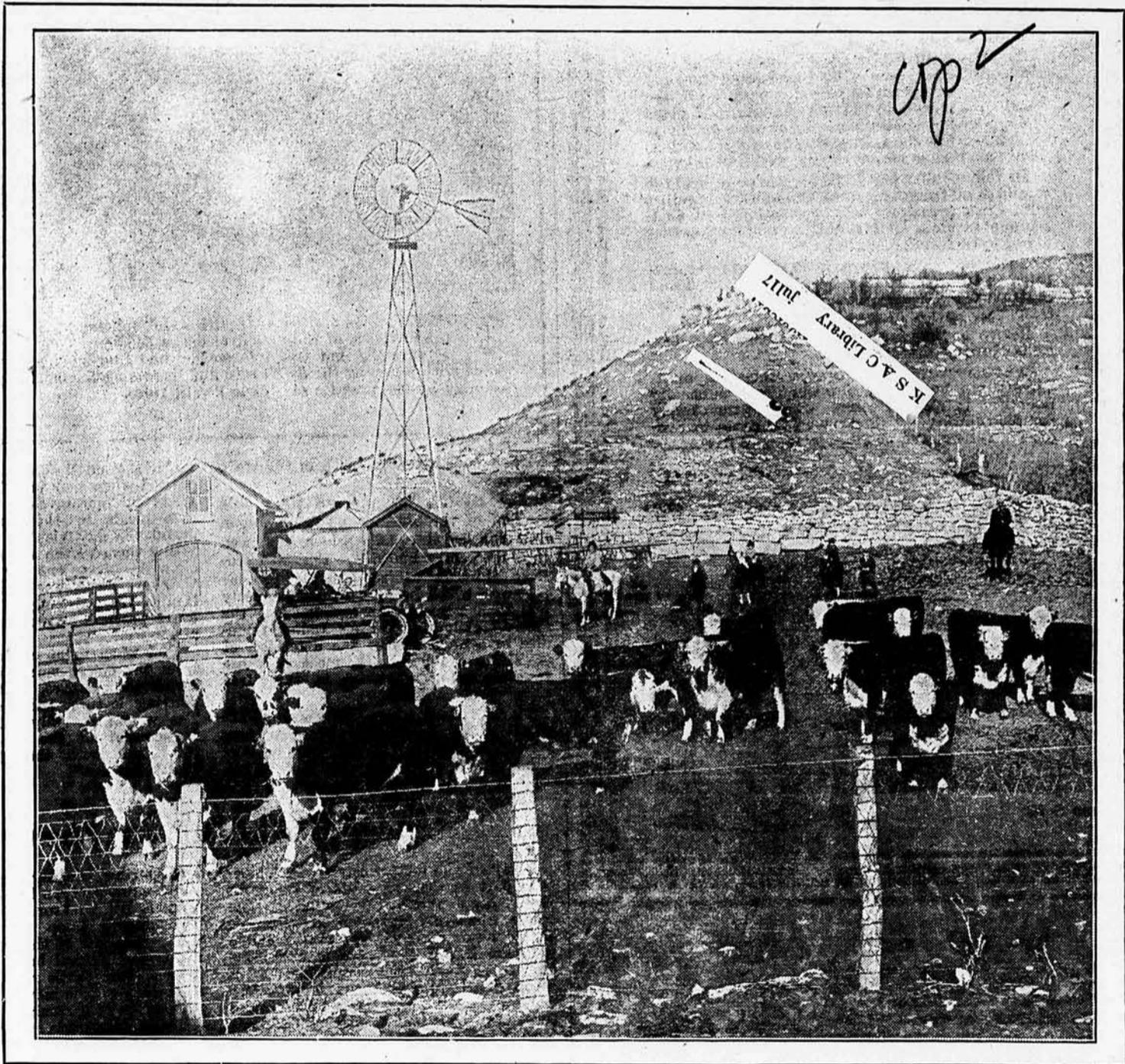


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KANSAS FARMER

For the improvement  of the Farm and Home

Volume 54, Number 50. TOPEKA, KANSAS, DECEMBER 9, 1916. Established 1863. \$1 a Year



The thick-fleshed carcass of a choice, well finished steer commands a better price on the large markets than does that of a steer lacking in quality. Beef cattle have been bred for years for meat production and should be expected to excel for that purpose. The beef producer who breeds and grows the cattle he fattens, cannot expect to make the maximum profit unless his herd consists of well-bred animals of some one of the beef breeds.

CASE



Case Announces A New Sized Tractor

Case now presents to the agricultural world a fifth farm tractor—conservatively rated as nine horsepower at the drawbar and eighteen horsepower at the pulley.

This 9-18 is especially designed for smaller farms. Its performance is remarkable. At all of the tractor demonstrations held recently this Case 9-18 proved a sensation. It was welcomed by men who wanted a smaller sized tractor backed by a big and long established company. Previously our own 10-20 was looked upon as the smallest standardized tractor on the market in the quality class.

This new final-type Case Tractor is the outcome of several years of field and laboratory experiments, based on 26 years' experience in the gas engine world. And back of that are 75 years of experience in manufacturing farm machinery. Case never lets the farmer do the experimenting. That rule means money to you, and protection.

In this smaller sized tractor are combined the merits of all tractors now on the market, together with Case principles of construction and Case national service. This makes a combination that is not to be found elsewhere.

Case now manufactures five types of tractors—rated as follows: 9-18, 10-20, 12-25, 20-40 and 30-60—in addition to the regular line of Case farm machinery.

Before buying a tractor, know the Case line. Better be safe than sorry.

In commemoration of our seventy-fifth anniversary we have just published an unusually beautiful catalog in colors, which is now ready for distribution. This costs us 20 cents to produce. Yet we send you a copy free. Write today.

J. I. Case Threshing Machine Company, Inc.
Founded 1842
136 Erie Street, Racine, Wis. (467)



Case 9-18

Rural Health Campaign

It used to be healthier to live in the country than in cities, but mortality statistics now show that the country has been falling behind. Some of our most serious diseases, such as typhoid fever, are even spoken of as rural diseases.

Realizing its obligation to country people in a state where less than 40 per cent of the entire population live in cities, where there is only one city of over 40,000 and only twenty cities of over 10,000 inhabitants, the Wisconsin Anti-Tuberculosis Association has adopted a new and unique scheme for carrying health information to those who live in the country and in the small towns and villages. It is an amplification of the motorcycle rural campaign which for several seasons past has at-

into a small traveling case and which was presented to the Wisconsin association by the manufacturer, makes it possible to give these free entertainments at any cross-roads, village park or town.

The Health Wagon is in reality an automobile, equipped with a special body in which is carried the complete lecture and camping equipment of the health lecturer, Theodore J. Werle, and his assistant. The lecture equipment includes the moving picture machine, several reels of health films which present valuable health information in interesting form, a traveling health exhibit, and literature which is distributed both at farm houses during the day and at the lecture at night.

Mr. Werle and his assistant sleep either in the wagon or on the ground



THESE doctors and their "health auto" follow the old route, but not the methods, of the patent-medicine peddler. They are not offering a "cure-all," but free information and free moving pictures having to do with lessening the death rate and increasing the efficiency rate in the country by the practice of simple health rules.

tracted wide attention both in the state and out.

The Health Wagon—an up-to-date version of the old-time medicine wagon—is the novel agency which has been chosen to carry knowledge that will prolong life. It utilizes all the popular features which were used so generally less than a generation ago to bring the cure-all claims of various Indian remedies or wizard oils to the attention of small town inhabitants, most of these features being combined in the "free show" given nightly.

Moving pictures are the center of attraction in the Health Wagon's free show. A portable moving picture machine, which packs up when not in use

under the small shelter tent which they carried when they traveled the rural districts by motorcycle. They cook their own meals by the roadside and they spend the day visiting farmers and inviting them to the show at night. This show is given out of doors whenever weather conditions will permit, the Health Wagon being a demonstration in every possible way of the value of fresh air.

And when night comes, people gather from the entire surrounding district to watch the pictures, to hear the accompanying lecture, and to ask questions. The wagon is gaily lettered with announcement of the entertainment features and with the slogan, "All for Health for All."

Home Lighting Important

Many of the factors having an important part in the social life of the farm family are simple and controllable. The house—the social center for the family—should be as attractive as it is possible to make it. If the home is attractive and comfortable, there will not be a great desire to spend the hours after work away from it. Instead the young folks will be content to spend their evenings at home and will be proud to invite their friends to come and share their pleasure.

Too often we underestimate the value of these things which we do not consider necessities, but which are in fact very necessary for the best development of the members of the family. The lack of these has a direct, detrimental bearing on the happiness and contentment of the family.

One of the most important things in making the home attractive is the provision of good lights. Poorly lighted homes detract rather than attract. In such homes reading is a task instead of a pleasure, and patience and endurance are required to accomplish anything at night that must be given close attention.

With as many varieties of improved lights as there are on the market at the

present time, ranging in price until there is an improved type fitted to each purse, there is little reason for the use of the old-fashioned lamp with its inch-wide wick. The use of this lamp makes any night work a real burden and where it is used either little reading and evening recreation will be indulged in or the eyes will suffer as a result of strain.

There are electric and gas lighting systems, and many types of good lamps, all a great improvement over the old-style lamps and costing much less than a pair of eyes. Every home should be equipped with the best lighting arrangement possible. The different kinds should be investigated so that the one best suited to the need and the pocket-book may be found. If we will only stop to realize how great the connection is between the artificial light used and the length of time our eyes can be expected to serve us well, we will quickly see our duty to use the best lights possible to secure.

We agree absolutely with our state fire marshal, who says: "If there is any building in the world that ought to be more safe than any other, it is the school building."

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The Farm Paper of Kansas

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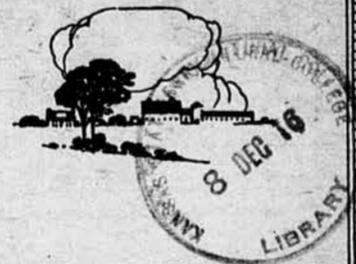
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GRANGE DEFENDS FARMER

All over the country there has been much agitation in the papers and magazines regarding the high cost of living. Many untrue and unjustifiable statements have been made with reference to the farmer's responsibility in the matter of high prices for food products. The National Grange, at its fiftieth annual session held in Washington, D. C., November 15-24, issued a proclamation setting forth most clearly and concisely the farmer's position with reference to the increased cost of living.

"In many countries with cheap labor and high-priced lands the yield per acre exceeds that of the United States. The American farmer with cheap lands and high-priced labor produces many times as much per man as does the farmer of any country in the world.

"The high price of farm products is due to several causes. Some of the more important ones are: The climatic conditions of this country during the past year were perhaps one of the leading causes of crop shortness. A long, cold, wet spring, followed by very hot, dry weather, extending over a larger area of country than is usually the case, reduced acreage and yield to a more marked degree than has been the case for any previous year. For example, the wheat in the Northwest was a crop failure; the corn crop was in many sections a partial failure, as well as the potato and vegetable crops.

"It must be borne in mind that the high prices have struck the farmer in whatever he buys, as much as it has the city consumer. Farm labor is scarcer and higher than ever before in this country. Everything the farmer buys, whether machinery, fertilizer, fencing, clothing, or the necessities of life, has increased in price by leaps and bounds. This is also true of taxation, the increase being in many sections 50 per cent or more, during the last five years.

"In former days everything the farmer needed was produced on his farm or in his immediate neighborhood. This is all changed and the farmer of today is the largest consumer of manufactured products, even in too many cases buying his meats and flour.

"Our city cousins have changed their methods of living quite as much as we have. Instead of buying in quantities, as formerly, they live in cramped quarters with a kitchenette 6x8 feet and buy in very small quantities, or live out of cartons and cans and in many cases with little regard to home economics. With this can be coupled expensive methods of distribution, which is not the fault of the farmer.

"The fact that nearly one-half of the civilized world has left the field of production and entered upon the work of destruction has increased the demand for all kinds of products and goods. We believe that prices will be high for several years, especially for manufactured goods. As to the products of the farm, the fixing of prices is mainly by the law of supply and demand in the markets of the world. The farmer competes with the cheapest paid labor on earth. When he sells some of his products, as he did only a few years ago, at less than cost, he gets no redress, no reduction in taxes nor in anything he buys, and it would be very unfair that when he is getting a fair price for some of his products to place an embargo on what he produces to lower the price and ultimately reduce the supply. So that an embargo on wheat and other cereals would in the long run mean decreased acreage. But if embargoes are to be placed to help the situation, it should be on manufactured goods, particularly munitions of war. This would give the farmers more laborers and reduce the prices of what he buys.

"We believe that in some instances production has been restricted by trusts and monopolies. This is particularly true of the meat situation. As many of the villages, towns and cities in many sections are not permitted to kill their

own meats because of the unfair competition from the packing interests. We further believe that while the crops have been short, yet there is plenty for all in this country and some to sell. But at the same time economy should be practiced along all lines. The high price of potatoes and vegetables this year does not mean that the same price will prevail next year. By taking a ten-year average the producer is not getting a living price, and under present conditions we are only getting a fair price. That at present prices some articles, such as milk, taking into account its food value, is still cheap.

"Other causes might be enumerated thus: The alarming increase of insect and fungus pests; gambling in food products, which should be prohibited; there should be more storage houses in the country and under the control of the farmers themselves; the duplication in delivery service in the village, town and city, also the lack of marketing facilities in some towns and cities.

"The American farmer is farming as well as he can afford. He will increase the yields as he gets pay for increased production. Increased production means increased cost, and unless prices warrant this increase the farmer cannot go ahead. With the high prices now prevailing many farmers are getting no returns for their labor. With the increased development of scientific knowledge turned over to the farmer through agricultural colleges, experiment stations and particularly the work done by the National Department of Agriculture with other agencies, we can assure the American consumer that the American farmer, if given a fair chance and a square deal, will not only continue to feed America, but will have some to spare."

NATIONAL DAIRY BUREAU

For some time it has seemed that there should be a change in the organization of the Federal Bureau of Animal Industry. Such change was advocated at the recent meeting of the National Dairy Union which was held in Minneapolis with the National Creamery Buttermaker's Convention, November 14-16.

The dairy industry of this country is now of such magnitude as to warrant this demand for a division of the Bureau of Animal Industry so that the dairy department work can be greatly strengthened. A change should by all means be made along the lines indicated. There are many problems coming up continually that require the action of such a department as could be developed by divorcing the dairy work from that having to do with other classes of live stock.

The National Grange at its annual meeting also took up this question and passed a resolution asking for a division of the Bureau of Animal Industry, putting its work under three heads—one relating to live stock, one to dairy cattle and to the dairy industry, and the third to have charge of animal health, these three heads to form a federal live stock board.

With these strong national organizations demanding these changes, we can look for some sort of action that will enlarge the usefulness of the Department of Agriculture in promoting the great industry of dairying.

"PEDIGREED SCRUBS"

The pedigreed scrub is more dangerous than the ordinary variety. The present strong demand for pure-bred live stock has a tendency to supply a market for every sort of animal—good, bad, or indifferent—that can boast a pedigree. While the possession of a pedigree is important, it does not always give an animal value as a breeder.

Those who wish to build up the live stock interests of a community should by all means recognize the fact that purity of breeding combined with individual excellence or capacity for production, forms the basis for live stock improvement. The man who sells pure-bred stock entirely on pedigrees is not

always a public benefactor. If you are buying a sire to improve the home stock, it is a safer investment to double the price and get one that is good individually and has good producing ancestry, than to buy a pedigreed scrub at a low price, whose only claim to merit is the fact that he is registered in the breed herd book.

BOARD OF AGRICULTURE MEETING

Announcement has just been made of the forty-sixth annual meeting of the Kansas State Board of Agriculture, which will be held in Topeka January 10-12, 1917. Secretary J. C. Mohler hopes to make this meeting one of the big farmers' meetings of the year.

Mr. Mohler is urging that farmers of the state plan to be present and take part in the program. Those in attendance are at liberty to bring up for discussion any subject they see fit. The Board of Agriculture is an institution belonging to the farmers of the State of Kansas, and they should make the best use possible of it, and this can be done by attending this annual meeting and having a part in the proceedings.

