

# KANSAS FARMER

ESTABLISHED IN 1863.  
VOL. XXXVII. NO. 17.

TOPEKA, KANSAS, THURSDAY, APRIL 27, 1899.

SIXTEEN TO TWENTY  
PAGES—\$1.00 A YEAR.

## BREEDERS' DIRECTORY.

Cards will be inserted in the Breeder's Directory as follows: Four line card one year, \$15.00; six lines, \$25.00; ten lines, \$30.00; each additional line \$3.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

### SWINE.

**W. P. GOODE & SONS' HERD OF POLAND-CHINAS, Lexena, Kans.**

We are offering boars ready for service at lower prices than ever. Sows and gilts safe in pig also very low. And we own the best bred son of Chief Tecumseh 2d 9115. Will take a few sows at low service fee. Write quick. We will please you sure.

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

**M. H. ALBERTY, CHEROKEE, KANS., DUROC-Jerseys and Pig Teeth Clippers.**

**DUROC-JERSEY HOGS—Registered Stock.** Send stamp for 64-page catalogue, illustrated. Prices and history.

**J. M. STONEBRAKER, Paola, Ill.**

**J. U. HOWE, Wichita, Kans.** Maple Avenue Herd of J. pure-bred Duroc-Jersey hogs. Choice stock for sale. Reasonable prices. Personal inspection and correspondence invited.

**Silver Spring Herd Poland-China Hogs.** Headed by HADLEY'S MODEL T. Bred sows, gilts and boars of choicest breeding for sale. Address WALTER ROSWORTH, Council Grove, Kas.

**KAW VALLEY HERD OF POLAND-CHINAS—**1899 pigs from the following prize-winning boars: Perfect I Know, Chief I Am, Gem's U. S. Chief and Dick Wainwright. M. F. Tatman, Rossville, Kas.

**V. B. HOWEY, TOPEKA, KAS.**

Breeder and shipper of thoroughbred Poland-China and Large English Berkshire swine and Silver-Laced Wyandotte chickens.

**KANSAS HERD OF POLAND-CHINA SWINE—**Has eight yearling sows. They have had pigs and bred to U. S. Tecumseh (20868), he by old black U. S. Also some fine boars by U. S. Tecumseh ready for service; and one Tecumseh-bred boar. Address F. P. Maguire, Haven, Kans.

**CRESCENT HERD POLAND-CHINAS.**

Boars and gilts for sale.

**S. W. HILL, Hutchinson, Kas.**

**VERDIGRIS VALLEY HERD—Large-Boned Poland-Chinas.**

Three hundred head, six good spring boars, good bone, large and growthy, very cheap. Six June boars, very heavy bone and fancy, four of them will make herd-headers. Twenty yearling sows and spring gilts, bred, good ones, at from \$12 to \$15. One hundred and fifty of the finest fall pigs we ever produced. For sale cheaper than you ever bought as good pigs before. WAT & EAST, Altoona, Wilson Co., Kans.

### HORSES.

**PROSPECT FARM—CLYDESDALE STALLIONS, SHORT-HORN CATTLE, and POLAND-CHINA HOGS.** Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kas.

### CATTLE.

**ENGLISH RED POLLED CATTLE—PURE-BRED.** Young stock for sale. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo. Mention this paper when writing.

**CENTRAL KANSAS STOCK FARM—F. W. ROSS,** Alden, Rice Co., Kas., breeds pure-bred Short horns, Poland-Chinas and Barred Plymouth Rocks. Stock for sale.

**SCOTCH SHORTHORN CATTLE—Cows, heifers and young bulls for sale.** Herd headed by Imperial Knight 119669 and Duke of Walnut Grove 127610. Inspection invited. JOHN MCCOY, Sabetha, Kans.

**H. R. LITTLE, Hope, Dickinson county, Kans.** breeder of Shorthorn cattle. Herd numbers 100 head.

**FOR SALE: SHORTHORN BULLS OF SERVICEABLE AGE.**

**NORWOOD SHORT-HORNS—V. R. Ellis, Gardner, Kas.** Rose of Sharon, Lady Elizabeth and Young Marys. Richest breeding and individual merit. Young bulls by Godwin 115678 (head of Linwood herd). Sir Charming 4th now in service.

**SHROPSHIRE SHEEP**

For sale. A strictly choice lot of young high-grade sheep of both sexes, located on Col. W. A. Harris' Linwood farm. Address Philo Jewett, Shepherd, Linwood, Kans.

### SWINE.

#### Standard Herd of Poland-Chinas

Has some fine sows, 1 year old this fall, sired by Tecumseh Chief (he by Chief Tecumseh 2d), and are bred to Look Over Me (he by Look Me Over); also, an extra lot of Spring Gilts, bred the same, and some good Spring Males of the same breeding. Come and see, or write and get prices. Wm. Maguire, HAVEN, KAS.

**D. L. BUTTON, North Topeka, Kas., breeder of Improved Chester Whites.** Stock for sale. Farm 2 miles northwest of Reform School.

**RIVERDALE HERD of** Chester White swine and Light Brahma poultry. J. T. LAWTON, BURRTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place.

**H. W. CHENEY, North Topeka, Ks.**

**POLAND-CHINAS**

of the fashionable prize-winning Chief I Know strain. Cheney's Chief I Know at head of herd. Pigs for sale. Prices low.

**BARGAINS.**

We have a few very fine Poland-China Boars ready for service that we will sell you so cheap you cannot afford to buy a scrub. Sired by Knox All Wilkes and Highland Chief. Some fancy fall boar pigs by same sires. DIETRICH & SPAULDING, Richmond, Kans.

**SUNNYSIDE HERD POLAND-CHINAS**

BRED FROM LARGE-BONED, BROAD-BACKED, LOW-DOWN, MATURED STOCK.

Sanders, Short Stop, Corwin, Black Bess, Black U. S. and Tecumseh Blood.

Choice Young Stock for sale.

**M. L. SOMERS, Altoona, Kans.**

**Mains' Herd of Poland-Chinas.**

Chief Tecumseh 2d, Klever's Model, U. S. Model, Moorish Maid and Chief I Know strains. A selected lot of bred sows and young stock for sale at very reasonable prices. Over thirty years in the business. Stock equal to any. Satisfaction given. JAMES MAINS, Oskaloosa, Jefferson Co., Kas.

**F. L. and C. R. OARD, Proprietors,**

**HEDGEWOOD HERD OF POLAND-CHINAS VASSAR, KANSAS.**

Popular Blood. Individual Merit.

Brood sows of the most popular strains and individual merit. The best that money can buy and experience can breed. Farm one and one-half miles south and half mile east of Vassar, Kas., on Missouri Pacific railroad.

**CAP-A-PIE HERD OF Poland-Chinas**

Geo. W. Falk, Richmond, Mo.,

Is still doing business at the old stand, where, for the past fifteen years, he has been breeding and selling a class of hogs that have been winners at the leading State fairs, and have been topping the markets in Chicago and Kansas City—the end of all hogdom. Has constantly on hand boars large enough for service and sows bred and unbred. Write for prices, which are always reasonable.

**T. A. HUBBARD,**

Rome, Kansas,

Breeder of POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

**RIDGEVIEW FARM HERD OF BERKSHIRES**

Young boars and gilts bred in the purple for sale at prices that would astonish the natives. We keep nothing but the best. Get our prices and be convinced.

