TOPEKA, KANSAS, MARCH 22, 1906

The National Dairy Show

On February 15, at Chicago, there was opened in the Coliseum, an exposition that was an epoch-marker in the dairy industry of the United States and the world. This magnificent building, which is one of the largest assembly halls in the United States, was filled to its utmost capacity with the exhibits of everything pertaining to the dairy and the dairy industry. Indeed, a large part of the exhibit was of necessity placed in another building because of

Volume XLIV. Number 12

lack of room in the Coliseum.

This great show was the event of years of waiting and the result of years of working. Such a show has been earnestly desired by those interested for many years and attempts have been made to hold a National dairy show in Madison Square Garden in New York, but they resulted disastrously. The people of that city are not particularly interested in the dairy or the dairy cow, and the enormous expense attendant upon the making of an exhibit that would in some measure be a correct representation of this great industry,

in 20 ns. in a ne he st cod oe oe o o o nd h

proved too great a burden. Chicago, on the other hand, is in the center of the richest dairy region of the United States, and the Elgin market which is close by, sets the price for all dairy products.

It would be difficult to describe or even enumerate the vast number and variety of objects on exhibition in connection with this dairy show. Attempts have been made a number of times to make provision for the classes of dairy cattle in the International Live Stock Exposition, but without results on account of lack of room. The National Dairy Show, however, included an exhibit of dairy cattle in which Ayrshires, Guernseys, Holstein-Friesians and Jerseys were brought from the United States and Canada to contest for the prizes offered by the management. The entire annex of the Coliseum was used for the exhibit of dairy cattle of which there was a goodly showing of all the breeds named. Cream-separators were there in

Cream-separators were there in abundance. All of the prominent man-

ufacturers of these indispensible dairy machines were represented in handsomely decorated booths and each served to attract its crowd of admirers. The DeLaval Separator Company, of New York and Chicago, had a fine exhibit, included in which were the first two separators sold in America in 1886. This afforded a wonderful object lesson by comparison with the modern and up-to-date pattern of machine. They also showed a new style 700-pound separator run by a small fan motor and one of the attractive features of their booth was a moving panorama showing how the cream-separator pays off the farm mortgage and gives new prosperity to the owner.

The Sharples Separator Company, of Westchester, Pa., and Chicago, made a magnificent showing with forty-eight separators of various sizes and kinds. Present in their booth during a part of the week was the inventor of the tubular machine. The exhibit was in charge of Mr. A. W. Rockwell who was assisted by a number of his hus-tling salesmen, each of whom did everything in his power to make the visitor at home.

The Empire Cream Separator Company, of Bloomfield, N. J., made a splendid showing. This company is now putting on the market a new-

style, frictionless, hand which seems absolutely perfect. The name "frictionless" is apt, but the visitor is astonished to see the machine run for thirty minutes after the power has been removed. The new frictionless Empire is bound to be a winner.

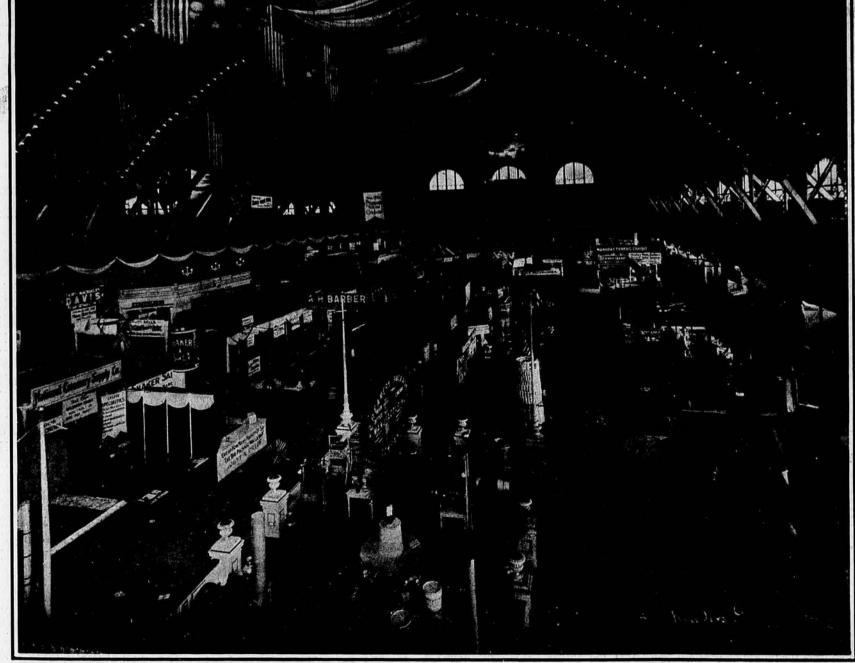
Established 1863. \$1 a Year

The Vermont Farm Machine Company, of Bellows Falls., Vt., had a comprehensive exhibit of United States cream-separators of various sizes, together with tread powers and creamery supplies. The United States cream-separator is a well-known and popular machine, and is one of the mortgagelifters of the country.

The Omega Separator Company showed four different sizes of their hand separators together with a sectional view of the machine as exhibited at the World's Fair. This proved a very attractive exhibit.

Other separators were shown in their several booths and all proved attractive. A further step in advanced methods of butter-making was shown in the operation of the radiator. This ma-chine makes butter direct from the milk by first separating the cream and then extracting the butter-fat. This is an old idea which is worked out practically now for the first time. Its predecessor was the butter-extractor which

(Continued on page 310;)



Birds-Eye View of Interior of the Chicago Coliseum during the National Dairy Show.

MARCI

C80808

(30000

PROF.

Th

The

four

sider

work

name

plant

lectio

great

farm

basis

cerea

ing s

vears

behav

gener

size

riety

live

vear

have

been

varie

loam

and s

acter

would

oats

Tarta

It we

or th

which

amou

could

the T

barle

Editorial

(CONTROL OF CONTROL OF WHAT HAVE THE PROMOTERS AC-COMPLISHED.

The year 1905 was a great one for promotors." Among the various pro-"promotors." jects in which individuals, especially farmers, have been asked to join and to which they have been asked to subscribe various sums-a dollar and upwards-some have claimed to be able to influence prices of farm products. The official report of the records of prices for the year are not really pleasant reading for some of the more pre-tentious of the promoters.

The record price for wheat at Chicago for the year was \$1.54 in February. The decline was almost constant until December for which month the top price was 90 cents. The official record closed

March 5 at 80 cents.

But perhaps the promoters prefer to consider corn. The Chicago price for corn in March, 1905, was 451/2 to 481/2 cents; in July it as 53% to 59. The year closed at 42 to 50%; to March 5 this year the record is 40 to 40 1/2.

Potatoes have done better. The year opened at St. Louis with 35 to 42 cents for January, 1905, and closed at 58 to 66 for December. To March 5 this year

the price is 52 to 55.

The promoters have had little to say as to what they would do to the price of hogs. Hogs are given to perverseness -to going the other way, as it were-so that the fixers of future prices have been little inclined to tackle the Well, the hog started in at \$3.90 to \$5 for January, 1905, and closed the year at \$4.50 to \$5.35. He marched nobly up to \$5.90 to \$6.52 1/2 up to March 5, in Chicago.

Butter began 1905, at 28 to 291/2 for January. After some fluctuations it closed the year at 24 to 25 for December at Elgin. To March 5 the price was 27.

It is fair to assume that the various schemes whereby prices were to be fixed for farmers, at a dollar and up per farmer, had nothing to do with the general declines.

The KANSAS FARMER has been cordially invited to boom some of these schemes, has been threatened with loss of patronage if it refused. There may be those who will not like the above showing from U. S. Government official records of prices. But the KANSAS FARMER'S first duty and purpose is to be true to its readers. It is yet to be shown how any of the schemes so far worked has affected the general markets to the advantage of the farmers. This does not allude to cooperative enterprises which, under honest and capable management, have assisted their members in both buying and selling. These are legitimate business undertakings. But the promoter who claims to be able by some occult methods to influence general prices, and wants pay for exercising his claimed powers-what shall we say of him?

WHEAT CROP OF THE WORLD.

The official estimate's of the wheat crops of the world for the last five are as follows: 2.954.763.000 bushels in 1901; 3,125,227,000 in 1902; 3,221,551,000 in 1903; 3,163,845,000 in 1904; 3,337,748,000 in 1905.

The production by the several grand divisions in 1905 was as follows:

Bushels
3,337,748,00
808,674,00
175,120,00
1,790,693,00
456,135,00
41,500,00
65,626,00
rope continue
f of the whea

crop of the world and that her crop is more than double that of North America. The 1905 crop of North America

came from the several divisions as fol-

	Bushels.
Total for North America	808,674,000
United States	692,979,000
Ontario	22.195.000
Manitoba	57,500,000
Rest of Canada	30.000.000
Mexico	6,000,000
The total for Canada is	

695.000 bushels.

The largest producer in Europe is Russia with 568,532,000 bushels; France is second with 338,785,000 bushels. Of South America's total of 175,120,000 bushels, Argentine produced 154,420,000.

In a horrible railroad accident in Colorado, a few days ago, about thirty persons lost their lives and a large number were injured. The collision resulted from the failure of a station man to deliver modified orders to a passing train. It is reported that the station

man had been for seventy-two hours on duty and slept as the train passed. Very many collisions result from similar long-continued work of train men. There should be most stringent legal restrictions preventing any such overworking of persons upon whose ability and alertness of mind the safety of users of public conveyances depends.

A VOICE FROM THE PACIFIC.

"Hawaii" is the title of a pamphlet issued by the Hawaii Promotion Committee, Honolulu. It contains plain and evidently conservative statements on the agriculture and agricultural possibilities of the most interesting group of islands of the Pacific. The subjects treated are sugar, pineapples, sisal, bananas, coffee, tobacco, vanilla, dairying, poultry, silk, vegetables, fruits, bees, stock-raising, and rubber. Though lying within the tropics, the islands have, in the main, sub-tropical climates. The term "climates" is proper, for the lands lie at various elevations from sea level to mountain heights with corresponding variations in temperature. The wind blows from the northeast during about 260 days of each 365. This brings much rain on the windward sides of the mountain ranges with which the islands abound, in many cases, and leaves a deficiency on the leeward sides.

Farming in these islands is so different from farming in the grain- and meat-producing sections of the United States, that those who contemplate a change to Uncle Sam's sea-girt possessions in the middle of the Pacific should write to H. C. Wood, secretary, Hawaii Promotion Committee, Honolulu, Hawaii, for full information.

BOYS' CORN CONTEST IN FRANKLIN COUNTY.

As was to be expected the corn-growing contest for boys has received proper attention in Franklin County, Kan-The Farmers' Institute organizasas. tion has taken charge. This means that the contest will be a great success. Following is a copy of the Franklin County poster:

BOYS' CORN CONTEST .- About \$300 offered in prizes to the farmers' boys of Franklin County, between the ages of 12 and 18, by the Franklin County Farmers' Institute. Each boy who enters wil receive free one quart of pure seed corn. The cash prizes and the number of special prizes insures nearly every boy a good prize; also the experience will be of great value. It's all free and for your good, boys, so send your name and address to the secretary at once and it will be published by the county papers with the others each week. The rules have been published and will be published again, but they are simple and can be easily carried

"C. W. GREEN, President. "E. P. PENDLETON, Sec'y.

"Franklin County Farmers' Institute." The KANSAS FARMER would like the names and addresses of all boys entered in the contest.

THE KANSAS AGRICULTURAL COL-LEGE AT WASHINGTON.

On the evening of March 2, at the Teacup Inn. in Washington, D. C., there was held the fifth annual reunion of the Washington branch of the Kansas State Agricultural College Alumni Association. The evening was spent in the discussion of a literary program, games and light refreshments, and a very enjoyable time is reported.

The Kansas Agricultural College enjoys the distinction of having more of its former students and teachers in Government employ than any other institution in the Union, and these re-unions are usually attended by more than half a hundred of those who call this great college their Alma Mater.

o following is a list of those were present: Mr. and Mrs. L. W. Call, Mr. and Mrs. M. A. Carleton, Mr. and Mrs. C. P. Hartley, Mr. and Mrs. C. F. Doane, Mr. and Mrs. W. L. Hall, Mr. and Mrs. L. A. Fitz, Mr. and Mrs. R. S. Kellogg, Mr. and Mrs. J. M. Westgate, Prof. and Mrs. A. S. Hitchcock, Prof. and Mrs. D. E. Lantz. Miss Margaret Butterfield, Prof. G. H. Failyer, Prof. J. B. S. Norton, Prof. Thos. E. Will, Major J. F. Morrison, E. C. Butterfield, R. A. Oakley, Nicholas Schmitz, Harry Umberger, A. B. Gahan, Earl Wheeler, W. R. Ballard.

Upon reading Luther Burbank's article on "How Plants are Trained to Work for Man," printed in "The Youth's Companion" for March 22, one can not help thinking that only a Methuselah could reap the full rewards of his own plant-breeding. The article indicates that the author has already achieved the end aimed at in some of his experiments. On the other hand, many

of them involve so many crosses, such careful selection season after season, that the result of them can hardly be known within the span of three-score years and ten. This 'contribution to "The Youth's Companion" is said to be the first word that Luther Burbank has ever yet said about himself or his work in print, and it is likely, therefore, to be read with interest by every one interested in horticulture.

THE ADVERTISING.

Do you read the Kansas Farmer advertisements carefully? They are worth reading. Good advertising matter is a valuable feature in any paper or magazine, and the writer would not take a paper that did not have such advertisements in it. Some of the brightest men in this country are paid high salaries to prepare advertisements and they put brains into their work, Much timely information and many practical suggestions are included in the advertisements, and they are worth reading. You can not afford to skip the advertisements especially such as appear in the Kansas Farmer. They are clean; they are reliable; and they are interesting. This paper contains no whisky or other objectionable advertisements to go into your home each week in the year with their baleful-influence upon your children. The KAN-SAS FARMER is a clean, wholesome visitor to your homes and brings you each week more of scientific and practical information of value to the farmer and his family, than any other paper. is a Kansas paper, published by Kansas men, and for Kansas farmers.

SWEDISH BROWN BEANS.

EDITOR KANSAS FARMER:-I enclose you samples of a bean, known as Swedish Brown Bean among merchants. I have looked in vain in seed catalogues for a description that would tally with them. Can you tell me if seed mechants of this country handle the bean? I suppose they do, for the bean does well in some States. How are they designated? I bought a few out of the common stock of a grocery store and planted two years ago, and they did fairly well that year. I would like to try them again this year if I can find re-E. E. LINDEHOLM. liable seed. McPherson County.

The samples sent have been identified by Prof. Robt. E. Eastman, of the Kansas Experiment Station as the "Swedish Brown Bean." They have not been grown at the Station, and are not named in the seed catalogues. Undoubtedly they can be obtained through any of the enterprising seed-houses advertised in the KANSAS FARMER, Cut this notice out and send it with the order.

BLOCKS OF TWO.

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

"The Horseman" promises to present in a midsummer number, a complete history of the development and progress of the trotting horse. This number will be profusely illustrated and will in every respect be in the highest style of the printer's art.

"Forest Belts of Western Kansas and bulletin by Royal S. Kellogg, forest assistant of the U.S. Forest Service. Mr. Kellogg is a Western Kansas product, a thorough investigator and a conscientious writer. It would be worth while for the Government to place a copy of this excellent bulletin in the hands of every farmer in the region considered.

Congressman Jones, of Washington, has introduced a bill which provides that the Secretary of Agriculture shall be authorized and directed to investigate systems of farm management and types of farming prevailing in different sections of the United States, the means used for maintaining soil fertility, the methods employed in the production, utilization, and marketing of crops, to conduct demonstrations in improved methods of farming, and to disseminate the information concerning the foregoing, and for this purpose the sum of one hundred and twenty thousand dol-

lars be appropriated, to be available during the fiscal year ending June 30, 1907.

A bill just passed the National House of Representatives providing for increasing appropriations to the several agricultural experiment stations. Un-der the Hatch bill which was passed in 1887 these experiment stations each receive \$15,000 annually. The present bill proposes to add \$5,000 a year to the \$15,000 and to increase the amount each year until the added appropriation shall be \$15,000, making the total \$30,000 for each station. Well used, such an amount will be a good investment.

The Government free-seed graft by which some Congressmen seem to hope to buy the favor of farmer constituents by sending to some of them, at Uncle Sam's expense, a few cents' worth of garden or flower seeds seems likely to come to an end. The House committee on agriculture has stricken out the appropriation for next year. past belief that our National law-makers should expect to influence farmers to support them for renomination and election by bribes of a few cents' worth of common seeds. It is even more surprising that they should have con-sciences so dull as to permit them to pay these petty bribes out of the National Treasury. The Grange and other representative organizations have resolved against the scheme under which, while the bribe sent to a single constituent is small, a large sum is drawn from the public treasury for other than public purposes. The day has arrived when graft, whether large or petty, is disreputable. It is to be hoped that no Kansas Congressman will be guilty of voting for this unwarranted appropriation to buy a few thousand small bribes to be used in his interest

Voice of the People.

John H. Pugh, Carbondale, Ill.: "Enclosed find \$1 to pay my subscription for one year. On account of so many accounts to meet at this time, I dislike to spare the money, but I would be lost indeed without my paper, the KANSAS FARMER."

J. J. Hysell, of Geneseo, Kans., writes: "I find that by reading and following the instructions in the "old reliable" KANSAS FARMER I am learning more about farming all the time."

Mr. J. Riblett, Jr., writes: "Please find enclosed check for \$3 to pay on "Please my back subscription to the KANSAS FARMER. I am running a hardware store now but I still get time to read the KANSAS FARMER.

Newton Bros., Whiting, Kans., write: "The KANSAS FARMER is a puller. We have received more inquiries from our card in the KANSAS FARMER than any medium we ever used. We have no Duroc-Jersey bred sows or gilts left and have only 3 or 4 August and September pigs left. Will price them

Table of Contents

	Alfalfa on prairie sod309 Alfalfa on wheat ground308	
	Alfalfa on wheat ground	
	Alfalfa, Turkestan	
	Allalia, Turkestan	
	Ants, uncles and cousins318	
	Breton, Jules	
	Catalna speciosa	
	Coreal crops the improvement of 307	
	Cereal crops, the improvement of 318 Club, a new	
	Club, a new Erenklin County 306	
	Corn contest in Frankin County.	
	Corn-growing contest in Marion	
	County	
	Corn, yellow vs. white	
	Cream, a premium for good319	
	Dairy show, the National305 Dairy cow, some points in the selection of a modern	
	Dairy cow, some points in the selec-	
	tion of a modern	
	Doing why the Kansas farmer	
	Dairy, willy the Italians 2011	
	Should	
	Dairy, why you should	
	tion of a modern. Dairy, why the Kansas farmer should. 312 Dairy, why you should. 311 Dairy, why we should. 311 Dairy school on wheels. 310 Dairy, how we should. 314 Dairy cows, the breeding and han-	
÷	Dairy school on wheels	
	Dairy, how we should	
	Dairy cows, the breeding and han-	
	dling of	
	Docking horses. 327 Douglas County Horticultural Society. 322 End crowns all, the (poem). 316	
	Douglas County Horticultural So-	
	pouglas County More and Marie 322	
	The description of the (noem) 316	
	End crowns all, the (poem)	
	Fruits and nuts	
	Grandma's story—a talk about dogs.	
	End crowns all, the (poem) 316 Fruits and nuts 316 Grandma's story—a talk about dogs. 317 Grange in Cowley County, the 315 Grange, tell us how to create an interest in our. 316 Holidays, observance of legal 316 Japan millet 309 Kansas Agricultural College at Washington. 306 Mutual Helpers, the. 318 Orpington breed of fowls 324 Pacific, a voice from the. 306	
	Grange, tell us how to create an in-	
	terest in our	
	Holidays, observance of legal316.	
	Japan millet	
	Wangag Agricultural College at	
	Weghington306	
	Mutual Halpare the	
	Mutual Helpers, the	
	Pacific, a voice from the306.	
	Pacine, a voice from the	
	Pasture	
	Pigs, care of young	
	Pigs, prevent lying on	
	Poultry notes	
	Poultry pointers	
	Promoters accomplished? what have . 306:	
	Pacific, a voice from the 309 Pasture. 326 Pigs, care of young. 326 Pigs, prevent lying on. 324 Poultry notes. 324 Poultry pointers. 324 Promoters accomplished? what have 306 Rhubarb. 322 Sunday-school lesson. 318 306 306	
	Sandan asked losson	
	Swedish brown beans	
	Swedish brown beans	
	Uncle sam at Garden City	
	Vegetables, winter	
	What have we done to day (poem)	
	Uncle Sam at Garden City	

bette ern (n So vas an he 8 arian Chaff Chea line eld-l 81

> yie ffere

> > e M

With

Agriculture

The Improvement of Cereal Crops. PROF. C. A. ZAVITZ, AGRICULTURAL COLLEGE. GUELPH, CANADA.

The subject of the improvement of our cereal crops is presented under four headings, each of which I consider essential in order to do the best work in the breeding of cereals, namely, the selection of varieties, the the selection of seeds, the selection of plants, and the production of hybrids.

SELECTION OF VARIETIES.

I am convinced that the proper selection of varieties of cereals is of great importance, not only from the farmers' standpoint, but also as the basis of work for the improvement of ereals by plant-breeding. After growing and examining over two thousand varieties of farm crops in each of five ears, and afterwards observing the behavior of some of those varieties in general cultivation, I wish to emphasize strongly the importance of variety in this work. As some breeds of live stock have been bred for many years to fulfil certain purposes, so have certain varieties of farm crops been raised for long periods of time with different objects in view. Some well adapted to rich, varieties are loamy soils, others to heavy clay land, and still others to soil of a light char-For instance, in Ontario, it would be unwise to grow the Joanette oats on a light, weak soil, or the Black Tartarian oats on a rich bottom-land. t would be equally unwise to grow the White Wonder peas on a poor soil or the Prussian Blue variety on land which naturally produces a large amount of straw. The best results could not be expected from growing the Turkey Red wheat where the crop apt to lodge, or the Black Hulless arley on rich alluvial soil. Decidedly etter results can be obtained from rowing the Longfellow corn in Northrn Ontario and the Leaming variety n Southern Ontario than if this order vas reversed. Many greater yields an nearly always be expected from he Siberian than from the Black Tararian oats; from the Dawson's Golden haff than from the Surprise winter heat; from the Mandcheuri than from Common Six-rowed barley; from he early Britain than from the Golden ine peas; from the White Wonder nan from the common, small, white, eld-bean, etc. Certainly great differ-nces exist between different varieties grain crops in length of straw, rength of straw, susceptibility to st, and quality of grain, as well as yield per acre and in many other spects. In regard to the yield per ere, there is a very great difference in ferent varieties. For instance, we ve grown a number of varieties of its and barley under uniform condi-ons in each of sixteen years, and, for sake of illustration, I wish to say at the results of these experiments w an average yield of grain per e of 88 bushels from the Siberian and 72 bushels from the Black Tartarian, difference of 16 bushels per acre per num in favor of one variety over Again, the case of barley, Mandscheuri gave an average of 70 shels and the Mansury an average 59 bushels per acre during the same riod of sixteen years. Here we have difference of 11 bushels per acre annum between two strains of the rowed barley. When we see such rked differences between varieties. are led to the conclusion that vaty has an important place in the rk of plant-breeding as well as the ctice of the farm. Mr. Hugo de es. of Holland, after visiting the ed Luther Burbank last year, wrote account of his trip, and, among othlings, he stated that "as a general e, it holds true that the results of ssing depend primarily on the selecn of the varieties used for that purse. These indicate the list of pos-plittes from which the choice and combinations have later to be e. Outside of this list, very little od is obtained, and then only by This occurs very seldom in urbank's cultures."

SELECTION OF SEEDS.

Within the past twelve years we done a large amount of very care-Work in order to determine the inace of different selections of seed on the resulting crop. Fresh seed s been taken each year from the eral crop of grain grown on the n, or from seed of the leading varieof roots and rape as obtained from of the best seedsmen. The rets, therefore, represent simply one

year's influence from seed-selection, but in order to obtain the influence from one year's work of this selection, the experiments have been repeated from season to season, in order to secure a good average of conditions of soil, temperature, and rainfall. For the large seed, none but well-developed grains were selected; for the mediumsized sample, the grains selected were of a uniform character, plump and of medium size; and for the small, none but sound, plump, and apparently good seeds of small size were used. In the selection of large, plump grain, one-half pound of each class was carefully weighed and counted. A corresponding number was then taken of the mediumsized and of the small, plump grains. The different selections were sown upon plots of similar size. Four tests were made annually with the different selections of seed of both the root and the rape crops. Duplicate experiments were conducted, in which the seeds of the different selections were planted separately, and a duplicate experiment was also conducted by dib-bling the large, five medium and eight seeds at each place where it was desirable for a root of a rape plant to grow. The plants were afterwards thinned, leaving one in each place and having the plants of the different selections of each class at an equal distance apart. The results of the duplicates of each method were then averaged and afterwards those of the two methods were averaged together. It will therefore be seen that the results of all the selections with roots and rape are those of four distinct tests made in each of the years in which the experiment was conducted.

0.7	of years		Mediun	
	of tests	Large seed bu.	sized seed bu.	Small seed bu.
Grains:			-	Du.
Oats	7	62.0	54.1	46.6
Barley	6	53.8		50.4
Spring wheat.	. 8	21.7		18.0
Winter wheat		46.9		40.4
Field peas	6	28.1		23.0
Field Roots:		Tons	Tons	Tons
Mangels	. 5	33.2	29.6	21.5
Sugar beets	5	22.9	21.9	14.3
Swede turnips.	. 5	17.1	15.2	8.7
Fall turnips	4	25.4	21.7	16.2
Field carrots Rape:	5	24.5	22.2	16.2
Rape	5	17.4	15.0	12.4

From the figures here presented in tabulated form, it is most interesting to observe the marked influence of one year's selection of seed on each of the eleven different crops here enumerated. The large, well-formed seeds produced stronger and more vigorous and more productive plants.

In other experiments along similar we have obtained better results from plump as compared with shrunken seed; from sound seed as compared with that which was injured in the process of thrashing; from grain which was perfect in comparison with that which had sprouted in the field; and from seed which was thoroughly ripened in comparison with that which was harvested while it was still immature.

An interesting experiment has been conducted for thirteen years in succession, in a systematic selection of seed oats. The selections were made with large, plump, black seeds and also with light-weighing and light-colored seeds. The test was commenced in the spring of 1893, by selecting seed from the general crop of the Joanette black oats of the previous year. The selection made in each of the following years was from the product of the se lected seed of the previous year. The selections each year were composed of an equal number of grains and were sown on plots of uniform size. As the selection for this experiment has been continuous, selecting the seed each year from the crop produced in the year previous, the average results are of but little value, but the yearly results are interesting, valuable, and quite suggestive. In the crop produced in 1905, it was found that the large, plump seed produced 65.5 bushels and the light seed 44.7 bushels per acre. In each of the past few years, the results have been much the same as those for 1905. In weight per measured bushel, the crop produced from the large,

required only 1149 grains to weigh an ounce, while the crop produced from the light seed required 2066 grains to make the same weight. It will be seen frem the results here presented, that the selection of the seeds themselves has a considerable influence on the production of the crop and should form a factor in the process of breeding.

In the spring of 1903 some very choice grain of six varieties of oats, barley, and spring wheat was selected from the crops grown at the Ontario Agricultural College in 1902. Of each of these six varieties, one-sixteenth of an acre was sown with a grain-drill in the ordinary way; one-sixteenth of an acre was sown with a grain-drill using every second tube of the drill; one-sixteenth of an acre was planted by hand, placing the seeds eight inches apart both ways; and one-sixteenth of an acre was planted by hand, placing the seeds one foot apart each way. It will therefore be seen that one and one-half acres were devoted to this work in 1903. No less than 9,972 seeds of each variety, or a total of 59,832 seeds of the six varieties, were planted by hand. The four methods of planting were used in order that a comparison might be made as to the best methuse in plant selection. It was found that the grain which was sown with the grain drill, either from every tube or from every second tube, gave a very poor opportunity for plant selection. From grain sown with a drill, heads may be selected, but it is practicably impossible to make a satisfactory selection of plants, owing, largely, to the uneven distribution of the seed. When plants were grown at unequal distances apart, they varied greatly, owing to the relative amount of soil, moisture, and air, furnished the individual plants by the uneven way in which the seeds were distributed in the soil. On a careful examination of the plants obtained from the drilled seeds, it was found that some of them would be separated from all other plants by ten or twelve inches; while in other cases two or three plants would be growing so closely together that their roots and stems would become so much entangled that it was difficult to ascertain whether there was simply one plant, or whether there were two or three or four plants, until a considerable amount of time and labor had been expended in making the examination. It was therefore decided to make a few selections of heads, but not to make a selection of plants from the crop produced from the seed sown with a machine. The grains which were sown by hand, however, gave an excellent opportunity for the plants to grow under uniform conditions. As all plants in each of the two methods of hand-planting were at equal distances apart, it afforded an excellent opportunity for studying the stooling properties, the comparative strength of straw, and the size and uniformity of the heads, etc., of the individual plants. When the crops of each variety on the hand-planted plots had reached the proper stage of maturity, careful examinations were made and the results recorded for reference. After this was done, a few of the very best plants were selected and harvested separately. All of the seed of the most promising plant of each variety was sown in the spring of 1904, and nearly all the grain produced in 1904 was sown in the spring of the present year. A number of the other choice plants of each variety were also selected and harvested separately, and afterwards the best seed was selected and sown in single rows in the spring of 1904. those strains which gave the best satisfaction in 1904, a sufficient amount of seed was selected and sown on uniform plots in the spring of 1905, and the yield and the quality of the crops produced were carefully recorded. The results so far are encouraging. A statement of a few of the records are here

INCREASED STOOLING PROPERTIES.

The crops grown from the seeds, planted one foot apart each way, showed the following average number of heads per plant from the selected seed in 1903, and from the seeds produced from the selected plants in 1904, to be as follows:

Average number of heads per plant 1904 13.5 31.7 18.4 46.9

plump seed weighed 35.5 pounds and that from the light seed 24.3 pounds. It is interesting to notice that the crop produced from the large, plump seed

As the seeds were planted exactly the same distance apart in each those two years, it is quite probable that the influence of the selection made

3 4 1 1 3 形 COTAED SPRING ZE LAWN FENCE THE THE PARTY OF PAGE OUALITY Begins In

Page Fenos. Let us tell you ow Fage-Wire is made, and how differs from common fenos wise of the Weven Wire Fenos os.

Bax 7888, Adrian, Mich. WANS' POST HOLE AUGER takty comption control to the contro

CURRIE WIND MILL DOGG

IWAN BROS. Dept No. Birest

LOWEST PRICES FREE TRIAL AMERICAN SCALE CO.

> CEMENT FENCE POST - or Building Blocks

CROUCH \$10 MACHINE

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

Am well pleased with the Auto-Fedan as it saves lots of time and money. We can bale at least one-third more, it works faster and easier and there is no danger at all. S. E. Grimes, Wakarusa, Kans.



Satisfaction guaranteed. Manufactured by the AUTO FERAN MAY PRESS CO., 1964 Jefferson St., Teneka, Kensas



EUREKA BOILER

or STEAM FEED COOKER Saves half your corn or other feed. Saves labor in feeding. It will steam moldy hay or corn perfectly sweet. Makes corn sweet. Makes corn stalks or straw per-fectly palatable. Write for information. John Deere Plow Co.

You Can Thresh

BELLE CITY SMALL THRESHER. Good capacity, light, compact, durable, cleans al grains and seeds equal to any. No experts needed Low in price. Fully guaranteed. Write at once.



Möderi Silage Methods

to build, from foundation up, all kinds of silos. All about the crops and how to cutand fill. How to feed, with the most complete feeding tables ever published. About \$0 illustrations help to make things plain. Used as a text book in many Agricultural Colleges. We have always sold the book for 10 cents, but for a limited time, to any reader who will ask for it, and name this paper, we will send a copy free. Write at once.

SILVER MFO. CO., Salem, Ohlo.

The Government of Canada Gives absolutely FREE to every settler

160 Acres of Land in Western Canada



Land adjoining this can be pur-chased from railway and land com-panies at from \$6 to \$10 per acre. On this land this year has been produced upwards of twenty-five bushels of wheat to the acre.

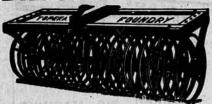
It is also the best of grazing land and for mixed farming it has no superior on the continent.

Splendid climate, low taxes, railways convenient, sch churches close at hand.

Write for "20th Century Canada" and low railway rates to Superintendent of Immigration, Ottawa, Can.; or to the following authorized Canadian Government Agent

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





NEVER LOSE A CROP

If you use the Topeks Foundry Packer, Packs surface as well as subsurface. Write for prices and circulars.

Topeka Foundry

TOPEKA, KANSAS When writing mention Kansas Farmer

Two Years Guarantee



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

You Deal With the Factory

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

Before you buy that Manure Spreader see that it has sills and frame made of oak, a ball and socket joint on front axle to prevent racking and twisting, and steel braces and steel truss rods to guard against warping and sagging. See that the apron does not run backward and forward on hilly ground, but insist on a continuous positive apron drive



See that it is practically automatic, and so simple that any boy who can drive a team can run it as well as any man, and control every operation without leaving the seat. The without leaving the seat.

Appleton Manure Spreader
has all these important features
and many others equally as important. Write to-day for free catalogue and special prices and terms.

APPLETON MANUFACTURING CO.,
19 Fargo Street, Batavia, Ill., U. S. A.

in 1903 is largely the cause of the increase in the average number of heads per plant in the crop of 1904, as compared with that of the previous year.

IMPROVED STRAINS OF LEADING VARIETIES OF SPRING GRAINS.

Upwards of one hundred selected strains of leading varieties of winter wheat and spring grains were grown in the experimental plots on uniform plots in 1905. Fifty-six of the plots contained selected strains of spring crops described previously. Some of these strains are promising, as they indicate a greater yield of grain per acre than was obtained from seed produced from plants which had not been specially selected. The table which follows gives the highest yields per acre obtained in 1905 from seed resulting from the plants selected in 1903, as previously described. In comparison with these yields are those produced from selected seed from plants which were not specially selected. without the introduction of fresh seed from other farms, soils, or localities. At the Ontario Agricultural College, eight varieties of oats and eight varieties of barley have been grown for sixteen years without change of seed. Care has been exercised each year to select the best grain for seed-purposes. The crops have been grown on soil which might be termed an average clay loam, and in no one year out of the sixteen were the crops produced on either a light sandy or a heavy clay The land received no commercial fertilizers whatever, but was manured with about twelve tons of farmyard manure per acre each four years. It has been cropped heavily with grain, dairy train, was greater than the total probably changed but little in its productive capacity. 'As accurate records have been kept regarding the comparative yields per acre of each variety in each of these years, we are thus in a position to present results for comparison. The following table gives the average yields per acre per annum

The Arthur Art Terms for the Arthur	Tons of straw per acre from selected		Bushels of per acre select	
ix-rowed barley (Mandscheuri)	1.6 2.3 2.1	Planta 2.0 2.4 2.0 2.1 1.9 1.8	Seeds 68.4 44.8 47.3 86.1 79.3 29.7	Plants 78.5 58.6 48.6 91.3 89.0 36.4

Although there is a slight irregularity in the yield of straw per acre, it will be seen that in every case the yield of grain from seed obtained from selected plants was higher than that produced from seed obtained from plants which were not selected.

THE PRODUCTION OF ONE SEED GRAIN IN A PERIOD OF TWO AND A HALF YEARS.

As previously stated, the most promising plant of the thousands of plants of each of six varieties of spring grain grown in 1903, was saved and the seed from which crop the grain was carefully saved and was sown with an ordinary grain-drill in produced was all sown by hand in 1904, with an ordinary grain-drill in the spring of the present year. The following table represents the yield of grain in 1903, and the yield of both straw and grain in 1904 and in 1905:

for each of the four periods of four years each; also the average yield per acre per annum for the whole period of sixteen years;

sults may be secured in considerably less time. At our Agricultural College, we have crossed a few of our best varieties of spring wheat, winter wheat, oats, and barley. The work has been oats, and barley. The work has been largely accomplished during the last four years. The results in 1905 are cer-We had, in tainly very encouraging. all, about eight thousand hybrids in the past season. In all our crosses, we are working along definite lines with the hope of securing what we are after. As, for instance, we have crosses between the Siberian and the Joanette varieties of oats. Of about two hundred and fifty varieties of oats which we have had under experiment, the Joanette black has produced the greatest yield per acre, has been the greatest stooler, and has furnished grain which is the thinnest in the hull. This variety, however, is very short in the straw and unsuitable for general cultivation. The Siberian variety possesses straw of good quality and grain which is white in color, but the yield per acre is slightly less, the percentage of hull rather more, and the stooling properties not nearly as highly developed as in that of the Joanette. We now have hybrids which are long in the straw, possess good stooling properties, and furnish grain white in color and ex-ceedingly thin in the hull. We hope that these properties may be retained, so that a variety may be secured which will be constant in its possession of the good characteristics obtained from these two prominent varieties of oats. We also have crosses and hope to unite

information obtained, more definite re-

Market and the second of the s	Average yield per acre per annum for each of four periods of 4 years each				yield per acre		
	1890-1898	1894-1897	1898-1901	1902-1905	1890-1905		
Joanette. Joanette. Siberian. Waterloo. Oderbrucker. Probsteier. Bavarian. Egyptian. Black Tartarian.	74.8 74.6 75.7 70.6 70.7	88.7 83.9 84.1 85.1 81.6 79.9 71.4 60.5	84.9 90.4 85.6 85.8 88.1 86.6 76.4 66.5	102, 105, 105, 102, 100, 108, 88, 91,	4 88.2 9 87.5 9 87.1 3 86.4 3 85.1 5 76.7		
Mandscheuri. Oderbrucker. Common Six-rowed. French Chevalier. N. Z. Chevalier. Mansury. Black Hulless.	60.3 53.1 50.5 54.6 49.6 48.4	72.2 61.6 56.7 55.8 56.7 53.4 39.1 34.8	70.3 68.4 68.4 68.3 68.2 73.9 47.5 42.2	76. 68. 68. 61. 64. 59. 50.	9 63.0 9 61.1 .2 60.0 .7 59.8 .0 58.7 .1 43.9		

Yield of	Yield o	of crop	Yield o	of crop
Grain 1908	Straw 148 112 184 171 196 46	Grain 68 56 98 61 74 15	Straw 2887 3265 2178 3553 8748 542	Grain 1929 1119 2109 2102 3439 241
A STATE OF THE STA				(25) Miles St. 1425-V

From these results, it will be seen that we obtained in 1905 fully 101 bushels of Joanette oats, 61 bushels of Siberian oats, 40 bushels of Mandscheuri barley, 35 bushels of Guy Mayle hulless barley, 27 bushels of Chevaller two-rowed barley, and 4 bushels of Wild Goose spring wheat, as the direct result in every case from one seed planted two years ago last spring. When we realize the fact that one single grain of the Joanette oats planted in the spring of 1903 produced over 100 bushels of grain in 1905, on about two acres of land, we learn something of the importance of securing even single grains of the highest possible value. In comparison with 100 bushels of Joanette oats, we have only about 4 bushels of the Wild Goose spring wheat under just as favorable conditions. The Wild Goose spring wheat has only a few heads per plant and a comparatively small number of grains per head. The crops which are here reported were greatly admired by thousands of farmers who visited the college and examined the experimental plots in the month of June of the pres-

OATS AND BARLEY GROWN ON THE SAME FARM FOR SIXTEEN YEARS WITHOUT CHANGE OF SEED,

The question of the advisability of making a frequent change of seed from one farm to another is one which has claimed the attention of farmers for long periods of time. It is a problem which is exceedingly difficult to solve; in fact, it is practically impossible to find a solution which will comply with all cases. Any information, however, which can throw light upon this perplexed question should be welcome. If it is necessary to change seed-grain every two or three years in order to keep up the vigor of the plants, the problem of seed-selection is an exceedingly difficult one. We find at the present day a considerable number of the very best farmers who think that good results may be obtained by growing the same varieties on the same farm for several years in succession

The results are very interesting and quite suggestive. Without one exception, the average yield per acre for the last four years is greater than for the first four years for each variety grown during the sixteen-year period. The average results of all the varieties for each of the one-, two-, three-, and four-year periods are given in the same order as the varieties just mentioned. Oats, 74 bushels, 79 bushels, 83 bushels, and 100 bushels; bar-ley, 50 bushels, 54 bushels, 63 bushels, and 63 bushels. It will therefore be seen that the average yield per annum for the last four years surpassed that of the first four years by 26 bushels per acre for the oats and 13 bushels per acre for the barley. The figures here presented show quite clearly that it is possible to grow the same varieties of grain on the same farm for a considerable number of years without change of seed, providing great care is exercised each year in the sowing of the seed and in the handling of the

THE PRODUCTION OF HYBRIDS.