Timely subjects of interest to the farmers of Kansas will be discussed at this meeting. The new Farm Loan Act will be thoroughly explained by one of the members of the Farm Loan Board, Charles E. Lobdell of Kansas. The Federal Reserve Act will also be taken up with respect to its bearing on the agricultural interests of the state. Other subjects will be farm crops, dairying, beef cattle, hogs, sheep production, rural organization, distribution and marketing, the relation of transportation to agriculture, and good roads.

This year the legislature will convene at Topeka the same week the Board of Agriculture meeting is held, and this will add to the interest. Take a few days off and plan to attend this meeting. It will be a profitable trip.

FOOT AND MOUTH SCARE

The temporary tie-up of live stock shipments due to the fear that foot and mouth disease had again broken out, probably caused some inconvenience, but we wish to commend the action of the authorities in so promptly quarantining every locality where suspected cattle had been shipped. With the serious losses suffered by live stock men during the outbreak of two years ago, fresh in mind, no one will doubt the wisdom of establishing the most rigid quarantine at the first suspicion of this dreaded disease and during the investigating later.

The suspected cases in the present instance have another ailment resembling foot and mouth disease in some of its symptoms, but our sanitary authorities were on the safe side in taking no chances.

According to a report just made by Karl Knaus, agricultural agent of Cloud County, kafir is a surer crop for that county than is corn, and yet the acreage of kafir planted is only about one-twenty-fifth that of corn. During the past year demonstration tests have been made of several varieties of kafir on the farms of bureau members. In these variety tests the figures show that pink kafir—a new variety that is being developed—made an average yield of 60 bushels to the acre, red kafir 53 bushels, and black-hulled 46 bushels. In every test where corn was grown adjoining the kafir, the kafir outyielded the corn. Frost came earlier than usual this season and that prevented many kafir fields from maturing. It is probable that the reason the black-hulled variety did not show up better as compared with the pink and red, was due to the fact that it is somewhat later in maturity and the season was cut short by the early frost. The result of these tests where carefully selected seed of the different varieties of kafir was used, demonstrate the importance of this crop. Good kafir seed is certain to be scarce next spring and every man who can should select and store as much as possible.

DESTROY CHINCH BUGS

Chinch bugs have not been much in evidence the past two years, but there are enough left for seed, and with the return of a season favorable to their increase they will again become a serious menace to crops. The bugs were present in limited numbers in quite a few sections of Kansas the past season. Wherever they were seen on the kafir, cane, corn, or other crop at the close of the summer, a careful search will reveal the mature bugs in their winter quarters. They will be found in the clumps of bluestem and other grasses, along fence rows and in meadows and pastures adjoining the fields where they were seen during the summer and fall. If as many as a dozen bugs are found in each clump of grass, it will be a safe precaution to burn these places before winter sets in. It is seldom necessary to burn a whole meadow or pasture. The bugs are usually found along the edges of the field next to the corn or other crop. Burning a strip a rod or two wide will destroy their winter shelter and they will be almost sure to perish.

The heavy grass often found along fence rows is a favorite winter shelter for the bugs. The railroad companies are doing their part in destroying the winter homes of the bugs along the right-of-way.

Now that climatic conditions have greatly reduced the numbers of the chinch bugs, it will require less effort to keep them in check. If nothing is done, however, it will not take them long to become as numerous as ever. Be sure the bugs are in the grass before you burn, and fire it when the bunches are dry enough to burn down to the crown.

WINTER SHELTER FOR STOCK

The most successful stockmen save feed by sheltering their animals from the cold winds and storms of winter. J. E. Payne, agricultural demonstration agent for the Frisco Railroad in Oklahoma, tells of passing a pasture recently where he saw a herd of calves huddled together in a shallow ravine that gave them but slight protection from the cold wind. He also tells of a cheap shelter he saw on another farm a few miles east of Snyder, Okla. This farmer had provided warm quarters for his stock by digging into the bank of one of these ravines and putting a roof on, leaving the front open.

There are hundreds of places in the rough country where cheap shelters of this kind can be made. It has been demonstrated by carefully conducted experiments that sheltered stock require less feed to keep them in good condition than stock left exposed to the storms.

BABY BEEF PRODUCTION

Producing baby beef is about the only way the average farmer on a small farm can make any profit in the beef business. The prospects for baby beef production are bright. There has never been such a demand for meat products as exists at the present time.

The first and foremost consideration in producing baby beef is to have cattle of distinctly beef type. They must be above all things be the kind that mature young. An animal that cannot be finished for market by the time it is twelve or eighteen months of age is not suitable for baby beef. A compact, low-set, pure-bred sire is the only kind that can be safely used, if it is the intention to produce animals that can be marketed at this early age. The youngsters from such sire will fatten as they grow if well fed from birth. Under ordinary farm conditions where there is little pasture, the animal marketed as baby beef will produce more beef from a given amount of feed than will big cattle.

Shocked corn makes fairly good silage if plenty of water is well mixed with the fodder at the time of filling. Use a ton of water to each ton of fodder.

STOCK MARKETING PROBLEMS

Government Studies Factors in Distribution of Stock and Meat Products



THE ROUTE FROM FEED LOT TO CONSUMER SHOULD BE MADE AS SHORT AS POSSIBLE

WITH its utilization of two billion dollars' worth of raw products annually, which makes it the most important single industry in the United States, the production of meat animals has given rise to some of the largest problems found in the marketing of the food commodities of the country. To a large extent these problems are traceable primarily to the great size of the country and to the existence of the cattle raising, the cattle fattening, and the marketing and slaughtering phases of the industry in three more or less distinct regions, for the most part outside the region of densest population and, therefore, of greatest consumption demand.

The central problem in the live stock industry from the point of view of the stock raiser is, of course, to produce and sell his animals at a profit. This he has found more and more difficult in spite of the decrease in production, the increase in demand, and the marked rise in the prices of meats. At the same time shippers and dealers have encountered special problems and the consumer has found the purchase of his usual quantity of meats an increased burden because of increased prices. In an effort to help in the solution of these various problems and to find, if possible, ways in which market prices may be stabilized, wastes eliminated, and marketing costs reduced, the Office of Markets and Rural Organization of the department began work in 1914. What follows sets forth the results of these investigations.

The prominent features of the live stock industry in so far as cattle, its chief product, are concerned, are the raising of the animals in the range country of the West, the transfer of many of the cattle so raised to the corn belt to be fattened for market, and the marketing of the finished animals. In the raising of hogs and sheep there is less transferring of the animals from the point where their production is begun to other places for fattening. These animals, like cattle, however, largely are produced in sections of the country more or less remote from the consuming centers. This separation of the producing from the consuming regions has been the principal factor in bringing about the establishment of about thirty-five central markets in the United States where live stock both for slaughter and feeding purposes are sold. These central markets have been instrumental, in turn, in building up large packing establishments which are now the principal buyers of cattle for slaughter. Other elements of the marketing machinery which have grown up are stockyards in which the cattle are cared for and fed while transactions are being negotiated; commission merchants; traders, who sort and sell the cattle by classes; and banking institutions, through which the transactions are financed.

CO-OPERATIVE MARKETING HELPFUL
Throughout that portion of the United States east of the Rocky Mountains the stockman or farmer with more live stock to market than can be sold to near-by butchers, must either ship to the central markets or sell to local buyers who assemble the stock of numerous producers and themselves ship to the cen-

tral markets. While some producers sell in this latter way, others feel that the method is not so profitable as disposing of stock on the central markets. Large producers taking this view may ship carloads of live stock on their own account, but the numerous small cattle raisers of the country commonly find it is impossible to ship less than carloads and that such shipments are unprofitable in many ways even when possible. This difficulty is being overcome largely in many portions of the country by the formation of co-operative shipping associations, a movement in which the Office of Markets and Rural Organization is assisting by giving information as to methods of organization, operation, and accounting. Two bulletins have been published on the subject.

Where shipments to the central markets are made by individual stock raisers or associations of producers the chief problems of such shippers on the markets are concerned with price fluctuations, which are greater for live stock than for most other food products, and with the marketing costs which the complex machinery of the central markets entails.

SUPPLY NOT WELL DISTRIBUTED

All the elements bringing about radical price fluctuations are not generally understood. Some of the factors are supply and demand on the markets at a given time, and the operations of buyers, commission men, traders, and other market interests. To what extent the variations in the seasonal and daily supply of stock influence the fluctuations is not definitely known. Because the beginning of feeding operations in fattening stock is largely determined by the harvest dates of the hay and grain crops, the bulk of the fattened stock reaches the central markets in late winter or early spring. There is likewise in the fall a large influx to these markets of cattle fattened on grass, as well as cattle started on grass and sent to the markets for sale to producers in the corn belt who will fatten them in feeding lots during the winter. It is believed that the resulting congestion can in a measure be lessened when conditions make possible the finishing of feeders at somewhat earlier or later times than usual.

Besides the seasonal variations in receipts at the central markets there are marked daily variations. These, it is believed, should be more easily corrected than the seasonal variations, since the former are due almost wholly to custom. On the Chicago market, for example, 77 per cent of the cattle received reaches the market on two days of the week—Monday and Wednesday. The Office of Markets has undertaken to assist in a movement whereby stockmen, railroads, and market interests may work together for a more even distribution of market receipts throughout the week.

Another factor in price fluctuations is the lack of standardization of cattle and meat. At present, quotations on a given grade of cattle in one market can not be compared accurately with quotations for such a grade on other markets, since different characteristics may be covered by the same grade name in the several centers. The office is studying this subject and, with the assistance of various

branches of the live stock industry, is preparing standards which it is hoped will be adopted generally.

LIVE STOCK MARKET NEWS SERVICE

Recognizing the need of producers of live stock for information as to live stock conditions and available supplies of meat animals, the Office of Markets has planned and will soon put into effect a demonstration market news service for live stock and meats, the purpose of which will be to keep producers, dealers, and consumers informed in regard to the number of live stock in various sections, shipments to the various markets, price conditions at shipping points and in the principal live stock markets and meat-consuming cities, and other data bearing on the marketing of live stock and meats. Not only will such a service assist in the marketing of cattle for slaughter by giving producers a knowledge of advantageous marketing times and places, but, it is believed, it will also help dealers by showing the demand in consuming centers for meat products, and, by performing these services, will tend to stabilize prices. It should also curtail much of the lost motion which now accrues owing to lack of information on the part of stockmen in regard to movements of stock to market from various sections.

Most of such lost motion, the studies of the office indicate, occurs in connection with the transfer of cattle from regions where they are raised to other grazing and finishing regions. There has been lost motion, also, however, in other marketing operations. In some cases, it has been found, hogs raised in the corn belt and sold in near-by markets have been slaughtered at Atlantic seaboard points and cured meats shipped to Pacific coast points. Veal dressed in dairy districts and sent to commission merchants in neighboring cities has been returned to the shipping points from which it originated to fill orders of local retailers. In many instances the convenience of marketing and financing facilities furnished by the central markets may compensate for the freights and shrinkage losses entailed by the extra transportation, but it is believed that in many other cases it would be advantageous to do away with such extra transportation to as great an extent as possible. Much light was thrown on this situation by discussions of representatives of all the interests involved in the marketing of live stock and meats held at the invitation of the Office of Markets and Rural Organization in Chicago in 1915.

LOCAL MARKETING OF MEAT

While the central markets constitute the most significant feature in the live stock industry, local outlets for meat animals are of great importance. Studies of such outlets made by the Office of Markets and Rural Organization have shown them to consist principally of the sale of live animals to local butchers, the local curing of meats by ice plants, and farm slaughtering with the sale of fresh or cured meats and meat products. Abattoirs which have been established by municipalities or under municipal control in a number of cities in various parts of the country have been studied and it has been found that these insti-

tutions are facilitating the sale of locally slaughtered meat. This result has followed because the consuming public has had its confidence in local meats increased by the banishment of the old-fashioned, uncontrolled slaughter houses and their replacement by institutions under a control insuring the use of sanitary methods.

Home killing is practiced chiefly in connection with hogs, though, to a less extent, cattle and sheep are home slaughtered. In some sections of the South the home slaughtering of hogs and the curing and sale of hams and other products has constituted a well established industry for many years. More recently local ice plants have begun curing meat for a fee, or buying it from farmers to be cured and sold. In a few sections also small local packing plants have been established and are a convenient and profitable outlet for relatively small quantities of meat animals. In the opinion of the specialists of the office meat prepared in these ways on a small scale will have to be sold almost wholly within or near the localities where it is produced.

PROPORTION RECEIVED BY PRODUCER

In the operation of the marketing systems for live stock and meat in general the office has made cost studies of a number of typical transactions which have shown that the share of the final price paid by meat consumers which goes to the producer does not vary greatly whether the marketing is through central markets or through local butchers. It was found when cattle passed through the centralized markets that from 66 to 75 per cent of the gross returns ordinarily was received by the stockmen, from 2 to 5 per cent was absorbed by marketing expenses, 2 to 9 per cent was received gross by packers, and 8 to 33 per cent by retailers. This does not indicate the percentage of profit of the various parties, but merely the proportion received by each of the gross amounts paid by the consumers. When sales were to butchers in most cases approximately two-thirds of the gross returns were received by the owner of the cattle, while the retailer's share was about one-third of the gross return.

The problems of the consumer in the marketing of meats are also receiving consideration by the Office of Markets and Rural Organization. It is believed that the standardization of meats and the publication of information in regard to supply, demand, and prices will prove beneficial to consumers as well as to others interested in the meat industry. The office recognizes also that the average consumer has little technical knowledge in regard to cuts of meat, and that he therefore often passes by cheaper cuts of high nutritive value. It is the intention of the office to make further studies of this subject with a view to supplying practical information.

The country paper is the nucleus of community life, and the country must measure its progress by the community. The country editor exerts more of an influence on the community than any other agency. He is the advance agent of its civic progress, the stimulus of its social life, the big brother of the church, the patron saint of the school.—MERLE THORPE.

ROAD BUILDING PROGRAM

Kansas Needs Well Organized Plans for Highway Improvement

By Edw. C. Johnson, Before State Good Roads Association

A SENTIMENT for good roads has sprung up in this state and quite generally throughout the entire country. This sentiment is not accidental. While one of its principal causes undoubtedly is the general use of the motor car and the desire of the owner-driver for smooth and comfortable roads over which to travel, its principal cause is the more or less widespread belief that better roads will be financially and socially profitable.

This belief has gained a foothold through an educational process, slow at first but now proceeding with great rapidity. It was slow because the country was occupied with the development of its virgin soil and building of homes, schools, and churches. It has become more rapid as the pioneering period has passed and as facts have become more available, as demonstration roads and bridges have been built, and as the people have begun to realize that if there is to be any considerable development in agriculture, in the maintenance and improvement of homes, schools, and churches, better roads must not only follow these developments, but must accompany and even precede them.

Many agencies have contributed to the development of the good roads sentiment. The sociability runs and cross country tours so popular a few years ago and still indulged in, demonstrated strikingly to those who took part the differences in the roads in the different areas traveled, the superiority of some roads over others and the desirability of one type of construction as compared with another for motor travel.