**MANWARING BROS., Lawrence, Kans.**

**BLUE MOUND HERD BERKSHIRE SWINE.**

Herd boars, Victor Hugo 41799 (sire imp.), Barkis 20040 (weight 800 lbs.), Prince Jr. 17th, from World's Fair winner. Choice pigs from five different strains. Also bred Shropshire sheep, M. B. turkeys and B. P. Rock chickens. Write.

**Allen Thomas, Blue Mound, Linn Co., Kas.**

### SWINE.

#### Wamego Herd Imp. Chester Whites and Poland-Chinas.

Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER. O. J. HUGGINS, Proprietor, Wamego, Kas.

**M. C. VANCELL,** Muscotah, Atchison, County, Kansas, Breeder of Pure-bred Poland-China Swine and Short-horn Cattle of the most desirable strains.

**For Ready Sale Thirty Poland-China Bred Sows**

One and two years old, bred for fall farrow; very choice; price low if ordered soon; must make room for 170 pigs now on hand. Come and see or write.

**THE WILKES QUALITY HERD OF POLAND-CHINA SWINE.**

Thos. Symms, Prop., Hutchinson, Kas.

Herd boars, Darkness Quality and Reno Wilkes. For ready sale 45 very choice pigs out of Bessie Wilkes, Beauty Sedom, Chief I Know, Standard Wilkes, Ideal Black U. S. and Chief Tecumseh 2d sows. Farm one mile west of Hutchinson, near Star Salt works.

**SIR CHARLES CORWIN 14520**

**HEAD OF HERD.**

We breed POLAND-CHINA HOGS of the latest and best blood. Full of prize-winning blood. Largest hog-breeding farm in the West. Prices the lowest.

**ELM BEACH FARM, WICHITA, KANSAS.**

**R. S. COOK, Wichita, Kans.,**

**BREEDER OF POLAND-CHINA SWINE.**

The Prize-Winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District Fair, 1893; twelve firsts at Kansas State Fair, 1894; ten firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28633, World Beater and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

**POULTRY.**

**EGGS FOR HATCHING—**From high-scoring breeding yards of B. P. Rocks, W. Wyandottes and R. C. Brown Leghorns at low prices. A few good cockerels for sale. P. C. Bowen & Son, Cherryvale, Kans.

**BLACK LANGSHANS—**

PURE AND FINE. Eggs, \$1.50 for 15, or \$2 for 25. J. C. WITAM, Cherryvale, Kans.

**D. A. WISE, BREEDER OF BLACK LANGSHANS AND PEKIN DUCKS—**

TOPEKA, KANSAS. Eggs in season, \$1.50 per sitting. Residence and yards south of Highland Park.

**Silver Wyandottes.**

We are selling eggs from our prize-winners scored by Shellbarger & Savage, \$2 for 15; \$3.50 for 30. White P. Rock eggs, \$1 for 15. R. F. MEEK, Hutchinson, Kans.

**Partridge Cochins and White Leghorns**

at Hutchinson show took sweepstakes in Asiatic and Mediterranean classes (silver cup and silver teapot); Shellbarger judge. Eggs, after May 1, \$1 per 15. Write for descriptive circular. Address, J. W. Cook or Carrie A. Cook, Hutchinson, Kans.

**FRENCH POULTRY YARDS—**

FLORENCE, KANS. Houdans, \$1 per sitting of 13. E. FIRMIN, Proprietor.

**CANFIELD'S WHITE PLYMOUTH ROCKS WON** first pen, first cock, first cockerel and first hen at the Kansas State Poultry Show, 1899, besides the grand sweepstakes for best ten birds in the American class. Eggs, \$2 for 15, \$5 for 45. M. L. Canfield, Belleville, Kans.

**GOLDEN WYANDOTTES AND GOLDEN SE-BRIGHT BANTAMS.**

Prize-winners at State Show, Topeka, January, 1899. Eggs, \$2 for 15; \$3 for 30; \$5 for 45. Eggs after June 1, \$1 for 13. L. V. MARKS & CO., 501 Jackson, Street, Topeka, Kans.

**WHITE WYANDOTTES**

Have no equal as an all-purpose fowl. I have high-scored birds and eggs from first prize-winners for sale. Prices reasonable. Address Jeff. Payne, Hutchinson, Kans.

### POULTRY.

**FOR SALE—**Bronze turkeys, Barred Plymouth Rocks, Black Langshans and Embden geese. None but good stock shipped. Write for what you want. Mrs. James D. Dyer, Hoffman, Mo. Shipping point, Warrensburg.

**ORCHARD PARK POULTRY YARDS—**Barred P. Rocks exclusively. Prize-winning strain. Pronounced by the judge the finest he had ever seen. Eggs \$1.50 per 15. Cash with order.

**MRS. J. R. WHITNEY,** 1411 Massachusetts street, Lawrence, Kans. (Mention Kansas Farmer.)

**BARRED PLYMOUTH ROCKS.**

E. R. Lock's Barred Plymouth Rocks are still in it. Twice in succession my birds have won all of the prizes where shown. Write me for prices on stock. Eggs \$1 to \$2 per 15. Catalogue free for writing.

**E. E. LOCK, Hutchinson, Kans.**

**BARRED PLYMOUTH ROCKS**

From Prize-Winning Strains.

Eggs now for sale; sitting of 15, \$2. For further information address J. P. JOHNSON, Junction City, Kans.

**MAMMOTH BRONZE TURKEYS A ...SPECIALTY...**

Eggs for sale at 25 cents each.

**O. H. CLARK, Delphos, Kans.**

**CHOICE BREEDING COCKS AND COCKERELS.**

Fifteen White P. Rocks, 15 Silver Wyandottes, 20 Brown Leghorns, 10 Light Brahmas, 10 S. S. Hamburgs, 10 Black Langshans, 5 Black Javas, 12 Pekin ducks. All strictly first-class. Some are scored by Hewes and others.

**A. H. DUFF, Larned, Kans.**

**H. T. FORBES**

**THOROUGHbred BUFF COCHINS**

Eggs and stock from prize-winners at Kansas State Poultry Show, January, 1899. Write for description and prices. Address H. T. & L. C. FORBES, Topeka, Kans.

**CEO. W. COOPER, BREEDER OF THE LORDLY** Black Langshan, 323 Lake street, Topeka, Kans. I won at our last State poultry show, January 9-14, with 107 Langshan competition, first on cock, first on cockerel, first on pen, tied first for pullet, tied second for hen, third on pullet, third on hen, and had the highest scoring pen of chickens in show room. I have without doubt the best Langshans in the West. Eggs \$2 per sitting. Write me for prices on stock. Correspondence a pleasure. (Mention Kansas Farmer when you write.)

**EGGS FOR HATCHING**

Royal Blue Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, White Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Brown Leghorns, White Leghorns, Silver Spangled Hamburgs, Black Javas, White Guineas, Pearl Guineas and Pekin Ducks. Pairs, trios and breeding pens. Prices low, considering quality. Circular free.

**A. H. DUFF, Larned, Kans.**

**EGGS FOR HATCHING. FOURTEEN YARDS.**

Buff Cochins, B. P. Rocks, W. P. Rocks, Black Langshans, White Wyandottes, Rose and Single-Comb Brown Leghorns, Imperial Pekin Ducks and Mammouth Bronze Turkeys. Eggs \$2 to \$5 per sitting. Circular giving matings and prices for 2-cent stamp. Guide to Poultry Culture and Catalogue of Poultry Supplies, 10 cents.

