fatal to poultry and even when not they will so fret a hen that her vitality will be wasted—her egg production curtailed and her weight diminished. Many supposed cases of cholera among poultry are really cases of **lice.**

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is sure, quick death to these pests while non-poisonous to the fowls. It is a powder sold in cans with perforated top, convenient for sprinkling on roosts, nests, etc. It also kills bugs on cucumber, squash and melon vines, worms on cabbages, slugs on rosebushes. Instant Louse Killer is the original powder louse killer, put up in round cans with perforated top. Be sure of the word "Instant" on the can—it has twenty-five imitations.

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3 lbs. 60c {

If your dealer cannot supply you we will forward 1 lb. by mail or express, prepaid, for 35 cents.

Sold on a Written Guarantee

Manufactured by

DR. HESS & CLARK
Ashland, Ohio

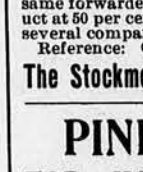


HOGS WILL MAKE YOU RICH

Send **10c** for a whole year's trial subscription to the best hog paper in the world. **Free sample.**
SWINE BREEDER, Lincoln, Neb.



NEWTON'S Horse, Cough, Distemper and Indigestion Cure. A veterinary specific for wind, throat and stomach troubles. *Strong recommends.* $1.00 per can, of dealers, or Exp. prepaid. **The Newton Remedy Co., Toledo, Ohio.**



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. **H. C. Stoll, Beatrice, Neb**

To Farmers and Stock-Raisers

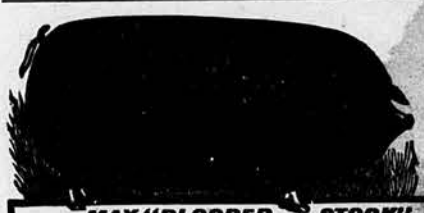
By applying to the undersigned, anyone desiring to secure a recipe for any Stock Food, Poultry Food, Insect Powder, Medicated Salt, Gall Cure, or Harness Dressing, and enclosing $1, can have the same forwarded to them and make their own product at 50 per cent of the cost if purchased of the several companies placing the same on the market.
Reference: Commercial Bank, Tiffin, Ohio.

The Stockmens Company, - Tiffin, Ohio

PINK EYE CURE
FOR HORSES AND CATTLE

Sure relief for Pink Eye, foreign irritating substances, clears the eyes of Horses and Cattle when quite milky. Sent prepaid for the price, $1.

Address orders to **W. O. THURSTON, Elmdale, Kansas.**



MAY "BLOODED STOCK"

devotes the entire issue to "Poland Chinas." Experienced breeders and feeders will tell what mistakes to avoid; how to make money with P-C Hogs. Subscribe now, 25c year. Sample copy and booklet free. **BLOODED STOCK, Box 228, Oxford, Pa.**

GRAND ISLAND ROUTE

DOUBLE DAILY SERVICE, with new 80-foot Acetylene Gas-lighted Pullman Chair Cars (seats free) on night trains and Pullman High-back seat Coaches on day trains.

Direct Line between Kansas City and St. Joseph, Mo., Hiawatha, Sabetha, Seneca, Marysville, Kan.; Fairbury, Hastings and Grand Island, Neb.

QUICK TIME TO CALIFORNIA AND THE PACIFIC NORTHWEST.

S. M. ADSIT,
Gen'l Pass. Agent,
St. Joseph, Mo

Horse Owners! Use
GOMBAULT'S

Caustic Balsam
A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all linaments 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

tities necessary to a proper coating on the particular road being worked. There are several makes of good oil-wagons on the market, any of which, properly handled, will do good work. However, the fact should not be overlooked that extra broad tires for such wagons are the best. After spreading the oil, cover it with a material to give it body. Sand has been preferably used for this purpose, because it is a natural absorbent of oil. Vary the application of sand just enough to cause the mass to be consistent, and allow no places where the oil stands free in small puddles. When this is accomplished, then should the road be rolled, beginning lightly at first and continuing heavier as the mass becomes compacted, until there is no perceptible yielding. Now keep off the travel, if possible, until the oiled material has been allowed to set, and develop all of its asphalt qualities.

In the matter of whether hot or cold oil should be applied it may be said good oiled roads have been obtained by either process; but as cold oil is considerably cheaper, my preference is by all means for cold oil. The claim that hot oil penetrates faster and deeper than cold oil is, perhaps, not without some truth, yet as it takes some time after application for the asphaltic qualities of the oil to be asserted, there is no particular advantage gained, and with the present sanding method the cold oil is absorbed sufficiently for practical purposes.

The selection of the oil is a matter of vital importance. Always seek that quality which contains the highest percentage of asphalt. The proper plan is to have a test for asphalt made to ascertain the amount of such substance when the oil becomes dry. For this purpose herewith is given an excellent test and a table of results compiled by the State Mining Bureau:

COMPARISON OF ROAD-MAKING VALUE OF CRUDE OILS.

Sample No.	Source.	Gravity deg. Be.	Asphalt* per ct.
1464	Colorado	41.3	None
1400	Canada	34.9	None
1407	Coalinga	33.3	Trace
2441	Fullerton	33.0	19.1
2438	Fullerton	32.8	20.8
2402	Kansas	31.4	None
2426	Puente	28.0	26.1
2442	Ventura	28.0	29.5
2433	Ventura	26.8	13.1
495	Wyoming	23.7	22.7
2424	Fullerton	23.3	36.5
2448	Whittier	23.1	23.3
494	Beaumont, Tex	22.6	11.0
1421	Coalinga	21.2	25.0
2450	Whittier	20.4	30.2
1482	Midway	20.2	22.0
1403	McKittrick	18.9	22.6
2452	Coalinga	18.7	24.7
2432	Sargents	18.6	41.3
2462	Newhall	17.2	28.9
2437	Midway	17.1	40.5
487	Kern River	17.0	25.0
2445	Fullerton	15.9	45.9
2453	Coalinga	15.9	35.5
2463	Los Angeles	15.7	25.7
2440	Coalinga	15.7	30.4
2444	McKittrick	15.1	27.8
2496	Kern River	14.3	48.5
1432	Sunset	14.1	29.2
2454	Newhall	13.9	52.4
2495	Los Angeles	13.0	42.2
2405	Coalinga	11.9	33.2
486	Sunset	9.9	61.8
2400	Santa Barbara	9.0	35.5

*The figures in this column are considered to be accurate to within 3 per cent.

Test.—"Probably the best, certainly the simplest, test of the road-making value of an oil is to evaporate a weighed sample in an open metal dish, down to the hardness of commercial D asphalt, and weigh the residue. We thus get at once both the original asphalt and that formed during evaporation, and while it is not likely that the percentage of asphalt thus obtained is the same as would be gotten by allowing the oil to dry in the sun, yet it is highly probable that the comparison between different oils thus made is accurate. This test requires no apparatus except an iron or copper pan, a scale, and a plumber's firepot, though it must be admitted that the even grading of the asphalt requires care and a little skill."

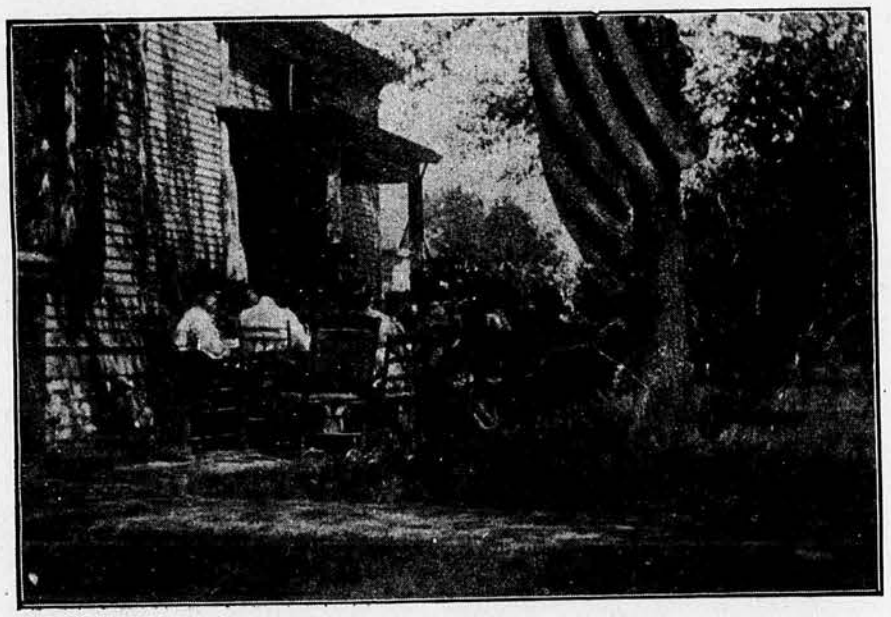
Through the proper handling and making of oiled roads there undoubtedly will be developed new ways of utilizing oil for this purpose. My belief is that eventually we will have artificially bituminized roads made from crude oil, and perhaps, in the case of macadam roads, the top layer or metaling may be mixed with oil of heavy asphalt percentage resulting in a sort of bituminous pavement, which should make a first-class road in every particular.—N. Ellery, State Highway Commissioner of California.

Shawnee Horticulturists.

The horticulturists of Shawnee County and some of their friends met May 4 at the beautiful home of Mr. and Mrs. A. T. Daniels, corner of 21st and Topeka Avenues. This was the first outdoor meeting for 1905. Mr. Daniels is an enthusiastic florist. His specialty is the iris, of which he has one of the finest collections in the West.

Friends began to arrive early in the day and by eleven o'clock a full sociable time was in progress. After the social, dinner was served on the lawn. At 2 o'clock p. m. the meeting was called to order and a very interesting and instructive program was rendered.

Mrs. J. B. Sims read a paper on "How to Make the Country More Sightly." Mrs. Sims did full justice to this very important subject and we regret our inability to report even a synopsis of it. This paper led to a discussion on the subject of good roads.



Shawnee Horticulturists at Refreshment

Philip Lux said that good roads and poor politics did not mix well together. Judge Wellhouse gave a short explanation of our new road law. E. B. Cowgill called attention to the road law as published in the KANSAS FARMER and said the law was the result of work done by the Good Roads' Association, not exactly what was asked for, but is an improvement on the old law.

J. B. Sims said that Professor King, of Missouri, had done much for the public roads by the introduction of his famous King drag. Mission was the first township in the county to elect one road overseer who is responsible for all of the roads in the township.

President Crow said that the scraper should be used in connection with the road grader. The fence question was brought into the discussion and Judge Wellhouse said that twenty years ago he advocated a stone fence and could to his own mind prove it to be the best, but now he thought that a fence made of stone was a detriment. A hedge fence is expensive to keep up; barbed wire is here and we will have to use it. A. B. Smith demonstrated by mathematics that it is cheaper to use woven wire and this fence had a number of advocates.

A. B. Smith opened the discussion on "Gathering and Marketing Fruit." In gathering, great care should be taken to grade carefully. If necessary make one, two, or even three grades and the fruit will better suit the trade. It must all be of the same maturity, none overripe and none too green. Have packages new and uniform. Put something on the market that you know is good, the merchant knows to be good and the consumer knows to be good, and then you have something to be proud of, and have made for yourself and your fruit a good reputation. To-day we are selling blindly. We know nothing of the demand, the price, or the supply. Each fruit-grower is an individual going his way alone. This shows lack of cooperation. If we should cooperate, we would know the demand, the supply, and then govern the price accordingly and not be the victims of those who are combined, and by association with our fellow-workers we should gain knowledge and an opportunity to advance in all lines of our calling. By unity we would command more respect and not be the exploited. The Creator designed cooperation. To prove this, observe how all of the functions of the body work in harmony. Through our planetary system we see the same grand, majestic cooperative principle.

Professor Popenoe, of the Agricultural College, addressed the meeting on the "Iris." His remarks were illustrated by specimens from Mr. Daniel's grounds which contain the largest collection of these beautiful flowers to be found in Kansas. Of the Germania alone Mr. Daniels has 100 species besides specimens of about twenty-five other species. The plants vary in height from four inches to four feet, and the colors range from pure white through yellow, buff, brown, purple, violet, blue and pink. Many colors are shown in a single flower of numerous of the species. An inspection of this collection which presents a succession of bloom from April to August is well worth a trip to Mr. Daniels' fine grounds.

The afternoon was too short for the entire program and there was but one report from the prompters. J. F. Cecil reported on strawberries about as follows: New beds require intense cultivation; the blooms should be pinched off. Old beds are all right but the grower should get boxes and crates ready, engage pickers and look up the markets. Condition of strawberries is, first bloom mostly killed, second bloom all killed; but there still remains enough to make a good crop if nothing further happens.

The society adjourned to meet at the home of J. M. Pollom, June 1. Fruit-growers and all interested are invited to be with us that day. Bring a well-filled lunch-basket and enjoy a profitable holiday.

O. F. WHITNEY, Secretary.

It Pays a Farmer

To read good farm papers and instructive books; to be posted on every-thing in his line, especially live stock; to use in his business up-to-date methods according to business principles; to keep the body of his animals in a state to resist disease; to keep the surroundings so that they will not breed disease; to know that

PURE WHITE LEAD

Pure White Lead and pure linseed oil are the only necessary ingredients (aside from the color) of THE BEST PAINT. Properly mixed and properly applied PURE White Lead and oil always gives satisfaction.
Every paint dealer sells PURE White Lead. No dealer encourages its sale because of the small margin of profit it affords him. This is characteristic of staple goods.

White Lead is often adulterated to cheapen it, but the PURE article is necessary for good paint. Our booklet "What Paint and Why" tells you how to make sure of purity. Our nearest office will send it, free, upon request.

NATIONAL LEAD COMPANY
Largest makers of White Lead in the world
New York, Boston, Buffalo, Cincinnati, Cleveland, Chicago, St. Louis
National Lead & Oil Co., Pittsburg
John T. Lewis & Bros. Co., Philadelphia

bacteria are the promoters of disease, and that his hogs are the most exposed to germs (bacteria); to know that the hog brings the quickest returns and the biggest profit to the owner, who understands how to provide for the necessaries of his life; to know that a hog full of worms and lice can not be healthy or thrifty; and that the quicker he gets rid of such the better. To know that even a louse needs something else besides fresh air to live on; to know all the causes and the symptoms of hog-cholera and how to guard against the disease; to know that an ounce of prevention is worth a pound of cure, especially in hog-cholera; to know that he has all the material on his place to prepare himself at little or no cost all the necessary remedies for destroying worms, killing lice and disease germs, and that when the germs, which cause a disease, are destroyed, a disease can not break out, the remedy is discovered; to know that he loses money, as long as he raises hogs in a careless, shiftless way and insists on feeding corn and nothing but corn; to know how successful stockmen feed and care for hogs; to know that he can get all this information on all matters pertaining to the proper management of a successful swine husbandry in English or German for 25 cents by simply ordering the books, "No Hog Cholera Any More," by Albert Theygon.

It is sold to every purchaser with the understanding, money refunded, if he does not get value received in the book. You run no chances, you are the judge. Your word to go; no argument, just money back if you are not satisfied.

The author says: "I am selling this book, and quite a number know the reason why I sell so many books. I give honest value for the money. Every purchaser is benefited and satisfied and speaks in his own interest a good word for it, to his neighbors and friends. He realizes the fact that inasmuch as the circulation of my book increases, the danger of contagious disease (hog-cholera) decreases. Do you see the point? I help him and he helps me. That's why. As soon as all farmers will use my methods and remedies, hog-cholera will be stamped out to a finish.

"About half of the orders read: 'My neighbor or friend told me. I have seen your book,' etc.

"If you look the papers through you see books treating the same subject, offered free, but they are different from mine. They try to teach you to raise hogs with drugs. I try to do the same without drugs. Their purpose is to advertise and sell their remedies, mine is to teach you to prepare them yourself.

"Which is the cheapest in the long run, to spend one-quarter of a dollar

and get valuable information, or to keep it in the pocket and do without it, but keep on buying and paying?"

Address all orders with 25 cents enclosed to Kansas Farmer, Topeka, Kans.

The Churches Demand Execution of the Prohibitory Law.

The following statement and resolutions prepared by the officers of the Kansas State Temperance Union and endorsed by the committee of the Topeka Ministerial Union were read in most of the churches of Topeka last Sunday and adopted by a rising vote:

STATEMENT.

The sovereign people of Kansas have made prohibition of the traffic in intoxicating beverages a fundamental law of the State.

The Legislature of Kansas has enacted suitable statutes to carry out this constitutional provision.

The people of Kansas through their Legislature have repeatedly refused to depart from the policy of prohibition, but on the contrary have repeatedly strengthened the prohibition laws.

The constitution and laws of Kansas make it the solemn and oath-bound duty of the county attorney and sheriff in each county, and of the mayor and chief of police in each city, to enforce these laws.

With equal solemnity, it is made the duty of the Governor to see that the laws are faithfully executed, and of the judges of the courts to protect the people against criminals for gain.

Therefore be it

Resolved, That while rejoicing in the general and aggregate good accomplished by prohibition during the last twenty-four years in greatly reducing, and in much of the State largely eliminating, the evils of the liquor traffic, yet we deplore the fact that in some communities there is criminal negligence of official duty in the enforcement of the laws.

Resolved, That we demand of each county attorney and each sheriff in the State an earnest, conscientious and continuous performance of his sworn duty in apprehending and in prosecuting to conviction all violators of the prohibitory law.

Resolved, That we demand of the mayor of each city in Kansas that he bring to a speedy termination any and all violations of the constitution and laws of the State, and we demand the faithful execution of the city ordinances made in pursuance of such laws.

Shame has been brought upon the fair name of the capital and some other cities of the State by the assurance with which the lawless elements have presumed upon the protection of the city administration and by the assumption that indulgences for the violation of law are to be sold under a pretense. Good citizens want no partnership with crime and no share in the profits of evil-doing.

We are pleased, however, by the recent action of the county attorney of Shawnee County and the chief of police of the city of Topeka, in closing all unlawful dispensaries of intoxicating liquors, and will support every honest movement on their part to enforce the laws of the State and the ordinances of the city.

Resolved, That we look with confidence to the Christian gentleman, the Governor of this State, to use the authority of the State in him vested, to compel by proper legal proceedings all derelict officers charged with the enforcement of law to do their duty or vacate the positions they disgrace. The time has arrived when these proceedings should be instituted without delay that the majesty of the law may be upheld and that the evils of official duty neglected by sworn servants of the people may be brought to an end. We congratulate the people of Kansas on the already manifest effects of the loyal stand taken by Governor Hoch and we pledge him our cordial, earnest and active support in the good work of compelling unfaithful officials to an honest performance of the duties they have assumed. We rejoice at the present awakening in the State and Nation to the importance of civic righteousness and ask all right-minded people to join in active and conscientious support of those who are leading in the contest with evil.

Doubtless the one effective way to have the law enforced is to demand its enforcement at the hands of the officials elected and sworn to perform that service. People's desires in such matters are not made influential by keeping still about them. Every organization and every individual in Kansas who favors law and decency ought to insist that the officers of the law do their sworn duty.

Poisoning Skunks.

EDITOR KANSAS FARMER:—Can you tell me through the KANSAS FARMER how to get rid of skunks? Can they be poisoned, and what with?

They are in my meadow and last fall dug holes in the plowed fields.

Osborne County. F. H.

Skunks can easily be poisoned by strychnine inserted into a piece of meat or the dead body of a mouse. The strychnine may also be inserted in comb honey or in an egg. It is also easy to poison dogs, cats, and other domestic animals with the bait intended for the skunk, and care must be exercised to avoid doing this.

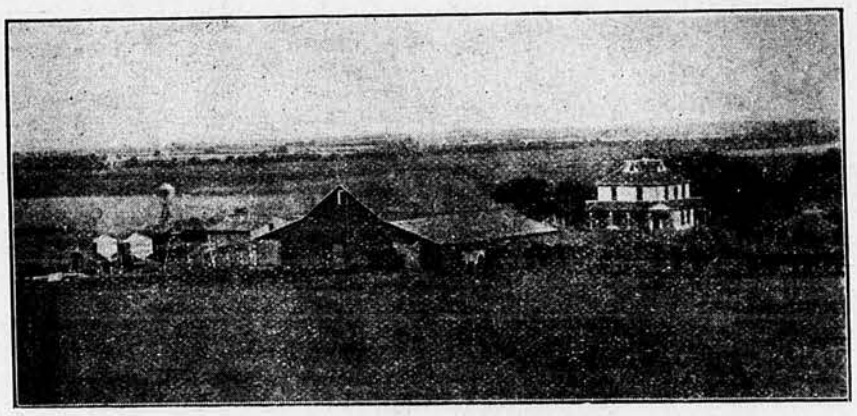
It is not strange that your correspondent should fail to recognize the evident good offices of the skunks in digging holes in his fields. The holes are dug to obtain the larvae of beetles, grasshoppers and cicadas. The skunk makes no mistake as to the location of these farm pests, and gets them every time. Skunks are also excellent mousers and do much good by destroying all rodent pests. Unless an individual skunk is known to be killing chickens and caught in the act, it should not be destroyed. The United States Biological Survey makes a special study of the food habits of mammals and birds. We have examined the contents of 71 stomachs of skunks and only in one case was there evidence of poultry stealing. Thirty-five of the animals had eaten insects exclusively, grasshoppers predominating; twelve had eaten rats and mice exclusively; three had eaten vegetable food only, mostly fruit of the prickly pear; two had eaten carrion. The others had eaten a combination of insects, animal, and vegetable food. Bird remains were found in four stomachs, in three of them either from trap bait, or from birds thrown out from the camp of our field naturalists.

Such stomach examinations are not merely guesswork, but are positive proof of the food habits of the animals under consideration. In view of such a showing, it is proper to conclude that skunks are highly beneficial.

DAVID E. LANTZ,
Assistant, U. S. Biological Survey.
Washington, D. C.

Heath's Shorthorn Sale.

Tuesday, May 30, 1905, is the date of the sixth annual sale of Shorthorns from the Heath Ranch herd at Republican, Neb. In this sale they consign thirty head, of which nineteen are fine young bulls, mostly Scotch-topped, and eleven young cows and heifers of the useful sort, bred to the Scotch herd bulls, Golden Victor Jr. 175464 and Lancaster Royal 168270 by Imp. Prince Oderic (73289) 136398. While this offering is not a large one the cattle were nearly all bred on the Heath Ranch, are fully acclimated to Western conditions and are from good ancestry, mainly of Scotch breeding. It should be remembered that the Heath Ranch of Shorthorns was established away back in the "eighties" and its reputation of producing a good class of cattle will be maintained in this present offering. The boys have been liberal buyers at many of the best Western sales and it is hoped that their sale will be well attended by those interested in the production of milk, butter and beef. Of the Shorthorns it has been said, the cattle that "feed more babies, school more children and lift more mortgages than all other breeds of cattle combined." One of the attractive bull offerings of this sale is the 4-year-old Scotch herd bull, Golden Victor Jr. 175464 by Victor of Wildwood. This is a well-bred bull, a good individual, and has proven to be a good breeder and will go to the highest bidder without reserve. The Heath boys have established a reputation as reliable and careful breeders of good Shorthorn cattle and it is known by all who have attended their previous sales, or bought stock of them that they never back down, or stop a sale on account of low prices, as long as there are bidders for the stock. Write them for sale catalogue and make your plans to attend their sale as their guest and see how they do things at the Heath Ranch.



A View of the Heath Stock Ranch Near Republican City, Neb.

The Shawnee Breeders' Association Sale.

We are glad to be able to announce that the prospects for the Shorthorn sale, which will be held at the Topeka State Fair Grounds on Tuesday, May 16, are very flattering. The animals to be sold are generally in fine condition and many of them in show shape. They include among their ancestry some of the most noted bulls of the breed. The offering will be especially strong in the blood of Harris-bred bulls, some of which have International reputations. There will be plenty of pure Scotch blood and Scotch-topped American families represented. Taken altogether, it is one of the choicest offerings that has been made in the State for many months. The association will make of this a strong bull sale because that class of animals is most needed at this season of the year and because the consignors desire to retain their female sale stuff until the fall sale, which will be held by this association at the same place.