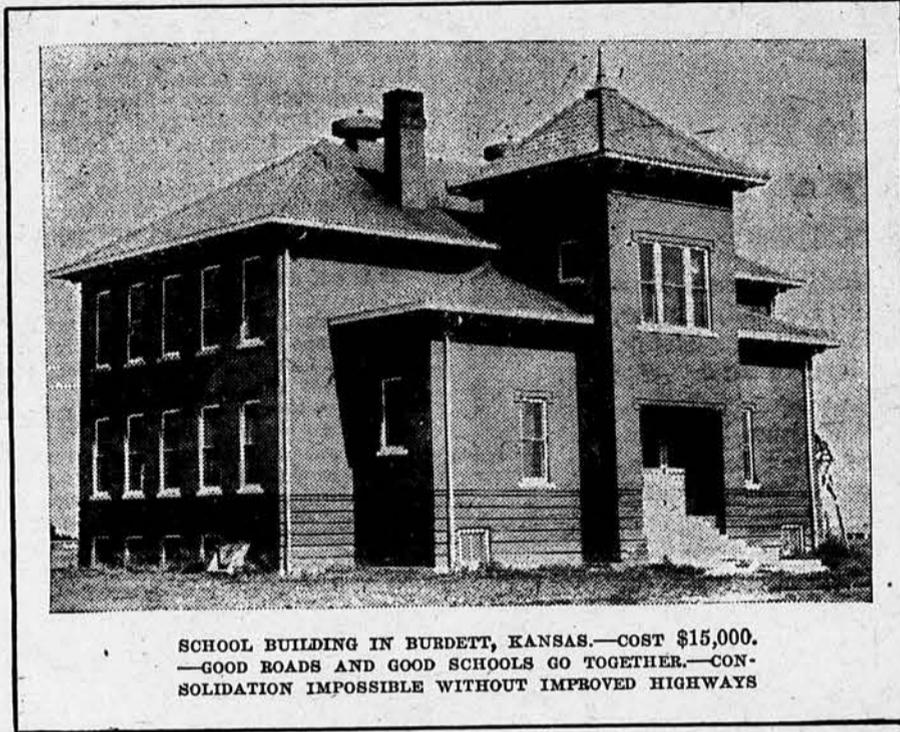
PROMOTING TRADE CENTERS

The good roads associations, many of them resulting from these sociability runs, become boosters for good roads. Commercial organizations wishing to promote certain centers of trade through road meetings and informative articles in the press helped to shape public sentiment. Last but not least, the consistent plugging for better roads on the part of engineers, agricultural colleges, highway departments, the United States Department of Agriculture, and the agricultural press has resulted in a rapid awakening of public sentiment for better roads. Nor should we omit from this category the good roads crank or the man with the hobby who with vision and imagination far wider than his neighbors, has pictured to himself a country intensively tilled, densely populated, with well built homes, prosperous villages, and community centers all connected with a network of motor traveled, surfaced roads. He, with other cranks like unto himself, has told his dreams, explained his visions and argued, talked, and planned for better roads in and out of season.

DEMONSTRATION BEST ARGUMENT

The most convincing arguments for good roads and bridges perhaps have been the demonstrations of effectiveness, of well dragged or surfaced roads and concrete bridges constructed here and there by commonwealth, county, municipality, or community. The 719 concrete bridges built in Kansas according to specifications and estimates furnished by the agricultural engineers, the 817 bridge inspections made and the 449 estimates of cost furnished by these engineers since the installation of the highway engineering department at the college in 1909, have been potent influences in demonstrating the value of concrete bridges and molding the opinion of the state as to the desirability and practicability of permanent construction.

Whereas five years ago there were fewer than 500 concrete culverts and 50 concrete bridges in the state, there are now not fewer than 5,000 such culverts and 500 concrete bridges. The sections of demonstration roads which these engineers have supervised, the engineering service which they have rendered on road construction valued at \$827,500 and bridge construction valued at \$2,813,370 and the 1,070 public meetings in behalf of good roads which they have addressed and helped to conduct since 1909 have been potent influences in shaping the sentiment of the state for better roads and bridges. The coastal and interurban surfaced roads surrounding and connecting some of the larger cities of California over which so many Kansans traveled in 1915 brought home effectively the de-



SCHOOL BUILDING IN BURDETT, KANSAS.—COST \$15,000.
—GOOD ROADS AND GOOD SCHOOLS GO TOGETHER.—CONSOLIDATION IMPOSSIBLE WITHOUT IMPROVED HIGHWAYS

sirability of surfaced roads both for pleasure travel and freight transportation.

BASE EDUCATION ON FACT

We have demonstrations, precedents, facts and figures on which our educational work may be based. The concrete bridges and gravel and surfaced roads already constructed will serve as demonstrations of road and bridge types so

that all who see may understand. Such states as Maryland, Massachusetts, and New York, where thousands of miles of permanent roads have been constructed by state aid and county funds, will serve as precedents of what to follow and what to avoid, while facts and figures showing how road improvement affects the value of land, the efficiency of schools, and social and economic conditions in the

Preservative Treatment of Wood

THE Federal Department of Agriculture has been making a study of the use of preservatives of wood and especially as applied to its use in silo construction. Wood is used for so many purposes that methods of adding to its life are of great value. While the government investigations have had to do with wood used for silos, the same preservative treatment is of value in extending the life of wood used for other purposes.

Experience with silos has shown that those built of untreated wood are subject to more or less decay. Even such durable material as heart cypress or redwood is not immune. Deterioration usually occurs near the foundation of the silos where certain conditions of moisture favorable for the development of the fungus of decay exist. Decay may also attack sappy wood in any portion of the structure.

In 1913 about 100,000,000 board feet of high-grade lumber were used in silo construction and the consumption of lumber for this purpose is steadily increasing. The importance of some kind of preservative treatment to prevent decay in wooden silos, therefore, has become generally recognized. Several manufacturers of wood-stave silos are now making use of preservatives so that it is possible to purchase the silo material already treated.

Of the various preservatives in general use, a good grade of coal-tar is very satisfactory for preserving timber. Almost any thorough method of treatment with this preservative ought to add to the life of the silo. Superficial methods, however, such as applying with a brush, dipping in the preservative, or spraying, are not sufficient. By far the best method is to have the staves treated with the preservative in a closed retort under pressure, and when so treated they should last indefinitely and should be more satisfactory to the purchaser.

Those who are considering the purchase of treated silos should investigate carefully the methods used, and if greatest permanence is desired should choose only material that has received a thorough pressure treatment. Silos built of

such material have the additional advantage of reduction in the swelling and shrinking of the staves, and, hence, they can be kept more easily. Another advantage of silos built of well-treated wood is that they need not be painted.

To determine the effect of a preservative treatment upon the durability of wood used in silos, and to obtain information as to the effect of the treated wood upon the surrounding silage, the Federal Products Laboratory began experiments in 1910 in co-operation with the University of Wisconsin. About five years after the experiments were begun the treated wood had not commenced to decay. Information in regard to the effect of treated wood upon the surrounding silage was obtained by an independent test after the first season, wood treated with creosote having been buried in the silage during the process of filling. This contaminated the silage sufficiently to give a strong odor, but the quantity of creosote in the feed could not be determined by analysis. This silage when fed to cows was not fished and two of the animals were affected slightly by it. This was a very severe test, however, for the wood was given a heavier treatment than is now considered necessary. Moreover, had the contaminated portion been thoroughly mixed with the rest of the silage, it is considered doubtful whether the effect would have been noticeable. This conclusion is borne out by the results obtained in practice. During the several years in which it has been the practice to treat wood for silos, the Dairy Division of the Federal Department of Agriculture has not heard of a single case in which the health of the animals has been impaired by feeding such silage.

"The shores of fortune are covered with the stranded wrecks of men of brilliant ability, but who have wanted courage, faith and decision, and have therefore perished in the sight of more resolute but less capable adventurers, who succeeded in making port."

The world is looking for the man who can do something, not for the man who can "explain" why he didn't do it.

country are being brought out every day.

The average farmer, whose support is wanted and is absolutely essential to any successful program of road building, is not, as many seem to think, a "tightwad" opposed to road building and improvement. He is naturally conservative as a result of his occupation, training, and experience. He is the most reasonable man on earth and willing to follow his best judgment when facts and figures are presented to him and he understands. When he realizes, as many already do, that good roads will mean a saving in his hauling charges of as much as 11.6 cents a ton a mile as was recently shown for certain counties by the office of public roads of the United States Department of Agriculture; when he realizes that improved roads will increase the attendance in his schools probably 10 per cent or more as was the case in these counties; when he realizes that improved roads will bring consolidated schools resulting in better teaching for his children; when he realizes that good roads and motor transportation enlarge his community, promote neighborliness and make co-operation among farmers more common and effective because farmers can come together more often and more easily, he will approve any substantial good roads program that leaders may wish to propose.

APPROVES PRACTICAL PROGRAMS

He will not only approve it, but help it along with his time and his money. He must be shown, however, by fact and figures where such a program leads. He must assimilate these facts, and time will make that not only possible but certain. When he has done so and is convinced, the good roads program will be on with no fear of a let-up.

But can we then stop in our campaign of education and expect things to run as they should indefinitely? Certainly not. Once the program is on, we need to know how to conduct it. We need to be convinced as a people that if 20 to 30 per cent of the roads in any county and in the state are made permanent roads, probably they will handle effectively 80 to 90 per cent of the traffic. We will need to understand road building so as not to over-capitalize any stretch of roads—in other words, not to put more money into the improvement of any strip of road than its ton mileage will warrant.

DETERMINE LOCATION BY TRAFFIC

We will need to know and to insist that the location of permanent roads shall be determined by the traffic they bear and may bear in the future and not by the whim or influence of some property owner or owners with an axe to grind. We will need to know what type or types of bonds to provide for road improvement. Shall they be long-time bonds to be paid for after the initial improvement has been exhausted or shall they be short-time serial bonds, the first series to be paid after the improvement is completed and all of them before it is exhausted?

We will need to appreciate above everything else that when the initial improvement has been made, only the preliminary steps have been taken and that proper maintenance is absolutely essential. We will need to know as a people that proper road building and maintenance must be delegated to the direction of men trained for the work and that they must be given ample authority to go ahead as their training and judgment dictate.

WILL MEAN BETTER CITIZENSHIP

Above all, we as farmers will need to know that with the coming of surfaced roads and rapid and easy transportation the increase in potential value of the land will necessitate its more efficient utilization, which in turn will make necessary a well educated, industrious and progressive citizenship.

An educational program for good roads in the past has been an invaluable aid to the creation of good roads sentiment. It is rapidly bringing about the crystallization of this sentiment into a public opinion which will result in action. It must go farther than that and serve as a constant guide that our acts may not be wrong or futile and that the program we undertake may be intensely practical and along such lines as will best serve our communities and our state.

Kansas Farmer Dairy Club

Variety in Feed Important

Cows will do better if they have a little variety in their feed. Even when the roughage is alfalfa and alfalfa hay, they will relish a little dry straw or fodder. Dairy men feeding for high records always make a practice of giving several different kinds of feed. A very little of some particular kind of grain in the feed may make it so much more palatable that the cow will eat the whole ration with a keener relish and seem to get more good from it. The bulk of the feed may be one grain and one kind of roughage, but this catering to the appetite by endeavoring to add to the palatability whenever possible, will pay when feeding milk cows.

It is not a good plan, however, to supply the variety by giving one kind of feed one day, another kind the next day, and perhaps still a different kind the next. Sudden and frequent changes of feed almost always cause a drop in the milk, even though the new feed may be better than the old. Some of the Dairy Club members have made quite frequent changes in their grain rations. In going over the feed records we have wondered why some of these abrupt changes were made. If a change must be made from one grain ration to another, it is always best to make it gradually, putting in a little more of the new feed each day until it finally entirely takes the place of the old.

It will also pay to keep the mangers and feed racks clean. Your cow will eat the hay and silage you give her with a better relish from a clean manger than from one littered up with the dirty or rejected fodder or hay that has been accumulating for some time. If you must feed some coarse or damaged fodder or hay, let your cow work this over at night. Feed her the allowance of the good, palatable roughage in the morning. When the poorer feed is fed in this way, your cow will work it over at her leisure, sorting out the best. Sometimes stockmen salt poor hay or fodder to make cattle eat it. It is not a good plan to do this for a milk cow. She should have salt, but it should always be supplied in a box where she can get at it whenever she wants to.

The most careful feeders always study the cow's appetite. Cows are just like people—they do not all like the same things. If you will study your cow's likes and dislikes carefully and as far as possible feed her the things she likes best, you can expect a little more milk than if you pay no attention to this important point.

Bulk in Ration

We have several times spoken of corn chop as being too heavy when fed by itself. Cows are adapted to digesting feeds having considerable bulk. They belong to the class of animals called ruminants, and this means their digestive organs are adapted to using large quantities of coarse, bulky feeds. By bulk, we mean that a given weight of feed occupies a large space. For example, 100 pounds of bran fills more space than 100 pounds of corn chop. A quart of bran as you would dip it out of a bin, will weigh about one-half pound, while a quart of corn chop will weigh about one and one-half pounds.

It is generally assumed that the digestive juices can more completely penetrate the bulky mixture, resulting in its more complete digestion. Whether this is the correct explanation or not, we know that the dairy cow must have her stomach well filled to do well. Experiments have shown that a pound of corn and cob meal, which is the whole corn ear ground into meal, gives as good results as a pound of clear corn meal. The finely ground cob which is mixed with the corn meal has almost no nutrient value. Its only value seems to be to make the corn meal more bulky so the digestive juices can work on it fully. Quite often the principal reason for putting a little bran into such a heavy grain as corn chop, is to make it more bulky so it will be more easily digested.

Roughage is always an important part of a cow ration and the greater part of the bulk in the ration comes from the hay and fodder fed. It is an impossibility to feed cattle successfully on grain alone. They must have the bulk in order to have digestion take place properly. In the early days of cattle feeding when corn was cheap, rough feed was not con-

sidered as having any other function than to act as "filling" as the cattlemen called it. We now know, of course, that rich roughage feeds like alfalfa hay supply a large amount of nutrient value. There is a limit, however, to the bulky feed the cow can eat and something more concentrated must be given to cows having large capacities for turning feed into milk. These grain mixtures, however, must not be too concentrated, and that is the reason it is very seldom advisable to feed corn meal or cottonseed meal without adding some bran. Some feeders overcome the effect of heavy grain mixtures by putting the silage in the feed box and sprinkling the cottonseed meal or other concentrated feed over it. Fed in this way, the cows must of necessity eat the grain and roughage together and the grain is therefore more perfectly digested.

Capacity to Produce Milk

The milk cow that gives a large flow of milk must have a capacity for eating and digesting a large amount of feed over and above what it takes to keep her body going. Your cow's production of milk will usually be in proportion to the amount of feed she eats. The light feeder—the cow with the dainty appetite—is seldom a big producer. The heavy producers are the cows that seem to have an almost endless capacity to stow away bulky feed.

Not every cow, however, turns the extra feed she eats into milk. Her capacity to turn feed into milk is largely inherited. When a cow has been fed until her capacity is reached, any extra feed she may be able to eat and digest will be wasted or stored as body fat. It is not profitable to feed a milk cow more than she will use in making milk. The body needs are always taken care of first by the cow, so the surplus is not needed for this purpose.

The point to remember is that it takes feed to make milk and as long as your cow responds with a reasonable increase in milk as you supply more feed, you have not pushed her to her full capacity. If she has not inherited a capacity for heavy milk production, you will soon find that she will not give more milk as you supply more feed. When this point is reached you have determined the cow's capacity for milk production if you have been feeding a well balanced ration.

Good Ayrshire Record

The two extremes of the United States are demonstrating the efficiency of the Ayrshire cow as a producer of milk and butter fat. The official yearly record just completed by Ryanogue Hattie, a mature cow owned by J. W. Clise, Washington, is 17,214 pounds of milk containing 806.91 pounds of butter fat.

Two months ago New York State, on the opposite side of the continent, gave the Ayrshire an impetus by giving to the world a new Ayrshire senior three-year-old record, Jean Armour 3d, owned by W. P. Schanck, producing under official test 21,938 pounds of milk containing 859.65 pounds of butter fat, her record being exceeded by only one cow of another breed when reckoned by points including both milk and fat.

These records prove that the Ayrshire is adapting herself to all conditions of climate and environment.

One of our Dairy Club boys, Paul Studdard of Leavenworth County, has a pet skunk. Paul was helping a neighbor put up hay one day in September, when the neighbor's dog discovered the skunk in the middle of the field and had a tussle with him. Paul went to the skunk's rescue. At the end of the day he took it home with him and put it in a pen where other skunks were kept. His pet's name is "Tommy."

Our Dairy Club boys should read the Farm Boy Cavalier story in the home department of this issue.

If you do not supply your cow all the water she can drink, she cannot do her best at making milk. The water should be fresh but not ice cold.