**EXCELSIOR FARM, C. B. Tuttle, Prop., Topeka, Kansas.**

**PRIZE-WINNING LIGHT BRAHMA CHICKENS ...EXCLUSIVELY...**

Our record for 1898-99: Won 5 out of 6 first premiums at State show in Topeka, including sweepstakes, in January, 1899. Won 6 out of 7 first premiums, including sweepstakes, in Asiatic class, at Sedgewick (Kansas) show in December, 1898. Won 6 out of 6 first premiums, including sweepstakes, at Butler County show, held in Eldorado, December, 1898. Eggs \$1 to \$3 per sitting. Also breeders of Red Polled cattle. Address CHAS. FOSTER & SON, Eldorado, Kans.

**ROCKS WHITE and BLUE BARRED**

Five Pens—Three Barred, Two White.

One pen headed by E. B. Thompson Ringlet cockerel; one by a grand Lash cockerel; one by a bird of the Conger strain. My White Rocks are from Madison Square Garden winners—large, pure white birds. Eggs, \$1 for 13, \$2 for 30, \$3 for 50, \$5 per 100. White Guinea eggs same. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25 cents. Address

**T. E. LEFTWICH, Larned, Kans.**

**IF you have timothy, clover, prairie, alfalfa, or mill-**

let hay to market, correspond with J. W. Lowe & Co., 1313 W. Eleventh street, Kansas City, Mo. Liberal advances on shipments.



## Agricultural Matters.

### KANSAS CROPS OFFICIALLY.

A report on the acreage and present condition of winter wheat in Kansas, issued by the State department of agriculture, is compiled by counties and is the consensus of statements by extensive, observant wheat growers in every neighborhood, supplemented by those of millers, dealers, and elevator men, especially close attention having been given to territory where the greater bulk of the crop is produced.

The department has not made earlier announcement of the wheat conditions because of a conviction that a few days of continuous settled and reasonably warm, growing weather were essential before any intelligent and reliable estimate of the situation could be reached; in other words that an accurate judgment of wheat plant conditions is not best arrived at by use of pick and spade, in ice, snow, and frozen earth. At all events the Kansas agricultural department does not seek, publish, or stand sponsor for information thus obtained, nor does it accept as final the "positive knowledge" of the State's conditions obtained by the well-meaning and all-wise observer who has "been out over the State" on a railroad tour from Alma to Wamego.

The area sown for the crop of 1898 was returned by assessors as 4,505,459 acres. It was estimated by the department's correspondents in November last that the area sown for the 1899 crop would be 3 per cent greater; at the present time their estimate is that the increase amounts to rather more than 5 per cent.

It is an interesting fact that fifty-four of the 105 counties have 90 per cent of the wheat acreage, and constitute practically the wheat field of Kansas, the area sown in the remaining fifty-one counties being less than the acreage sown in the two counties of Sumner and Barton. It is likewise of interest to know that one-half of Kansas' winter wheat acreage is in a block of sixteen counties, comprising the southern two-thirds of the central third of the State, or the counties of Barton, Dickinson, Ellis, Ellsworth, Harper, Marion, McPherson, Pawnee, Reno, Rice, Rush, Russell, Saline, Sedgwick, Stafford, and Sumner. In these counties the reported increase in area sown amounts to 7 per cent; 27 per cent of their total sowing will likely be plowed up, and the present condition of the remainder is 67 per cent, on the basis of 100 as a good, satisfactory condition.

For the entire State the estimate of the proportion sown which from the severe winter, unfavorable and long-protracted spring and other causes now seems a failure and likely to be plowed up or devoted to other crops, is 26 per cent. The condition of the remainder, or about 3,515,216 acres, is 68 per cent.

The table below shows by counties, in the order of their rank in acreage that year, their 1898 area in winter wheat, the per cent of estimated increase or decrease sown for this year's crop, the per cent which it is believed will be a total failure, and the per cent of present condition (based on 100) for the remainder:

Counties.	Last year's acreage.	This year's increase, per cent.	Will be plowed up, per cent.	Condition of remainder, per cent.
Sumner	300,631	5	25	58
Barton	224,325	5	35	67
McPherson	163,569	8	21	67
Pawnee	154,848	5	55	55
Rush	152,833	3	25	76
Rice	134,070	14	32	68
Sedgwick	128,827	7	22	62
Ellis	123,631	6	22	78
Saline	118,304	19	19	68
Russell	117,397	17	19	72
Harper	114,556	7	35	62
Ellsworth	110,873	3	22	66
Stafford	108,707	10	40	66
Reno	100,561	6	22	64
Marion	89,823	6	16	75
Dickinson	89,681	10	15	78
Cowley	89,582	4	26	62
Mitchell	81,334	13	25	72
Pratt	80,987	3	46	63
Harvey	79,702	9	23	71
Lincoln	79,541	14	23	62
Kingman	79,350	5	34	64
Thomas	77,202	40	15	62
Ness	74,254	22	15	74
Labette	73,783	6	34	46
Montgomery	67,168	7	14	60
Ottawa	65,471	15	23	58
Osborne	63,705	22	26	79
Rooks	60,943	21	15	90
Brown	52,192	7	46	55
Rawlins	48,946	5	30	80
Edwards	47,916	1	29	74
Lane	40,182	1	8	90
Doniphan	40,175	13	58	62
Trego	38,925	17	10	90
Sheridan	38,424	5	10	87
Decatur	36,795	..	5	89
Douglas	36,565	16	21	70
Marshall	36,226	13	53	67
Cloud	35,633	9	30	65
Smith	33,961	14	27	75
Cherokee	33,902	..	37	55
Wichita	32,259	30	8	78
Clay	31,297	10	40	44
Barber	30,716	18	39	57
Hodgeman	29,329	35	10	87
Ford	29,855	16	21	79
Crawford	29,720	5	32	61
Jewell	29,460	20	40	69
Logan	28,565	5	8	86

### Counties.

Counties.	Last year's acreage.	This year's increase, per cent.	Will be plowed up, per cent.	Condition of remainder, per cent.
Washington	27,480	38	60	48
Norton	25,678	15	7	79
Leavenworth	24,769	7	25	64
Neosho	24,706	10	37	66
Johnson	23,241	6	12	70
Graham	22,475	15	25	75
Gove	22,017	17	18	75
Atchison	21,572	12	44	67
Scott	21,566	48	9	79
Phillips	20,568	26	16	88
Kiowa	20,532	8	35	68
Chautauqua	18,566	..	12	67
Butler	18,334	..	15	77
Sherman	14,879	..	3	83
Wilson	14,744	7	20	79
Geary	13,872	3	16	73
Coffey	13,301	3	44	70
Nemaha	13,237	11	58	58
Jefferson	12,243	5	15	68
Republic	10,661	30	43	62
Miami	8,815	5	13	75
Wyandotte	8,545	12	3	85
Gray	8,518	16	30	52
Franklin	8,136	12	24	69
Cheyenne	7,984	25	..	100
Pottawatomie	7,967	10	..	75
Linn	7,941	12	34	78
Wabaunsee	7,523	..	14	78
Elk	7,246	8	10	71
Lyon	6,708	..	19	68
Haskell	6,541	..	2	70
Chase	5,473	..	7	91
Meade	5,375	10	5	100
Allen	5,228	3	21	69
Riley	4,860	..	22	78
Osage	3,928	10	50	62
Finney	3,921	15	30	70
Shawnee	3,873	2	18	80
Bourbon	3,766	12	25	83
Woodson	3,730	4	10	64
Comanche	3,287	..	10	50
Wallace	3,046	21	9	76
Greenwood	2,731	9	8	87
Greeley	2,699	17	3	78
Jackson	2,521	..	27	61
Kearney	2,456	12	7	79
Anderson	2,398	21	6	89
Clark	2,169	..	10	75
Morris	1,484	3	10	80
Howard	1,286	33	5	62
Hamilton	1,067	40	..	100
Morton	800	30	..	97
Stevens	325	30	5	92
Stanton	215	..	4	91
Grant	24	25	5	94

\*Decrease.