This sale will be but the first of a series which it is planned to hold on the Topeka State Fair Grounds and which will include all classes of pure-bred live stock. Each breed will be represented in an annual or a semi-annual sale in the future. It is a pleasure to be able to offer the choice things catalogued in the first annual sale as a sample of what may be expected in future sales. Notice the great list of bulls in the advertisement on page 521 and see if you do not want some of their get. The names of the consignors listed is a guarantee of good quality in the offering and of good faith in the sale. Write to Secretary I. D. Graham, Topeka, Kans., for a catalogue.

Gossip About Stock.

Alvey Bros., Argentine, Kans., proprietors of the Wyandotte County Herd of O. I. C. swine, have a special announcement in this issue of the Kansas Farmer. It will be remembered that Alvey Bros. had the honor of having bred a large percentage of the World's Fair prize-winners at St. Louis. In fact, 90 per cent of the O. I. C. prize-winners at St. Louis trace their ancestry to Alvey Bros.' herd. In regard to the special announcement which they now make on page 518 of this issue, they write: "We have 15 head of last-fall stock that weigh 175 to 225 pounds. They are all strong and growthy, with straight, medium bone. We wish to dispose of these at once at a reasonable figure, and are satisfied that we can please the customer, price and quality considered. Also, we have several spring pigs ready to ship. Stock in general throughout this country is healthful. We desire that the prospective buyers see our herd and we maintain a free livery to our place for their accommodation."

Poison.

As far as shaving soap is concerned common soap ought to be marked poison. Shaving is a special process and demands a special soap. If your face has been poisoned with cheap soap, if it burns and smarts and itches, stop using the poison and use real shaving soap—Williams' Shaving Soap will cool and smooth your face and make shaving pleasant. The J. B. Williams Co., Glastonbury, Conn., offer in another column of this paper to send you a free trial sample. "For the sake of your face" read their advertisement.

The Belleville Woolen Mills, of Providence, R. I., one of the large New England manufacturers, have made a new departure and will sell high-grade woolens, dress goods, etc., direct from the mill to our readers, enabling the purchaser to save from one-third to one-half over present prices. Write for sample Book E, and full particulars of this new method of doing business, as per the advertisement on page 509.

IOWA STOCK FOOD

TRADE MARK

"EVIDENCE"

Mr. E. A. James, of Ewart, Iowa, writes as follows:
Iowa Stock Food Co., Jefferson, Iowa.
Gentlemen: I have been feeding **Iowa Stock Food** for four years to the amount of about 2,000 pounds yearly. I have tried my cattle with and without Stock Food and am confident I get a **larger profit** out of the Stock Food I feed than out of any **other part** of the **rations.**
I find **Iowa Stock Food** the equal in every respect of any Stock Food I have fed, and cheaper on account of its **superior strength.**

WHAT IOWA WORM POWDER WILL DO.

Perry Henderson, of Literberry, Ill., writes as follows.
Gentlemen: The **Iowa Worm Powder** you shipped me by express December 24, 1904, I received on December 26th. I went to feeding right away and there was no end to the worms that came from my hogs.
I had 80 head of shoats and they were in bad shape. Since feeding the **Worm Powder** I have been feeding **Iowa Stock Food** and I never had shoats do any better than mine are doing now.
I had some of my neighbors use some of the **Iowa Worm Powder** and they got the best of results from it. I got a man to use it who was using another worm remedy. He now thinks the **Iowa Worm Powder** the only **worm remedy,** and says he will not use the other any more. I wish you could have seen the worms that passed from his hogs. It was a sight. I advised him to feed **Iowa Stock Food** to keep his hogs gaining better.

Write us, care of Dept. E, and get our Special Offer.

IOWA STOCK FOOD CO.
Jefferson, Iowa.

If you want the best — Don't forget the name

KRESO DIP



KILLS
TICKS AND LICE
ON ALL LIVE STOCK,
SHEEP, SWINE,
CATTLE, HORSES, ETC.

PREVENTS AND CURES PARASITIC AND SKIN DISEASES.

Kreso Dip kills disease-germs, ticks, lice, mites and fleas; cleanses the skin, glosses the hair, heals scratches and wounds; cures scab, mange and ringworm, and acts as a fly-repellant. It is scientifically prepared in our own laboratories, never varies in strength, and is therefore reliable.

Easily prepared for dipping or hand-dressing—simply mix with warm, soft water.

$1.25 PER GALLON, AT YOUR DRUGGISTS.

Special quotations in quantities.

Write for descriptive pamphlet—it's free.

PARKE, DAVIS & CO.
HOME OFFICES AND LABORATORIES: DETROIT, MICH.
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis.

Bone Spavin



Know it by the lump and the limp—a hard, bony growth on the inner side of the hock joint, usually low down and a little forward of the center of the leg—a quick hitch with the sound leg, and a stiff movement of the lame leg, bearing the weight on the toe, most noticeable in starting.
New cases, old and bad cases, the very worst cases, cases where firing has failed, are cured by

Fleming's
Spavin and Ringbone Paste

Guaranteed to cure the lameness for good—may or may not take off the lump. Easily used by anybody, and a single 45-minute application usually does the work—occasionally two required. Write for **Free Horse Book** before ordering. It gives all the particulars, and tells you what to do for other kinds of blemishes.

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

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Horticulture

Hardy Perennials.

READ BEFORE THE SHAWNEE COUNTY HORTICULTURAL SOCIETY, BY DR. G. P. LUX.

Hardy perennials are plants, shrubs, vines, or bulbs that live from year to year. Those that we shall speak of are cultivated for their beautiful flowers or foliage. The herbaceous species for the most part, die down to the ground each fall and come up again from the roots next spring. Many varieties increase in size and beauty each year.

Hardy plants have been used almost exclusively in England for many years. In the early days of the United States our grandmothers' gardens contained many choice perennials, but in later days they became "old fashioned," and tender coleuses, geraniums and annuals became the vogue. They have to be planted anew each year, at a heavy expenditure of time and money. Tender plants can not be set out, or seed of annuals sown, until about May 1, and they are not in good shape before July. After the first frost we find our garden black, plants dead, ground bare and nothing in it. The next spring you have the same trouble over again.

It is not so with hardy perennials. If you make the right selection, prepare the soil well, plant properly, and cultivate the first year, the following year you will have the same plants and in many varieties an increase of several hundred per cent. Until hardy plants come into general use again, we can not hope for artistic, interesting and beautiful gardens. People of taste and culture are realizing this fact more and more each year, and on account of the increasing demand, many nurseries are making this class of plants their specialty.

The charm of hardy perennials rests in the constant change and successional variety, which, from the first of March to the last of November, invite new interest and enable one each day to find some new feature of beauty and form. There is a constant change in foliage and flower. As the years roll by individual plants become old friends. A clump of peonies will live in the same spot for fifty years. Tender budding and foliage plants in fancy scrolls and designs attract the attention for one good look, but they soon become as unchangeable and monotonous as the flowers and designs in our parlor carpets and wallpaper.

The cost of some species and varieties of hardy perennials is a little high, but the first cost is the only one, and they increase in value and beauty each year, while the purchase and planting of tender bedding plants is an annual expense and a total loss each fall. If annuals are grown from seed, it nearly breaks the back to weed them, and occasionally the neighbor's chickens get into the flower-bed and ruin it while the plants are small. The perennials are far more economical and are easily cared for.

The trouble with our people is that that are in a hurry. They want results at once. It takes several years for some kinds of hardy flowers to become well established and at their best. For those who have a little patience and desire permanent and ever-increasing dividends, the results are very satisfactory. Memories of childhood cling to the old-fashioned flowers, and many a time some one going through my garden has exclaimed, "Why here is a flower that I have not seen for thirty years!" And the greeting is like that of old friends.

Many people spend thousands of dollars upon their house and furnishings; but one dollar intelligently spent on the grounds will afford more beauty than ten spent on the house, and the attractiveness of the house is greatly enhanced by the beauty and fitness of the grounds.

This year I had snowdrops in bloom on February 26. Almost every day from then until the last of November the hardy garden is changing with the changes of the seasons, something new is coming into bloom and before it becomes monotonous its season is past and its place, providing your selection and arrangement are good, is taken by some other flower equally beautiful and interesting, but entirely different.

Our garden is never tiresome; its past is a pleasant memory, its future a delightful anticipation, and its time of blooming an accurate calendar of the seasons.

The blooming-season in this locality is about a month earlier than in the East. This year I am trying to make an accurate calendar of the blooming time of about five hundred species and varieties which I have in my garden. The snowdrops are the first, then come the crocuses and the Scillas, whose color is such a pretty blue. Then the tulips and the narcissi with their countless varieties, hepaticas, bluebells, iberis or "snow-on-the-mountain," dwarf purple iris, followed by German and Siberian varieties, and about a month later by the gorgeous Japan iris. By the latter part of April there are scores of hardy shrubs and plants in bloom. The last week there have been some gorgeous Magnolias in bloom on the north end of Central Park. They are well worth a special trip to see. The buds are usually killed in this region by a hard freeze in March; but this spring they have escaped unhurt. There are several species and many varieties of phlox, all are fine, Columbines whose foliage is beautiful and fern-like and their flowers exquisite, Oriental poppies, lilies, especially the Japan varieties. At the end of June we have the lovely Japan iris, than which there is nothing finer. Wealthy men build and maintain glass houses to shield things not half so fine. To carry us through the summer we have tall phlox, Yuccas, Rudbeckias, Gaillardias, hollyhocks, bellflowers, day-lilies, Hibiscus, hardy sunflowers, Bocconia Shasta daisies, gas-plant, boltonias, the splendid Delphiniums, Coreopsis and hardy asters. To show you what I think of peonies, I might say that I planted 138 choice named varieties last fall. It will be about three years before they will be at their best. Then look out for something fine. As fall approaches we have the hardy chrysanthemums, a few large flowering varieties, and many varieties of the pompons. The newly introduced Japan anemones help to close the season in November.

Under the head of hardy perennials should be mentioned those of a woody nature that do not die down to the ground each fall. Roses, hybrid perpetuals, hybrid teas, climbers, and the trailing Wichureianas. Among hardy vines the large flowering varieties of clematis are beautiful, but not very vigorous or tenacious of life. The small white-flowered variety, paniculata, is one of the best vines of recent introduction. It makes a dense, vigorous growth and is a very desirable porch vine, covered late in the season with a mass of sweet-scented white blossoms. The Boston ivy is for covering stone or brick walls. Among hardy shrubs may be mentioned lilacs, snowballs, spiraes, hydrangea, rose-of-sharon, the flowering crabs, especially Betchtel's double-flowering crab, barberry, dogwoods, syringas, tamarisks and many others.

There are some perennials that are hardy in some localities but tender here and must be lifted each fall and stored in the cellar. The following are some that we can scarcely dispense with and are among the most showy plants: Cannas, dahlias, gladioli and Tritomas—I should call them the "big four." I had almost forgotten the hardy ferns. There are about twenty-five varieties that will grow here, most of them require shade, but some will thrive in the sun. The hardy grasses are fine and some have beautiful plumes late in the fall, which if cut and properly cured make good indoor decoration.

CULTURE OF PERENNIALS.

Dig the ground deeply and work in plenty of well-rotted manure. They deserve liberal treatment, because many varieties will remain in the same position without being disturbed for many years. Some varieties need dividing every three or four years. Some thrive best in dry soil, others in wet, some in full sunshine, others in shade. Experience, based upon observation and careful study of the plant, is the best teacher. I have moved some plants three times before I found a place where they seemed perfectly at home, and some have expired before I found the right place for them. Plant as early in the spring or as late in the fall as it is possible to get the plants. The distance apart will depend entirely upon the nature of the plant. Many varieties, if planted singly, do not make much of a show; but if a number are planted in a mass they make a very find effect.

Until they are well established, cultivate moderately and keep the weeds down. After the first year many varieties will almost take care of themselves; your only task will be one of pleasure, that of cutting huge boquets for yourself and friends. Many varieties make beautiful and artistic cut flowers for vases, etc. In the late fall some species will need a light covering of leaves or loose straw.

I have used the common names as much as possible and have refrained from using the botanical terms because this is not a technical paper. Many of them have names almost as long as this paper and too hard for even the school teacher to pronounce.

Manuring Young Orchards.

EDITOR KANSAS FARMER:—Please advise me through the KANSAS FARMER what will be the effect of putting a heavy mulch of fresh cow-barn manure between the trees of my young orchard when I can't cultivate? Also, how shall I keep down sand-burs and crab-grass? I made a covering of about six inches of manure, being careful not to go too close to the trees.

Clay County. WM. T. BRYANT.

The general result of heavily manuring young trees is to stimulate a strong growth of wood and branches, sometimes to the extent of delaying the growth of the fruit-spurs for some little time. It is impossible to make any estimate as to the effects or influence of fertilizers unless definite information concerning the soil and the manure is at hand. If the soil is poor or worn, it may be just what the trees need. If new, strong soil, it may force an overgrowth of wood. A soil which grows good crops of grain is usually strong enough to grow good trees.

If the manure is largely straw, it may be the cheapest and easiest method of keeping down the weeds. The only injurious effects noted as resulting from a mulch has been a tendency to form roots near the surface during very wet seasons and if a dry season follows, the shallow root system is a decided disadvantage to the tree.

ALBERT DICKENS.

The Lead Pencil Evil.

One practical lesson that should be taught in every school is that a lead pencil must never be put in the mouth.

More important than the study of algebra, the study of Greek, or Latin, the study of rhetoric or the study of literature, is the lesson that a lead pencil should never be stuck in the mouth. Nearly every scholar has this habit, and a very pernicious habit it is.

If the school teacher would insist upon this as a rule, and correct every child that has this filthy habit it could be broken up. People who have passed through school and have formed the habit of putting the pencil to the lips every time it is used are beyond hope. But with the children something could be done.

The pencil does not write so well after it has been wet as before, but there seems to be a notion that in order to make the pencil write, it must be moistened with the lips. This is not true. Probably everybody knows it is not true. In public places, people who are very squeamish, ordinarily, will pick up a pencil that has been used by hundreds of other people, and the first thing they do is to put it in the mouth.

It is a habit that ought to be broken up. Every school-teacher should take up the crusade. Pupils should be told frequently never to put the pencil in their mouths. When caught doing it, some sort of punishment should be inflicted upon them until they get it into their heads that the practice is ridiculous and dangerous to health. While the graphite that composes the so-call, lead of the pencil is not of itself a very harmful substance to be taken into the mouth, yet the point of the pencil is necessarily dirty.—Health.

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The Young Folks

CONDUCTED BY RUTH COWGILL.

At Last.

(Found under the head of a dead soldier in Port Royal Hospital.

I lay me down to sleep,
With little care
Whether my waking find
Me here or there.

My good right hand forgets
Its cunning now;
To march the weary march
I know not how.

I am not eager, bold,
Nor strong—all that is past;
I am ready not to do
At last, at last.

My half-day's work is done
And this is all my part—
I give a patient God
My patient heart;

And grasp His banner still,
Though all the blue be dim:
These stripes as well as stars
Lead after Him.

The Stranger at the Door.

A TRUE DOG STORY.

Out on the Western prairie, not far from the "Big Muddy," under the porch of thrifty farmer Blodgett's new house, a chubby, curly black friend opened his great brown eyes to the light of this big world. How the turkeys strutted and stretched their necks! How the ducks and geese quacked and hissed when they discovered this little stranger! And it seemed that the Blodgett children never were so happy as when they peeked under the steps and found Fannie and her babies.

Weeks and months passed and the little canines were beginning to be a nuisance. The turkeys and chickens were molested—often driven from their breakfast—and the watering-pans daily drained of the good milk for the fowls. The door-mats were missing when most needed; the weekly washing was soiled and torn from the lines, and there were endless amounts of other annoying depredations.

"Something must be done," said patient Mrs. Blodgett. "I can't endure those puppies." So Fannie's children were given to good neighbors. But Mr. Blodgett took one—the curly black one—to a friend in the "Bluffs," to be a city dog. The recipient of this offering was an old gentleman. What did he want with a dog? He had no work for a dog to do. Nevertheless, he accepted the present and his faithful wife made delicious johnny-cakes for the newcomer. And with an abundance of sweet milk (for the old folks kept a cow) and scraps of beef from the market, "Nig" had dinners fit for a king. He grew fat, glossy, handsome and wise—yes, truly wise; for when you would speak to him, those big, brown eyes, looking up at you would speak the words that the dog could not utter. The children in the neighborhood would pull his long, curly hair—with never a snarl from Nig—or fondly caress him and call him "good Nig."

When Nig was about five years old and no longer a stranger but a member of the family (for grandma often said "There's four of us to cook for—grandpa and I and Nig and Tiger, the cat.") the only son of the aged couple came to visit them.

One afternoon he leisurely walked alone up the steep bluff near the old home—through the timber, following a narrow path, and with a stick in his hand, carelessly striking the underbrush on either side. Suddenly he was startled by a fierce growl. Nig had followed him and close to Nig was a repulsive looking individual—a man with mischief in his eyes and actions. Nig continued to growl and after a few brief remarks between the men, the intruder disappeared in the underbrush. Nig's large frame, knowing eyes and big growl evidently frightened the man. He was afraid of that dog.

The old gentleman often remarked, "Nig is a smart dog—why, he seems to know so much." However, after his son's encounter with the tramp, he was more positive than ever that Nig possessed almost human intelligence. And the watchful dog ever after held a more welcome place in the hearts of the old folks. They needed no watchman to protect their home, for Nig, stretched out on the doorstep, kept faithful guard of the premises. Sometimes he would accompany his master down town; but, if, for some reason he would rather not let the dog go, he would simply say, "No, Nig, stay home," and the obedient dog would lie down without a whine.

His master was a cripple, one limb being short, and he walked with a cane. Nig heard the footsteps before we could see grandpa coming. If grandpa waved his cane, Nig would trot off to meet him; but if not, he would quietly await at the step, and with a whine and grateful yelp, would welcome him only when he entered the yard. Oh, the good johnny-cakes and milk and other good things that dog devoured! The many steps taken by the old folks to feed and make him comfortable on cold winter nights! The many dollars of taxes paid—until, finally, an old friend wanted Nig. He would be good to him and take him to Kansas; so the owner consented to part with him.

About the middle of October, 1904, Mr. B. and family left Council Bluffs, Iowa, with teams and wagons, going across the country for their new home in "sunny Kansas," and Nig went with them. Yes, the old folks were glad he had a new and kind master—they missed him, though. When grandpa went out to milk, Nig was not there to go with him and without him he felt lonesome.

Grandma had fed him so many years three times a day, it seemed that some of her work was left undone. But she put the scraps from the table in Nig's dish and set it out for the hens. It seemed so strange not to see the good dog at the door; but they had a picture of him in the big album on the parlor table, and they thought of him, and missed him more than they thought they should.

Nig was trudging along behind the wagons, or, when he was tired, his new master would help him into the wagon to ride and rest his weary feet. Poor dog! How he longed for the old home—his meat on the doorstep—his breakfast in Nig's dish. If he could only tell his new master how homesick he was! But the man patted him lovingly and called him a "good dog;" so Nig, heartsick and footsore, followed the wagons.

When they were about 225 miles from the old home, steadily wending their way over the much-traveled wagon trail, through the avenues of sunflowers that gently nodded their golden heads in obeisance to the "Kansas zephyr," up stony steeps or on a level plain, viewing the surrounding homes of happy farmers, they missed Nig. Where was he?

Days and days and weeks passed by. Nig was trotting steadily in another direction. Through the little villages he seldom looked to the right or left—only forward. With an occasiona hurried lunch at some friendly man's door, and an encouraging word—"Poor dog"—or maybe an occasional cuff, "Get out of here, you dog"—"A mad dog!" "A mad dog!" and unkindly driven from humanity, almost on the verge of despair—he trudged wearily onward, his only thought of home. That word to you and me implies much. Why not to Nig? Almost home—only the broad, dark, treacherous Missouri River between. Who will pilot the faithful dog to his rest, his friends, his home beyond? A loving ever watchful, unseen power left Nig on the Iowa bank—and when grandma, one bright morning in December, placed a dish of breakfast at the side of the door for her "biddies" a large black dog walked quietly up and grandma went out to save the warm food for her hens. She threw up her arms and flirted her blue apron at the intruder, saying, "Go away, dog; let my hens alone!" But the stranger did not go away but stood back entreatingly looking at her. Then grandma in a moment exclaimed—"Why, Nig!" For truly it was their own faithful dog—home again.

SUNFLOWER.

For the Little Ones

The Misses At School.

There was once a school
Where the mistress, Miss Rule,
Taught a number of misses that vexed her.
Miss Chief was the lass
At the head of the class,
And young Miss Demeanor was next her.

Poor little Miss Hap
Spilled the ink in her lap,
And Miss Fortune fell under the table;
Miss Conduct they all
Did a Miss Creant call,
But Miss State declared this was a fable.

Miss Lay lost her book,
And Miss Lead undertook
To show her the place where to find it;
But upon the wrong nail
Had Miss Place hung her veil,
And Miss Deed hid the book safe behind her.

They went on very well,
As I have heard tell,
Till Miss Take brought in Miss Understanding;
Miss Conjecture then guessed
Evil things of the rest,
And Miss Counsel advised their disbanding.

—Unidentified.

"The Hero of the Boys."

George Washington Jones sniffed audibly as he went his way to school. He was a timid little fellow, and the rough practical jokes which gave his elders so much joy filled his young life with woe. It was a very young life, so far, having existed only for eight years and seven months, besides a week and a couple of days. Perhaps it was his youth that made the jokes of his elders so painful to him. Many of his classmates were his elders, the youngest even of them being comparatively mature. Ten is very mature to the eyes of eight years, seven months, a week and a couple of days.

So do not despise George Washington Jones that he used his clean little pocket-handkerchief for other than its presumptive end and aim in life as he saw the school building rise, not in the distance, but in the near, the too near neighborhood.

One of the tricks of "Bobby" Sampson, the ten-year-old, was to snatch from the hand of George Washington Jones his absurd schoolbag, containing his little luncheon and a No. 1 Reader. This treasure he secreted behind his own desk by the door, far from the sight and ken of its distressed owner. George was unable to sustain his part in class, looking over another boy's book being against the law of Miss Bristol's room. The idea of complaint had not entered his head. He suffered dumbly, more in wonder than in anger.

On this particular morning, the 21st of February, Bobby lay in wait for his victim.

"Yah!" he yelled, seizing the bag. "What'll you do without this, kid?"

It was a bitter drop in George Washington Jones' cup that he was called "kid."

"You lemme 'lone," he protested futilely.

But Bobby had already secured the bag.

"Robert Gray," said the teacher's voice, "what are you doing with George's bag? Give it back to him. You will have to stay in if you tease him. I have told you that before.

"Bobby" gave back the bag. He shook his fist at George Washington Jones.

"Jes' you wait," he threatened.

At that moment Miss Bristol's attention was claimed by the mother of one of her pupils, who had come to point out certain errors, as she conceived them, of Miss Bristol's system of government.

The diversion gave "Bobby" his chance. Staying in on that particular day, when he had special preparations to make for the coming holiday, was as wormwood to his soul. He clutched George's shouler. "Looky here!" He spoke breathlessly. "When she asts ye what I was doing wit yer bag, ye say, 'I give it to him to hold.' See? If ye don't say that, ye'll be a sneak, see? And I'll smash yer head—see?"

Several boys had gathered around the two. To this audience "Bobby" rapidly and succinctly explained the situation.