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Dairying Brings Independence

IN THE following letter, F. H. Bock, Sedgwick County, gives us a little of the history of his dairy business, and some of his observations during the eight years he has been developing it:

"Not long ago I read an article in a farm paper, written by one who looks on the dark side of the world. He said: 'It takes too much money to go into the dairy business.' This may be the case if one gets the idea into his head and hasn't enough confidence in himself to look on the bright side, pushing things along and sticking to one thing, no matter what he undertakes to do.

"Eight years ago when I landed in Kansas my wealth consisted of my wife, three small boys, \$35 in cash, and my trade as a car builder. I was raised on a farm and my ambition was for something better than to be a car builder. Working by the whistle became monotonous. All there was to do was work and sleep. I didn't know or hear much of the world.

"I had always liked cows. We bought a Jersey for \$40, and she proved to be a good one. For about sixty days she gave twenty quarts of milk a day. We bottled the milk and the boys placed the bottles in market baskets and delivered the milk in the neighborhood. Their trade began to grow. In two weeks they wanted another cow, and so on, until six months later their milk business had grown to \$258 for the month of January. I had to do some high financing to keep up with the demand. The business required a wagon and a horse, cows and feed, which overbalanced my capital at that time.

"We used business methods. We kept book accounts strictly, of all sales and expenses. I posted my books each night and always knew just what we did for the day. We fed baled hay. Mill feed was weighed or measured to each cow and fed according to her capacity of production. We milked mostly red cows and Jerseys. The cows in our herd averaged only about nine quarts a day, which wasn't a money-making proposition. I talked about getting Holsteins. Neighbors who had never milked Holsteins told me I would be arrested on account of the milk being so blue. I had \$800 to put in Holstein cows, but became discouraged. Finally my cows dropped another notch and it meant quit business or get better cows. I went over 200 miles and bought six grade Holstein cows and brought them home with me. The milk tested well and I was tickled because I had good cows that would produce good milk, return some money for the same feed, and not send me to jail, either. The six cows produced from 38 to 75 pounds of milk a day.

"Expensive improvements that so many talk about, are not necessary. We rented a small place in the beginning. There was a small barn with no floor in it. We put in a plank floor. Two years later we put in a cement floor, which is more sanitary and cost only a small amount of money. Our farm consists of ten and one-half acres, the soil is very sandy and always dry. We buy all our feed. We do not even have pasture, and we feed in the dry lot all the year. We

have a sanitary milking barn. The east and west sides are all windows, permitting the sun to shine over the floor twice each day. Floor and mangers are all cement. The barn is equipped with steel stanchions and a milking machine. The milk house, wash room, and enrine room also have cement floors. The barn floor is scrubbed after each milking, and this keeps it free from bad odors.

"The reason so many do not make good with cows is that they do not go at the work in a businesslike way. In the first place, they do not know what they are doing—they do not keep track of their feed expense, do not milk the right kind of cows, and do not use milk scales. You cannot make a draft horse out of a pony, neither can a milk cow be made of one that is not in her nature a milker. A cow must produce 5,000 pounds of milk a year in order to pay for her keep. She must produce 8,000 pounds of milk a year in order to make any profit.

"The only way to improve a dairy herd is to use a registered sire with not only papers behind him, but possessing good qualities of his own. Then raise the heifer calves from the best cows. If the cows are registered, official records should be made by all means. The cost for this is small, and the value it will add to your cow will far exceed the expense of making the record. We know of a registered cow which sold last year at a sale for only \$175. The owner had never made an official record on this cow and didn't know her worth. She was taken to our barn and we made a record on her. She was in only farm condition, but she produced in seven days 431.1 pounds of milk, making 24.26 pounds of butter. The owner now values her at \$500 and she is well worth the money. I know of several instances where good registered cows have been sold for grade prices and after records have been made by these cows they have doubled and trebled in value. Registry adds value, not only to the cow but to the offspring. Not long ago a dairy farmer sold a several-months-old registered bull calf for \$35, because he didn't know what the dam of this calf could do. His neighbor sold a two-weeks-old bull calf for \$75 because the calf had good official backing. Three years ago it was easy to sell registered bull calves. All that most people required was the papers to show that the animal was registered, but at present most farmers and dairymen who are reading dairy papers are so well posted that the first thing they ask for is the calf's official backing. If this cannot be given, the seller is up against a hard proposition and must be content with a beef price for the registered bull calf.

"Some who have never had experience in making official records may advise you not to make them, giving as their reason that it will spoil your cow for further usefulness. This is all bosh. We have made several records and most of the cows have proven better in later years than they were at the time the records were made.

"The dairy cow has put us on the map of Kansas, and we respect her and give her the best of everything."



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WM. GALLOWAY CO., Waterloo, Iowa. Gentlemen: I want to thank you for your courtesy and square dealing in my purchase of a manure No. 8 that you shipped me. It is giving me the best of satisfaction. I have been in active business more than 25 years and I wish to say I never received more kind or fairer treatment than I have from your house. Some people treat me as if I were a beggar, but when I buy a Galloway spreader I know I am getting a good spreader as money can buy, and by buying from you I kept \$15.48 in my own pocket which is the nearest home I can keep it. Some said that a 65 bushel machine was too large, but I am using mine with a team that weighs 1,800 lbs. with perfect satisfaction. Very truly yours, Mr. Wm. H. Adams, R. 1, Pound, Wis.

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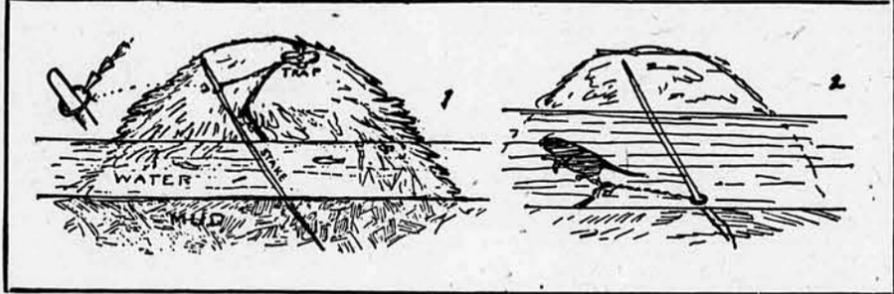
Trapping Muskrat and Mink

IN THE December issue of the American Boy appears a most interesting article on how to trap, by that famous outdoor man, Dan Deard. By special permission we quote the following: "The muskrat is perhaps the most plentiful of the bur-bearers which claim the trapper's attention. Of late years this fur has become very popular, and as a result these aquatic rodents have been trapped by hundreds of thousands. In spite of the slaughter, however, the supply of muskrats seems unimpaired, and the animals themselves may be found almost everywhere in the vicinity of ponds, streams and marshes. Muskrats are beaver-like in appearance, with a dumpty rat-like body from a foot to fifteen inches or more in length. The most interesting thing about the muskrat is its tail, which, like that of the beaver, is flat and hairless and covered with scales. The hind feet, too, are slightly webbed like those of its larger and more famous relative. The fur of the adult muskrat is rich dark brown above and ashy gray beneath. The young 'pups' are lighter in color and the fur is softer and more woolly. Muskrats build dome-shaped habitations of

or chicken feathers. The bait may be either broken heads, fish or meat. Perhaps the most enticing bait is a preparation made by putting a number of minnows into a large air-tight bottle or jar, which should be hung in the sun until the minnows have thoroughly decomposed and formed a heavy odorous oil. A few drops of this lure will entice a mink a long ways to the trap. The mink varies in size from fifteen to thirty inches, with a rich dark fur, short legs and a long furry tail. It is useless to trap the mink before the winter has actually set in, for the fur is sure to be unprime before the arrival of real cold weather. It is also the first fur to become 'stagey' or unprime toward the end of winter, and few pelts taken after February 1 will bring the top market price.

Mulch the Strawberries

Mulching is an essential in growing strawberries. It not only insures clean fruit, but it aids in retaining moisture in the soil, assists in conserving fertility, and saves the plants from winter-killing. You should not be in too much of a hurry, however, to apply the mulch,



sticks (Fig. 1), mud and weed-stalks, along the borders of streams and ponds, and in the larger marshes. Family parties numbering anywhere from six to a dozen individuals live in these snug domiciles. The entrance to the lodge is under water, and the living apartment is a roomy weed-lined chamber some distance above the level of the lake or marsh. To capture muskrats, most trappers simply chop a hole in the house and set one or more traps in the living chamber. The trap should be securely fastened, and covered with grass or leaves. Another successful way to take 'rats' is to set the trap on an unfinished house, late in the autumn. In this case the ring of the trap chain should be slipped over a long smooth sapling (Fig. 1), which should be slanted down into the water and firmly implanted in the mud. This contrivance is known as the sliding pole. As the muskrat invariably dives when caught, he will go to the bottom and speedily drown (Fig. 2), as the short trap chain will prevent him rising to the surface. In setting traps for muskrats it will seldom be necessary to use bait. However, if you are unable to find the houses or workings of these animals, and still have reason to believe that the 'rats' themselves are in the vicinity, place your traps where you have seen tracks or signs, and bait with apples, carrots, flag-roots, raw potatoes, etc., as the muskrat is largely a vegetarian and root eater.

as the plants continue to grow until late in the fall. The last of November or the first of December is the proper time for mulching in this state, but don't neglect to do it then.

Mulching is a protection against the alternate freezing and thawing so common in this state. This is a serious menace to strawberry growing, as it breaks off the many small feeding roots of the plants, thus destroying their source of nutrition and resulting in diminished crops and berries of poor quality. In fact the plants are sometimes killed.

The commercial growers in the northeastern part of the state mulch for another important reason. The berries in Doniphan County begin to ripen soon after the Arkansas and Southern Missouri berries have been placed on the market. The market is soon flooded and berries from Wathena and Troy are sold for a price sometimes lower than the cost of production. A mulch on the strawberry patch retards plant development in the spring and makes it possible to have berries ripen at least one week later and thus avoid competition with berries from another locality.

Coarse straw or very coarse, weed-free hay, makes the best winter wrap for strawberry plants. Manure is likely to heat and injure the plants, and fine material of any kind will smother them.

Accidents on Roads

A great fuss is occasionally made of the dangerous character of the automobile travel on roads. Nobody will deny that there are too many automobile accidents and too many of these are due to carelessness on the part of the drivers. But it is only fair to consider that the automobile runs over every kind of road, in crowded highways and narrow winding lanes. In Massachusetts, where accident records are kept carefully, one person was killed or injured in 1915 for every eighteen motor vehicles registered. If the 25,000 foreign cars visiting the state are included in the computation, it shows one person injured or killed for every twenty-two motor vehicles. The gravity of such an accident record cannot be denied, yet even such figures are relative and should be compared with the accident record of street cars, which run on tracks and require less skill for safe operation.

"The mink is another famous fur-bearer that is partial to the borders of ponds and streams. This handsome fur is probably the most popular and highly prized fur in the American market today. It always commands a good price, and lucky indeed is the trapper whose trapping grounds are visited by this sly little woods prowler. A woodland stream, often on the very borders of thickly populated settlements, is the favorite hunting ground of the mink. There in the mud you will find the small, sharply pointed tracks, which are registered in pairs with a third track appearing behind the others at frequent intervals. One of the most successful ways of taking the mink is to build a small pen or cavern of rocks, with an opening the width of the trap. Place the bait at the rear of the pen, and set your trap at the entrance. The trap should be well concealed beneath dry leaves, grass

Canada's Liberal Offer of Wheat Land to Settlers

is open to you—to every farmer or farmer's son who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is much higher but her fertile farm land just as cheap, and in the provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads Are Actually Free to Settlers and Other Land Sold at from \$15 to \$20 Per Acre

The great demand for Canadian Wheat will keep up the price. Where a farmer can get near \$2 for wheat and raise 20 to 45 bushels to the acre he is bound to make money—that's what you can expect in Western Canada. Wonderful fields also of Oats, Barley and Flax. Mixed Farming in Western Canada is fully as profitable an industry as grain raising. The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent. Military service is not compulsory in Canada but there is an unusual demand for farm labor to replace the many young men who have volunteered for the war. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

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Eliminates the out-door privy, open waste and cess-pool, which are breeding places for germs. Have a warm, sanitary, odorless toilet right in your house. No going out in cold weather. A boon to invalids. Endorsed by State Boards of Health.

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

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Makes and Burns Its Own Gas. Gives a brilliant mellow light of 800 candle power. Costs less than one-third of a cent per hour to run. No wick to trim, no chimney to clean, no greasy oil to handle, no smoke, no odor. Nothing to get out of order. Can't pull, can't explode and no danger if tipped over. Will last only once a week. Clean it only once a year. If not on sale at your dealer's, write for catalog showing many beautiful styles.

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Money To Loan on Farms

Low Rates. Quick Action. Agents Wanted.

FARMERS LOAN & TRUST COMPANY, Tenth and Baltimore Ave., Kansas City, Mo.

These cars had a record during the same year of one person killed for every car. The comparison has been stated in another way by the Massachusetts Highway Commission: The average motor vehicle traveled 100,000 miles before any person was killed or injured, while the average electric car traveled only 16,000 miles. So far as the danger to non-passengers is concerned, the records show that the electric car was five and one-half times more subject to such accidents than the motor vehicle.

Pays to Shelter Tools

While visiting a prosperous farmer not long ago I noticed that his tools were all under shelter. The shovels of the cultivators and the shares and the moldboard of the stirring plows had been coated with a covering of axle grease while they were bright. The wagons and buggies were all in shelter while not in use.

This farmer told me that he goes over all his tools during winter and repairs or replaces all worn-out parts so that when they are needed they are ready for use.

The financial gain made by properly caring for tools is a question which should be considered. All farmers do not seem to agree that it pays. We suggest that this question be considered. If you leave your tools exposed to the weather the year around, do you do it because it pays better than sheltering them would pay?—J. E. PAYNE, Oklahoma.

Treatment of Macadam Roads

While New York is building many miles of water-bound macadam roads, it is not generally understood that these receive a surface treatment of bituminous material and thus become a different class of roads from the macadam used before the advent of automobiles. New macadam roads are full of moisture, and where the climatic conditions are like those of New York it takes three months for this moisture to disappear and leave the road in such a condition that the bituminous surfacing material will adhere to it firmly. Consequently roads finished so late in the fall that they cannot be seasoned for three months before winter prevents further work on them are given a surface treatment of calcium chloride. This material has long been used in England as well as the United States as a dust preventive. It holds enough moisture on the surface of the road to prevent the dust formed by travel from being carried away, and this dust and water act to bind the road during its transition from a green to a seasoned state.

Guarding Against Rats

Rats are a great source of loss and annoyance about farm buildings. The use of concrete in the construction of all foundations is one of the best means of excluding rats from corn cribs, granaries and other buildings. Cellar floors and walls should be of concrete, and in wooden buildings the space between the sheathing and lath or inside wall should be filled with concrete to a height of a foot. Buildings without cellars should have concrete floors or, if wooden floors are necessary, they should rest upon concrete.

In a rat-proof building of this sort, the only way for the rats to get in is through doors or windows. Basement windows should be screened with wire netting and doors reinforced with light metal plates to prevent the rodents from gnawing through.

Trapping and poisoning are good methods of getting rid of rats, but the latter is often impractical on account of the odor from the dead animals. Rats are not easy to trap. Trapping is most effective when they cannot get to grain or other food. The improved modern traps are useful if they are strong enough. Metal traps are best because they are less likely to absorb odors, and are durable. Cage traps often catch a large number at once, but a constant and intelligent use of the trigger type of trap gives best results.

The first step towards greater efficiency in the management of the average dairy farm is to arrange the buildings, yards and pastures so as to avoid lost motion, unnecessary hauling, and all extra steps. The beginner has an advantage in this way if he has the right idea. It is more difficult to rearrange an old plan, but it can be done if the farmer will prepare his plan and then work to establish it.

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SMOKE away on Prince Albert like it was the cheeriest thing you ever came across, for it proves out so mighty loyal to your tongue and taste! Our exclusive patented process cuts out bite and parch and quality gives it such delightful flavor and fragrance! You'll enjoy it more all the time!

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was brought into the tobacco world to give men a pipe or makin's smoke free from any disagreeable come-back; to make it possible for all men to smoke to their heart's content! You can't put yourself in wrong with Prince Albert no matter what kind of smoke test you give it! P. A. is just like a friend who rings-like-true-steel—worthy the confidence you put in it!