### Plant Breeding.

(Continued from last week.)

The plant breeder should understand the causes of variability in the vegetable kingdom. An accurate knowledge of the variants which he must encounter in his operations is of supreme importance. Under certain circumstances these variants may be a hindrance to his work, while, if intelligently directed, they may be made to do his bidding and aid greatly in bringing about the desired results; in fact, he can accomplish little without their help. The variants which I have been discussing in my preceding articles are generally overlooked or misunderstood by farmers, and for this reason I have treated them somewhat in detail. In taking leave of these subjects, let me once more repeat that food supply and climate are perhaps the most powerful plant variants in nature.

The variant which I now propose to discuss is popularly believed to be all that there is in plant breeding. Without minimizing its value in the least, I hope to be able to dispel this popular illusion. That cross-fertilization is one of the most important plant variants can not be denied, and its importance is principally due to the fact that man can control it much easier than he can control environmental variants.

### CROSSING A PLANT VARIANT.

It seems strange that man should have lived upon this world thousands of years without discovering that plants have sex. It is only a little more than two hundred years since the first botanist discovered the purpose of the stamens in a flower. In 1676, Sir Thomas Millington first set forth before the Royal Society in London the doctrine that the anthers of a blossom have a sexual function to perform. The next mention of the subject we find in literature is by Rudolph Jacob Camerarius, in his "Epistola de sexu plantarum," published in 1684. It was almost three-quarters of a century before the question was again investigated by a scientific man, when Koelreuter began his famous experiments. Sprengel, Knight, Gaertner, Darwin, and a host of others have continued the investigation of the subject during the past century, and, as a result of their labors, we are now just beginning to apply the laws of sex in practical plant breeding.

The struggle for existence is a necessary condition surrounding every living being upon the globe. It is caused by the following two conditions: The world is limited in size and it is already teeming full of living creatures. Any circumstance which causes a plant to vary from the parental type will be of advantage to it by removing it from the fiercest center of this struggle. It seems that nature intended that one purpose of crossing should be to provide for this beneficial variation. Darwin has admirably shown that the benefits from crossing are due to a mingling in the offspring of the inherited and acquired variations of previous generations; or, to put it in his own words, "the advantages of a cross are due to the parents having varied during previous generations so as to cause a differentiation

of the sexual elements, while the injury of self-fertilization follows from a want of this differentiation." "Plants of Ipomoea and Mimulus self-fertilized for seven previous generations and kept under the same conditions were not benefited by a cross with each other." (P. 443, "Cross- and Self-Fertilization in the Vegetable Kingdom.") We see from the statement that there is no advantage in crossing plants which do not differ from each other. The one principal object of a plant breeder in crossing plants is to make them variable. The final product from his hands will possess value only as it has fixedness of good qualities. Qualities are fixed by selection, hence crossing is not an end but only a means unto an end. The great utility of crossing consists in the possibility of securing a vast number of variable plant forms in the shortest possible time.

In breeding wheat, one of the gratifying facts encountered is that, as soon as a cross has once been obtained, innumerable varieties arise, a single grain often originating hundreds of varieties in the course of six or eight generations. The purpose of the cross in this case is to "break the type." After this has once been done, it takes eight or ten years of rigid selection to "fix" the new variety. Another interesting fact in connection with wheat is that few variations show themselves in the first generation following the cross, but in the second and third generations the varieties will be legion in number. These new varieties often possess characters entirely different from those possessed by either parent. Rimpau has succeeded in producing bearded wheat from a cross of two smooth varieties.

Another object of crossing which is perhaps of greater importance than the origination of new plant forms is the infusion of new vigor into a race. Professor Bailey calls this "strengthening the type." This must be regarded, however, as a species of variability, for increase in vigor, size, or fruitfulness is certainly variation. This object is especially desirable when we are dealing with plants that naturally self-fertilize, such as wheat, oats, and barley. For this purpose we cross individuals with others of the same variety only. A good example is the crossing of Turkey wheat with Turkey. Better results will uniformly be obtained if we can cross individuals that have grown on very different soils, as, for instance, Turkey wheat from western Kansas with Turkey grown in eastern Kansas. Whenever crossing is practical for the purpose of strengthening or invigorating the race, the good effects of the cross are manifest for many succeeding generations. Pease under cultivation are very strictly self-fertilized, and the varieties originated by gardeners in the ordinary way of selection are notoriously short lived, lasting scarcely longer than a decade. Thomas Andrew Knight originated varieties of pease by artificial cross-fertilization and these retained their excellence during sixty years of cultivation. Because of this fact I believe there are great possibilities in store for the man who will devote his lifetime to the breeding and improvement of the self-fertilized small grains of Kansas.

Some cultivated plants naturally cross-fertilize. With this class, the breeder has only to direct the process so as to secure the union of parents possessing the desired characteristics. In such cases special precautions are necessary to prevent the pollen of an undesirable type from fecundating the ovules of the plants from which we wish to breed. This is pre-eminently true of Indian corn. So liable is maize to get "mixed" that the keeping of varieties separate becomes a very serious problem at any maize-breeding establishment. For successful work, it is best to deal with very few varieties on one farm. I would advise farmers to co-operate with each other in this work somewhat in the following manner: Two farmers living several miles apart on lands possessing very different soils should agree to enter into partnership for a series of years in the breeding of seed corn. They should select at the start four varieties with as nearly ideal characters as it is possible to obtain. Each of the farmers should take two of the selected varieties and plant them in alternating rows in a field set apart for seed breeding as I have described in a previous article. (See Kansas Farmer, March 23, 1899.) All the tassels of one variety on each farm should be pulled out, and nature will cause that variety to be crossed by the pollen from the tassels of the other variety. At the end of the year seed should be saved from both varieties by each farmer, and samples carefully analyzed and a record made. The following year these farmers should exchange seed and repeat the experiment. As soon as they discover a valuable variety they should plant their crops one year entirely of that sort and not take trouble to pull tassels unless it be to prevent undesirable-appearing plants from impressing their characters upon the crop. The following year, however, they should again exchange seed and each farmer should plant alternating rows with the seed grown on his own land and that grown on his partner's farm and cross the plants again as indicated above. Enough selected

### Two Wagons at One Price.

It is a matter of great convenience and a saving of labor for a farmer to have a low, handy wagon. They save more than half the labor of loading in hauling manure, hay, grain, corn fodder, wood, stones, etc. The man who already has a wagon may have one of these low handy wagons at the small additional cost for a set of wheels. These Electric Steel Wheels, with either direct or stagger spokes, with broad-faced tire, are made to fit any axle. You can convert your old wagon to a low, handy wagon in a few moments' time. You thus virtually have two wagons at one price. Write to the Electric Wheel Co., Box 46, Quincy, Ill., for their catalogue, which fully explains about these and their Electric Handy Wagons, Electric Feed Cookers, etc.



seed of each crop should be saved by both farmers to plant twice the area of the plot devoted to the seed breeding. This is to prevent the loss of the acquired valuable qualities through the influence of unfavorable seasons or other accidents. As soon as the variety thus originated has been sufficiently improved the farmers can begin growing it on a large scale for commercial purposes. The increase in value of a type of corn bred up in this way would more than pay for the extra trouble and labor of growing it. There would be no loss because the discarded portions of each crop would serve for feeding purposes just the same as ordinary field corn.