George Washington Jones felt terribly small and helpless before them. He could have cursed (had he know how) the mistaken love of his mother, who, herself an ex-teacher, had coached him so well that he was the youngest in the class. What bitterness had not accompanied his promotion to that uneasy eminence?

"You jes' say it, kid," said "Jim" Short, the least malicious of the class, "and you shall come with us, recess, an' have a dandy time!"

A wonderful vista of happiness opened before the mental gaze of George Washington Jones. His mother having so far paid more attention to the exact sciences (bounded by the ten-times table) than to ethics, he failed to perceive the moral side of the situation.

"I'll say it,' 'declared George Washington Jones.

Miss Bristol, her temper acidulated by the controversy aforementioned, turned her attention to matters civil.

"Places," she said, sharply. As these were being sought her eyes fell upon a cluster of violets in the bosom of her dress. She smiled. To-morrow would be a holiday, spent with the sender of her flowers. Then she remembered the Father of her Country. She excused the lessons proper to Tuesday, and remembered only that it was February 21. She recounted the story of the ax, the cherry tree, the stern parent, the boy hero. George Washington Jones listened breathlessly. His soul was fired with admiration—with emulation.

And then came—recess.

"Before you can go out, Bobby," added Miss Bristol, "I want you to tell me why you had George's luncheon bag?"

"He gave it to me to hold," lied "Bobby," smoothly.

"Did you, George?" asked the teacher. Then, remembering that she had just missed the personal application of her story, she said: "Be sure you tell the truth. We must all tell the truth, always! But you especially, for you are named George Washington."

The namesake's eyes filled with tears. No, he couldn't tell a lie—he couldn't. But—what would recess be like if he didn't?"

"Bobby" gazed at him wrathfully.

"Well?" Miss Bristol's tone was impatient.

"I—I—never," gasped George, in a triumphant agony.

"Then, 'Bobby,' you stay after school," came the verdict. "You can all go out now."

George's arm quivered in "Bobby's" relentless grasp.

"Ye little, sneaking, snivelling—" He failed to find any word to do justice to his conception of George. "Didn't ye say ye would—didn't ye?"

He punctuated his words with shakes and slaps and pinches.

"I—couldn't—tell—a —lie—after —" George was unable to finish. He was quivering with pain and fear and unavailing rage.

"Yah! Stuff!" was "Bobby's" reply, as he sat George forcibly on the ground. "I'll teach you to tell me that!"

"You let him alone," said the voice of "Jim" Short in his ear. "I guess he's about right, that kid. And if you want to fight with him, take me first!"

One minute later, George and "Jim" having swapped luncheons, were the center of an amicably feeling throng. "Jim" was the strongest in the class—and the milennium is not yet. One is nearest to it, though, when Might, sturdy, valiant and eleven years old, protects Right, weak, a little timid and only eight years, seven months, a week and a couple of days!—Frances Harmer, in New York Tribune.

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The Home Circle

CONDUCTED BY RUTH COWGILL.

Spirit Soar, and Body Do Thy Work.

I stood in the dewey morning as night lifted her mantle of dark,
And drank in the freshness of beauty, saw glistening lines of the mark
Of the hand of the Master Painter. The lingering light of the stars
Retreated and faded to vagueness. The billowy fleece of the bars
Of airy clouds were touched with an exquisite, roseate splendor—
But I turned and looked within the door, saw the uncooked breakfast store,
"Spirit," said I, turning, "Soar, but body do thy work."

I gazed on the gathering tempest, my tumultuous heart touched and stilled
By the intense, o'erhanging awfulness.
In places the clouds were hilled
Into immense black boulders, rolling, careening, tumbling,
From which flashes of forked lightning issued, and low, rumbling
Growls of thunder sounded. Majestically it rolled nearer—
"Mamma," cried James, "little Nore is hurted and tore her pinafore!"
"Spirit," said I, turning, "Soar, but body do thy work."

It was the mystic hour of twilight, lovely, serene,
Darkness and light blended lightly in secret contact, with no keen
Lines to mar any object's beauty. Delicately the flowers
Opened and sipped the dew, falling in invisible showers
Of silver. Afar the frogs chirped by a murmuring stream—
"Spirit," said I, turning, "Soar, but body do thy work."

But even as I murmur and sigh at the fate that is mine,
A thought fills my soul with glory and feeds it with rich, nectared wine.
For though I may lose a fine sunrise and work as the gathering storm breaks,
I live not for self and self only—rivers spread wide into lakes.
My love enfolds all of my darlings—each task becomes hallowed with it,
Rebellion is stilled and tumultuous war, and each lowly task a glad light's streaming o'er,
"Spirit," said I, turning, "Soar, but body do thy work."

—Coda Olmstead Lowe.

Money or Manhood.

FLORENCE SHAW KELLOGG.

An item in a recent number of the Kansas City Star reads thus: "Closing the joints in Salina the other day has already resulted in the discontinuance of the paid fire department, and stopped all street improvements. It means a loss of $12,000 of revenue to the city." And we ask, what of that? Is there no reckoning to be taken of the gain to right and justice to manhood and all things good and decent? Is the money loss not immeasurably less than this gain? Will not every right-thinking, right-loving citizen admit that money-loss, or any loss that can be computed in dollars and cents, is the least of all losses to a town or city, or to the country in general when it comes from the doing away with joints and the nefarious business carried on there? What of the loss to manhood in these joints, to honor and truth, to all things fair and desirable?

No town—at least no town that is worthy of a place in the great free State of Kansas, a State that has waged such earnest and desperate warfare against wrong and oppression, a State that began its existence with the declaration that all its people should be free and have equal chance for "life, liberty, and the pursuit of happiness," that there should be no slavery within her borders, no compromise with wrong, and maintained this declaration at the cost of many lives, and years of hardship and struggle such as we to-day may read of, but, sitting in our cozy homes, with all the comforts and amenities of life about us, can but vaguely realize—there is no town worthy of its place here that would not greatly prefer to pay for the maintenance of its fire department and its improvements of every kind by direct tax on its people rather than by the licensing of joints or other places of ill fame where manhood is degraded and enslaved.

There are forms of slavery to-day as debasing and as wrong as were ever thrust upon the black race; and now as in the past, we have need of an emancipator—need of a Lincoln who will dare to break the shackles of the demons drink and vice, and bid our race go free; a Lincoln who will dare enforce the laws upon our statute books, and close forever all joints and dives of every name and nature, nor leave a "back door" through which the wise (?) ones may sneak to their destruction. What means it when a popular paper can thus lament the loss of revenue that comes from saloons where our young men are tempted and debased? Is the moral tone of the city and State at this level? Are we sunk so low that the dollar is more than the man? that we could perfect and beautify our homes and towns at the expense of the characters, the true, pure worth of our citizens? Do we realize what it means when we can mourn the loss of revenue for which we pay so dear? Think of the heartaches, the ruined lives, the desolate homes, represented by this revenue. Who has the courage, the hardihood to ask it? Better that our towns be in danger than that our men should be. Better that we live in the plain, inexpensive sod-houses of old than that we should build more beautiful homes with wealth derived in questionable ways. We make too great haste to be rich. We forget too easily and too often that true riches consist not in money but in character.

Let us be worthy of our broad, beautiful prairies. Let us remember at what cost our homes were builded and live as befits the children of such noble ancestors. Let us "quit our meanness," close the joints and all places where evil lurks, where men are tempted to wrong, and open wide the doors to good and gracious living. Let us make the temptations to manhood—to whatsoever things are good and just—the strongest of all temptations, even though the "paid fire departments" go down and the street improvements stop in every city for the time being. There is a time for all things, and, in its time, the money for all necessary improvements will be forthcoming. And again, what are times compared to men? What are beautiful streets and all outward adornment compared to beautiful characters? Our men and women should be

"Equal to their homes
Set in the fair green valleys, purple walled,
Men to match the mountains, not to creep
Dwarfed and abased below them."

Emerson tells us how "Daily the bending skies solicit man" to high or noble living. And Chadwick, who, "being dead yet speaketh," in a fine sermon tells us of the great temptation to manhood in all things good and beautiful around us, not only in the lives and influence of good people, but in all the beautiful scenes of nature—in the fields and woods, the mountains and rivers, the blossoming of the flowers, the singing of the birds, and even in the glad springtide. This is the time of times when we feel this appeal in everything and our hearts yield most gladly and quickly to it. With "spring's delicious trouble in the ground," we, too, are troubled for better things—for a grander growth and a sweeter blossoming of the good within us.

There is no fairer State in the Union than ours. No place where it is easier for a man who is willing to give honest work for fair wages, to build up a home and make it fair. And it remains for us to put away all unlawful business and to put in its place that which will strengthen right and make justice easy. We must see to it that there is no place left that will tempt any one to turn aside from the straight path of duty, the clean, safe way of decent living. We should make it easy for our people to obey the Bible injunction to "think on the things" that are fair and good and pure and true everywhere. We know it is difficult to sustain any reform until public opinion demands it and the general thought is built up to feel its necessity; but will it help public opinion to improve, will it build up the general thought to make it easy to do wrong? to keep the joints open in our towns and to turn a deaf ear to the cry of those who are working for a better state of things? When will the sentiment of the people be ripe for reform if there be no move made toward it? If we sit with folded hands and indifferent hearts before the evil, will it wipe itself out It may do so in the long years, but meantime what of those who are sinking deeper and deeper into the mire of intemperance? What of those who year by year are tending farther and farther away from the paths of virtue and of righteousness? Have we no responsibility, no duty here? It is heartbreaking to think of how many drunkards and evil-doers of all kinds are housed in this fair land where,

"Smiling and beautiful, Heaven's dome
Bends softly o'er our prairie homes,"

and where, year by year, we are gaining in material wealth and beauty—year by year piling up riches in houses and land and all material things. As Mr. Sheldon has so recently told us, our first aim should be to live—to make life sweet and pure and true and strong everywhere, gather up riches of character and let its men and women be the fairest, best product of our farms. The true riches of our State are in its people. Its promise for future greatness is buried deep in the hearts of our boys and girls who today are learning lessons of life in the homes and schools everywhere. Can we afford to let their young minds be poisoned by the foul influence of the saloon and their tender hands stained with anything but clean, honest work?

Let no one think I would for one moment imply that nothing is being done for our redemption. I know and honor all the efforts for good. I know there are many earnest, zealous workers who are trying with heart and hand to make this in fact, as it is in seeming, a prohibition State; but the many open saloons in many towns and cities all over the State tell sadly of the need of greater efforts still. It is in the hope of stirring the public conscience to a deeper realization of this honor in our midst, and of arousing our good men and women to a more earnest and united effort against it, that I write. Do I write in vain? It seems so stronge that we should license wrong! That we should protect an evil with all the majesty of law, and be willing to make gain from it! It can not always be so. Surely, surely the time will come when those who

"Dream with civic pride
Of cities that shall be,
Within whose streets each citizen
Shall live life worthily,"

will see their dream come true; when, as Charles Wagner tells us, each one "will guard with care that passion for the better that dwells within," and life will be sweet and good for us all.

The Salvation Army—of which we are sometimes prone to speak slightingly, but than which none other is more ready to "beard the lion in his den," and to go down into the very depth of slum-life if thereby they may do any good—has a record of which they may well be proud. Read this item from the Youth's Companion: "Fifty thousand reformed drunkards, according to General Booth, are marching in the ranks of the Salvation Army. Forty-five thousand young women through its influence have been reclaimed to lives of rectitude and happiness." "And," he adds—as if knowing the dollar is to be reckoned with—"the work has been done economically, and many who have been helped have subsequently paid into the treasury more than was spent upon their reclamation. Human waste, as well as that of the industrial world can be utilized, and the wisest philanthropy works toward that end." This is, indeed, a grand work to have done—and the end is no yet. Still they are working unceasingly for the right, adding constantly to the numbers of men taken from the gutters of drunkenness and crime and brought back to clean, honest living of women reclaimed from ways too horrible to think of without a shudder, and placed each in woman's true place as "guide, councilor, and friend" in the home of some good man. Good men and women everyhere will give them a grateful "God speed," will join hands with them in all good works and ways, and we shall yet be a glad, free people.

[A fact which has been well proven, though even the most ardent prohibitionists sometimes forget it, is that license is in no sense a good invest-

"IT SAVED MY LIFE"

PRAISE FOR A FAMOUS MEDICINE

Mrs. Willadsen Tells How She Tried Lydia E. Pinkham's Vegetable Compound Just in Time.

Mrs. T. C. Willadsen, of Manning, Iowa, writes to Mrs. Pinkham:

Dear Mrs. Pinkham:—

"I can truly say that you have saved my life, and I cannot express my gratitude to you in words.



"Before I wrote to you, telling you how I felt, I had doctored for over two years steady and spent lots of money on medicines besides, but it all failed to help me. My monthly periods had ceased and I suffered much pain, with fainting spells, headache, backache and bearing-down pains, and I was so weak I could hardly keep around. As a last resort I decided to write you and try Lydia E. Pinkham's Vegetable Compound, and I am so thankful that I did, for after following your instructions, which you sent me free of all charge, my monthly periods started; I am regular and in perfect health. Had it not been for you I would be in my grave to-day.

"I sincerely trust that this letter may lead every suffering woman in the country to write you for help as I did."

When women are troubled with irregular or painful menstruation, weakness, leucorrhœa, displacement or ulceration of the womb, that bearing-down feeling, inflammation of the ovaries, backache, flatulence, general debility, indigestion and nervous prostration, they should remember there is one tried and true remedy. Lydia E. Pinkham's Vegetable Compound at once removes such troubles.

No other female medicine in the world has received such widespread and unqualified endorsement. Refuse all substitutes.

Mrs. Pinkham invites all sick women to write her for advice. She has guided thousands to health. Address, Lynn, Mass.

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ment for town or State. The money taken in by the month in this way is more than counterbalanced in actual dollars and cents by the expense of caring for and restraining the criminals and paupers who are the result of it.—Editor.]

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

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Vice-Pres...Mrs. Kate E. Aplington, Council Grove
Corresponding Sec'y..Mrs. Eustice H. Brown, Olathe
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Our Club Roll.

Mutual Improvement Club, Carbondale, Osage County (1895).
Give and Get Good Club, Berryton, Shawnee County (1902).
Women's Literary Club, Osborne, Osborne County (1902).
Women's Club, Logan, Phillips County (1902).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Crescent Club, Tully, Rawlins County (1902).
Ladies' Social Society No. 1, Minneapolis, Ottawa ounty (1888).
Chalitso Club, Highland Park, Shawnee County, (1902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literature Club, Ford, Ford County (1903).
Sabean Club, Mission Center, Shawnee County, Route 2, (1899).
Star Valley Women's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, Route 8, (1903).
Fortnight Club, Grant Township, Reno County (1903).
Progressive Society, Rosalia, Butler County (1903).
Pleasant Hour Club, Wakarusa Township, Douglas County (1899).
The Lady Farmers' Institute, Marysville, Marshall County (1902).
Women's Country Club, Anthony, Harper County
Taka Embroidery Club, Madison, Greenwood County (1902).
Mutual Improvement Club, Vermillion, Marshall County (1903).
Prentis Reading Club, Cawker City, Mitchell County (1903).
Cosmos Club, Russel, Kans.

[All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.]

From Highland Park.

The Chalitso Club has had a very enjoyable winter. As usual, we have done little studying, but like some schoolboys I know, have "absorbed" much that is helpful from our programs and from each other. At our first meeting in September the committee passed to each member a neat, typewritten program, which a son of one of the committee had made for them. We have found the roll-call a great help; so many good ideas can be presented in a concise form, and those who think they can say nothing become accustomed, little by little, to saying more.

At one meeting our president, Mrs. C. W. Campbell, had an interesting paper on the Crittenden Homes. This was a very comprehensive paper and one that I wish other clubs could hear. It is well for women with happy homes and loving husbands, to learn of the great needs of their sisters, who have met temptations that the more fortunate dream not of, and lend a lifting hand.

" 'O Master!' I implored, 'how may I shed
A little light across the ways
Wherein the broken-hearted, halting tread?'
My Master answered, 'Dare help to raise.' "

One meeting was devoted to "Some Famous Women of the 19th Century," each member answering, at roll-call (more or less in detail), with an account of the life work of some noted woman. This, with the remarks it drew forth, was more than ample for the afternoon.

Another day the club was invited to the home of Dr. Debora K. Longshore near Tecumseh, and entertained with a delightful account of her trip "Through Mexico in a Private Car." Our only meeting in December was devoted to Christmas. Quotations for roll-call were Christmas stories and poems.

We have had but one social at the schoolhouse; it was well attended, however. More of the women of the Park have joined our ranks, and we contemplate in the near future a picnic supper at one of the homes where there is a large yard with plenty of trees and where all of our families can be accommodated.

We decided to forego our usual Kansas Day meeting and instead we went to the State House, and sincerely appreciated the program participated in by those who have had more experience than we.

I have long contemplated sending a little communication to the editor of this department telling how we appreciate its helpfulness; and to tell the other clubs how encouraging it is to hear of other busy mothers and daughters who take time to come together to help each other, and thus, through rest and a change and new ideas accomplish more for themselves—or rather, for those nearest and most dependent on them.

Yes, I must admit that, like most clubs, we are falling into the refreshment habit. Of course we all enjoy and praise sincerely the luscious cakes and delicious coffee. But isn't it a mistake? The hostess loses much of the program, seeing to things in the outer room. It may have been a very busy week with her and not just the most convenient as she thought it would be when she invited the club to meet with her; and the extra exertion of refreshments, a little nicer than others have had, may be enough to make her hesitate to belong to the club another year. The special inspiration that prompted me to tell you how the Highland Park Club was getting along was the courage of our hostess of to-day, who, after several meetings where cake and coffee and other delicacies played an enjoyed part, treated us, instead, to an ocean voyage and trip to foreign lands, conducted by her friend, Mrs. J. W. Going, who had accompanied hundreds of other Sunday School workers to Jerusalem. Six days of "between sea and sky," then past Gibraltar, stopping at Constantinople, Algiers, Athens, and so on and on she took us. This, with delightful piano solos and duets rendered by Mrs. Going and Mrs. Trasker, were a charming surprise, and the hostess could stay and enjoy it with us.

True, all have not pianos, nor friends or daughters who are gifted players, nor yet friends who have visited foreign lands. But here is an opportunity to exercise our ingenuity.

Two weeks from to-day we resume our reading of Charles Wagner's "Simple Life." Much of the strenuousness of the intervening time will be lightened and brightened if we see aright, by the remembrance of to-day and the anticipation of that coming day.

CHALITSO SCRIBE.

Highland Park, April 13.

You want to know how to get my lamp-chimneys.

(1) Your grocer sells them, if he is fit to be your grocer; may be he don't.

(2) If you'll write me, I'll send you my Index; that tells everything.

MACBETH, Pittsburgh.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Cpyright, Davis W. Clark.)

Second Quarter, Lesson VII. John 17:15-26. May 14, 1905.

Jesus Prays for His Followers.

Jesus puts a period to His ministry with a prayer. It is the climax of all His preaching. The circumstances are pitiful. He is at the edge of Gethsemane, at the foot of Calvery. Yet there is no note of gloom or weakness. There is not even a cry for help.

One word in the middle of the prayer is the key to it—"For their sakes." It is a prayer of intercession. As a high priest He approached the majesty of heaven. The priest of the old dispensation carried the twelve tribes upon his bosom, graven in the precious stones of his breast-plate. The Priest of the new dispensation carried the holy apostles upon His heart. There is infinite dignity in His attitude. It is so remarkable that John breaks his custom and refers to the comparatively small incident of the upturned face. There is the repose of soul incident to the consciousness of a holy work thoroughly well done. The note is one of triumph. He presents to His Father the men whom He has trained for Him.

The marvel of this prayer is that each part of it seems complete and separate, but in a moment one pours all its content and force into the next, and so on until the very heights of heaven are reached. The prayer for self is only made that it may be merged into a prayer for disciples, and that in turn for Church, and that for world.

It has been called the glorification prayer because of its first petition, "Glorify Thy Son." It relates to His own person. Yet there is no element of selfishness in it. He wishes only to reflect the glory of the Father, in order that through this reflection as many as possible should know the Father as the true God. The "It is finished" of the cross is an echo of this serene and triumphant "It is finished" of the prayer. This obedience, which completes to the last detail the work given by the Father, forms the basis of the petition which follows.

Jesus moves now in His prayer from self to disciples. The beginning and end of three years' ministry is compassed in fewest possible words. The commanding purpose was to make a number of chosen men acquainted with God and with Himself as a Divine Messenger. In this He had been superbly successful. His heart's desire and prayer now is that the work of His ministry may be conserved. He does not pray in general terms for the world. He prays specifically for these men. He is conscious that His own exit from the world is very near. They are to be left behind with the invaluable deposit of His teaching. They must be kept inviolate or all is lost. It would be a superlative blunder to ask that they be taken out of the world with Himself, for the very purpose of their training was that they might remain as the almoners of knowledge and grace—kept from evil, in the world, but not of it, sanctified through truth.

The prayer takes still another sweep, its final and widest. When the Intercessor cries, "Neither pray I for these alone, but for them which shall believe through their word." It is a petition for the Church which is to be. Incidentally it reveals the fact that there was no shadow of doubt upon Jesus' mind but that His disciples would make converts. As the prophet said he would, He "sees His seed," and prolongs in them His own shortened days. He prays for the unity and concord of the Church. And again, incidentally, He indicates that the realization of this ideal of harmony is the convincing argument to the world of the Divinity of His commission.

The prayer is without "amen." But there is no evidence of interruption. Instead of being broken off, it flowers out in radiance and fragrance. There is a beatific vision which Jesus entreats for the men whom God had given Him. His heart's desire is that they may see His glory. The cross is the golden period to this incomparable prayer. The last affirmation is that He will declare His Father's name, but His ministry ends that hour. There are no further opportunities of preaching. How, then, will He make declaration? Is it not by His obedience unto death?

The Teacher's Lantern.

Some difficulties confront the reader. The prayer is the most misunderstood of Jesus' utterances. Spener believed it beyond comprehension. He quaintly said, "It goeth beyond the measure of faith which the Lord is wont to impart to His disciples during their pilgrimage." For this reason he never preached upon it or attempted an exposition of it; but when he was dying had it read to him three times.

The analogy of the form and order to that which is commonly called the Lord's Prayer has been pointed out, but in point of fact the divisions are not mutually exclusive. They interpenetrate, so that it is possible to find several different arrangements, all of which may be correct.

A crisis creates the prayer. It is no litany intoned at an arbitrary hour and by an ecclesiastic designated to perform the service. It is the voice of need which can not pour itself into any form, however venerable, and which must, per force, extemporize.

Jesus stands with the little group of men to whom He has made the greatest possible revelation, and whom He expects in their turn to be revealers of His truth. He must needs leave them. If they fail, all is lost. He knows what it means to be "in the world," and the world against one. He cries to heaven for these chosen men, that they may be kept and sanctified, and their unity preserved.

Jesus was sent, and we are sent. An analogy maintains between the Master and ourselves. There is a Divine idea to be worked out in every human life. This lifts us above dumb and driven cattle. Jesus' example of fidelity to the uttermost is our inspiration.