Even though we take great pains in electing the best seed from the best plants of the best varieties of cereals, we find that the plants produced, although greatly improved in many respects, have weaknesses.. We observe that some varieties are specially strong in certain characteristics, while other varieties are equally strong in other features. With the hope of originating new varieties possessing the good qualities and eliminating the weak features of some of the best kinds, efforts have been made to obtain the desired results through artificial cross-fertilization. With the aid of the investigations made by Mendel, de Vries, Correns, Bateson, and others, we are obtaining new light upon this problem which we hope to be able to apply to excellent advantage. In former years when crosses of cereals were made, it thought necessary to continue growing the crosses for six, eight, or ten years before the varieties became fixed. It is hoped that, with the new

in the same varieties the good qualities of the Dawson's Golden Chaff and Turkey Red varieties of winter wheat, the Herison Bearded and the Red Fife varieties of spring wheat, the Mandscheuri and the Two-rowed Chevalier varieties of barley, the common emmer and the red spelt, etc. Although there is a great difference of opinion at the present time as to the outcome of the recent investigations in plantbreeding, we believe, from what we have been able to observe from the work of others and from our own practical experience, that tremendous strides will be made along the line of plant improvement through artificial, crossfertilization within the next few years.

It will be seen from what has already been said, that the work of the improvement of our grain crops in its best form, means careful, systematic work conducted along definite lines and over a long period of time. This is brought about by first selecting the best seed from the best plants of the best varieties, to secure a foundation stock for crossing in order to obtain plants, eliminating as many of the poor qualities and incorporating as many of the best characteristics as can be brought together in any one variety to fulfil a certain and a definite purpose.

Alfalfa on Wheat-Ground.

I would like your advice about sowing alfalfa on a piece of wheat, by harrowing once before sowing and harrowing lightly after sowing. Do you think the wheat will smother it I intend to sow about ten acres, and sow 10 pounds of good seed to the acre. Please answer through the KANSAS CHAS. LEIPERSBERGER. FARMER.

Riley County.

The seeds of alfalfa are small, and even though they may germinate fairly well, the vitality of the young plants is quite low; hence it is more essential that a proper seed-bed be prepared for grasses, alfalfa, and other crops which have small seeds than any of our other crops. I should not think that your field of wheat would be a proper seed-bed for the alfalfa, as it ould be liable to crowd the young alfalfa plants too much. If your field was plowed last fall and put into a good physical condition, and if you will harrow the field and seed the alfalfa at once, and cut your wheat crop for hay, you might have fairly good conditions for your alfalfa. However, the wheat does not appear to be as good for hay as some of our other crops, and I presume that it would not be advisable to seed the alfalfa in the wheat. When you seed a field to alfalfa you expect to let it remain for several years, and a thin or spotted stand is not at all satisfactory. If it is necessary to plow up such a stand, your seed has been vasted; so I would advise the seeding of alfalfa on a carefully prepared seed-bed, either very early in the spring or about September 15 if fall spring or about seeding is preferred.

V. M. Shorsmith.

Japanese Milet-Turkestan Alfalfa.

I would like a little information in regard to Japanese millet. Will it do well in our dry climate? Where can I get the seed, and at what price? Would you consider Turkestan alfalfa better than common alfalfa on upland? Where can I get the seed and at what price? Please answer through your valuable paper. GEORGE WORTH.

Rush County.

Although the Japanese millet is usually advertised in the seed catalogues as a very productive crop, it has not proved so at this station; in fact, the yields are so low that we have often not weighed the crop because it has been so small and contained so many weeds. Even if the seed germinates well, the plants do not thrive, and it is, according to our tests, not nearly desirable a type of millet as the German, Hungarian, or Siberian. However, if you wish to seed a small plot of this millet, you can secure seed of any of the wholesale seed-firms in this or adjoining States. The seed costs about 10 cents per pound, or about \$3 per bushel.

The Turkestan alfalfa which was introduced by the U.S. Department of Agriculture from the Highland in Central Asia, is claimed to be a more hardy variety than the common alfalfa and better suited for growing under semiarid conditions. The U.S. Department of Agriculture recommends this alfalfa as a desirable type; however, much of the alfalfa-seed advertised by our seed-houses as Turkestan alfalfa does not differ from the common variety. At this station a plot of Turkestan alfalfa, the seed of which was purchased from one of our most reliable seedfirms, and which they claimed to have secured direct from Government imporhas grown successfully, appears to be not different in yield, or any other respect, from the common alfalfa. Hence, I would suggest that if you try the Turkestan alfalfa you try it in a small way at first, unless good reliable seed can be secured as cheap as the common alfalfa. If you find that you have a more desirable type than the common variety, you can soon secure more seed for seeding larger fields.

n

:1-

nt

rs.

đу

Its

tic

nd

he

he

ain the

va-

ite

ar-

ut?

and

cre.

IBAS

and

irly

ants

itial

ared

rops

of hink

s it

s al-

field to a

will

ta at

hay,

tions

heat

Alfalfa on Prairie Sod.

I would like to get your opinion on seeding ten acres of prairie sod to al-The land is about half creekbottom, the rest second-bottom. Would it do to break and then disk and work fine with the harrow and sow the seed? If so, would I be likely to get any crop from it this season, or would it be better to seed to millet and sow in the fall? It is usually dry here in the south part of Ellsworth County in the fall. If the millet is put in, can I get a good seed-bed by disking after the millet is taken off? I intend sowing rape for pigs on a lot that has never been plowed but the old sod is dead and the ground is excessively weedy. Can I clean off the weeds and get a seed-bed by disking, or would you recommend plowing? How early can rape be sown in Ellsworth County, and after the crop has been pastured, what crop can I put in to follow it for fall pasture? I find that by reading and instructions in the "old reliable" KANSAS FARMER I am learning more about farming all the time. I am middle-aged in years, but young in farming. I would like to have my name placed on the mailing list for Experiment Station bulletins.

. J. J. HYSELL. Rice County. As alfalfa-seed is quite expensive and as the seeds are small and the young plants of low vitality, requiring thoroughly prepared seed-bed, your plan to break up prairie sod and seed to alfalfa the same season would be impracticable. The new soil to be broken up has a good amount of fertility for growing corn, Kafir corn, or other cultivated crops, and the field would be in a much better condition for sowing alfalfa after it had been cropped a few years. Your plan to sow millet and put the alfalfa in after the millet would be preferable to seeding the alfalfa at once upon new breaking; but it would be still better to seed another field to alfalfa and plow this up, and in four or five years seed the field that you are about

It is a little early yet for the seeding of rape, so that you will have time to plow your field and harrow it several times to firm it and put it in a good physical condition for seeding; and I think that this would be considerably better than simply disking the field, as I notice that it has never been plowed. Rape may be seeded almost any time from the first of April to the first of August, and if it is possible to divide your lot without much expense, it would be advisable to seed one-half of it about the first of April, and seed the remainder three or four weeks later, and then turn the stock from one lot to the other. If your stock have a large lot which is sufficient to furnish them with pasture, they are liable to allow some of the plants to grow too large, and will contine to eat on some of the newer growth of the others until they are destroyed. The rape may continue to grow and make a fair pasture until late in the fall. If it is mostly eaten off in the summer and does not produce much of a new growth, you may follow the rape by rye, cane or cow peas for fall pasture, the preference for these depending largely upon your plans for cropping the field the next season, and also upon the nature of your soil. Soil which is inclined to blow or wash during the winter better protected by a crop which will better survive the winter, such as rye, If you wish especially to increase the fertility of your soil in nitrogen content, the cow-peas would be preferred. These may be seeded broadcast, two bushels per acre; but on account of the cost of the seed, I presume that the rye would be as satisfactory to use for this purpose. V. M. SHOESMITH.

Yellow vs. White Corn.

Kindy inform me whether yellow or white corn is best adapted to this section of the State. Also quote prices on your seed-corn. THOS. DALY.

Bourbon County. Good producing varieties of either white or yellow corn should succeed well in your section of the State. It appears that on upland soil many farm. ers prefer to grow a variety of white corn, while certain varieties of yellow corn are considered better adapted for bottom-land. I am of the opinion that this difference in adaptation, if there is any difference, may not be due to the color of the corn, but rather to the variety; for instance, we have found some varieties of yellow corn that were better adapted for growing on our light upland soil than were other varieties of white corn. In your section of the State, the Boone County White or Mc-Auley's White Dent should succeed

Of the yellow dent varieties, the Hildreth, Kansas Sunflower, Legal Tender, and Reid's Yellow Dent corn may be sucessfully grown in your part of the State. If you prefer an early maturing corn, choose the Reid's Yellow Dent, or if a late maturing corn is preferable, the Hildreth or Kansas Sunflower may be recommended. I have mailed a copy of a letter giving some information regarding varieties of seed-corn, with the addresses of the growers. Our supply of seed-corn is practically exhausted.

A. M. TENEYCK.

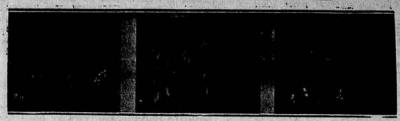
Pasture.

EDITOR KANSAS FARMER:-In reply to J. N. Hunter, I sowed about ten years ago for pasture, 3 pounds white clover. one bushel Kentucky blue-grass to the acre on cornstalk land; disked and harrowed in March. The freezing and thawing covered the seed. It came up early in the spring and has been a good pasture for hogs and cattle. Crab-grass does not bother this grass as it makes a thick sod. Two years ago I sowed twenty-five bushels of English blue-grass. It came up all right and I commenced to pasture about the first of July. I had a good pasture until frost came. I waited the next spring for my English blue-grass as I wanted the pasture early. I am still waiting and looking. The crab-grass killed out the English blue-grass. I sowed the Kentucky blue-grass and now have a good pasture. N. B. SAWYER.

Montgomery County.

As long as it is grievous to thee to suffer, and thou desirest to escape, so long shalt thou be ill at ease, and the desire of escaping tribulation shall follow thee everywhere.—Thomas a Kem-

Tranquility of mind will often pilot us through many choppy places.



<u>WE HAVE ON HAND NOW A FINE SELECTION OF</u> IMPORTED

Draft Stallions and Mares

Ranging in ages from 2 to coming 5-year-olds, and weighing from 1600 to 2000 pounds, of the following breeds:

PERCHERONS Blacks, Greys and Bays ROYAL BELGIANS Bays, Reans and Chestnuts with White Manes and Tails ENGLISH SHIRES Bays and Brown

OLDENBURG COACH Blacks, Bays and Chestnuts

Eight Imported Percheron Mares

If you are looking for something good enough to win in any showring, we guarantee to show them to you.

One pair of 4- and 5-year-old gray mares, weighing 4000 pounds, both
heavy in foal to one of the most famous stallions in France; one pair of
matched black 3-year-old mares, weight 3500 pounds, one of them has black
filly colt at foot, and the other one will drop a colt within six weeks; one
2-year-old black mare, weight 1,700 pounds, of extraordinary bone and finish; one pair of dark gray yearling mares, weight 3000 pounds, will certainly make a show team; one 2-year-old dark gray mare, very smooth and
one that will please you.

Every one of these mares are absolutely sound, and of the most fashionable blood that the old country produces. The prices range on them
from \$500 to \$1,000, colts at foot not counted. This is an exact description
of them, and we guarantee the mares to please anybody looking for good
ones.

Ones.

Do not write, but get on the first train and come and buy them.

We sell first class stallions as cheap as they can be bought anywhere, and give with them a 60 per cent guarantee, and furnish life insurance if desired. TRY US ONCE.

WATSON, WOODS BROS. & KELLEY CO.

LINCOLN, NEBRASKA



Save Your Clothes By Washing Them in

A Gee-Whizz Washer

SENT ON FREE TRIAL

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

None of this in the Geo-Whizz as it washes by driving hot soapsuds through the clothing with force and speed, by means of water wheels. No friction on the clothes. Guaranteed to wash perfectly clean in from four to seven minutes. Guaranteed to wash perfectly clean in from four to seven minutes. Galvanized steel tank. No warping and no falling apart. Adjustable to wash anything from a napkin to a quitt, or a length of carpet. Write at once for full particulars and free trial proposition.

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

Barn Plans and Outbuildings

New, revised and greatly enlarged edition, Modernized and brought up-to-date . .

EDITED BY EDWIN C. POWELL

A reliable guide to those intending to build new barns or to remodel old farm buildings for any and all purposes.

The proper and economical erection of barns and outbuildings requires far more forethought and planning than was ordinarily given to their construction. But with modern ideas, proper appreciation of sanitary conditions, and the use of labor-saving implements, a barn that twenty-five years ago was considered perfect would not meet present require-

Outline of Contents:

After an introductory chapter on the general rules to be observed in barn building, special chapters give detaild information and illustrations on

GENERAL FARE BARNS CATTLE BARNS AND STABLES DAIRY BARNS CATTLE SHELTERS SHEEP BARNS AND SHEDS PIGGERIES FALLY WALLES PIGGERIES
POULTEY HOUSES
CARRIAGE HOUSES AND HORSE BARNS
CORN HOUSES AND CRIES
ICK HOUSES

ICE HOUSES AND COOL CHARRES DAIRY HOUSES CREAMBRINES AND CHEESE FACTORIES SPRING HOUSES GRANARIES SWORE HOUSES DOG RENNELS BLOS ROOT CELLARS AND ROOT HOUSES ROOT CELLARS AND ROOT HOUSES BUILDINGS OF VARIOUS KINDS, ETC., ETC.

All descriptions and directions contained in this volume are given in so plain and clear a manner as to be readily understood by anyone. Every professional builder, and every person, be he farmer or otherwise, who intends to erect a farm building of any kind, can, in this book, secure a wealth of designs and plans for a very small sum. With 375 illustrations, 5 x 7 inches, 404 pages.

Cloth, price, postpaid, \$1.00

THE KANSAS FARMER CO. TOPEKA, KANSAS

THE NATIONAL DAIRY SHOW.

(Continued from page 305.)

made butter direct from sweet cream, but which failed because of lack of market for this quality of product. The successful appearance of the radiator on the market would seem to indicate an advanced step in butter-making, though the ultimate result of its

appearance is hard to predict.

The National Dairy Show was a wonderful exhibition. Wonderful because of its size, its success, and, more than all, its comprehensiveness. No implement, accessory, or novelty known to the trade was omitted from the exhib-Every process by which milk is prepared for consumption in bulk, as cream, condensed milk, butter or cheese, was shown in its completeness. In this building the visitor could take his journey from the cow-stable, where the modern methods of sanitation, the feeding of balanced rations, the care of the animals, and the workings of the milking-machine were shown, clear through every operation to the buttercutter and the automatic scale which delivered the butter to the customer, weighed accurately to the fraction of an ounce, or to the counter where the canned and bottled milk were ready for delivery for the use of the infant or the invalid.

Among the dairy-stable appliances ere stock foods, stalls, watering troughs, scales, stanchions, milk-pails and cans, in bewildering array. In adand cans, in bewildering array. In addition, there were manure-spreaders, corn-shellers, silage-machinery, and grinders which are accessory to good dairy-farming. There were also various forms of power, including the tread power, gasoline, kerosene, and steam engines, electric- and water-motors. And then the farm telephones, filters, roofing materials, etc., found an appropriate place as accessories on the modern and up-to-date dairy farm. There were also automatic bottlewashers, bottles and bottling-machinery, milk-wagons, butter-colors, boxes and packages, cultures, extracts, sterilizing and pasteurizing machines without limit.

A part of the space in this great building was devoted to the pure-food show. This was made with the cooperation of the Department of Agriculture at Washington. Dr. Wiley, Chemist of this Department, sent an exhibit that was a revelation to most visitors and made each feel sorry for his stomach. This exhibit included the chemical apparatus used in detecting the adulterations in food and drink, and a very large exhibit of adulterations that had been extracted from foods and drinks bought on the open market. One of the most startling features of this exhibit was the samples of cloth stained in brilliant colors with coloring matter extracted from foods and drinks that are daily sold in the open market.

There was a hospital exhibit in which a demonstration was given of the methods of preparing foods for invalid infants. Nearby was a cooking-school exhibit of great interest, while a little farther down the line was an exhibit made by the United States Army commissary department, in which was shown a complete collection of the prepared food-rations provided for use of the soldiers when in the camp, the fort, or on the march. A camp kitchen was in daily use and luncheon was served to invited guests at noon. Those who were fortunate enough to receive invitations were unanimous in their statements that Uncle Sam's soldiers are well-cared for in the matter of food.

In connection with this great show was held the National Creamery Butter-Makers' Association meeting. This meeting was very largely attended, much larger than ever before. Indeed, it furnished the opportunity for the show, but the latter proved such a success that we venture the prediction that hereafter the show will furnish the opportunity for the Butter-Makers' convention. There was held also at this time, the National Dairy Farmers' convention, which had a large attendance from many different States and from Canada, and the last convention of the week was the Pure-Food convention which was also largely attended. These meetings were held in the large hall over the Annex where the cattle were stabled.

It is significant that the United States Department of Agriculture and the agricultural colleges of several States gave such large assistance in making this show a success. The agricultural colleges of Kansas, Missouri, Illinois, Indiana, Ohio, Pennsylvania, Nebraska, Minnesota, New York, and Guelph, Ont., were all represented by professors in charge, a number of whom contributed valuable papers to

the meetings and did everything in their power to add to the interest of the occasion. Kansas did herself proud by sending fifteen students from Professor Erf's Dairy Husbandry Department of the Agricultural, College as well as Professor Erf himself, who read a valuable paper at the meeting.

The great objection to dairying as a life business and the one which, more than any other, prevents many farmers from engaging in it, is the necessity for milking the cows by hand and the difficulty of obtaining the right kind of help. It has been the dream of inventors for years that some kind of a milking-machine could be made which would remove this objection to the most profitable branch of agriculture. Milking-machines have been in use for several years but they seem not to have arrived at perfection and their use has not become general. In one corner of the cow-stable in the Annex of the Coliseum, was shown the latest milking-machines in daily operation. This machine seemed to do its work well and to the comfort of the cows. During the week a newly-calved Guernsey heifer was milked quietly and with apparent comfort by this machine while attempts to milk her by hand had been resented by vigorous kicks. This machine is operated by the application of power to a pump which compresses the air and draws the milk from the udder. The only objection that could be raised to the machine lies, not in its work, but in the diffi-culty of keeping it clean. Long rubber tubes connect the suction cups which surround the teats, to a central receptacle and it is possible to milk a number of cows at the same time with one machine. If this machine can be kept thoroughly clean, it would seem that a very long step in advance has been made for the dairy industry. One dairyman of Wisconsin was so pleased with the machine and its operations that he ordered ten of them for use in his home dairy.

In spite of the small accommodations available in the Annex, and in spite of the fact that none of the breeders' record associations gave financial assistance to the show, except only the Hol-stein-Friesian Association, the cattle show was a success. Cattle were shown from Canada to Kansas, though some of those who made entries were prevented from shipping by reason of sickness. The show was so successful

that it is sure to be continued.

The success of this show as a whole has induced the management to change the name from The National Dairy to The International Dairy and Food Show. This change was induced more perhaps by the exhibits of dairy cattle from Canada and by the wonderful exhibit of pure food shown by the Department of Agriculture and other exhibitors, than by any other reason.

One of the interesting features of the show was a large booth fitted up in very attractive style by Swift & Company in which was shown milkfed chickens, both alive and dressed, ready for shipping. A capable cook was in attendance who fried these chickens from time to time and gave the visitors samples. Visitors were unanimous in pronouncing the flavor excellent and different from anything before tasted.

Taken altogether, the National Dairy Show was a wonder. It was interesting to the city people as well as to those from the dairy farms. It was a straight business exhibition with no frills or spectacular features. booths were nicely decorated and the general view of the large Coliseum was attractive, but each exhibit was specially arranged for its educational value and not for mere entertainment or amusement. The city man and woman in attendance had open to them a new world about which they may have read, but of which they could know little or nothing by observation or expe-

It is a matter of pride that the establishment and the successful issue of this initial dairy show, were due entirely to the efforts of two Kansas men, Mr. James A. Walker and Mr. W. W. Marple, were president and vice-president respectively, and to them and them only, is due the wonderful success of this wonderful exhibition. Both these gentlemen are well known to Kansas people by reason of their connection with the Blue Valley Creamery Company, formerly of Marysville, Kans., but now of St. Joseph and Chi-Their energy, ability and money made the show possible, and to them is due all praise.

THE DAIRY SCHOOL ON WHEELS. As the days go by the magnificent results accomplished by the Kansas State Dairy Association special dairy



Washed in 1 minute

Count the pieces — notice the dif-ference—and you'll understand why the one who has to do the cleaning prefers the simple Sharples Tubular.

There are other advantages just as much in favor of the Tubular. Write today for catalog V-165—it tells you all about the gain, use, and choice of a separator.

The Sharples Separator Co. West Chester, Pa.

Toronto, Can.

Chloage, III.

A Big Difference

One Minute's Washing as compared to at least fifteen. Wouldn't you like to save at least fourteen minutes twice a day? One minute with a cloth and brush cleans the absolutely simple Sharples Dairy Tubular Cream Separator bowl shown in the upper picture. It takes fifteen minutes to half an hour with a cloth and something to direct dental. with a cloth and something to dig out dents, grooves, corners and holes to clean other bowls—one of which is shown in lower picture.



Washed in 15 to 30 minutes

Cream is Cash

The largest exclusive Cream Butter Factory in the World

NO WAITING

NO DELAY

NO UNCERTAINTY

NO ANXIETY.

Cream shipped to us is paid for immediately.

Our motto is:

CORRECT WEIGHT.

HONEST TEST,

and the highest possible price for butter-fat.

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

A cordial welcome awaits every enterprising milk-producer, who appreciates having his product handled economically so as to get the greatest returns and that in Cash. It's a pleasure to answer letters. Will be glad to hear from you.

Very respectfully,

BLUE VALLEY CREAMERY CO.,

ST. JOSEPH, MISSOURI.

PEERLESS CREAM SEPARATORS

Reasons Why the PEERLESS is the best

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

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

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

THIRD—Bulleton impossible.
FOURTH—Perfectly noiseless.
FURTH—Heavy enough and strong enough to lift a box-car, which insures FIFTH—Heavy enough and strong enough to the most serviceable madurability.

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

of an inch.

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

small cost.

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

For further information, write

Bradley, Alderson & Company

10th and Hickory

Kansas City, Missouri

Topeka Business College

The school that educates you for business success and that always ou a good position. Students enroll at any time. Work for board wish while attending school. Competent persons always in demand salaries. 104-page catalogue freemention this paper.

DEPARTMENTS:

in the contract



train over the Santa Fe Route from Atchison, Kans., to Superior, Neb., are made more manifest. Nearly 4,000 farmers were enabled to hear the lectures which were given by men of State and National reputation. For nineteen years the Kansas Dairy As-sociation has held annual meetings in different cities of the State, but was never successful in drawing together any considerable number of farmers. It is estimated by those in a position to know, that the number of farmers who attended the meetings on the special dairy train, was greater than the total number brought together in all of the eighteen proceeding annual meetings of this Association. It is also stated on the highest possible authority, that the number of farmers in attendance upon these lectures on the train, was larger than the total number brought together by the annual meetings of the dairy associations of Michigan, Wisconsin, Iowa, Illinois, Indiana, Missouri, and Nebraska, combined.

The idea of the dairy train was con-ceived by Secretary I. D. Graham, and its success was due to his forethought and careful management, backed as he was by the Santa Fe Railway Company.

A report of the proceedings of the dairy train, together with the resolu-tions adopted at the annual meeting at Abilene on Saturday after the termination of the trip, were published in the Kansas Farmer of March 8. We now take pleasure in presenting our readers with synopses of the lectures delivered on that train. These will appear as fast as space will permit.

Why You Should Dairy.

Address by W. W. Marple, of Chicago, delivered at various points on the route of the Kansas State Dairy Association Special Dairy Train over the Santa Fe Route, Feb. 27 to March 3, 1906.

It is certainly a privilege to talk to you on a subject that is of such vital importance and one in which I am so deeply interested.

You are certainly to be congratulated on living in a community through which a railroad runs, operated by a corporation sufficiently interested in the development of the resources and in the people who live along its line, to come to them with a fund of infor-mation such as they have on this occasion.

You are to be congratulated on living in a state where there is a state institution such as you have at Manhattan, and where the officials of that wonderful institution are so much interested in the development of agriculture throughout the state.

It is of very great importance to the man who is contemplating some line, as to why he should dairy. There are a number of reasons, all of which are feasible and true. It is a difficult matter to decide which one of these reasons is the strongest and most important. A very strong reason, and probably the most attractive, is that it pays more than any other branch of agriculture. The reason that it pays is that it forces into use an element in our make-up that is most valuable; it compels us to use a force that we have that brings the highest price under all circumstances; it gives us an opportunity for using our mentality and it is this element in our make-up that, when placed on the market, brings the highest price. A man may have a collegiate education; he may be an artist of renown; he may be thoroughly posted on all the arts and sciences and yet be only worth about a dollar a day for digging a ditch.

Whenever he engages in any line or pursuit that gives him an opportunity to use his brain, he puts himself in a position to realize the greatest returns for his efforts.

The young man who has been dissatisfied on the farm in other lines. finds this business attractive because it sults, but returns them in cash. Under other circumstances, he has been forced to wait a full year to know what he has realized and whether he is going to realize anything for his labor and his time and his effort. In dairying, he gets immediate results; if he is advised to use a certain feed for his dairy, he can tell in forty-eight hours whether that advice is good or not, while if he is advised to use a certain kind of seed for the production of a certain kind of grain, he has to wait a year before he knows whether his advice was good.

It is possible for him to increase the results from his dairy by carrying out certain plans and adopting certain rules and he gets this increase right away. There is no limit to what he is able to accomplish through the influence of a system brought about by the exercise of his mind force. He can keep books; he can balance his accounts every day the same as a bank, and with these

opportunities, the business continues to grow more fascinating, and where once he hated the humdrum life on the farm, it becomes attractive to him and he is disposed to remain there.

I really do not know that it is necessary that any other reason should be given as to why we should dairy, but there are others and in the few minutes that have to talk to you, I want to enumerate some of them.

There is probably nothing we are so much interested as our own homes. In the busy, active walks of life we are glad to retire to the seclusion of our home, let it be ever so humble, and it is there that we get our satisfaction and perfect rest. We are interested in beautifying and adorning these homes and making them as attractive as possible. While our special interest is in our own home, in a general way we are interested in all the homes in the country in which we live. A man traveling over the country in a balloon, if dropped down blindfolded and his blindfold removed, if in a dairy country, would recognize it as such at once. The general appearance of the country, including the good houses, good roads, good barns, kept-up fences, and all those things which add to the beauty of a rural district, are evidenced, and the cause is plain. There is every in-ducement in the dairy country to do this. 'Tis not only true, but the highest state of cultivation exists there. productiveness of the dairy farm is far in excess of that of any other. This is a very prominent reason why we should dairy.

I believe that we have no more right to take from the soil its fertility and leave it in a depleted condition for the next generation, than we have to take the oxygen from the air that we expect them to breathe, and in consequence, make it impossible for them to live any length of time. The land that we occupy, while we may have a deed to it, is not ours; it is only loaned to us, and it will be transferred to someone else when we are through with it, and that will be in a comparatively short space of time, and it should be the one object of our lives to turn that over to our children in as good condition as we found it. It would be an utter impossibility to do this were we to continue to raise grain year after year. There is no other business in which you can engage that can bring

about this effectually but dairying.

There are many reasons why we should dairy but none why we should

The placards that are hung around this car are full of wisdom. There is one 'that says:

"A carload of corn is worth \$250. A carload of butter is worth \$5,000. Convert your corn into butter and save the freight on 19 cars."

The manufacturer studies economy and adopts those means by which he can produce the finished product and get it to the consumer for the least amount of money. There is no question but that to reduce corn to butter is decidedly the cheapest method of getting the product of your farm to the highest priced market.

There is another placard which says: "The dairyman leaves his children a better farm than he got. The grain raiser does not."

This is true. A man at Marshfield, Mo., bought a farm at \$5 an acre. This had been cultivated in grain for years and produced an average of about 15 bushels of corn an acre and about of bushels of wheat. He has had this farm ten years and has done extensive dairying. Last year his corn crop was an average of 75 bushels to the acre and his wheat crop 25 bushels. His farm is worth at least \$30 an acre and this result and these conditions are brought about by the manner of business that he has engaged in. He has been returning to the earth the fertility that it has been robbed of for years.

In conclusion, to sum up the reasons why we should dairy: It is pleasant business; it is profitable business; it is an attractive business to those who are engaged in it; it makes better farms more attractive homes; a more fascinating country and a better people.

Why We Should Dairy.

Address by Hon. Ed. H. Webster, Chief of Dairy Division, Bureau of Animal Industry, United States Department of Agriculture, on the Kansas State Dairy Association Special Dairy Train over the Santa Fe Route, Feb. 27 to March 3, 1906.

There are a number of important reasons why the Kansas farmer should engage in the dairy business. The among these is the natural adaptability of the country to dairying. Few sections furnish such an abundance of cheap feed as can be produced on Kansas farms, and few can grow the feeds

WORLD'S BEST BUTTER

DE LAVAL SEPARATOR TRIUMPH AT NATIONAL DAIRY

The great DAIRY SHOW and NATIONAL BUTTER-MAKERS' CON-VENTION held at CHICAGO, February 15th to 24th, awarded ALL HIGHEST BUTTER PRIZES to entries made from DE LAVAL SEPA-RATOR CREAM, the prizes and the scores being as follows:

GRAND PRIZE—GOLD MEDAL

A. CARLSON, Rush City, Minn. Score 97

SILVER WEDAL

J. E. HOWE, Oakland, Minn. Score 961/2

SILVER CUPS

E. J. SIMONSON, Milton, Wis. Score 96
W. H. BECHTEL, Caro, Mich. Score 96
LOUIS NIELSON, Camp Point, Ill. Score 96
F. L. ODELL, Greenfield, Iowa. Score 951/2

Out of the total 610 butter entries 559 were DE LAVAL users, the other 51 representing the users of all other separators combined, while of the 496 entries scoring 90 and over, 463 were DE LAVAL made, the other 33 covering all competitive users together.

All this is in keeping with what has happened at every previous Convention Contest of the National Buttermaers' Association since its organization in 1892, all highest awards having been made, without exception, to DE LAVAL users.

While in evidence of the recognition of DE LAVAL superiority by the best buttermakers everywhere, it is important to note that the proportion of DE LAVAL made entries has never been less than 85 per cent, and at the present Great Show was over 91 per cent of the total number.

number.

A DE LAVAL catalogue, gladly sent for the asking, will help to make plain WHY under like conditions DE LAVAL cream produces butter superior to that which can be made in any other way. Write for

The De Laval Separator Co.

RANDOLPH & CANAL STS., CHICAGO.

General Offices:

1213 FILBERT SREET. 74 CORTLANDT STREET TORONTO.

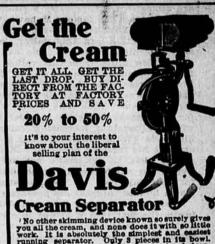
9 & 11 DRUMM STREET, SAN FRANCISCO. NEW YORK.

1416 PRINCE'S STREET WINNIPEG.

that are so peculiarly fitted for the production of milk and for the growth and maturity of dairy stock. The alfalfa fields of Kansas furnish a material that has to be bought at high prices in other sections of the coun-That crop, with the abundance of corn that is grown on every hand, makes a complete balanced ration for the production of milk. Nothing is better fittled for the growth and development of young stock than alfalfa

While geographically Kansas is not situated as close to the market as many dairy sections, yet when the Kansas farmer comes to paying the transportation charges on dairy products from his farm to the great dairy markets, he finds that, for all practical purposes, is as close as the man who lives within fifty or one hundred miles of New York or Chicago. This makes it possible for him to compete successfully with dairymen much more favorably located according to the map.

Another important reason why Kansas farmers should engage in dairying is that it will keep up the fertility of the soil. Most farmers do not realize that continual cropping year after year will in time deplete the soil of its natural fertility and bring the owner to the same situation as is found in many Eastern and Southern sections at the present time. Many States East and South have a fertilizer bill of twenty to thirty million dollars a year. This is incurred simply because the farmers of those sections have attempted to crop year after year, selling this crop from the farm and returning nothing to the soil to replace the fertility taken away by each growing crop. Just as sure as the Kansas farmer continues in growing corn or wheat year in and year out, he or his children will come to this same condition. One-half of the income of the farm will have to go for fertilizers each year in order that the next crop may be grown. In dairying, the crops grown on the farm and fed to the stock are in the greater part returned to the soil in the shape of barnyard manure. About 85 per cent of the value of the feed given to the animal can be returned as fertilizer value to the land. In dairving the character of the crops that are grown on the soil are less exhaustive than in many other kinds of farming. A crop of clover or alfalfa, instead of exhaust-



No other skimming device known so surely gives you all the cream, and none does it with so little work. It is absolutely the simplest and easiest running separator. Only 3 pieces in its bowl. Think of the ease of keeping such a bowl clean. It never can get out of balance. The tank is only belt high, no high lift. You should know all about the Davis. Investigate before you buy. Write to-day for meany saving catalog No. 125. DAVIS OREAM SEPARATOR CO. 54 O North Clinton St., Chicago, II

ing the soil, builds it up. It adds nitrogen and humus to the soil, and although large crops can be removed from two to four times a year the soil gradually becomes richer in these elements. dairy farm will gradually become richer year by year, while a neighbor-ing farm on which is grown wheat or corn to be sold from the place, will in time become so exhausted that these crops will not pay.

Another reason why dairying should be of interest to every farmer, is that by converting the crops grown on the farm into the finished product, an added profit can be obtained. The dairyman of the East and of the South has practically to feed crops worth from two to four times per unit value of the same crops on Kansas farms, and yet these crops can be fed to dairy animals profitably, and butter sold in the same markets in which the Kansas product finds its outlet. The farmer who grows alfalfa and corn and ships it East to the dairymen, allows that dairyman to have the profit derived from manufacturing this cheap product into a finished article. The Kansas farmer should think of this and convert all such crops possible into the finished product on his own farm.

Another reason why dairying will more and more appeal to the Kansas



St. Jacobs Oil

Known the world over as

The Master Cure for Pains and Aches

Price, 25c. and 50c.

farmer is that land is appreciating in value and methods of farming must be found that will pay the interest on the Land is bound to increase investment. in value as the years go by. The public lands have been exhausted and the young man of to-day must buy a farm and pay a good round price for it. He must of necessity follow different methods of farming than were followed by his father who homesteaded 160 acres the early settlement of the State. In countries where land is very much higher than it is in the United States, dairying has been found to be one of the most profitable industries on such lands. The farmers of Denmark, Northern Germany and the islands of Guernsey and Jersey are valued at \$500 to \$2000 per acre, and dairying is practically the only business that can be entered into on a large scale, which is profitable on such a high-priced land. In our own country the high priced lands of Iowa, Ilinois, and Wisconsin are almost-invariably dairy sections of those States. The famous Mohawk Val-ley in New York is world-renowned as a dairy section. In this valley, lands are very high in value. One can go only a few miles from this valley and find the abandoned farms of the East. These farms are abandoned because dairying was not a feature of agriculture on them. Thus it is worth while for the Kansas farmer to consider that with the constant increasing value of his lands, means must be taken to rearrange his farming operations in such a way that he can make not only a living, but wil be laying up something for a rainy day on the investment which he finds himself the possessor of.

Another encouraging feature in dairying is the fact that it brings in a constant, steady income. The farmer who raises hay or grain or feeds cattle has but one period of income during the year, and he must arrange his work accordingly. He can never tell at the beginning of a year what his income for that year will probably be. Adverse climatic conditions may come and crops may fail; the cattle market may go down and apparent profits be turned into loss. But with a good dairy herd on his farm he is assured of an income at least once a month, and in many cases oftener than this, throughout the entire year. This enables him to regulate his expenditures according to his income, and keeps him out of debt.

One of the features which is en-couraging about the dairy business is that the presence of a dairy herd on the farm does not necessarily mean that the farmer shall stop growing wheat or corn, or any other crop, for sale, but dairying fits in nicely with these occupations and insures a steady working income to carry them on. In cases of this kind when crops fail, the farmer still has his living, and if he has a wisely-selected herd, more than a liv-

The occupation of dairying gives constant employment throughout the year to labor. This to some farmers is an objection to business, but if they would view the matter in the light that any business man would a proposition of this kind, they would readily see that steady employment is the only means by which the most value can be obtained for the labor employed. hired man who works three months or six months of the year and then has to seek another place or another occupation for the balance of the year, is

never as good a hired man as the one who can be assured twelve months steady work at a fair income. The merchant or other business man who would try to run his business on principles that seem to prevail among many farmers, would find himself bankrupt at the end of the year. He from necessity must stay by his business every working day of the year. As land and labor become higher in price, the farmer will see that he must follow a similar method in the management of his own affairs and so regulate his farm operations that he can give labor constant employment throughout the year, and use it in such a way that it will be profitable to him.

The last reason I wish to mention why dairying should be of importance to the Kansas farmer is that it requires a better man to be a dairyman than to follow almost any other line of agri-cultural pursuit. When the farmer secures for himself a herd of cows and begins to study their needs and the kind of crops to grow, the kind of stock to own and how to feed this stock in order to get the maximum amount of milk; when he begins to study the selection of animals, to eliminate the poor mem-bers from his herd and to study how best he can market his products, he is engaged in a business that is going to make him a broader man in every way; he becomes a more intelligent and better citizen in the community in which he lives. One has but to look over the general condition of things in our own country to see that this is practically a matter of fact. In localities where some single crop has been for generations the one mainstay of the farm, one does not find the high grade of intelligence among the farmers as he does where the farmer has engaged in some branch of the live-stock industry, and I believe that it can be said without contradiction that the better developed dairy sections of our country are also better developed along other lines; they stand for better things in political and social life; they have better homes and are educating their children to become better citizens.

For these reasons and others that I have given you, it seems to me that the Kansas farmer should carefully consider the question of dairying as one of the important industries that should engage his attention.

Why the Kansas Farmer Should Dairy. Delivered by Prof. E. W. Curtis, Kansas City, on the Kansas State Dairy Association Special Dairy Train.

There are two classes of farmers in Kansas to whom these remarks can be adressed: The farmer who is handling beef cattle, keeping his cows for the purpose of raising the calf, and the grain farmer.

Speaking to the former class, it is well that we take account stock of just where we are in the cattle-raising busi-It is wise in any line of business. ness, for us to stop occasionally, inventory, and figure out our profits and

The Kansas farmer who keeps a cow a year for a calf, must figure about as follows: If he hires it done anywhere in the State, it will cost him \$8 to winter a cow. It will cost him on an average of \$3 to summer her. The interest on the money invested in the cow is at least \$2. He will average through blackleg or other causes at least 10 per cent losses on calves after they are born, which figures at about \$1.50. Not over 80 per cent of the cows will calve each year on an average, which figured out will increase the cost of keeping his herd at least \$2 per head, which makes a total cost to keep a cow one year \$16.50. These are actual and fixed charges and he is not taking into consideration the fact that year by year the cow is growing older and less valuable.

We would like to ask any farmer how much he received for calves last fall, or how much those calves would be worth, should he want to sell them. He will tell you that steer calves were worth on an average of \$15; and the heifer calves on an average of \$12 and we believe it is very conservative figuring indeed, to say that the average calf in Kansas was worth last fall not to exceed \$13.00.

Many stockmen will tell you these figures are entirely too high. Accepting them as true, however, it shows that the Kansas farmer who is keeping cows for their calves, is losing at least \$3 per head; and we know thousands of Kansas farmers who are keeping a bunch of cows year after year and wondering why the cattle business is not profitable.

Speaking now to the Kansas grain farmer, we want to call your attention to a series of reasons as to why dairying would be more profitable.

(1) Dairying will take less fertility

from the soil than any other class of farming. We believe every farmer in the State wants to deliver his farm to his children as rich in fertility and as valuable in productive power as it was when he first began farming it. We especially desire to call your attention to the amount of fertility you are taking from the soil if you are raising any of the following crops:

Sorghum or Kafir-corn grain..... Figures furnished by the Department of Chemistry, Kansas State Agricultural College, Manhattan, Kans.

In other words, you are taking \$8.63 worth of fertility from the soil in every ton of wheat which you haul away. This ton of wheat will sell for less than \$20, whereas, a ton of butter selling for \$500, takes but 50 cents worth of fer-

tility from the soil.

(2) Cream and butter are condensed products. Nothing can be made or grown on the farm which brings as much per pound. Farms remote from market, and communities far from railroads, can send their butter to market, or their cream to the creamery with the least possible expense. Hardly any other farm products can be loaded a hundred to a thousand dollars worth at a time, upon a wagon, and drawn to a shipping point so readily as can but-The dairymen can condense tons of fodder and crops grown on the farm into dairy products, and send them to market in a compact and portable form.