This method of procedure would eliminate the operation of chance which now prevails in the cross-fertilization of corn and reduce seed breeding to almost an exact science. The highest degree of intelligence would be required of the breeder when selecting his seed corn. There is no occupation that affords greater opportunities for the exercise of intelligence than plant breeding.

GEO. L. CLOTHIER.

Cornell University, April 17, 1899.

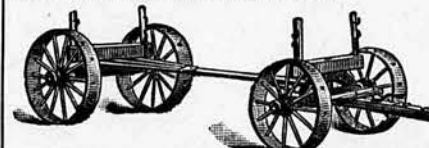
(To be continued.)

### Expansion of the Stations.

The question of the proper bounds of experiment station work already presents considerable difficulty, and promises more as these institutions become better equipped with men and material. For example, a Western experiment station is now sending out bulletins giving suggestions and advice on farm, garden, and live stock matters. In many of these articles no reference is made to any experiments, nor is there evidence that any have been made on which such advice could be based. The bulletins are sent free and the public pays for their production and transportation. But what do the agricultural, horticultural, and live stock journals of that section think of this? Can they, as disseminators of such information and advice, compete with free bulletins? Should they be forced to do so? Is an experiment station an advice factory? We have heard murmurs because an experiment station came into a show ring and carried off prizes offered to encourage breeders and feeders of fine stock. While the breeders appreciated the object lessons of the station they did not relish its competition. We have heard some grumbling about the competition of station- or college-made butter, about the competition of station pure-bred herds and flocks. The matter is more important now because of its tendencies and its possibilities than for any other reason, but it should be settled before it goes much farther. What is the object of an experiment station? Where should its dissemination of free literature end? How far is the State justified in offering mere advice and suggestions as to any man's business? What right has the State to enter the field of private enterprise in this, or in breeding, showing, or selling live stock? Some work in these lines is essential to the usefulness of experiment stations—but where is the limit?—National Stockman and Farmer.

### Farm Wagon for Only \$19.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, sold at the low price of \$19.95. The wagon is only 25 inches high, fitted with 24 and 30-inch wheels with 4 inch tire.



This wagon is made of best material throughout, and really costs but a trifle more than a set of new wheels and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

We can save you money, if you want most any paper or magazine, in connection with Kansas Farmer. Write for special club list.



## The Stock Interest.

### DYSENTERY IN CALVES AND OTHER YOUNG ANIMALS.

Press Bulletin Kansas Experiment Station. Letters of inquiry to the Veterinary department, regarding this disease, have, during the past month or more, been so numerous, and are continuing to come in at such a rate that it has been thought best to give to the public, through the press, a few of the best-known facts regarding this extremely fatal disease.

#### NATURE, OCCURRENCE, AND CAUSE.

Dysentery in young animals is most frequently met with in calves, but also causes untold losses in pigs, lambs and foals, and is common in dogs and cats. That a similar disease occurs in human beings is a well-known fact. This disease is so common in many localities, becoming more prevalent from year to year, that in some places the growing of young stock must be abandoned. According to Roell, dysentery is so prevalent in portions of Austria that, in one herd of 3,318 calves, 1,196 animals were attacked and 1,152 died (97 per cent). This gives an idea of the mortality to be expected from this disease.

The disease attacks, chiefly, animals from 1 to 4 days old; after that age it is a much rarer occurrence. Often the animals become attacked immediately after birth, without previously having taken any food whatever. This seems to prove that the milk of the dam can not be considered as a factor in producing the disease. A further proof to this effect seems to be the fact that the feeding of milk from stables free from this disease is no hindrance to its development.

Although the infectious principle is not known, there is no doubt that the disease is infectious and that the excrements harbor the infectious principle and constitute the chief medium for its dissemination.

It seems that the disease can be transmitted not only from animal to animal of the same species, but also to animals of different species, e. g., from calves to lambs and pigs (Kotelmann). Friedberger and Froehner mention the fact that infectious abortion and infectious scours (dysentery) often occur at the same time and thus seem to have something in common.

#### SYMPTOMS.

The symptoms in different species of animals are much the same and are only too well known by some cattle men. In calves we find the following: loss of appetite, diarrhea (very soft or even watery evacuations), restlessness, tenesmus (ineffectual straining to pass dung), and cries of distress. Later, the excrements, which at first are of a gruel-like consistence and of a yellowish color, become watery and whitish in color, mixed with mucus and particles of coagulated milk and even blood. At this stage the excrements have a most disagreeable fetid odor. Finally, involuntary evacuations take place, the animals become weak and lie down continually, have cramps and spasms and discharge saliva from the mouth. The eyes become sunken, the hair rough, and general indications of emaciation can be observed.

Death may occur within twenty-four hours of the appearance of the first symptoms, but as a rule not until the lapse of two or three days. The mortality is very high (80 to 100 per cent of all attacked animals die). Frequently every calf in a stable will succumb to the disease. When animals recover they remain weak and unthrifty for a long time.

The symptoms in lambs and colts are much the same as those given for calves. A few other diseases, which may be confounded with dysentery, are sometimes met with, but careful observation and the consideration of all facts presented will guard against a false diagnosis.

#### TREATMENT.

Our greatest, and I might say, our only hope, lies in prevention. Prevention consists in the isolation of the healthy and the diseased animals, and in the thorough disinfection (see Bulletin 79, Bovine Tuberculosis, pp. 99-101, Kansas State Agricultural College), of the infected stables, yards and pens, as well as disinfection of the female genital organs (before and after parturition).

The isolation of pregnant cows and their removal to new, or thoroughly disinfected old, quarters, a week or ten days before parturition is an excellent plan. This is more rational treatment and promises better success than any amount of drugs and medicines administered internally. Animals already attacked may be treated as follows: Give calves two or three tablespoonfuls of castor oil, lambs as many teaspoonfuls. Colts may be given one to three grains of calomel three times a day. The calomel, after being triturated with a

little sugar, may be added to a little milk and fed to the colt. On the following day, or after the oil (or calomel) has had its effect (laxative), the following, recommended by Friedberger and Froehner, may be given:

Powdered rhubarb root, 1 drachm.  
Powdered magnesium carbonate, 15 grains.

Powdered opium, 30 grains.  
Good brandy or whisky, 2 ounces.  
Mix, dilute with equal parts of water, shake well, and give to calf as one dose, repeating a similar dose every three to six hours until the diarrhea is relieved.

In the same manner colts may be given 1 to 2½ drachms of tincture of opium, lambs 30 to 60 drops, repeating the dose, as above, every three to six hours until relieved.

The following treatment was used with success by the author: Take wood-tar, one pound, place in a vessel and pour over it three gallons of boiling water; allow to cool and pour off the straw-colored liquid (tar water), which is used as follows: As soon as the calf shows symptoms of diarrhea, inject, with a syringe, one-fourth pint of this liquid into the rectum. Repeat the operation every half hour. Use a hard rubber syringe with a long nozzle, oiling it, if necessary, to facilitate its insertion and to prevent possible injury. Next day, continue this treatment and, in addition, dilute all milk fed to the calf with one-fourth its bulk of this tar water. Keep this up until recovery sets in. With this, as well as with any other treatment, the most important thing must not be neglected, viz, providing for the tender young animal's comfort. Provide a clean, comfortable stable, plenty of fresh bedding, which must be renewed every day, pure air, light, quiet surroundings and gentle treatment. If the animal is allowed to suck, wash teats of dam with a 3 per cent creolin solution (tablespoonful creolin to one pint of water) immediately before. If calf is fed by hand, wash your hands in hot soap water, using a stiff brush, and then rinse them in 3 per cent creolin solution. Keep pails and all utensils, with which milk is handled, scrupulously clean by means of frequent scaldings. Disinfect stables and yards frequently with a one-fifth per cent solution of bichloride of mercury.