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FIFTY-FIVE MILES OF PIPE LINE AND THE FIRST OF THE RIVER STORAGE TANKS PURCHASED FOR IMMEDIATE SHIPMENT

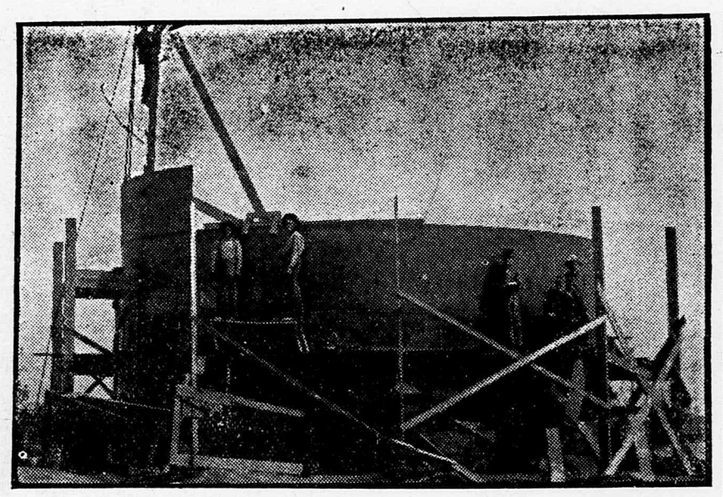
Title to the Fifty-Seven Acre Kansas City Refinery Site Approved and Land Paid for---Right of Way Across Kansas Counties Being Pushed With Vim---Company will be Laying Pipe and Be at Work on Missouri River Storage Tanks in Less Than Three Weeks

Stock in the Kansas Independent Refineries Will Be $1 Per Share Before Snow Flies--Now Selling for $80 per 1000 Shares

A KANSAS proposition fighting its way through to success on Kansas soil, backed by the Kansas press and public approval, with over one thouand Kansas stockholders and others joining every hour, while from all over the United States every mail brings in remittances from people who are proud of Kansas in her present struggle for justice in the oil fields and are assisting with unlimited financial aid. Nebraska, Oklahoma and Missouri are especially interested.

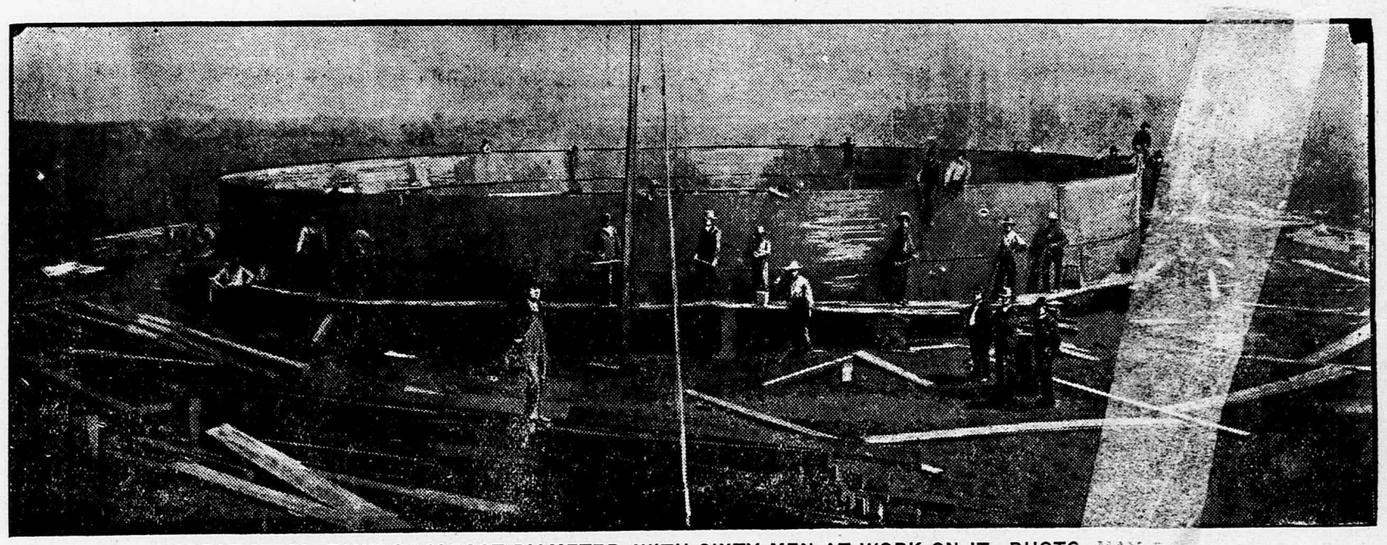
JUST as straight as a crow can fly this great enterprise will push its main pipe line right through the richest and most thickly populated counties of Kansas, making fuel stations every ten miles and laying down to the Kansas taxpayers fuel oil at living prices, thereby banding all Kansas together in a common cause and striking under the belt the robber freight rates and criminal rebates on nature's own fuel by owning and controlling its own pipe lines and occupying independent grounds.

FEELING is running high all over the Sunflower State in favor of this great enterprise in its strides of rapid progress. Everybody is enthusiastic. Farmers and business men are offering to build lateral lines from the main pipe line to the county seat towns and making one great central distributing point in each county, while just where the main pipe line turns down the California ridge road for Kansas City a line will be run on to Topeka to furnish the loyal capital city and its manufacturers an abundance of fuel oil at equitable prices.



ONE OF UNCLE SAM'S 3,000 BARREL STEEL TANKS.. PHOTO. MAY 5.

Here you see a true likeness of another storage tank on the Uncle Sam refinery grounds. The Uncle Sam company is doing things, you don't have to make any guesses whether the refinery is going to be built, it is nearly completed. In addition to over sixty-five men working on the other big tank and other parts of the refinery there are twenty men crowding this tank to completion. The Uncle Sam company will be the first to turn out refined oil in Kansas. It is the leader, it's a pioneer and a winner. You secure ten thousand shares of stock in this great, growing enterprise today for $800.00. Don't delay your remittances for the stock will go to 15 cents per share in a few days. Now is the time to buy and when you do you pay no more than hundreds of other prudent investors. When a company builds big storage, owns its own oil production, builds its own pipe lines and owns its own steamboats and then surrounds its consuming territory with thousands of stock holders and a sympathizing public, don't it look like it was selling solid and building a fort within fort. The Uncle Sam company is on safe basis and the stock that you can secure now is sure to advance at least fold in the next six months.



A GREAT STEEL TANK OF 96-FOOT DIAMETER, WITH SIXTY MEN AT WORK ON IT—PHOTO. MAY 5.

The above is a photo of one of the great storage tanks of the Uncle Sam company as it appeared last Saturday, when over sixty men were at work crowding it on to completion. This tank will afford storage for 37,500 barrels of oil. It is the largest storage tank ever erected by an independent company west of the Mississippi river. Other big tanks will follow. The Uncle Sam company is in the oil business to stay and will lay in a large storage of oil so as to always have an abundance of the crude to supply its two refineries. The Uncle Sam company is doing things and you need only to come to Cherryvale to see for yourselves, for this great refinery company has the goods in sight. Better send down your draft or check at once for $100 and secure 5,000 $1 shares before an advance, which is sure to come in the next few days. This big tank when completed will be thirty-nine feet high and be equal in value to a mammoth building and will last a lifetime.

A Philadelphia Man at the Helm—Stockholders From the Quaker City Have One of Their Own Men on the Grounds - He Is From the Pure Oil Company and Has Been in the Refinery Business for Over Thirty Years and Carries the Best Recommendations of Any Oil Refiner in the West.

The Uncle Sam company is not depending on some hirling tool of the Standard Oil tricksters to superintend the construction of its great refineries, but in Mr. Samuel Hunter of Philadelphia have one of the most competent refinery men in the United States. Mr. Hunter comes from the Pure Oil company of Philadelphia, and is well known in the Quaker city. For the benefit of the vast number of stockholders in Philadelphia and Pennsylvania you are requested to call on the Pure Oil company and find out for yourselves the kind of a man the Uncle Sam company has at its helm. Mr. Hunter watches the work. If a rivet is put in wrong in the steel storage tanks he will make them take it out. If a brick is laid wrong under the sills he will have it removed. He knows his business, and what's more, Mr. Hunter was one of the principal men to encourage the management to build the pipe line to the navigable waters of the Missouri. It will be remembered that the Pure Oil company, in its fight for success in Pennsylvania, commenced paying dividends when it completed its pipe line to Philadelphia. That's what you can expect when the Kansas City pipe line is completed. The Uncle Sam company is on a solid basis and the stock is selling rapidly all over the United States.



SCENE ON UNCLE SAM SWITCH.

It takes time to secure railroad switches and to complete grades ready to ship in heavy machinery. But the Uncle Sam company is just simply getting there with both feet, growing stronger every hour. The above shows the railroad switch, which the company has completed and paid for, into the refinery premises. This switch connects with the main line of the Santa Fe and this picture was secured just as three carloads of the heavy refinery machinery was pulled in. The Uncle Sam company has kept things on the jump from the word go, they have the machinery now nearly all on the grounds. It is just a matter of days until the plant will be turning gold into the treasury. Crude oil is low, refined oil is high and there is an unlimited friendly market right at our doors. Don't wait until the pipe line to Kansas City is completed and until this refinery is completed and another built at Kansas City and then expect to secure this stock at even 50 cents per share. The stock in this company is going to a dollar a share just as sure as fate and if you fail to help yourself, and this company too, right now, by sending in your check or draft for what stock you can handle you will spite yourself more than anyone else. If you cannot pay all cash buy on the liberal installment offer made in another paragraph in this announcement. You can buy one thousand shares for $80.00 cash, while the chances are ten to one that in ten days it will cost you $150.00 to secure the same stock. Money invested in this stock is safe and business men are buying it because they realize it can and will go to par and better, or one dollar per share in the next six months, and is certain to pay great dividends.

Fifty-Five Miles of Pipe Line and the First of the Big River Storage Tanks Purchased for Immediate Shipments.

The Uncle Sam company will build the pipe line to the Kansas City refinery as surely as daylight follows darkness. The management know just what it will cost. They have measured their resources and know that they will be able to finish what they have begun in a great deal quicker time than first contemplated. You need not be surprised to see this line completed faster than any pipe line was ever built. Kansans are great rustlers and the oil fields have been slipped up on and left without a market by the trickery of old Standard highwaymen. But Kansas will pull through all right; just watch her as she gets her second wind and toes it in for the home run. The Uncle Sam refinery will be the entering wedge that will free the oil fields, and while it will not be able to handle all the production it will be a monument to Kansas pluck and get up and get there and others will follow. With storage tanks placed at right points in the district the whole field can be greatly benefited. This pipe line will be run north just as straight as a crow can fly from our Cherryvale Drum creek holdings and connections will be made every ten miles. As this great pipe line pushes its way through the richest farm lands of Kansas, it will put fuel oil at the doors of thousands of Kansas homes; it will lay lateral lines to every inland city within fifty miles that will afford a demand to justify the investment. It will band together, under one flag for a common cause, the Sunflower State and prove a successful and formidable foe to Standard oppression and spoliation in the west. The line will be run north until it reaches the California ridge road, just south of Topeka, where, after running one line into Topeka, the main line will be continued east across Shawnee, Douglas and Johnson counties, to a point directly south of the Kaw river 57-acre site. Now just consider what this means. The company will be composed largely of Kansas men, fighting for justice in the oil fields on Kansas soil, furnishing nature's own fuel at reasonable rates to the taxpayers of the state. It will band all Kansas together. The world is watching the Sunflower State in her fight on the old highwayman and sneaking outfit, Standard Oil. Every loyal man in the state is doubly interested in the success of this great refinery company. It will be a monument to Kansas, a home enterprise. Now do you suppose that with these conditions existing and with money rolling into the treasure at the rate of over $4,000.00 per day that you can afford to wait long on this deal? The stock will not be sold much longer at 8 cents per share. Show your colors and get on the right side of the oil troubles by securing some of the stock at once. This company is working on practical lines, is following a safe and certain course and will be the greatest success of the age. When you invest you not only make doubly sure of great returns for your money but assist to strike a blow for justice in the oil fields.

Now Is the Time to Buy Your Stock.

For a Few More Days the Uncle Sam Co. Will Sell Treasury Stock as Follows;

500 Shares	$40.00	2,500 Shares	$200.00
1,000 Shares	$80.00	5,000 Shares	$400.00
1,500 Shares	$120.00	10,000 Shares	$800.00
2,000 Shares	$160.00		

The Stock is non-assessable and the par value is $1.00 per share.

The time to invest in a company is when that company is selling its ground floor stock. When you buy stock in the Uncle Sam Company at $80 per 1,000 shares, you pay no more than hundreds of other investors. The company is strong now, and is hourly growing stronger. By September 1st you will see this stock up close to the dollar mark. Why not help yourself, and also help this company, by remitting today for at least 1,000 shares of stock?

INSTALLMENT OFFER GIVES EVERY MAN A CHANCE.

The Uncle Sam company would rather have ten men go together and take one thousand shares each than to have a few men take a large amount of the stock. The company wants men who have a vote and who will stand by the company when it has criminal discrimination to contend with. Better see your friends and raise a club and take ten, fifteen or twenty thousand shares right now.

Subject to raise without notice the company will sell stock as follows on installments:

500 shares $5 cash, with 5 monthly payments of $8.
1,000 shares $10 cash, with 5 monthly payments of $16.
2,000 shares $20 cash, with 5 monthly payments of $32.
3,000 shares $30 cash, with 5 monthly payments of $48.
4,000 shares $40 cash, with 5 monthly payments of $64.
5,000 shares $50 cash, with 5 monthly payments of $80.
10,000 shares $100 cash, with 5 monthly payments of $160.
20,000 shares $200 cash, with 5 monthly payments of $320.

Personnel of the Company.

James Ingersoll, President.
J. H. Ritchie, Vice President.
H. H. Tucker, jr., Secretary and Treasurer.

The above men promoted and placed on a dividend-paying basis the great Publishers' Oil company of Cherryvale. The great bulk of the stock of the Publishers' company was sold from 8 to 12 cents per share. This stock steadily advanced until it reached 35 cents per share and was taken off the market, and you cannot buy out a single one of the above men today even at $1.25 per share.



Write Us On These Points.

If you are willing to buy Fuel oil, Kerosene, Gasoline, etc., from the Great Independent Uncle Sam company write us. Let us know where your sympathies lie in this struggle for a square deal in the oil fields, and a square deal for every consumer.



ONE CORNER OF UNCLE SAM REFINERY GROUNDS.—PHOTO MAY 5.

Will Be Selling Refined Oil In Seven Weeks.

The Uncle Sam company advertised at the start that it would be delivering refined oil in neighboring towns in 120 days. Well, that is just what it will do. This company is under the management of men who finish what they start. They claimed in advertisements nine weeks ago they would be Johnny on the spot with the refined oil and we are coming right along on schedule time. Now you can judge the future by the past, when we tell you that in less than six months you will see the stock of this company selling at ten times the present price. We say this as business men, knowing the value of a dollar. The more money you invest the greater will be your rewards. You can secure fifty thousand shares for $4,000.00. Better see a few of your friends and get up a club, for the stock will soon double in value.

Another Great Well on the Uncle Sam Refinery Farmers' Holdings.

The Uncle Sam company now owns or controls seventy-seven oilers, four pumping plants, over 7,000 acres of oil lands, has miles of lateral pipe lines completed and is laying more. The company is growing stronger every hour. Come down to Cherryvale and drive over our vast holdings and you will realize the strength of this great company and the wonderful value and future of the stock.

Right of Way Secured Through Shawnee County Last Week, Though Wilson Today and Woodson, Coffey, Osage and Douglas Counties Will Follow In Rapid Succession.

Inside of three weeks Uncle Sam workmen will be putting down the first half of the big pipe line. The right of way will be all secured in less than fifteen days. The Uncle Sam company is doing things. Where is there an enterprise in the whole country today that is getting the move on itself that this company is showing? How long do you suppose the stock of this company will be selling under 50 cents per share with such conditions existing as this telegram from Judge Rightmire shows up? He says: "County commissioners of Wilson country granted right of way today. Other counties will soon follow, as special meeting of county commission boards were arranged last week in Woodson, Osage and Douglas counties. Everybody is enthusiastic over the pipe line. Farmers and business men even going so far as to offer to build lateral lines to the county seats of the various counties from the main line and making one big distributing point for each county."

Everybody is whooping it up for this refinery and grand success is assured. Cash is rolling in from the four corners of the country for stock and it's now or never with you if you want 8-cent stock.

HOW TO SEND MONEY

Make your checks, drafts or money orders payable to the Uncle Sam Company or to H. H. Tucker, Jr., secretary. Write your name plainly, tell us how, or to whom you want the stock issued, and we will forward stock by return mail, and also send you weekly report thereafter, thus keeping you fully posted. Address,

H. H. TUCKER, JR., Sec'y
CHERRYVALE, KANSAS.

INSURE YOUR 1905 MILK PROFITS

by purchasing a

DE LAVAL CREAM SEPARATOR

Any one who has cream to separate can find no greater or safer insurance of his 1905 milk profits than is offered by the use of a DE LAVAL machine. The DE LAVAL is not an experiment to be tried out at the buyer's expense, but its practicability in every feature of separator efficiency, including clean skimming, durability, simplicity and ease of operation, has already been demonstrated by over 600,000 users to be overwhelmingly superior to that of any other separator or creaming system. As it has always been, the DE LAVAL CREAM SEPARATOR is to-day universally recognized in every civilized country of the entire world to be the very "keystone" of dairy prosperity, and the inexperienced separator buyer who overlooks this long established fact simply stands in his own light and disregards his own best interests. Write to-day for catalogue and other particulars.

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1213 FILBERT STREET, PHILADELPHIA. | 74 CORTLANDT STREET, | 75 & 77 YORK STREET, TORONTO.
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THE CREAM CHECK SYSTEM

Will make your cows pay more money in actual cash than you can realize by any other system.

It Is Done This Way:

Use one of our separators bought on easy payment plan and deliver your cream to one of our 500 cream receiving stations. In return you get our check two times a month with a complete statementfyur account attached.

At each of our stations you can see your cream weighed, sampled and tested. Our butter-fat prices are quoted in advance of delivery and the test of each delivery of cream enables you to know at once the actual cash value of each can delivered. If you need money before checks are due we advance cash on your account. If you can't reach one of our stations you can ship direct. If you have no separator and want one, write us for information about the De Laval and we will tell you how a little cream each month will pay for one.

Ask us any question you please about any phase of the dairy business.

THE CONTINENTAL CREAMERY CO.

TOPEKA, KANSAS.

In the Dairy

Milk Preservatives.

EDITOR KANSAS FARMER:—Can you tell me if there is anything one can put in milk to keep it sweet that is not unlawful to use? Did you ever hear of "Milkkeep," sold by the Standard Supply Co., Chicago, Ill.? W. F. R.

Chase County.

I know of no chemical that will keep milk sweet and in a natural and palatable condition without coming under the head of preservatives which are injurious if used in excessive quantities and of course are unlawful to be used. Nearly all milk preservatives are made from the following chemicals: formaldehyde, sodium borate, salicylic acid and benzoic acid. They are composed of either one of these or a combination of two or more. Other ingredients may be used as a sweetener. These chemicals are entirely harmless if used in small quantities, but if used in such quantities as to become preservatives such as is desired for commercial work they become injurious.

"Milkkeep," such as we know it, comes under the head of preservatives.

O. ERF.

Rechurning Old Butter.

EDITOR KANSAS FARMER:—As I am a subscriber for your paper, I would like to have you answer the following: I sell lots of butter; sometimes I have some left; would like to have some one tell me how to run the old butter back to cream, and churn it over again. O. T. NICHOLS.

Comanche County.

Replying to the inquiry of Mr. O. T. Nichols in regard to rechurning old butter in sweet cream will say that we have had no experience in anything of this kind. It is nothing else than making renovated butter, for the making of which without a license there is a Government fine of from $500 to $1,000, unless stamped "renovated." This butter would naturally be more or less unwholesome and we could not advise any one to indulge in a practice of this kind, and therefore will not suggest any ways or means by which it could be done. I will suggest, however, that you use scrupulously clean methods in making butter and instruct your patrons to send only such cream to your creamery as can be made into first-class butter.

The following suggestions will aid the farmers in producing such milk: Pay one or two cents more per pound for butter-fat in sweet than in sour cream. Cream could be shipped from any part of this State and arrive at the creamery perfectly sweet if handled properly. Purchase only such dairy utensils as can be easily cleaned. Unnecessary corners, joints, crevices and angles should be filled with solder. Pressed tin or seamless utensils are the most sanitary. Never use wooden buckets for they contain hundreds of pores, making cleaning almost impossible.

Thoroughly wash all dairy utensils and every part of the separator every time after using. Some good washing-powder should be dissolved in the water used. Then scald or steam the parts; let dry while hot, using no cloths for drying. Sunlight and pure air are the cheapest and most effective means of keeping utensils sanitary. Separate milk while warm from the cow; cool at as low a temperature as possible, immediately after seperating. Use Star aerator and cooler for best results. Keep cold until shipped, and ship every day.

With the best cream, an up-to-date butter-maker can turn out a product that will not only top the market but there will be such ready demand for it that he will dispose of his butter as soon as it is made, and will not be bothered with making old butter over again. If you ever have any butter on hand for a few days, put it into cold storage and it will bring a better price and be more wholesome for the consumer than if renovated.

CHAS. W. MELICK.

It's Easy To Wash



With the special stiff bristled brush which comes with each machine it takes about four minutes to wash the four simple parts that make up the bowl of the

U. S. CREAM SEPARATOR

That's a big saving in time and labor over washing crocks and pans or the complicated bowls of other separators. The cleaning of the separator bowl is an important item, as it affects very materially the quality of the cream. Cream that has been run through an imperfectly cleaned separator does not bring the highest price, and cannot be made into the best butter. All the highest scores on **dairy** butter at the St. Louis World's Fair were won by butter made from cream skimmed by a U. S. Separator.

"Better butter" is only one of its many advantages. Our free booklet tells them all fully. Write for one to-day.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Distributing Warehouses at Chicago, Minneapolis, Omaha, La Crosse, Wis., Sioux City, Ia., Kansas City, Mo., Salt Lake City, Utah, San Francisco, Cal., Portland, Ore., Buffalo, N. Y., Portland, Me., Montreal and Sherbrooke, Que., Hamilton, Ont., Winnipeg, Calgary, and Vancouver.

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ADDRESS ALL LETTERS TO BELLOWS FALLS, VT

Sharples Tubular SEPARATORS

How would you buy a million dollars' worth of separators? You would learn everything about them. Try them everywhere, everyhow. Investigate from "A" to "Izzard." The John Deere Plow people did so and have bought, outright, after exhaustive trials and thorough examination, nearly

A Million Dollars Worth

of Tubular Cream Separators. They bought to sell—staked a million, and a world wide reputation, on Tubular quality. More positive proof of Tubular superiority is impossible. The low supply can—simple, easy to wash, tubular bowl—are found only in Sharples Tubular Separators. Big implement dealers—the strongest houses in the world, those who get first choice—know this and select the Tubular. Such are the Dairy Outfit Co., England; Richter & Robert, Germany; S. Plissonier, France; Newell & Co., Australia; Runciman & Co., Argentine. **In their judgment Tubulars are best and their judgment is dependable—is right.** Ask for catalog No. D165.



Sharples Co. Chicago, Illinois | **P. M. Sharples West Chester, Pa.**

The Sin of Sins.

It causes the child to cry and the aged to fret.

It mars the face of beauty more than can a hot iron.

It chokes and blights the tender plant of friendship.

It is the poison in the cup of love.

It manacles the hand that would minister.

It desecrates God's house and service.

It throws the pall of a blacker night over the beauties of earth. It bears the seal of society's approval.

It robs the poor man of his crust.

It is at home in the family, in the place of business, in the resort of pleasure.

It creates the hypocrite.

It puts the thorn in the wreath of success.

It erected the cross on Calvery and nailed the Lord thereon.

It closed the gates of Eden and opened the gates of hell.

Its incarnation is called Satan.

It is, finally, plain, commonplace, unvarnished, every-day selfishness.—Golden Rule.

When writing advertisers please mention this paper.

Experimenting With Dairy Cows.

Excerpts from Bulletin No. 125, Kansas Experiment Station, by D. H. Otis.

(Continued.)

To further show the variation in the same milking, and to emphasize the importance of clean milking, a test with six cows, covering three days, was made by weighing and sampling the milk before the cow was milked entirely clean. The milker then finished stripping the cows, and a sample of the entire milking was taken. These samples were tested for butter-fat with the following results:

TABLE XXXV.—Effect of Leaving the Strippings.