(3) Butter is a finished product. It is made ready for the consumer, either in the private dairy, or the cream can be shipped to the large creamery concerns, who can probably manufacture it more economically than on the farm.

Much that is produced on the farm is raw material, and must be manufactured or otherwise prepared for use

after leaving the farm.

(4) Dairying brings in a constant income. The man who sells crops of any kind has to wait until he can market his products once a year. There is little satisfaction in this. It is unbusinesslike to go without cash fifty-one weeks of the year and then have a lot of money come in at one time. The dairyman has an income nearly fiftytwo weeks in a year. .

(5) Dairying gives constant remunerative employment. The grain or potato grower must spend a large part of the year in enforced and demoralizing idleness, but the dairyman finds profitable work throughout the year, and his work is most profitable in the win-

ter time. (6) On the dairy farm the work is better divided. The grain harvest comes so close to haying that it often gets mixed up with it to the detriment of both; but where corn is grown and put into the soil for dairy feed, and not so much or no grain raised, the harvests are several weeks apart. Then in winter dairying, there is a let up in the dairy work at the busiest season of the year on the farm, while the dairy needs the most work when other farm-

work is lightest. (7) Skill and brain work get better pay in dairying than in any other branch of farming. To produce fine dairy products requires something besides hard work. The dairyman must have knowledge and skill of dairying. These are required in breeding and feeding dairy cows, and in handling dairy products. And the care bestowed and the skill exercised pay better in hard cash, than they do in other branches of farming.

(8) There is more room at the top, greater opportunity to improve than in any other farmwork. Cows produce from 150 to 500 pounds of butter per year, and the butter sells from 10 cents ner nound. No other to one

branch of agriculture shows anything like this or gives such a chance to rise. (9) Taking the country through, there is no kind of farmwork so well suited to women and children as dairy-

(10) Dairying leads to thoughtfulness for the comfort of animals, and thus tends to morality. There is something demoralizing about horses. Men who work in horse stables are rough as a rule, but cows have an opposite To do her best, the cow must be made as comfortable as possible in every way. She will tolerate no neglect or cruelty. She is a teacher of gentleness and kindness.

11. Dairying is the most progressive branch of farming. Some of the changes for the better that ten years Some of the have brought, are the Babcock test, the improvements in separators, etc. (12) Dairying pays better than any

other branch of farming, both actually

PURE BRED



Strawberry Plants

My spring 1906, catalogue is ready and will give you prices on plants from \$1.50 to \$4 per thousand.
A postal will bring it to you.

C. D. HORNBECK, Admire, Kas.

HOSPITALS CROWDED MAJORITY OF PATIENTS WOMEN

Mrs. Pinkham's Advice Saves Many From this Sad and Costly Experience.

white beds are women and girls who are awaiting or recovering from opera-

It is a sad but certain fact that every year brings an increase in the numberofopera-tions performed

are awaiting or recovering from opera-tions made necessary by neglect.

Every one of these patients had plenty of warning in that bearing down feeling, pain at the left or right of the abdomen, nervous exhaustion, pain in feeling, pain at the left or right of the abdomen, nervous exhaustion, pain in the small of the back, pelvic catarrh, dizziness, flatulency, displacements or irregularities. All of these symptoms are indications of an unhealthy condition of the female organs, and if not heeded the trouble may make headway until the penalty has to be paid by a dangerous operation, and a lifetime of impaired usefulness at best, while in many cases the results are fatal. many cases the results are fatal.

Miss Luella Adams, of Seattle, Wash.,

Dear Mrs. Pinkham :-

Dear Mrs. Pinkham:—

"About two years ago I was a great sufferer from a severe female trouble, pains and headaches. The doctor prescribed for me and finally told me that I had a tumor and must undergo an operation if I wanted to get well. I felt that this was my death warrant, but I spent hundreds of dollars for medical help, but the tumor kept growing. Fortunately I corresponded with an aunt inthe New England States, and she advised me to take Lydia E. Pinkham's Vegetable Compound, as it was said to cure tumors. I did so and immediately began to improve in health, and I was entirely cured, the tumor disappearing entirely, without an operation. I wish every suffering woman would try this great preparation."

Just as surely as Miss Adams was

Just as surely as Miss Adams was cured of the troubles enumerated in her letter, just so surely will Lydia E. Pinkham's Vegetable Compound cure other women who suffer from fe-male troubles, inflammation, kidney troubles, nervous excitability or nervous prostration.

Mrs. Pinkham invites all young women who are ill to write her for free She is daughter-in-law of Lydia E. Pinkham and for twenty-five years has been advising sick women free of charge. Address, Lynn, Mass.

13 WEEKS FREE

Or 15 Months for Only \$1.00

The Kansas Farmer

The "old reliable" KANSAS FARMER, established in 1863, the best genuine agricultural weekly paper in the West. It solves the problems for the busy farmer. It helps and interests every member of the farmer's family. It has 12 regular departments. Its contributors are expert authorities. It contains 24 to 32 pages each week. Sent on trial three months free. Test it. Clip the coupon below.

THE KANSAS FARMER CO.,

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

P. O.

and prospectively. Look at the prices of farm products. The prospect is poor for many products, but butter is high in all markets.

There is no business which holds out more inducements to the young people on the farm. It is adapted to a wider area of country than any other agricul-

area of country than any other agricultural pursuit. Noxious and fungus diseases cause less injury to grass, alfalfa and corn than any other farm crops, and these three are the great dairy foods. The future to the skillful dairyman is full of promise and hope.

With such facts as these before him, I think the farmer who is puzzled to make both ends meet at present, must get down and do some hard thinking. One of the first things that strikes many, is that such a profitable branch of business must soon be overdone. If he was in possession of all the facts, however, he would not think so. There is a greater unfilled demand for butter to-day, than there was ten years ago, and this, notwithstanding the fact that butter is higher now than at that time and many times as much of it is made. The supply grows fast, but the demand grows faster.

Families who formerly used one pound, now use three in the same length of time, and those who ate almost none, now have discovered that it is a cheaper and better food for young and old than meat.

The fact is right here in a nutshell, that any farmer who takes up dairying for a business, and follows it intelligently, using the best tools and implements for his work, will have profitable, prosperous, continuing business so long as he may follow it.

Some Points in the Selection of a Modern Dairy Cow.

Delivered by Prof. Oscar Erf, Chief Dairy Department, Kansas State Agricultural College, on the Kansas State Dairy Association Special Dairy Train.

A modern dairy cow as she exists is artificial. She is to a large extent the creation of man's hand. She is the triumph of mind over matter, and, such being the case, there is a natural tendency in the modern cow to retrograde. In the breeding of live stock there is no such thing as standing still. We either progress or we go backward. Therefore, it is necessary that we must breed to an ideal and have the proper knowledge of what this ideal should be.

It is probably best that we take up some points of what should indicate the modern dairy cow. There are many who claim that the broad forehead and the large eye are indicative of large nervous force, but we have found that some of the modern dairy cows with a straight, long head have as good nervous force as those having great, broad foreheads. But I have never yet found a cow with a small nasal organ and a small jaw, that was a good eater. Since man develops her for the purpose of turning food into milk, it is quite essential that she be a good eater, and a good eater is almost universally found in a cow with a large, strong

I like a cow with a long, slim neck, which is known as a "ewe" neck, one that drops down and comes up about her withers. A fine, thin neck is as a rule an indication that the cow will not put fat on her back, which on the market is worth from three to five cents a pound, but rather convert the feed into butter-fat in the pail, which is worth from 18 to 30 cents a pound. A short, jumbled-up neck generally indicates, if the cow is from a large milk-producing family, a large flow of milk at flush, but when she is far along in lactation the feed will go onto her back.

When we find a cow that slopes down from her shoulders and down from her legs—taking her from her withers and looking backwards toward her belly—and widens out into a wedge shape, it indicates a continuous flow of milk.

We must bear in mind that the ordinary cow in the country is a robber. She robs her owner during the last four months of lactation, of the profit that she has made in the first six months. This is particularly true of the Kansas cow. The right kind of a cow is one that will pay her way after she has been milked for six months. The average cow of Kansas produces a little less than 100 pounds of fat per year. It requires about 175 pounds to pay for the care and feed of the cow. There are a great many cows that produce from 200 to 300, and even 400 pounds of fat per year. Such cows become exceedingly profitable, but the great problem with the average farmer is to find these particular animals. know there are many farmers who do not keep records of their cows, that will point with great pride to the fact that this cow gives 20 to 30 quarts of

milk, or even 40 quarts of milk at flush. I do not care anything about this. The point I want to know is whether this cow will in a year give six, eight, or ten thousand pounds of milk. We do not keep our cows for what they give us in their flush.

The large flow of milk is generally attended with a large expense of production. The profitable cow is a cow that is persistent in giving a large flow of good, rich milk. That is the cow that we all want to look for, and that is the cow that we want to own. Now, what I am attempting to describe, as I have said, is not the cow that at flush gives a large flow of milk, but the cow that shows by the year's record the largest flow of milk. I am not attempting to go into the question of how much fat this milk contains. There is no indication known to science or to practical methods to show what the fat in the milk will be. This is more or less of a breed characteristic, which is the nearest indication that we can reach. There are some well-known breeds that have a fairly large percentage of fat in the milk. For me or for any other man to describe what constitutes or what indicates by the appearance of the cow that she gives rich milk would be ridiculous. The best to determine this is by means of the Babcock test. This machine will determine the richness of the milk, the real money value, no matter whether the cow has a rich colored yellow ear with soft skin, or whether she has a rough hide with thick skin, and I have observed cows with this latter characteristic that produced extremely rich milk.

The cow should have a large abdomen. The abdomen is the god of the cow. It is the place where the feed is converted into blood, which finally is made into milk. Take a cow with a great, deep abdomen, and it is presumed that she has the capacity to take her feed and turn it into milk. Never buy a long, lank cow with no belly. She is a fraud and a delusion. The cow that has the habit of turning her food into milk throughout the year will have a long, deep, wedge-shaped paunch.

The udder is another important point of which one should take due notice, and it is somewhat deceiving. The udder should be large and full. I believe that the greatest mistake that we make to-day in judging dairy cows, is to judge them with full udders. I believe that it is a legitimate plan to judge the full udder and then turn the cow away to be milked, and then again examine the udder to determine whether soft or flabby, or if it is fat, and base the conclusion on this fact that a good udder must shrink to a great extent.

Taking all things into consideration, select the cow that has thin withers, ewe neck, high hip bones spread wide apart, wedge-shaped pot belly, the pot belly being especially essential, and you will have a fine dairy cow. Examine her flow of milk and the milk vein. The younger the cow is the less is her milk vein developed; the older she is the more it is developed. I do not like a long-legged cow. Do not select a cow that has a habit of putting fat on her back. You want a machine, and you want to educate that machine to do your work. It is not within the power of man to make that machine do its work properly in one generation. It must be a matter of continuous breeding to fix a given habit in the cow. Some one might ask, "How are you going to do that?" "I do not possess these high-priced thoroughbred cows. I am not fixed on my farm to maintain the thoroughbred cow." Now I will say to the man who can not put into his herd the thoroughbred breeds, proughbred bull. It matters not if it is a Jersey to supply butter, a Guernsey to supply the rich-colored milk, an Ayrshire to give a good flow of milk, or the Holstein to give a large flow, get a thoroughbred bull. Never pick one that is scrubby because he can not with any surety fix the blood or type.

As was stated first, the modern dairy cow is artificial. The built hat comes from this modern dairy cow is artificial. There is a natural tendency of the bovine race of all breeds to revert to their ancestors. There is always a tendency to go back, which naturally complies with the law of correlation, and for this reason we want to use nothing but thoroughbred bulls. Many people believe that because an animal is registered there is a guarantee that he is the sort of a bull to use, but this is a false idea. Unfortunately, with due respect to the herd-registers of this country, the fact of registration guarantees nothing but purity, except



CURED MY RUPTURE

I WIII Show You How To Cure Yours FREE.

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you. Write to-day. Oapt. W. A. Collings, Box 109 Watertown, N. Y.

GOOD ROADS

Do You Want Them?

You can have them for nothing except labor

D. WARD KING

tell about his Split Log Dreg and How to Make a Good Road

			-
Olathe March	26	Coffeyville April	2
WellsvilleMarch		Independence April	
Ottawa March		Chanute	4
Iola		Lawrence April	5
Girard		Emporia	6
Wele Merch		Toneka	7

After the meeting, a practical demonstation of the workings of the device.

A FREE MEETING—The Santa Fe defrays the expenses incurred in this good-roads educational campaign. It won't cost you a cent to attend the meeting.

A. M. ASHCRAFT'S

Public Sale of Shorthorns

AT ATCHISON, KANSAS, APRIL 10, 1906

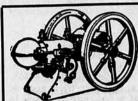
=42 HEAD=====

27 choice cows and heifers, 15 bulls, short yearlings and 2-year-olds—nearly all by the short-legged Scotch bull Harmony's Knight 28509, and are of the same type as their sire. The cows and heifers are all dark red, very uniform; all have been reared on the farm and are all in calf to the good Scotch bull Scottish Minstrel 234970 by Imp. Scotch Mist.

Free conveyance from Carter's Livery Barn to farm where sale will be held

Auctioneers: COLS. GEO. P. BELLOWS, HARRY GRAHAM, JOHN DAUM

send at once for Catalogue A. M. Ashcraft, Atchison, Kan.



LIGHTNING GASOLINE ENGINE

NEW PLAN FOR COOLING CYLINDER
Reduces Water Tank to a Few Gallons
Send for Catalog.—Special Farm Engines

KANSAS CITY HAY PRESS CO., MIII St., Kansas City, Mo.



in cases where the special, authentic record-register is put in, which has been established within the past few years with a few of the leading breeds. This is one of the best things that could be accomplished in connection with the herd-register of each individual breed. No animal is recorded in this registry unless he posesses a superior individuality. An animal from this herd-register means something; and the longer this work is carried on the more valuable it becomes. Take for instance, an illustration. The Isle of Jersey is a little island which is 6 miles wide and 15 miles long. English people have agents on this island buying all the best cattle each year, and we have men in this country who go to the Isle of Jersey and buy the best that can be found. Understand that the island is depleted year after year, but they replenish the stock and as a rule they continue to improve in the quality of individuals. Why? think there are two answers to this. One is the ability of the man to breed such cattle. He is a man of heredity. It is a mistake and it is a misfortune in breeding live stock that the son does not succeed the father. In the Isle of Jersey there are families who for generations have been breeders of Jerseys. They have profited by the experience of their forefathers and they keep clear of the pitfalls that their ancestors fell into. The second, and I believe I can not put too much emphasis on it, is that they will not admit into their herd-register any animal that does not possess individuality. Therefore, it follows that when an animal is re-corded in the herd-book, the fact of registration guarantees more than the purity of the blood. It guarantees the superiority of the individual. Hence, if I wanted a bull to-day to use in a thoroughbred herd, I would not buy him unless I knew his ancestors back three or four or even five generations. Breed him to your best cows, raise the calves, and develop them into cows. Select the best and weed out the poor ones by means of a record of performance which is made by the Babcock test and the scales.

How We Should Dairy.

Address by T. A. Borman, Continental Creamery Co., on Kansas State Dairy Association Special Dairy Train.

The farmer who is producing dairy products is engaged in a manufacturing enterprise just as is the man who makes cream-separators or wagons. It it a notable fact that manufacturers spend a great deal of time and money in keeping a system of records which will enable them to know the exact cost of production, and when this is known, no expense is spared to procure the most efficient help or improved machinery by which they may be able to reduce the cost of the article manufactured. Now since we are operating a cow machine for the manufacture of butter-fat, is it not reasonable that we consider what a pound of butter-fat is costing us? Are we producing this butter-fat at a profit? If only at a small profit how are we to increase that profit? These are pertinent questions and bring us face to face with the conditions we desire to consider.

We Kansas farmers are producing butter-fat under the most favorable conditions. To the left of this train yonder is an alfalfa-field which appears to have yielded luxuriously. To the right is a stalk-field which indicates that Indian corn grows abundantly. On yonder slope the grass is taking on the green of spring. To-day, the sun shines bright and warm. Indeed we are located in a section unexcelled for producing a maximum yield of milk at a minimum cost. Our climate is mild; at our command are the best and cheapest milk-producing feeds on earth

lands. We have at our doors the best creameries in the world bidding for our butter-fat. Competition in the purchase of butter-fat is so close these days that we are assured of the full value for all dairy products sold. We could not possibly be better situated than we are. Conditions, aside from the actual feeding and care of the cow which matter rests with the farmer himself, could not be improved. It appears to us as though all the forces of nature had conspired in favoring the very highest development of the dairy industry in this very spot.

Granting that our surroundings are favorable to the production of dairy products at a profit and that the markets afford an adequate value for the product, there are other factors at all times absolutely essential to successful dairying. Successful dairying is the kind which puts dollars in our pockets and is the only kind of dairying we can afford to consider. Those factors are the man, cow and feed.

The man who will make dairying the most profitable is he who will make a study of all the details in the manufacture of butter-fat as does the man who builds hand separators. By this we do not mean that he must spend years in college, although college training will make a man a better dairyman than if he had not had that train-There are no mysteries surrounding the dairy business which should cause the farmer to feel himself not capable of mastering. There is a plain, common-sense reason for every act in the proper feeding and care of the dairy The farmer who would succeed cow. must read, study and observe sufficiently to know what is good dairy practice. There is money and plenty of it in the dairy business for the farmer who will diligently and conscientiously study the cow and her needs. The difference between good and poor dairymen, as between good and poor lawyers, is proportion to the study and brain power exerted. Unless we determine to improve as we progress, the future has no reward greater than that of the present.

The first essential step toward increased profits is to know what each cow of the herd is producing, and whether or not any cows of the herd are kept at a loss. My observation and experience, as a dairyman and careful student of dairy practice, shows that fully one-half of the cows milked in Kansas are kept at an actual loss to the owner, if these cows were charged market prices for the feed consumed. Fortunately, however, for us, we are able to be very liberal indeed with our cows, because of the fact that they convert into cash large quantities of roughage which does not have a market value and which would go to waste did the cow not consume it. Yet, we must know approximately what it costs to feed a cow and know what are the returns, to furnish a starting point in the improvement of the herd. It is estimated that the average Kansas cow, handled for dairy purposes, is producing probably 100 pounds of butter-fat per year. We have records of a large number of Kansas herds which are producing from 200 to 300 pounds of fat per cow per year. It is doubtful if the cow producing 100 pounds of fat per year is returning her owner a profit for feed and labor, if the cost of each were carefully figured. It is apparent though that the 200 pound cow with butter-fat selling at an average of 23 cents, as was paid by a big Kansas creamery last year, is quite profitable, and the 300 pound cow is a gold mine. In the case of the good as compared with the poor cow, the cost of labor, stabling, taxes, and feed is practically the same. We recall figures of a herd of 20 cows in which the best 5 cows produced an average of 350 pounds of butter-fat per year at a cost per cow for feed of \$17, the feed charged at farm prices, while the five poorest cows in the herd produced only 120 pounds of butter-fat at a cost for feed of \$12. The average of the five best cows was 230 pounds of butter-fat in excess of the average of the five poorest, and the cost of feed was only \$5 greater than of the poor cows. Briefly, this illustrates the difference in herds and cows. I am sure no farmer wants to milk poor cows if he can get good ones. These figures illustrate the fact also, that we have among our common cows many which are most excellent dairy animals, therefore, the improvement of our herds is very largely a matter of selection.

To know the relative value of each cow in the herd, we know of no better plan than the weighing and testing of each cow's milk. This is not such a big job as many farmers think. A pair of spring balances at a cost of 25 cents hung at a convenient place in

the barn and the milk from each cow each night and morning weighed and recorded for a period of three or four days during each of the twelve months of the year, will suffice. A sample of each milking during each weighing period should be taken and this sample either tested on the farm with a Babcock tester, which will cost the farmer \$4 or, the samples delivered to your cream receiving station where the operator can test each cow's sample, will be equally satisfactory. A record of this account kept for each cow for each month during the year, will give the approximate return of each cow in butter-fat for the year. While the figures given will not be absolutely correct, they will be approximately so and will give the relative position which each cow has in the herd. From this record will be seen which are the cows producing the largest quantity of butter-fat; and we assure every farmer who trys this plan that he will not only be well repaid for his labor and effort so expended, but will be greatly surprised at the showing made by some of the cows which he may have considered as his best cows. There is no reason why the farmer should not try this plan of determining the relative value of his cows. There is no other way known to us by which he can get the facts other than the plan described. If I should give you any other more simple or reliable plan than this, I certainly would do so.

It will be apparent from the results obtained by a careful test after this plan, that there are cows in almost every herd which are charging their owners three or four times as much money per pound butter-fat as other cows in the same herd. Some of these cows, which charge the largest amount for the butter-fat they produce, will be found very expensive animals to keep. We have found in herds, cows producing butter-fat at as low a cost as 8 cents per pound while the poorest cows in the herd will be charging anywhere from 20 to 25 cents. It is apparent, therefore, that the cow producing butter-fat at a cost of 8 cents per pound is a highly profitable animal, while those charging 20 to 25 cents per pound are running their owners in debt at each milking.

With the scales and test applied to each cow in the herd, we are able to know where we can begin the work of selection. We can, without the slightest hesitancy in the world, so far as injuring our profits from the dairy is concerned, turn into the feed-lot the poorest cows which, we believe, will be in the average herd about one-third of the entire number, and if careful check is made of the returns from the remaining two-thirds, it is our opinion that the farmer will be realizing fully as much money from the milking of two-thirds as many cows as he is milking at the present time. It is a disgrace to the intelligence of our sons, wives and daughters to ask them to milk an old cow which is not returning a profit on the feed and labor. After we have selected the best cows, we should introduce into the herd some butter-fat producing blood, and this can be done either through the use of a male animal from some one of the best dairy breeds or through a common male animal from some cow which is known to be a good milker. can never grade up our dairy herds by the use of male animals which have been bred for years and years along beef lines. Let us save the heifer calves from the best cows and if the heifers are properly fed and reared from calfhood, they will be cows capable of producing larger quantities of butter-fat than their mothers. We believe it possible to raise heifer calves from our best common cows and a cross of some pronounced dairy strain, which will be at maturity twice as good as their mothers. We are confident that by the proper selection of a male animal it will be possible to eliminate all chances of rearing heifer calves which will not be profitable producers. It is our personal opinion that the grade Hostein cow is the best farmers' cow.

No difference how careful we may be in the selection of cows, unless we feed and handle these cows properly we will be disappointed in the results. Butter-fat is produced only from feed consumed. It require s a certain amount of feed to support the animal body. Everything the cow consumes over and above the feed necessary to support the animal body should, if the cow is properly selected for the dairy, go into the milkpail in the shape of butter-fat. It is necessary, therefore, for a maximum production of dairy products, that we give our cows all the feed they will consume. There is a difference in feed. too. There are cows so fed that they



keep in good flesh, but which, so far as milk-production is concerned, are absolutely starved to death. This is the reason why we get no milk or milk of little consequence when our cows are fed exclusively on corn-fodder, prairie grass or sorghum. These feeds, alone, do not contain the proper constituents for producing a large volume of milk. We must know how to feed a balanced ration. It is not necessary that we know technically all about a balanced ration. In this country best balanced ration we can feed is typified in the use of alfalfa hay and corn chop. These feeds will grow on amost every farm in Kansas, and they are the cheapest and best milk-producing feeds on earth. When alfalfa can not be supplied to the cows in liberal quantities, we are compelled to feed prairie hay, and Kafir-corn or some similar roughage, to supply the protein, which is the chief constituent of alfalfa hay, in the shape of some other feed. Most commonly this feed is bran or cottonseed or linseed meal. not believe the average farmer is justified in feeding these expensive feed-stuffs. He should, if he is going to make the most money out of his dairy, by all means supply his cows with all the alfalfa they need. We must have a succulence in our feeds. Alfalfa hay is succulent. It comes nearer being June grass than any other dry feed at our command.

We should not overlook the fact that the crop of corn stalks which each year goes to waste on every farm would, if put into a silo; give us an almost indispensable feed in the dairy. We have gone to the expense of planting and cultivating and producing a crop of corn. In the fall we go through the field and take out the ears and leave on the ground fully thirty per cent of the total value of that crop. Substantial silos can be erected at a cost of less than \$1 for each ton capacity. Green corn can be put in the silo at a cost of 50 to 75 cents per ton at the most. Thirty pounds of green, succulent corn-silage makes a day's feed for a cow. Ten acres of average good corn in the shape of ensilage will feed 10 cows from grass in the fall to grass in the spring. Tell me, if you please, how it is possible for us to secure any cheaper feed than this, which in the shape of corn stalks we are now allowing to go to waste on Tell me. vou please what building we can erect on our farm for the protection of our grain at any lower cost than the first cost of a silo? The matter of ensilage in this country is a very important one which we have overlooked. Everybody knows that the cow produces the most milk on grass in the month of June. If we are to have a big flow of winter milk, we must supply her with winter feed which comes as near as possible to meeting the requirements of grass. In alfalfa and ensilage we have these feeds.

Let us have our cows come fresh in the fall of the year. During the six or seven months of fall and winter, butter-fat sells at a much higher price than during the spring and summer months. Let us produce butter-fat when it will bring the best price. The fall-fresh cow, properly fed and housed, gives a good flow during the fall and winter, and when grass comes in the spring she again increases that flow

(Continued on page 819.)

The Grange

December 1990 | "For the good of our Order, our Country and Mankind."

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

NATIONAL GRANGE

KANSAS STATE GRANGE.

Master. E. W. Westgate, Manhattan
Overseer. A. P. Reardon, McLouth
Lecturer. Ole Hibner, Olathe
Stewart. B. C. Post, Spring Hill
Assistant Stewart. Frank Wiswell Ochlitree
Chaplain. Mrs. M. J. Ramage, Arkansas City
Treasurer. George Black, Olathe
Secretary. George Black, Olathe
Gatekeeper. J. H. Smith, Lone Elm
Ceres. Mrs. M. L. Allson, Lyndon
Pomona Mrs. B. J. Lovett, Larned
L. A. S. Mrs. Lola Radcliffe, Overbrook
Executive Committee.
O. F. Whitney, Chairman. Topeka, Station A

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

STATE ORGANIZER. W.|B. Obryhim.....Overbrook

The Grange in Cowley County.

Arkansas City Grange No. 1432, held its regular meeting in Arkansas City. During the evening the annual installation of officers was held. The Pleas-ant Valley Grange No. 1416, located at Hackney, Cowley County, was invited to attend and aid in the performance of this beautiful ceremony. The weather being fine, both granges at-tended in large numbers and the meeting was pronounced by all to be a grand success. After the installation ceremony was completed, Arkansas City Grange served an oyster supper which was followed by a literary program.

We hold our regular meetings on the first and third Saturdays of each month, and confer degrees in the first month of each quarter. At the close of conferring the fourth degree, a banquet is served.

At each meeting some question is presented and discussed, two or more being appointed to lead in the discussion, the other members of the grange expressing their opinions impromptu. Some of the questions that have been proposed for discussion are, "Why should Arbor day be observed?" "Why do we favor National aid for the improvement of the public highways?" and other questions of a similar nature. We have also taken up and discussed the question of the removal of the internal revenue tax of \$2.08 per gallon on alcohol denaturalized, or rendered unfit for use as a beverage, for commercial purposes, and after a discussion of this question at length, resolutions were drawn up and adopted favorable to the removal of the tax, which were sent to our legislative committee, and others who represent us in Congress.

SOPHIA DIBBLE, Secretary.

Tell Us How to Create an Interest in

Our Grange. You can not long hold a grange together by introducing outsiders, one gether by introducing outsiders, one after another, to lecture night after night. No matter how entertaining these lectures may be, the interest must come chiefly from within and must consist mainly in securing some work, or a suitable exercise from nearly or quite every member. The grange is a school for the mutual improvement of every one of its members; and to aid in securing this, it is usually a good plan to elect new officers at least every two years. This plan will interest and educate more. As far as the office of secretary is concerned, the practice suggested is condemne some States on the ground that some persons are peculiarly fitted for that office and should be retained. The plan adopted by Manhattan Grange, in Riley County, in printing a program at the commencement of the year, and assigning the subjects at that time, is a builder of interest. For the young people, try spelling contests, charades, tableaux, dialogues, dramas, singing, etc. This question of how to create an interest in the grange is a hard one to answer, and nearly every grange must be a law unto itself. The lecturer should be the leader in this matter, and when you find a lecturer fitted for this purpose, keep him. The greatest subordinate in average granges to-day, and upon the solution of which, more than anything else, depends the future welfare and success of the order is, how to fairly and properly adjust the balance between the entertainment and educational features of the program. The claims of each

must be duly recognized or failure is certain. The young and light-minded must be made to realize that there is earnest work before them in the world, and that the Grange, properly conducted, is one of the most effective instruments for fitting them for their part in the world's work; while the more mature and serious minded should not forget that sociability, recreation and amusement are essential to the fullest develoment of human power. Mutual forbearance, concession and cooperation must be conceded to the end that the golden mean be attained.

The Patrons' Cooperative Building in Olathe is completed and furnished and is now occupied. It is conceded to be the best finished and furnished bank building in Eastern Kansas, and the granges of Johnson County feel very proud of it.

The Grange is growing in Coffey County rapidly. Five granges were or-ganized in that county from August, 1905, to January, 1906. New members are being added to these granges constantly, and deep interest is manifested.

Kansas Boys' Corn-Growing Contest in Marion County.

hundred Marion WANTED:-Five County boys to enter this great corngrowing contest.

The Kansas State Agricultural College, through the Farmers' Institute Department, announces a corn-growing contest for Kansas boys. The Institute Department will plan for farmers' institutes to be held between October 15 and December 15 in all counties where contests are held. All local corn-judging will be done by members of the institute staff or by judges selected by the college.

Ten prizes will be awarded in each county contest on exhibits of ten ears in each entry. The Marion County Institute will award prizes as follows: For the best ten ears \$15; second best, \$10; the other eight prizes will be \$6, \$5, \$4, \$3, \$2.50, \$2, \$1.50, \$1, according to rank.

The contest will be limited to farmers' boys between twelve and eighteen years of age. The work must be con-ducted on a farm, not on a city lot. Each boy will be supplied by the committee with two quarts of seed and must agree to plant it carefully, cultivate it well, and exhibit twenty-five ears of corn raised from that seed, at the county institute and corn contest. With his entry he must submit a brief statement as to date of plowing the ground, kind of land, length of cropping history, methods of preparing for planting, method and date of planting, methods of cultivation, date of gathering his samples, and a statement of number of mature stalks in plot on the first day of August, the number of ears, and the number of barren stalks. Each boy must further agree to attend, if at all possible, at least one session of the county institute.

Of each twenty-five ears, ten will be selected to enter the contest. The entire twenty-five sears to become the property of the institute—the pro-ceeds from the sale of this to form part of the prize fund. Provided-the prize-winners who desire to enter the State contest may retain their best ten ears for the purpose.

All the winners in the county contests wil be eligible to enter the State contest—at which the capital prize prize will be \$100. This contest will be at the Kansas State Agricultural College on January 1 and 2, 1907, under the auspices of the Kansas Corn-Breeders' Association and the 'Agricultural College. Boys who win in the county contest will be allowed to bring or send the same ears exhibited there, or they may bring a new selection, but from the product of the same seed-corn given out by the committee in spring for the contest.

Boys in Marion County who desire to enter this contest will send written application to the committee or secretary, stating their preference for white or yellow seed-corn. The seed will be delivered at some convenient point near and the applicant notified. Boys should make application as soon as possible, so as not to be disappointed about receiving seed in March or April. The committee must know how much seed to provide.

(Signed) O. Jolliffe, president; C. F. Stone, vice-president; E. A. Rood, secretary and treasurer, Route 2, Peabody, Kans.; R. Kent, T. I. Furst, R. Kieler, executive committee.

Scraps of old, worn chamois skin strung on twine, bead fashion, and then tied into a "chamois ball," will last for years and polish glass as nothing else will do.



Keen Kutter Tools stand every test of a good tool. You can take a Keen Kutter Hand Saw, bend the end of the blade around until it touches the handle and it will spring back straight and true. Every other kind of a Keen Kutter Tool is as good a tool of its class as the Keen Kutter Hand Saw. The Keen Kutter brand covers a complete line of tools, and every

KEEN KUTTER

workmen. This quality tells in actual use—it means freedom from constant sharpening—it means long and satisfactory service. Even in the beginning Keen Kutter Tools cost little more than inferior qualities—in the end they are by far the cheapest tools you can buy. Keen Kutter Tools have been Standard of America for 36 years and were awarded the Grand Prize at the St. Louis Exposition.

Following are a few kinds of Keen Kutter Tools, which your dealer should have—if he hasn't them, write us and learn where to get them. Axes, Adzes, Hammers, Hatchets, Chisels, Screw Drivers, Auger Bits, Files, Planes, Draw Knives, Saws, Tool Cabinets, Scytems, Hay Knives, Gres, Planes, Draw Knives, Gres, Hay Knives, Gres, Tinners' Snips, Scissors, Shears, Hair Clippers, Horse Shears, Razors, etc., and Knives of all kinds. Every Keen Kutter Tool is sold under this Mark and Motto: "With Parallegistant of Quality Parallegistant Louis After the Prince in Parallegistant." Motto: "The Recollection of Quality Remains Long After the Price is Torgotten."
Trade Mark Registered.
SIMMONS HARDWARE CO., St. Louis, U. S. A., 298 Broadway, New York,

Real Fence Economy-

consists of getting the greatest possible fence value for the money expended. We offer you the best fence value obtainable and here is why we can do it.

We Sell Direct from Factory to the user of the fence. Thus we avoid all unnecessary and expensive handling and storing and cut out all profits and commissions of go-betweens. This makes a large saving. It enables us to spend more for good material and proper construction.

The Continuous Stay is what gives Advance Fence its superior strength. In Advance Fence the stay is never cut but runs continuously up and down across the fence for many rods without an end. Thus we preserve and utilize all the strength of the wire about half of which is wasted in fences with cut stays. Our method of construction costs a little more but it's worth while.

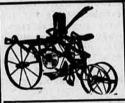
30 Days' Free Trial. Place your order with us for what fence you need and if after examining it you do not like it you can return it at our expense and get your money back. Don't you think this is a fair offer?

We Prepay Freight and guarantee safe delivery.

Write today for our Free Fence Book and wholesale delivered prices.

ADVANCE FENCE CO. 3773 Old Street Peorle Peorla, III.





The Best Lister

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

The Tongueless Tricycle

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

Rock Island Implement Co., KANSAS CITY, MISSOURI

Made of the best Soft Center Steel all over: highly tempered, finely polished. Guaranteed to satisfy you or money refunded. All sizes, from 6-in. to 18-in. Send for Extra St. big free catalogue of Riding Plows, Disc Harrows, Listers, Culti everything in the implement Line; By Wagons, Harness, Steel Ranges, Machines, and a thousand other things you direct at w bolessie prices. Write get ready for spring work. 16-inch Only \$8.95 Extra reor-Josepher get ready for spring work.
th Ploy \$1.25 HAPGOOD PLOW CO., 77 Front St.
in. " 1.50 The only Ploy Sectory in the United States setting dire Share \$2



and STOOK

above ground. Steel frame, only eight inche . Octagon levers. Tool steel bearings. Com ad beam. Most accurate and durable. Writ atalogue and price.

Kanson City Hay Prèsa Co 129 Mill Street, Kansas City, Missouri,

Home Departments

"The End Crowns All."

Afar in an old cathedral,
A beautiful window stands;
It is made from the useless fragments
That fell from the master's hands,
As he fashioned the other windows
With the art none knew so well,
Nor heeded the humble workman
Who gathered the bits that fell,
And carefully smoothed and polished
The atoms of glass so small.
Though some were dark and blemished,
He used them one and all.
He set them in wondrous pattern,
Each where it shone the best,
And his window, sun-illumined,
Surpassed, by far, the rest.

From the moments that God has given,
We must make life's windows fair.
But the hues are dull and cheerless
In our seasons of sad despair.
Yet with infinite faith and patience
We can mold those darkened hours
Till they show in the whole mosaic
Only the forms of flowers,
And when, our lifework finished,
God lends his light divine,
In full transcendent glory
Those somber tints will shine.
—A. W.

Observance of Legal Holidays.

As some differences of opinion seem to have arisen relative to the observance of legal holidays, I will add these

few lines.
When the legislators of our country set apart Thanksgiving Day, Washington's Birthday, Arbor Day, etc. as legal holidays, they intended that they should be observed as such. What is meant by the observance of legal holidays? Does it mean that on such days school is to be dismissed; the children to go home to spent the day in idleness and mischief; the teacher to spend the day as she thinks best, knowing she will receive her money the same as if she had earned it? It does not. The holidays were each set apart for a specific purpose. Washington's Birthday to learn more about "The Father of His Country;" Christmas Day to commemorate the birthday of our blessed Savior; Thanksgiving Day to give thanks to God for his manifold blessings. Let the teachers all over our broad land prepare literary programs for such days. Let the program consist of songs, recitations, and select readings appropriate to the day, the teachers, pupils, and patrons all taking an active part.

A day thus spent will prove a blessing not only to the school but to the whole neighborhood, and the teacher will have the satisfaction of knowing that she has not only earned her money, but that she has been instrumental in bringing before the minds of the people the real object of a holiday. EDITH MAY KERR.

Stockton, Kansas.

Fruits and Nuts.

There is a new theory for health which possibly goes to the extreme as most new fads do. It is that of uncooked foods. It maintains that cooked foods are dead, and that dead things can not make life. But however that may be, there are many uncooked foods that are healthful and pleasant to taste, that ought to be used more freely. Nuts and fruits have never been fully appreciated as a food, by the masses, but have been used between meals and at bedtime when food was not required, and consequently often caused indigestion; hence they were thought to be unwholesome. In an article on the subject of fruit as food, W. C. Barry says:

"In spite of all the opportunities and advantages we possess, and the cheap ness of fruit, how many families fail to enjoy nature's food and nature's cure for many of the ills which afflict huto experiment with drugs and to employ remedies which offer only tempo-

rary relief at best.

We have yet to learn the full value of fruit as food. We should cultivate a taste for it, enjoy it, and derive the bonefit from its health-giving properties. Every day in the year fruit of some kind should find its way to our tables, not merely as a part of the menu, but obtainable at all times, presented attractively and temptingly if you will, so that it may be partaken of easily and frequently. There are many, perhaps, who have never acquired a taste for fruit and who have little regard for it. To all those we can safely say that they are missing much, and for health's sake, they can not afford to dispense with it."

One can not think of a farm without its orchard and bushes of small fruits. Time is well spent, and space is far from wasted when used for such purposes, especially for an apple-orchard. The crop is not always sure in Kansas, but what crop is? It is profitable, however. Let me quote from John Bur-roughs, the naturalist:

"The apple-orchard is sure to bear you several crops besides the apple. There is the crop of sweet and tender reminiscences dating from childhood and spanning the seasons from May to October, and making the orchard a sort of outlying part of the household. You have played there as a child, mused there as a youth and lover, strolled there as a thoughtful and sad-eyed man. Your father, perhaps, planted the trees, or reared them from the seed, and you yourself have formed and grafted them, till every separate tree has a peculiar history and meaning to your mind. Then there is the never-failing crop of birds—robins, finches, king-birds, orioles, red-birds, starlings, and others, such a crop!"

There is the early apple and the late bearer and all kinds in between, so that there is a succession; and it is possible, even without the cold storage, to adorn the breakfast-table with a plate of shiny apples the year round. An apple is a good thing to begin the day with. The Philadelphia Bulletin quotes a physician as saying:

"I know a woman who cured a drunken husband without his knowledge by keeping always a plentiful supply of good apples on the dining table. The man ate these apples and finally stopped drinking altogether." This cure is entirely within the reach of possibility. The same physician advises any one afflicted with the love of drink to "eat three apples a day, and the horrible craving will gradually leave him. The cure will be greatly helped along by smoking as little as possible."

Another editor adds his testimony in favor of the use of fruits:

"Just after eating a good apple, a cigar or pipe will not taste very good. I know, for I have once been a smoker myself. And when you get all the good fruit that you want, especially some of a more acid character, such as apples, currants, lemons, oranges, grape-fruit, peaches, and plums, there will be lit-tle craving left for strong drink. Many of our drunkards are made in the kitchen where an excess of greasy food is prepared. Let the cure come through the food also, by adding a free supply of acid fruits to the daily bill of fare."

Let us not despise the Kansas apple. I am reminded of a story I have heard a gentleman tell. He was walking along the street in Cleveland a few years ago, when he observed an overgrown boy examining a bunch of bananas hanging in front of a grocery When he came up to him the man said, "What's them?" When told they were bananas he replied, "Are they good to eat?" He was told that some people liked them. After careful examination of the bunch he said, "Are they any better than our apples?" I do not know how the gentleman replied, but he could have truthfully said of all the fruit, tropical and other kinds, there is not any fruit better or more satisfactory than 'our apples."