Pregnant cows should be treated as follows: A week or ten days before they are due to calve, isolate them and inject (gently) one-half pint of a 3 per cent creolin solution into the vagina. Repeat this operation every day until the calf is born. After the calf is born inject half a gallon of this solution into the uterus, repeating the operation once daily for three or four days or until all unnatural discharges cease.

All this means strict attention, study, work, and a little expense, but without these do not expect or even hope for success.  
PAUL FISCHER.

#### The Sunny Slope Sale.

Last December Mr. C. A. Stannard, of Hope, Kans., purchased the entire Sunny Slope herd, farm, and equipments, at Emporia, and moved his Sunrise herd of Herefords to Emporia. This consolidation gave him the largest herd of Herefords in America, and he found that he would have to dispose of 100 head, owing to the crowded condition of the farm, but the long, hard winter prevented him from getting them in suitable condition for public sale. However, the selection of 50 bulls and 50 females was made from those that could best be spared. This, following so closely on the Sunny Slope sale in December, placed Mr. Stannard at a decided disadvantage as to maintaining the average of former sales, owing to their thin condition, and because there was not offered the usual number of fancy-bred animals.

The 97 head sold on April 18, at Kansas City, brought \$17,315, an average of \$178.50. One heifer was withdrawn after being brought in the ring and was sold at private sale for \$100 to W. E. Gregory, Walnut, Kans. Forty-four bulls averaged \$166.93, and 53 cows and heifers averaged \$188.11.

The top price of the day was for Ashton Bloom 65877, a heifer bred to imported Keep On, and taken by the Egger Hereford Cattle Co., Appleton City, Mo., for \$555.

Belle Washington 51565, a 7-year-old cow by Rudolph 13478, was a bargain that Frank Rockefeller, of Cleveland, Ohio, took for his Kansas ranch at Belvidere, Kiowa County, for \$400.

Cadellia 2d 71966, by Corrector 48976, was another plum. She went to Thos. F. B. Sotham, Chillicothe, Mo., for \$500.

Among the notable sales of bulls were the following: Judge 81481, an Archibald red bull calf, to Wm. Ernst, Tecumseh, Neb., \$300; Kodax of Rockland 40731, the 9-year-old herd bull, to A. Lovett, Crab Orchard, Neb., \$365; Sunny Slope Tom 1st 86083, yearling bull sired by Wild Tom, to

O'Neil Bros., Southgate, Ontario, Canada, \$310.

Following is a summary of the principal sales, arranged by States to which destined:

KANSAS.		Bulls.	Cows.
P. Maloney, Skiddy.....	1	..	..
C. A. Jones, Wichita.....	3	..	..
Paris & Haskell, Gaylord.....	5	..	..
B. C. McQueston, Ottawa.....	2	..	9
Chas. Halstrom, Scandia.....	1	..	..
L. H. Barrington, Freeport.....	1	..	1
H. L. Burgess, Olathe.....	1	..	..
J. A. Musson, Ottawa.....	1	..	..
L. C. Stine, Ottawa.....	1	..	..
H. A. Schwardt, Laclede.....	1	..	..
G. B. Little, Olathe.....	1	..	..
Henry Grimm, Volland.....	1	..	1
J. F. Barnes, Pratt.....	2	..	..
F. L. Watkins, Council Grove.....	2	..	..
W. E. Gregory, Walnut.....	1	..	..
J. V. Downing, Scandia.....	1	..	..
F. Rockefeller, Belvidere.....	7	..	..
MISSOURI.			
Thos. F. B. Sotham, Chillicothe.....	1	2	..
H. G. Fray, Blackwater.....	1	..	..
Jas. Boxley, Princeton.....	1	..	1
C. L. Browning, Laredo.....	1	..	..
John Broderick, Perrin.....	1	..	..
W. A. Lane, Browning.....	1	..	..
E. Wall, Dayton.....	1	..	..
Egger Hereford Cattle Co., Appleton City.....	2	..	..
W. M. Crawford, Butler.....	1	..	..
C. G. Comstock, Albany.....	1	..	..
Cornish & Patton, Osborn.....	1	..	..
NEBRASKA.			
L. L. Young, Oakland.....	2	..	..
Wm. Ernst, Tecumseh.....	1	6	..
A. Lovett, Crab Orchard.....	1	..	..
C. Faulhaber, Brownlee.....	1	..	..
IOWA.			
Geo. T. Rule, Silver City.....	3	..	..
E. J. Elliott, Sutherland.....	3	..	..
COLORADO.			
E. Brewer, Manzanola.....	9	..	..
M. L. Kramer, Boone.....	2	..	..
TEXAS.			
E. J. Wall, Quanah.....	1	..	..
Wallace Good, Quanah.....	1	..	..
OHIO.			
Henry Folsom, Franklin Furnace.....	1	2	..
VIRGINIA.			
H. L. Morgan, Ruma.....	1	..	..
CANADA.			
O'Neil Bros., Southgate, Ont.....	1	..	..

#### Experiences in Feeding Lambs.

From an account by M. W. A. Colt, Rocky Ford, Col.

Attracted by the results obtained at Fort Collins with the famous Colorado alfalfa lambs, Messrs. H. C. Abbott & Co. started the feeding of lambs in this section. My attention was first called to it by this firm offering for sale a small bunch that they had driven across the country from the border of New Mexico. These lambs arrived on the river at Las Animas and were held there about two weeks before a purchaser could be found. Finally, the bunch of 3,000 head was sold; one-half to a Kansas feeder, and the remainder to myself as president of The Bent-Otero Improvement Company. The Kansas half was shipped to Hutchinson and weighed, off the cars, 53 pounds; my bunch was, as far as known, of equal weight. From Las Animas these lambs were driven 40 miles up the river to one of the alfalfa farms of The Bent-Otero Company and reached there on Thanksgiving day. There was no preparation, whatever, for them, except a wire corral which was used at night, and the lambs ran on the alfalfa during the day. Feed racks for hay, and a wind-break on the north were soon constructed and in about two weeks they were located in their winter quarters. I fed them twice a day on alfalfa hay, giving them all the hay they would eat up clean, and in a short time added one-eighth pound of corn, fed once a day.

Everything went smoothly until about February 1, when I was informed that my lambs probably had the scab and would have to be dipped, as scab had developed in the other half that went to Kansas. I was very much alarmed and all the old sheep men told me that I would lose all my feed if I had to dip while they were being fattened. We rigged up a vat, however, 16 feet long, heated the water with irons and rocks, same as for scalding hogs, using a nicotine dip.

The dipping commenced February 15 and the first day we dipped 500. We ran them out in the alfalfa fields after dipping, and gave them a chance to dry off the best they could, and when they were turned into their corn and hay at night they seemed to eat as if they had enjoyed the bath they had just been compelled to take. I really expected to find a portion of them dead the next morning, but to my surprise every one came up and ate his feed, which then consisted of one-half pound of corn a day. The dipping was finished within the next few days and there were no bad results whatever from it that could be noticed—at least there was not a sheep that missed a meal. After dipping we commenced to increase the amount of corn and to give it to them twice a day; in a few weeks they were eating about one pound per day.