Prince Albert is to be had everywhere tobacco is sold in tippy red bags, 5c; tidy red tins, 10c; handsome pound and half-pound tin humidors—and in that clever, practical pound crystal-glass humidor with sponge-moistener top that keeps the tobacco in such perfect condition.

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Cushman Light Weight Engines

These are the all-purpose farm engines, for farmers who want an engine to do many jobs in many places instead of one job in one place. Built light, built right. Weigh only about one-fifth as much per horsepower as ordinary farm engines, but so well built and carefully balanced and governed that they run even more steadily and quietly. No loud explosions, no fast-and-slow speeds. Like old fashioned heavy-weights, but steady and quiet running like automobile engines.

4 H. P. Hand Truck Outfit. Easy to pull around from job to job. Same engine used on Binder.

8 H. P. mounted on hay press. Also used on Corn Pickers and all other farm work.

Before buying any engine ask these questions:

1. How much does it weigh? If it weighs more than 60 pounds per horsepower—why? The old-time argument was that heavy weight was necessary to keep it steady; but if an engine is properly balanced, it doesn't need pig iron to hold it down.
2. Is it Throttle Governed? A throttle governor insures steady, quiet and economical power.
3. Does it have a good carburetor? The Cushman has the Schebler. Many manufacturers of farm engines won't pay the price for a good carburetor, as they think the farmer doesn't know the importance of it.

Cushman engines are not cheap, but they are cheap in the long run. If you want an all purpose engine, that will run for years without trouble, write for our free Light Weight Engine Books.

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Increasing Egg Production

If a poultryman wishes to improve his flock, he must depend upon the male bird. The high egg producing qualities of a flock are transmitted by the male bird. This has been proven by careful experimentation. A male bird that has come from parents of medium production is not likely to produce a high producing individual when crossed with even the best of hens.

The early maturing stock will contain the high producing birds. These birds should be separated and trap-nested in order to find the best producers.

When the high producing birds are determined, they should be transferred to a breeding pen and mated to male birds that have come from productive birds.

The next fall, when the offspring are about to lay, the best of them should be trap-nested and their records determined. The parents of the heaviest producers should be kept for breeding purposes. The ancestors of those that did not make a good record should be discarded.

It takes at least three years to determine which are the best producing birds. A certain bird may make a record by accident and not be able to transmit the power of egg production to its offspring.—ROSS M. SHERWOOD, K. S. A. C.

Improving Flock by Grading

In "Principles of Breeding," Dean Davenport, its author, says, "The failure to make the most of grading is the largest single mistake of American farmers." In no instances does this carry more truth than in farm poultry keeping.

In grading up the flock, begin with a definitely fixed ideal. Keeping this ideal in mind, whether it be maximum egg production, excelling meat qualities, or one of the many other phases of poultry keeping, select a good pure-bred male to mate with your mixed or grade flock. If, for example, egg production is the aim in view, choose one of the smaller breeds and a strain of that particular breed showing high production records. Changing the breed or type of male each year will never bring results.

Never use a grade male. He may look as though apparently he carries the qualities of the breed, but he has not the breeding that will insure his prepotency. Under no condition should pure blood of other breeds be introduced. One such cross will do more mongrelizing than can be undone in years.

After using a pure-bred male in your

flock for three or four generations, you will be amazed at the effect which it has on a variegated mongrel-looking lot of birds, and also the uniformity and degree of excellency which you have attained.—C. S. ANDERSON, Colorado Agricultural College.

There is a noticeable absence this year of small, back-yard poultry flocks. Usually in every village and medium-sized town the majority of the families have a few hens in the back yard to furnish fresh eggs for table use. This year the high price of feed has driven most of these flocks out of existence.

The importance of sour milk as a poultry feed is being urged by several of the eastern poultry papers. The Government has been conducting a series of experiments to prove its value in the ration. N. L. Harris at the Kansas Agricultural College poultry farm, has been using sour milk for the past five years, and finds that it has a very important place as an egg producer. In his estimation, however, its greatest value is found when fed to growing chicks.

Where sour milk is fed there is far less mortality among baby chicks and the growth is much more uniform than where no milk is given. It has a greater value fed sour than when fed sweet. If possible, it should be given baby chicks as the first feed.

Order Nursery Stock Now

Early ordering of nursery stock is an advantage to both the purchaser and the nurseryman. Plans can be made now for the spring planting of various kinds of fruit and shrubs. This early planning gives the purchaser ordering stock a chance to secure bids on stock from several sources and finally make his purchases where he can get the best stock at the lowest prices.

The nurseryman is able to give better service to those who order early. He has more stock to pick from and as a result can supply better quality. The nurseryman can also furnish a greater number of varieties to those who order early and has the chance to select the most suitable time for shipping. He is not rushed and can take more pains in labeling and packing the stock for the early buyer.

Missouri Poultry House

IN OUR issue of November 11 we described a farm poultry house that has been tested by the poultry department of the Missouri Experiment Station and highly recommended by them. This house is designed for the average size farm flock. The bill of material for its construction herewith given, may interest those of our readers who are planning to build a new poultry house:

BILL OF MATERIAL

Use	Pieces	Size	Grade	Board Feet	Cost	Total
Rafters	22	2x4-12	1	176	\$2.50	\$ 4.40
Plates and sills	8	2x4-20	1	107	2.50	2.68
Studding and framing	1	2x4-10	1	7	2.50	.18
Roosts	5	2x4-20	1	74	2.50	1.85
Finishing	6	1x4-10	2	20	2.00	.40
Finishing	1	1x4-16	2	6	2.00	.12
Finishing	4	1x4-10	2	14	2.00	.28
Finishing	8	1x4-12	2	32	2.00	.64
Floor for loft	52	1x4-14	2	260	2.00	5.20
Sides car siding . . . . .	..	1x6-10	..	600	2.00	12.00
Roof and droppings platform, shiplap . . . . .	..	1x8-12	..	720	2.25	16.20
Shingles . . . . .	..	..	..	5 1/2 M	3.00	16.50
Sashes	7	6 light 8x10	..	..	.60	4.20
Front and over windows wire netting . . . . .	..	3x32	..	..	.04	1.28
Pair hinges	1	..	..	..	.10	.10
Materials excluding nails and foundation . . . . .	..	..	..	..	..	\$ 71.11
Labor . . . . .	..	..	..	..	..	28.28
Foundation, three cubic yards at \$6 . . . . .	..	..	..	..	..	18.00
Total . . . . .	..	..	..	..	..	\$117.39



What are you doing to help your hens lay winter

EGGS?

Midwinter is not the natural egg laying time. It's a forcing process now. Hens need to have the egg organs livened up. They need egg-making material, lots of albuminous feed, but they need more. They need to be conditioned and kept in egg-laying trim.

Dr. Hess Poultry PAN-A-CE-A Helps Egg Production

It's a conditioner which builds up the hen's health, gives vigor and good feeling and has a most beneficial effect on the egg organs. Get the Dr. Hess Poultry Pan-a-ce-a habit and get eggs like the many thousand other users do. Good for the health and vigor and growth and feathering of all poultry, chicks as well as grown fowls.

So sure am I that Dr. Hess Poultry Pan-a-ce-a will help to keep your poultry healthy and help to make your hens lay, that I have authorized my dealer in your town to supply you with enough for your flock, and if it doesn't do as I claim, return the empty package and get your money back.

Book on Poultry Keeping free on request.

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Positively expels worms. A valuable tonic and conditioner for cattle, horses, hogs and sheep. Improves appetite, tones system, helps digestion. 25-lb. pail, \$2.00; 100-lb. drum, \$3.50. Smaller packages as low as 50c (except in Canada, the far West and the South).

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Kills lice on poultry and farm stock. Provide your hens with a dust bath, to which add Instant Louse Killer occasionally. Your hens will do the rest. 1-lb. can, 25c; 5-lb. can, 90c. (Except in Canada.)

1 1/2 lbs. 25c
5 lbs. 60c
12 lbs. \$1.25
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Make Hens Lay Now While Eggs Are High

Your hens will lay now if you provide right conditions. During spring and summer they find many things they need to keep them in health, and they lay heavily. In winter you must supply these necessities if you want eggs.

Pratts Poultry Regulator

serves this purpose fully. It is a combination of roots, herbs, mineral substances, etc., which spices the mash mixture and induces the birds to eat greedily; aids digestion; enriches the blood; improves circulation; speeds up the egg-producing organs; puts the fowls in the pink of physical condition; MAKES THEM LAY. And all at a cost of about one cent a bird per month. Pratts Poultry Regulator will increase your profits.

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will keep the houses sanitary and kill disease germs. Use it now. Don't let disease get a foothold in your flock.

Our dealer in your town has instructions to supply you with Pratts Preparations under our square-deal guarantee—"Your money back if YOU are not satisfied"—the guarantee that has stood for nearly fifty years.

Write for 64 page Poultry Book—FREE.

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WANTED—LIVE AGENTS AT ONCE. Excellent terms. Falls City Nursery, Falls City, Nebraska.

THOUSANDS U. S. GOVERNMENT JOBS now open to farmers, men and women. \$65 to \$150 month. Write immediately for list positions easily obtained. Franklin Institute, Dept. S-82, Rochester, N. Y.

LADY OR GENTLEMAN TO TRAVEL for old established firm. No canvassing. Staple line. \$18 weekly, pursuant to contract. Expenses advanced. G. G. Nichols, Philadelphia, Pa., Pepper Bldg.

WANTED—A FARMER WITH CAPITAL. Agricultural college graduate preferred, to purchase an interest in a large sanitary milk farm in the East. Farm now supports one hundred cows. Person would be expected to take entire charge of the farm. Address Box 558, Oswego, Kansas.

MEN WANTED AS WAGON RETAIL merchants to sell to farmers, our line of one hundred and nine articles of every day need on the farm and in the home, embracing home and veterinary remedies, extracts, spices, toilet articles and sundries. Every man that is earning only a small salary should send for our free booklet describing the Haller Way that helps a man to help himself, and how he can get into a good permanent business on our capital, if he is progressive and desires to save money for the future. The Haller Proprietary Co., Blair, Nebraska. Established in 1888.

TO FORD OWNERS

STOP FOULING OF SPARK PLUGS AND pumping of oil by attaching a White's Oil Distributor to your Ford. Saves its cost in thirty days in oil alone. Price \$3 prepaid or sent collect on delivery if you write your name on a postal. Evapco Manufacturing Company, 416 Grand River Ave., Detroit, Mich.

CATTLE.

REGISTERED JERSEY CATTLE. PERCY Lill, Mt. Hope, Kan.

FOR SALE—TWO SHORTHORN BULLS. One is a roan yearling and one red, 10 months old. R. L. Skubal, Jennings, Kan.

FOR SALE—AN EXCELLENT REGISTERED Shorthorn bull, of serviceable age. Red in color. C. W. Merriam, Columbian Building, Topeka, Kansas.

FOR SALE—ONE 3-YEAR-OLD HIGH-grade Holstein cow, will be fresh inside of three weeks, for \$125. G. H. Regier, Whitewater, Kansas.

FOR SALE—TWO 1-YEAR-OLD HOLSTEIN heifers, well-bred grades, nice color, \$75 per head. G. H. Regier, Whitewater, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16ths pure, crated and delivered to any station by express, charges all paid, for \$20 apiece. Frank M. Hawes, Whitewater, Wis.

FIVE HOLSTEIN HEIFER CALVES, 15-16ths pure-bred, well marked, at \$20 each. Two registered Holstein bulls, one six weeks old, at \$40; one five months old at \$55; crated for shipment anywhere. Write Minor R. Knlians, Whitewater, Wis.

HOLSTEIN SALE—AT FARM THREE miles northeast of Richmond, Kansas, Friday, December 15, 1916. Sixteen high grade Holstein cows and heifers, fresh or bred to my great herd bull, Carlotta Henry Pontiac 148234, grandson of the champion college cow, Maid Henry. Free conveyance from Richmond. F. E. Patten, Richmond, Kan.

REAL ESTATE.

TRADES EVERYWHERE—EXCHANGE book free. Berial Agency, El Dorado, Kan.

640 ACRES, EASTERN KANSAS IMP., 300 acres in wheat, 100 in alfalfa. Price, \$75 per acre. Can take in 160. Write P. O. Box 125, St. Marys, Kansas.

FOR SALE—IN CATHOLIC COMMUNITY, improved farms. Small payments, easy terms. Write for list and prices. L. E. Pendleton, Dodge City, Kansas.

OHIO CORN FARM—140 ACRES ALL very best corn soil; good house and barn, fine drainage, on good stone road, R. F. D. and telephone. Well located, 5 miles from St. Marys, Auglaize County, Ohio. Price, \$165 an acre. Address Owner, Geo. W. Holl, New Knoxville, Ohio.

FARMING IN FLORIDA.—OUR LANDS are extremely fertile, clay or marl subsoil. Practically twelve months growing season. Abundant, well distributed rainfall. Good for trucking and citrus culture. Close to transportation, on branch of Dixie Highway, settled and prosperous community. Chance for big profits to right men. Our book, "Farming in Florida," tells all. Write for free copy today. O. P. Swope Land Company, Oviedo, Seminole County, Florida.

FARMS WANTED.

FARMS WANTED—HAVE 7,000 BUYERS. Describe your unsold property. 514 Farmers Exchange, Denver, Colo.

PIGEONS.

MAKE MONEY RAISING SQUABS. Booklet tells how for 10 cents. Smith Brothers' Literary Association, 504 Hardesty, Kansas City, Missouri.

SHEEP

100 NATIVE BRED EWES FOR SALE. B. E. Miller, Newton, Kansas.

THE STRAY LIST.

TAKEN UP, BY EARL SOUTHER, FOUR miles north and two miles east of Parsons, Neosho County, Kansas, one red milk cow, weight about 700 pounds, November, 1916. W. E. Craig, County Clerk, Erie, Kansas.

HONEY.

ONE 60-POUND CAN CLOVER, \$6.25; case of two cans, \$12.00; two, \$11.75; five, \$11.50. Light amber, one 60-pound can, \$5.25; two, \$10.00, f. o. b. Center Junction, Iowa. Cash with order. Satisfaction guaranteed. W. S. Pangburn.

ALFALFA.

I CAN SHOW YOU RAW LANDS THAT I sold less than two years ago at \$85 per acre that are now renting by the year at fifteen dollars per acre. Why not get some of this wonderful alfalfa bottom land now? I have several choice pieces at \$100 on long time payments. Under best irrigation system in America. For names of farmers from your own state now here and printed matter, write H. H. Clark, 100 Main, Calipatria, Imperial Valley, California.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

WOLF AND COON HOUNDS. RICE & Tindall, Garnett, Kansas.

FOR SALE—COON, SKUNK, OPOSSUM, wolf and fox dogs. Few rabbit dogs. Reasonable. Tindall & Rice, Garnett, Kansas.

AIRDALE—THE GREAT TWENTIETH century dog. Collies that are bred workers. We breed the best. Send for list. W. R. Watson, Box 128, Oakland, Iowa.

SITUATION WANTED.

JOB WANTED—BY AN EXPERIENCED farmer as foreman or would work by month this winter. Good references from bank and other good firms. Jos. Wood, Burns, Kan.

HOGS.

CHOICE CHESTER WHITE BOARS BY Prince Wildwood, at \$25 each. Elmer Cunningham, Fullerton, Neb.

100-POUND POLAND CHINA BOARS, \$15. Six weaned pigs, \$35. Four gilts (shots), \$50. Quick. Frank Barrington, Sedan, Kan.

SHETLAND PONIES

SHETLAND PONIES FOR CHRISTMAS—Charles Clemmons, Coffeyville, Kansas.

WANTED—TO BUY.

WANTED, SEEDS—CLOVER, CANE, millet, kafir, milo, English blue grass, Sudan grass, pop corn. Send samples. Mitchellhill Seed Co., St. Joseph, Missouri.

WE ARE IN THE MARKET FOR SKIM milk. Quote delivered price and daily quantity you can offer in your own cans. Armour & Company, Kansas City, Kansas.