The value of nuts as food is just beginning to be appreciated. It has been proven that peanuts afford twice much nourishment as beefsteak, rice, beans, or cheese, and eight times as Next to the peanut much as potatoes. is the chestnut, which contains a great al of starch and is used large Italy, taking the place of cereals and also in the finest grades of macaroni. Chestnuts are used in soup, forcemeats, and many kinds of desserts. Almonds are not only nutritious but also a good digester when divested of their brown, tough skin, which is easily done by pouring boiling water over them and letting them stand three or four minutes and then rubbing them off. Then there are the English walnuts, filberts, hickory nuts, and pecans which are growing in favor with cooks for desserts, salads, cakes, etc.

Peanuts used raw, that is, without roasting, are more digestible than otherwise, and the more one eats of them the better they are liked. They are inexpensive as compared with meat, and there is no fear, as in eating meat, of taking something into the system that may be diseased. In addition to the plate of shiny apples on the breakfast table, let us have a dish of unroasted

Dainty Foods Demand It

TN EVERY Receipt that calls for cream of tartar, soda, or baking powder, use the Royal Baking Powder. Better results will be obtained because of the absolute purity and great leavening strength of the Royal. It will make the food lighter, sweeter, of finer flavor, more digestible and wholesome. It is always reliable and uniform in its work.

Alum and phosphate baking powders some of them sold at the same price and some of them cheaper—will make neither dainty nor wholesome food.

ROYAL BAKING POWDER CO., NEW YORK.

Yeast should be soaked in tepid water. If the yeast is old it will help its action to add sugar to the water in which it is soaked. This is the recipe used for bread in the Kansas Agricultural College: For one loaf of bread use 11/4 cups liquid, ¼ cup of yeast, 1 teaspoonful salt, 1 tablespoonful sugar, flour. Sterilize the liquid, let cool, then add yeast, sugar, and salt; add 2 cups of flour and beat thoroughly. Let it rise then work in enough flour to make a good dough. Knead well; let it rise again twice its bulk. No flour should be used in shaping the loaves, but all the flour should be used when kneaded.

TESTED RECIPES FOR MAKING BREAD.

Homemade Bread.—Two mediumsized potatoes, boiled and put through a sieve, one tablespoonful of salt, one teacupful of sugar, a lump of lard the size of an egg, two quarts of water and a teacupful of hop yeast.
Gingerbread.—Two cupfuls of molas-

ses, one cupful of butter, two eggs, one cupful of brown sugar, one cupful of warm water and two teaspoonfuls of

One and one-half cupfuls of molasses, one half of a cupful of lard, one half of a cupful of water, two eggs, one teaspoonful of soda, one half of a cupful of sugar, stiffen with flour.

One cupful of sugar, one cupful of molasses, one cupful of butter, one egg, one teaspoonful of cinnamon, one teaspoonful of ginger; stir all together. Dissolve two teaspoonfuls of soda in one cupful of boiling water, stir this in and add three cupfuls of sifted flour; bake in a hot oven.

Soft Gingerbread No. 1.—One half of a cupful of sugar, one cupful of mo-lasses, one half of a cupful of butter, one teaspoonful each of cinnamon, cloves and ginger, two teaspoonfuls of soda dissolved in one cupful of boiling water, two and one half cupfuls of flour; add two well-beaten eggs the

last thing before baking.
No. 2.—One egg, one cupful of butter, one half of a cupful of sugar, one cup-ful of baking molasses, one cupful of boiling water, one teaspoonful of soda, one half of a teaspoonful of ginger: use flour enough to make a stiff bat-

Tea Biscuits.—Two cupfuls of flour, two large teaspoonfuls of baking powder, one tablespoon of lard, one fourth of a teaspoon of salt. Mix flour, baking powder and salt together, then rub in lard; add milk enough for soft dough. Roll one inch thick and bake in hot

Hot Cross Buns .- Here is a recipe for the genuine English Good Friday hot-cross buns: Disolve in a generous half-pint of warm milk a quarter of a cupful of butter. Add this to a quart of sifted flour, half a cupful of sugar, half a teaspoon of salt, half a grated nutmeg, half of a yeast cake; dissolve in a little water, and two eggs, the whites and yokes beaten separtely. Mix into a soft dough, place it where it will not become chilled and let it rise over night. Take pieces of the dough

The American Boy

The Biggest, Brightest, Bes Boy's Magazine in the World



"GOOD ALL THE WAY THROUGH"

That's what the boys of America say of THE AMERICAN BOY. It develops the taste for good reading, and interests boys in all manly sports, games, and exercises. Your boy will like

THE AMERICAN BOY

because it's all boy. You will like it because of the high character of its contents. Over 400 big pages. Over 100 stories. Over 100 illustrations Contains real stories of travel and achievement; instructive tales of history; games and sports; how to do things, etc.

ONLY \$1.00 A YEAR

Subscription Price of "The American Boy" (1 year)..... 1.00 Kansas Farmer, 1 year..... 1.00\$2.00 Total. . . . Both 1 year for.....\$1.50 Address KANSAS FARMER CO. Topeka, Kansas.

The Kansas State

Agricultural

College

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

PRES. E. R. NICHOLS, MANHATTAM, KANSE BOX SO.

AGENTS WANTED Bell \$1 bottle Barsaparilla for \$50; write today for terms. F. R. Greene, 115 Lake St., Chicago

PATENTS.

J. A. BOSEN, PATENT ATTORNEY

the size of an egg and, with flour on your hands, mould them into round cakes an inch in thickness; put into a baking pan with a little space between, then cover, and place where they will keep warm. When swollen to double their size, cut a cross in the center of each with a sharp knife, and bake for half hour in a moderate oven. When baked, rbush with a syrup made of sugar and water.-Mrs. A. J. Benn, Sterl-

The Young Folks

What Have We Done To-Day? We shall do so much in the years to

come,
But what have we done to-day?
We shall give our gold in princely sum,
But what did we give to-day?
We shall lift the heart and dry the

We shall plant a hope in the place of fear. We shall speak the words of love and But what did we speak to-day?

We shall be so kind in the after awhile,
But what have we been to-day?
We shall bring to each lonely life a
smile.
But what have we brought to-day?
We shall give to truth a grander birth,
And to steadfast faith a deeper worth,
We shall feed the hungering souls of
earth,
But whom have we fed to-day?

We shall reap such joys in the byand-by,
But what have we sown to-day?
We shall build us mansions in the sky,
But what have we built to-day?
"Tis sweet in idle dreams to bask,
But here and now do we our task?
Yes, this is the thing our souls must
ask,
"Whet have we done to day?"

"What have we done to-day?"

Nixon Waterman, in Christian Intelligencer.

Grandma's Story—a Talk About Dogs. FLORENCE SHAW KELLOGG

"Here children, here's something for you," said Mr. Gray, just returned from town, as he held a covered basket towards them. Susie opened it while the others crowded around her with eager

"Oh, a puppy! a puppy! screamed little Rose, as she danced about in glee. Tommy and Susie, though less noisy, were no less pleased, and all united in thanking their father for giving them "just what they wanted most," a beau-tiful Scotch Collie puppy whose soft eyes were already bright with intelligence.

"Oh, let's go quick and show him to grandma and have her help us name him," said Susie, and away they scam-pered. Grandma did not fail in showing her interest and pleasure and was quite willing to help in choosing a name for the new pet. She had just finished reading them Alfred Oliphant's romantic and beautiful story of "Bob, Son of Battle," and it was soon decided that the puppy should bear the name of that dear, faithful dog; and when at the first call of "Bob! Bob!" the puppy wagged his tail and looked up, Susie declared "He knows his name already," and after that there could be no doubt of the little fellow's great intelligence.

The talk naturally turned on dogs, and, almost before she knew how it happened, grandma was seated in her favorite chair with Rose in her lap, telling a story; and although she did not "once on a time," the chilbegin with dren knew it was all true, for grandma told none but true stories; and if the wise old lady did not "point a moral," they were learning many a good lesson from what she told them. In years to come, when life shall have grown earnest to them, the memory of the hours spent with her in the "chamber whose name was Peace," would be among the most blessed of their lives. But to our story.

"The first dog I dearly loved, grandma, "was a black-and-white shepherd that we named Jack. My father bought him of Mr. Black, our nearest neighbor; but I, without knowing of this, supposed Mr. Black gave him to me, for he said when I was there playing with the pupples if I would carry one home I might have it. Jack was my choice; and, though I was only a tiny girl then, I well remember lugging the fat, squirming puppy home in my little apron. He was so fat and heavy that though it was only a short distance between the two houses, I had to stop by the roadside and rest before I got him home. He grew very fast and was a great pet among us children, but my father did not allow our petting and play to interfere with his training, and he became in time a very wise and valuable dog. He seemed to understand whatever was said to him quite as well as we did; and he sometimes put us to shame by his quick and willing obedience. When he grew old enough, it

was a part of his duty to drive the cows back and forth from the pasture to the milking yard morning and night each day. Sometimes one cow would be missing. Then father would tell Jack of it just as he would tell a child, and the intelligent dog would go back to the pasture and hunt until she was found, when he would return driving her before him with an unmistakable air of pride, and he was as pleased as any boy over the praise given him. He seemed in every way one of the family, a dear playmate for us children, and a valuable helper to father. We all loved him dearly. I have told you how after he was an old dog, he learned to carry notes back and forth between our home and the new home to which my eldest sister had gone as a bride; all along the seven miles between the two -thickly settled miles they were, homestoo-different ones, just to test his intelligence and fidelity, would try to take the notes from his neck, but all in vain. Come what might, he would only give them to the ones to whom he was told to carry them. Dear faithful old Jack! Though he lived to be so old that he lost all his playfulness and did little but lie around and sleep the last months of his life, we were very loath to let him go, and our tears fell fast when we knew he slept in death.

"It would be hard to find a more intelligent race of dogs than the shepherd, but a little, mongrel, yellowbrown dog your grandfather had when we were married—and for some time before—showed a marked degree of intelligence and no dog ever loved a mas-ter or was more faithful to one than was he."

"What was his name, grandma?" asked Rose, and "Was he little or big?"

added Tommy.
"His name was Billie," answered grandma. "He was neither little nor big, but just a fat, roly-poly kind of a dog that your Aunt Martha said was the color of a 'burnt molasses cookie.' But he was smart and did many interesting things. He would own allegience to no one but his master, and neither would he obey any one else, un-less he chose to do so; but your grandfather's every command was law to him and we had to admire him for that, though his utter refusal to obey any one else was very trying at times."

"Was it Billie that knew the letter that came from his master, grandma?"

asked Tommy.
"Yes, dear, that was Billie. And, went on grandma, "it was Billie that always slept on your grandfather's old coat or some other of his cast-off garments when he was away in Virginia, as he was all of one winter. It was always touching to see how he mourned his master's absence. His only comfort seemed to be to find some of his old clothes and make a bed of them. No one could fool him or make him take any others. I suppose with his keener sense of smell, he could detect some scent that he knew belonged only to his master that we could not perceive."

"Burroughs, you know, grandma," said Susie, "says 'a dog is almost a human product; he has been the companion of man so long, and has been so loved by him, that he has come to partake in a measure at least, of his master's nature.' Maybe there was some tie between grandfather and Billie that no one else knew of."

"May be so," returned grandma. "I am like Burroughs who in a recent letter to me said, I can believe almost anything of dogs. If they do not reason, they do something wonderfully like it.' I think we all have to come to this conclusion when we stop to think of all the wonderful things we know of dogs."

"Ernest Thompson Seton, in his fine stories of 'Bingo' and 'Willie' gives them many of man's attributes," said Tommy. "And," he added, "when you are reading his stories, you can hardly help agreeing with him, though I know Burrough's conclusions regarding reason in animals, particularly wild ani-mals, are quite different from his."

"'When doctors disagree who shall decide?'" quoted grandma. "The difference between Seton and Burroughs is the difference between the young man's enthusiasm and an old man's conservatism; but Burrough's frank ad-mission of the change that has come in thinking, and his fear that, earlier in his life, he may have made too much of every bit of intelligence of bird, or four-footed animal that came under his observation', as he says 'the nature lover is always tempted to do, awakens our admiration and gives us confidence in him such as we can not feel for every one.' But I want to tell you something funny about Billie. His master's trip to Virginia, of which I have spoken, was for the purpose of getting a wife, and four months later, he took me home with him as proud and happy



PRINTS

Simpson - Eddystone Silver Greys

An almost limitless variety of artistic patterns—enough for every taste and fancy.

Desirable for dresses at any time of year. Printed in absolutely fast color on

fabrics of enduring texture. Ask your dealer for Simpson-Eddystone Silver Greys. Three generations of Simpsons have made Simpson Prints.

The Eddystone Mfg Co (Sole Makers) Philadelphia

Lowell Ingrain Carpet

WHY YOU SHOULD BUY IT

Because: It has been recognized for seventy-five years as the best INGRAIN manufactured—ALL WOOL.

Because: The goods are wound on a hollow stick which constitutes a trade-mark and guarantees that you are getting a LOWELL INGRAIN.

Because: Styles and colorings are up to date, in plain shades and figured patterns; closely resembling high-grade carpeting. Because: LOWELL INGRAINS are so woven that they can be used on both sides: a feature decidedly advantageous. No one doubts the wisdom of covering a room entirely in a

rural home, making it warmer and easier taken care of. Ask your local dealer for a LOWELL INGRAIN when looking for a new carpet. Look for the hollow stick and be satisfied with none other than a LOWELL INGRAIN.

Manufactured by BIGELOW CARPET CO., New York

a bride as ever was, but Billie felt no need of me in his little life, he could not understand why I was there and he was oh, so jealous of me! It was funny to see him; he showed it all so plainly. He had always been used to sitting in his master's lap, and to see me in his place was almost too much for him. He would watch me closely as I moved about the room and whenever he saw me about to sit down on your grandfather's knees, he would make a sudden spring and get there first if possible, and when he succeeded it was plain to see how he rejoiced in his triumph. He was only just reconciled nicely to me, and ready to grant me a fair share in his master's love and attention, when the baby came and then everything went wrong at once. I had been bad enough, but a babylittle white-clad, helpless thing that his master seemed so proud of and loved to hold and fondle just as he had seen ordinary men do with babies-his master, whom he thought so superior to -oh, it was indeed too much all othersto expect him to look upon such a sight with patience! and the way he would stalk by with his head turned away, and disgust showing in every feature of his face, was as comical as anything I ever saw in a dog. He had been jeal-ous of me, but he was doubly so of the baby, and it was not until the little one grew old enough to stretch out its tiny hands and crow and coo to him that Billie regarded him with favor. After that they became fast friends, and one of the first words baby spoke was to call him a name of his own, calling him Di instead of Billie. And the surprising thing was that he answered to it the same as to his real name.

"And what became of Billie, grandma? Did he die of old age as Jack did?" inquired Susie.

"Hardly that, Susie," responded the storyteller, "though he was quite old when the end came. He lived a free, happy dog life until we sold our farm and came to Kansas. We had no definite location in mind, and Billie was too old for so radical a change; so, though it was a very hard thing to do, we had to leave him with a neighbor. His master slipped away without saying good-bye to him, to prevent his following, but the poor old dog's heart was broken by the separation. He grieved and pined, becoming very cross and morose, until in pity for him, his life was ended. We felt very badly when we knew of it all, but what could we do? It was only one of the many instances where one has to be seemingly cruel to be kind, but of course poor Billie could not understand this, and grandma sighed at the remem-brance of it all. The call for "supper" coming just then closed the talk with a promise of "more another day," of which our readers shall hear later.

It iz a fearful condishun to git into to be dependent upon others for our pleazzures.—Billings.

LOW **ONE-WAY RATES**

UNION PACIFIC

TOPEKA EVERY DAY

FEBRUARY 15 TO APRIL 7, 1906.

to San Francisco, Los \$25.00 to Ban Francisco, Boo many other California points.

\$25.00 to Everett, Fairhaven, Whatcom, Vancouver and Victoria.

\$25.00 to Portland, Asto Astoria.

to Ashland, Roseburg, \$25.00 to Abhibany and Balemn, including So. Pac. branch lines Oregon.

to Spokane and inter-\$22.50 to Spoken O. R. & N. points to Wenatchee points. and intermediate points.

\$20.00 to Butte, Anaconda, Helena, and all intermediate main line points. to Ogden and Salt Lake \$20.00 City, and intermediate main line points.

For full information inquire of

F. A. LEWIS, C. T. A., or J. C. FULTON, DEPOT AGENT

To the Stockholders of the Farmers' Co-operative Shipping Association...

NOTICE

The Annual Meeting of the stockholders of The Farmers Cooperative Shipping Association will be held in Topeka, Kans., at the National Hotel, on Wednesday, April fourth, at 4:00 o'clock p. m. for the election of a Board of Directors and the transaction of such other business as may legally come before the stockholders' meeting. come before the stockholders' meeting. F. ENGELHARD, President. H. R. SIGNOR, Secretary.

More Money Made as Local Agent

FOR FARMERS FIVE YEAR ACCOUNT-BOOKS

Also Five Year Diaries. Address

Chas. H. Allen Co., Rochester, N. Y.

The Little Ones

Dictional (1990) The Bedtime Storybook.

There's something very, very queer About a storybook, No matter what's the time of year, Nor where you chance to look,

No matter when it is begun, How many pages read, The very best of all the fun Comes just the time for bed,

When mother whispers in your ea "Tis almost eight—just look! Now finish up your chapter, dear, And put away your book."

The minutes almost seem to race When it is growing late; The very most exciting place Is just at half after eight.

-Anna Burnham Bryant.

Ants, Uncles, and Cousins.

MRS. A. D. GRAY.

"Mother, oh mother!" called Ruth's voice, as she tried to tiptoe high enough to peep in at the window. "Are you there? Well, Helen and I are out here on the steps, and our ants are acting so crazy and funny. There's a lot more of them, too; do you suppose they are visitors?

"No. for ants don't have visitors. If one comes, they drive him away or kill

"Oh, my! how unpolite!" said Ruth. "Tell us some more, mother, about the farmer ants—you promised."

"In five minutes," I said, "and you little girls watch very closely, and see if you can tell what is going on at your ant-hill."

A few moments later, when I drew my chair to the window, and took up my work, two very eager, interested little faces bent over the ant-hill.
"Look, look Ruth!" cried Helen, "they

are bringing in tiny bundles; what do you s'pose they've found?"

"Why it's other little live things-looks like worms," said Ruth. "Tis worms, for sure. Do tell us what they

are trying to do, mother."
"Very well, this is a good place to begin," I said. "In every ant-hill, there are drones, queen ants, and workers. The queen ant does not rule the others, as the queen bee does. Her chief work is to lay the eggs. There are also builders, servants, nurses, and soldiers. Out of the queen ant's eggs come very lively, hungry baby-ants. They do not look like ants, however, but like little white worms. But I think the funniest part of all is, that this little white worm has to be fed, kept warm and dry, taken for walks into the sun and air and cared for, very much as we care for a real baby,

"The nurses are very kind to the baby-ants. They carry them out into the sunshine, and back to the hill again. They lick them all over to keep them elean and white, almost as the mother cat does the little kittens. They feed them, too, four or five times each day. After the worm has grown, it spins itself a fine, thin web and wraps all up In a short time, it comes out

a full-grown ant, with legs and wings.
"Then the hill becomes so full of brothers and sisters and cousins, that some of the new ants swarm, and fly away to start a new hill. The ones you were watching awhile ago are the nurses who have been taking the babyants out for an airing.

"The farmer ant lives in Texas and Florida and other very warm States. This ant raises its own grain for food: it is called ant-rice. These ants have very large hills-as large as a room sometimes. They cut down all grass or other grain; except this one kind. When the seeds of this ant-rice fall, all the workers hasten out and gather them up, one seed at a time, and carry them the storeroom.

When all of the ant-rice has fallen they cut down the old stems, so that the land will be all ready for another crop. Don't you think that is very strange and wonderful?

There's a very tiny brown ant that makes her nest of little balls of mud, which she rolls up, and then places as if they were bricks. This is called the mason ant.

"Then there are carpenter ants, who do much harm; they cut their way into trees and beams, and often make them

"The strangest kind, I think, are the parasol ants. They live only in very hot countries--mostly in South America, where the sun is hot. These are very large and they cut for themselves bits of leaf, as large as a dime. They carry these in their jaws by a tiny piece left for a stem. They look very funny indeed, marching along two by two, each carrying his parasol. They line their homes with these bits of leaf to **Every** Niece and Nephew of Uncle Sam

> should be deeply interested in what he has said about soda crackers, because they are the one food with which all of them are familiar.

Uncle Sam has given out figures showing that soda crackers are richer in nutriment and body-building elements, properly proportioned, than any food made from flour.

This is saying much for common soda crackers, and much more for **Uneeda Biscuit**, because they are soda crackers of the best quality. They are baked bettermore scientifically. They are packed better more cleanly. The damp, dust and odor proof package retains all the goodness and nutriment of the wheat, all the freshness of the best baking, all the purity of the cleanest bakeries.

Your Uncle Sam has shown what food he thinks best for his people. His people have shown that they think Uneeda Biscuit the best of that food, nearly 400,000,000 packages having already been consumed.

Uneeda Biscuit

NATIONAL BISCUIT COMPANY

keep the dirt from falling in; at least that is what their purpose seems to be.

"You see that though people are very wise, there are some things they do not fully understand, and ants are one of

"I am sure you little girls will learn some things by watching your ant-hill, and if you do, you must be sure to tell me, too.'

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS. President.....Mrs. May Belleville Brown, Salina
Vice-President....Mrs. L. H., Wishard, Iola
Cor. Secretary...Mrs. N. I. McDowell, Salina
Rec. Secretary...Mrs. W. D. Atkinson, Parsons
Treasurer...Mrs. H. B. Asher, Lawrence
Auditor...Mrs. Grace L. Snyder, Cawker City

Our Club Roll.

Give and Get Good Club, Berryton, Shawnee County (1902). Women's Literary Club, Osborne, Osborne Coun-Women's Club, Logan, Phillips County (1902).

Women's Club, Logan, Phillips County (1902).

Domestic Science Club, Osage, Osage County

Domestic Science Club, Osage, Osage County 1888). Ladies' Crescent Club, Tully, Rawlins County, (1992).
Ladles' Social Society No. 1, Minneapolis, Ottawa County (1889).
Chalitso Club, Highland Park, Shawnee County 1902).

902). Cultus Club, Phillipsburg, Phillips County (1902). Literateur Club, Ford, Ford County (1908). Sabean Club, Mission Center, Shawnee County Valley Women's Club, Iola, Allen County

Star Valley Women's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903). ty, Route 8 (1908).
Formight Club, Grant Township, Reno County,). ogressive Society, Rosalia, Butler County (1903). casant Hour Club, Wakarusa Township, Doug-

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

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

(1900).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Osage County.
The Mutual Helpers, Madison, Kans. (1906).
(All communications for the Club Department should be directed to Miss Ruth Cowgili, Editor Club Department.)

A New Club.

I am happy to add to the club roll the "Mutual Helpers", of Madison, Kan-sas. The report above indicates that they are all their names implies and more The motto, if practiced, will

cause their helpfulness to reach farther than themselves, and their influence will be felt beyond their immediate surroundings.

ART PROGRAM.

Jules Breton.

I. Breton the artist. II. "The Song of the Lark." III. The French peasant.

IV. "Planting of Calvary." I. The program of Jules Breton three weeks ago treated of his life up to the time he began his career as an artist. The paper under this topic should tell of his life and work, beginning with the terrible days of the revolution. He was so impressed with the misery of that time that he painted then his only sad picture—his first Salon picture, "Want and Despair." It was a great "Want and Despair." It was a great disappointment to him and he learned that sad pictures were not for him to

II. Give a description of this happy peasant girl and her surroundings as she looks to you. Can you not hear the notes of the lark in your imagination? Is not the gladness and joy of the singing lark in her heart as she begins her daily toil? The sun just showing bethe trees tells the time of day. Breton loved the sunrise and sunset, and enjoyed watching the gleam of gold on the edges of the clothing, the sickles and the grain. Can you find it in the pictures?

III. The peasant was the subject of so many of Breton's pictures that a paper about the peasant life in France would help one to understand and appreciate his pictures more, and enlighten one very much also.

IV. One of his happiest pictures is the "Planting of Galvary." These calvarios were little chapels or crosses on top of a hill and an important ceremony attended the planting of them. It vas this that prompted him to paint this picture. The little girl who was his playmate and sweetheart and afterwards consented to be his wife, posed as one of the young girls. She carries the crown of thorns.

The Mutual Helpers.

We organized February 14, 1906. You see, we are yet in our infancy, but most of our members have had experience in

We are known as the 'Mutual Helpers" and have taken kindness as our

watchword. We have adopted the Sunshiners' motto, "Have you had a kind-ness shown? Pass it on." Our club hymn is "Pass It On," our flower is the snowdrop, and our colors are white and green.

The object of our club is to promote sociability, encourage the art of fancy work and do all the good that our hands find to do.

We meet semi-monthly at the homes of the various members as their names come an a list alphabetically arranged.

We have divided the year into quarters and have taken a subject for each meeting during a quarter. This list is to be revised from time to time. Following is the list as it now stands: (1) Seasonable Recipes. (2) Notable events of the last quarter. news. (4) Response by quotations. (5) Short story. (6) Miscellaneous.

Our officers consist of an honored helper, assistant helper, recording helper, and art instructor. After the work for the day has been completed, light refreshments are served and we have our social hour.

Our club is composed entirely of country women and I assure you these meetings are a source of pleasure to all of us. We go home feeling younger and happier and take up the burdens of life with new energy and courage. A MEMBER.

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, 1906, by Davis W. Clark.) First Quarter, Lesson 12. Proverbs 23:29-35. March 25, 1906.

A Temperance Lesson.

Israel's poet king and prodigy of wisdom sets himself to the task of painting the drunkard's portrait. It is a faithful likeness, and horrid because faithful. The royal artist persists in his undertaking, though his canvas grows lurid and frightful under each successive stroke of the pencil. His picture has proved a veritable danger signal, flashing its warning color upon successive generations for three thousand years. Its red light has proved a powerful deterrent to multitudes. Nowhere in literature is the woe, the sorrow, the folly. the fate of the drunkard so powerfully depicted. . . . That such a picture could be painted thirty centuries ago, sufficiently proves the antiquity of the vice. Drunkenness is no modern sin or mere accident of sur civilization. It is

as old as Noah and older. Intoxicating liquors undoubtedly inflamed the race before the flood and led on to that nameless depravity which had to be drowned out in that awful judgment. And each succeeding generation has suffered the crushing weight of this dreadful woe; each has been burned, bitten and poisoned by this vice; from each has burst the sorrowful and despairing interjections, "O!" "Alas!" Old as it is, Solomon's picture the very similitude of the drunkard to-day. Three thousand years have of to-day. Three thousand years have not sufficed to change the causes or effects of intemperance. Study the successive strokes of this masterful delineation. . . Those who tarry at wine, by the increase of the powerful and subtile appetite, are compelled to seek stronger potations (mixed wine). The gradation from light wine to red and the highly alcholized wine, with its eyes or beads, is inevitable. Then follows the facial signs of inebriety (redness of eyes); next quarrelsomeness, causoless wounds, and the in-flaming of sexual passion. Finally in-ciplent dementia, which makes the drunkard oblivious to personal danger and to indignities visited upon him by hooting mob or officer of law-a dementia in which, however, the appetite persistently asserts itself, the worm dieth not, the fire is not quenched. All is forgotten; all is lost; but among the debris of mind, heart and manhood, the conqueror stalks, "And careth naught for the awful ruin he hath wrought." . This is no pleasing fancy sketch

genius, nor happy æsthetical study; but it deserves the close, respectful attention of every one who loves himself and his neighbor. No Christian can push this picture aside unless his Bible permits him to say, "I am not my brother's keeper." No truly philan-"I am not thropic spirit, Christian or not, can turn with indifferent coolness from this inspired canvas. It pictures the all-em-bracing "woe," making its piteous appeal to every one who professes to love his species. And if neither Christianity nor philanthropy is sufficient, from sheer self-interest the citizen must sooner or later give attention to this mirror which Solomon holds up before our time. Individuals in their collecor governmental capacity, must take stand against a traffic which produces deteriorated manhood, insanity, pauperism, crime, and death.

How We Should Dairy.

(Continued from page 314.)

and the result is that we have practically two fresh cows per year. Then, again, we have the cow dry during the months of July and August when the weather is excessively hot and flies are the most troublesome and when farm work is most urgent. By winter dairying we get the best prices for our product and we have lucrative work for our farm help during the winter when that help is cheapest.

It is easier to produce a good calf during the fall and winter than during the summer months. We can not afford in Kansas to overlook the value of a good calf. The skim-milk calf can be produced much cheaper than the calf which has been allowed to suckle the cow all summer. We hear farmers everywhere remark that there is nothing in keeping a cow a year for a calf. The time has come when we must produce a cheaper calf than we heretofore. There is no reason why the skim-milk calf should not be as thrifty and weigh as much at one year old, as the calf raised the old and more expensive way. We must not overlook the production of a good calf and the proper utilization of the skim-milk in the feeding of both calves and pigs. Skim-milk for feeding young animals has no substitute. not get along without milk for young animals. We do not place a sufficiently high value on skim-milk. It is worth, as estimated by farmers, from 20 to 50 cents per hundred. Therefore, we must dispose of our skim-milk to the best advantage if we are to realize the fullest returns from our dairy operations.

There is no business of which we know, which will pay us as well for intelligent work as will the dairy. It gives to every man of brain capacity an opportunity to reap a golden harvest for every hour of thought and study which he gives the business. The most successful dairyman is the most intelligent dairyman. There is nothing about the dairy business which the man of ordinary intelligence can not master. It is a matter which the farmer can determine only through his own efforts and his own labors, if he makes money Every farmer can from his dairy. make the dairy pay if he will and it can be conducted as a most important adjunct to the farm operations. The

beauty of the dairy business is that a man can raise just as much corn and just as much wheat on his farm with the dairy as without, and when corn and wheat fail, he has a monthly cash income from his cows. This is really a great deal to the Kansas farmer.

A Premium for Good Cream.

By I. D. Graham, Secretary of the Kan-sas State Dairy Association.

"We recommend the system of buying cream on grade, believing that the purchase of cream on its merits by which a higher price is paid for cream of good quality as compared with cream of poor quality, is absolutely essential to the life and future success of the dairy industry in Kansas."—Resolution adopted by the Kansas State Dairy Association at its annual meeting at Abilene, Kans., March 3, 1906.

The dairy industry in Kansas has grown remarkably in the last ten years, and yet the industry in this State is only in its infancy. The farmers of Kansas have only begun to realize the advantages to be derived from the sale of the dairy products of a small herd of cows. The farmers have not yet begun to utilize the roughage and feeds produced on their farms, which can be converted into cash through the dairy The climate and natural conditions in this State are unusually favorable to the production of dairy products. The winters are mild and short compared with Minnesota, Wisconsin, and other States which lead us in dairy production. Our soil and climate produce the best and cheapest milk feeds on earth. We, therefore, consider that there is a very great future for the dairy industry in this country.

the future development and growth of the business, however, there is one thing which must not be lost sight of, and which must be considered if the future of the dairy industry is to be as permanent as it should be. That feature is the quality of the dairy product. It is a fact that Kansas butter does not enjoy as good a reputation in the markets of the world to-day, as it did five years ago when creamery operations in this State were on the whole-milk basis. The hand separator has succeeded the whole-milk plan and the result is poorer quality of the butter produced-not because the cream from hand separators should be any poorer than that from whole milk, but because of the fact that the patron using the hand separator, has been led to believe that his cream could be delivered once per week or once in ten days, and that it would make good butter. The creamery companies are responsible very largely for the farmer's attitude In this matter. The creameries have been so anxious for a large volume of product, that little or no attention has been paid to the quality of cream received from its patrons. The creameries in the past have paid the farmer as much money for butter-fat delivered once per week or once every ten days, as they have for cream delivered two or three times per week. This action on the part of the creameries has therefore placed a premium on infrequent delivery, and on the conduct of the dairy business in a haphazard way. To the fair-minded patron this will appeal as wrong.

Recognizing the fact that unless a better quality of butter can be produced from the cream delivered to the receiving stations in this State, there will be a decreasing demand for butter from the West and that butter prices will be lower and consequently lower butter-fat prices paid to the farmer, we are commending the State Dairy Association for the endorsement of a plan by which cream is bought and paid for on its merits.

There are creameries in this country now buying their cream on a grading plan and that plan is based on the frequency of delivery. In Minesota, a State which has carried off the highest honors ever since the organization of the National Buttermakers' Convention some ten or twelve years ago, hand separator cream is delivered daily and will not be accepted if delivered frequently. By this means the standard of cream has been held to the highest possible limit, and the very best butter produced in the United States comes from that State. It is a notable fact that even in Kansas from stations where cream is delivered most frequently, that cream is the best qual-Therefore, we see that frequency delivery is an important essential to the delivery of good cream and the manufacture of good butter. We understand that some creameries are now offering a premium for butter-fat delivered twice per week during the present season of the year, which tests more than 30 per cent. This premium

price is four cents in advance of the price paid for second grade cream which, according to the grading system now in vogue, is delivered less frequently than twice per week during the present season, and tests under 30 per cent. We are told that the improvement in quality of butter so far, has been very noticeable indeed; so much so that a high premium for first grade butter-fat can easily be maintained. The grading system, as proposed, places a premium upon industry and careful methods in the dairy. It pays the careful dairy farmer a premium for his effort in producing a good cream, and this grading system will eventually create, wherever it is used, a class of dairymen who will produce only a first-class product and who, being paid well for their labor, will increase the volume of their product; and thus the dairy interests in this country will be placed upon a more substantial foundation with greater prospects for future success, than by any other means yet proposed.

The writer was in New York not long ago and made a visit to the butter commission houses in that city. We found those houses had their coolers piled full of second-grade butter, and that such butter was begging for a market at a price ranging from six to eight cents below the prices asked for first-quality butter. The first-quality butter was disposed of as soon as it appeared on the market, while the second grade could not be sold.

Every pound of second-grade cream and butter costs the farmer as much to produce as a pound of first grade. The expense has been identically the same and the difference in price received for second-grade cream as compared with first-grade cream, is an actual loss to the farmer. The Kansas farmer and the Kansas dairy industry can not afford to produce second-grade cream. A cream-grading system therefore, should be commended by every farmer, and we understand this is meeting with general approval. We recognize in it the only system which will build up the business in this State; and we admire the grit shown by the various companies in venturing to establish their grading system. The patrons who favor this system should do everything they can to assist in maintaining it. The dairy industry in Kansas ranks next to our great wheat and corn crops and is much more certain than either. We can not afford to sacrifice our dairy industry by making a poor quality of butter which will not sell at the highest prices on our mar-

The Breeding and Handling of Dairy Cows.

Lecture by Prof. Oscar Erf, Chief Dairy Department, Kansas Agricultural College, at the National Dairy Farm-ers' Convention on Thursday, Febru-ary 22, at Chicago.

The profits of a dairy depend largely upon the good qualities of the cows and the way they are kept. Breeding is an important factor and often determines the profit or loss in the business. According to the statistics of the U.S. Department of Agriculture, the average

You Will Prosper in the Great Southwest

In Oklahoma, Indian Territory and Texas are vast areas of unimproved land—land not now yielding the crops of which it is capable. The same conditions apply to the towns. Few lines of business are adequately represented. There are openings of all sorts—for mills and factories, for small stores, for banks, newspapers and lumber yards. You have only to get on the ground to prove this. To enable you to do so the Missouri, Kansas & Texas Ry offers

Rates Cheaper Than Ever February 20th and March 6th and 20th

On above dates most lines will sell both one-way and round-trip tickets at exceptionally low rates. If your nearest railroad agent can not give you the rates, write me for particulars.

If you're in any way interested in the Southwest, I'd like to send you my paper "The Coming Country." Address W. S. ST. GEORGE General Passenger Agent 580 Wainwright Building, St. Louis, Me. Tickets on sale everywhere, via



is how to secure animals that will pay for their feed. The only practicable method that we have to suggest to dairymen, is to determine the value of each individual animal by weighing the milk and testing the same for three consecutive days each month throughout the period of lactation. Then estimate the cost of feed that a cow has consumed, and the difference between the value of the food consumed and the value of the milk produced, determines the profit or loss. It is safe in this case to take feed as the basis of cost, against butter-fat as the basis of production, for in most cases such ex-penses as labor, interest on investment, deterioration by age, and general ex-penses, may be offset by the value of skim-milk, buttermilk, manure, and the value of the calf.

As yet, we have no absolute proof that a cow, tested for a year and mak-ing a high record, will continue to do so throughout the prime of her life. After a cow has once proven to be profitable, the future of that cow, if she has not passed the prime of her life, depends entirely upon the care and handling that she receives. Many a good cow has been ruined at the hands of an unsuccessful dairyman, who has either neglected her by not milking her properly, or by not feeding her properly and otherwise abusing her.

The individuality of an animal can

be best brought out by a table which represents an experiment conducted by the Kansas State Agricultural College:

A Year's Record of a Herd.

			car s	FIRST L	OT.				
		Products		Page 1		Value		Receipts	Cost of producing
Number- of cow	Milk lbs.	^_	Butter.fat	Cost of feed dollars	Butter-	8kim-milk 15c per 100 pounds	Total		butter-fat per pound
1	.9.116 .7.015 .8.054 .6.504	4.21 4.43 4.13 4.59 4.27	383.7 310.8 332.8 289.5 277.9	32.80 30.61 35.59 29.26 29.20	60.88 49.26 51.92 45.90 48.89	12.29 9.46 10.85 8.77 8.70	73.17 58.72 62.77 54.67 52.59	40.37 28.11 27.18 25.41 23.39	.085 .098 .106 .101 .105
Av	.7.439	4.28	318.9	81.49	50.87	10.01	60.38	28.89	.098
			81	COND L	OT.				
6	.4.772 .3.475 .3.913	3.48 3.92 5.14 4.14 3.96	199.8 187.0 178.6 161.9 166.3	29.55 27.25 25.24 27.27 27.69	31.02 29.88 28.16 25.41 25.38	7.75 6.44 4.08 5.27 5.59	38.77 35.52 32.84 30.18 30.97	9.22 8.27 7.60 3.41 3.28	.147 .145 .141 .168 .166
Av	.4.420	4.04	178.7	27.40	27.81	5.94	33.75	6.35	.153
			7	HIRD LO	T.	No. of the last			
					A DOMESTIC			Loss	
11	.2.903 .3.730 .2.141	3.79 4.13 4.23 4.74 4.06	135.7 119.9 157.8 101.5 125.4	26.75 22,89 31,22 24,43 26,32	21.39 18.11 24.34 15.30 19.43	4.83 3.91 5.02 2.88 4.16	26.22 22.02 29.36 18.18 23.59	.43 .87 1.89 6.25 2.73	.197 .190 .198 .240 .208
Δν	3.089	4.19	125.5	26.32	19.71	4.16	23.87	2.45	.204

cow produces approximately 131 pounds of butter-fat per year. If we base our calculations on the average market price of feed that a cow consumes, and the care she requires, we find that it would take at least 175 pounds of butter-fat to pay for the feed of a cow for one year. According to these statistics, there are a great many cows in the United States that do not produce enough butter-fat to pay for their feed and care. The problem confronting us

This table represents a scheme in which fifteen cows are divided into three lots of five cows each. The first lot produced butter-fat for approximately 10 cents per pound, the next lot 15 cents, and the third lot 20 cents. These were common cows, such as are kept by the average farmer, and you will note that here is the reason why so many dairy-farmers who have a large number of cows, may not make any profits because, they fail to pay

nu

attention to the individuality of the

Assuming now that the market price butter-fat is 15 cents per pound, which is very low, the center group would neither make a profit nor a loss. The first lot would make a profit of 5 cents per pound of butter-fat produced, and the last lot would make a loss of 5 cents per pound of butter-fat produced. Hence, the loss made by the last five, assuming that conditions were equal, would balance the gain of the first five. Therefore this whole lot of cows would neither make a profit nor a loss. From this it is very readily seen that if the last two lots of cows were discarded, the first five cows would make a profit of \$126 per year. However, the average price paid in Kansas for butterfat for the last year was 22 cents per pound; hence all of these cows would have made a profit.