June 25, P. M.

	Without strippings		With strippings	
Cow No.	Weight	Test	Weight	Test
14.....	4.0	4.4	5.5	3.8
72.....	3.5	3.0	5.6	4.8
128.....	10.2	2.8	10.7	5.4
130.....	13.0	3.55	14.3	4.2
131.....	11.0	2.2	15.5	3.8
168.....	7.9	3.3	9.4	3.6
June 26, A. M.				
14.....	7.5	4.6	10.5	5.0
72.....	4.5	2.6	9.2	4.8
128.....	12.7	2.5	14.1	3.1
130.....	15.7	3.6	17.6	4.2
131.....	13.5	2.4	15.5	3.3
168.....	10.0	3.3	10.9	3.4
June 26, P. M.				
14.....	4.9	3.8	6.0	3.9
72.....	5.9	3.5	6.6	4.6
128.....	9.2	2.75	9.9	2.9
130.....	12.2	3.6	13.8	4.2
131.....	13.6	3.6	15.4	4.2
168.....	7.8	3.3	9.0	4.3
June 27, A. M.				
14.....	7.0	2.9	9.2	3.5
72.....	7.2	4.0	8.8	5.0
128.....	11 1	2.7	11.6	2.9
130.....	13.8	2.9	17.3	3.5
131.....	14.7	3.1	16.2	3.4
168.....	8.7	3.4	9.9	3.6
June 27, P. M.				
14.....	8.0	4.95	8.2	5.5
72.....	5.0	4.2	6.9	5.1
128.....	10.3	2.8	10.8	2.9
130.....	11.9	3.3	14.7	3.8
131.....	16.2	5.0	17.1	5.2
168.....	8.5	3.3	9.8	3.6
June 28, A. M.				
14.....	6.5	3.4	9.3	3.7
72.....	7.2	3.6	8.2	4.1
128.....	11.5	2.7	11.6	2.9
130.....	15.4	3.1	17.3	3.6
131.....	15.0	3.0	16.1	3.5
168.....	9.7	3.35	10.6	3.5

Daily Variations.—Testing of individual cows shows that there is a variation from day to day. See Table XXXVI.

TABLE XXXVI.—Daily Variations of Individual Cows.

Feb 1898.	Time of milking.	Cow 1. per ct.	Cow 2. per ct.	Cow 3. per ct.	Cow 5. per ct.	Cow 6. per ct.
1...	A. M.	3.4	3.6	3.4	2.8	3.7
	P. M.	4.4	3.6	4.0	2.0	4.0
2...	A. M.	3.4	4.0	3.3	3.9	3.3
	P. M.	4.2	3.8	4.2	5.2	4.2
3...	A. M.	3.2	3.1	3.4	2.4	3.4
	P. M.	4.1	2.8	4.2	3.0	4.2
4...	A. M.	3.6	4.0	3.1	2.4	3.5
	P. M.	4.0	2.7	3.6	4.2	3.4
5...	A. M.	3.1	3.9	3.4	3.7	3.3
	P. M.	4.4	3.0	3.8	3.6	3.7
6...	A. M.	3.8	3.6	3.4	3.3	3.2
	P. M.	3.6	3.4	3.6	1.5	3.6
7...	A. M.	3.4	3.4	3.3	2.8	3.7
	P. M.	3.8	3.3	3.3	5.8	3.7

From the above table, it will be seen that it is not fair to take the test of a single milking, or even a single day, as representative of what a cow will test on an average.

Variation in the Test of Herds.—Variations also take place from day to day in the herd; usually, however, the herd variation is much less marked than that of the individual cows. The reason for this is that a variation upward in one cow is often offset by a variation in the opposite direction in another cow.

The test of the milk from the herd will also vary from month to month; this is also shown in Table XXXVII.

Variation Under Regular Treatment.—A large number of the cows on the college farm have been tested for a number of consecutive milkings, and we invariably nnd more or less variations, not only in the test, but in the quantity of milk and butter-fat. Table XXXVIII, giving our experience with two of our cows, will suffice to show the extent of this variation.

TABLE XXXVIII.—Variations of Cows Under Regular Treatment.

February, 1898.

Cow No. 6.

Day.	Time.	Milk lbs.	Test per cent.	Butter-fat lbs.
2...	A. M.	11.7	3.3	0.39
	P. M.	10.1	4.2	.42
3...	A. M.	11.85	3.4	.40
	P. M.	9.4	4.2	.39
4...	A. M.	12.6	3.5	.44
	P. M.	10.0	3.4	.34
5...	A. M.	12.8	3.3	.42
	P. M.	9.7	3.7	.36
6...	A. M.	12.0	3.2	.38
	P. M.	9.25	3.6	.33
7...	A. M.	11.8	3.7	.44
	P. M.	9.45	3.7	.35
8...	A. M.	12.3	3.4	.42
	P. M.	9.0	3.6	.32

Cow No. 18.

Day.	Time.	Milk lbs.	Test per cent.	Butter-fat lbs.
22..	A. M.	9.1	3.6	0.33
	P. M.	7.0	3.5	.25
23..	A. M.	9.8	3.4	.33
	P. M.	6.7	3.6	.24
24..	A. M.	9.0	3.7	.33
	P. M.	6.9	3.8	.26
25..	A. M.	9.0	3.4	.31
	P. M.	6.9	3.9	.27
26..	A. M.	9.1	3.8	.35
	P. M.	6 8	3.8	.26
27..	A. M.	9.0	3.8	.34
	P. M.	6.9	3.6	.25
28..	A. M.	9.4	3.4	.32
	P. M.	7.0	3.9	.27

Variations During Lactation Period.—After the first few weeks there is a gradual increase in the per cent of butter-fat as the lactation period advances. This is not always uniform, as will be seen from Table XXXIX.

TABLE XXXIX.—Variations in Test During Lactation Period.

Test for 1902 (Expressed in Per Cents.)

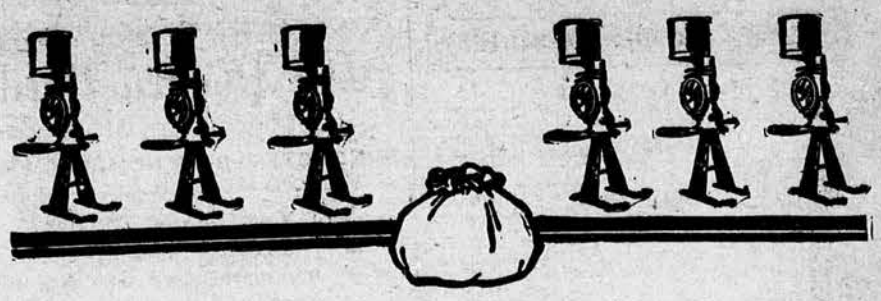
Cow No.	Av. for year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
14....	3.7	3.6	3.7	3.4	3.5	3.8	4.6	4.4	4.0	...	...	...	4.0
20....	4.1	4.2	4.2	4.4	4.2	4.7	6.4	7.6	...	...	3.6	3.5	3.9
58....	5.0	4.7	4.6	4.4	4.7	4.9	5.2	5.2	4.9	5.5	6.9	6.2	5.8
64....	4.4	4.3	4.6	4.6	4.5	4.7	5.1	5.3	...	...	4.2	4.1	4.5
66....	3.4	3.4	3.4	3.4	3.2	3.5	4.3	4.9	...	4.1	3.2	3.5	3.6
70....	3.6	3.8	3.9	4.0	3.8	3.6	4.0	4.0	...	...	3.5	3.1	3.5
128....	3.1	3.0	2.8	2.8	2.9	2.9	3.2	3.3	3.7	4.9	3.6	...	3.3
130....	4.5	4.8	4.7	4.7	4.7	4.5	4.8	4.6	...	3.8	4.2	4.3	4.5
131....	4.5	4.5	4.7	4.4	4.7	4.9	5.0	5.5	5.2	...	4.2	4.3	4.6
166....	3.4	...	3.8	3.1	3.1	3.3	3.3	3.5	3.2	4.1	4.4	4.2	...

Variations in Colostrum.—The first milk drawn after the calf is born is called colostrum. It seems to be especially adapted to the young calf. It varies from the ordinary milk in that it contains less water and fat and a larger per cent of albuminous matter, including broken-down cells and cell-walls of the udder. Very few tests have been made at this station of colostrum milk, but the following example indicates the possible scope of the variation. The third-best cow in the herd calved in the afternoon, and that night her milk tested 4 per cent butter-fat, and the next day 2.9 per cent for each milking. On the evening of the third day the test had run up to 4.9 per cent, but decreased to 4.2 per cent the next day. The fifth day it tested 4.7 per cent in the morning and only 3 per cent in the evening. On the sixth day the test took a sudden jump to 6.6 per cent in the morning and 8.7 per cent in the evening. On the morning of the seventh day it fell to 4.4 per cent, and in the evening to 2.2 per cent. It returned to and remained normal on and after the eighth day. In this case the highest test, 8.7 per cent, occurred on the thirteenth milking, and the lowest, 2.2 per cent, on the fifteenth milking. The greatest difference (4.3 per cent) between two successive milkings occurred between the thirteenth and fourteenth milkings. Although there was this great fluctuation in fat the milk seemed to be perfectly wholesome, and was used after the ninth milking.

(To be continued.)

TABLE XXXVII.—Monthly Variation of Herd.

	1898		1899		1900		1901		1902	
	Number of cows.	Test.	Number of cows.	Test.	Number of cows.	Test.	Number of cows.	Test.	Number of cows.	Test.
January	17	3.64	21	4.68	22	4.00	26	3.95	21	3.91
February	19	3.70	21	4.73	22	3.80	26	4.07	32	3.88
March	19	4.05	19	4.74	24	3.97	27	4.06	30	3.74
April	29	4.15	24	3.96	24	3.73	28	3.97	31	3.82
May	30	3.80	22	4.01	22	3.69	24	3.96	31	3.98
June	30	3.96	25	3.86	21	3.79	26	4.08	30	4.16
July	30	3.99	25	3.94	23	3.87	24	3.54	29	4.16
August	30	3.94	23	3.97	25	3.73	21	3.68	22	4.05
September	30	4.15	22	4.17	25	3.97	22	3.10	25	4.63
October	30	4.45	24	3.16	25	4.21	21	3.82	26	4.42
November	30	4.44	24	4.07	27	4.39	20	3.72	26	4.27
December	28	4.90	26	4.31	25	4.18	22	4.02	27	4.36



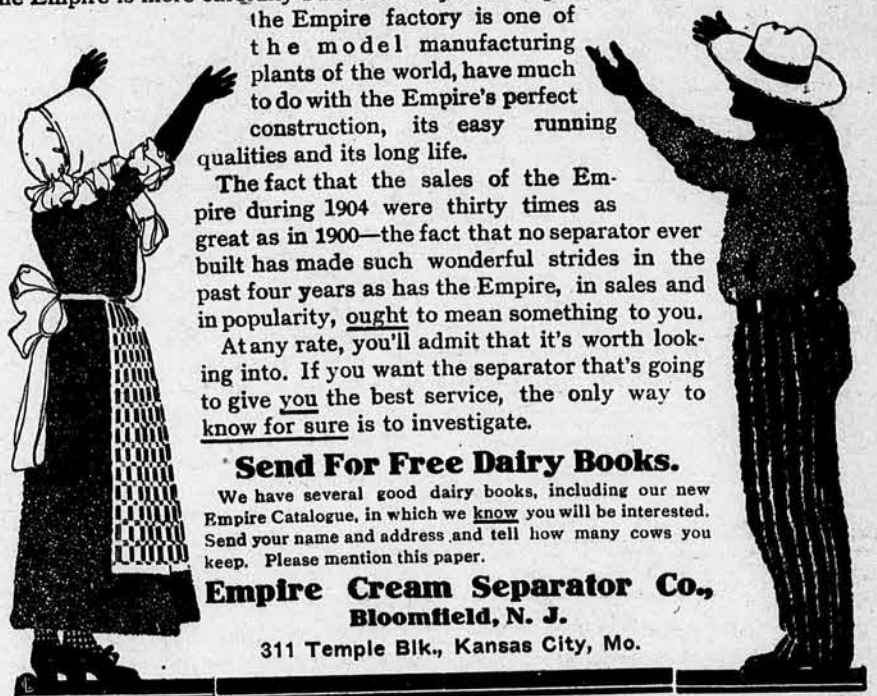
"It Makes the Most Dollars for You"

Those who have it, wouldn't give it up.
Those who know of its merits, want it.
Those who investigate it, buy it.

We don't expect in this advertisement to prove to you that the Empire Cream Separator is the only Separator a sensible farmer would think of buying, but we do expect to convince the intelligent man who keeps milch cows that his own best interests will be served by investigating the merits of the

Easy Running EMPIRE Cream Separator

You will find that it is unquestionably the simplest of all separators. That means few parts—little friction—easy running—little wear—few repairs—little oil—no trouble—long life—bigger profits—more dollars for you. The fact that the Empire is more carefully built than any other separator made; the fact that the Empire factory is one of the model manufacturing plants of the world, have much to do with the Empire's perfect construction, its easy running qualities and its long life.



The fact that the sales of the Empire during 1904 were thirty times as great as in 1900—the fact that no separator ever built has made such wonderful strides in the past four years as has the Empire, in sales and in popularity, ought to mean something to you.

At any rate, you'll admit that it's worth looking into. If you want the separator that's going to give you the best service, the only way to know for sure is to investigate.

Send For Free Dairy Books.

We have several good dairy books, including our new Empire Catalogue, in which we know you will be interested. Send your name and address and tell how many cows you keep. Please mention this paper.

Empire Cream Separator Co.,
Bloomfield, N. J.

311 Temple Blk., Kansas City, Mo.

YOU'RE NEEDED

From St. Louis, Hannibal or Kansas City to Galveston or San Antonio via the Missouri, Kansas & Texas Railway is a stretch of over one thousand miles of territory, capable of sustaining double the present population. A thousand industries, a fertile soil, a wonderful produce of plants and crops, oil, gas and minerals are to be found. Peopled by eager, pushing, wide-awake citizens who believe in the future and see the virtue of encouraging enterprises of every description and of getting more and better facilities, the opportunity is apparent.

The Southwest needs workers. More men are needed—you're needed. There are vast areas of land not yielding the crops of which it is capable. The same thing is true of the towns. Few lines of business are adequately represented. There are openings for mills and manufacturing plants, small stores, newspapers and lumber yards. The oil and gas fields of Kansas, Indian Territory and Oklahoma are practically new and offer wonderful opportunities for development along commercial lines.

With its present needs and opportunities, the prospects are brighter and the future more hopeful in the Southwest than in the older and more densely populated States. Why not investigate conditions and satisfy yourself?

AN EXCEPTIONAL OPPORTUNITY

On May 2d and 16th, excursion tickets will be sold to Kansas, Indian Territory, Oklahoma and Texas, at

ONE FARE PLUS $2.00 FOR THE ROUND TRIP

Take advantage of this opportunity and see the Southwest for yourself.

We are in possession of all sorts of information valuable alike to the investor and homeseeker. If you are interested, tell us what you want, how much you have to invest and we will gladly furnish the information.

Write to-day for a copy of our book "Business Chances." It's free. Address

THE MK AND T MISSOURI, KANSAS & TEXAS RY.

GEORGE MORTON,
G. P. & T. A. Box 910, St. Louis, Mo.

POULTRY BREEDERS' DIRECTORY

PARK VIEW FARM
WHITE PLYMOUTH ROCK EGGS for sitting—Fine stock; farm raised. Price, $1 for 15; special price by the hundred. Shipped by express, carefully packed, anywhere. Mrs. O. E. Walker, Route 8, Topeka, Kans.

PURE-BRED ROSE COMB BROWN LEGHORN EGGS—15 for $1; 50 for $2.50; 100 for $4. Mrs. John Holzhey, Bendena, Doniphan Co., Kans.

SILVER WYANDOTTES exclusively; pure-bred farm range; 1st prizes twelve years. Nice fertile eggs, 100, $4. Mrs. J. W. Gause, Emporia, Kans.

EGGS—From full-blood S. C. B. Leghorns, $1.25 for 30. Mrs. A. G. Page, Route 1, Eudora, Kans.

BUFF LEGHORNS EXCLUSIVELY—Eggs $1.75 per 50; $3 per 100. J. A. Reed, Route 3 Wakefield, Kans.

BARRED AND WHITE PLYMOUTH ROCK Eggs, $2 per 15. Hackim and Bradley strains, scoring 93½ to 94½. Mr. and Mrs. Chris Bearman, Ottawa, Kans.

WHITE WYANDOTTES—Choicely mated and free range stock. Eggs, $1.50 per 15. Incubator eggs, $4 per 100. L. D. Arnold, Abilene, Kans.

FOR SALE—White Plymouth Rock eggs, $1 for 15. R. F. Meek, Hutchison, Kans.

WHITE ROCK AND BARRED ROCK EGGS for hatching, 75 cents for sitting of 15, either kind. D. S. Thompson, Route 1, Welda, Kans.

FILL YOUR INCUBATOR with eggs of my utility and beauty strains. Barred and Buff Plymouth Rocks, White Wyandottes, S. C. Black Minorcas, S. C. White and Brown Leghorns. Fresh eggs, carefully packed, $5 per 100; $3 per 50; $1.50 per 15. James C. Jones, Leavenworth, Kans.

RHODE ISLAND REDS—A hardy, early-maturing, general-purpose fowl; original stock from the East. Eggs per 15, $1.25; 30, $2.00. Mrs. G. F. Kellerman, Vinewood Farm, Mound City, Kans.

R. C. W. LEGHORN EGGS $1 per sitting; $1.50 per two sittings; $5 per hundred. Stock excellent. Mrs. A. D. Corning, Route 1, Delphos, Kans.

FOR SALE—Scotch Collies. One male about full grown; pure stock and fine individuals, but cannot furnish pedigree. Price, $5. Females about 4 months old, of best stock, with pedigree. Price, $5. Hill Top Farm, Parkville, Mo.

BUFF COCHIN EGGS from prize-winning strains, $1 for 15. H. A. Thomas, Scranton, Kans.

GOLDEN WYANDOTTES—Eggs from vigorous farm raised fowls, $1 per 15. Mrs. S. Goldsmith, Route 3, Abilene, Kans.

MAPLE HILL Standard-bred S. C. B. Leghorns champion layers, none better; cockerels from State prize-winners. $1 per sitting; $5 per 100. Mrs. D W. Evans. Edgerton, 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, Kans.

SILVER WYANDOTTES EXCLUSIVELY—Great layers. Fine stock eggs, 15 for $1; 30 for $1.75. Address W. C. Koenig, First National Bank Bldg., Nortonville, Kans.

FOR SALE—Barred Plymouth Rock eggs, from 40 large, fine, rock-shaped, single-standard hens. Orchard range, mated with standard-colored males, scoring from 91 to 92½, by Russell & Rhodes. Best eggs in the State for $1 for 15. A. C. Rait, R. F. D. 4, Junction City, Kans.

WHITE WYANDOTTES—Eggs for hatching from choice matings, $1 per 15; $4 per 100. S. W. Artz, Larned, Kans.

BLACK MINORCAS—Biggest layers of biggest eggs. Eggs for hatching, $1.50 per 15. Also at same price, eggs from choice mating of Light Brahmas, Partridge Cochins, Buff Orpingtons, Barred and Buff Plymouth Rocks, White and Silver Laced Wyandottes, Rhode Island Reds, Rose and Single Comb White and Brown Leghorns, American Dominiques, Pit Games, Houdans, White Crested Black Polish, White Crested White Polish, Buff Cochin Bantams. James C. Jones, Leavenworth, Kans.

WHITE WYANDOTTES—Large birds, farm range. Eggs, 75 per 15. Henry Harrington, Clearwater, Kans.

WHITE WYANDOTTES EXCLUSIVELY—The kind that always lay; $34 worth sold during February from 80 hens. Eggs, 5 cents each, or $4 per 100. S. Bailey & Wife, Route 3, Independence, Kans.

S. C. W. Leghorns and Buff Rocks. Winners at State Fairs. Eggs, $1 per sitting. J. W. Cook, Route 3, Hutchinson, Kans.

FOR SALE—All kinds of fancy pigeons, reasonable. Toulouse geese eggs, $1 per sitting; Pekin and Rouen duck eggs, 18 for $1. Muscovy duck eggs, 10 for $1; White Holland turkey eggs, 9 for $2; poultry eggs, 15 for $1, from the following kinds: Barred Plymouth Rocks, Buff Cochins, Houdans, S. S. Hamburg, Cornish Indian Games, Buff, White and Silver Laced Wyandottes, Brown, White and Buff Leghorns, Golden Seabright Bantams, Pearl and White Guineas, Peacocks. Write for circular. D. L. Bruen, Platte Center, Neb.

S. C. B. LEGHORNS EXCLUSIVELY—Eggs for hatching from fine pure-bred stock at $1 per 15. Write for prices on larger numbers. J. A. Kauffman, Abilene, Kans.

WHITE PLYMOUTH ROCKS Exclusively. Two grand pens scored stock. Eggs from my best matings, $1.50 per 15; $2.50 per 30. Incubator eggs, $5 per 100. M. B. Turkey eggs, $2.50 per 11. J. C. Bostwick, Route 2, Hoyt, Kans.

FOR BUFF PLYMOUTH ROCK eggs, from best stock, send to Gem Poultry Farm; 15, $2; 30, $3.50. Pure M. Bronze turkey eggs, 11, $3. C. W. Peckham, Haven, Kans.

FOR SALE—Eggs, express prepaid, B. P. Rocks, $1 per 15; $4.50 per 100. S. S. Hamburgs, $1.50 per 15; $7 per 100. Mammoth Pekin Ducks. Also a few high-scoring Hamburg cockerels for sale. Circular giving score and full description free. Mrs. Walter Roswurm, Route 2, Council Grove, Kans.

FOR SALE—Two male Scotch collies, nearly full grown. Eligible to registry, strong in the blood of Metchley Wonder. Price, $10 each. Geo. W. Maffet, Lawrence, Kans.

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

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

SCOTCH COLLIE PUPS—Four more litters of those high-bred Collies, from 1 to 3 weeks old, for sale. Booking orders now. Walnut Grove Farm, H. D. Nutting, Prop., Emporia, Kans.

256 TO 278 EGGS A YEAR EACH. Our Barred Rocks bred for **business.** Profits doubled by new methods in breeding, hatching, and feeding. Instructive catalog free. F. Grundy, Morrisonville, Ill.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Are Your Chicks Thriving?

These are the days of growing chicks and great care and attention should be given them just now, so that there may be no backset in their growth. They should be fed several times a day with pure, wholesome food, preferably in the dry state. Sloppy food fed to young chicks has been found to be a frequent cause of diarrhea and disarrangements of the bowels, causing a great percentage of mortality among them. All the small grains are good feed for chicks, such as millet, hemp, wheat, Kafir-corn and buckwheat. If fed a variety of these grains, they will thrive finely. Young chicks, if possible, should be allowed to have free frange, where they pick up many a sweet morsel that they could not get if confined. Plenty of grit and gravel should be provided for them from the start, also some kind of animal food, such as beef-meal, beef-scraps or dried blood. Milk is good for them, either sweet or clabbered, and if made into cottage cheese, it will be all the more palatable and appetizing. It is scarcely necessary to emphasize the necessity of pure water being constantly before them. They should not be allowed to drink out of stagnant pools. Freedom from lice is also another necessity to the thrift of young chickens. If lice are allowed to thrive unmolested on the young chicks, the latter will soon droop and die, for the lice are continually sucking their life-blood. Liberal applications of insect powder will keep down the lice. Sometimes for large head-lice it is necessary to grease the heads of the chicks with grease in which a few drops of carbolic acid has been stirred. Some may think that this is a great deal of trouble to take for the sake of a few chicks, but unless you take proper care of them now, you will have no broilers later on; neither will you have any birds to take to the poultry shows or to lay eggs next winter.