On April 7 the entire bunch was shipped to Kansas City and sold on the market for \$4.60, and weighed 83 pounds. My Kansas friend, who had fed the other half, reached the market about the same time; his lambs sold for \$4, and weighed 65 pounds. The Kansas man was a feeder of five years' experience. The result of my

## "Necessity

## Knows No Law."

*But a law of Nature bows to the necessity of keeping the blood pure so that the entire system shall be strong, healthy and vigorous.*

To take Hood's Sarsaparilla, the great blood purifier, is therefore a law of health and it is a necessity in nearly every household. *It never disappoints.*

**Tired Feeling**—“I had that tired, dull feeling, dyspepsia, headaches and sinking spells, but Hood's Sarsaparilla made me a new man. I never was better than now.” JOHN MACK, Oskaloosa, Iowa.

**Rosy Cheeks**—“I have good health and rosy cheeks, thanks to Hood's Sarsaparilla. It builds me up and saves doctor's bills.” MARY A. BURKE, 604 East Clair Street, Indianapolis, Ind.

**Hood's Sarsaparilla**  
Never Disappoints

Hood's Pills cure liver ills; the non-irritating and only cathartic to take with Hood's Sarsaparilla.

feed was a profit of \$1 per head, after paying for all the feed at the market price.

The next season I bought 2,250 head, driven to my feed lots from southeastern Colorado, and paid for this band \$3,300. They arrived October 22. They were handled about the same way as the ones the previous year and were also marketed in April and brought, gross, in Kansas City, \$10,300. This was a record breaker, the original value of the lambs being trebled in six months, this being the spring of 1897.

#### FED ON A LARGE SCALE.

In the fall of the same year, together with my associates, we made large improvements in lots, and shipped in on our different alfalfa farms located near Manzanola and Rocky Ford, 55,000 New Mexico lambs and put them on full feed. They were located in bands of about 4,000, and each corral was subdivided into small lots holding 400, so that the entire number was cared for as a small bunch. Corrals were arranged in large circles, using the outside for hay (the more bulky) and the inside for corn. Imagine a large wheel, each spoke being a partition holding 400 lambs, and the hub a lot for corn, so that each lot could be turned out to feed with the least possible amount of time. While the lambs were out eating corn the racks were filled with alfalfa from the outside of the wheel. Water was provided either from wells with horse power pumps or from reservoirs and piped to each lot and held in troughs, constantly.

The winding up of this large feed in the spring of 1898 was not as great a financial success as the smaller feeds the year before for several good reasons, the principal one being the rise in the price of stock lambs in the fall, and higher prices both for hay and corn. Results, however, were satisfactory, and the tail end sold on the Kansas City market, the last of May, at \$0.15 per hundredweight, and weighed 74 pounds.

In the fall of 1898 prospects were not flattering for heavy feeding; the corn crop was short and feeding lambs higher than had ever been known, but, believing our conditions were as favorable as any in the United States, we purchased 30,000 head at about \$2.20 per head, delivered in our feed lots—this being about \$1 per head higher than when our first feeding operations commenced three years before. The result of the present year, which will be told about June 1, is at the present quite promising, while those that were marketed in February and the first part of March lost money.

#### THE INDUSTRY GENERALIZED.

To speak in general of lamb feeding in the Arkansas Valley, it commenced in the fall of 1895 with about 4,000 head, all told; in 1896 it was increased to 30,000; in 1897, 125,000; in 1898, 130,000. The lack of proportional increase for last year was caused by the unfavorable conditions—high-priced lambs and high corn. There is no doubt, however, as to the future increase under normal conditions.

The area of the Arkansas Valley is about 350,000 acres of tillable land under irrigation, and about 100,000 acres at the present time is in alfalfa; this will produce, on an average, three tons to the acre, or 300,000 tons. Allowing one-half to be used for other stock would leave 150,000 tons for lambs. Allowing one-fourth of a ton for each head, the valley, at present, could feed 600,000 head. The corn for all the feeding comes from Kansas and Nebraska



NON-POISONOUS SURE PROTECTION

**CHLORO-NAPHTHOLEUM**

THE PREVENTIVE TREATMENT

**Prevent Hog Cholera**

It is possible to save yourself from this serious loss. The expense is but a trifle, and the result certain if directions for using

**Chlora-Naphtoleum**

are carefully followed. Little trouble; little expense and certain results. Endorsed by thousands of prominent swine breeders, by Experiment Stations, and by Veterinary Experts. Kills lice, kills ticks on sheep and cattle, cures screw-worm.

Write for free book. It will help you. Chlora-Naphtoleum will be supplied from our nearest local agency, or from local dealers. Agents wanted in unoccupied territory. Write or telegraph

**West Disinfecting Co.**

**E. TAUSSIG & CO., Proprietors,**  
25 East 59th St., New York.

"An ounce of prevention is worth a pound of cure."

and is never higher than 10 cents per hundredweight above the cash corn quotations on the Kansas City market; or add 5½ cents to Kansas City price on corn and you will have the highest price we ever have to pay, and some years we get corn for 5 cents less than Kansas City price.

#### ARKANSAS VALLEY'S ADVANTAGES.

As to the points of advantage the Arkansas Valley has over all other sections of Colorado, principally meaning the famous Fort Collins district, as there is no argument of Colorado as against the States east in the rain belt, we clear them without an effort. But as to northern Colorado and Fort Collins: In the first place we are 200 miles farther south, giving us warmer climate; we are 100 miles farther east of the great Rocky Mountain range, giving us dryer climate. The records of the weather bureau show 1½ feet average rainfall in the Fort Collins district, during the year, while our record shows one foot. One-third less moisture means a great deal to a feeding lamb. We have great advantage on freight in all cases. Our freights on the through rates from New Mexico are \$20 per car less, and in some cases still less. In fact, one-third of our lambs are driven into the feed lots direct from southern Colorado and northern New Mexico ranges, allowing the shipment out on local rates, which is only \$50 per car. The great Santa Fe road reaches all the principal lamb ranges and is a direct line for all in and out shipments, and is doing all in its power to make this the great lamb-feeding country of Colorado.

The altitude of the Arkansas Valley is 4,000 feet. Alfalfa, which thrives best in low altitudes and warm climate, is at its best here, our valley being the lowest irrigated valley in the State. The drainage of the Arkansas River has the greatest area of any river in the State, making our water supply unequalled. Our growing season is four weeks longer than any other section, which with all these advantages, makes it possible to cut four crops of hay from the same ground, each season making an average of about five tons to the acre. These conditions insure cheaper hay than can be had in any other section.

The length of the farming district is 160 miles by 8 miles wide, lying on both sides of the river; adjoining all this farm land are the free public ranges of arid lands, which will continue to be arid lands for years to come, as the entire water supply is already exhausted by the present irrigating systems. The arid-land feature makes it possible for each lamb feeder to raise his own lambs, which plan is already being practiced by a great many of our farmers.

#### KANSAS CITY THE GREAT MARKET.

Our distance to water is shorter than in any other section of Colorado. Kansas City has proven itself the only market for Arkansas Valley lambs, being on an average 450 miles east. This run is made on the Santa Fe stock trains in twenty hours. During my four years' experience in feeding, I have never yet found it would pay to ship beyond Kansas City, and I have



never had to unload while in transit from the feed lots to the market. Leaving home one morning I am on the market the next day, selling with the least possible loss of flesh. Some argue that it pays to stop on the road and fill our lambs, but I find that those that think they can fool Armour's and Swift's buyers by getting a good fill, only fool themselves, as lambs are bought in Kansas City on the net amount of dressed meat in the carcass.