According to this scheme, a man that would test and keep a record of his cows would be paid for his work to the extent of \$126 per year for the five cows. The question may arise, will these cows continue their performance from year to year, and may it not be that some of the other cows will do better in the succeeding years? It is true that there is some danger on basing conclusions on one year's record, for some cows produce more one year than they do another. These records are of greater value when they are kept continually. However, two years' record should determine quite definitely the capacity of a cow. There is a possibility then of such an occurrence in the second class of cows, but there is little risk to run for any cow of the last lot to deviate from her one year's record, and double her capacity so that it will come up to the standard of the first lot. Since the second lot pays for the labor and feed involved, it might be well to keep a number of these animals and try them for the second year. If at the end of the second year they have failed to come up to the requirements of producing butter-fat for less than the average market price, they should

When once a herd has been established, and, with possibly a few exceptions, the cows are profitable and have good milking qualities, there comes that ever-puzzling question of how to perpetuate the qualities of good ones that have been selected, and whether or not by breeding, these qualities can be reproduced in the offspring from a good cow if the sire is of equally good

milking strain.

Environment, which includes handling and care of a cow, has much to do in gradually increasing the capacity for milk-production. A marked increase in production can not be brought about in this way in one individual, but by keeping cows and bulls under the most favorable conditions, the capacity of a herd can ultimately be increased by each generation. Environment works hand in hand with the laws of breeding. In fact, dairy cattle have been brought to the present stage of productivity by care and The effect of environment on animal-breeding can be well illustrated in the following manner: Holstein-Friesian breed originated in the lowlands of Holland and Northern Germany, where the forage and grass grew rank and tall and not very rich in nutrients. These animals adapted themselves to this particular environment by developing rather a large frame and body in order to handle the feed. On the other hand, the Jerseys originated in the isle of Jersey, which on account of its hilly character and poor soil, produced a grass which was short but quite nutritious, developing a class of animals small and particularly adapted to that region and for that kind of feed TILA environment influences milk-production to a certain extent, it is however a fact that the laws of breeding have a greater influence on individuals. But in order to increase the production, the handling and care of the dairy cow must not be lost sight of.

The laws of breeding are complicated and interlaced. Furthermore, there are a great many influences that assert themselves in practical operations so that it becomes impossible to single out a definite law that will always bring the same results.

Taking out the element of environment, there are two principal conditions in breeding which stand out prominently and which bring forth apparently the best results. (1) It is the old law in breeding that "like breeds which means that the mating of two characters which are bred for many generations, will become fixed in the offspring. Ry this law it is not possible to increase the capacity for milk-production of an individual more

than that of her ancestry. For instance, we assume that a strain has been bred for many generations, which has the characteristic of producing 30 pounds of milk per day, on an average. If two animals with this particular character were bred together, we can expect nothing more than that the female offspring will have the capacity of producing 30 pounds of milk per assuming that in this statement all other functions correlate in approximately the same per cent as in all future generations. A characteristic, such as the milking quality of a cow, can be fixed most readily by continu-ous in-and-in breeding. This is the ous in-and-in breeding. This is the method that nature uses in establishing all kinds of types of animals suited for their particular condition and environment. For instance, the squirrel is the same animal that it was a thousand years ago. The quail is the same size that it was centuries ago, and with these there is in-and-in breeding year after year. We can go to the fields and the forest and find plenty of wild animals that maintain their species with the closest type, generation after generation and year after year.

The idea generally prevails, that by in-and-in breeding weaknesses occur and that the capacity for milk-production will be decreased. Such influences can only come about when two animals of weak constitution are bred together. This weak constitution has been acquired by conditions to which the animal has been subjected. avoid this possibility, start with a strong class of individuals and always breed from sires of strong, dominant character, to females of equally vigor-

(2) The second condition is, that if two animals of dissimilar characters are bred together, the offspring will assume the qualities principally of the individual that has a dominant character; but the fixed characteristics of either animal are more or less disturbed and in succeeding generations almost any gradation and blending of the cross can be expected. As a matter of fact, when two animals of good milking strain are bred together, we generally get an offspring that is quite superior in milk-production to either of, the ancestors. However, this can not be absolutely relied upon, but is the best way to increase the capacity for milk-production. To perpetuate character in succeeding generations, this cross must be bred to a male who has a dominant character for milk-production inherited from his ancestors. If no such strain of animals is available. it is wise to breed this offspring back to its sire in order to fix this character. For instance, a bull and a cow are mated, both from different strains. dam and the sire's dam have the character to produce 20 pounds of milk per day well established, but these strains for many generations back are not related to each other. The offspring from this cross may only have a capacity of 15 pounds. However, it is more likely to have the capacity to produce 30 pounds. To fix this character in succeeding generations, it would be wise to breed this offspring back to its sire, which has but 20 pounds capacity, while there is a possibility of slightly reducing the capacity of the offspring; yet it fixes the character and makes it more permanent for future generations. But if you desire to run the risk of a still greater increase in milk-production it would be well to breed this cow with a capacity of 30 pounds of milk day to a sire of another strain, which has an average capacity of 30 pounds per day. The closer a strain is related, the more permanent and the more reliable will be the fixing of that character for all future generations at 30 pounds capacity.

of one particular breed, which has come under my observation, but in some localities it is made a practice to cross-breed a dairy breed with some beef breed, as for instance, the Jersey with the Shorthorn, in order to increase the size of the offspring without affecting the milk-production. While this is being practiced the results will become quite indefinite and unsatisfactory. Some scientists say that Mendel's law comes into play here. While I have no absolute data to prove this statement, it may be true, and I have some confidence in it from some incidents that I have noticed. Mendel's law is based on the law of chance, and in brief, is that on second and later generations of a cross-breed: every possible combination of parent characters occurs, and each combination appears in nearly a definite proportion of the individuals. For illustration, a Jersey with good milking qualities is bred. to a Shorthorn with a beef character. Both animals are pure-bred. Let J rep-

resent Jersey characteristics; M milking qualities; S, Shorthorn characteristics; and B the beef qualities. A character that asserts itself prominently is known as the dominant character, and is represented by a capital. A hidden or latent character is known as recessive, and is represented by a JM and SB are bred tosmall letter. gether and the result will be JsBm,

JM SB Js Bm

meaning a cross with Jersey character dominant, Shorthorn recessive, beef qualities dominant, and milking qualities recessive. If two cross-bred animals are mated, we would have a mixture of four kinds of characters in the male to four kinds of characters in the female. On the average, one-fourth of each kind will combine and we have a combination of characters like this:

ale.			unlini	JM
JB .				JB
SM				SM
BB		• • • •	• • • • •	SB
			=Jn	
			=JB	
			= Js = Js	
			= JB	
6.	JB	X JB	=JB	• XXXX
			$=$ J_8	
			$=$ Js $_1$ $=$ Js $_2$	
			= Js	
11.	SM	XSM	$\mathbf{I} = \mathbf{SI}$	VI.
			1 = 8I	
			= Js = JS	
			SESE	
			- ST	

Here it will be noticed that two and five give the same results. Similarly, 3 and 9, 8 and 14, 12 and 15, 4 and 7, 10 and 13. We may therefore represent the cross-breed and its progeny as fol-

One part Jersey dominant with beef quality dominant.

Two parts Jersey dominant with beef qualities dominant and milk recessive. One part Jersey dominant with the milking qualities dominant.

Four parts Jersey dominant, Shorthorn recessive, with the beef qualities dominant and milk recessive.

Two parts Jersey dominant, Shorthron recessive, and milk dominant.

One part Shorthorn with beef qualities dominant.

One part Shorthorn dominant, with beef qualities dominant, milking qualities recessive.

One part Shorthorn with milking qualities dominant.

Of the nine types, four of them, 1, 3, 7, and 8 are supposed to be pure and will reproduce themselves. It will be noticed that each of these pure types constitutes one-sixteenth of the progeny of the cross-bred. Four other types have one latent character which constitutes two-sixteenths of the whole. The last four, with two latent characters, constitute four-sixteenths. law continues to operate in the above

While this is still an experiment with dairy cattle, it becomes impracticable for the individual dairyman, since it requires too much expense and time to get results. The solution of the whole problem of breeding dairy animals from practical standpoint, can be summarized in a few brief principles. Get a bull of some recognized breed with a long line of high milk-producing ancestry, and see as many of them as possible that are within your reach. Find out if the dam and grandam had good dairy qualities. Although it appears entirely a female function, it is transmitted largely through the sire. Be sure and get a sire that is from a better milk-producing strain than your own cows, and notice that he has the power of transmitting his own characteristics to the offspring. The best calf to raise, then, is the one that shows most largely the qualities of the sire. Observe closely in connection with this. and it will be found that it is generally the calves of cows that show the greatest improvement from feed and better care that are best to keep.

With these conditions it is always advisable to raise as many calves as possible, with the expectation of discarding many of them when 2 or 3 years old, or even before that time if we see any tendency to revert to some original ancestry poor in milk-production. In-and-in breed as much as possible in order to reduce to a minimum the tendency to revert, by breeding the sires to the heifers, or to another which closely resembles them, and you will have a basis for a good strain of cows. However, during this time we must not lose sight of the fact that better feed and care has a great deal to do with the improvement of the herd. This is particularly the case in the development of a heifer. Feed them good, rich, nitrogenous feed during their growing period. Give them plenty of

exercise and fresh air and a good, clean, sanitary place to sleep. After the heifers have produced their second calf. if they have not come up to the standard of a good cow, discard them and continue to breed from those that produce milk and butter-fat at a profit. To carry out these principles requires considerable time and money, but it will bring results.

I should be glad to see the time come, and that soon, when dairymen will unite their efforts and establish test associations, and in connection a breeding association, which will control the breeding of cows and the selecting of bulls from records and performances. This can be very easily established in communities where there are a great number of individuals of one breed, this association to employ a competent man to test the cows and keep a record of their breeding, and this man also to be in charge of the male animals purchased or bred by the association, from a good milking strain and possessing dominant characteris-tics which will be perpetuated on his offspring. There is undoubtedly no better and safer method to increase the milk-production of individual cows and to perpetuate the strain.

THE EMPIRE WAY.

On the evening of Saturday, February 24, there started from Chicago a special train consisting of six sleepers, a dining-car, an observation- and a baggage-car. The destination of this train was Bloomfield, N. J., the home of the Empire cream-separator. On board the train were the general agents and salesmen of the Empire Separator Company to the number of about eighty, and twenty-nine representatives of the principal agricultural papers of the United States. The route was laid over the Grand Trunk line from Chicago to Buffalo, which included a stop of six hours at Niagara Falls. From Buffalo to Bloomfield, N. J., the route was over the Delaware and Lackawanna, which road furnished the train.
The expense of the trip, including

the chartering of the train of sleepingcars, the furnishing of the meals on the dining-car, a banquet at the Prospect House at Niagara Falls, a trip down the Gorge to Queenstown and Louiston from Niagara Falls, and every other expense incident to such a trip and the royal entertainment of every man on board, was borne by the Empire Cream Separator Company.



ERNEST E. BELL. Secretary and Sales Manager of the Empire Cream Separator Co., Bloomfield, N. J.

The purpose of this trip was to give the selling agents of the Company an insight into the various processes of manufacture of the Empire cream-separator and to give the newspaper representatives such knowledge as would prove an inspiration in their comments in regard to this machine.

Never in all history, so far as the writer can learn, has there been an industrial organization of any sort which possessed at once the keep foresight, the cash to spend, and the nerve to spend it in carrying more than 100 men half way across the continent, furnishing them with every comfort of life for eight days, and sending them home brim full of enthusiasm, with no other object in view than that of giving these men accurate knowledge at

Four days were spent at the factory. These were devoted entirely to educational work. Each forenoon was spent in studying the methods and materials of the factory, and each afternoon was devoted to institute work in which ways and means were discussed. Lectures were given by heads of departments of the factory, and questions and experiences by the fieldmen present.

Each division of the factory was numbered, and a small catalogue was prepared to guide the visitor and give him accurate information as to the operations performed in the sections visited. With this catalogue and under the guidance of some expert connected with the factory, each one of the party was enabled to see every operation through which each of the component parts of the Empire cream-separator was put before the final assembly in the perfect machine. The motto of the Empire Separator Company is "Not how cheap, but how good," and is sales manager of the Empire Separator Company and who acted as chairman, would tolerate no disparaging re marks in regard to rival machines. His men were told distinctly and positively that their motto should be and not Knock." It is true that he tried to show them that they had a good machine. He showed them that a poor machine was a poor investment; that a tolerably good machine was like a tolerably good egg, of doubtful value.

One entire meeting was devoted to the discussion of dairy methods with the object of securing better cream and, consequently, better butter. It was shown that millions of pounds of inferior butter, known as "dairy seconds," were now in cold storage with

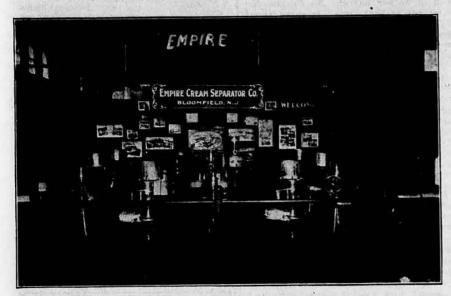


Exhibit of the Empire Separator Company, Bloomfield, N. J., at the National Dairy Show, Chicago, Ill.

perhaps the most interesting phase of our visit to the factory was shown in the quality of the materials used. The writer was impressed with this quality from his own personal examination, and later on he had the privilege of listening to a lecture given to the assembled agents by the expert who has charge of the supplying of all the materials that are used in the machine. Some of these materials are imported from Sweden because the quality necessary can not be made in this country. Nothing but the best material obtainable is used in any part of the machine. The bowl of the Empire separator is made from solid drawn steel tubing by a special process which is known and practiced by only one manufacturing concern in the United States. The highest quality of steel is used and the bowl is drawn thicker than necessary so that the outer and inner surface of the tubing may be pared away by the lathe and thus leave the heart, which is of the highest quality, for the bowl. Some bowls used in other separators are made of electrically-welded sheets of metal, which, in the high speed necessary to a separator bowl, are liable to break at the weld with disastrous results to the machine. It is impossible to break the Empire bowl. Greater care and better materials could not be used in the highest quality of watches than are used in the Empire separator. It is a marvel of mechanical perfection.

A large portion of the work is done by automatic machinery whose product is absolutely and mathematically accu-Each part manufactured for these machines is interchangeable with like parts. A new anti-friction device has just been added which practically makes the Empire separator frictionless. The writer stood by one of these hand separators and timed the volutions of the bowl after the power had been removed. It was speeded up to the proper speed and the handle dropped, after which the bowl revolved for thirty minutes so free is it from friction. A machine that will revolve for half an hour after the power has ceased to be applied, is about as nearly perfect as human ingenuity and skill could make it.

In their competition with other separators in the field, the Empire Company believes that its best method is to make a better machine than the others do. Whether this has been accomplished or not, the fact remains that their machine is so nearly perfect that none but an expert could criticise it, and it would take a remarkable expert to do that.

In the meetings which were held daily at the factory, discussions were of methods and every phase of the business that comes into the life of a salesman. It was noticeable that in these meetings Ernest E. Bell, who

no buyers. It was shown that this condition of affairs is to some extent the result of the work of irresponsible and unscrupulous salesmen who tell the farmers that it is not necessary to wash their separators, or at least that it is not necessary to wash them oftener than once a week; who tell them that it is not necessary to deliver their cream more than once a week in winter and twice a week in the summer; in fact, who tell them almost anything in order to effect the sale of a separator. It was brought out very strongly at this meeting that it is a part of the business of every salesman who handles a good separator, to teach the purchaser, so far as he can, good dairy methods and practice so the best results may be obtained from the use of the machine,

One of the most important matters discussed before these meetings was the subject of graded cream. The common practice all over the country since the development of the hand separator the centralized creamery plant within the last few years, has been to receive any kind of cream at any time, and pay the same price for cream that is not only bad but absolutely rotten, that is paid for cream of good quality. This is not only an injustice to the creamery buying the cream, but to the separator man who sells the machine and to the farmer himself. farmer should feel that he is entitled to a good price for inferior cream. The farmer who supplies good cream is wronged when no distinction is made between his product and that of the careless farmer who delivers spoiled This condition of affairs has existed so long and its burdens have been so heavy to bear by both the farmers and the creamery companies, that a concerted effort has been made by the latter in some States to adopt the graded cream system by which a higher price is paid for cream delivered in good condition, than for that in poor condition. The justice of this will appeal to every one and to none more than the man who sells cream-separators. As it appears to the writer, a crisis in the creamery business is approaching, if indeed it is not already here. When a very large percentage of the product of the creameries must be graded as "creamery seconds" and go into cold storage where it remains without a market, injury, if not disaster, is bound to result to the creameries producing this butter, and through them to the farmers who supplied the bad cream.

Not only is the visitor impressed by the superior quality of the materials workmanship employed in this great factory, which are not excelled in any factory, but he can not fail to be impressed with the personality of the men at the head of this great enterprise. From President Henning G.

Dairy Talks by the EMPIRE Dairy Meid No. 1. **Before You Buy** A New Separator You Ought to Know the Facts. If you knew for sure that one cream separator is a great deal better—better for you—than all other separators;
If you knew for sure that some one of them would make more dollars for you than any of the others, you'd be pretty sure to insist upon having that one, wouldn't you?

Well, I know that the Improved EMPIRE
Frictionless is the cream separator that will make the least work for you, save you the most labor, give you the least trouble and the greatest satisfaction and make the most dollars for you.

And I want the chance of proving it to you.

You are interested, for when you buy a separator you are just as anxious to get the best as the manufacturers are to sell an EMPIRE.

How am I going to prove it!

It is not an easy thing to do on paper, because every manufacturer and every agent is continually claiming that se has the only cream separator worthy the slightest consideration.

that ae has the only cream separator worsey as est consideration.

They consideration.

They consideration as strong arguments—on paper, as the consideration of the consideration of the consideration of the construction is the construction of the construction of the construction is the construction of the

EMPIRE CREAM SEPARATOR CO., BLOOMFIELD, N. J.

311 TEMPLE BLOCK, KANSAS CITY, MO.

A Dollar Game Free For postage. Send eight two-cent stamps and tell how many cows you keep and what you do with your milk and we will send you the "Game of EMPIRE Success"—the most amusing, attractive and fascinating game ever invented. Old and young can play. Bushes of fun for all the family. Handsomely lithographed in colors; mounted on heavy binders' board ity is included.

Get the Empire Books. Ask for the one you want.—

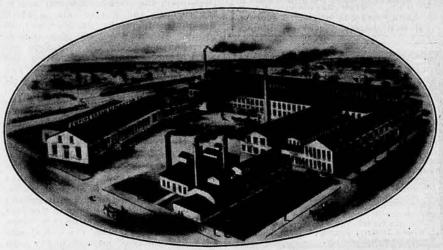
1. Full catalog and price list.
2. "The EMPIRE Dairy Maid."
3. The Switching of Hiram, (story.)
4. "Figger it out for Yourself."
5. A Gold Mine for Butter Makers.
6. Dairy Results—Dollars.
7. Money and the Way to Make It.

Taube down to the humblest chore boy, the same spirit of accuracy, energy, and honesty, is shown. Perhaps no one connected with the factory impressed the visitors with his personality more than did Ernest E. Bell, secretary and sales manager, who is the real man behind the gun. We take pleasure in presenting a portrait of Mr. Bell, who has made a wonderful record in building up the great Empire Separator Company from its small beginnings of a few years ago. His personality is so strong that it is felt everywhere in and about the factory, and throughout the field force. He is not only a hard worker himself, but he inspires others to do their utmost. Every one of the eighty salesmen who visited the fac-tory on this occasion, went home filled to his capacity with enthusiasm instilled by Mr. Bell and the quality of the machine which he offers to the public. His instructions to these men

A Way to Get Rid of Rats.

EDITOR KANSAS FARMER:-I know from experience that plaster of Paris will kill rats and also cause them to leave the premises; but you must use good judgment and management. First feed them cornmeal two or three nights by putting it under boxes with a small opening just large enough to let in the rats, so that they will think they are stealing the food. Then mix about one-half meal and one-half plaster of Paris and put in the same places. You may not kill many but more will be sick, and if one dose will not do the work, give them another. They will soon leave as they are wise little rodents and take for granted that your premises are not healthy for them.
Wabaunsee County. E. THOMPSON.

Fruitful trees are profitable trees to plant. Leaves are not the fruits you plant for when you plant apple- or



General View of the Empire Cream Separator Factory at Bloomfield, N. J.

were brief but full of force. They are simply to "tell the truth about the Empire.

In thinking over this remarkable trip and pondering as to its results, one can not help a feeling of amazement that this company should be willing to incur an expenditure of \$20,000 simply for the purpose of instructing its men by object lessons, and of instilling into them a degree of enthusiasm which must prove practically resistless in their future campaign as salesmen.

This is the Empire way.

Truth doesn't alter or gro old; 2 and 2 made four when Adam waz a boy, and it amounts to the same to-day .-Billings.

peach-trees. No, sir! Most any old tree will bear leaves. But you want something besides leaves—you want fruit and plenty of it. If you want to be sure that the trees you plant will be fruitful trees, buy them direct from the Gage County Nurseries, Beatrice, Neb. They offer you a "square deal"that means fruitful trees, true to name, sure to grow, and they guarantee the trees will reach you fresh and bright, and all right. There is some pleasure in planting the kind of trees they send you-trees that you know will bear fruit in plenty for your labors. Write for their catalogue to-day; their variety makes it easy to order just what you

What we read represents us when we go to seed.

FREE Riewer Seeds 1000 sorts, new and old, for a big bed; also Park's New Floral Guide FREE, Tell your friends. Geo. W.Park, LaPark,Pa

ARK FRUIT BOOK shows in NATURAL COLORS and accurately describes 216 varieties of it. Send for our terms of distribution.

TREES THAT CHEAP in price and of the best quality, the best quality, the best quality of the best quality of the from dis18 Ended Face Trees 11.00 less sacriment. Due billigod for 50 and 50 Concord Graps Vines 11.00 less sacriment. Due billigod for 50 and 50 Concord Graps Vines 11.00 AIRBURY NURSERIES. Box L. Fairbury, Meb

FRUITFUL TREES MILLIONS OF FRUIT Small Fruits and Evergreens. Russian Mulberry and Black Locust, \$1.00 per 1000. Carefully dug and packed. Freight prepaid on \$10.00 orders. Catalogue free. Fine trees guaranteed. Gage County Nurseries, Box 609, Beatrice, Meb.

SEEDS That will Grow PLANTS A. C. Anderson, Columbus. Nebraska.

seed corn

Boone County White, Farmers' Interest Reid's Yellow Dent, Improved Learning & Riley's Favorite, best pedigreed and test 's Favorite, best pedigreed and tested grown on my own farms, \$1.50 per bu. s free. Delivered on car for any station in the United States

J. C. ANDRAS, Jr.



Iowa Produces the Best

SEED CORN

and Southwestern Iowa produces the best seed corn in the State. Every grain from which our seed is grown is carefully selected by us, and the cultivation of the crop is carried on by a member of our firm. We raise every grain of seed corn we sell, and we make it as perfect as it can be made. Write us for prices. W. W. VANSANT & SONS, Bex 54. Farragut, lowa

GINSENG is a money-making crop. Room in your garden to grow hundreds of dollars worth annually. Thrives throughout the United States and Canada. We sell roots and seed during spring and fall planting seasons and buy the dried product. You can get started in this profitable business for a small outlay. Send 20 stamp to-day for illustrated literature telling all about it.

THE ST. LOUIS GINSENG CO.



A wonderful big catalog FREE Full of engravings of every FREE variety, with prices lower than other dealers. The book is worth a dollar to any one who plants seeds.

Big Lot of Extra Packages Free to Every Customer. Send yours and neighbors address. R. H. Shumway, Rockford, Illinois.



Buy direct from us at Wholesale Buy direct from us at Wholesale a Prices and save the agent's commission. Our trees and bush fruits are all selected from the choicest stock and especially adapted to the soils and climate of Kansas, Missouri and the Southwest. Our direct railroad communication with all rounts of Southwest. Our direct railroad communication with all points of this section enables us to deliver all stock promptly and in the best of con-dition. We offer liberal discounts and guarantee all stock true to name. Wichita Nursery, Box B, Wichita, Kan.



Horticulture

Douglas County Horticultural Society.

The regular monthly meeting was held Saturday, February 17, at the court-house. The attendance and interest at these meetings is on the increase. J. R. Blevens, the north-side market gardener, being on the sick list, his subject was taken up as a general discussion. A. J. Martin being absent, his subject, "Family hotbed and cold frames," was postponed to the March meeting. A letter from A. N. Deming, who is visiting in California, proved of much interest to those present-it commented upon California landscapes and fruit conditions from a Kansas standpoint.

Mrs. B. F. Smith's paper treated in a unique way "The Toad." The toad should rank next to the bird as the great bug-catcher and worm-destroyer, with appetite always keen; not beautiful nor a cunning pet, but harmless and always helpful. It lives to a great age and is of much value to the gardeners and fruit men. She has had for several years a pet toad which makes its home under the bush by which she throws her table-scraps. It has grown to be of very great size. never-to-be-forgotten incident in her childhood was the liberation of a halfswallowed toad with which a large snake, with its tail wrapped around a bush, was having an argument. The child and her stick soon closed the career of his wiggleship, and the toad was spared.

At the last meeting, James Means, manager of the canning-factory, said that there was money in raising asparagus for the cannery, and the society paid close attention to William Miller's talk on "Commercial Asparagus." Mr. Miller has raised this delicacy in the garden since 1858, and commercially since 1881. He has an acreage of 31/2 acres and said that it would be impossible to plant eight or ten acres for the canning-factory unless it was done upon a specific, long-term contract, as it took six years to get the beds in full bearing and cost an outlay of at least \$200 per acre, a prohibitory outlay on uncertainties. A very low price could be made because every-thing, big and little, would be taken by the cannery and there would be no expense of sorting, bunching, and weighing. Owing to the floods having washed out beds on the bottoms, it had been a profitable crop for a year or two past, but new acreage was now being planted. A bed is good for twenty to twenty-five years.

He said the secret of success in commercial growing was to plant the whole tract at one time, not cut any the first two seasons, and after that every third day, cut every scrap that showed above the ground. This kept down the two great pests; the beetle which lays its eggs upon the young stalk just breaking through the ground; also a black fly that stings the stalk near the ground, causing hundreds of pounds to be rejected. Every stalk is kept cut until June first to tenth, then the growth is allowed to take the bed and the weeds are kept down with cattle from time to time. There are two kinds of plants, male and female. The male plant sends up but few stalks, but these are very large and fine. The female plant sends up a great clump of small stalks, and besides sheds seed; and for this reason nearly all of the female plants should be rejected in planting out a new bed. Asparagus should be set on a south slope on warm, sandy loam; plow ten inches deep and subsoil; rows should be four to five feet and plants 31/2 feet apart in row. Plant as deep as eight inches. The bed should have fifty loads of manure to the acre each year. Disk and cross-disk in the spring. An aere will yield from 1,500 to 3.000 pounds after the sixth year, and will then have cost \$200 per acre to

Forrest Savage, an old settler, spoke of watermelons on sod, supposedly the settlers' first crop. Coming here in 1855 he said the diet of the first comers consisted of quail, fish from the streams, and in the fall wild geese and ducks. In winter the main provision was buffalo meat. The fruits were wild plums and grapes, blackberries, pawpaws, hickory and walnuts. The first year from planted gardens single sweet potatoes were dug two feet long, and a single Irish potato would make a meal for a family. His favorite watermelon was the Washington, long, stripe, and spotted like a snake. The melons "on sod" were truly superb. Then this old gentleman, well along in his eightieth year, went inte cestacles

describing the charms of the "Prairie Sod Girl," also a product of those times. W. E. Barnes, of Vinland, the largest

orchardist in the county, then spoke of his first planting of fruit-trees from Massachusetts in 1857. In 1860 he planted pears, apples and grapes. At that time he obtained the Missouri Pippin from Missouri and planted it. It blossomed in the second year and gave the first home-grown crop of apples in this county in 1863. This encouraged others to plant. In the fall of 1868 he planted an orchard of 4,000 trees, seven hundred of them being Missouri Pippin-these latter alone paid all the cost of the orchard. There were no codling moths previous to '69. They came with shipped-in Cruit. His best crop was in 1883, which sold in bulk at \$2 per barrel. No fungus nor bitter-rot at that time. It came about 1837. Between 1883-85 his first planted apple-trees began to decline. Mr. Barnes believes in and practices spray-

W. E. Koehring was drafted without notice to take up "The Kitchen Gard-en." This he did in a thorough and pleasing manner. He believed in tak-ing lots of risk from frost in extra early planting. His subject was well worth reproducing at length.

G. W. M.

Rhubarb.

A. N. H. BEEMAN.

Rhubarb, or pie-plant, as it is com monly known, is one of the most healthful, one of the most easily grown, and one of the most valuable of garden vegetables. It is of such importance and real value that it ought to be more generally grown. good thing, so easily gotten, so easily grown, ought not to be so infrequently found and used in our farm and even our city homes. There are a great many valuable and wholesome vegetables, but rhubarb stands without an equal in its class. It is one of the earliest vegetables of springtime. Its strong, vigorous leaf stalks, so crisp and brittle, push themselves from the cold ground into sunshine and air. The whole plant reflects of inborn strength, vigor, and freshness. Its uses are many and it can be prepared easily for table use. There is nothing like rhubarb pie or sauce in the early spring months. There are but few things with the same tartness or acidity, wholesomeness, and palatability, as has rhubarb.

A small bit of ground is large enough to grow enough plants-ten to twenty -for an ordinary family. Most city homes, and at least all farmers, have some small plot or corner of ground, perchance unoccupied or in weeds, which might well be planted to rhu-barb. A good, moist, deep loam, thoroughly enriched with well-rotted barnyard manure, is an ideal soil for rhubarb. Plants may be grown from seed, but "roots" or "crowns" are usually used. Seed should be sown in early spring, say in April. The second season's growth usually furnishes some stalks large enough for use. An ounce of seed will sow from 100 to 125 feet of rows. In about eight weeks after sowing the plants should be thinned to about eight inches, or transplanted in temporary rows. The following spring they should be transplanted to their permanent places, setting them three or four feet apart in rows that are four feet apart. Cultivate throughout the season, and give the ground a covering of good barnyard manure in the fall. The leaves can be pulled until the first of June or July, depending upon your wants and needs, and upon market demands to a degree. But pulling should cease early enough so that the plants will be able to make a good growth before fall. Unless seed is deired, which is rarely the case, cut the flower stalks as they appear. The original plants will last for a number of years, but it is best to divide the crowns and make a new setting about every fifth year.

The full value and utility of rhubarb has not been fully realized until in recent years, when it has been forced. But few of our common vegetables are so well adapted for forcing. Because of the marked ease of forcing, we can secure this vegetable in a more attractive and equally valuable form in midwinter or later than we can from outdoor planting. The forced product is of the highest quality. It can be forced in light or darkness. It is not exacting as regards a definite degree of temperature, which may vary from 45° to 70°. The lower temperatures are best, producing stalks more crisp and with less acid. Rhubarb can be forced in a cellar, in a box, even in the kitchen, or in well- or poorly-constructed forcing-houses. It is perhaps most

EALTHY TREES Honest in quality.

Grafted Applies 52;

4c; Budded Cherries, 15c each; good varieties.

Concord Grapes, 45 per 100; Black Locust and
Buss Mulberry, 81 per 100. We pay freight. Complete
catalog free. Gelbraith Herseries, Sur 22, Fairbury, Sch.



READER IF YOU HAVE **NO BERRY PATCH**

and desire, one, my 1906 catalogue may tell you now to start lit. 50 varieties plants low priced.

B. F. SMITH, Braver C, Lawrence, Kans.

WRAGG TREES



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

M. J. WRAGG NURSERY COMPANY, 307 Good Block, DES MOINES, 10WA.

World's Premium Seed Corn, HOWARD COUNTY WHITE

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

E. T. LONG, Fayette, Missouri.

SEED POTATOES

RED RIVER GROWN

Best pure stock—large smooth seed potatoes of all leading and best varieties of both early and late sorts, including Early Ohlos, Early Rose, Early Six Weeks and other kinds, at 90c to \$1.00 per bushel. Quick shipments and low freight rates. Big, fine illustrated catalog of all farm, grass and garden seeds with full descriptions and prices sent FREE if you mention this paper. Write to-day RATEKINS SEED HOUSE, Shenandoah, Iowa



50 Years we still keep up the old habit of giving special directions, when ed, in addition to those for raising each variety of vegetable and flower contained in our catalogue-sent free. J. J. H. GREGORY



Somerville Nursery, SOMERVILLE, -



SEED CORN There are many points to be considered in select

It is the most desirable, large, bright yellow cornever sent out and it will pay you well to try it. Ask for copy of our large catalogue, illustrating and describing the above and many other varieties of seed corn, cate, wheat and all kinds of farm and garden seeds. Mailed free if you mention this paper.

LOWA SEED CO., DES MOINES, IA.

The Worlds Fair Prize Winning Cora Just WON FIRST FREMIUM at the Corn Breed-res State Show at Manhattan, also first on Farmers nt. White and second on Boone Co. White. Sam-le and catalog tells how to raise Corn every year REE. John D. Zhiler, Hiswatha, Kansas. HE RAISES CORN.



15 HARDY CLUMPS, ONLY \$2.00

mily of beantiful flower for the heat 10 years with may of beantiful flowers.

Itump Mired Phlox. All Colors, 256

Itump Mired Sweet Williams 256

Itump Mired Baby Breath 256

Itump Mired Baby Breath 256

Itump Mired Crysanthenum 256

Itump Mired Crysanthenum 256

Itump Mired Golden Glow 256

Itump Mired Golden Glow 256

Itump Mired Bleeding Heart 256

Itump Mired Bleeding Heart 256

Itump Mired Hardy Iris 256

Itump M

for only

This fine collection is the best offer ever put on the american market; don't miss it. Send at once for MAL DESTANDANCE. this grand offer. MALDEN NURSERY, MALDEN, MASS.



20 HARDY PLANTS \$5,00 Shrubs and Running Vines

Syringa (Lilac)
Japan Snowball
Double Aithea
Double Flower Almond
Hardy Hydrangea, 4 ft.
Syringa Mook Orange
Rhue Purple Fringe
Forsythia Beautiful
Lilac, white and purple
Deutzia

1 Rhododendron 1 Azalia Mollie 1 Welgela 1 Rose of Sharon RUNNING VINES.

1 Japan Honeysuckle

1 White Star Clematis

1 Dutchman Pipe

1 Ampelopsis 1 Boston Ivy 29 Hardy Plants from \$ to 5 ft. tall. This entire collection, only \$5.00. Send your order early and we will send this fine collection, worth twenty-five dollars, enough plants to beautify your home, for only \$5.00. It is a great bargain. Order quick and be sure of them.

NATIONAL PLANT CO., Somerville, Mass.

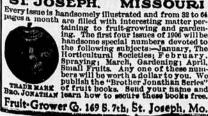


10 Raspberry Bushes 10 Blackberry Bushes 1 Concord Grape Vine 1 Niagara Grape Vine Greatest Bargain yet, 42 plants, all grown, ready to bear fruit, for only 38.5.5. Every one should have these lovely fruits growing in their garden. Now is your chance. Order early, and be sure of them.

BAY STATE PLANT CO., Boston, Mass.

The Best Fruit Paper





commonly forced in low, doublespanned, roughly- and cheaply-con-structed houses. An excavation two to three feet deep may be made and arched over with a roof of boards or legs, covered with hay, straw, or fodder, and the dirt of the excavation thrown over the entire roof. No particular facilities are necessary for ventilation. Unless in a severely cold winter, the house can be heated by use of ordinary heating stoves. In more expensive houses, and in case of extreme cold, a system of hot water or steam heating would undoubtedly be advis-

Good, strong, two-, three-, or four-year-old plants are used in forcing. The plants to be used are dug in the fall, and with their adhering soil left in the field and covered with enough soil to prevent drying out. It is best to leave them there until they have been frozen through. About the first of January-earlier or later as the case may be-the roots still retaining their soil are brought into the forcinghouse. They are set or packed close together on the moist dirt floor. Moist soil, preferably a rich one, is filled in about each plant, covering the crown slightly. After they are once thus packed in they may not need watering, but the roots and soil should not be allowed to become dry. Only strong, vigorous plants will produce the large, thick stalks, eighteen to twenty inches high. When properly grown, the forcing-house product is at-tractive, of delicate color, tender, and of excellent flavor. After the plants have produced this winter crop of leaves, they will have become exhausted and are of little or no value for any purpose in the future.

But two varieties are commonly grown—Linneus and Victoria. A new and supposedly better kind, introduced by Burbank, is called the New Crimson. The Victoria is a late variety of excellent quality, bearing large, thick leafstalks. Linneus is also a large, tender and desirable sort, but it is earlier than Victoria.

Winter Vegetables.

F. P. RUDE, BEFORE SHAWNEE COUNTY HOR-TICULTURAL SOCIETY.

To have all kinds of vegetables for next winter you must begin to plan for them now, and include such seeds in your seed-list as will be needed for spring and summer planting. The soil should be good and well fertilized and should have good cultivation in proper time.

CABBAGE.

The seed of late varieties should be sown the middle of May, and the plants set about June 20. A part of this may head too early to keep for winter, and it can be made into kraut or sold. the cabbage for winter use remain in the garden until there is danger of freezing, then pull it up with all of the leaves on and dig or plow a trench wide enough to set two or three heads side by side, heads down and roots up, and cover with six inches of dirt. Leave it this way until freezing weather begins, then add another covering of litter of some kind, or long manure, and you will have the cabbage where you can get at it an winter through, and it will be fresh and crisp.

CELERY.

The seed should be sown the first of April in a well-prepared seed-bed in the open ground. If the weather is dry, the bed should be sprinkled and kept moist until the seed germinates. Keep the plants free from weeds and well cultivated until they are large enough to set out in the row where you want them to grow. The first to the middle of July is the time to set celery for winter use. Rows should be four feet apart, and the celery set six inches apart in the row. Commence to cultivate immediately and keep cultivating. Celery can be grown without water. but the more water used the better the celery. As the celery gets well grown it should be handled, that is, the soil should be pulled up around each plant to make it grow more upright.

Storing.-Let your celery grow as long as you can in the fall, until the nights begin to get frosty, and then it is time to store it for winter and to bleach it. The best method is to dig a trench one foot deep, two or three feet wide, and as long as needed. Line the sides of the trench with boards, take up the celery when the leaves are dry with as much soil on the roots as possible, and pack as closely as possible in the trench, using fine, moist soil to pack the roots in, as though you were setting it out to grow again; and if the soil is dry, use water enough to

(Continued on page 381.)

are best for general use, are grown in the very heart of the region once known Great American Desert, at an altitude of over two thousand feet above sea level are out irrigation. They are time tried and drouth tested and have proved producers itable crops of both grain and forage. Write for list of specialties and prices.

M. G. Blackman, Grower and Dealer, Hexie, Kans.

ALFALFA SEED Pure Kansas Grown Seed. Crop of 1908. Cane and Millet. Macaroni Wheat and Field Seeds in carload lots or less. Write top

GARDEN CITY, KANSAS

ALFALFA SEED Kansas Grown. Non - Irrigated. From grower to consumer. Write for prices.

WESTERN SEEDS FOR WESTERN PLAN

KANSAS SEED HOUSE Lawrence, Kans., or COLORADO SEED HOUSE, Denver, Colo., or OKLAHOMA SEED HOUSE, Oklahoma City, Okla.

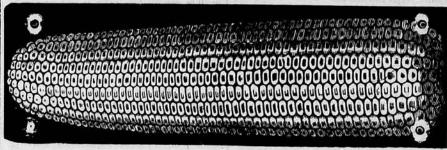
La France Fruit and Plant Farm

F. W. DIXON, Prop., Holton, Kans. Strawberry Plants that Pay to Plants Our new catalogue is now ready to mail. It is a common sense treatise on growing strawberries and other small fruit in the West. We have a very choice lot of plants this season that are grown on new fields and are first class in every respect. Besides strawberry plants we grow large quantifies of other small fruit plants. All the well known varieties of raspherry and also best varieties of blackberry plants. Large quantities of asparagus, rhubarb, etc. Write for our common sense catalogue. It is free. Address, F. W. Dixon, Helton, Kans.

CATALPA AND OSAGE FOR POSTS

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





Ratekin's Pride of Nishna Seed Corn

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

Nishna.

Our Seed all grown by us from absolutely pure stock, especially for Seed purposes. All carefully selected, sorted, and butt and tip ends taken off and graded to uniform size. Seed shelled and graded or in the ear. Change your seed while you can get the best; grow bigger and better/crops. 2 Price, \$1.35, shelled, sacked on board cars here; 10 bu, or more, \$1.25, Our big Illustrated Catalog of all Farm and Garden Seeds mailed FREE if you mention this paper.

Write for it teday.

Address.

RATKKIN'S SEED HOUSE, Shemandonk, Iowa.



HARDY **HOSE RASHES**

Live Out Doors, Summer and Winter.