Feeding Ducklings.

For rapid growth with ducklings, they must be confined in small pens, and these should be changed frequently, before the ground is soiled. Plenty of gravel and grass should be provided, for these are absolutely necessary. The food should be stimulating, yet proportioned to the strength of the digestive organs of the young ducks. Bread or cracker-crumbs soaked in milk, with a small quantity of finely chopped meat should form the food for the first few days. Then add cooked vegetables, also a mixed grain ration, oats, wheat, cracked corn with a little linseed and meat-scraps. Cornmeal is not a good feed for ducklings, save when used in a combination. It is too heating and irritating. Take thirty pounds each of corn, shorts, and oats, and grind together and add five pounds of linseed and five pounds of meat-scraps. Mix a portion of this with skimmed milk and cook thoroughly, and after twenty-four hours pound or grind, and feed dry or mixed with cooked vegetables, especially turnips. The thorough cooking of food is a benefit to the tender ducklings, though adding nothing to its nutritive value. Feed regularly and often but allow nothing to remain and sour in the pans or dishes. The troubles arrive with excessive feeding, or improper feeding of a single element to the exclusion of others. Ducklings are very tender things for the first ten days or two weeks but if you raise them to that age, they get to be very hardy and will thrive after that with less care than that given to young chicks.

Poultry Notes.

Roup among fowls is very difficult to cure. One of the latest remedies is to add a tablespoonful of chlorate of potash to each quart of drinking water, and annoint the face with a mixture of one part spirits of turpentine and three parts sweet-oil once a day, and pour ten drops down the throat.

Pure charcoal, or the charred wood from the stove, when fresh, is an excellent aid in arresting bowel complaints in hens, and is both simple and harmless. Where the hens have not had a variety, parched grain, nearly burnt, affords an agreeable change and serves nearly the same purpose as charcoal.

The Gillies Publishing Co. have sold their Poultry Gazette to the McClaskey-Jesup Co., of Clay Center, Neb., from which place it will be published hereafter. Mr. Geo. H. Gillies had made quite a success of the Gazette in the seven years he has been publishing it, until it had become one of the leading poultry journals of the Nation. This leaves Topeka and Kansas without any exclusive poultry journal, and poultry fanciers should patronize more liberally the KANSAS FARMER, both through the subscription and advertising departments. Several advertisers in the poultry department of the KANSAS FARMER have told us it was the best advertising medium for the sale of poultry and eggs that they have used this season, to which the writer can add that he has had more returns from his advertisement in the KANSAS FARMER than from all other sources combined, and he has advertised in dozens of poultry and farm journals this season. If poultry-fanciers will only take hold of this matter we can make of the KANSAS FARMER one of the best methods of disseminating poultry literature in the country. We would be glad to hear from more of our poultry readers as to their methods of hatching and rearing chicks. "In a multitude of counselors there is safety."

Fortunes and Homes in the West.

Men and women who have not used their Homestead Right have a fortune in them if used properly and at once. The beautiful, fertile valleys of the Rocky Mountains in New Mexico and Colorado afford richer and more beautiful homes than were ever reclaimed from the broad plains of the Middle West. For 10 cents and stamp, I will send you full particulars of how to turn your Homestead Right into a fortune. P. O. Box, 343. Raton, New Mexico.

A Fire Department in Your Own Home at Low Cost. Protection Assured and Guaranteed. Endorsed by Fire Insurance Writers and Chiefs of Fire Departments Everywhere.

For one dollar, I will send postpaid to any address, my full and complete formula for making and using my celebrated dry powder fire extinguisher, the materials for which can be purchased from any druggist for a few cents per pound. So simple a child can operate them. Protect your homes, farm and ranch buildings, oil derricks and other structures. Don't pay extravagant prices for extinguishers not a whit better than mine. Its effects are instantaneous and certain. Entirely safe and as harmless as sugar to anything except fire which it destroys in the twinkling of an eye. Made in a few minutes at your home. Always ready. Never deteriorates. Keeps indefinitely in any climate. Supply your neighbors and others at a handsome profit. Splendid opportunity for farm boys to make some extra spending money. Don't delay. This offer may not appear again. Order to-day. You can not afford to be without this protection. Address, J. R. Lusk, Topeka, Kans.

One Way Rates.

Every day from March 1 to May 15, 1905. the Union Pacific will sell One-way Colonist tickets at the following rates, from Missouri River terminals, Council Bluffs to Kansas City, inclusive:

$20.00 to Ogden and Salt Lake City.
$20.00 to Butte, Anaconda and Helena.
$22.50 to Spokane and Wenatchee, Wash.
$25.00 to Everett, Fairhaven, Whatcom, Vancouver, and Victoria, via Huntington and Spokane.
$25.00 to Tacoma and Seattle, via Huntington and Portland or via Huntington and Spokane.
$25.00 to Portland and Astoria, or Ashland, Roseburg, Eugene, Albany, and Salem, via Portland.
$25.00 to San Francisco, Los Angeles and San Diego.

Correspondingly low rates to many other California, Oregon, Washington, Montana, Utah, and Idaho points.

Through Tourist cars run every day on Union Pacific between Missouri River and Pacific Coast; double berth $5.75. For full information call on or address nearest Union Pacific agent.

CURES SCRATCHES, Wind Galls, Etc.

Stonewall, Man., November 13, 1904.
Dr. B. J. Kendall Co., Enosburg Falls, Vt.
Gentlemen:—Enclosed please find a 2-cent stamp for which kindly send me your book "A Treatise on the Horse and His Diseases." I use Kendall's Spavin Cure for scratches, wind galls, etc., and find it very satisfactory. Yours truly,
B. IRWIN.

POULTRY BREEDERS' DIRECTORY

Eggs From Prize-winning S. C. B. Leghorns that are mated to win. Pen No. 1, $1.50 pen 15; pen No. 2, $1 per 15. Get prices on larger quantities. State number wanted. F. W. Boutwell, Route 8, Topeka, Kans.

PURE S. C. B. Leghorn eggs, 30 for $1; 100 for $3. New blood. F. P. Flower, Wakefield, Kans

BUFF COCHIN EGGS, $1 per 13 from rich Golden Buff; heavy feathered birds, scoring 93 to 94½. Eggs ready to ship now. Romo Martindale, Topeka, Kans.

EGGS FOR SALE—White Wyandottes, from choice matings; can ship same day order is received. Price, $1 per 15; $4 per 100. M. Schrope, Route 1 Larned, Kans.

INDIAN RUNNER DUCKS—Eggs, $1.50 per sitting. Most profitable fowl raised; 200 eggs per year. Great demand for fowls and eggs. Order now. L. D. Arnold, Abilene, Kans.

SUNNYSIDE FARM—Pure-bred S. C. B. Leghorns and S. L. Wyandottes. Eggs, 15 for $1; 100 for $4. Also Mammoth Pekin duck eggs, 13 for 50c. Ira Campbell, Edgerton, Kans.

S. L. WYANDOTTES—Pure-bred eggs, for hatching, from choice matings, at $1.50 per 15. Mrs. J. A. Magee, Larned, Kans.

EGGS FOR SALE—S. C. W. Leghorns, W. Wyandottes; $1 per 15. W. H. turkeys, $1.50 per 9. Emden geese, 20c each. W. African guineas, $1 per 17. All guaranteed pure-bred. A. F. Hutley, Route 2, Maple Hill, Kans.

WHITE WYANDOTTES Exclusively—Pure-bred and good layers. Eggs, $1 for 15. Stock all sold. Mrs. C. E. Williams, Irving, Kans.

H. M. JOHNSON Laying strain R. C. Brown Leghorn. Breeding pens selected with care in extra layers and fine points. Eggs from pens, $1.50 per 15; $3 per 45. Range flock per sitting, 75 cents; $3 per 100. H. M. Johnson, Formoso, Kans.

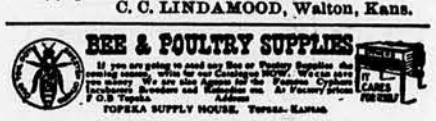
Barred Plymouth Rocks
Large, farm raised. Good winter layers. Eggs, 15 for $1; 45 for $2. Selected and carefully packed.
A. F. HUSE, - Manhattan, Kans.

BLACK LANGSHANS
Eggs from two high-scoring pens. Headed by prize-winners, $1.50 per 15. Good hatch guaranteed.
R. C. MARCH, 1313 W. Sixth, Topeka, Kans

White Wyandottes
EXCLUSIVELY
The strain that's bred to lay. Large birds, farm range. Eggs, $1 per 15; 5c each for 50 or more.
P. E. SALTER, - - Augusta, Kansas

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.

Lindamood's Barred Rocks.
Prize-winners wherever shown. Four pens mated scores 90 to 92½. Eggs, $1.50 to $2 per sitting. From flock, $3 per 100. Write for circular.
C. C. LINDAMOOD, Walton, Kans.



Rose Comb Rhode Island Reds and Barred Plymouth Rocks
Have sold all the breeding stock I can spare, but can furnish eggs for hatching at a very low price from a winter strain of layers that have layed all through the zero weather in January and February. First prize winners at Lawrence and Topeka mated. Write for circular and list of matings, telling you how we can produce fertile eggs so low. Italian bees for sale.
H. A. SIBLEY, Lawrence, Kans.

"A NINE TIMES WINNER"
Bates Pedigreed Strain of White Plymouth Rocks have been shown in nine poultry shows the past two years and
Won in Every One of Them.
If they win for us, their offspring ought to win for you. Eggs, $1.50 per 15. Elmwood strain of White Wyandottes also hold their own in the showroom. Eggs, $1 per 15.
W. L. BATES, Topeka, Kansas.

WEISS CHICK FEED
A complete food for newly hatched chicks, the best and cheapest in the West. Alfalfa stock food. Alfalfa mash egg food. Poultry supplies. Send for circular.
OTTO WEISS ALFALFA MEAL CO.
WICHITA, KANS.

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 96½, and as good as can be found anywhere. Eggs only $2 per 15; $5 per 45, and I prepay expressage to any express office in the United States. Yards at residence, adjoining Washburn College. Address
THOMAS OWEN, Sta. B, Topeka, Kans.

EGGS AT BARGAINS

Buff Orpingtons.	Partridge Cochins.
Black Langshans.	Light Brahmas.
Barred P. Rocks.	White Wyandottes.
Buff P. Rocks.	Buff Leghorns.
C. I. Games.	R. I. Reds.

All high-class stock of the best strains. For prices on larger or smaller lots write,
T. J. PUGH,
Fullerton, - Neb.

POULTRY BREEDERS' DIRECTORY.

PURE BLACK LANGSHANS—Strictly fresh eggs, 26 for $1; $3.50 per 100. Mary McCaul, Elk City, Kans.

A ROCK CUT—After May 10, Barred Plymouth Eggs, 75 cents per 15; $4 per 100. From the best strains in America. Order at once. Mrs. Chas. Osborn, Eureka, Kans.

BARRED PLYMOUTH ROCKS EXCLUSIVELY.

"Superior Winter Laying Strain" noted for size and quality. Sixteen years' careful breeding. Eggs, 15 for $1; 30 for $1.50. E. J. Evans, Box 21, Fort Scott, Kans.

WHITE WYANDOTTE

Eggs, guaranteed fertile, from heavy laying prize winners, $2 and $3 per 15.

BEECHER & BEECHER, BELLEAILLE, KANS.

POULTRY SUPPLIES

STURTEVANT'S
- Thanolice (lice powder).....25c
- Creo-carbo (lice killer).....50c
- Egg Maker.....25c
- Poultry Cure.....25c
- Roup Pills.....25c
- Medicated Nest Eggs.....5c

Conkey's Roup Cure.....50c
Buckeye Cholera Cure.....50c

OWEN & COMPANY
520 Kansas Ave., Topeka, Kans.

BEE SUPPLIES



Now is the time to buy your Bee and Poultry supplies, large stock, lowest prices. We are Western agents for the Cyphers Incubator Breeders, etc., at factory prices. Write to-day for catalogue.

TOPEKA SUPPLY HOUSE, 632 Quincy St., Topeka, Kansas

OLD TRUSTY

A record year just closed. Now is the time to outfit cheap.

Summer Prices



Same matchless Incubator and Brooder. Same plan; 40 Days Trial, 5 Years Guarantee. Catalogue free.

M. M. JOHNSON CO., CLAY CENTER, NEB.

HAWKEYE SPECIAL INCUBATOR



100-Egg Capacity $9

30 DAYS FREE TRIAL GIVEN

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TABLE OF CONTENTS

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Miscellany

Good Roads Right Now.

EDITOR KANSAS FARMER:—How many of our farmer readers want good roads? How many want them right now? It seems to me that the majority vote for the immediate improvement. Well then, citizens, it is up to you to act right now, for the State Legislature has adjourned and done but little in the matter, though perhaps all they were authorized to do. The General Government promises to do something, somewhere, some time in the future, but in all probability that would be long after the middle-aged Kansan has gone over the road for the last time and will be treading the "flowery paths of peace." Besides every one knows it is impossible for the county, State, or National Government to build permanent roadways everywhere, within the life of the present generation. If this, then, is true and 35 per cent of the people must continue to ride over dirt roads to the end of their days, some one should and will study out a way to correct the crying evil of bad roads and not wait for the local or General Government to do it, either.

Theoretically, we could accomplish the desired results by adopting the plan recommended and pursued by Mr. D. Ward King, of Missouri. His theory is to let every man "scrape before his own door" and instantly good roads extend everywhere. Practically illustrated, however, no man can, or will spend the necessary time from his business to grade and care for his roadway at the precise moment when the earth is in the condition for it; consequently, the few who keep their portion in order, will still be obliged to load their wagons with reference to the bad places over which they must pass. The strength of the chain is measured by its weakest link. But right here comes in the new thought, "cooperation," without which nothing can be or ever has been accomplished. With cooperation I believe we can utilize Mr. King's drag, and in my estimation the simplest and most effective plan would be to form "good roads clubs" to cover from one to five miles each throughout the State.

The following is but a skeleton plan, which can be changed to suit the locality and conditions: Three or five men living along the same road, should meet and form a temporary organization, agree to pay one of their number, or some level-headed teamster 25 cents per hour for actual time while he is engaged in dragging that portion of the road which will give the club members an outlet to a macadam road or some other good road. The cost of keeping this road in good order should not exceed $3 per month and probably it can be done for much less than this. From all reports which I can get in this matter it never has cost as much, and it would pay any well-to-do farmer to assume all the costs, in order to have a well-graded, hard, level road connecting his place with the town. But one will not be obliged to pay all this cost, for in all probability, 90 per cent of his neighbors will subscribe to the movement "on sight," particularly so if they have an enthusiastic leader, who has looked into this proposition and noted the interest of the Missouri State Board of Agriculture in the matter.

If, then, this theory is good for one locality is must be good for the State at large, and a good way to extend it rapidly would be to name a club after one of the newspapers and the town toward which it was going. For instance: "This is the Kansas Farmer Good Roads Club, Valley Falls," or, "This is the Kansas Farmer Good Roads Club No. 5 of Valley Falls, Kans."

Then let the KANSAS FARMER keep and send, on application, circulars describing this King road-drag, showing its dimension and how one man can easily build it in half a day, also a printed subscription sheet showing the name of the club, the place of beginning and ending of their road, and the names of the subscribers, also stating how often the road overseer shall collect for his services (the amounts being equally divided between the residents along the road, etc. In this way any one can be secretary of the club without previous experience; all it requires is an interest in better road. The blanks may cost something. Perhaps the newspapers would be willing to assume that in order to help such a good cause. I would suggest further that at the end of thirty or sixty days when the club was fully organized and equipped that such newspapers should furnish the club members with a small, neat, water-proof sign with some such wording as this: "I belong to the Kansas Farmer Good Roads Club No. 99, of Valley Falls, Kans." This would be placed in a conspicuous place in front of each club member's house and I predict very soon that the house without a sign would be conspicuous for its loneliness.

I believe that this would interest and encourage each neighborhood to work for its own interest and in time join other clubs and make one continual stretch of good roads from town to town. Please bear in mind that these words are not based wholly upon theory, for the proposition is being demonstrated at the present time by a club of twenty-five members of which I am one.

CLARENCE D. SKINNER.

Shawnee County.

Works Without Salary.

EDITOR KANSAS FARMER:—In regard to your answer to question asked by G. G. Trevert, of Rice County, as to the honesty of H. N. Gaines, I should like to give a sketch of his work and ask you as to its honesty. Of the work Mr. Gaines has been doing for the Exchange, I will simply make mention of one incident: At the meeting of the board of directors, held in Chicago in December, he made a proposition to the officers of the company that he would be willing to knock off all the salary they had voted him for the year if the other members would do likewise. One member objected. He is no more in the employ of our company. He also then told them that they had passed a resolution employing him at a stated salary for a year and that he would now annul the contract, so far as it related to him and that they could fix his compensation at whatever they saw fit. The result was or is he is not receiving any salary, and has not drawn any at all during the whole year. Does this look like dishonesty? We have an organization at Inman with $3,500 subscribed and about one-half of the same paid up. And we are judging the man Gaines by his work. If wrong, please answer in your valuable paper.

P. D. SPOHN, Stockholder.

McPherson County.

Judge Charles Field, of Athol, Mass., aged ninety years, is the oldest member of the bar in New England and the oldest judge in the United States who is at present exercising full judicial functions.

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WEEKLY WEATHER CROP BULLETIN

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending May 9, 1905, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

Good rains have occurred in the extreme northwestern counties, in Franklin, Miami and Wyandottes Counties, and in Cowley, Elk, Chautauqua, Montgomery and Labette Counties, with light showers over the rest of the State. The week has been cool, with some low temperatures. High winds were general on the 3d, on which date hailstorms occurred in some counties.

RESULTS.

EASTERN DIVISION.

Wheat is in good condition except in Linn County and the northern portions of Brown and Doniphan; it is heading in Wilson. Oats are doing well generally though the crop is making poor progress in Brown, is growing slowly in Douglas and is short in Wilson. Corn is nearly all planted, but there is much replanting to do, owing to mice in Johnson, moles in Shawnee, black bugs in Greenwood, and insects in Elk. Corn is coming up in all counties and is being cultivated in the southern and central counties. Grass is growing, and pastures are supporting stock. Alfalfa has grown well, and in Chautauqua is being cut. Potatoes are generally up and being cultivated. Apples promise well, though canker-worms have appeared in the orchards in northeast part of Shawnee. Home-grown strawberries are being marketed in the southern tier of counties and in Elk, and are ripening in Wilson. Cherries are very promising. Sweet potato planting has begun in Pottawatomie. Flax is doing well in Bourbon and Coffey. Hail did some damage in Atchison and Franklin.

Anderson.—Dry, windy weather during first part of week and showers at end of week were insufficient, although of some benefit to crops; corn all planted and some cultivated.

Atchison.—Crops doing well although growth retarded by cool weather to some extent.

Bourbon.—Wheat and flax looking well; most all corn planted, although it was necessary to replant some early corn; grass making slow growth but improved by recent rains; oats and grass need more rain; gardens doing well.

Brown.—High winds, with lack of precipitation, has been unfavorable to crops; corn-planting nearing completion and first planted coming up; complaints of poor stand; wheat turning yellow and not looking well; oats making poor progress; grass doing well; rain needed for crops.

Chase.—Corn-planting approaching completion; earliest planted shows poor stand in some places; wheat and oats doing well; growth of alfalfa checked by frost; potatoes coming up; good prospect for apples, fall apples in bloom; pastures good; Kafir-corn- and cane-planting in progress.

Chautauqua.—Wheat and corn doing well; most of corn is being plowed; early alfalfa-cutting in progress; strawberries now in market.

Coffey.—Weather too cool for growing crops towards end of week; except for some early planted corn which is being replanted, planting of this crop is almost completed; oats and flax doing well; stock all in pasture and in good condition; fruit prospects good with exception of peaches; small fruits will be plentiful except grapes; many vines winter killed.

Crawford.—Crops benefited by rain and doing well; pears falling; apples promise good yield; pastures and meadows good.

Doniphan.—Wheat looks yellow but is in fair condition; oats and grass in good condition; about one-fourth corn ground planted; apples and cherries promise well; rain needed.

Douglas.—Wheat looks well; grass, oats, and corn growing slowly.

Elk.—Complains of damage to corn by insects; much replanting of this crop necessary; wheat is doing well; strawberries in market.

Franklin.—Crops doing well, although there was some damage by hail.

Greenwood.—Corn and potatoes are being cultivated; damage by insects has made replanting of early corn necessary.

Jefferson.—Corn nearly all planted; much of it up and shows good stand; ground in fine working condition and all crops doing well; poor prospect for peaches; stock doing well.

Johnson.—Crops improved by recent rains; wheat in fine condition; large amount of corn replanted on account of insects; potatoes being cultivated and are looking well; timothy needs more rain; good prospect for strawberries.

Linn.—Rain needed to ensure good growth of wheat and other crops.

Lyon.—Good weather for wheat; some corn being cultivated; alfalfa and gardens growing well.

Marshall.—Good week for farmwork although growth of crops has been slow; corn nearly all planted and early planting coming up; wheat, oats and grass doing well and show good color.

Montgomery.—Early corn, pastures and gardens doing well; oats has improved; wheat good; ground being prepared for Kafir-corn and other forage crops; strawberries in market.

Osage.—Crops improved by rain; wheat and oats doing well; corn-planting about completed; cattle all on pasture.

Pottawatomie.—Cool week; wheat doing well; oats need rain; corn damaged by cutworm and much replanting necessary; potatoes doing well; sweet potato planting commenced; rain needed.

Shawnee.—Cool, windy week; corn-planting near completion; early planted corn damaged by moles; damage to orchards by canker-worms in some cases but apples, cherries, peaches, grapes and strawberries promise well; cattle doing well on pastures; beneficial rains in southeastern portion of the county.

Wilson.—Growth of corn retarded by dry weather; wheat is heading but in some cases is rank and falling down; oats very short; potatoes very good; grass doing well; Kafir-corn being planted; pastures improving; apples and strawberries doing well.

Woodson.—Good week for growing crops; some corn being replanted on account of uneven stand; pastures good; cattle doing well; apples not giving good promise.

MIDDLE DIVISION.

Wheat, generally, is in good condition, though some was damaged by the high wind early in the week; it is heading in the extreme southern counties and beginning to head in Barton. Oats are not in as good condition as last week, owing to high winds and dry weather. Corn-planting is nearing completion, and corn is coming up in all parts of the division; cultivation has begun in the south. Chinch-bugs have appeared in corn in Butler. Alfalfa is doing well, and in Butler cutting has begun. Grass, generally, is in good condition. Potatoes are coming up. Apples give very good promise. Home-grown strawberries are on the market in the southern counties. Grapes are blooming in Harper County. Black locust trees are in bloom in Harper.

Barton.—Wheat-fields damaged by high winds; wheat heading very short; rye heading; corn coming up; rain needed.

Butler.—Corn coming up well but needs rain; damaged in some localities by chinch-bugs; good crop of alfalfa and being cut in some places; grass backward on account of lack of rain; better prospect for apples than was expected.

Clay.—Corn-planting nearly finished; alfalfa looks well but first crop will not be cut till toward end of month, being delayed by frost; crops growing slowly on account of cool weather.

Cloud.—Wheat in very good condition but needs rain; corn-planting continuing and about half completed.

Cowley.—Rain is needed in the northwestern portion of the county; growth of oats at a standstill in this portion; corn-cultivation is progressing; some early planted shows poor stand; first crop of alfalfa nearly ready to cut; strawberries doing very well; good crop of apples expected; other fruits not so promising; peaches scarce.