MISCELLANEOUS.

FERRETS FOR SALE—PRICE LIST free. Also ferret muzzles, 25c each. Bert Ewell, Wellington, Ohio.

SWEET CLOVER SEED, LARGE WHITE biennial hulled. Guaranteed pure. \$10 per bushel. Sample on request. Walter Coleman, Fort Scott, Kansas.

YOU CAN MAKE A GOOD LIVING IN your back yard raising Belgian hares. Full particulars and price list of all breeds, 10c. Thorson's Rabbitry, Aurora, Colo.

GARRETT SOLD TWENTY-NINE SPRAY pump auto washers in three days. Profit, two dollars each. Get Square Deal-B. Rusler Mfg. Co., Johnstown, Ohio.

NEW CROP TABLE RICE, PRODUCER to consumer. 100 pounds beautiful clean white whole-grain table rice in double sacks, freight prepaid to your station, \$5.85. We guarantee safe arrival of rice. Cabaniss, Rice Farmer, Box 103, Katy, Texas.

FOR SALE—16-HORSEPOWER GASOLINE engine on steel trucks; good as new. Double seated carriage, rubber tires, good as new, cost \$480, or will trade either of the above. Make me an offer. H. W. McAfee, Route 8, Topeka, Kansas.

FANCY SWEET CLOVER SEED, PURE white, hulled, re-cleaned. Price, ten dollars per bushel, f. o. b. Florence, Kansas. Fancy alfalfa seed, re-cleaned, for eight dollars and forty cents per bushel. Will ship by freight or express. Will not ship less than sixty pounds. Reference, Florence State Bank. J. F. Sellers, Florence, Kansas.

I HAVE NO RENT OR HIGH PRICED salesmen to pay, therefore I sell pianos and player pianos very low. I now have a fine \$650 player piano, standard make, for \$368; used only three months; also one slightly used piano for the low price of \$228; beautiful case and made by one of the largest factories. H. S. Dickey Piano House, Dickey Building, Newton, Kansas.

FARM AND HERD.

A. A. Meyers, of McLouth, Kansas, one of the successful breeders of pure-bred Poland China hogs, reports his herd doing well. Mr. Meyers keeps his herd immune at all times. He keeps all pens and hog houses in a sanitary condition and this practically insures a healthy herd. Meyers' Orange, the two-year-old boar at the head of this herd, is a 900-pound hog with lots of quality. He is one of the good sires of the breed now in service. The sows of the herd are the big, high-quality, prolific kind, and a feature of the herd is the fine lot of young stock, including spring boars, spring and fall gilts, and a choice lot of fall pigs.

C. A. Fees, owner of the Wichita Holstein herd, reports his herd making a good record this year. A feature of this herd is the choice lot of calves by a 25-pound sire. This is one of the herds in Kansas that has been bred for production and the result is that they are consistent profit producers.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

So many gods, so many creeds;
So many ways that wind and wind;
While just the art of being kind
Is all the sad world needs.
—Ella Wheeler Wilcox.

School Visiting Again

How many times have you visited the school this fall? If more of us would acquire the habit of visiting the school in order that we might know how it is conducted, we would better understand what the teacher is trying to do and the teacher would accomplish more by reason of that understanding which would be sure to develop into co-operation.

We cannot relieve ourselves of the responsibility of visiting the school on the statement that the teacher has been hired to look after it. The parents of the children in the school should be more interested in it than anyone else, and if their interest is manifested by frequent visits, both teacher and pupils will do better work.

Christmas Giving

In Christmas giving, let us not remember only friends—those who have befriended us or to whom we are indebted for many kindnesses. The needy and friendless—those who will not have a Christmas unless we help to make it possible—are the ones we should seek out and make a special effort to brighten the season for them, that it may be easier for them to remember the origin of the day and its true meaning.

A card to friends, expressing our good wishes and interest in their welfare, will carry the cheer they need, but if we can back our good wishes with useful gifts to those who lack many of the necessities of life, we will have experienced a joy impossible through any other source.

If we can remember with gifts, both friends and needy, well and good, but if there must be a limit, let us at least divide with the needy.

Message from Wisconsin

In a new community there are many needs of advancement to discuss. And the organization of a club or society affords the people an opportunity for talking over or debating all these questions.

Cedarville is a rapidly growing settlement in Marinette County, Wisconsin. There were only a few families here in 1914, but we saw the need of some way to come together for the planning and improving of our little town. We organized a Sunday School and had church services, all meetings being held in the school house.

To fill our social needs the Cedarville Improvement Society was organized and it has proven the greatest factor in our midst for keeping the people together and interesting the young people. This is where we discuss the needs of the farmer in this new, fast settling country.

A program is given at each meeting of the society. We have debates to decide which is more profitable to raise, the dairy cow or the family hen; which is the best feed for cattle, alfalfa or clover; which is the best money crop, sugar beets or cucumbers; which is the best dairy cow, the Holstein or the Guernsey; and many such subjects interesting to the farmer. We issue a little paper edited by some member of the society and it is read at each meeting. We have music, readings, dialogues, tableaux, mock trials, and various other entertaining features.

Sometimes we have a speaker come from an agricultural college or experiment station. They tell us of pedigreed grains, money crops, clearing land, crop rotation, the breeding of better dairy cattle, the raising of corn, field peas, soy beans, the feeding of dairy cows and their care, milk testing, and all these things which we need to know.

The Wisconsin State Agricultural Department has become interested in our

work and has offered to help in any way we need help. We receive its bulletins from time to time as they are published.

We hope new neighborhoods may be helped by our example.—Mrs. LUCY L. FERGUSON, Cedarville, Marinette County, Wisconsin.

Cabbage Salad

Chop one head of cabbage and three heads of celery. Pour over this dressing:

1 egg
½ teaspoonful mustard
1 teaspoonful flour
1 teaspoonful sugar
1 teaspoonful salt
1 cupful vinegar
Piece of butter
Pinch of cayenne pepper

If vinegar is very strong, weaken with water. Cook to a custard, stirring continually, then pour over cabbage and celery.

Slices of hard-boiled eggs over the top and parsley around the edges will add to the attractiveness of the dish.

Candy Brittle

When the children ask for candy, melt two cupfuls of sugar in a smooth skillet, stirring constantly with the bottom of a spoon bowl, until it is a golden brown syrup. Remove from fire at once and stir into the syrup one cup of peanuts or a cup of shredded cocoanut. Pour onto an upturned pie or cake tin to cool. This is wholesome, inexpensive candy, and yet quite as satisfying as that much more difficult to make.

Club Work Helpful

We believe one of the greatest forces in helping young people to realize the opportunities open to them, is the club work for boys and girls. In our own state this work is only in its beginning compared with its many possibilities, but under the able leadership of Otis E. Hall, of the extension division of the agricultural college, it is steadily growing and boys and girls in every section are making records which would be a credit to those much older in years and experience.

While there are many prizes awarded in the club work, the boys and girls work not alone for these, as many of their stories reveal. When a member has made a small patch of ground produce many times its usual yield, or has been able to take entire charge of the home canning for a year, the results in themselves are ample reward. A prize is acceptable of course, for it shows quality in comparison with other entries, but the prize is not held up as the only object toward which to work.

Those neighborhoods in which the children's club work is encouraged, stand for progress in other lines, too, for through the club other lines of activities are opened.

In our own Kansas Farmer Dairy Club work many gratifying results have already come to our notice, although there are still nine months ahead before all records will be finished. We have in mind one member whose results with her grade cow have been so good that her father has decided to milk cows, though before this he has milked only enough to supply the family with milk and butter. His daughter's record of feed given and the return made by the cow in milk for that feed, has convinced him that milking cows in this way is profitable, and he will try it out in a larger way, which will prove even more satisfying if he puts the same amount of care and effort into it. Several of this man's neighbors have also been studying his daughter's Dairy Club record and are adopting her methods of checking their cows so that they may weed out the poor cows they are now feeding and add others that will pay for their keep and a little profit besides.

In doing the club work the boys and girls learn many valuable lessons, all of which will be most useful to them should they remain on the farm, and none of which will come amiss should they later decide to follow other lines of work.

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LARGE BUFF LEGHORN COCKERELS, \$1.25 each. C. Kissinger, Homewood, Kan.

FOR SALE—300 SINGLE COMB WHITE Leghorn cockerels, \$1 each. East Oklahoma Hospital for the Insane, Vinita, Okla.

SINGLE COMB BROWN LEGHORNS—Pullet mating only. Tiff Moore, Osage City, Kansas.

UTILITY SINGLE COMB WHITE Leghorn cockerels, Young's strain, \$2.00 each. Mrs. C. W. Churchill, Route 1, Leslie, Mo.

FOR SALE—SINGLE COMB WHITE Leghorn cockerels, \$1.00 up. Mrs. H. A. Ketter, Seneca, Kansas.

FINE SINGLE COMB WHITE LEGHORN cockerels. Smith strain. \$1.50 each. P. J. Wirtz, Ellinwood, Kansas.

CHOICE S. C. WHITE LEGHORN COCKERELS from prize winners and heavy laying strains, \$1.00 each. Pullets, \$8.00 per dozen. Mrs. H. Buchenan, Abilene, Kansas.

RHODE ISLAND REDS.

ROSE COMB RED COCKERELS, \$1 each. J. W. Warner, La Crosse, Kansas.

ROSE COMB REDS EXCLUSIVELY. Cockerels for sale. Bean strain. M. L. Puckett, Puxico, Mo.

BIG FANCY AND UTILITY S. C. RED cockerels. Satisfaction guaranteed. Lela Osterfoss, Hedrick, Iowa.

QUALITY SINGLE COMB REDS—BARGAINS if ordered soon. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

S. C. RED COCKERELS, BIG, DEEP red, exceptionally good birds. Price, \$2.50. Creighton Harper, Oak Leaf Poultry Farm, Roca, Neb.

SINGLE COMB REDS—FINE BREEDING cockerels at reasonable prices. This is the last chance this season. Order early and you will not be disappointed. Fine colored, large size birds, guaranteed to please. Write for prices. H. H. McLellan, Kearney, Neb.

TURKEYS.

BOURBON RED TURKEYS, HENS AND toms for sale. W. H. Oliver, Reger, Mo.

BOURBON RED TURKEYS, LARGE with splendid color and markings. Mrs. Elmer Nicholson, Route 5, Wellington, Kan.

EXTRA GOOD BOURBON RED TURKEY toms, prices reasonable for immediate sale. Julia Haynes, McDonald, Kansas.

BOURBON RED TURKEYS, DARK RED, white wings and tall. Hens, \$3 to \$5; toms, \$5 and \$6. J. W. Warner, La Crosse, Kan.

OAK HILL FARM—PURE-BRED M. B. turkeys from high scoring stock. Pure-bred Duroc pigs. Lawson, Missouri, Route 3.

MAMMOTH WHITE HOLLAND TURKEYS from 35-pound toms and 17-pound hens. Write me at once, going fast. C. G. Cook, Route 5, Lyons, Kansas.

WYANDOTTES.

R. C. BUFF WYANDOTTE COCKERELS for sale cheap before winter. G. G. Wright, Langdon, Kansas.

CHOICE WHITE WYANDOTTE COCKERELS, \$1.25 and up. Mrs. Will Beightel, Holton, Kansas.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, \$2 each, six for \$10. Mrs. Phillip Schuppert, Arrington, Kansas.

FOR SALE—BUFF WYANDOTTE COCKERELS, price \$1, and also White Pekin ducks and drakes, price \$1. Address Gus Sauer, Belvue, Kansas.

DUCKS

FAWN INDIAN RUNNER DUCKS BY hundred or small lots, \$1.00, \$1.50 each. Mrs. E. C. Wagner, Holton, Kansas.

IMPERIAL PEKIN DUCKS, STANDARD weight, large Toulouse geese. Prices reasonable. Mrs. F. Bender, Hampton, Iowa.

PLYMOUTH ROCKS.

BARRED ROCK COCKERELS, \$1.50, \$2.00, \$2.50. Mrs. E. C. Wagner, Holton, Kansas.

BARRED ROCK COCKERELS, PRICED reasonably. Chas. Kolterman, Route 5, Onaga, Kansas.

WHITE ROCKS, SIZE AND QUALITY, priced reasonable. Write G. M. Kretz, Clifton, Kansas.

BIG BONED BARRED ROCK COCKERELS, fancy breeding, \$2 each. Bred to lay strain. C. D. Swaim, Geuda Springs, Kan.

BARRED—FIRST PEN ST. LOUIS SHOW. First cockerel and cock, State Fair exhibition; breeding males. J. K. Thompson, 205 The Drive, Topeka.

PURE BARRED ROCK COCKERELS from prize winning stock. Farm raised. \$1.50 each before January 1. Mrs. H. B. Buchenan, Abilene, Kansas.

BARRED ROCK COCKERELS FROM well bred stock. No better for the money. \$2 to \$5. Satisfaction or money back. R. D. Ames, Walton, Kansas.

WHITE PLYMOUTH ROCKS, EXTRA large pure white hens, cockerels and pullets for sale. Write. Originator of Ivory strain. Chas. C. Fair, Sharon, Kan.

WHITE ROCK COCKERELS, SIZE, quality and color. Fawn and White Runner ducks, all prize winners. Mrs. Ben Miller, Newton, Kansas.

BARRED PLYMOUTH ROCK COCKERELS—Grand breeding birds, large and well marked. Dams have trap nest record 225 eggs in year. \$3 each, two \$5.50, four \$10. Ike Hudnall, Milan, Mo.

ORPINGTONS.

FINE BUFF ORPINGTON COCKERELS, \$2 each. Mary E. Price, Route 7, Manhattan, Kansas.

ENGLISH STRAIN WHITE AND BUFF Orpington males, \$2 and \$5 each; good stock. Mrs. Barraclough, 137 S. Fern, Wichita, Kan.

LANGSHANS.

GOOD BLACK LANGSHAN COCKERELS, \$1.50 each. Mrs. Geo. W. King, Solomon, Kan.

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GEESE, EMBDEN, TOULOUSE, CHINA; turkeys, ducks. All leading breeds of poultry. Emma Ahlstedt, Roxbury, Kan.

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ROUEN DUCKS, FINELY MARKED; Wild Mallards, good and tame; White Guineas, White Wyandottes, French Houdans from scored stock. Guarantee safe arrival. Robert Fulliton, Austin, Neb.

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FELTON'S MAMMOTH LIGHT BRAHMA cocks, cockerels and pullets for sale. Mrs. Mark Johnson, Bronson, Kansas.

SEVERAL BREEDS.

BARGAINS—ALL VARIETIES CHICKENS, bantams, ducks, geese, turkeys, guineas and eggs. Bare Poultry Co., Box 921, Hampton, Iowa.

COCKERELS FOR SALE—W. ROCKS, S. C. Buff Leghorns, R. C. R. L. Reds, Black Langshans; also Imperial Pekin drakes. Reasonable if taken before January 1, 1917. Mrs. A. Bollinger, Lewis, Kansas.

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CHRISTMAS POULTRY WANTED EARLY—Probably higher than Thanksgiving. Write for coops and prices. The Copes, Topeka.

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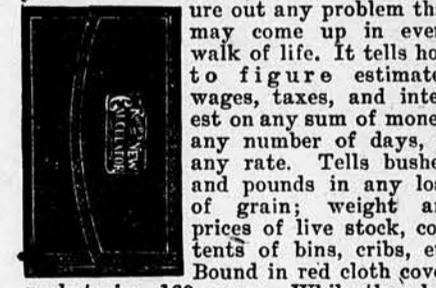
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Circulation Dept. Topeka, Kansas

B. M. LYNE'S ANNUAL SALE

Shorthorn Cattle and Poland China Hogs
At Baer Barn, Abilene, Kansas
Thursday, December 28

19 - Head of Choice Scotch-Topped Shorthorns - 19

Ten bulls ranging in age from 10 to 20 months, sired by Red Laddie 353594 by Captain Archer. Seven cows bred to Violet Search 508055 by Old Searchlight. Cows all showing heavily in calf. Two heifers, first and second prize winners, Miltonvale Stock Show, 1916. They are daughters of Red Laddie and will be sold open. One yearling bull in this sale that measured perfect in stock judging at Miltonvale, 1916.