IO ROSE BUSHES \$1.50

IO ROSE BUSHES \$1.50

1 General Jacqueminot (Brilliant Red).

1 American Beauty (Red). Beautiful.

1 Magns Charts (Pink). Extra.

1 Mrs. John Lang (Soft Rose).

1 Ulrich Bruner (Cherry Red).

1 Pearl des Bianche (White).

1 Moss Rose (Beautiful Red).

1 Celine Forestier (Yellow). Fine.

1 Sweet Brier (Bweet Scented).

1 Crimson Rambler (Large, Beautiful, Running Rose).

Ten of the choicest varieties, 3 and 4 years old Rose Bushes, only \$1.50. The regular price for these bushes is seventy-five cents each. This is a great bargain. You will notice that this collection has very choice, beautiful shades. All green, packed in moss. True to name. Do not miss this grand offer.

ORDER QUICK, and get this fine Collection imported from Holland. These bushes are grafted. They will flower this year.

WAYSINF NIIRSFRY Samarilla Mace.

WAYSIDE NURSERY, Somerville, Mass.

POULTRY BREEDERS DIRECTORY.

PARTRIDGE COCHINS—Toulouse Geese, pure-bred; farm raised. Eggs \$1 per 13 and 7. Mrs. O. A. Rhoads, R. 6, Columbus, Kans.

CHOICE WHITE WYANDOTTES - Farm range. Eggs 75 cents per 15. Henry Harrington, Clearwater, Kans.

TWENTY - SIX PURE Black Langshan eggs for \$1. Mary McCaul, Elk City, Kans.

BLACK LANGSHANS—Bred by W. F. Cox, Clifton, Kansas. Eggs for sale at \$2 per 15.

CORNISH INDIAN GAMES—Raise chickens for meat and eggs; not for fat and feathers. For the best meat and eggs in the world, buy a sitting of eggs, £1.50 and £2 per sitting. L. Horst, 400 West 10th, Newton, Kans.

STAY WHITE — S. C. W. Leghorns and Buff Rocks. Winners at State Fairs. Eggs, \$1 per sit-ting. J. W. Cook, Route 3, Hutchinson, Kans.

S. C. B. LEGHORNS—Beautiful fowls, fine markings, splendid layers. Eggs, \$1 per sitting; \$5 per hundred. Mrs. D. M. Evans, Edgerton, Kans.

BARRED PLYMOUTH ROCK EGG8—From large, beautiful, pure-bred chickens, only \$1 per 15; \$5 per 100. Mattle Shearer, Frankfort, Kans.

RHODE ISLAND RED EGGS for sale at \$1.25 per 15 eggs, or \$2 per 30 eggs, Mrs. G. F. Kellerman, "Vinewood Farm," Mound City, Kans. BARRED AND WHITE ROCK EGGS—\$2 per 15; \$5 per 45 from our best matings. Hawkins & Bradley strain, scoring 94 to 96. 17 years experience with poultry. Mr. and Mrs. Chris. Bearman, Ottawa, Ks.

FOR SALE OR TRADE—One good black jack, with white points, 15% hands high, 7 years old, a good individual and a good breeder, or will exchange for good dary or pure-bred beef cattle. Address John L. Stanley, Nyhart, Bates Co., Mo.

BARRED PLYMOUTH ROCKS - Exclusively, Eggs, \$1 for 15; \$1.50 for 30; \$4 per 100. T. B. Wilson, Route 7, Osage City, Kans.

FOR SALE—Light Brahma and White Wyandotte cockerels. I have a few high-scoring ones left, as it is getting late I will now offer them at a bargain, \$2 to \$5, scoring 92 to 94. Satisfaction guaranteed. Eggs, \$1 to \$2 for 15; Buff Cochin Bantam, eggs, \$1 to \$2. Mrs. J. R. Kenworthy, Wichita, Kas.

BARRED PLYMOUTH ROCKS—Either cockeron pullet. Mating pens headed by 91½ to 93 point birds; females 91½ to 93¾. Eggs, \$2 per 15. Utility pen cocks, 91 to 92½; \$1 per 15, \$5 per 160. Sliver Penciled Wyandottes headed by "Patsy." Ist cock Detroit 1904, score 94½; females 87 to 91. Eggs, \$2 per 15. Mrs. Chas. Osborn, Eureka, Kans.

EGGS—S. C. White Leghorn, exclusively. Blue ribbon winners; 15 for \$2; from flock, 100 for \$5. W C. Watt, Walton, Kans.

FOR SALE — Throughbred Gold-laced Wyan-dottes. Eggs, \$1 per sitting. H. A. Montgomery, \$10 Parallel St., Atchison, Kans.

GOLDEN WYANDOTTES EXCLUSIVELY— My flock of vigorous farm-raised hens culled by Standard to 60. No stock for sale. Eggs, \$1 per 16; \$5 per 100. Mrs. S. Goldsmith, R. F. D. 3, Abilene, Kans.

CHICK-O for baby chicks; a complete, balanced ration. Ask your dealer or write, D.O. Coe, Topeka

BARRED PLYMOUTH ROCKS—Bradley strain, prize winners; won 1st on ckl. last three years at Harvey county poultry show. Eggs from pen \$2, yard \$1 per 15. R. Harmston, R. R. 6, Newton, Kan.

WHITE WYANDOTTES EXCLUSIVELY— Eggs, 15 for 75c; 100 \$3.50. H, F. Brueggemann, Route 2, Herington, Kans.

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

8.C.W. LEGHORN cockerels and pullets scored by Rhodes 92 to 94% points. Write for prices. A.F. Hutley, Maple Hill, Kansas.

FINE BLACK LANGSHANS started from \$3.00 eggs. Fifteen eggs for 50 cents. Minnie D. Price, Route 3, Paola, Kansas.

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

WHITE PLYMOUTH ROCK exclusively—bred direct from a pen of U. R. Fishel's birds. Eggs for hatching from pen No. 1 \$2 per 15. Satisfaction guaranteed. J. A. Kauffman, Abilene, Kansas.

FOR SALE.—Silver Laced Wyandottes, White Plymouth Rocks and Partridge Cochins. Fine stock, each raised on a separate ranch. Eggs, per sitting of 15, 81. Letters promptly answered. Address W. C. Koenig, Nortonville, Kan., First Nat'l Bank Bldg.

BARRED ROCK EGGS, \$3 per 100. Mrs. R. A. Galbraith, White City, Kansas.

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

R. C. RHODE ISLAND RED EGGS—Farm range, 1,00 per 16; pen, \$2.00 per 16. I. W. Pulton, Medora,

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

GREAT BIG S. C. BUFF ORPINGTONS are the winter layers. Eggs \$1.50 per 15; \$2.50 per 3 J. R. Cotton, Stark, Kans. 225 Main Street.

VANNATTA'S SINGLE COMB WHITE LEG-HORNS-Great layers. Won \$100 Cash at World's Fair. Eggs for hatching. Catalogue free. E. E. Vannatta, Vandalia, Mo.

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

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

WHITE WYANDOTTES—the lay all winter kind. 3red to high score, large egg record cockerels. Dus-in strain. Eggs 5 cents each. \$4 per 100. J.L. Moore

WHITE PLYMOUTH ROCKS-12 years breeder of choicest birds. Eggs \$1.50 per 15. Member American White. P. R. Club. J. E. Shinkle, Lakin Kans.

BARRED ROCKS-40 cockerels, \$2 will buy a good one 50 pullets, \$1 each, stred buy a pure Bradley cock. I have an orchard flook of 50 pullets mated with large, standard males, eggs \$1 per 16; \$5 per 100; A. C. Rait, B. R. 4, Junction City, Kans.

The Poultry Yard

Orpington Breed of Fowls

The Orpington breed of fowls was produced by the late Wiliam Cook, of The Single-comb Buff Or-England. pington is the most popular of the ten varieties. They were produced in 1894, after ten years of persevering work, by crossing the Golden Spangled Ham-burg cock with a dark Dorking pullet. The progeny from this cross were mated to a Buff Cochin cock from a noted laying strain. Not only are the Or-pingtons noted for their laying qualities, but they are excellent table birds and of handsome appearance. The weight of cocks is from eight to ten pounds. Hens weigh from six to eight pounds. The hens make good mothers; though large, they are active, not tramping on the young or breaking the eggs while sitting. They are fast grow-ers, mating early, and when we are looking for a breed for profit on the farm, the Orpington fills the bill for layers and weighs heavily when we take it to market. Mrs. J. R. Corron. Neosho County.

Poultry Pointers.

The severe cold weather of the past week has been very trying to young chicks just hatched and their owners should be careful to see that they are well protected from the weather. A stunted chicken never amounts to much, and it should be the object of the poultry-raiser to see that it grows right along without any severe setback. The earlier you can get chickens hatched the better—provided you see to it that they are properly protected when sudden storms and blizzards ar-

Should the combs of some of your fine birds get frosted these cold mornings, the best remedy is to rub briskly with glycerine.

Nearly all poultry diseases are caused by either cold, dampness or want of cleanliness. Sometimes it comes from bad feeding. Neglect somewhere is the cause of all the disease. It is easier to guard against disease than to cure it. It is always unsatisfactory to treat sick birds, and the old adage, "an ounce of prevention is better than a pound of cure," applies most pertinently to poultry diseases.

While you are cleaning up don't forget the nest boxes. No portion of the hen-house fosters more vermin than the nest. Remove every particle of the material and burn it up, replacing with nice fresh straw or hay. If the nest is removable, take it out and sat-urate well with coal-oil.

If you should happen to break your incubator thermometer, you can get a new one by sending 75c to Thos. Owen, Station B, Topeka. Kansas.

Many a breeder of fine stock has ruined his herd by crossing and mixing, and the same is true of poultry. Select the breed that suits you and then stick to it. Don't experiment by crossing; let the other fellow do that. And if, after a great outlay of time and money, he evolves something that is better than you have, you can get it from him cheaper than it would cost you to produce the same thing.

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

Save the eggs from the best laying hens, but be careful to have such hens in company with a pure-bred cock; and if he is the son of a good laying hen, the pullets hatched, being sired by him, will be good layers as compared with breeding from all kinds of fowls.

If a hen needs food of a nitrogenous nature and she is fed that which is deficient in nitrogen, her hunger is appeased for a time, at least, and warmth provided for her body, with perhaps enough of the elements required to repair waste of tissue, but not enough to supply her with the extra materials for producing eggs. Hence the hens may in one sense be well-fed and yet not lay.

Perhaps the most attractive goose is the Embden. While not so large as the Toulouse, the difference in size is very little. The Embden, however, is entirely white and makes an attractive appearance in market, while the feathers bring a better price.

If the breeder wants to keep up the vigor of his stock, he should never make a practice of breeding from pullets. The best breeders are hens in their third year, mated to a cockerel or cock one year younger than the

Marking the chickens has two advantages: one is in being able to know

POULTRY BREEDERS DIRECTORY.

BARRED ROCK EGGS-Pen No. 1, \$1, 50 per 15 pen No. 2, \$1 for 15. Mrs. W. A. Shreier, Argonia, Ks

PURE single comb brown leghorn eggs; 30 for \$1; 100 for \$3. F. P. Flower, Wakefield, Kans.

BLACK LANGSHANS—Hens scoring 93 and up-wards—headed by 2d and 4th prize cockerels from Kansas City 1908 show. Eggs, \$2 for 15; \$3.50 for thirty; special price by hundred. Can fill orders at once. Mrs. C. S. Cross, Fair Acres Farm, Em-

BUFF PLYMOUTH ROCK eggs for sitting, \$1.50 for 15. Jay S. Buck, Oskaloosa, Kansas,

BARRED AND WHITE ROCK EGGS for hatching from choice birds; farm raised. White Rock eggs, 15 for \$1, 36 for \$1,85; 45 for \$2.85. Barred Rock eggs, 15 for 75 cents; 30 for \$1.45; 45 for \$2.10. D. S. Thompson, Welda, Kansas.

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

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

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

WHITE WYANDOTTE EGGS for sale; \$1.50 per 15. Only breed of birds kept. Mrs. John W. Smith, Lawrence, Kansas.

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

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

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

GEM POULTRY YARDS—C. W. Peckham, Haven, Kans. Pure-bred Buff Plymouth Rock eggs, 15 for \$2; 30. \$3.50. M. Bronze turkey eggs, 11 for \$3.

MAMMOTH BRONZE GOBBLERS — Buy one o improve your flock. Young toms all sold. C. E. Durand plantation, Hutchinson, Kansas.

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

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

FOR SALE – Exhibition S. C. Black Minorca cockerels, \$2. I guarantee them. Address George Kern, 817 Osage street, Leavenworth, Kans.

STANDARD-BRED SINGLE-COMB BUFF LEGHORNS—Headed by first prize pen Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs 43 for 15. S. Perkins, 501 East First street, Newton, Kansas.

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

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

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

BLACK LANGSHAN EGGS—From birds scoring 3½ to 95½, \$1.50 and \$2 for 15 eggs. Wm. C. Knapp, leasant Hill, Mo.

BARRED ROCKS EXCLUSIVELY—Leffel strain. Large, heavy-boned, fine, clear; Barry's first-class birds, \$1 to \$5 each. Satisfaction guaranteed. Write for catalog to Lawndale Poultry Yards, John D. Ziller, Hiawatha, Kansas.

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

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

SINGLE-COMB WHITE LEGHORN cockerels, \$1 each; two or more, 80 cents each. Fine white, pure, thoroughbred birds. Also a few Barred Plymouth Bocks, barred to the skin—fine, pure and vignous; hens, cocks and pullets, \$1 each; two or more, 80 cents each. All of our customersiare very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Coulterville, Illinois.

BROWN CHINA GEESE, Indian Runner Ducks, lso Barred Rock cockerels. Prize winners at State

Poultry Show.
O. C. Sechrist, Meriden, Kansas.

Mammoth Bronze Turkeys

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

LIGHT BRAHMAS

More prizes than any breeder in the state; 10 firsts this season. Eggs, \$150. Cockerels, \$2 to \$4.

T. F. Weaver. Blue Mound, Kansas

Eggs for Hatching M. B. turkeys, \$3 per 10. Golden Wyandottes, \$2, \$1.50 and \$1.25 per 15. Satisfaction guaranteed. Mrs. A. B. Grant, Emporia, Kansas.

Barred Plymouth Rocks

Exclusively—"Superior Winter Laying Strain" noted for size and quality. Seventeen years of careful breeding. Eggs, 15 for \$1; 30 for \$1.50.

E. J. Evans, Route 4, Fort Scott, Kansas.

Rose Comb Brown Leghorns EXCLUSIVELY

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

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

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



15 BREEDS. Pure-bred Chickens, Ducks, Geese and Turkeys, Largest poultry farm in southern Minnesota. Choice stock and eggs for sale. Cata-logue free.

H. H. HINIKER, Box 90, Mankato, Minn.

PRIZE-WINNING S. C. BROWN LEGHORNS Exclusively. (Short's strain.) Farm stock eggs from pen scoring 196, \$2 per 15; \$1 per 15 as they run. Incubator eggs a specialty.

MRS. W. O. MAGATAGEN, BEATTIE, KANS. Mention Kansas Farmer when writing.

POULTRY BREEDERS DIRECTORY.

R. C. Rhode Island Reds At the State Poultry Show, Topeka, Kansas, January, 1905, won first and second prizes on cock, cockerel, hens, pen; fourth on hen and pullet. Cockerels all sold. Eggs for hatching, \$1.00 to \$25.00 per 15. Egg circular free. NO STOCK FOR SALE.

A. D. WILLEMS, Imman, Kans.

BLACK LANGSHANS

Brodiby John Shank, New Cambria, Kansai Stock and eggs for sale. Eggs, \$2 per 15.

Fancy Black Langshans

G.IC. MILLER, Breeder. Stock for sale. Fifteen eggs for \$2. Address 546 Missouri St., . LAWRENCE, KANS

Light Brahma Chickens Choice pure bred cockerols for sale. Write or call on Chas. Foster & Son, Eldorado, Kan. Route 4

PARE VIEW FARM

WHITE PLYMOUTH ROCK EGGS for sitting— Fine stock; farm raised. Price, \$1 for 15; special price by the hundred. Shipped by express, cara-fully packed, anywhere. Mrs. O. E. Walker, Route 8, Topeka, Kans. S. C. RHODE ISLAND REDS

Winner at 1906 Kansas State Poultry Show-1, 2, 3 4, 5 pen; 1, 2, 3, 4, 5 hen; 2, 3, 4, 5 pullet; 2, 4, 5 cock rel. Young cockerels for sale. Eggs, 41.50 to \$2.50 for 15, from high-scoring pens. R. B. Steele, Sta. B. Tepeka, Kans. ACME CHAMPIONS Bronse turkeys, Show Champion, Topeka and St. Joseph, winning ten 1sts, three 2mds, two 3d prises; only 7 birds entered. Barred Rocks, 1st, 2d hen, Topeka, 83%, 82%, 5th cock 80%; 4th pen St. Joseph, 2d hen 2%, 3d cock, 5th cown 2d cockerel, 85%. Eggs, 83 per 15; 85 per 30, N. B. Turkey eggs, 81 each. Cockerels for sale. Pullet breeders specialty. Mrs. W. B. Popham, R. F. D., Chillicothe, Mo.

SAVE YOUR CHICKS.

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

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



Rose and Single Comb White Leg-horns and White Wyandottes IN ALL THEIR PURITY Unsurpassed in every respect for beauty, utility and winter layers. At State show the largest in the United States, just held at Topeka Kans, 25 prizes were awarded me. Write for my catalogue, giving prices on stock and eggs.

prices on stock and eggs.

W. S. YOUNG, McPherson, Kans.

When writing mention this paper.

INCUBATOR EGGS

From high grade White Rocks and White Wyandottes.

\$3.00 for 50, \$5.00 per 100 SEND FOR CIRCULAR. Topeka, Kans.

W. L. BATES, Eggs for Hatching

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

A. H. DUFF,

Larned, : : : :

CHICK FEED

Kansas

The cleanest, purest feed for baby chicks on the market. Every day egg producer on alfalfa mash, starts the hens to laying and keeps them laying. Wholesale poultry supplies. Send for circular.

The Otto Weiss Alfalfa Stock Food Co.

At Topeka 1906

Our Buff P. Rocks won all shape and color prizes awarded. Our first prize pullet scored of (cut 1 for injured eye). Our winning Houdans, White Plymouth Rocks, and White Plymouth Rocks, and White Plymouth Rocks, and White Elymouth Rocks, and White Rock cock of a point for color of entire Rock cock of a point for color of entire bird. Eggs from pens we hatch from \$2 per 18; \$3 per 100. Standard Poultry Yards, Abilene, Kans.

Prize Winners S. C. Buff Leghorns bred for utility and perfection S. C. BUFF ORPINGTONS

BIG BUFF BUSTERS JUMBO SQUAB BREEDERS USEFUL PIGEONS

Catalogue and Price List with useful information free for asking.

W. H. Maxwell, 1220 Quincy St., Topeka, Ks.

White Plymouth Rocks EXCLUSIVELY.

Good for Eggs, Good to Eat, and Good to Look at Used for Eggs, Good to Eat, and Good to Look at W. P. Rooks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 289 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 4 to 86%, and as good as can be found anywhere. Eggs only 22 per 15; 45 per 45, and I prepay expressage to any express office in the United States. Yards at residence, adjoining Washburn College. Address THOMAS OWEN, Sta. B. Topoka, Kansas

BOULTRY BREEDERS' DIRECTORY.

PLOW PRICES on bone-cutters, clover cutters, brooders, grit-mortars, and poultry supplies. Free Supply Catalogue. Address manufacturer, Hum-phrey, Yale Street, Jollet, III.

Hatch-All Incubators They save worry. Help you make more money. Strong, durable. Even beat, pure air, simple to rim. Beginners get big hatches. Write us for proofs and learn to add to your income. Handsome catalog free means in the strong s



BEE SUPPLIES



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

Topeka Supply House



SUCCESSFUL BROODERS.

The only machines that rival the mother hen. Incubator and Poultry Catalogue, PRES. Booklet, "Proper Care and Feeding Small Child. Ducks and Turkeys," 10c. 50c poultry paper one year, 10c. DES MOINES INCUBATOR COMPANY,



bell'-regulating. Best 100 chick hot water; Best 100 chick hot water; Brooder \$4.50. Incubator and Brooder ordered together \$11.00. Satisfaction suaranteed. Our book, "Hatching Facts" tells all about them. Mailed free. Write today.

Belle City Incubator Co., Bux 18, Racine, Wis.



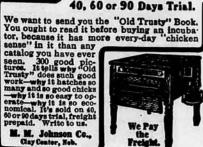
Take Your Old Trusty Time.

Incubator

40, 60 or 90 Days Trial.

GREAT WESTERN INCUBATOR CO., 923 Liberty St., Kansas City, Mo.

M. M. Johnson Co., Clay Center, Nob.



DO YOU WANT GOOD READING

The yearly subscription price of the following magazines is as follows:

Review of Reviews......\$3.00 Kansas Farmer..... 1.00

We have 1,000 subscriptions for the first three to dispose of and can therefore offer the four above-named magazines for \$3 received at this office. The four must go in one set, though they can be sent to different addresses. Address

EANSAS FARMER CO., TOPEEA, KANSAS.

SCOTCH COLLIES.

SCOTOH COLLIES—Scotch Collie pups from reg-stered stock for sale. Emporia, Kennels, W. H. Richards, V.S., Emporia, Kanb.

them from your neighbor's, in case they get mixed; and the other is in being sure of their ages, if care be taken in marking so that this can be known. A punch is the cheapest and most convenient way of marking.

Pekin ducks are the best for keeping on those farms where there are no ponds. They are poor flyers and can be kept within a low enclosure, and they endure confinement well. They grow rapidly and yield white feathers that are almost equal to geese feathers, while they are excellent table fowls.

Exercise is an important factor in maintaining good health. If the fowls are closely confined to small runs, one of the best means of affording exercise is to bury small, grains either among a lot of litter or loose earth, and alow the hens to scratch it out.

The man who expects to make anything by raising pure stock of any kind, must make up his mind to attend to it personally, or at the very least, superintend the work. It is not strictly necessary that he should bring the food, clean the house and yards regularly, and do all of these things with his own hands, but he must know how it should be done and that it is done and done right.

An Important Preliminary to Spring Feeding.

In a few weeks the live stock that has been kept in winter quarters will be turned out to pasture. The condition of the animals when they are turned out to pasture has a great deal to do with the benefits to be derived from the change, it being obvious that if the stock are not clean and free from parasitic or insect troubles their progress will be materially retarded. Nothing prevents an animal from putting on flesh more than to be covered with lice or infected with mange, which sets back its improvement many weeks, but which may be readily avoided by exercise of proper attention.

It is customary in England and Australia to dip twice a year, for sanitary reasons—to keep the stock healthy, if for no other purpose—and this would be a very good method to adopt in this

country as well. The immediate incentive of this article lies in the many inquiries that we are receiving as to the best material and methods for dipping. There are a great many effective stock dips on the market, and it would not be within our province to recommend a product in which we did not have full confidence. Looking over the field, we are naturally inclined toward the endorsement of a preparation that has back of it some guarantee as to its reliability and efficiency. Something of the value of a given product may ordinarily be inferred from the commercial standing of its producers; and this leads us to consider the preparation known as Kreso Dip, made by Parke, Davis & Co., manufacturing chemists, Detroit, Mich., who are the largest producers of medicines in the world-medicines dispensed upon the prescriptions of physicians-not patent medicines, or nos-

trums, but standard products.

Kreso Dip kills lice, ticks, fleas, mites, etc., whether used as a dip or applied by hand-dressing. It cleanses and disinfects the hide, smooths and glosses the hair, and is one of the best preventives of contagious diseases, such as hog cholera, contagious abortion, etc. It does not burn, irritate, or blister, as do carbolic acid, kerosene, etc., which are sometimes used. It is not poisonous or sickening, as are some other dips. It is easily prepared for use, being simply mixed with water. If dipping is not convenient, the preparation may be mixed according to the directions given in the circulars and applied by means of a brush, an old vice, scrubbing it thoroughly into the skin. At the same time the stalls, stables, sleeping quarters, etc., should be treated with the solution in order to destroy any parasites that may be lodged there.

The poultry-house is another place where Kreso Dip is of great value in killing lice and mites, disinfecting and purifying.

Directions for use are given in the company's circulars and may be depended upon. Write the manufacturers, Parke, Davis & Co., for printed matter descriptive of Kreso Dip, stating whether you want booklets on horses, cattle, sheep, swine, dogs, or poultry. They are sent free to readers of the Kansas Farmer upon application to the company, at its main offices, Detroit, Mich.

One can not build up one's reputation by tearing down some one else's.



YARD FENCE HANDSOME, STRONG AND DURABLE. Almost as cheap as wood and lasts ten times longer. Sold direct to consumers on thirty days trial. Write for longer. Sold direct to consumerate catalogue.

The Farmers' Fence Co. MELVERN, KANSAS

TURNS EGGS INTO MONEY!

The way to get big round dollars out of your egg crop is to use a "Sure Hatch" Inquibator. Nearly 60,000 persons, during the past eight 70s nr, have bought and are using 80,000 Sure Hatch Incubators.

We let you be the judge. You can try it 60 days, six months or six years and we will take it back if it fails to do the work. Your profit on the first hatch pays for the machine. What you want is results—and that's what the "Sure Hatch" ives.

Our 106 Sure Hatch is many new improvements. Made of California Redwood. Double walled. Asbestos lined. Built for business from the ward "go." Prices 51,80 to \$11,00—secording to where you live and site of machine wanted. We pay the freight.

Write us today for Free Catalogue and Special Prices on the "Sure Hatch," fieight fully prepaid to your railroad station. Catalogue has 150 pages, jots of interesting pictures and much valuable information.

Worth dollars to you. Bend a postal card today and get the book by return mail.

SURE HATCH INCUBATOR CO., Box H 42, Clay Center, Neb., Dept. H 8, Indianapolis, Ind.





The 'QUEEN'Is not an incubator but the incubator

THE HIGHESTGRADE INCUBATOR EVER OFFERED TO THE PUBLIC

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

PINKERTON MANUFACTURING CO. BOX 56, LINCOLN, NEBRASKA



NEW and RECENT POULTRY BOOKS

The New Egg Farm

By H. H. Stoddard. A practical, reliable manual upon producing eggs and poultry for market as a profitable business enterprise, either by itself or connected with other branches of agriculture. It tells all about now to feed and manage, how to breed and select, incubators and brooders, its laborsaving devices, etc, etc. 140 original illustrations. 331 pages. 5x7 inches. Cloth..\$1.00

Turkeys and How to Grow Them

Edited by Herbert Myrick. A treatise on the natural history and origin of the name of turkeys; the various breeds, the best methods to insure success in the business of turkey growing. With essays from practical turkey growers in different parts of the United States and Canada. Illustrated. 154 pages, 5x7 inches. Cloth..\$1.00

Poultry Architecture

Poultry Appliances and Handicraft

s. Cloth\$0

Poultry Feeding and Fattening

American Standard of Perfection

A complete description of all recognized varieties of fowls, as revised by the American poultry association at its twenty-eighth annual meeting. It contains all changes in and additions to the constitution and bylaws, and the text of the standard, as authorized to the present time. Illustrated 500 pages, 51-2x8 inches. Cloth, net...\$1.50

THE KANSAS FARMER CO.

Topeka,

Kansas

Progressive People REALIZE THE VALUE OF GOOD ROADS

No one thing contributes so much to the increase in farm values, or to the merchant's sales, as roads that can be used in all kinds of weather. Are you satisfied with present conditions? If not, attend the meeting,

"GOOD ROADS" BY D. WARD KING

Under Auspices of the Santa Fe

Olathe March	26	CoffeyvilleApril	2
Wellsville March	27	Independence April	2
Ottawa March	28	Chanute April	4
Iola	29	Lawrence April	1
Girard	30	Emporia April	
Erie March	31	Topeka April	

Come Out

'Tis Free

MARCH

sow t

end o

their

their revers

head v

the se

EDI

horses

breed

horse

are n

Thi

W. R

rience

Franc

proba

Colon

"I (

about there

work

this c

whet

work

left (

Durthere special prove was to called the sirab

cree

TI

Good Calves and Poor Ones

DR HESS STOCK F&&D

or stock healthy and hungry-eat Dr. Hess Stock Food com-igest and put to proper use. iption of Dr. Hess (M.D.,D.V g tonics for the digestion, iron

r lb. in 100 lb. Except in Canada ks. and Extreme pail \$1.60. West and South.

DR. HESS & CLARK,

Ashland, Ohio. seturers of Dr. Hess Poultry F

Sick Headache

When your head aches, there is a storm in the nervous system, centering in the brain.

This irritation produces pain in the head, and the turbulent nerve current sent to the stomach causes nausea, vomiting.

This is sick headache, and is dangerous, as frequent and prolonged attacks weaken the brain, resulting in loss of memory, inflammation, epi-lepsy, fits, dizziness, etc.

Allay this stormy, irritated, aching condition by taking Dr. Miles' Anti-Pain Pills.

They stop the pain by soothing, strengthening and relieving the tension upon the nerves -not by paralyzing them, as do most headache remedies.

Dr. Miles' Anti-Pain Pills do not contain opium, morphine, chloral, cocaine or similar drugs.

chloral, cocaine or similar drugs.

"Sick headache is hereditary in my family. My father suffered a great deal, and for many years I have had spells that were so severe that I was unable to attend to my business affairs for a day or so at a time. During a very severe attack of headache, I took Dr. Miles' Anti-Pain Pills and they relieved me almost immediately. Since then I take them when I feel the spell coming on and it stops it at once."

JOHN J. McERLAN.

Pres. S. B. Eng. Co., South Bend, Ind.
Dr. Miles' Anti-Pain Pills are sold by

Dr. Miles' Anti-Pain Pills are sold by your druggist, who will guarantee that the first package will benefit. If it falls he will return your money, 25 doses, 25 cents. Never sold in bulk. Miles Medical Co., Elkhart, Ind

Farmer's Account Book and Ledger

Saves time and labor—a few minutes each day will keep it; systematizes farm accounts in every department; shows in the simplest manner how to shows in the simplest manner new to increase profits and decrease losses; endorsed by farmers everywhere. We stand ready to refund the purchase price on every book not found Satisfac-We deliver this book postpaid, including the Kansas Farmer one year, both for only \$2.50. Address.

THE KANSAS FARMER CO.

Topoka, Mane.

Stock Interests

PURE-BRED STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper. March 28, 1908—Shorthorns by Shawnee Breeders Association at Topeka State Fair Grounds, I. D. Graham, Secretary, Topeka, Kans. April 3, 1908—Janes Stock Farm, Willard, Kans., trotting-bred horses.

April 3, 1905—Janes Stock Farm, Willard, Kans., rotting-bred horses.
April 13, 1906—Shorthorns by the Southeastern breeders Association at Fredonia, Kans. H. E. Bachelder, Manager.
April 25, 1906—Shorthorns at Manhattan, Kans.
May 1, 1905—George Allen, Omaha, Neb., Shortlorns.

horns.
May 8, 9, 10, 1906—Great sale of all beef breeds of
Cattle at Wichita Kans. D. R. Mills, DesMoines.
Iowa, Manager.

Care of Young Pigs.

I give you my mode of care and treat-ment of young pigs; First, I wish to give the way I feed and care for them. I feed my sows on a bulky feed and keep the bowels in proper condition. I bed my farrowing pens about a foot deep with straw. I long ago got over the idea that a basket of cut straw is bed enopgh for a sow at farrowing. If the sow has not bed enough, she will get up every little while and paw and scrape at her bed, to get it up together, trying to make it soft so she can rest; but if she has plenty of bed, she will lie down and be quiet for many hours and will not kill as many pigs as a sow that has not enough straw to make her bed comfortable.

I feed my sows all the bran, corn, oats, and slop they want just before farrowing; I want the stomach full at this time. I put water in a trough where they can get it when they want it. About the second day I give them a feed of roots, as I generally have some beets for them. I feed them roots for a week, when I give them a little slop made of bran, corn, and oats, or something of that kind, and increase the feed as the pigs grow stronger. When they are three or four weeks old and pull on the sow, feed all she wants; as soon as the pigs need it I feed them in a low trough where the mother can not bother them. In this way I am quite successful. Of course, the bed should be kept in good condition.

I think scours is the most prevalent disease among young pigs, and for this I have no remedy. I have not been bothered with scours among my pigs for six or seven years. I used to feed many things for scours, and I was very successful in producing them, too. I fed nearly everything I saw recommended as being good for scours, and I think I was as successful in producing scours in pigs as any breeder I ever saw. My last experience with the disease was in 1887. I had a very fine litter of six pigs. I was feeding for the scours and the pigs had it very bad. At last I tried giving the pigs lauda-num (they were perhaps two weeks I put it in water and gave them a little-I think less than one drop each; I gave five of them laudanum and they went crazy in a few minutes; they never sucked or laid down after that; they traveled for hours and died; I killed the last two to get them out of their misery. I did not give the sixth pig any; I quit feeding the sow and she got all right in a few days and lived to make an extra good hog. I quit feeding for scours then, and have fed for health and thrift since, and have been equally as successful in obtaining it; for I have not been bothered with scours since then.

Now, I believe nearly all the trouble of scours in young pigs is brought on by overfeeding the sow. I know how anxious a breeder generally is to push his pigs along; I know how many young breeders feel. They have bought a good sow or two, to start a herd, and they going to give them special care and push their pigs from the start and make some extra good ones of them. I read that we should feed but little the first few days after the sow farrowed, and I tried it; I gave a little slop to my fine sows, when the pigs were but a few hours old. I could not call the sow out of bed, so I would drive her to the trough and get her to take just a little good slop, then she would go back and lie down; next morning I would drive her out to get just a little more good slop. I gave her but little, but that little was more than she wanted! So it went on. Now, if I had not been in such a hurry to feed that little slop, I would have had less trouble. Scours is the result of improper feeding of the sow, and if the sow is properly fed there will be no scours among the pigs. My guard against this trouble is to not overfeed the sow. If my sows farrow when there is grass for them, they are not fed any grain or slop for a week or ten days, but

have all the grass they want.
A friend of mine in Illinois, once

quite a noted breeder of Berkshires, had the best litter of pigs he ever bred killed by an inexperienced man's feeding the sow five ears of corn. This sow was the sweepstakes sow at the Illinois and Iowa State fairs in her day. She was the dam of the first sow recorded in the American Berkshire record. She had her litter of five pigs by a fine imported boar. The breeder gave this man special orders not to feed this sow anything-that he would see to her himself.

All went well till the pigs were week or ten days old, when he went one morning to her pen and she was just cleaning up a feed of corn. asked his man why he had done this, and he said she was hungry and he only gave her five ears. She was not used having corn, and my friend said "You have killed this fine litto him; ter of pigs." He commenced then and there to try and save the pigs from the effects that were sure to follow. The corn fevered the sow's milk although he began at once to try to save the pigs; four of the pigs died and he raised the fifth pig only by taking it away from the sow and raising it by hand.

This I relate only to show what effect sometimes follows such changes, and to impress on the minds of the readers that such things should be guarded

against.

The next trouble with young pigs is thumps. This trouble comes from the pigs getting too much milk and taking too little exercise. If the weather is bad, the pigs are apt to stay too much of the time in the bed and get too fat. When there is danger of this kind it is well to force the pigs to take more exercise, or keep them away from the sow part of the time each day, which will shut off their feed and they will take exercise trying to get back to the

The next trouble with pigs is cankersore mouth. I have not been bothered with this trouble, however. To doctor this, swab out the mouth with a solution of carbolic acid and borax.

A few years ago I had a sow that had a litter of ten fine, strong pigs; in a few days these pigs began to have very sore mouths and eyes; several of them went blind, I looked for the cause of this trouble and I found it to be in the bad. I had some old hay that was full of ragweed; I ran a lot of this through the cutter and gave the sow a bed of it. The result was that the dust and blossoms from the rag weed made the eyes and mouth sore. Four of this litter died and three of the others were blind for about two weeks and were badly stunted. I do not use litter for bedding now that has much ragweed in it; that is the only time I ever tried it.—Veteran Breeder, in American Swineherd.

Prevent Lying on Pigs.

H. D. Compton, Annes, Kan., tells the American Swineherd how he protects the pigs at farrowing time. He says:

There are several things to be taken into consideration in dealing with this question.

1. If your sow is of a cranky disposition you are up against a hard

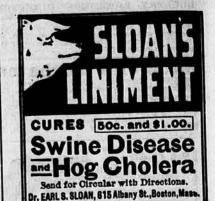
proposition. 2. If she has been improperly fed and handled during pregnancy, she will naturally be restless, thrash around a great deal at farrowing time, hurt some of the pigs and make them squeal; then she will get up and proceed to make her bed over again and when she lies down again the chances are you are minus several pigs.

Again, pigs from old sows have exceedingly sharp tusks, and if they are not cut off they will cause the sow to kill more or less of her litter. If you want to see a scrap to a finish, notice the actions of the second litter of pigs from a sow that was permitted to raise only two or three pigs at the first litt The teats those pigs sucked will be developed and have more milk in them, and the way the second litter of pigs will fight for those teats is a caution. Therefore, a sow of that description is practically ruined for a brood sow. She will never raise a nice, even litter of

So much for and against the sow. Now for the farrowing pen.

I have been in the hog business a good many years, have tried all kinds of pens, from the rail pen covered with straw or hay with a dirt floor, to the double hoghouse with board floor and roof, but have never found anything the equal of the A-type farrowing pen with board floor. Of course it is wise to take all the precaution you can to save the little fellows, hence I always put in

Just before the sow is to farrow (and all hog men know pretty nearly when that will be if they don't they are not hog men), raise the front of the house a little; the object being to compel the





VETERINARY COURSE AT HOME

PINK EYE CURE FOR HORSES AND CATTLE

Sure relief for Pink Hye, foreign irritating sub-tances, clears the eyes of Horses and Cattle when quite milky. Sent prepaid for the price, \$1.

Address orders to W. O. THURSTON,



Spavin and Ringbone Paste to remove the lameness and make the here es sound. Money refunded if it ever falls. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest-Pocket

Veterinary Adviser

Veterinary Adviser

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

FLEMING BROS., Chemists,
313 Union Steek Yarda, Chicage, III.



Combination Thief - Proof Whip

Walking Stick The Greatest Novelty of the age. No but complete without one. Price, \$1; postage part of U. S. Address

E. T. Pavis Co., Tippecance City, Ohie Send your jorders quick.

PARKE, DAVIS & CO.

ME

to lie down with her back from end of pen, as all stock when given their freedom always lie down with their back or head up hill, never the reverse. Should she lie down with her head up hill her back will be against the roof, which, owing to construction of the same, affords pigs a nice runway behind the sow.

Docking Horses.

EDITOR KANSAS, FARMER:-What is the law in France about docking horses? Are all the horses fit for breeding purposes docked? In my neighborhood there are imported horses and some are docked and some are not. W. M. HARSHBARGER. Lincoln County.

This inquiry was referred to Col. J. W. Robison, of Eldorado, whose experience among the horse-breeders of France as well as his wide information from other sources makes him probably the best authority in Kansas. Colonel Robison replies as follows:

"I do not know of any law in France about docking, but it is the practice there to dock horses used either for work-horses, or for breeding-purposes, except some that are left especially for the American trade, to be exported to this country while they are still young.

"All the horses are usually docked whether used for saddle, harness, or work, and the work-horse is usually J. W. Robison." left entire.

The Oklahoma Meeting and Sale.

The Oklahoma Meeting and Sale.

During the week ending March 17 there was held the annual sale and special meeting of the Oklahoma Improved Stock Breeders' Association. This was the second annual exhibit which is called The Midland Live Stock Show. The association had provided most desirable quarters for its exhibit and sale at Colcord Park adjacent to the city and on the street-car line. There were more than 300 animals on exhibition contributed by the following well-known breeders.

Shorthorns.—S. T. Snodgrass, Gordon, Kansas, "red Case, Harrisonville, Mo., 3, B. Findlay, Oklahoma City, Joseph Lyons, ElReno, Okla, Harriman Brothers, Pilot Grove, Mo., Agriculture College, Stillwater, Okla., E. V. Johnson, Lexington, Okla., D. E. Alkire, Lindsey, I. T., W. E. Williamson, Moore, Okla., W. S. Combs, Yukon, Okla.

Herefords.—S. L. Brock, Macon, Mo., R. W. Morrison, Calument, Okla., T. E. Smith, Rolland, Okla., S. B. Finland, Oklahoma City.

Galloways.—S. M. Croft & Sons, Bluff City, Kans., G. M. Kellam, Richland, Kans., W. G. McCandless & Sons, Cottonwood Falls, Kans., Geo. E. Cole, Topeka.

Jerseys.—C. E. Perfett, Golden, Colo., S. J.

peka.

Jerseys.—C. E. Perfett, Golden, Colo.,
E. Bracht, Oklahoma City, Okla., S. J.
Conner, Oklahoma City, Okla., Ilorace
McBeth, Oklahoma City, Okla., W. B.
Atchison, Hinton, Okla., University of
Langston, Okla.
Aberdeen-Angus.—Parrish & Miller,
Hudson, Kans., Geo. Kitchen, Jr., Dower, Mo., Wiliam J. Turpin, Carrolton,
Mo.