Dickinson.—Corn needing rain but other crops are doing well; fruits are doing well and garden products continue to thrive; oats growing slowly on account of cool weather; weedy in some places.

Ellsworth.—Crop conditions generally good; reports of some damage to wheat from high wind during past week.

Harper.—Crops damaged slightly by high winds; rain needed; early strawberries ripe; grapes and black locusts in bloom.

Jewell.—Very windy most of week; ground in good condition; apples, cherries and plums promise fair crop; few peaches.

Kingman.—Wheat and corn looking well after late rains; fruit damaged somewhat by high winds; grass in good condition.

Lincoln.—Ground getting hard and dry; rain needed to ensure good crop of wheat; wheat damaged by high winds.

McPherson.—High winds; wheat, oats and alfalfa badly injured by whipping; corn not coming up well and even and more rain is needed; gardens looking well.

Marion.—Cool week with a good rain; crops not growing rapidly; corn coming up, with fair stand; wheat looking very well.

Osborne.—Wheat in very good condition; grass growing well; alfalfa about one foot high; corn coming up.

Ottawa.—Dry, brisk winds for several days during past week; wheat not doing so well; appears that straw will be short; early planted corn coming up; grass growing well; potatoes coming up; rain would be beneficial to all crops.

Ottawa.—Wheat is deteriorating and prospects are not good for full crop; corn is coming up well; grass growing slowly; alfalfa doing well; apples promise well; cherries will be scarce and there are no peaches; rain needed.

Pawnee.—Wheat is doing well; corn is coming up but this crop, barley and oats are not in good condition on account of cold, windy weather; rain needed.

Reno.—Weather conditions unfavorable; too cool and dry during past week; wheat, oats, alfalfa and barley need rain; corn mostly up but growing slowly; potatoes doing well.

Republic.—Cool, dry week; wheat, oats and alfalfa look well; corn-planting nearly done and first planting up but growing slowly on account of cool weather.

Russell.—High winds unfavorable to wheat; corn-planting progressing well; alfalfa budding.

Saline.—High winds during first part of week; surface of ground becoming dry but crops of all kinds are generally in good condition.

Sedgwick.—Cool, dry week; wheat generally looks well although somewhat damaged by high winds; corn that is up looks well but a great many fields are being replanted; oats are only in fair condition—yellow spots enlarging.

Stafford.—Recent rains beneficial to wheat but other crops need more; early garden truck plentiful.

Washington.—Fine week for farmwork; wheat, oats and alfalfa growing well; grasses making good growth; corn-planting is progressing and some early planted is coming up.

WESTERN DIVISION.

Wheat is in good condition but now needs warmer weather. Grass is fine. Alfalfa is in fine condition. Corn-planting is finished in the central counties and is progressing in the northern. Apples and cherries are in full bloom but peaches and apricots give poor promise. Oats and barley are growing slowly but have good color. Potatoes are coming up. Cattle are doing well.

Decatur.—Small grain of all kinds making good growth; alfalfa growing well and damage from early freezing generally overcome; fruit of all kinds promise well; corn-planting retarded by wet weather.

Finney.—Good growing week; all vegetation in very good condition; good prospect for fruit with exception of peaches; range-grass doing well.

Ford.—Weather favorable to crops.

Kearny.—Wheat, oats and barley are looking well, although the weather has been too cool for good growth; alfalfa looking well but growing slowly; fruit promises well except peaches and apricots which were damaged by frost; range-grass starting slowly.

Lane.—Spring and winter wheat and alfalfa doing well; oats and barley growing slowly; alfalfa-seed being drilled; early potatoes coming up; apples in full bloom.

Morton.—A good week for grass and cattle.

Ness.—Cold, windy week; wheat made good growth and looking well; barley and oats short but have a good color; corn-planting finished and some coming up, but too cold for good growth; apples in bloom.

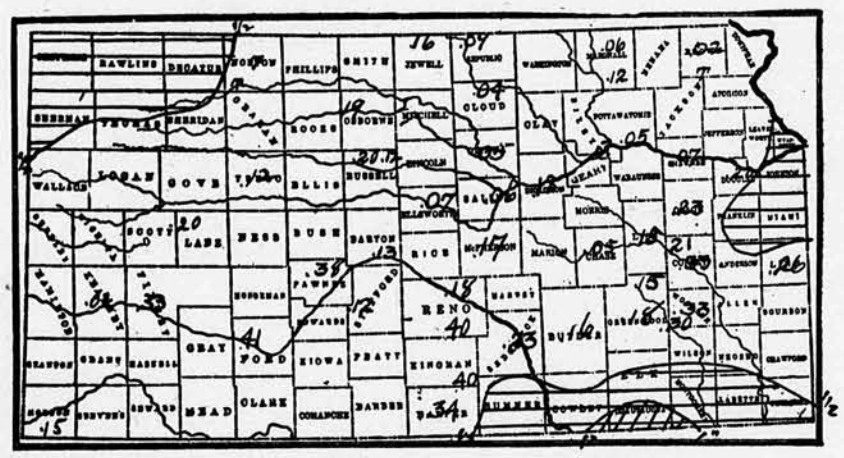
Norton.—Farmwork progressing and crops doing well; wheat in good condition; corn-planting about half done; potatoes are up; cherries in full bloom; hailstorm reported in northwest portion of the county.

Sheridan.—Wheat and all other crops looking well; alfalfa in good condition; corn-planting progressing although somewhat late.

Thomas.—Wheat, oats, and barley doing very well; grass making good growth; fruit-trees in bloom; potatoes are up but vegetables are generally making slow growth on account of cool weather; cane-sowing begun.

Trego.—All growing crops doing fairly well.

Rainfall for Week Ending May 6, 1905.



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Rock Island Excursion.

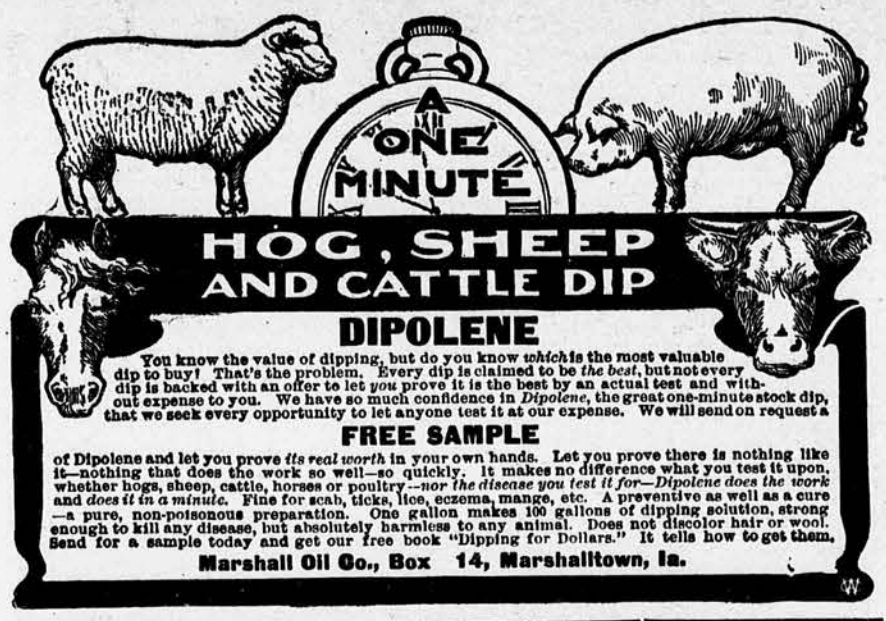
The Rock Island System has an advertisement this week of interest to farmers, in which they make a 1-cent-a--mile rate open to all to attend a series of meetings in Oklahoma and Kansas as follows: Oklahoma City, May 13; Herington, Kans., May 15; and Norton, Kans., May 16.

These meetings will be addressed by Hon. James N. Wilson, Secretary of Agriculture, and other agricultural specialists, on subjects of vital interest to the Southwest and West. The cultivation of crops suited to our soils and climate and the work of the Government Experiment Stations will receive attention. For further information address, J. A. Stewart, General Agent, Rock Island System, Kansas City, Mo.

To the Stockholders of the Farmers Cooperative Shipping Association.

You are hereby notified that the Annual Meeting of the Stockholders of the Farmers Cooperative Shipping Association will be held at the National Hotel, Topeka, Kansas, at 4 p. m., Wednesday, June 7th, for the purpose of electing a Board of Directors and transacting such other business as may legally come before the stockholders.

F. Englehard, President.
H. R. Signor, Secretary.





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The Markets

Kansas City Grain Market.

Mills and shippers were active buyers of car lots of milling wheat. There was a fair demand for low grades. Prices for most samples were 1@2c higher. Receipts were light, only 31 cars. The railroads reported 31 cars of wheat received, compared with 54 cars a week ago and 28 cars a year ago. Sales of car lots by sample on track, Kansas City: Hard wheat—No. 2, 2 cars 96½c, 3 cars 96c, nominally 90@96½c. No. 3 hard, 1 car 93½c, 1 car 92c, 3 cars 90c, 1 car 85c, 1 car 84½c, nominally 84@94½c. No. 4 hard, 1 car 88c, 3 cars 87c, 2 cars 86c, 1 car 85c, 1 car 84½c 1 car 84c, 1 car 83c, 1 car 80c, nominally 77@88c. Rejected hard, 1 car 83c, 1 car 82c, 1 car 75c, nominally 65@83c. Live weevilly hard, 1 car 82c. Soft wheat—No. 2 red, nominally 90@96½c. No. 3 red, nominally 84@94½c, 3 cars mixed 83c. No. 4 red, nominally 78@90c, 1 car 90c, 1 car mixed 86c, 1 car mixed 85½c. Rejected red, nominally 65@83c.

Corn sold readily at steady prices. Receipts were moderate. The railroads reported 34 cars of corn received, compared with 21 cars a week ago and 37 cars a year ago. Sales of car lots by sample on track, Kansas City: Mixed corn—No. 2, 1 car yellow 48½c, 2 cars 47½c, 2 cars 47¼c, 18 cars 47c; No. 3, 1 car yellow 47½c, 2 cars 47½c, 1 car 47c; No. 4, 1 car 46c. White corn—No. 2, 7 cars 47½c; No. 3, nominally 47@47¼c.

Oats were in fair demand at firm prices. Receipts were moderate. The railroads reported 10 cars of oats received, compared with 24 cars a week ago and 6 cars

May and June Excursions to the South

There will be cheap homeseekers' and settlers' tickets on sale to the South in the territory of the Southern Railway and Mobile & Ohio Railroad in May and June, and in other months this year. The May and June excursions will give you full opportunity to investigate the South during the gathering of early potatoes and many vegetable crops, of early peaches and other fruits, of grasses and grains, and will show the homeseeker what Southern farmers, and especially what Northern settlers in that section are doing. Fruit and truck raisers make $50 to $500 an acre. Lands which enable them to do it can be had at from $3 to $15 an acre. Go down and see if this is not true. Excursion dates are May 16 and June 6 and 20. Information about Southern farm locations furnished by

M. V. RICHARDS,
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DRS. THORNTON & MINOR, 3969 Olive Street, St. Louis, Mo.; and 1007 Oak St., Kansas City, Mo.

a year ago. Sales of car lots by sample on track, Kansas City: Mixed oats—No. 2, 1 car color 31c; No. 3, nominally 30½c; No. 4, 1 car 30c. White oats—No. 2, 4 cars 32c; No. 3, 1 car 31c.

Rye—No. 2, nominally 68@72c.

Corn-chop—Nominally 90@91c, in 100-lb. sacks.

Timothy—Nominally $2.70 per 100 lbs.

Flaxseed—Nominally $1.15.

Bran—1 car 73c.

Shorts—Nominally 78@83c.

Millet—German, $1.40@1.50; common, $1.25@1.35 per 100 lbs.

Red clover and alfalfa—$9@11.50 per 100 lbs.

Cane-seed—Nominally $1.15@1.20.

Kafir-corn—Nominally 70c per 100 lbs.

Linseed-cake—Car lots, $27 per ton; ton lots, $28; per 1,000 lbs., $15; smaller quantities, $1.60 per hundredweight. Bulk oil cake, car lots, $26 per ton.

Castor beans—$1.35 per bushel, in car lots.

Barley—Rejected, 1 car 33c.

Kansas City Live-Stock Market.

Kansas City, Mo., Monday, May 8, 1905.

Cattle receipts last week were 1,000 head less than the small run of the previous week, and the light run helped to straighten out the market quite a good deal; 15@20c was added to prices on the various kinds of cattle, and in addition to that, packers got rid of part of their stocks in coolers, leaving the situation considerably better than at the close of the previous week. However, it is conceded that heavy runs of beef cattle just now will depress prices again. The market is what might be called convalescent, but could easily be given a set back.

The supply this morning is liberal at 8,000 head, but all the buyers got out early, and market was steady to 10c lower to-day, top $6. There are some shipping orders here to-day for heavy cattle, and these were lacking last week nearly altogether. Prime steers were absent here last week entirely, some good to choice ones sold at $6.20 Thursday, the weakest day of the week, and that was the top. Bulk of the steers sold at $5@5.85, and not many bunches sold above $6. Cows and heifers fluctuated about like steers. Top-py heifers brought $4.50@5.40, medium to good ones $4@4.75, range of cows was $3@5, veals $5@6.25, bulls $2.75@4.75. Stockers and feeders did a little better than killing cattle last week, and the yards were well cleaned up of these at a range of $3.25@5. They are steady to-day.

Hog markets are fluctuating widely lately, making a net gain of about 25c last week. This morning, however, runs were heavy all around, and the market 10c lower. Saturday's market was weak, and all along the packers persisted that the prices last week were not justified, except by the temporary light run, and that prices would go lower as soon as receipts became normal. Farmwork held the run down last week. Top to-day is $5.37½, bulk of sales $5.20@5.35.

Sheep and lambs sold lower about the middle of last week, but ended the week steady with the beginning. Quality of fed sheep and lambs is generally common. Limit of prices for fed stuff are, lambs $6.85, which is the top to-day, yearlings $6, wethers $5.50, ewes $5.15. Run here last week was light, and market held up here better than elsewhere on that account. With a liberal run to-day, prices are holding steady. Clipped stock ranges 70@75c under above quotations for best stuff.

J. A. RICKART.

South St. Joseph Live-Stock Market.

South St. Josepr, Mo., May 8, 1905.

Receipts of cattle at the five points to-day were considerably beyond expectations and in excess of the demand of the trade. As a consequence there was a very much weaker tone to the market and values in many instances were 10c lower than the close of last Friday. Included in the local supply was a pretty good proportion of good to choice medium and heavy export and dressed beef steers which sold largely at $5.70@6 and these grades did not suffer as much as the kind selling at $5.50 and under. While reports of the Eastern dressed beef situation are not encouraging packers showed more disposition to buy than on last Monday, which indicates a broadening of the demand for carcass meats in the East, but the situation is still pretty critical and producers and shippers can serve their own ends by keeping supplies in Chicago under the actual requirements of the trade and increasing supplies at the outside points where the demand is broad enough to absorb all offerings. Heavy receipts in Chicago next Wednesday will no doubt precipitate bearish movements as the export demand has weakened except on the light and medium weight styles suitable for the Liverpool trade, and the increased demands for dressed meats will not offset this feature. The market on butcher stock to-day was rather poorly supplied with common to medium styles of cows and heifers, there was a very good demand for decent cows and heifers, especially for the best fat cows and heavy heifers at prices fully steady with the close of last week and there was an active disposition on the part of buyers to demonstrate against the good, light weight heifers which were weaker. Good fat export bulls were in demand and steady, while common to fair bologna offerings were of rather slow trade except on such offerings as could be used by the country for stocker and feeder purposes. Veals were in small supply and unchanged. There was some demand for feeders and packers invariably paid more for good, fleshy, hay-fed Westerns and short-fed natives than the country could afford; however, regular dealers and order buyers were keen competitors for the well-bred yearlings and stockers for which prices were strong to 10c higher than the close of last week. Thin stock cows, stock heifers and stock bulls were in fairly active demand with no apparent change in prices.

Supplies of hogs were exceedingly large and two-thirds of the aggregate offerings at the five markets were centered in Chicago; this resulted in a 10@15c break at that point and a 10c decline here, prices ranging from $5.15@5.35, bulk at $5.27½@5.32½. In our letter of last week we intimated that with good heavy receipts packers would take off prices a great deal faster than they put it on and this was demonstrated by the course of the market to-day. The situation is still very sensitive in regard to supplies, with no moderate offerings there will be some reaction but should receipts continue large in volume it is more than likely that packers will endeavor to get values down around the $5 mark. The demand here continues very strong with prices ruling somewhat higher than at competitive points and double the number could be used without getting the market out of line with other points.

There was moderate offerings in the sheep division to-day and all grades held fully steady with the close of last week, Western lambs selling up to $6.85 with sheep quotable at $5@6.25. WARRICK.

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.

FOR SALE—Registered Jersey bull calves, all ages, ready for service, prices $25 to $50. All sired by "Financial Count," (bred by Wm. Rockefeller, the Standard Oil millionaire), from imported sire and dam. Both Island prize-winners, dam being winner in class two years over the Island of Jersey. Sire's dam gave 62 pounds of milk daily (59 in public test of several days) and is dam of eight cows whose average daily milk record is 45 pounds, all with public butter records. "Count's" dam and four generations back, gave from 22 to 26 quarts daily, and all had butter records. The dam of "Count's" sire (Blue Belle) sold last year for $3,500, and was also a great Island winner. Some calves are from daughters of Stoke Pogis Marigold, whose dam dam and sire's dam were 25 pound cows. Later will have bull calves of "Son of Bessie Lewis," whose dam has authenticated butter record of 32 pounds in seven days, and will sell last six "foundation" cows in herd and young bull. Write what you want to Sayda Polo Jersey Farm, Route 6, Parsons, Kansas.

FOR SALE—Registered Hereford bulls, good ones, low prices, by H. B. Clark, Geneseo, Kans.

WANTED—A registered Holstein bull, must be good size and a good breeder. Prefer a 2- or 3-year-old. E. P. Riggle, Eureka, Kans.

FOR SALE—Seventeen registered Angus bulls, 10 to 20 months old; also a number of cows and heifers at reasonable prices. Will sell my herd bull. Address A. L. Wynkoop, Bendena, Kans.

FOR SALE—10 Registered Galloway bulls, cheap. J. A. Darrow, Route 3, Miltonvale, Kans.

FOR SALE—Red Polled bulls, half-brother to World's Fair winner. D. F. Van Buskirk, Blue Mound, Kans.

FOR SALE—8 Scotch Shorthorn bulls from 10 to 30 months old, all red. J. J. Thorne, Kinsley, Kansas.

FOR SALE—Aberdeen-Angus cattle, registered bulls, cows or heifers. J. L. Lowe, Erie, Kansas.

FOR SALE—Shorthorns—One herd bull, Greenwood 165865 and 3 young bulls, all Scotch-topped. Brookover Bros., Eureka, Kans.

FOR SALE—A registered Red Polled bull, 30 months old, weight 1500 pounds, in good condition, will guarantee him a breeder; price, $100. For pedigree or other information address W. E. Brockelsly, 815 E. Hancock, Lawrence, Kans.

FOUR GOOD HEREFORD BULLS, 15 to 20 months old, at reduced prices if taken at once; also a few younger ones. A. Johnson, Clearwater, Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

FOR SALE—Eight good, registered Shorthorn bulls, four straight Cruickshank, good ones, and prices right. H. W. McAfee, Station C, Topeka, Kansas.

FOR SALE—A 3-year old Shorthorn bull, sired by Royal Bates. Address Dr. N. J. Taylor, Berryton, Kans.

SEEDS AND PLANTS.

FOR SALE—Tomato and cabbage plants, strong, vigorous Tomato, 25c. per 100, $2 per 1000; cabbage same prices. C. A. Hicks & Co., Lawrence, Kans.

PLANTS FOR SALE—Strawberry, blackberry, dewberry, rhubarb, grape-vines. Write for special prices. Address J. C. Banta, Topeka, Kans.

FOR SALE—Seed Sweet potatoes; 6 kinds; write for prices to I. P. Myers, Hayesville, Kans.

FOR SALE—Speltz, 60c bu. f. o. b. Two registered Galloway bulls. Wheeler & Baldwin, Delphos, Kans., or S. B. Wheeler, Ada, Kans.

STRAWBERRY, Blackberry and Raspberry Plants—Best varieties, low price. J. H. Wendell, Route 5, 2½ m. north on Central Ave., Topeka, Kan

SEED CORN—Both white and yellow at 90 cents per bushel; cane, millet and Kafir-corn seeds. Prices and sample on application. Adams & Walton, Osage City, Kans.

SEEDS WANTED—There are many inquiries for seeds adapted to various parts of Kansas; Black Hulled White Kafir-corn, different varieties of oats, corn suited to localities, etc., are in demand. Those who have such for sale may make profits for themselves and confer benefits on others by advertising in this column.

FOR SALE—Speltz, 60 cents per bushel; Soy-Beans, $1.25; Red Kafir-Corn, 50 cents; sacks free in ten bushel lots. Seed extra nice and clean. C. M. Garver, Abilene, Kans.

WANTED—Cane, Kafir-corn, millet, alfalfa, clover, English blue-grass and other seeds. If any to offer send samples and write us. Missouri Seed Co., Kansas City, Mo.

HORSES AND MULES.

TO TRADE for good jennets, good registered standard-bred stallion. H. T. Hineman, Dighton, Kans.

STRAY MARE—A black mare came to Wm. Cook's residence, one-half mile east of the city of Downs, Kans., on or about the 10th day of October, 1904, weight about 900 pounds, age about 8 years, worth $40; branded on the left shoulder; owner or owners will please come, prove property and pay expenses.

PATENTS.

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

SWINE.

TWENTY-FIVE last fall Duroc-Jersey boars. Chock full of the top-notcher blood. They are a fine lot; also 40 sows bred or open. A. L. Burton, Route 1, Wichita, Kans.

FOR SALE—Duroc boar pigs, fall litters, pigs right, prices right. W. A. Wood, Elmdale, Kans.

FOR SALE—Say! I have some fine, big-boned, broad-backed Berkshires, brood sows or pigs. Want some? Write me; turkeys all sold. E. M. Melville, Eudora, Kans.

FOR SALE—Boars for immediate use. Sons of Perfect I Know, out of daughter of Ideal Sunshine. Geo. W. Maffet, Lawrence, Kans.

MISCELLANEOUS.

MR. FARMER, MR. BUSINESSMAN—Do you ever write letters? If so, you know how convenient it is to have envelopes with your return printed on them, don't you? Well, just send me 50 cents and I will send you, prepaid, 100 very best quality envelopes with your return printed thereon; 250 for $1; 50 business cards with name, 20 cents; 100, 35 cents. Quality and workmanship guaranteed. Lester French, Driftwood, Okla.

DELIGHTFUL KITCHEN COMBINATION—Combined cake, doughnut and biscuit cutter, coffee strainer and apple corer, 15 cents post-paid. Star & Co., Newton, Kans.

WANTED—Men and teams to break prairie. Will rent the land or sell it on easy payments. Address, W. W. Cook, Russell, Kans.

FREE—Eighty page catalogue; everything for the home and farm. Send 2 cent stamp. Home Manufacturing Company, Taylor St., Chicago, Ill.

WANTED—By married man, no family; thorough practical farmer and stockman, situation as manager or will take a well stocked farm and share profits on basis of half. References furnished and required. Address C. A., Box 13, Lindsborg, Kans.

WANTED—All-around farm hand with some dairy experience, who can care for separator and dairy-room. Permanent position for right man. Also young boy, old enough to milk, and handle team, who wants to grow up with a dairy, fruit and vegetable farm. Sayda Polo Jersey Farm, Route 6, Parsons, Kans.

WANTED—Middle aged woman with no incumbrances to do house work in a family of three. R J. Linscott, Holton, Kans.