15 - Poland China Bred Gilts - 15

This offering, mostly fall gilts, all Nebraska bred, big-boned and high-class, all sired by Victor Pride 73878 and all bred to Kansas Wonder by Big Bob Wonder, will farrow in March and April. Send for catalog.

B. M. LYNE, Oak Hill, Kansas

Auctioneers—Cols. Lafe Burger, J. S. McCulloch, J. G. Engle, E. L. Hoffman

SHEEP.



SHROPSHIRE RAMS.

Chandler's aged ram won first prize and championship at Iowa State Fair, 1916. Weight and wool always win. One hundred yearling rams and ewes for sale. C. W. Chandler, Kellerton, Iowa

RAMBOUILLET SHEEP

A lifetime experience proves the Rambouillet is easily the best sheep for Kansas conditions. We offer choice individuals, either sex, with good bone, size, form and fleeced. E. D. KING, Burlington, Kansas.

RED POLLED CATTLE.



RED POLLED CATTLE

FOR SALE—Twelve cows and heifers. I. W. POULTON, Medora, Kan.

Red Polled Cattle

A few 1916 bull calves for sale. Also a few cows and heifers. AULD BROS. - FRANKFORT, KANSAS

RED POLLED BULLS

FORTY yearling bulls, big rugged fellows, sired by ton sires; all registered and priced reasonably. Will sell a few females. E. E. FRIZELL, Frizell, Pawnee Co., Kansas

RED POLLED BULL FOR SALE.
 March calf, weight 700 pounds, out of a richly-bred 1,400-pound cow. Price, \$75.00. MILTON PENNOCK, DELPHOS, KANSAS

CHESTER WHITE HOGS



CHESTER WHITE HOGS

For Sale—Spring boars and gilts from state fair winners. COLEMAN & CRUM, Danville - Kansas

CEDARDALE CHESTER WHITES

Extra good fall yearlings by Milligan 24457, first prize big Missouri State Fair 1912. Choice spring pigs by Milligan, Wonder Chief and W. P. Sweepstakes. All immune. J. S. KENNEDY - BLOCKTON, IOWA

REGISTERED CHESTER WHITE AND DUROC JERSEY BOARS, SOWS, PIGS
 Half-ton kind. Also Silver Laced Wyandotte cockerels, hens, pullets. L. M. FISH - BOLIVAR, MISSOURI

BROWN SWISS CATTLE.

"BRYN-COED"

Ten choice young bulls by well selected sires and highly-bred heavy-producing dams. Prices reasonable. PHIL H. JONES - NASHOTAH, WIS.

HAMPSHIRE HOGS

GEO. W. ELA'S HALCYON HERD
 Registered, immuned Hampshire boars for sale. Valley Falls, Kansas.

ATTEBERRY'S HAMPSHIRE HOGS

Bred sows, \$25 to \$30 each. July gilts and boars, \$10 each for 30 days. Choice individuals. ATTEBERRY & SONS, Lancaster, Mo.



SHORTHORN CATTLE.

Shorthorn Bulls

For Sale, Ten Shorthorns

Eight months to two years old. Reds and roans. Large rugged fellows from heavy milking families of Shorthorn cows. Will offer these bulls at former prices. Come and see them. They are priced to sell.

H. W. ESTES, Sitka, Kan.

PEARL SHORTHORN HERD

Jearl, Dickinson County, Kans.
 For Sale—Twenty bulls, 8 to 10 months old, red, white and roan. Can ship over Rock Island, Union Pacific, Missouri Pacific or Santa Fe. Come and see my herd. Address: C. W. TAYLOR - ABILENE, KANSAS

Willow Lane Shorthorns

For Sale—Herd bull, Lavender Cumberland 384976. Color red, weighs over a ton, outstanding individual, fit to head the best herds. Also three yearling bulls; three two-year-old heifers in calf; one three-year-old cow in calf; one three-year-old cow with heifer calf at side. MARK W. EDDY, FONTANELLE, IOWA

OUR HERD BULL

Abbotsford Lad 2d 395841, pure Scotch, deep red and a good breeder, three years old, priced to sell quick. We are keeping every heifer calf sired by him, also some young bulls six to ten months. CHESTER A. CHAPMAN, Ellsworth, Kan.

CEDAR HEIGHTS SHORTHORNS

For Sale—Ten herd bulls from seven to eighteen months old. Scotch and Scotch-topped. Priced reasonable. Come and see my herd. HARRY T. FORBES, Bell Phone 59-N-1, Route 8, Topeka, Kansas.

Sycamore Springs Shorthorns

Master of Dale by the great Avondale heads herd. A few young Scotch bulls and bred heifers for sale. H. M. HILL - LAFONTAINE, KANSAS

RIVERSIDE SHORTHORNS

Headed by Prince Valentine 4th 342179. Families represented, Orange Blossoms, Butterflies, Queen of Beauty and Violets. H. H. HOLMES, Route 1, Great Bend, Kan.

LOWEMONT SHORTHORNS.
 Brawith Heir 351808 heads herd. Inspection invited. E. E. HEACOCK & SON, Hartford, Kan.

Breeders' Directory

- ANGUS CATTLE.
 Geo. A. Deltrich, Carbondale, Kan.
 D. J. White, Clements, Kan.
- SHORTHORNS.
 C. H. White, Burlington, Kan.
- RED POLLED CATTLE.
 Mahlon Groenmiller, Pomona, Kansas.
- HOLSTEINS.
 C. E. Bean, Garnett, Kansas.
- DORSET-HORN SHEEP.
 H. C. LaTourrette, Route 2, Oberlin, Kan.
- JERSEY CATTLE.
 J. B. Porter & Son, Mayetta, Kan.

80 Head of Holstein-Freisian Cattle 80

To Be Sold at Big Sale Pavilion at
Herington, Kans., Wednesday, Dec. 13
 Dispersal of the R. J. Hill Dairy Herd and Consignments
 by F. C. Meyer and Dr. S. Nichols of Herington.

Thirty head of extra choice two-year-old heifers, due to freshen soon.
 Fifteen head extra good young cows, fresh now.
 Twenty head of cows due to freshen in December, every one a good one.
 Ten head of large heifers due to freshen in the spring.
 Five head of pure-bred registered bulls, ready for service now.
 For detailed information write

W. H. MOTT, Sales Manager, Herington, Kansas
 Auctioneers—J. T. McCullough, J. G. Engle, L. Lester Lowe
 Sale begins at 12:30. Sale in pavilion, rain or shine. Hot lunch at pavilion

HORSES AND MULES.



Percherons and Belgians

SIXTY-FOUR HEAD REGISTERED STALLIONS AND MARES. THIRTY STALLIONS AND THIRTY-FOUR MARES AND COLTS.

To close up a partnership, the thirty-four mares and colts must be sold by March 1, 1917. I mean business. Come and see me.

J. M. NOLAN, Paola, Kansas



DEIERLING STOCK FARMS

Have fifteen large, heavy boned, black, registered jacks, 15 to 16 hands high, good heads and ears, good style, good breeders. I have a number of jacks sired by the champion, Pride of Missouri, also several other good herd prospects. In my 1914 sale I sold the champion of Kansas State Fair, 1915, Eastern Lightning, also Demonstrator, first prize aged jack Missouri State Fair. Reference, People's Bank. Written guarantee with each animal. Have a number of Percheron stallions for sale, also saddle stallions. Barn in town. Wabash Railroad. WM. DEIERLING, QUEEN CITY, MISSOURI.

PIONEER STUD FARM

Established 1870

FIFTY REGISTERED STALLIONS AND MARES

JUST ARRIVED—A new shipment of stallions and mares. If you are in the market for a good Percheron stallion or mare, now is the time. We can show you more bone, size, action and conformation than you will find elsewhere. Write or come today.

C. W. LAMER & SON - SALINA, KANSAS

Home-Bred Draft Stallions, your choice \$500 with the exception of two. Also mares for sale. A. Latimer Wilson, Creston, Iowa.



REGISTERED PERCHERONS, 39 heavy 3 and 4 yr. stallions, 68 rugged 2 yr. olds, 41 yearlings. Can spare 25 reg. mares. 24 reg. Belgian stallions. Sires and dams from France and Belgium. FRED CHANDLER, R. 7, Chariton, Iowa Above Kansas City.

PERCHERONS FOR SALE

Five head pure-bred Percherons—Two mares, one 2-year-old stallion, two last spring colts. All good ones. Low price to the man that takes all.

J. W. BARNHART, BUTLER, MISSOURI

JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for fall and winter sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER, Moline, Elk County, Kansas

SIX BREEDS DRAFT STALLIONS

Pedigree and guarantee with each, \$450 and up. Time given. R. I. LITTLE, Good Block, Des Moines, Ia.

Barn Full of Percheron Stallions and Mares. Twenty-five mature and aged jacks. Priced to sell. AL. E. SMITH, Lawrence, Kansas.

AUCTIONEERS.

Live Stock and Farm Auctioneer

Write or wire for date. I can please you. LAFE BURGER, WELLINGTON, KANSAS

FRANK J. ZAUN Live Stock Auctioneer. Write or wire for date. Independence, Missouri

JOHN D. SNYDER Experienced Auctioneer, wants your sale. Write or wire. Hutchinson, Kansas.

FARM AND HERD.

W. T. McBride, of Parker, Kansas, owner of one of the good herds of pure-bred Duroc hogs in Kansas, claims March 15 as the date of his annual bred sow sale. Mr. McBride will catalog a richly-bred offering for this sale and will have the type that will interest breeders of Durocs.

Farmers and breeders of Kansas interested in good draft horses will learn with regret that J. M. Nolan, of Paola, Kansas, has decided to rent his farm and disperse his excellent herd of draft horses. Mr. Nolan is one of the successful draft horse

breeders of both Percherons and Belgians and his herd has furnished breeding stock for many of the best herds and breeding stables in Kansas and other states. He now has a herd of sixty-four head of Belgian and Percheron stallions and mares ranging in age from colts to mature horses. It is to be hoped that when this herd is dispersed, at least a large percentage of them will stay in Kansas.

Catalogs are out for the Shorthorn cattle and Poland China hog sale to be held by B. M. Lyne, of Oak Hill, Kansas, December 28. Mr. Lyne has catalogued nineteen head of choice Scotch-topped Shorthorns for this sale, including some prize winners. The offering will consist of ten bulls from ten to twenty months old. They were sired by Red Laddie by Captain Archer. Red Laddie is a splendid individual and a proven breeder. The cows in the offering are all showing heavily in calf to Violet Search by Searchlight. The Poland China offering will consist chiefly of fall yearling gilts by Victor Pride and all are bred to Kansas Wonder by Big Bob Wonder.

Mark W. Eddy, owner of Willow Lane Stock Farm, Fontanelle, Iowa, is one of the live boosters in that state for improved stock. His herds of Shorthorn cattle and Duroc Jersey hogs are among the noted herds in the corn belt. Mr. Eddy reports his herds doing well and he has a choice lot of young stock that is growing out fine. His Shorthorn herd is headed by Lavender Cumberland 384976 by Lavender King 353118. Lavender Cumberland is one of the great Shorthorn sires now in service and Mr. Eddy is holding a large number of his daughters in his herd. A feature of the herd is the choice breeding and the profitable beefy type of the cattle in the herd.

M. F. Rickert, of Seward, Kansas, owner of Greenwood Farm and one of the choice herds of pure-bred Poland China hogs in Kansas, writes that his herd is doing well. The foundation stock of this herd was selected from a number of the famous big-type herds in Iowa and Kansas. A feature of his herd at this time is the fine lot of young stock sired by Big Wonder 66696 by Expansive's Wonder and other good big-type sires. Mr. Rickert has bred a choice lot of gilts for spring farrow to Orange Wonder, a great young boar by Mac's Wonder by Big Black Bone.

Milton Pennock, of Delphos, Kansas, who owns one of the high class herds of pure-bred Red Polled cattle in this state, reports his herd doing well. Mr. Pennock is one of the live boosters for pure-bred stock and his herds of Red Polled cattle and O. I. C. hogs have been very profitable on his farm. This year he has a fine lot of young stock, both hogs and cattle, and both herds are drawn upon heavily for breeding stock.

H. B. Cowles, of Topeka, owner of the famous Braeburn herd of Holsteins, reports the herd making a fine showing this year. This is one of the herds that has been bred for records. It is made up of individuals backed by records and the consistent heavy production of this herd proves that it pays to breed the producing kind.

POLAND CHINAS

DEAN'S MASTODON POLANDS

Big high-quality spring boars, sired by Big Bone Model by Long Big Bone, champion Iowa State Fair. Others by Smooth Black Bone by Smooth Big Bone, also champion Iowa State Fair. Dams of offering all by noted big-type sires. All have great size and quality. If you want size and high quality, I have them. All immune.

CLARENCE DEAN

WESTON, MISSOURI



Faulkner's Famous Spotted Polands

We are not the originator, but the preserver of the old original big-boned Spotted Polands. The oldest and largest herd on earth. Every hog recorded in the recognized records. Brooding stock for sale at all times.

H. L. FAULKNER Box K - Jamesport, Missouri

Poland China Boars and Gifts

Twenty-five early spring boars and twenty-five gilts. Sired by I Am King of Wonder and Watt's King.

WM. WATT & SON - GREEN CITY, MO. GREENWOOD FARM POLANDS

Bred gilts for sale. The very best of big-type breeding, sired by my 900-pound boar. Price, \$30 each. Send check with order. Satisfaction guaranteed.

M. F. RICKERT - SEWARD, KANSAS

DUROC JERSEYS.

Maplewood Durocs

We have a fine lot of pure-bred Duroc boars ready for service, and some choice spring gilts open, ready for December breeding. Price on boars, \$25; gilts, \$30. Send us your order.

Mott & Seaborn, Herlington, Kansas

A HERD BOAR

We offer the splendid herd boar, Gold Medal 178231, also spring boars by him and the great boar, Country Gentleman 132541. All double immune. Prices reasonable.

W. E. HUSTON - AMERICUS, KANSAS

TWENTY FIVE SPRING BOARS

Sired by Crimson Wonder Again Jr., first prize boar at Topeka Fair, 1916, and G. M.'s Crimson Wonder. Big rugged fellows ready for service. Immunized and priced to sell.

G. M. SHEPHERD - LYONS, KANSAS

DUROC JERSEY BOARS

For Sale—Fifteen spring boars, two fall yearlings, sired by Wonder of Kansas. All are large and smooth. Priced right and satisfaction guaranteed. Write your wants.

K. HAGUE - NEWTON, KANSAS

DUROC JERSEY HOGS

Ten choice spring boars, real herd headers, the tops from forty head. Thirty-five spring gilts. Priced to sell.

W. A. WOOD & SON, ELMDALE, KANSAS

GUARANTEED DUROC BOARS

Duroc boars with size, bone and stretch. Immune and guaranteed breeders. Shipped to you before you pay.

F. C. CROCKER, Box K, Filley, Nebraska

PURE-BRED DUROC BOARS

Best breeding, choice individuals, priced right. W. J. Harrison, Silver Lake, Kansas.

GALLOWAY CATTLE.

GALLOWAY BULLS

SIXTY yearling and two-year-old bulls, strong and rugged; farmer bulls, have been range-grown. Will price a few cows and heifers.

E. E. FRIZELL, Frizell, Pawnee Co., Kansas

STAR BREEDING FARM---HEREFORD PLACE

FOR SALE--100 BULLS 50 EARLY BULL CALVES

30 COMING 2-YEAR-OLDS 20 COMING 3-YEAR-OLDS

Herd headers and range bulls. Ten yearling heifers, twenty heifer calves and a carload of good cows. The very best breeding represented. Come and see me.

SAMUEL DRYBREAD, ELK CITY, KANSAS

HEREFORD CATTLE

FOR SALE 35 BULLS, 10 MONTHS TO 2 YEARS OLD.

20 COWS AND HEIFERS.

Best breeding families. Bred to an Imported Britisher bull. Come and see me. Sale barns right in town.