O. I. C. Swine.—Casey & Vincent, Paw-iska, Okla., R. B. Gill, Oklahoma City,

huska, Okla., R. B. Gill, Oklahoma City, Okla.

Poland-Chinas.—W. S. Combs, Yukon, Okla., J. R. Gilliland & Son, Hart, I. T., W. E. Williamson, Moore, Okla., Duroc-Jerseys.—Jos. Durrain, Bliss, Okla., S. Young, Mustang, Okla., J. L. Holes, Oklahoma City, Okla.

During the week the Territory was in the grip of a blizzard which served to reduce the attendance very considerably and the prices realized at the pure-bred sales were somewhat disappointing. The Shorthorn sale was fairly well attended though the prices were not up to expectation. The crowd in attendance at the sale of the other breeds were all smaller and part of the sales had to be abandoned.

The Shorthorn sale.—Fifty-three Shorthorns were sold for \$5740, an average of \$108.40. The top bull of the sale was Doctor Archer 217445 who went to Sanford Smith, Carthage, Mo., for \$825. He was contributed by Harriman Brothers, Pilot Grove, Mo. The top cow was Lovely Bud contributed by Pred Case, Harrisonville, Mo., and sold to W. B. Combs, Yukon, Okla.; for \$800.

The Hereford sale. Twenty-two Herefords sold for \$1960, average \$89.10. The top bull of the sale was Distancer 204803 consigned by S. L. Brock, Macon, Mo., and sold to F. M. Gault, Oklahoma City, for \$200. The top cow was Julianne 10 to 10

ists

:0.

ip and

204803 consigned by S. L. Brock, Macon, Mo., and sold to F. M. Gault, Oklahoma City, for \$200. The top cow was Julienne 120131 consigned by Walter B. Waddell, Lexington, Mo., and sold to Lawrence Rodke, Paoli, Indian Territory for \$150.

Only two head of Aberdeen-Angus cattle were sold as there seemed to be no buyers present. These two brought an average price of \$53.50.

But four Galloways were disposed of and these averaged \$44.00 per head. Thirty-nine head of Poland-Chinas soll four \$958, an average of \$24.56.

Only eight head of Duroc-Jerseys were sold and these brought \$238, or an average of \$28.75.

Officers of the Oklahoma Improved Live Stock Breeders' Association were elected for the ensuing year as follows: President, E. Breacht, Oklahoma City, Okla.; vice-presidents, E. T. Alkire, Lindsay, I. T., W. W. Wyatt, Yale, Okla, W. S. Combs, Yukon, Okla., J. A. Paullin, Newkirk, Okla.; secretary, treasurer, J. A. Alderson, Pond Creek, Oklahoma City, Okla, assistant secretary, F. D. North-Tup, Oklahoma City, Okla.

President, E. E. Alkire, Lindsay, I. T. President, E. E. President, E. E. Alkire, Lindsay, I. T. President, E. E. President, E. E. Alkire, Lindsay, I. T. President, E. E. P

President, E. E. Alkire, Lindsay, I. T. Vice-presidents. J. A. Alderson, Pond-creek, O. T., W. S. Combs, Yukon, O. T.,

E. P. Conelly, Wellston, O. T., Calvin Dean, Newkirk, O. T., C. H. McAlister, Carmen, O. T. Secretary-Treasurer, F. B. Lindlay, Oklahoma City, O. T. The next meeting and sale will be held early in February, 1907.

The 'Two Days' Auction of High Class Herefords,

The Two Days' Auction of High Class Herefords.

On April 4 and 5 there will occur at Kansas City, one of the most interesting Hereford sale events that has heen held there within recent years. Gudgell & Simpson, Independence, Mo., consign three bulls and seven helfers that represent the type, character and quality for which this herd has become famous. They are intensely bred in that greatest of all Hereford strains of the present day, the Anxiety 4th, and are sired by Dandy Rex. Beau Dandy, Militant, Paladin, and Beau Donorus. Scott & March, Belton, Mo., consign, three helfers and two bulls sired by Hesiod 29th and his son Majestle. Other sires represented in this consignment are March On 41st, a son of March On, and Columbus 26th, a son of the noted Columbus. Dr. James E. Logan, Kansas City, Mo., consigns ten head consisting of three bulls and seven cows and helfers representing a concentration of the blood of the noted bull, Imp. The Grove 3d. They are sired mainly by St. Grove, a son of the noted bull St. Louis; Chester a son of Imp. Chesterfield; and Duke of Cumberland a grandson of Lord Wilton. A full list of consignors to the April 4 alugtion will be found in the advertisement in this issue, and the catalogue will reveal the fact that such noted sires are represented as Pathfinder a son of Imp. Improver; Bright Rex by the champion Dandy Rex; Governor Simpson a son of Lamplighter; Headlight tracing on side of both sire and dam to the most noted of Anxiety 4th bulls; Shadeland Dean 22, a celebrated sire; Sensation by Columbus 17th; Perfection; and Prince Improver by Improver.

In addition to the ten head that Dr. James E. Logan includes in the combination auction on April 4, he will also sell fifty head of exceedingly good ones on April 5. He catalogues nineteen bulls and thirty-one cows and helfers all of which are strong in the blood of the celebrated bull, The Grove 3d, imported by Mr. Culbertson and sold to head the great Shadeland herd of Adams Earl, at \$7,000, the highest price of that day for a bull

The Ashcraft Shorthorn Sale.

The Ashcraft Shorthorn Sale.

On April 10, at the home farm near Atchison, Kansas, A. M. Ashcraft will hold a public sale of Shorthorn cattle of unusual merit. Mr. Ashcraft is an old time breeder who has spent years in building up one of the good herds of Shorthorns in the West, and his offering will be well worth going after. His sale will include 42 head of which 27 will be choice cows and heiters. These are dark red in color and very like their sire, Harmony's Knight 218509. There are also to be sold 15 buils ranging from short yearlings to 2-year-olds. These are mostly sired by the same bull and have his short-legged, blocky, beefy characteristics. The cows and helfers in the sale have all been bred to the good Scotch bull Scottish Minstrel 234970 by Imported Scotch Mist. Free transporation will be furnished to all who call at Carter's livery barn in Atchison and every effort will be made to make the buyers comfortable.

Remember the date and be present or send your bids to either of the auctioneers. You can not afford to miss this sale.

The Nevius Sale of Shorthorns and Poland-Chinas.

The Nevius Sale of Shorthorns and Poland-Chinas.

C. S. Nevius, of Chiles, Kansas, held a sale of Shorthorn cattle and Poland-China swine at his farm near Chiles, Kansas, on March 13. The weather had been cold for some time and the day was uncomfortable. Good Poland-China breeders were therefore not in attendance in large numbers because they could not be induced to leave their farrowing sows in such weather. Thirty-four Poland-Chinas were sold in the forenoon for a total of \$790, an average of \$23.23.

Nearly all the purchasers of Shorthorns came from a distance and were able to secure bargains without number. Many of Mr. Nevius' show animals were included in the sale. The prices, however, did not run high and the owner thought it necessary to stop the sale after 31 head had been disposed of. The buyers seemed willing to take more animals at prices even with or slightly above the average of the sale. The top price for bulls was \$406 paid by J. H. Tough, of Lawrence, Kansas, for Happy Knight 223939 by Gallant Knight 124468, the great herd bull of T. K. Thompson and sons' herd. The top price for females was \$260 given for the Marr Emma helfer, Emma 20th, who went to J. W. Lamb, Holton, Kansas. The 2-year-old heifer, Rosa Sterne 11th, by Gallant Knight, sold to J. L.

Stratton, Ottawa, Kansas, for \$210, and a yearling heifer Knight's Lustre also by Gallant Knight sold for \$200 to C. J. Woods, Chiles, Kansas, who has the best herd of Polled Durham cattle in the West and who by this means will infuse some new blood from the best of Shorthorn families into his herd. The general average made on the sale was \$116. The females averaged about \$111 and the bulls averaged \$121.50.

Among the buyers were the state of \$200.

Among the buyers were the following: J. S. Tough, Lawrence, Kans.; O. O. Wolf, Ottawa, Kans.; Brown Bros., same; J. L. Stratton, Ottawa, Kans.; J. W. Lamb, Holton, Kans.; C. J. Woods, Chiles, Kans.; H. M. Hill, La Fontaine, Kans.; Wm. Nevius, Chiles, Kans.; C. P. Shelton, Kans.; J. W. Harvey & Son, Maryville, Mo.; Joseph Porter, Ottawa, Kans.; E. R. Barker, Hillsdale, Kans.; J. N. Moody, Louisburg, Kans.; S. K. Trail, La Cygne, Kans.; W. J. White, Osawatomie, Kans.; Henry Prothe, Paola, Kans.; Bartlett Bolce, Springhill, Kans.

Shorthorns at Fredonia.

Shorthorns at Fredonia.

S. C. Hanna, Howard, Kans., H. M. Hill, LaFontaine, Kans., E. S. Meyers, Chanute, Kans., and O. E. Morse and Son, Mound City, Kans., have combined the best animals in their herds in a sale to be held at Fredonia, Kansas, on April 13, under the management of H. L. Bachelder, Secretary of the South-eastern Kansas Improved Breeders' Association. The names of these consignors alone are enough to insure a good offering. Each of these men has contributed the best he has in his herd, and the offering at this sale will be an extraordinary one and the prices ought to run high. Animals sired by some of the best known Scotch and Cruickshank bulls are included as shown by their advertisement on another page. In quality this will undoubtedly be the best offering ever made by this association and one of the best to be made in the West this year. Mention the Kansas Farmer and write to Mr. Bachelder or either of the consignors for catalogue.

Kansas Is It.

At the recent annual meeting of the Standard Poland-China Record Association, Kansas was given first place on the official roster for the next year. A. B. Garrison, of Beattie, Kansas, was elected president. The board of directors and other officers elected are as follows:

tors and other officers elected are as follows:

W. T. Garrett, Maryville; F. P. Robinson, same; E. E. Axline, Oak Grove, The balance of the board chosen were: E. R. Woodford, Shenandoah, Ia.; John Blain, Pawnee City, and S. McKelvie of Fairfield, Neb.; and C. F. Hutchinson, of Belaire, Kans.; Geo. F. Woodworth of Maryville, Mo., was again chosen secretary, and C. D. Bellows treasurer, W. T. Garrett, president of board of directors.

Do Healthy Animals Need a Tonic?

Do Healthy Animals Need a Tonic?

This question is often raised among stock feeders when considering the use of stock foods. They ask the question, "Does a person in health need medicine?"

It is probably true that if stock were fed for the same purpose that the human being is nourished, there would be no occasion for the use of medicinal tonics under ordinary conditions.

We have most of us learned by experience the evfl of over-eating, and endeavor to select foods most agreeable to our digestion. Furthermore, we exert an effort to consume only sufficient food to sustain life and repair waste. In fact, we do not aim at putting on weight, and in many cases just the opposite result is hoped for, but if the cow, steer or hog would be given only sufficient food to sustain life and repair waste, no gain would be perceptible; we fully realize that the food consumed that doesn't produce additional weight or milk is entirely wasted, the profit, therefore, being derived from the food consumed in addition to that which is required to sustain life and repair tissue.

Over-feeding therefore, is a necessity; and the results similar, as in the case of the human. Then again, the animal has not the opportunity of selecting the foods most suitable to its digestion. Medicinal stock-tonics, therefore, must be entitled to a place in the economy of skillful feeding, and the stock preparations that contain the ingredients that have been tested in the medical institutions of our country and found valuable, are being sought after by a large percentage of expert feeders.

Dr. Hess Stock Food is the produce of science; it is the result of Dr. Hess'

ors.

Dr. Hess Stock Food is the produce of science; it is the result of Dr. Hess' twenty years' experience in the study and practice of medicine, both human and veterinary.

It contains the bitter tonics long known in medicine for improving the approving the approving the approving the approving the second increasing the flow of juices necessary to assimi-



GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Snlint, Sweeny, Capped Hock, Strained Tehdons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Eheu-matism, Sprains, Sore Threat, etc., it is invaluable.

Every bottle of Caustic Haleam sold is Warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sont by ex-press, charges paid, with full directions for its use. Sond for descriptive circulars, testimo-nials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.



Beacon-ite is a ready roofing made of the finest long wool fibre thoroughly saturated with a special preparation that makes it absolutely water-tight. Wind, rain, snow or sleet has no effect on it whatever. It will not rust like tin or rot like shingles. It can be applied by anyone to any kind of roof; we furnish all necessary nails and cement. All you need is a hammer.

Beacon-ite roofing will save you money in two ways:

First. By buying direct from the mills you save the jobbers and dealers profits. Second. By putting it on yourself you save the expense of hiring a roofer.

We want to quote you our Beacon-ite prices. You will find them to be about one-half the cost of tin or shingles, and considerably less than any other reany roofings. We want to send you FREE samples of Beacon-ite so that you can compare its quality with others. If you want better, cheaper roofing send for our FREE samples.

BEACON-ITE MILLS, 106N. Second St., St. Louis

ARQ

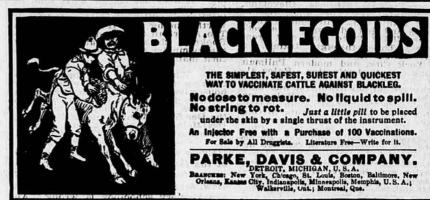
Before you buy roofing for any building, from a small poultry house to the largest mill or factory, it will pay you to get samples and complete proofs of quality from the oldest makers of ready roofing in America. (We iginated the roll of roofing ready to lay ith fixtures packed in the center.) Our concern was

Founded in 1817

We can show you why "Paroid" is the lest of them all—lasts longer and saves most in repairs. Drop us a postal to-day. F. W. BIRD & SON,

no & Sone., 823 W. Water St., Ellwaukee. Wie

UNITARIAN Religious Literature SENT FREE to all persons addressing Mrs. F. O. Leland, Concord, Mass.



Name your Dealer and this Paper and we will mail you a FREE SAMPLE

HORSE'S SORE SHOULDERS CURED FREE SECURITY GALL CURE. Cures sore shoulders, backs of backs while harnessed or idle.

lation: it furnishes the animal system with iron, the greatest of blood and tissue builders; together with the nitrates of sodium and potassium, which assists nature in eliminating poisonous waste material from the system, and laxatives which regulate the bowels.

Anyone doubting the virtue of a formula of this character has only to refer to the medical authorities of the country or to their own physician or vertinarian.

narian.

If you have never used Dr. Hess' Stoc Food, write to Drs. Hess & Clark, Ashland, Ohio.

100 pounds \$5.00; 25 pound pail \$1.60, smaller quantities at a slight advance. If Dr. Hess Stock Food falls to increase growth and milk-production sufficient to pay for itself many times over, your money will be refunded.

This newspaper indorses our guarantee.

Gossip About Stock.

The Kansas Farmer has inquiries for Russian wolf hounds. Any one who has such hounds wil probably find buyers by using the "For Sale" column of the Kansas Farmer.

Mr. T. P. Whittenburg, of Pleasant Hill, Mo., contributes a splendid herd bull to the Kansas City sale about which he writes as follows: "The Anxiety bred Hereford bull I have in the Combination sale at Kansas City on April 4, is certainly worthy of attention. He is a little over three years old and bred in the true blue Anxiety type and blood all through. He is just in good, strong, farm flesh, is a sure and good breeder, and is strictly straight, and all right in every way. I am selling him only because I must make a change as I have three lots of his calves on hand which are certainly good ones. Send for catalogue and examine his pedigree."

Mr. D. O. Bancroft, owner of Walnut Grove herd of Duroc-Jerseys at Downs, Kansas, has been reading about the large pigs mentioned by our subscribers in the Kansas Farmer in several recent issues. He thinks he has a litter of nine Duroc-Jerseys that were stred by Reece's Pride 34715 and out of Dewey Reece's Pride 34715 and out of Dewey Reece 85416 that are as large and as good as anybody's 6-months-old pigs. These pigs were just six months old on March 18. The litter consists of 4 boars, 4 sows and one barrow. Their total weight is 1644 pounds, or an average of 182% pounds. They have been grown on shelled corn and alfalfa hay and some milk and slop but have not been full-fed. Mr. Bancroft thinks they would easily average 225 pounds if they were fat. They are just in commonstock condition. Let us hear from the next man.

A Document on Dip. One of the neatest documents of information for farmers that we have had the pleasure of examining lately, is the budget of facsimile letters of what users think of Dipolene Dip. Each letter is printed on a separate sheet of canary, onion-skin, bond-paper, the lot is then bound in a neat cover and tied with a dainty bit of baby ribbon.

After reading this bundle of letters we are convinced that every farmer should use Dipolene. Certainly the testimony of every witness in this case is conclusive evidence that it is a very effective remedy. And it is the unanimous verdict of the jury of American farmers that it will save thousands of dollars every year for the farmers who will use it.

We do not know whether or not the Marshall Oil Co.. of Marshalltown, Ia.. is prepared to send this document on dip to every farmer who wants it, but we do know that it would be a mighty good thing if every farmer could read these letters and we suggest that you write and ask them to send you one of these budgets. They will gladly send you a free sample of the dip; enough for you need buy any of it.

Sand-Papering Your Face.

Sand-Papering Your Face.

You can get the hair off from your face with sand-paper. Probably you will lose the skin and a lot of bad language at the same time. For the purpose of shaving, common toilet and laundry soap is not much better than sand-paper. The hair comes off after a fashion, but your face is left red, sore and irritated. For easy and luxurious shaving you need a special soap. Williams' Shaving Soap is made for the face. Send to the J. B. Williams Co. Glastonbury. Conn.. for a free trial sample as per their offer in another column. You will see that there is as much difference between real shaving soap and ordinary shaving soap, as there is between a Kentucky thoroughbred and a truck horse.

Passengers east from Chicago to Fort Wayne. Findlay, Fostoria. Cleveland, Erie. Buffalo, New York City, Boston and all points east, will consult their interests and find advantage in selecting the Nickel Plate road east from Chicago. Three through trains are run daily, with through day-coaches to New York City, and modern Pullman sleeping-cars to destination. Rates always the lowest, and no excess fares are charged on any train, for any part of the journey. Modern dining car service, with individual club meals, ranging in price from 35 cents to One Dollar; also meals a la carte. Ask for tickets via the Nickel Plate Road. Chicago depot, La Salle and Van Buren streets, the only station in Chicago on the Elevated Loop. Chicago City Ticket Office, 111 Adams street. Detailed information may be secured by addressing John Y. Calahan, General Agent, No. 113 Adams St.. Room 298, Chicago.

Spokane, Wash., March 20.—L. Mc-Lean of Spokane, president of the Spokane Canal Company, will this year begin the irrigation of what he says is the largest peach orchard in the world. It will contain 2000 acres of land in the Wenatchee country, famous for its luscious peaches and big red apples. This will be the largest orchard of any kind in the State of Washington. This year 200 acres will be set out, and each succeeding year the acreage will be in-

creased until the full tract is in orchard. The first trees planted will be in bearing at the end of the third year. A number of reservoirs will be constructed to supply water. All the land will be given to peaches except a few side-hill locations where grapes will be planted. It is believed that peaches can be furnished the market from the early part of June until the latter part of October.

David R. McGinnis, of Spokane, and his brother, J. W. McGinnis, of Waterville, are planning to put out an orchard of 450 acres near Orondo on the Columbia river 15 miles north of Wenatchee. This will be an orchard of winter apples and English walnuts. David R. McGinnis said to-day, "Land in this part of the State, when properly irrigated and cultivated, will pay interest on \$5000 an acre. Few dividends are larger than the profits of fruit raising in Washington."

Farmers have begun to learn that it pays to produce large crops. After enough corn has been produced on an acre of ground to pay the interest on the investment and the cost of the tending that acre, then each additional bushel means just that much profit.

If you are raising but forty bushels to the acre and it requires all of the forty bushels to pay the cost of raising it then there is no profit, but if you raise sixty bushels then you have twenty bushels clear to sell for profit. It costs no more to raise the sixty bushels than it does to raise the forty. The right kind of seed will produce that twenty bushels for the profit, and such seed is the Improved Yellow Leaming, Pride of the North and Reid's Yellow Dent raised, gathered and sorted by W. W. Vansant & Sons, of Farragut, Iowa. Their advertisement appears in another part of this paper. It will pay any farmer to write them.

Caustic Balsam Removed Cancer. Toronto, Kans., June 21, 1904. Lawrence-Willams Co., Cleveland, Ohio:

Ohio:

I have used Gombault's Caustic Balsam more or less for about twelve years and have had much success. The last bottle saved me about \$14 in my stock, and I fully believe that it cured a small cancer on my wife's hand. My belief is based on personal experience, as my father had had a cancer on his hand a year before and this one was in every particular like it except not quite so large. The Balsam did the work and it has now been near eight months ago and no traces of it since. For proof of this statement you can write our druggist. Tom Finley. Toronto, Kans. HARKER LOVETT.

Was Cured by Sloan's Liniment

Was Cured by Sloan's Liniment.

Dr. Earl S. Sloan,

Dear Sir:—I have been using and recommending your liniment in this section for some time. One of the most remarkable cures that I have known it to accomplish was in the case of Col. J. B. Brown, of Gainesville, Fla. He had entirely lost the use of his arm from Rheumatism. He began to use Sloan's Liniment and in ten days he was cured. I advise anyone who needs a good liniment to use Sloan's. Signed, J. M. Brown.

Branding Steers.

Branding Steers.

Did you ever brand a steer? Did the steer look happy and satisfied with life? Perhaps you feel about the same way when you shave. If so, stop using common soaps for shaving and try the only real shaving soap made especially for shaving by the J. B. Williams Co., of Glastonbury, Conn. If you once try it, you will never be satisfied with any other kind. That is why they are willing to send you a free trial sample as per their offer in another column. "Try it for your face's sake."

Spokane, Wash., March 20.—Of all wonders of the Pacific Northwest nothing interests the immigrants who are coming west at this time more than the beautiful apples which are raised in this state. The Northern Pacific news-agent at North Yakima, is supplied constantly with apples which he sells to tourists and home seekers. They are so large and fine in appearance that they are eagerly purchased. Hundreds of these apples are being returned by these immigrants, who ship them back to their friends to show the wonderful size and quality of the fruit. Sometimes they get to bidding against each other for large apples and run the price up to 20 cents and 30 cents apiece in order to get them as souvenirs. The agent makes no attempt to sell them except at train time.

The American Steel and Wire Co., has issued a neat little pamphlet which they name "Fence" and which is filled with interesting facts for users of wire fencing. It does not matter what kind of fence you use or buy, the facts given in "Fence" will be valuable. It is well worth sending for. It is free. Address The American Steel and Wire Co., The Rookery, Chicago, Ill., and a copy of this pamphlet will be sent you by return mail.

Gee Whiz washing machines are attracting the attention of enterprising housewives of Kansas who have much work to do and do it well with as little labor as possible. They are made by the Gee Whiz Manufacturing Company, Des Moines, Ia., and are very preperly advertised in the Kansas Farmer.

Every schoolboy knows that the fable of the fox and the sour grapes is inaccurate from a natural history point of view, says a London newspaper, and, as usual, every schoolboy is wrong. eminent Oxford professor, on hearing the point discussed the other day, actually bought some grapes and then went to the Zoo, where he tried them on a fox, which ate them greedily!

Never set a friendly pace that you can not keep up.

SNAKES

are not found in the SNAKE RIVER VALLEY, but here is found the most beautiful tract of agricultural land in the United States, and you de year raining, and have no failures of crops, that's irragation. No Cyclones or Bliszards. This country needs live, wide-awake men, who wish a new home in the rapidly developing west, and offers cheap land, good church and school facilities and a chance to make money to those who are willing to work. St. Antheny, the Country seat of Fremont Country, Idaho, is a bright and grewing town in the very heart of a rich and grewing richer country, and if you wish reliable information in regard to prices, soil, and grewing and our prospects; write any of the following firms: First National Bank; C. C. Moore Real Estate Co.; Wm. D. Yager Livery Co.; Murphy & Bartiett, Cafe; Commercial National Bank; C. E. Moon, Farmer; Chas. H. Heritage, Riverside Hotel; Miller Bros., Grain Elevator; Skalet & Shell, General Merchandise; Chas. S. Watson, Druggist; Gray & Ross, Townsites; W. W. Youmans, Harness Store.

Getting What You Want

We all want a pleasant and prosperous home. This we have ready for you. We are subdividing and selling the splendid Los Molinos Ranch of 40,000 acres in the famous Sacramento Valley of California.

We have every combination to insure you success. Soil is smooth and richest sedimentary deposit. Climate so mild every month can be used for planting and growing crops and fruits.

Water shortage unknown, a dry season unknown.

All who see our lands are enthused. Come and look over our crop, garden and fruit lands. You will locate with us if you do.

Send for our booklet. Write for particulars. It will pay you. Address

108 MOLINOS LAND CO. LOS MOLINOS. TEHAMA CO. CALIFORNIA.

LOS MOLINOS LAND CO., LOS MOLINOS, TEHAMA CO., CALIFORNIA.

AT KENNEWICK ON THE COLUMBIA.

The ideal climate, winters warm and balmy. Under the Great Northern Pacific Canal. The choicest irrigated land in the West. Own a ten acre fruit ranch and be independent.

Why work for others; be brave and do as thousands have done before you. These men have not made a mistake in coming here, many are independent.

We produce the earliest fruit, berries and grapes grown in the West. It is all that we claim for it. Write to

- KENNEWICK, WASHINGTON. KENNEWICK LAND CO., -

A railroad center of Southern Idaho, surrounded by 300,000 acres of magnificent farming and fruit lands. Only one-fourth of these lands are under cultivation. The UNITED STATES GOVERNMENT has appropriated \$11,000,000 to devolop the water supply and work will begin in February this year. A beet sugar company has secured contracts on \$,000 acres of land and are now erecting a \$1,125,000 factory within the city limits and will handle acres of land and are now erecting a \$1,125,000 factory within the city limits and will handle the crop of 1906. We have just built an alfalfa meal plant to grind up the surplus hay and ship it away in sacks. A brewery company has just secured a site and will put up a \$90,000 plant. This will help the hop industry. A flour mill company is seeking a site and one will soon be located. You can not fail to see that all of these enterprises locating at the same time in a tewn of about 3,000 people will double and thribble its population in the next two or three years. We raise 5 to 8 tons of alfalfa per acre, 300 to 500 bushels of potatoes, two crops of timothy and clover, 30 to 60 bushels of wheat, 50 to 100 bushels of cats, 50 to 76 bushels of barley. All fruits raised to perfection. Write the NAMPA CHAMBER OF COMMERCE.

FOURTH ANNUAL SALE OF

REGISTERED HEREEORDS,

MARSHALL COUNTY HEREFORD ASSOCIATION

WILL BE HELD AT Blue Rapids, Kansas

THURSDAY, APRIL 5th, 1906.

32 HEAD OF BULLS

13 COWS and HEIFERS

45 head of registered Herefords, contributed by the following breeders: Miss Lou Goodwin, Miss Florence Preston, A. Borck, Brown Bros., E. R. Morgan, Cottrell Bros., F. W. Preston, L. P. Larson, Geo. E. Miller, McKee Bros., and W. A. Gilson.

These bulls are good enough to head anybody's herd. All who have attended the annual sales of the Marshall County Hereford Association know the high quality of the stuff sold there.

For Catalogue address

F. W. PRESTON, Secy., BLUE RAPIDS, KAN.

Auctioneers-Cols. R. E. Edmonson and Others.

Public Sale of Poland-China Hogs...

ON APRIL. 4. 1906. I will sell at public sale at my farm, five miles southeast of Topeka, 13 head of bred sows and gilts and 7 males, 2 herd boars—Klondike Jr. 63129 and Proud Rye's Sunshine 63003, Ohio Record. Also 3 head of milch cows and 3 heifers which will give milk about the middle of the summer. One span of black horse mules coming two years old, well matched and dandies. One check-row, 2-horseing two years old, well matched and dandies. One check-row, 2-horse-power corn planter; one seed drill, 2-horse power, one 3-horse gasoline engine and circular saw; one grist mill; one 4-horse down-power, with 25 feet tumbling shaft and knuckles, I am going out of the stock business and give my attention to fruit and grass. Terms are cash or bankable note. Should anyone want credit, make it known before sale. Remember the date, Wednesday, April 4, 1906.

V. B. HOWEY, Proprietor, Topeka, Kan. LUNCH AT NOON. COL. C. M. CREWS, Auctioneer.

FOR SALE—A good wheat farm of 320 acres; 120 acres in wheat. Good improvements. Twenty dollars per acre; \$25 cash, the rest in yearly payments. Two miles north of Ellis. Address Jno. Yobsh, Ellis, Kansas.

REAL ESTATE.

Yobsh, Ellis, Kansas.

SEVEN MILES FROM EMPORIA we have for sale at \$50 per acre 125 acres of creek bottom land with 2 wells, 2 windmills for stock, well and cistern at the house. House is two story, frame, shingle roof; 6 rooms and summer kitchen. Barn 32 by 30, large tool house, cattle sheds about 20 by 120. Stone wall along the entire north side. Large granary, Fairbanks scale, good timber, plenty for fuel; 10 acres growing alfalfip; 20 acres of pasture, good apple and pear orchard. One mile to school and 3 miles to the station. Telephone in the house—can talk to 2.800 people for \$6 per year. Everything here is in good repair; orchards in their prime. Hurley, & Jennings, Emporia, Kans.

FOR SALE.—320 acres in Kiowa Co., 80 in wheat, which goes with the place. Six miles from county seat. Price, \$3,100. C. W. Phillips, Greensburg, Ks.

seat. Price, \$8,100. C. W. Phillips, Greensburg, Ks.

READ, CONSIDER, COME, OR WRITE—
80 acres of good land, with nice, comfortable buildings, \$2,200. 169 acres, 120 cultivated, good land for
corn, wheat, and alfalfa, new \$400 barn, good five
room house, close to school and town, \$4,200. 240
acres, well improved, all good land, \$5,000. Small
payment down, balance to suit. \$20 acres improved,
one-half bottom, will grow any farm crop, \$6,000.
480 acres, 15 acres tame grass, fine improvements,
\$10,000. 653 acres, bottom and second bottom, fine
provements, one mile from town, timber, alfalfa,
orchard, water, hog fence, easy terms, \$25,000. Write for
list, at once. Minneapolis, Florence, or Salina,
Kans. Garrison & Studebaker.

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

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

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

A \$20 ACRE FARM within two miles of good town. Good new house, barn, stables, all bottom land, the best of alfalfa land, two artesian wells, one at house and one at barn; good orchard, good for any kind of crop; a good fish pond near the house with pleety of fish. J. Balnum, Arlington, Kans.

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

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

FIFTY farms in Southern Kansas, from \$15 to \$70 per acre; can suit you in grain, stock, or fruit farms. I have farms in Oklahoma, Missouri, and Arkansas for sale or exchange. If you want city property, I have it. Write me. I can fix you out. Wm. Green, P. O. Box 968, Wichita, Kans.

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

FINE STOCK FARM FOR SALE—640 acres one-half in cultivation, balance in pasture, mostly seed-ed to Kentucky blue-grass, well watered, about 40 acres in aifalfa, all fenced and cross fenced, beautiful lawn with shade, large eight-room house, commodious barns for stock and hay, fuel, poultry, and ice houses and other outbuildings, feed yards, corrais, stock sheds, one tenant house; convenient to church and school, on Rural route; 1½ miles from station on double track railway, 12 miles east of Topeka, the State capital, 54 miles west of Kansas City, in the midst of a splendid farming country. It is now occupied by the owner, who has lived there for more than thirty years. Price \$37.50 per acre. Easy terms Address WILSON & NEISWANGER, 116 W. 6th St., Topeka, Kans.

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

GEO. M. NOBLE & CO.

Real Estate, Loans, Insurance.

Some Special Farm and City Bargains.

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

The Wonderful Ozarks

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

OZARK COUNTRY, 819 Wainwright.

C. BOWMAN,

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

VACANT LOTS. TEXAS RANCH LANDS, 42 Columbian Bldg., Topeka, Kans.

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

FOR SALE—A good farm of 130 scree in Anderson County, Kansas, main line Missouri Pacific Railway, R. F. D., near to school and church. American community, good improvements; 23 per scre. A bargain. Address O. J. Prestice, 156 Wabash Avenue, Chicage.

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

NORTON COUNTY LAND We handle Norton County Lands, where alfalfa, corn and wheat is raised snocessfully. Norton County lies in the middle west, where we do not have drouths or hot winds. Write me for full particulars J. W. Bressler, Clayton, Kansas

640 acres, half in cultivation, 150 acres in wheat, half to buyer, 150 acre spring crop, one-fourth to buyer, well, mill-tank, grove; \$11 per acre; all smooth, best of soil, 5 miles to market.

Oakley Land and Investment Co. Oakley, Kansas

KANSAS LAND FOR SALE.

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

WANT A HOME

Write HAYES, "The Land Man," Drawer K, - - Almena, Kans

Nemaha County Farms

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

Phillips County and Western Kansas

280 acres fine, level land, fair improvements, 2 miles good Phillips County town, worth \$35 acre; my price \$25. 160 acres with 110 acres fine farm land, \$15 acre. 160 acres Western Kansas fine alfalfa land, \$6 acre. About 70 other good tracts in Western Kansas at \$4 to \$7 acre. W. B. Gaumer Realty Co., Phillipsburg, Kans.

Why Do So Many MenToil For Others.....

Helping enlarge their bank accounts, when each and every man, can become a land owner by corresponding with H. P. Fitzgerald, who will sell you land for \$5 an acre, which will produce 30 bushels of own per acre. One crop pays for the land. Don't walt. Write today to H. P. Fitzgerald, Jamestown, Kans.

Norton County Alfalfa and Corn Farms

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

LOWE & BOWERS,

Almena, - - Kansas

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

for trade.

MOON, CHARLES & MOON,

REAL ESTATE AGENTS.

116 E. Fifth St.,

Topeka, Kans.

Rooks County Land

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

Come to Downs, Kans., a thriving city of 1500 people, 200 miles west of Atchison, division point on the Missouri Pacific railway, in the celebrated Solomon Valley, in Osborne County, where we raise corn, wheat, alfalfa, and other cereals successfully. Get our list and map. THE DOWNS REALTY CO., Downs, Kansas.

Hurley & Jennings' Land Bargains

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

HURLEY & JENNINGS. Emporia, Kansas.

Holton Real Estate and Loan Co.

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

Watch Tacoma Grow!

Population, 1900, 37,714 Population, 1906, 85,000

Leading industrial center of Pacific Northwest. Five additional transcontinental railroads building to Tacoma. Chief distributing point for leading products of Washington; wheat, lumber, coal. Send stamps for descriptive literature to Secretary Chamber of Cambor of Cambor of Tacoma, Washington.

Stand Up for Osborne County

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

A. L. BROWN, (the man who sells Osborne County lands),

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

Mention Kanses Farmer when you write.

WE CIVE YOU TEN YEARS TIME

Farm and Ranch Land in Kansas, Nebraska and Colorado
All you need to make the land pay for itself and also make
you and your family independent for life. Law Prices.
Write for full information. FREE.
THE UNION PACIFIC LAND CO.,
Omaha, Nebraska.

HOBBS & DETWILER

REAL ESTATE.

Smith Center, Kans.

We handle Smith County Lands, located in the best corn county in Kansas. Write us for full particulars and complete land list.

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

M. E. Beall, Woodruff, Kans.

Merchandise Broker Stocks of merchandise of all kinds

bought and sold. Can handle your business anywhere in Kansas. J. J. CARTER,

Room 3, Central National Bank Bldg., Topeka, Kans.

Partial List of Farm Lands For Sale By Norton Land Company

NORTON, KANSAS

NORTON, KANSAS

No. 108-180 acres, 7 miles out, farm house with four rooms, good stable and sheds, all fenced and cross fenced, 80 acres in cultivation, good well and mill, 10 acres alfalfa, two pastures, a good bargain at \$20 per acre. One-half cash, balance to suit purchaser, possession at once if sold soon.

No. 109-320 acres farm, 200 acres in cultivation, good new frame house, 120 acres pasture all fenced, good well and windmill, stable, sheds, etc. Price \$6,500. Terms given.

No. 196-180 acre farm, 120 acres in cultivation all in wheat, one-half of wheat goes with farm. This is a number one farm practically all smooth, no buildings. Price \$3,500. One-half cash.

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

No. 182-160 acres. 100 acres in cultivation, all

No. 209—680 acre ranch, 110 in cultivation, 20 acres in aifaifa all fenced and cross fenced, new frame house 24x24, barn 16x35, two sheds, feed lots, corrais, etc. Price \$14 per acre if taken soon.

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

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

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

No. 206—320 acres, 200 acres in cultivation, balance pasture all fenced, frame house with 4 rooms, granaries, sheds for 100 head of cattle, stable for 8 head of horses, well and windmill, fine grove. Price \$2.50 per acre, within three miles of station.

A GOOD HOME PLACE AT A GREAT BAR

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

A CHOICE FARM OF 320 ACRES.

All smooth land, fenced all around with three wires and good cedar posts. Good frame house with four rooms, good barn for six head of horses, granary for 4,000 bushels of grain, with drive between, all new. Well and windmill, two fifty barrel tanks. Fine young orchard, 45 acres in aifaifa, 40 acres sown to rye, 160 acres pasture. This land can all be farmed and there is no better land in the country. Telephone in house, and house with four rooms, good barn for six head on rural route. This farm can be bought for

see this. NORTON LAND CO., Norton, Kans.

PRESIDENT ROOSEVELT SAYS:

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

the United States.. Fertile soil and immensely rich and varied resources.

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

Chamber of Commerce. Everett, Wash.

FOR SALE

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

<u>Harvest year</u>

Greatest Irrigated District American Continent

Southern Alberta, Canada

The land famous for its tremendous crops of Hard Winter Wheat, Alfalfa and Sugar Beets.

100.000 Acres

Of the million and a half acres eventually to be placed "under ditch" by the

Canadian Pacific Railway

Ready for Sale AT FROM \$18.00 to \$25.00 an Acre

On Exceptionally Easy Torms

This, the best irrigated land in the world, lies immediately north of the main line of the Canadian Pacific

at Gleichen, Alberta ed extends back 10 miles in a solid block.

The Canals and Laterals are to be maintained forever by the Canadian Pacific Railway

at a nominal cost of 50 cents per acre per

TERMS OF SALE:

One-quarter cash, the balance in five equal annual installments at 5 per cent. interest. This land will be sold in tracts of 80 acres, and as much more as you desire.

Act new, den't wait until the cholocot nations are taken.

For furthers particulars and for certi-ficate for low railroad rates, write

Canadian Pacific Irrigation Colonization Company, Ltd.

Calgary, Alberta, Canada.

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

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

DENVER to Eldora and Ward

The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of the Kansas Farmer. Kindly give the age, color, and sex of the animals, stating symptoms accurately, and how long standing, and what treatmant, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department of the Kansas Farmer, Topeka, Kans., or te Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans. If in addition to having the letter answered in the Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer." Management (1970)

Lame Mare.-My 13-year-old grey driving mare became lame when driven about a month ago; she went one-half mile and became so lame she could go no further. I turned her lose and she lay down and acted as though she might take lockjaw. She was bad for an hour then seemed to be all right. I did not use her again for a week. I got on her to ride to a neighbor's and she again became lame; she holds her foot up; the trouble seems to be in the I examined the foot and could find nothing. I have used turpentine and different liniments on the limb. L. F. L. Edna, Kans.

Answer.—This kind of lameness is very characteristic in animals which have the blood vessels closed. It prevents the normal amount of blood from supplying the affected limb, so that when the animal moves, there not being sufficient blood brought to the limb, it becomes numb, or in other words goes to sleep. In time, if the circulation is not restored to its normal condition, blood vessels in that region will supply the limb with some blood but not enough to give the animal its former usefulness. Mares in this condition may be kept for breeding purposes, but can not be useful as general-purpose animals.

Lame Mule.—I have a 6-year-old mule lately shipped 200 miles; he now goes lame in one hind leg; when standing he rests the foot on the toe. Horsemen say the cord is strained. The flesh is shrinking on the point of the hip. What is the trouble, and how shall I treat it? There is some swelling on the inside of the stifle joint. The mule J. B. W. is in good flesh.

Sylvia, Kans. Answer.-There has evidently been some bruising or straining of some of the muscles of the mule's limb. I would suggest that you apply a stimulating liniment to the affected area, rubbing it in thoroughly daily until the part is blistered.

Palisade Worm.-My colt is thin in flesh; it does not have a very god appetite; I have been feeding oats, corn, prairie hay and Kafir-corn; the colt's bowels move freely, and there is a very small red worm in the manure; also a bad odor. What shall I do for the colt?