HONEY—New Crop, water white, 8 cents per pound. Special prices on quantity. A. S. Parson, Rocky Ford, Colo.

FOR SALE—Second-hand engines, all kinds and all prices; also separators for farmers' own use. Address the Geiser Mfg. Co., Kansas City, Mo.

POULTRY.

BUFF ROCK EGGS—For sale at 15 for $1; 45 for $2.25. H. M. Stephens, Munden, Republic County, Kans.

S. C. BROWN LEGHORNS—The champion winter and summer layers. Also Barred Plymouth Rocks and Buff Cochin Bantams. Eggs from either variety, 85c per 15; $1.25 per 30. L. E. Evans, Fort Scott, Kans.

BARRED AND WHITE PLYMOUTH ROCK Eggs, $2 per 15; $5 per 45. Hawkins and Bradley strains, scoring 93½ to 94½. Mr. & Mrs. Chris Bearman, Ottawa, Kans.

FARMS AND RANCHES.

FOR SALE—$6,250 hardware and implement stock, Chase county, Kansas; $225 monthly, net profits; insurance $5,000; might consider exchange. $15,000 pressed brick plant, Kansas, 14 acres near Kansas City, located on two railroads, capacity 20,000 brick per day, employs 20 men, making money, can't fill orders; will sell on easy terms or exchange for Kansas City, Mo. real estate. We handle bank, oil, mining and industrial stocks. List your offerings in stocks, farms, ranches and merchandise. When in the market to buy, write us. S. P. Griffith & Co., Kansas City, Mo.

CHEAP FARMS—All sizes. Prices, $3 to $6 per acre. Best soil, delightful climate. Address H. D. Landes, 921 Penn Ave., Kansas City, Mo.

SOME FINE BARGAINS—480 acres, 60 acres alfalfa, 90 acres bluegrass 250 acres under plow; fine improvements; a great bargain; price, $20 per acre. 80 acres, good land, all smooth; moderate improvements; good bargain; price $2100. 320 acres, all closed in, 90 acres bottom; good improvements; 10 acres timber; running water; cheap at $6200. 120 acres, small improvements, 70 acres under plow; reasonable; price $2000. Garrison & Studebaker, Florence, Kans.; office at Minneapolis, Kans., also.

DO YOU WANT to buy a farm ranch, city property, or buy, sell or exchange a stock of merchandise, or want a bargain in some of my wheat farms, write me. F. C. Purdy, Sterling, Kans.

FOR SALE—Good farm and pleasant home, one-half mile from county high-school and city public school, three-fourths of a mile from several churches and stores, 2 grain elevators and stations. Farm consists of 800 acres, adapted to farming and stock raising, good 9-room house, with water, bathroom and good cellar, ice-house, tool-house, barns and sheds sufficient to hold 40 tons of hay and 150 head of cattle and horses, alfalfa, shade and fruit trees. Farm can be devided. Price, $15 per acre. Call on or address the owner, Box 192, Wakeeney, Kans.

BARGAINS in Central and Western Kansas land. J. J Hazlett, Sterling, Kans.

BARGAINS in good grain, stock and alfalfa farms. J. C. Burnett, Emporia, Kans.

FOR SALE OR EXCHANGE—Land, merchandise and city property. Let me know what you want to buy sell or trade. A. S. Quisenberry, Marion, Kans.

TWO SNAPS—160 acres cheap; improvements, valley land, 140 acres cultivated; price $3,200. Small payment down, balance yearly payments. 160 acres, 12-room house, 30 by 40 barn, 85 acres cultivated; price, $4,500; half down, balance terms. Garrison & Studebaker, Minneapolis, Kans. We also have offices at Florence and Salina. Try us.

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

FARM LOANS

Made direct to farmers in Shawnee and adjoining counties at a low rate of interest. Money ready. No delay in closing loan when a good title is furnished and security is satisfactory. Please write or call.

DAVIS, WELLCOME & CO.,
Stormont Bldg., 107 West 6th, Topeka, Ks.

FARMS AND RANCHES.

FOR SALE—200 acres fine pasture land, 175 acres of it mow land, two miles from Alma, living water that never fails, all fenced. This is a bargain if taken soon. Call on or address Mrs. M. A. Watts, Alma, Kans.

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

VIRGINIA FARMS Good land. Fine crops. $5 per acre and up. Address. Agr'l Dep. 66., N. & W. Ry., Roanoke, Va.

For Sale or Trade for Land

A large breeding barn and about 4 acres of land with good breeding stock, or will sell and give purchaser time on part. This is one of the very best breeding points in the state.

L. C. WYMER, - - Peabody, Kansas

I CAN SELL YOUR FARM, RANCH OR BUSINESS, no matter where located.



Properties and business of all kinds sold quickly for cash in all parts of the United States. Don't wait. Write to-day, describing what you have to sell and give cash price on same.

A. P. TONE WILSON, JR.,
Real Estate Specialist,
413 Kansas Ave., Topeka, Kans.

AGENTS WANTED.

WANTED—Canvassers for a fruit can holder and sealer. Territory given. J. W. Adams, 741 Tennessee, Lawrence, Kans.

AGENTS WANTED Sell $1 bottle Sarsaparilla for 35c; best seller; 200 per cent profit. Write today for terms. F. R. Greene, 115 Lake St., Chicago

LEGAL.

PROPOSALS FOR LEASING CERTAIN of the tribal lands of the Kiowa, Comanche, and Apache Indians for agricultural purposes. Department of the Interior, Office of Indian Affairs, Washington, D. C., May 6, 1905. Sealed proposals will be received at the Office of the U. S. Indian Agent, Kiowa Agency, Anadarko, Oklahoma, until 2 o'clock p. m., on Wednesday, June 7, 1905, and will immediately thereafter be opened in the presence of such bidders as may attend, for leasing for farming purposes subdivisions "E", "F", "G", and "I", of Reserve Pasture No. 1, that portion of Reserve Pasture No. 2 lying east of the Oklahoma City & Western Railroad, and all of Reserve Pasture No. 4. Said lands will be leased in tracts not exceeding one quarter-section, or fraction thereof, where the quarter is fractional, for the term of 3½ years from July 1, 1905. No bid for a different period or different amount will be considered; and no person, firm, company or corporation will be permitted to lease more than 640 acres. Posters giving fuller information and the conditions to be observed in the submission of bids may be obtained by addressing the U. S. Indian Agent. The bids must be addressed to the U. S. Indian Agent, Kiowa Agency, Anadarko, Oklahoma, and must be plainly marked on the outside of the envelope, "Proposals for leasing Kiowa lands for agricultural purposes." Bids not conforming to the requirements of the printed poster may be rejected if such action shall be deemed necessary in the interest of the Indians. Any further information desired may be obtained from the U. S. Indian Agent Anadarko, Oklahoma. C. F. LARRABEE, Acting Commissioner.

Publication Notice.

No. 23254.

The State of Kansas to Sarah A. Vance and A H. Vance, A. S. Davies, Henry F. Meyer, and E. W. Davies,

Greeting: You, and each of you, are hereby notified that you have been sued in the District Court of Shawnee County, Kansas, in an action therein pending, in which Cynthia H. Hawkins, Clyde E. Hawkins, Frank B. Hawkins, and Jessie B. H. Darragh, are plaintiffs, and you and each of you are defendants, and that unless you answer the plaintiffs' petition on or before the 26th day of June, 1905, the plaintiffs' petition will be taken as true, and judgment will be rendered against you and each of you, quieting the title of the said plaintiffs in and to the following described real estate, situated in the County of Shawnee and State of Kansas, to wit:

Lots numbered one (1), three (3), five (5), and seven (7), on Highland Avenue, in Seabrook's Subdivision of lots numbered three (3), and four (4), of Section numbered three (3), Township numbered twelve (12), south of Range numbered fifteen (15), east of the Sixth Principal Meridian, and perpetually enjoining you and each of you from ever asserting any right, title, interest or estate in and to said premises, and excluding you from all interest therein.

FRANK H. FOSTER,
Attorney for Plaintiff.

Attest:
(Seal) I. S. Curtis,
Clerk District Court, Shawnee Co., Kans.

PUBLICATION NOTICE.

To Charles Woodcock:—You are hereby notified that on the 4th day of April, 1905, an order of attachment was issued by M. F. Laycock, the clerk of the Court of Topeka, in and for Shawnee County, State of Kansas, in an action pending in said court in which E. G. Kinley is plaintiff, and you are defendant, against you, for the sum of $28.94, and that said cause will be heard by said court on the 25th day of May, 1905, at 8 o'clock a. m.

FRANK H. FOSTER, Attorney for Plaintiff.

Stray List

Week Ending April 27.

Marion County—J. H. Thrasher, Clerk.

HEIFER—Taken up by A. D. Tooker, in Grant p. (P. O. Marion), Nov. 3, 1904, one 3-year-old red heifer, bar on left hip.

Week Ending May 11.

Morris County—H. A. Clyborne, Clerk.

HORSE—Taken up by A. H. Chelson, in Elm Creek tp. (P. O. Wilsey), April 14, 1905, one brown mare, 5 feet 2½ inches high, scar on right hind leg, branded on left jaw with J upside down, with bar underneath.

Stafford County—W. W. Hall, Clerk.

STEER—Taken up by C. S. Curtis, in Rose Valley tp., Nov. 12, 1904, one 2-year-old red steer, mark or cut in right ear.

DUROC-JERSEY SWINE.

D. M. TROTT ABILENE, KAS., famous Duroc-Jerseys, Poland-Chinas.

COUNTY SEAT HERD DUROC-JERSEY SWINE.
Geo. Briggs & Son, - - Clay Center, Neb.
Young stock for sale.

DUROC-JERSEYS—Large-boned and long-bodied kind. A fine lot of fall pigs (either sex) for sale. Prices regsonable.
E. S. COWEE, R. F. D. 2, Scranton, Kans.

MAPLE AVENUE HERD
Duroc-Jerseys J. U. HOWE, Wichita, Kansas
Farm two miles west of city on Maple Avenue

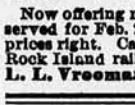
DUROCS Spring pigs, sired by five leading males, either sex or pairs after weaning. Bred sows for fall litters. John Schowalter, Cook, Nebr

FAIRVIEW HERD DUROC-JERSEYS
Now numbers 150; all head for our two sales, October 25, 1904, and January 31, 1905.
J. B. DAVIS, Fairview, Brown Co., Kans.

THE OLD RELIABLE KLONDYKE HERD.
Duroc-Jersey Swine, Shorthorn Cattle and B. P. Rocks. FOR SALE—Two September 27, 1904 males. Eggs 75 cents per 15; or $4 per 100.
Newton Bros., Whiting, Kansas.

GOLDEN RULE STOCK FARM
LEON CARTER MGR., Asherville, Kans.
Gilt-edged Duroc-Jersey Swine.

The Famous Fancy Herd
DUROC JERSEY SWINE
A few gilts and 7 fine young boars for sale. Breed sow sale at Concordia, Feb. 21, 1905.
JNO. W. JONES & CO., R. F. D. 3, Delphos, Kan.



FOR SALE
75 head of pedigreed Duroc-Jersey spring pigs, boars or sows, no akin, good color, well built, very cheap, order now from
CHAS. DORR, Route 6, Osage City, Kans

ORCHARD HILL HERD
OF DUROC-JERSEYS
Gilts all sold. A few excellent males left yet.
R. F. NORTON, - Clay Center, Kans.

DUROC-JERSEY HOGS.
All stock registered. Pigs for sale weighing 150 to 200 pounds, both sexes. Will have sows for early farrowing at $20 each. Spring males and gilts, $10 to $15. Address
Mr. & Mrs. Henry Shrader, Waunota, Kans

PLAINVILLE HERD
DUROC-JERSEYS
For sale, an extra fine lot of young boars large enough for service. Bronze turkeys, Barred Plymouth Rocks and Brown Leghorn chickens for sale.
J. M. YOUNG, Plainville, Kans.

DUROC-JERSEYS
A few Gold Dust gilts of the big-boned, hardy variety, and out of large litters bred for April farrow.
BUCHANAN STOCK FARM, Sedalia, Mo.

Wheatland Farm Herd Duroc-Jerseys
For Sale—At reasonable prices, some fine October pigs, male and female; also some tried sows, bred and open. Our yearling herd boar, Wheatland Daudy 23905, sire Nathan 6397, dam Lincoln Lass 32792, will also be sold.
GEO. G. WILEY & SON, South Haven, Kans.

MINNEOLA HERD
DUROC-JERSEY SWINE
Prince 17799 and Red Rover 27665 at head of herd. Young boars and bred and open gilts for sale.
L. A. KEELER, Route 7,
Phone 891 G, Ottawa, Kans.

Rose Lawn Herd Duroc-Jerseys
Now offering males only. Bred sows and gilts reserved for Feb. 22, 1905 sale. Visitors welcome and prices right. Can ship on Santa Fe, Mo. Pacific and Rock Island railroads.
L. L. Vreeman, Hope, Dickinson Co., Kans.

POLAND-CHINA SWINE.

Kansas Herd of Poland-Chinas W. R. C. Leghorn eggs. F. P. Maguire, Hutchinson, Kans.

FOR SALE Poland-China Hogs, Holstein-Friesian Cattle; either sex. Best strains represented. H. N. HOLDEMAN, Rural Route No. 2, GIRARD, KANSAS.

Elm Grove Stock Farm Poland-Chinas.
Herd headed by Nonpareil 86105A, Sweepstakes boar at Missouri Sate Fair, 1904. Can spare a few choice sows bred for May and June farrow.
F. A. DAWLEY, Waldo, Kans.

DIRGO BREEDING FARM
J. R. Roberts, Proprietor, Deer Creek, Okla.
Breeder of Poland-Chinas of the leading strains. Stock of all kinds for sale at all times. Satisfaction guaranteed. Write us and we will tell you what we have.

Republic County Herd
Big-boned, Fancy-bred Poland-Chinas
Fancy breeding, great individuality. Inspection invited. Choice boars and gilts of September farrow for sale. Two sired by a 750-pound boar—a prize-winner. Their dam, Waunetta Ann 171850, she by Expansion. Three sired by Keep Coming 84889, he by Keep On. Also R. C. B. Leghorn eggs from choice matings. Write for description and prices.
O. B. SMITH & SON, Cuba, Kans.

HIGHLAND FARM HERD OF PEDIGREED
POLAND-CHINAS
Twenty serviceable boars at special prices for next 30 days, sired by Black Perfection 37122, Slick Perfection 32894, Perfection Now 32580, and Ideal Perfection. They are lengthy and good-boned pigs, with plenty of finish. Write me description of what you want and I will guarantee satisfaction.
JOHN BOLLIN, Route 5, Leavenworth, Kas

POLAND-CHINA SWINE.

MAPLE VALLEY STOCK FARM
Pure-bred Poland-Chinas from leading strains. Visitors welcome and correspondence solicited. Satisfaction guaranteed. C. P. Brown, R. 2, Whiting, Ks

POLAND-CHINAS
For Sale—June gilts, sired by Corwin's Model. This stock is first-class. Weight from 150 to 200 pounds. Prices quoted on application.
Dave Stratton, Route 1, Walton, Kans.

Pecan Herd of Poland-Chinas
Model Tecumseh 64133, American Royal (8) 30783, and Best Perfection 81507 at head of herd. Write us your wants.
J. N. Woods & Son, Route 1, Ottawa, Kans.

Main's Herd of Poland-Chinas
Empire Chief 30379, heading champion herd and winner in class at Iowa and Nebraska State Fairs. He is of great size and finish. Sire Chief Tecumseh 3d and out of Columbia 2d. The combination that produced so many State fair champions. A grand lot of sows bred to him; and summer boars for sale at reduced rates. Try me for quality and prices.
JAMES MAINS, Oskaloosa, Jefferson Co., Kan.

ROME PARK POLAND-CHINAS and BERKSHIRES.
I have about twenty boars ready for use and twenty-five sows bred, and some unbread, and a large number of good pigs, both breeds.
T. A. HUBBARD, (County Treasurer Office.)
Wellington, Kans.

GUS AARON'S
POLAND-CHINAS
Route 5, Leavenworth, Kans.
Choice young boars of April and May farrow sired by Beauty's Extention, for sale. Also bred sows and gilts, all with good colors, bone, fancy head and ears. The head boar, Beauty's Extention 27966, for sale. Some snaps here. Visitors welcome. Mention Kansas Farmer and write for prices.

CLEAR-CREEK HERD OF POLAND-CHINAS
For Sale, at bargain prices, from now till January 1, 1905, four boars ready for service, sired by Sherman's Corrector, a half brother to Corrector 2d, the reserve champion at the St. Loui Expo ition, and out of up-to-date bred sows. Also a bunch of boars equally as well bred, sired by six good herd boars, and out of matured sows.
E. P. SHERMAN,
Wilder, - - Kansas

CHESTER WHITE SWINE.



D. L. BUTTON,
Elmont, Shawnee Co., Kan.
Breeder of improved Chester-White swine. Young stock for sale.

Sedgewick County Herd
O. I. C. SWINE
Bred gilts and spring pigs for sale.
E. Forward & Son, - Clearwater, Kans.

O. I. C. SWINE
Have for sale a few choice boars of serviceable age; booking orders now for spring pigs. Write for prices. Satisfaction guaranteed.
S. W. ARTZ, - LARNED, KANSAS

High Point Stock Farm
I have choice O. I. C. and Duroc-Jersey males. Also bred O. I. C. and Duroc-Jersey gilts for sale. B. P. Rock cockerels and eggs in season. Write or come and see
J. R. EBERT,
Route 3, Hunnewell, Kans.

O. I. C. HOGS



A. G. McQUIDDY,
501 East South Fourth Street, Newton, Kans
Handles the great George Washington breed from the famous Silver Herd of Cleveland, Ohio. For particulars and prices write to the above address.

O. I. C. HOGS.
300 Beauties, all ages.
We take the lead, others follow. We were the first western Breeders to take up the O. I. C.'s, consequently have advanced our herd to a place above all others. We have spared neither time nor money in perfecting this this breed, Write your wants and we will be pleased to give you information.

Scotch Collie Dogs.
No Pups for Sale.
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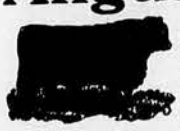
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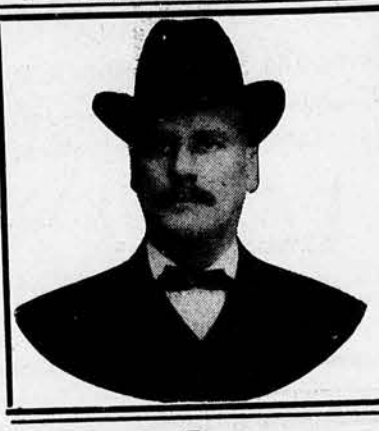
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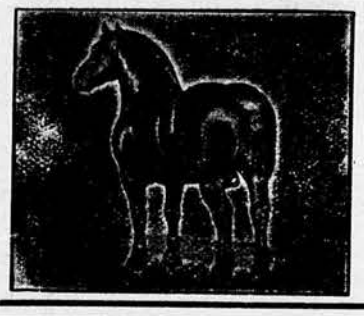
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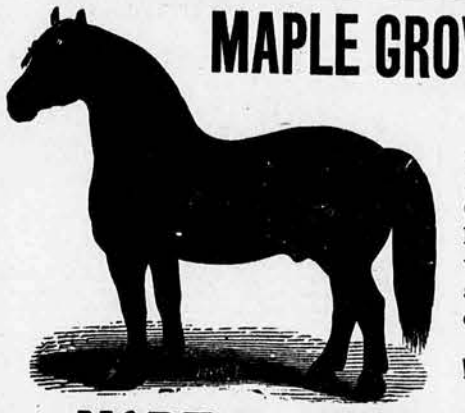


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I CAN GET IT

No Matter What Your Property Is Worth or in What Town, State or Territory it is Located.

If I did not have the ability and facilities to sell your property, I certainly could not afford to pay for this advertisement. This ad (like all my other ads) is practically sure to place on my list a number of new properties and I am just as sure to sell these properties and make enough money in commissions to pay for the cost of these ads and make a good profit besides. This is why I have so large a real estate business to-day.

Why not put your property among the number that will be sold as a result of these ads?

I will not only be able to sell it—some time—but will be able to sell it quickly. I am a specialist in quick sales. I have the most complete and up-to-date equipment. I have branch offices throughout the country and a field force of men to find buyers.

I do not handle all the lines usually carried by the ordinary real estate agents. I must sell real estate and lots of it—or go out of business. I can assure you I am not going out of business. On the contrary, I expect to find at the end of the year, that I have sold twice as many properties as I did last year but it will first be necessary for me to list more properties. I want to list yours and sell it. It doesn't matter whether you have a farm, a home without any land or a business; it doesn't matter what it is worth or where it is located. If you will fill out the blank letter of inquiry below and mail it to me to-day, I will tell you how and why I can quickly convert the property into cash, and will give you my complete plan **FREE OF CHARGE** and terms for handling it. The information I will give you will be of great value to you even if you should decide not to sell. You had better write to-day before you forget it. If you want to buy any kind of a farm, house or business, in any part of the country, tell me your requirements. I will guarantee to fill them promptly and satisfactorily.

A. P. TONE WILSON, JR., 413 Kansas Avenue, TOPEKA, KANSAS

A. P. Tone Wilson, Jr., 413 Kansas Ave., Topeka Kans.

If you want to sell, fill in, cut out and mail this blank to-day.

Please send, without cost to me, a plan for finding a cash buyer for my property, which consists of.....

Town.....County.....State.....

Following is a brief description.....

.....

Lowest cash price $.....

Name.....Address.....

(K. F.)

A. P. Tone Wilson, Jr., 413 Kansas Ave., Topeka Kans.

If you want to buy, fill in, cut out and mail this blank to-day.

I desire to buy property corresponding approximately with the following specifications:

Town or city.....County.....State.....

Price between $.....and $.....I will pay $..... down and balance.....

Remarks.....

Name.....Address.....

(K. F.)

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Three **immense sheets,** each 28 x 36 inches in dimension, comprise the charts. The maps shown are (1) The World, (2) the United States, (3) your choice of any of the following State: **Missouri, Illinois, Arkansas, Kansas, Texas** and **Oklahoma** and **Indian Territory** (the latter on one page. In ordering, designate **which State Map is desired**); (4) **Topographic Map of Russo-Japanese War District, (5) Alaska, (6) Hawaii, (7) Porto Rico, (8) the Philippines and (9) Panama.**

On sheet one is a beautiful map of the world in colors, on a patent black enamel background. The flags and coats of arms of all nations are also shown.

On the back of this sheet is a **topographic map of the Russo-Japanese War,** with a history of the struggle down to date.

On sheet two is a **State Map,** with a **complete index of all towns, population, money order post offices, railroads,** express offices, rural free delivery routes, etc.

On sheet three are new und separate maps of the **United States, Alaska, Hawaii, Porto Rico, the Philippines and Panama, with a history and description of the latter.**

Portraits of the Presidents from Washington to Roosevelt adorn the sides and bottom. At the top is a list of towns in the United States with a population of 25,000 and over. On the back of sheet three is a complete list of **towns in the United States with a population of 3,000** and over for the census years 1880, 1890 and 1900, showing our country's growth.

Subscribers who take advantage of this offer not only get **TWO Big Journals** at the clubbing price ($1.00), but in addition receive without cost this magnificent set of charts. **Don't forget that this opportunity is limited to sixty days.** Fill out and send the accompanying order blank:

THE REPUBLIC, St. Louis, Mo.:

Inclosed find One Dollar for a year's subscription to the Twice-a-Week Republic and Farm Progress. Send me, as per special offer, **The New Home Library Wall Charts.** The State Map I desire is .....

Name .....

Post Office.....

R. F. D..... State.....

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