T. I. WOODDALL, HOWARD, KANSAS

WALNUT BREEDING FARM

Hereford Cattle, Shropshire and Cotswold Sheep, Berkshire Hogs. Thirty-five grandsons and granddaughters of Beau Brummel 10th for sale. Some extra herd headers at reasonable prices, breeding considered. Come and see my herd. Satisfaction guaranteed.

LEON A. WAITE, WINFIELD, KANSAS

SEVENTY HEAD REGISTERED JERSEYS

FORTY COWS AND THIRTY HEIFERS FOR SALE.

Nothing over five years old. Richly bred Fox Signal and Fern Lad families. All bred to choice registered herd bull. Must reduce herd.

N. L. DUCHESNE - GREAT BEND, KANSAS

POLAND CHINAS.

OLD ORIGINAL SPOTTED POLANDS

150 choice spring pigs left, sired by seven of the very best boars of the East and West. Priced right. Write your wants to the CEDAR ROW STOCK FARM

A. S. Alexander, Prop. Burlington, Kansas

DEMING RANCH POLANDS

Twenty strictly high class boars, bred the same as our grand champion sow and other prize winners. They are herd headers. Also gilts and bred sows and 150 fall pigs. All immune.

THE DEMING RANCH H. O. Shelden, Herdsman Oawego, Kansas

ARKELL'S POLANDS

Big high quality March and April boars, sired by Chief Big Bone, Longfellow Again and the champion Big Timm. These boars are out of big high quality sows and are fine prospects.

JAMES ARKELL, JUNCTION CITY, KAN.

EUREKA POLANDS AND DUROCS

April boars, fancy individuals. Priced for quick sale. Sires, Lafollette's Last, Bader's Golden Model 2d, McWonder and Big Ex Wonder.

W. H. SALES - SIMPSON, KANSAS

Becker's Poland Chinas

For Sale—A few fall yearlings and spring boars, ready for service. Also fall pigs at \$10 per head. Leading strain.

J. H. BECKER Newton, Kansas

PIONEER HERD POLAND CHINAS

Twenty-five choice spring boars sired by the half ton A Wonderful King, the first prize aged boar at Topeka fair and first grand champion at Kansas State Fair at Hutchinson, 1916. Write for prices.

F. OLIVIER & SONS, DANVILLE, KANSAS

Lone Cedar Poland China Herd

Good spring boars by Meyer's Orange and out of mature sows, at farmer's prices for thirty days; also fall and spring gilts, bred or open. Weanling pigs cheap. All immune.

A. A. MEYER - McLOUTH, KANSAS

LANGFORD'S SPOTTED POLANDS

Boars—Serviceable age, guaranteed to please. Breeding stock, both sexes.

T. T. LANGFORD & SONS, Jamesport, Mo.

SPOTTED POLAND CHINAS

Spring boars, one extra good yearling boar by Faulkner's Spotted Chief and one of my herd boars, Spotted Duke, an 800-pound hog. Summer pigs, either sex.

R. G. SARTAIN, ROUTE 6, FAYETTE, MO.

Old Original Spotted Polands—Choice fall pigs, pairs or trios, no kin. Shipped in light crates. Carl F. Smith, Cleburne, Kansas.

HEREFORD CATTLE.

Herefords and Percherons

Two choice Hereford bulls, 2 and 3 years old, well marked, both will make ton bulls. The 3-year-old weighs 1,950. Also some choice yearling Percheron stud colts.

M. E. GIDEON - EMMETT, KANSAS

HEREFORD CATTLE

150 Head in Herd. A few cows and heifers for sale. Also a lot of farm and range bulls. Priced reasonable.

B. M. BROWN, FALL RIVER, KANSAS

OHIO IMPROVED CHESTERS

O. I. C. Serviceable Boars—Yearlings sows and gilts bred for March farrow. Summer and fall pigs. G. P. Andrews, Dansville, Mich.

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

Clyde Girod, At the Farm. F. W. Robison, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, Towanda, Kansas

Pure-Bred Holsteins, all ages, strong in the blood of the leading sires of today, headed by Oak De Kol Bessie Ormsby 156789. Special offering of choice young pure-bred bulls, ready for service, from tested dams. Let us furnish you a bull and improve your herd. TWENTY-FIVE pure-bred females, young useful Holsteins with A. R. O. records from 12 to 26 pounds butter in seven days.

BEFORE YOU BUY, TALK WITH US

We have an especially large, choice selection of extra high grade young cows and heifers due to freshen this fall and early winter, all in calf to pure-bred bulls. These females are large, deep bodied, heavy producers, with large udders, all well marked individuals and the right dairy type. Our offerings are at prices that challenge comparison for Holsteins of their breeding and quality. High grade heifer ways have cows and bred heifers for sale. Let us know what you want in Holsteins, and we will be pleased to send you descriptions and prices. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON --:--:-- TOWANDA, KANSAS



Purebred Registered HOLSTEIN CATTLE

\$123,000 has been expended in the past eight years, by the Holstein-Friesian Association of America, in advertising the merits of the great "Black and White" breed. To the farmer who owns Holstein cattle, this far reaching publicity work is a positive benefit. The continually increasing interest in Holstein cattle throughout America makes for an advance in values, and the breeder of Holstein cattle, wherever he may be, reaps greater profits on the rising market prices of his stock.

Send for FREE Illustrated Descriptive Booklets. The Holstein-Friesian Association of America F. L. Houghton, Sec'y. Box 114, Brattleboro, Vt.

REGISTERED HOLSTEINS

Priced for quick sale, 23-pound bull of serviceable age. Others 5-8 months of age from 20-25-pound dams. Young bull calves sired by a \$252-pound bull; also a few bred heifers. For further particulars write

M. E. GUNDERSON & SONS Route 25 Oconomowoc, Wisconsin

BRAEBURN HOLSTEINS

John Walker DeKol, 14 months, \$150. His sire had a world record dam and sire's dam; has 30-pound sisters; has a junior-two daughter with 342-14.06 in midsummer.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

REGIER'S HOLSTEINS

Holstein-Friesian A. R. O. bulls ready for service. World's record blood flows in their veins.

G. REGIER & SONS, WHITEWATER, KAN.

JERSEY CATTLE.

Advertisement for 'About Jersey Cattle' book. Dairymen! - The Truth. You may be prejudiced against the Jersey because you don't know her. Look her up. She's the Money Cow. Get This Book—a history of the breed and full of very interesting facts and facts. It proves conclusively that for pure dairy type, economy of production, richness of milk, long life and adaptability to feeds and climates—all these combined—she stands way above them all. This book "About Jersey Cattle" is free. Get your copy now. You'll find it mighty good reading. The American Jersey Cattle Club 875 West 23rd Street, New York City

LINSCOTT JERSEYS

Kansas First Register of Merit, Estab. 1878. If interested in getting the best blood of the Jersey breed, write me for descriptive list. Most attractive pedigree.

R. J. LINSCOTT - HOLTON, KANSAS

REDHURST JERSEYS

Grandsons of Golden Jolly and Noble of Oaklands for sale. Also a few fancy cows and heifers of same breeding. Write.

REDMAN & SON - TIPTON, MISSOURI

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. BERRY & SON, Jewell City, Kansas

DORNWOOD FARM JERSEYS

Fine young bulls from Register of Merit and imported cows; descendants of Fontaine's Eminent, Pogs 80th of Hood Farm, and Golden Fern's Lad.

DORNWOOD FARM, Route 1, Topeka, Kan.

Bargains in Jersey Cows

From one to a carload of good, young, registered Jersey cows, mostly fresh or soon due. Offered at sacrifice prices because short of feed and cannot winter. Also a few open heifers and young bulls. Write your wants or come and see this stock.

The Ennis Stock & Dairy Farm, Horine, Mo. (Just South of St. Louis.)

Registered Jersey Bulls, butter-bred, from high producing cows. Photo furnished. Maxwell's Jersey Dairy, Route 2, Topeka, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer

IN MISSOURI

Price Segis Walker Pietertje 123955 heads herd. Dam 30.13 lbs. butter in 7 days, milk testing 5.07 per cent. A. R. O. of dam, granddam and ten nearest dams of sire, 29.75 lbs. Six of these are 30-lb. cows. His five nearest dams all test over 4 per cent. Bulls 2 to 8 months old, \$150 to \$350. Always have cows and bred heifers for sale. Everything registered Holsteins. Tuberculin tested.

S. W. COOKE & SON, MAYSVILLE, MO.

Bonnie Brae Holsteins

A fine bunch of high grade two-year-old heifers coming fresh. Also a few young cows and one well-bred registered bull old enough for light service.

IRA ROMIG, Station B, TOPEKA, KANSAS

23- HOLSTEIN-FRIESIAN BULLS -23

Best of sires. A. R. C. dams, fourteen over 20 pounds. Seven of the others from heifers with records of 14.99 to 19.2 pounds. The kind you want. We have only two cows in the herd with mature records less than 20 pounds.

Breeders for Thirty Years.

McKAY BROS., Waterloo, Iowa

REGISTERED HOLSTEINS

We want to cut down our herd. Will sell ten or twelve choice cows, most of them young, also a few heifers.

M. E. MOORE & CO. - CAMERON, MO.

CHOICE HOLSTEIN BULLS

Registered bull calves out of A. R. O. cows. Also a few heifers. Best breeding. Choice individuals. Price reasonable.

BEN SCHNEIDER, NORTONVILLE, KAN.

HOLSTEIN COWS

Holstein cows, springers or bred heifers. Very large, good markings, out of best milking strains, bred to pure-bred bulls of the very best blood. Special prices on carload lots. J. C. ROBISON, TOWANDA, KANSAS

Tredico Bull Calves get whole milk for at least 60 days in order to put the calf's working machinery in tip-top working condition. However, it is the result desired rather than a rule.

GEO. C. TREDICK, Route 2, Kingman, Kan.

HOLSTEIN CALVES

Fine bull calf four weeks old, well marked, from 25-pound sire, \$15. Also heifers from \$25 up.

Wichita Holstein Herd, R. 4, Wichita, Kan.

CORYDALE FARM HERD

Offers for sale four bull calves two to four months, sired by Jewel Paul Butter Boy 94245. These calves are all nicely marked and from good milkers.

L. F. CORY & SON, BELLEVILLE, KAN.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - SCRANTON, KANSAS

The Cedar Lane Holstein Herd

We are now offering some exceptionally good bulls of serviceable ages at very attractive prices. These calves are sired by our 29.4-pound grandson of Pontiac Korndyke.

T. M. EWING, INDEPENDENCE, KANSAS

HOLSTEIN CALVES

Registered and high grade Holsteins. High grade heifer calves two to four weeks old, \$20, delivered. We can supply you with anything in Holsteins.

CLOVER VALLEY HOLSTEIN FARM Whitewater - - - Wisconsin

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEIN CALVES—Ten heifers and two bulls, 15-16ths pure, beautifully marked, 5 weeks old, from heavy milkers. \$20 each, crated for shipment anywhere. Write EDGEWOOD FARM, Whitewater, Wis.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

Age two weeks to two years, priced to move quickly at \$40 to \$80. Worth double. Bred for high production. All pure-bred and sure to get high producing heifers. Herd of nearly a hundred, established in 1906, located at Linwood, Kansas, near Kansas City. Tuberculin tested yearly, never found a reactor. Milk test over 4 per cent.

Dr. F. S. CHOENLEBER, Manhattan, Kan.

"BY THE SKIN OF A SKUNK"

or How Bud Won Sallie's Heart and Hand



Bud longs for a little extra change. Father doesn't believe in giving him anything aside from his bed and living in return for hard work on the farm.



Paul Willard and Sallie Meadows—a girl Bud had his eye on, out for a stroll. Paul is all dressed up—evidently has ready cash for fancy duds.



Bud at home that night. "No chance for a fellow without a little money," says he. Wonders how Paul gets his dough. Will try and find out.



Few days later. Shadows Paul. Sees him making for the woods, carrying something looks like chains and a package.



Bud sees Paul setting several traps—that's what! "Ha ha—so Paul is trapping!"—says Bud. The truth begins to dawn.



Few days later, sees a package marked for E. W. Biggs & Co., Kansas City. Paul is the shipper. Asks railroad agent about it. Learns Paul has been reading a magazine called "Trappers Exchange," full of trapping "dope." Agent says Paul has been making lots of easy money trapping.



That night: Bud scans Dad's farm paper. Sees ad of E. W. Biggs & Co. offering to start fellows trapping for Skunk, Coon, Possum, etc. Offer free subscription to "THE TRAPPERS' EXCHANGE." Bud writes 'em quick.



The second day later—Bud hears from Biggs at Kansas City. Finds "THE TRAPPERS' EXCHANGE" dandy reading—full of hints on trapping and stories from successful trappers. Orders some traps and baits.



Bud sets his traps down by the creek. Uses Biggs' Guaranteed Baits. Biggs says if they fail to lure animals Bud can get his money back without argument.



20 Skunks, 8 Coons and a Fox—that's Bud's haul since he got his outfit from Biggs. Prepares fur for shipment as per simple instructions in "THE TRAPPERS' EXCHANGE." Ships to Biggs, and anxiously awaits the check he will get two days later.



Next day: Biggs' force grading Bud's shipment. Highly pleased with the quality of fur. Fox proves to be a Blue Fox—top grade, worth \$150.00.



Bud's check from E. W. Biggs & Co. "And it wasn't work at all—just good fun," says Bud. Thinks of all the good things he can have now—"what'll Sallie say?" Bud's heart beats fast.



Bud in his new suit—Pete the tailor is some artist. Gets all dolled up, makes for Sallie's house that eve. Resolves to win back the love that was his. "A few silver dollars to jingle won't do any harm"—Bud muses.



Sallie and Bud a few years later. Married and happy. In background is their cozy bungalow. Trapping started Bud on the right track. Bud keeps it up in season. His ruddy complexion and powerful frame from the great out-of-doors.

Here's Easy Money!

There's plenty of ready cash back in the woods or down by the creek waiting for you if you have a dozen or two of traps and a few packages of Biggs' Guaranteed Baits that will lure Skunk, Coon, Possum, etc., right where you want them. Trapping is great fun and if you have never followed the game, you will be surprised at the good money you can make between now and the new year. If you have never trapped you are missing a lot of fun and you're losing easy money, too. Over half a million trappers deal with us and get highest prices for furs and hides because Biggs pays top prices all the time.

Write "Biggs at Kansas City" Today

Get our factory cost catalog of trappers' supplies—traps, baits, guns, ammunition, etc., then make up an order of what you think you will need and mail it quick so that you can start out trapping right now. Hundreds of fellows right in your own county are making dandy money trapping this season. You can do the same—we'll show you how. It's all simple and easy—just fun.

Get Our Raw Fur Price List Quick

See what we're paying for Muskrat, Skunk and Possum and other furs. Then you'll not wonder why hundreds of thousands of trappers and sportsmen throughout North America look to Biggs as fur headquarters where they get top prices and an honest and square deal all the time. **FUR SHIPMENTS HELD SEPARATE** on request and your furs returned quickly if our grading is not the most liberal, prices the highest and returns the quickest. Insert a notice in the package saying "Hold Separate," and we'll follow your instructions. You must be satisfied if you deal with us.



Use the coupon or a postcard and mail at once for a free subscription to "The Trappers' Exchange," our monthly magazine for trappers, full of stories of hunting and trapping adventure, sent in by experienced trappers themselves, with pictures, diagrams, etc. Shows how others get big catches and make easy money. Sign and mail coupon today.

GET BUSY AT ONCE—Let us start you and you'll soon be banking your trapping profits.

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633 Biggs Building,
KANSAS CITY, MO.

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633 Biggs Building,
Kansas City, Mo.

Please put my name down for a free subscription to "Trappers Exchange." Also, send me your free price lists of Raw Furs, a catalog of trappers' supplies and prices on tanning and "making up" fur goods.

Name Post Office.....
R. F. D. Box State.....

MEN—young and not so young—are you losing the easy money that's waiting for your traps—back of the woods or down by the creek? Write "Biggs at Kansas City" for Free subscription to "THE TRAPPERS' EXCHANGE"—right now—Today.