Elk City, Kans. B. H. J. Answer.—Your colt is evidently affected with the Strongylus armatus worm which is causing the trouble. We will send a press bulletin describing this condition fully, which will give you a better idea of the disease than I can in these columns.

Ailing .Steer.—After being on full feed for three months, one of my steers commenced to cough, and was troubled in swallowing; then the left side of the neck and throat became swollen just back of the lower jaw; the swelling is hard but does not resemble lumpjaw; a veterinarian pronounced it quinsy, but his treatment does not help him; I have treated the steer about two weeks and he has been alling for four A SUBSCRIBER. weeks.

Ottawa, Kans.

Answer .- Apply the following liniment to the steer's throat: 6 ounces of turpentine, 2 ounces tincture of cantharides, 8 ounces of raw linseed oil; mix and apply this to throat daily.

Kansas City Live Stock Market.

Kansas City Live Stock Market.

Stock Yards, Kansas City, Mo.,
Monday, March 19, 1906.

Although the first of last week developed lower prices of beef steers, the situation improved after Tuesday, and about all of the loss was regained by the close of the week, account of smaller receipts. Cows and helfers sold strong all along, and gained 10@20c for the week. Stockers and feeders continued dull, except for the most desirable kinds; these found a ready sale, and the accumulation at the end of the week was smaller than the end of the week was smaller than the end of the week before. Of course, the big snow storm of yesterday will hurt the market for country grades this week, and parties who can handle them would make a hit by buying now.

The run to-day is heavy at 10,000

KANSAS FARMER.

Established in 1868.

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

SUBSCRIPTION PRICE: \$1.00 A YEAR

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

ADVERTISING RATES.

Display advertising, 20 cents per line, agate (fourceen lines to the inch). Continuous orders, run
f the paper, \$1.82 per inch per week.
Special reading notices, 30 cents per line.
Special rates for breeders of pure-bred stock.
Special want Column advertisements, 10 cents per
line of seven words per week. Cash with the order.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the
case, will not be accepted at any price.
To insure prompt publication of an advertisement,
send cash with the order; however, monthly or quarterly payments may be arranged by parties who are
well known to the publishers, or when acceptable
references are given.
All new advertising orders intended for the current week should reach this office not later than
Monday.
Charter of cours for regular advertisment should

ont week should reach the charge of copy for regular advertisment should each this office not later than Saturday previous o publication.

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

Address all communications to

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



Special Mant Column

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

CATTLE.

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

REGISTERED Aberdeen-Angus cattle for sale. Fifteen bulls from 10 to 20 months old; 15 helfers from 1 to 2 years old; 15 helfers from 2 to 3 years old; 25 ows some with calves at side. I am making farmers prices on all or a part of the above cattle as I do not have room for them this summer. Heather Ecilpsen 38761 in service. A. L. Wynkoop Bendena, Kans.

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

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

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

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

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

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

FOR SALE — One registered double-standard Polled Durham bull, 2 years old in March, 1908, color dark red. Will consider trade for females of the same class of stock. Address Jacob J. Yoder, Haven, Kans. R. R. 2.

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

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

head, considering the storm yesterday. Other markets also report liberal supplies, and prices are weak to 10c lower to-day. Trains are delayed consider ably, and a certain share of the earlier arrivals sold steady. Cows and butcher stuff have shown the greatest strength lately, choice Hereford heifers at \$4.40@4.75: Top cows sold at \$4.60, and bulk of cows \$3.25@4.15, top steers last week, \$5.75 on several days, top to-day \$5.50, a good percentage at \$4.52 and more, bulk at \$4.70 and upwards. Bulls range from \$3.15@4, veals weak at \$5.66.75, stock calves changed little in price, but movement was free last of the week, stockers and feeders \$2.75@4.50, which is 25@40c lower than two yeaks ago.

the week, stockers and feeders \$2.75\tilde{\pi}\$
4.50, which is 25\tilde{\pi}40c lower than two weeks ago.

Packers made open rebellion last week, and delivered an ultimatum that hogs must be secured cheaper or they could not handle them. The result of their big fight was temporary lower prices, but on Saturday \$6.35 was paid for top hogs, equal to the highest this season. Run to-day is 5.000 head, market 5\tilde{\pi}10c lower, top \$6.25, bulk \$6.05 \tilde{\pi}6.20, light hogs up to \$6.10, pigs around \$5.25. Supply last week 42,000 head, about like previous week, and \$3.000 more than same week last year.

Sheep and lambs sold strong first of last week, but closed the week 10\tilde{\pi}20c lower, lambs showing most loss and wethers least. Supply to-day is 7,000 head, market 5\tilde{\pi}10c lower. Lambs are very good quality, and are down so near prices of aged sheep that any decline in the market will have to include everything. Lambs now sell at \$6\tilde{\pi}6.50, wethers and yearlings bring \$5.40\tilde{\pi}5.90, ewes \$4.50\tilde{\pi}5.25. J. A. Rickart.

Kansas City Grain Market

Kansas City Grain Market.

Kansas City, March 19, 1906.

Receipts of wheat in Kansas City today were 89 cars; Saturday's inspections were 13 cars. The market was duil. Demand for good milling wheat was fair and holders asked 1c advance. The sales were: No. 2 hard, 2 cars 79½c, 1 car 79½c, 3 cars 79c, 2 cars 78c; No. 3 hard, 1 car 78c, 1 car 77c, 1

CATTLE.

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

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

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

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

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

FOR SALE—The pure Cruickshank bull, Violet Prince No. 146647. Has been at the head of our herd as long as we could use him. An extra animal. H. W. McAfee, Topeka, Kans. 2 miles west of Kansas Ave. on Sixth street road.

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

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

HELP WANTED.

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

FARM and ranch hands furnished free. Western Employ Agency, 704 Kansas Ave., Topeka, Kans.

WANTED—Single man on farm, must be conge-nial with stock. F. M. Linscott, Farmington, Kan-

HORSES AND MULES.

FOR SALE CHEAP and must be sold—Two stal-lions, one black registered Percheron, sound and good, weight 1,700 pounds; one dark brown coacher, sound and good, weight 1,300 pounds. One clipping machine, can be run by engine, motor, or by tread power. Dr. Hugh S. Maxwell, Salina, Kansas.

FOR SALE OR TRADE—for stock cattle, two Jacks coming 3 years old, 15½ hands high; weight 950 pounds; also one 4 year old jack 14 hands high. Good performers. Also pacing-bred stallion by Silkwood, 16½ hands high, weight 1,250 pounds. Ad dress J. C. Hentzier, R., Topeka, Kans.

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

LEAVENWORTH COUNTY Jack Farm, 10 head of Jacks and Jennets for sale. Corson Brothers, Pot-

FOR SALE Registered French draft and Per-cheron stallions, mares and colts; bays, browns and blacks. One gray stallion, 13 years old, sound and sure. Jake Howald, Hoyt, Kans.

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

SEEDS AND PLANTS.

PLANTS—Bulbs, shrubs, evergreens, roses, etc. Strawberry plants per 100, 35c; 1,000, \$2.25. Raspberry, 100, 70c; 1,000, \$6. Blackberries, 100, 70c; 1,000, \$6. Grape, 2 year, 5c. Currents and gooseberries, per 10, 50c. Asparagus, 100, 40c; 1,000, \$2.25. Rhubarb, 10, 30c; 100, \$2.25. Gladiolus bulbs per 10, 10c; 100, 75. Dahlias, per dozen 75c. Hardy herbaceous plants, greenhouse plants, etc. Price list on application. Bonner Spring Nurseries, Bonner Springs, Kans.

SIXTY-DAY OATS—Recleaned, \$2.00 per 100 lbs. acked. C. E. Cheney, Manchester, Kans.

FOR GOOD SEED-Speltz, recleaned and fanned by hand. Write Adams & Walton, Osage City, Kan

FOR SALE—Speltz, 50 cents; macaroni wheat per bushel, f. o. b., sacked. One Sure Hatch incubator and brooder, all in good shape, 150 egg size, \$6.00. J. B. Keeley, Sterling, Kans.

FOR ONE DOLLAR—I will send you 300 straw-berry plants, 5 best kinds or 100 raspberry plants, 3 best kinds, or 100 blackberry or 200 asparagus or 25 grapes or currants or gooseberries; also have roses carnations and other flowering plants. Send for cat-alogue. A. J. Nicholson, Manhattan, Kans.

ONE DOLLAR will buy enough of McCauley's white seed corn to plant seven acres if you send to A. J. Nicholson, Manhattan, Kans.

SMALI, FRUIT PLANTS—For price list, which also contains a full description of the prize straw-berry, Cardinal, send to Wm. Brown & Son, Route 9, Lawrence, Kans.

FRUIT TREES half price, best quality. Catalogue ree. Baldwin, Seneca/Kans.

FOR SALE—Spring of 1908 seed sweet potatoes six kinds. Price on application; also a fine lot of exting sweet potatoes. I. P. Myers, Hayesville. Kans.

SEED CORN—"Hildreth yellow dent easily ranks first as the best producing variety"—Bulletin 123. Won three first premiums at Topeka and Hutchinson State Fair 1995. At the Kansas State Cornbreeders' contest 1996, Won 1st and 2d prizes for the most productive acre—193 and 78½ bushels. Write C. E. Hildreth, corn-breeder and grower, Altamont, Kans.

car 76 ½c, 1 car 76c, 1 car 75c, 1 car 74c, 1 car 73c; No. 4 hard, 2 cars 75c, 1 car 74c; rejected, 1 car 68c, 2 cars 58c; No. 2 red, nominally 90 ½ @ 92c; No. 3 red, nominally 86 @ 90c; No. 4 red, nominally

z red, nominally \$94\(\psi \psi^2\) 2c; No. 3 red, nominally \$86\(\psi \psi^2\) 90c; No. 4 red, nominally 73\(\psi_0\psi^2\) 85c.

Receipts of corn were 33 cars. Saturday's inspections were 21 cars. The demand was moderate and prices were \(\psi_0\psi_0\psi_0\) thigher. as follows: No. 2 white, 1 car 42\(\psi_c\); No. 3 white, 2 cars 42c, 6 cars 41\(\psi_c\); No. 2 mixed, 1 car 40\(\psi_c\); No. 3 mixed, 8 cars 40c; No. 2 yellow, 2 cars 41c.

Receipts of oats were 27 cars; Saturday's inspections were 24 cars. The demand was fair, but the offerings were sufficient to supply it at unchanged prices, as follows: No. 2 white, 4 cars 32c, 6 cars 31\(\psi_c\), 2 cars color 30\(\psi_c\); No. 3 white, 1 car 30\(\psi_c\), 3 cars color 30\(\psi_c\); No. 2 mixed, nominally 30\(\psi_3\)30\(\psi_c\); No. 3 mixed, nominally 29\(\psi_0\)30c, 1 car black mixed 31c.

Barley was quoted 39\(\psi^4\)40c; rye, 56\(\psi^6\)58c; Kafir-corn, 63\(\psi^6\)55c per cwt; bran 86\(\psi^8\)88c per cvt;; shorts 90\(\psi^9\)5c per cwt; corn chop 79\(\psi^8\)81c per cwt.

SWINE.

FOR SALE—20 good strong spring and yearling Berkshire boars that are just what the farmers want. Prices right. Address E. W. Melville, Eu. dora, Kansas.

POULTRY.

BLACK LANGSHAN EGGS at \$1 to \$1.50 per 15 from Hettich strain of World's Fair winners. Mrs. E. Forward, Bayneville, Kans.

SCOTCH COLLIE PUPS for sale, \$4 and \$5 each, Pedigrees furnished. G. B. Gresham, Box 102, Bucklin, Kans.

ROSE-COMB BROWN LEGHORN EGGS—For sale; also a few cockerels. Bertha Gresham, Bucklin, Kansas.

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

EGGS FOR HATCHING—From one of the best laying strains of S.C. Leghorns in the West, at a per 15 eggs, both brown and white. Special prices on larger lots. L. H. Hastings, Quincy, Kansas.

BARRED AND WHITE ROCKS—Seventeen years breeder of exhibition birds scoring 94% to 36%, eggs, \$2 per 15; \$5 per 45. Chris. Bearman, Ottawa, Kansas.

Neosho Poultry Yards

Rose Comb R. I. Reds exclusively. Two first, one scond and one third prizes at the Emporia, Dec., 1906, Show. One pen of fine red pullets and hen mated to a red male for producing red pullet eggs from this yard. \$2 per 15, others at \$1.50. J. W. Swartz, Americus, Kansas.

MISCELLANEOUS.

AMERICAN HERBS Cure acute and chronic diarrhes. Used many years by a successful New York physician. 25 cents a package. M. B. Noble, 70 Bostwick St., Grand Rapids, Mich.

GOOD DAIRY BUSINESS and route for sale or trade (only route in county seat); business amounts to five thousand yearly. Address D. S. Burnham, Minneapolis, Kans.

SPECIAL ADVERTISING OFFER—Send your photo, any style, bust, or full figure, alone or in group, with 70 cents in stamps or money order and receive fifteen dainty miniature cabinet photos mounted on pretty, new style folder cards, size about 3½x6 inches, copied seperately in bust form from your picture. Original photo retured and ooples guaranteed perfect reproductions. Don't miss this special offer. Hit of the season. If more than 15 wanted add 4 cents for each additional print, Cash must accompany order. Address E. R. Gregg, Gregg's Studio, Emporia, Kans.

WANTED—At once, sound young man for firemen and brakemen on railways; high wages; promotion; experience unnecessary; instructions by mail at your home; hundreds of good positions now open. Write National Railway Training Association, 620 Paxton Block, Omaha, Neb.

STRAYED OR STOLEN from my farm 2 bay horses, weight about 14 or 15 hundred pounds, one with blaze face, glass eyes, feet white; other, one hind foot white, patch of hair off right jaw. Suita-ble reward for return. Allen Flesch, Route 1, Gar-field, Pawnee County, Kans.

ENSILAGE CUTTER—For sale a nearly new Smalley cutter, self feed, 10 ton apacity per hour. Will sell at a bargain. Address E. W. Adams Berryton, Kans. Topeka Independent 'phone 8502

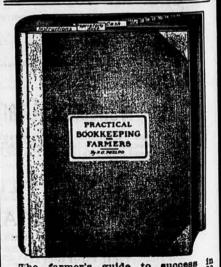
WANTED—At once sound young men for firemen and brakemen on rallways; high wages; promotion; experience unnecessary; instructions by mail at your home; hundreds of good positions now open. Write National Rallway Training Association, 620 Paxton Block, Omaha, Neb.

EARN FROM \$87.50 to as high as \$155.50 per month. Wanted —400 young men and sound mea of good habits to become brakemen and firemen. Big demand in Wyoming, Nebraska, Kansas, Colorado, and Missouri. Instructions sent by mali; stamp for reply. Northern Raliway Correspondence School, Room 202 Skyes Block, Minneapolis. Minn.

LAGIES — To do piece work at their homes. We furnish all material and pay from \$7\$ to \$12\$ weekly. Experience unnecessary. Send stamped envelope to Royal Co., Desk 49, 34 Monroe St., Chicago Ill.

Stray List

Sheridan County—Miles Gray, Clerk,
PONY—Taken up by Miles F. Rilley in Prairie
Dog tp., April 14, 1905, one black female pony,
weight 700 to 800 pounds, blaze face and 2 white hind
feet.



The farmer's guide to success in farming. 200 pages 10x13 inches. pages of instructions and illustrations. A full set of farm accounts worked out. The remainder of the book for use in keeping accounts. The results of a whole year's business are shown on one page which will show the farmer the cause of success or failure. Will paid the average farmer three years. Priod the price will be \$2.00 delivered. Descriptive circular and testimonials free. Send us ten 2-cent stamps and will mail you our latest book—a some your latest book—a for your page book on Business Writing and books for \$2.15, regular price \$4.00.

Address H. G. Phelps & Oc., Beschaft.

teen same in th

MARCH

moiste tops o

with

three

holes weath

be ne The C

away

bleach

to rot

in th

in r thinn three

cultiv they of th

In th

want

can (

burie

may So' teen same shou and

Sa

and ter

Tu ties dle eith led. It

repu

pa 1 true

ere atta fift: Fer

roa

the Mis Ne of

> tal de

Winter Vegetables. (Continued from page 323.)

moisten the roots, but do not wet the tops or they will rot. Cover the trench with boards, and then with two or three inches of soil, leaving small holes in the end for ventilation. If the weather becomes severely cold, it may be necessary to add more covering. The celery will soon bleach if put away in this manner. It can be bleached in the cellar, but is more apt to rot and wilt.

PARSNIPS.

Parsnips should be planted as early in the spring as land can be worked, in rows fifteen inches apart and thinned, after they come up, to two or three inches in the row. Keep them cultivated and free from weeds while they are small, and they will take care of themselves the rest of the season. In the fall or early winter after there has been some freezing, dig what you want to use during the winter. They can either be kept in a cold cellar or buried.

CARROTS.

Sow the first of April in rows fourteen inches apart, and cultivate the same as parsnips. They must be dug in the fall before hard freezing and may be kept in a cold cellar or buried.

BALSIFY.

Sow early in spring in rows fourteen inches apart and cultivate the, same as parsnips. In the fall you should take up what you wish to use and pack in boxes with some soil and keep in a cool cellar.

Salsify and parsnips are both hardy and can be left in the ground all win-

ter if desired.

Turnips for winter use, globe varieties preferred, should be sown the middle of August and allowed to grow until freezing weather begins. They can either be kept in a cold cellar or buried.

Catalpa Speciosa.

E. F. STEPHENS, CRETE, NEB.

It is a serious misfortune that the reputation of the catalpa has been sadly discredited by the use of the Catalpa bignonicides and its hybrids for the true Catalpa speciosa, the hardy Northern variety. The Catalpa speciosa is erect in its kabit of growth. The trees attain a height of sixty feet and a diameter of three to four feet. The wood has remarkable durability.

A Catalpa speciosa telegraph pole fifty feet in height that had been in use forty years and still sound, was exhibited at the St. Louis Exposition. Fence-rails forty years in service, railroad ties subjected to heavy traffic for thirty years still retaining their original soundness, were also included in the exhibit.

by low cla-

ons.
out.
e in
one
the
last
rice
riod
Deree.
both

A remarkable instance showing the durability of catalpa wood comes from Missouri. In 1811 an earthquake near New Madrid sunk considerable areas of catalpa groves. Water flowed in over these sunken timber lands, killing the trees. In 1888 trees of the Catalpa speciosa were yet standing undecayed after a space of seventy-seven years.

PURITY OF SEED NECESSARY.

The Catalpa speciosa seeds very sparingly. Because of the erect habit of the trees, seeds are not as readily gathered as from the low-branched, spreading Catalpa bignonioides. The latter and its hybrids yield seed very freely. Since these are so much more easily and cheaply gathered, a large share of the catalpa seed in the hands of seedsmen is gathered from the big-nonioides or its hybrids instead of from the speciosa. Seed of the latter is not infrequently worth \$1 per pound while the seed of the bignonioides can be purchased for twenty cents per pound. Not all seedsmen are sufficiently careful to keep these varieties distinct. This has led to the planting of great quantities of trees which were not of the correct type. These have caused grievous disappointment and greatly harmed the reputation of the true spe-

In discriminating between the seed of the two varieties it is well to bear in mind that the speciosa blooms earlier than the bignonioides. The seed-pods of the speciosa are also larger and longer.

CATALPA VALUABLE TIMBER.

At the Dayton, Ohio, car works, the wood of the catalpa is used for inside finishing of passenger coaches. The timber possesses all the requirements of such work, being susceptible to a fine finish. Furniture factories also utilize catalpa wood in the making of chairs and desks. As timber the posts will endure two or three times as long as the oak.

Twenty years ago the writer planted groves near Crete, Neb., on the land of the late Thomas. Doane, then superintendent of the Burlington system. Twenty-six years ago a farmer planted a catalpa grove of two and one-fourth acres in Southeastern Nebraska. This grove was planted in one corner of the farm covering a ravine not convenient for farm crops. Timber to the value of \$77 per acre has been sold therefrom and a careful estimate shows the value of the remaining timber to be \$200 per acre.

A gentleman in Butler County, Nebraska, had a fifteen-acre grove of catalpa planted nineteen years ago. While growing, it protected a corn-field from the aridity of the southerly winds materially increasing the yield of the field. This farmer is now selling the timber for fence-posts, realizing a value of \$150 per acre.

A Pawnee County, Nebraska, grove, planted fifteen years ago, is now being cut and marketed for fence-posts. The local price realized is eight cents for fence-posts three inches in diameter and twelve and a half cents for four-inch posts. On this basis there can be cut in this grove at this time timber to the value of nearly \$200 per acre.

The catalpa reproduces itself rapidly by suckers from the stump and thus produces the second growth more quickly than the first. This timber appreciates fertile soil and under favorable conditions grows two or three times faster than on poorer soil. To secure speedy and most profitable returns, it is wise to plant on land of good quality. It, however, thrives, though more slowly, on the poorest hilltops. This tree transplants more safely than almost any other tree because of its heavy, fleshy roots. It can be safely transplanted as street trees even after attaining large size. Forest plantations are usually planted with seedlings of the age of one year.

Uncle Sam at Garden City, Kans.

Plans and specifications for the machinery for the Garden City irrigation project in Western Kansas have been approved by a board of engineers, and bids will be opened at Chicago on May 28 for the contract. This irrigation project is not one of the large enterprises which the reclamation service is developing. It is, however, attracting considerable attention on account of the numerous novel features involved in its construction. The water must be recovered from the underflow waters of the Arkansas Valley, which lie in gravel deposits below the bed of the river and under the adjacent valley. It is, therefore, necessary to sink several hundred wells from which the water will be pumped and discharged into a collecting conduit. The wells are scattered along a line nearly five miles long. The power is generated at a single central plant situated on the railroad, and then is distributed by electricity to the wells.

electricity to the wells.

It is the first National reclamation project to be authorized in which it is necessary to pump water, and is the only project in which the water must be recovered from wells and not from a flowing surface stream of water. On this account much interest is taken in the project by people in Western Kansas and Nebraska. They believe that the demonstration to be made will be of value to many other communities situated similarly to that at Garden

Applications for water under this project have been made by the owners of more than 12,000 acres of land to be benefited, and the community is very enthusiastic concerning the future success of irrigation in the Arkansas Valley. Very large crops of wheat can be grown on the lands under this project, if a small amount of water is available in the fall and spring. Garden City has long been famous as an alfalfacenter. This location seems to be especially well adapted to the maturing of the seed-crop of alfalfa, which has always paid well there. A sugar factory is being constructed at Garden City, where those who desire to raise sugar-beets will find a market for their crop.

Never enter a sick room in a state of perspiration (to remain for any time), for when the body becomes cold it is in a state likely to absorb the infection; nor visit a sick person—if the complaint be of a contagious nature—with an empty stomach. In attending a sick person, do not stand between the sick person and any fire that may be in the room, as the heat of the fire will draw the infectious vapor in that direction.

Williams' Shaving Soap

The lather from cheap, common soap is thin, harsh and quickly drying. If used for shaving it burns and irritates the face. The lather from Williams' Shaving Soap is rich, thick, creamy and emollient

BARBERS

It makes easy work for the razor and it keeps the face comfortable and healthy. Which do you choose?

Send 2c. stamp for trial sample (enough for 50 shaves).

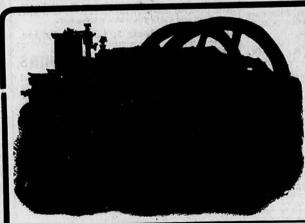
Williams' Barbers' Bar, Yankee, Mug, Quick & Easy Shaving Soaps and Williams' Shaving Sticks.—Sold everywhere. Address,

THE J. B. WILLIAMS COMPANY, Dept. A, Glastonbury, Conn.

We Are Growers of Pure-Bred, Medal-Winning Fire-Dried Seed Corn.

Twenty-five varieties. Will send you one of our new 1906 catalogues and four varieties, two white and two yellow, of what we consider the best for your section, or will send samples of any variety you may desire. MANY FARMERS ARE DOUBLING THEIR YIELD WITH OUR SEED. Our catalogue of farm, field and garden seeds will tell you why this is, and how you can do the same. Sent free on application.

J. B. ARMSTRONG & SON, Shenandoah, Ia.



Dempster Mill Mfg.

Co.

Manufacturers

Gasoline Engines
Wind Mills
Pumps and Cylinders
Steel and Weed Tanks
Well Machinery
Grain Drills
Cultivators

"Dempster Gasoline Engines 2 to 30 I. P.—2 and 4 cycle Horizontal or Verlcal—for any duty."

> Western Made and Well Made

Factory, BEATRICE, NEB. tranches:—Kansas City, Mo., Omaha, Neb., Sioux Falls, South Dakota.



It Will Pay You To Investigate

the merits of the

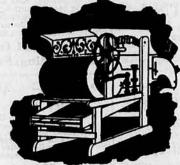
"PERFECTION"

CLEANER,

SEPARATOR

GRADER.

\$



\$

This will clean, grade and separate all kinds of seed and grain. It will grade your seed so that you can get an even stand. It will take out all undeveloped seed. You should have the machine on your farm. It will save and make you money.

"WRITE NOW"

For prices and seed samples of how the Perfection does its work.

THE LEWIS, TUTTLE MFG. CO., 305 Kansas Avenue, Tepeka, Ks.

DUROC-JERSEYS.

D. M. TROTT Abilene, Kans., famous Duroc Jerseys and Poland-Chinas.

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

DUROC-JERSEYS - Large-boned and long-bodied kind. A fine lot of bred gilts for sale. R. S. COWEE, R. F. D. 2, Scranton, Kans.

Duroc-Jerseys

J. U. Howe,
Wichten, Kansass
Farm two miles west of
city on Maple Avenue

Crimson Wonder 38755 Herd Will have something fine to offer. Can furnish trios not akin sired by Crimson Wonder 38755 and Kerr's Champion 28355. Mr. & Mrs. Henry Shrader, Wauneta, Kas.

Orchard Hill Herd of Duroc-Jerseys.

R. F. NORTON & SON, Clay Center, Kas

Fairview Herds, Duroc and Red Polled A few spring boars and Red Polled Bull Calves for sale.

J. B. DAVIS, Fairview, Brown Co., Kans.

ROCKDALE'S DUROCS

l am offering my entire crop of spring gilts, fall yearlings, and and six tried sows. All bred and safe in pig to Chandler's Wonder Paulna, Improve 3d, and Chief Perfection. Write your wants or come and see. Satisfaction guaranteed.

J. F. CHANDLER, Frankfort, Kansas.

Duroc-Jersey Herd Headers

I have for sale a number of select and growthy males sired by Kansas King, he by Can't Be Beat; dam, Ruby Roy by Keene Gold Coin, high class top-notchers bred by R. C. Watts. Satisfaction guar-

A. L. BURTON, WICHITA, KAN.

Highland Herd of Duroc-Jersey Swine

Sows by such noted boars as Improver II 13365, Eclipse 16489, Hunt's Model and Afton by Com Paul 2d. Plenty of fall boars (sired by Cole's Duroc 16181, Hunt's Model 20177, Chapin's Duroc and Joe Folk by Belle Chief 2d. 20 boars for sale. When writing mention Kansas Farmer.

Grant Chapin, - Green, Kansas

Egypt Valley Durocs

Herd headed by Egypt Lad 34023. Stock always for sale. Choice fall boars and gilts, reasonable. Also six fine gilts bred to Lora's Lad to farrow in April; will also sell some tried sows. Write for prices and particulars. H. W. STEINMEYER, Volland, Kas.

POLAND-CHINAS.

A. AND P. SCHMITZ, ALMA, KANSAS,
Breeders of Poland China Hogs.
We have for sale at reasonable prices 10 gitts bred
to Challenger 38349; also a boar pig by Compromise
88203. Write us for prices and full description

Dirigo Breeding Farm

Poland-Chinas for sale of the most fashionable strains. Herd boar, R's Grand Chief, by Grand Chief and out of Kemp's Choice, Perfect Boy and Lucy Choice. 160 head in herd. Write me your wants. Satisfaction or no sales

J. R. ROBERTS, DEER CREEK, OKLAHOMA

Main's Herd of Poland Chinas

A grand lot of spring and last fall pigs, sired by the great show hog, Empire Chief 30376s out of number one sows. They take on the large size and neavy bone of their sire. Sows including Empire Chief gits, bred for fall litters to Roller Trust, he by High Roller, the Ohio champion. 240 in herd. Fed for breeders. Priced reasonable. Annual sale October 25.

James Mains, Oskaloosa, Jefferson Co., Kan.

GUS AARON'S POLAND-CHINAS Route 5, Leavenworth, Kans.

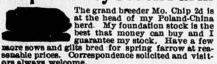
Choice young boars of April and May farrow sired by Beauty's Extension, for sale, Also bred sows and glits, all with good colors, bone, fancy head and ears. The herd boar, Beauty's Extension 27968, for sale, Some snaps here. Visitors welcome. Mention Kansas Farmer and write for prices.

E. E. Axline's Public Sale of Poland - Chinas

Independence, Mo., April 5, 1906 THIRTY HEAD-10 bred gilts, 10 open gilts, 10 choice young boars. Send for catalogue.

E. E. AXLINE, - Oak Grove, Missouri

Maple Valley Stock Farm



ors always welcome. C. P. BROWN, R. 2, Whiting, Kans.

POLAND-CHINAS.

Kansas Herd of Poland-Chinas has bred glits and W. R. C. Leghorn cockerels. F. P. MAGUIRE, Hutchinson, Kans.

FOR SALE Poland-China Hogs, Hol-stein-Friesian Cattle; eith-er sex. Best strains represented H. N. HOLDEMAN, R. R. No. Girard, Kans

ROME PARK POLAND-CHINAS and BERKSHIRE BOARS

A few yearling"and winter and spring boars in special offer. Write at once. Also sows, glits and plgs of either sex. Would take pleasure in show-ing them to you.

T. A. HUBBARD, (County Treasurer Office). Wellington, Kans.

Elmont Herd or Poland-Chinas

FOR SALE-25 gilts, sired by Faultless Jr., sweepstakes winner at Hutchinson State Fair 1903 and 1904. These gilts are bred to Onward Perfection by Ware's Perfection, out of a dam by Missouri's Black Perfection. Quality and best breeding. Write to

JOHN D. MARSHALL, Walton, Kas

Spring Creek Herd of POLAND-CHINA SWINE

D's Ideal Sunshine and Chief On and On herd breeder. Sows and gits of choicest breeding bred, for sale, to either Address

G. M. Hebbard, Route 2. Peck, Kansas

HIGHLAND FARM HERD OF PEDIGREED

POLAND-CHINAS

Twenty serviceable boars at special prices for next 30 days, sired by Black Perfection 37132, Slick Perfection 25804, Perfection Now 2589, and Ideal Perfection. They are lengthy and good-boned pigs, with plenty of finish. Write me description of what you want and I will guarantee satisfaction.

JOHN BOLLIN, Route 5, Leavenworth, Kan.

200 Head Poland-Chinas

Klever's Perfection 32855, sire of my show herd 1904. For Sale—My best sows are by him. He is near akin to Thick Set, and Keep On, royally bred and a great sire; also have spring boars and gitts sired by or bred to a son of Mischief Maker or of Corrector for sale.

W. R. PEACOCK, 1-2 Mile Sedgwick, Kansas.

POLAND-CHINA

Have a few choice sows bred, mainly Harmonizer gilts bred to Hot Shot. Write at once to

M. S. BABCOCK, Nortonville, Kan.

CHESTER WHITES.

O. I. C. SWINE

Choice young stock of both sexes for sale at very low prices.

S. W. ARTE, Larned, Kans.

World's Fair

CHESTER-WHITE HOGS Shorthorn cattle, Oxford sheep and Peafowls. I won 18 prizes on 14 head of Chester-Whites at World's Fair, 1904. Four herd boars in use.

W. W. WALTMIRE, Peoullar, Mo.

O. I. C. Hogs

Scotch Collie Dogs B. P. Rocks

One hundred grand pups sired by the two greatest stud dogs in the west, Cragamere Wonder and Brandane Noble. We are selling more Collies than any firm in America. Why? Because we have the blood, our prices are moderate, and our dogs are workers as well as blue blooded.

With each Collie sold by us we send a book "The Useful Collie and How to Make Him So." Write at once for they are going fast.

Walnut Grove Farm, H. D. Nutting, Prop., Emporia, Ks.

PRIZE WINNING

Sows and glits bred to Kerr Dick, sire to World's Fair Junior Champion, or by Kerr Dick and bred to other equally good sires. Also fine crop of spring pigs from such sows as Big Mary, grand champion as St. Louis, Kerr Uins, Silver Mina and others. Head-quarters for Bears and Gilts. Write me.

O. L. KERR, Independence, Mo.

FIFTH TERM JONES' NATIONAL SCHOOL Auctioneering and Oratory

Davenport, Iowa 6th term opens July 23, 1906. All branches of the work taught. Students now selling in 13 states. For Catalogues write Carey M. Jones, President

When writing advertisers please mention this paper.

BERKSHIRES.

EAST RENO BERKSHIRES.

For Sale—One March gilt and choice young boars ready for service:also choice fall pigs, both sexes. All of the famous Bi. Robinhood, Berryton Duke and L. Premier strains. A. D. Willems, Inman, Kans.

CEDAR LAWN BERKSHIRES My sows ar sired by Elma's Prime 64778, and Berryton Duke 72946. Boar at head of herd, Jourist topper 76277.

Wm. McAdam, Netawaka, Kans.

Ridgeview Berkshires

Seven yearlings for sale, by Forest King 72688. Boars April and May farrow; good ones at reason-able prices. Order qu ck and get first choice. MANWARING BROS.,

Route 1, Lawrence, Kan.

SUTTON'S BERKSHIRES

Imported Blood

30 extra choice boars, 100 to 150 pounds.
40 extra choice glits, 100 to 150 pounds.
Fancy heads, strong bone and all-around good ones. Bargains at \$15 to \$25 to close quick.

Chas. E. Sutton, Russell, Kans.

My Berkshires

Are the choicest individuals that money can buy, of the most popular families. The sows are of faultthe most popular families. The sows are of fault-less form, and 600 to 800 pounds weight; sired by Lord Premier 50001, Baron Lee 4th 33446, Lord Lee 61138, and Masterplece 77000, and headed by the best Gentry boars. 100 head choice stock for sale.

E. D. KING, BURLINGTON, KANSAS.

KNOLLWOOD

BERKSHIRES

Pacific Duke 56691, the 1,000 pound champion show and breeding boar from herd of S. B. Wright, Santa Rosa, Cal., bred by N. H. Gentry; Model Princess 60134, by Halle 60125, sweepstakes Pan-American sow: Stumpy Lady 63409 by Combination 56028, sweepstakes Kansas City and Chicago 1902. Lee's Model Princess 62514, the \$180 daughter of Governor Lee 47971; Lady Lee 99th 65036, the \$180 daughter of Lord Premier 50001, and other: 'Blue-Bloods.' Sows bred to 3 grand boars and young stock for sale.

E. W. MELVILLE, Eudora, Kans.

ABERDEEN-ANGUS.

Aberdeen-Angus Cattle

25 Aberdeen-Angus Bulls, 12 months old, average weight 750 pounds. These bulls are full bloods but are not eligible to registration. They are the equal of the bulls in any Aberdeen-Angus herd in the CHAS. H. BUTLER, Frankfort, Kansas.

THE SUNFLOWER HERD PURE-BRED

Angus Cattle



Herd headed by HALE LAD 80645. Herd numbers 250 head, the largest herd bred by owner in America. Stock for sale Address PARRISH & MILLER, Sedes, Reste 1, Stafferd Co., Ess.

RED POLLS.

ENGLISH RED POLLED CATTLE—Pure-bred
Young Stock for Sale. Your orders solicited.
Address L. K. Haseltine, Route 7, Springfield, Mo.
Mention this paper when writing.

COBURN HERD OF RED POLLED CATTLE Herd now numbers 115 head. Young bulls for sale. GEO. GROENMILLER & SON. ROUTE 1, POMONA, KANSAS

RED POLLED CATTLE AND POLAND-CHINA SWINE.

Best of breeding. Write or come and see CHAS. MORRISON & SON, Route 2, Phillipsburg, Kans.

BEULAH LAND HERD

World's Fair Winning Red Polled Cattle Young Stock for sale. WILKIE BLAIR, -

RED POLLED CATTLE

PercheroniHorses, and Plymouth Rock Chickens
Address, S. C. BARTLETT,
Route 5, - - Wellington, Kansas

HALCYON HOME STOCK FARM

Polled Durhams

Offer some fine blocky bulls about one year old.

C. J. W 0 0 D S,

Chiles. Miami County, Kansas

GALLOWAYS.

A choice lot of young bulls and helfers for sale Come and see them.

O. E. MATSON, FURLEY, KANS. Breeder of Galloway Cattle

HEREFORDS.

Registered Herefords

Individual merit and choicest breeding. Dale Duplicate 2d at head of herd. Correspondence solicited.

A. JOHNSON, - - Clearwater, Kansas

Vermilion Hereford Co., VERMILION. KANSAS.

Boatman, 56011 and Lord Albert 131557 head of herd. Choice young stock of both sexes for sale.

E. E. WOODMAN, Vermillion, Ks. Modern Herefords

Herd bulls, Protocol 2d 91715-Beau Beauty 192235, and Printer 66634, the best living son of the great Beau Brummel. Young bulls, cows and helfers for

Robt. H. Hazlett, El Dorado, Kans.

SHORTHORNS.

The Biggest and Best Herd of Shorthorns in Southweastern Kansas, owned by L. A. MEAD, Kingsdown, Ford County, Kansas For Sale—Bulls and females. Inspection invited.

ALFALFA LEAF STOCK FARM JOHN REGIER, Prop., Whitewater, Kans.

Breeder of thick-fleshed, early-maturing Shorthorn cattle.

NONPAREIL STAR 188488 at head of herd.

J. L. MILLER & SON, Muscotah, Kansas.
Breeders of Shorthorn Cattle.
Six coming yearling bulls for sale at reasonable prices. These animals are Rose of Sharon foundation and are fine individuals and sired by The Cham; plon of Delenary. Valley 154989, a son of Gentlemen 126072, he by Red, Knight bred by W. A. Harris.

Plainville Shorthorn Herd

Headed by Prince Lucifer 188685
A pure Scotch bull. Stock for sale at all times. N, F. SHAW, PLAINVILLE, ROOKS CO., KANS.

MEADOW BROOK SHORTHORNS Herd headed by Baron Goldsmith 224633, by The Baron 121327; females bred to him andichoice young bulls for sale.

T. C. KINGSLEY, Dover, Shawnee County, Kans. Railroad Station, Willard, Kans. Long Distance Telephone

FOR SALE

110 Head of Pure-bred Shorthorn Cattle Fifty cows, principally all 'young and bred to Rosemary Victor 12th 138313 and Waterloo Chief 247541; also 20 bulls, 8 to 18 months old and 45 helfers the same age as the bulls. Mostly all reds. The oldest and one of the best herds in the State of Kansas. Also 40 number 1 Poland-China Sows, mostly all bred and 10 boars, 6 months old. Barred Plymouth Rock eggs for hatching, \$1 a sitting. George Channon, Hope, Kans.

GLENWOOD HERDS Shorthorns and Poland-Chinas

100 Scotch and Scotch-topped females, 8 Scotch-topped bulls in special offer. Pavonia's Prince 207316 and Happy Knight by Gallant Knight 124468 in service.

C. S. NEVIUS, CHILES, MIAMI COUNTY, KANS.
Forty miles south of Kansas City.

Valley Grove Shorthorns

FOR SALE—Young bulls, cows, and heifers. Come and see them. Telephone via Dover. Telegraph station Wil-lard. Address

T. P. BABST & SONS, Auburn, Kans

MILKING SHORTHORNS

Young bulls from heavy-milking dams, sired by the Scotch-topped Glitspur's Knight 171591, whose helfers are excellent milkers. Write us

N. MANROSE

Ottawa, Kans.

Soldier Creek Herd of Herefords. Shorthorns, Polled Shorthorns

Service Bulls—Herefords; Columbus 17th 91384, Columbus Budybody 141835, Jack Hayes 2d 119761. Shorthorns; Corange Dudding 140469. Polled Shorthorns; Scotch Emperor 133446, Crowder 204815. Herds consist of 500 head of the various fashionable families. Can suit any buyer. Visitors welcome except Sundays. Address. JOSEPH PELTON, Mgr., Belvidere, Kiowa County, Kans.

Rocky Hill Herds

Shorthorns and Percherons.

In special offer a number of Scotch and Scotch-topped females bred to Sultan, a good Scotch bull. Prices reasonable.

J. F. TRUE & SON, Perry, Kans. R. R. Station Newman, 12 ml. east of Topeka.

SHORTHORNS Public Sale, April 10, 1906 ...40 HEAD...

A. M. Ashcraft, Atchison, Kansas.

When writing advertisers please mention this paper.

11