The months for marketing our finished lambs are April and May. There is where our dry climate comes in. The Eastern feed lots have to be cleaned out as soon as spring comes, forcing lambs on the market often when they are not wanted. But, as said, with our dry climate we can hold until Easter time and warm weather, and have the market almost entirely for Colorado.

#### Gossip About Stock.

Volume 21 "American Poland-China Record" is just out. It includes boars 44585 to 47265 and sows from 122624 to 129070, this being the second volume for the year 1898. W. M. McFadden, West Liberty, Iowa, is secretary.

Every stockman who will consult the advertisement of the West Disinfectant Company, owned by E. Taussig & Co., of New York, which appears in this issue, by mentioning this paper, will receive a free copy from their veterinary department of the "Preventive Treatment for Parasitic and Germ Diseases of Sheep and Cattle."

The wealth of grass at the famous Linwood farm, owned by Senator W. A. Harris, is now largely utilized as pasture for Shropshire sheep in charge of Philo Jewett, the eldest son of Sam Jewett, the famous sheepman of the West. Mr. Jewett, the shepherd, is now advertising for sale a number of high-grade sheep of both sexes.

O. H. Nelson, of the firm of Nelson & Doyle, Kansas City, Mo., informs the Farmer that he has now ready for sale serviceable Herefords, all pure-bred, 18 bred by Vannatta; also 100 head of 2-year-olds and 150 bulls from 12 to 15 months old. All these bulls must be sold soon, consequently they will be quite a bargain for someone.

Collin Cameron, of Lochiel, Ariz., was in Kansas City last week making arrangements for the shipment of 4,000 high-grade cattle from his ranch in Arizona to J. O. Jahren's pastures in Butler County, Kansas. Mr. Cameron has a herd of Herefords that were bred and reared in Arizona, making them specially adapted to the range. Mr. Cameron has been a liberal buyer of our best breeders.

At the sale of the Iowa Shorthorn cattle, by Messrs. Daws & Westrope, recently held at South Omaha, Nebr., in which Mr. Westrope's cattle averaged \$221.67 and Mr. Daws, \$106.34, Kansas, as usual, was very much in evidence, and her breeders topped the sale and carried off the plums of the offering. Andrew Pringle, Harveyville, Kans., secured Violet Victor for \$500, and Kellerman & Son, Mound City, Kans., took Gloster at the snug sum of \$350.

"Reports of winter losses are commencing to come in, and it is evident that the losses have been much heavier than were anticipated from earlier reports," says the Denver Stockman. "President John W. Springer's estimate of 15 per cent loss from Montana to the Gulf promises to be not far from the truth. It was an awful winter in the Rocky Mountain districts and on the plains of the Missouri Valley, and it will never be known just how heavy the losses were."

The celebrated Klever's Model case was decided in the Sangamon circuit court recently by the jury returning a verdict that the hog in question was Klever's Model. The hog was sold at the State fair grounds, Springfield, Ill., August 27, 1897, by George G. Council, of Williamsville, to a syndicate, composed of A. M. Caldwell and others, for \$25,000, the highest price ever paid for a hog. Purchasers refused payment, alleging Klever's Model was dead, and that the hog which they had bought was Columbia Wilkes. At the first trial the jury disagreed. Columbia Wilkes was produced in evidence and identified.

The horse business is once more assured of prosperity and as certain as the fact that the Kansas Farmer is the medium to push it along. "New breeders are constantly coming into the ring," writes C. Spohr, of Rome, Kans., a new breeder of Percheron horses, who sold the Grey Percheron stallion, Pride 15788, one of the best horses raised in the State, to J. A. Holister, of Grigsby, Kans. The horse which Mr. Holister bought was one of the two stallions which were advertised for sale in the Kansas Farmer by C. Spohr, who commenced the business by buying a mare with foal, the first colt being the stallion Pride. Mr. Holister made inquiries in several States and looked at many horses but was not suited until he reached old Sumner County, in which Mr. Spohr resides. After

looking at the horse Mr. Holister soon made up his mind to purchase him. He took his departure from the farm after a two and a half hour stay, and returned home next day, feeling confident that he had purchased as good a stallion as was ever raised in sunny Kansas. C. Spohr will now enter the ring with a small herd of Percheron horses and will continue the business.

The demand in the auctions for driving, carriage, and coach horses of style, substance, beauty of conformation, and high action so far exceeds the supply that in face of offerings not up to the average in point of quality, prices were maintained to the last cent, and had there been the right kind offered a substantial advance would have been scored. The demand for heavy drafters is stronger than it ever was. For Boston and export chunks the demand is good enough so that these horses sell from \$120 up for the better grades, which proves how keen the competition is for them. But when it comes to driving and carriage horses, the inquiry seems to be unlimited as to both numbers and price. Despite the mediocre quality of the offerings last week, the top price paid in the auctions was \$300 for a standard-bred, 1,150-pound gelding, 6 years old. For a cob, with good substance, nice color, and fair action, but standing only 15.2, Tichenor & Co. paid \$250.

Mr. T. F. B. Sotham writes: "We are having a busy trade. While our annual sales of Weaverstock have been very successful, it is a very small tithe of the business transacted. Among recent commissions we have filled, was the purchase of a very prime Hereford bull, bred by Mr. Wm. Smith, Harriestown, Ill., of John G. Imboden, Decatur, Ill., for Mr. D. W. Black, Lyndon, Ohio; price \$175. For Mr. R. D. Berry, of Dallas, Texas, we also purchased of the Sunny Slope Herd of Mr. C. A. Stannard, a bull and two heifers as the foundation for a herd for Mr. Henry Folsom, Franklin Furnace, Ohio; price \$525. At the same sale we purchased a choice 2-year-old bull for Mr. Chas. Faulhaber, Brownlee, Nebr., one of the bargains of the sale, at \$200, and for Mr. J. B. Stone, Browning, Mo., a Hereford bull for \$135. For Mr. R. L. Lane, also of Browning, Mo., one of the plums of the sale, a bull, for \$185. Among our larger recent negotiations was the purchase of Mr. C. A. Jamison, Peoria, Ill., of 98 head of cows and calves, heifers, and young bulls, from Mr. Wallace Libbey, Ottawa, Ill.; consideration, \$11,000. Mr. Jamison also got the Hereford bull, Well Done, a full brother to Sir Bredwell. Mr. Libbey purchased Well Done when a calf at my 1897 sale for \$305. He has been offered recently by different buyers from \$500 to \$800, all of which he had refused. After Mr. Jamison had bought the 98 head at very moderate figures, he asked Mr. Libbey to price Well Done. Mr. Libbey did not want to sell him, so priced him, as he thought, out of Mr. Jamison's reach, at \$1,000. The avidity with which Mr. Jamison snatched up the bargain surprised Mr. Libbey, and he is kicking himself yet. In a recent letter he says: 'If I had had any idea that Mr. Jamison would have bought Well Done, I would have asked him three times the price, as I did not want to sell him.' At these moderate prices there is an insatiable demand for Hereford cattle, and without exception these cattle had been produced and kept in such a way that they were profitable to the seller as well as the buyer."

Among those within the confines of the State of Missouri who are engaged in breeding pure-bred live stock is Mr. John Morris, a Yorkshire Englishman by birth and a progressive Missourian by adoption since 1862. At that time he settled on his present homestead, four miles north of Chillicothe, the county seat of Livingston County, and has since been engaged in live stock husbandry. The visitor now finds over 100 head of registered Shorthorn cattle, 400 head of sheep—Cotswolds and Shropshires, also 200 head of pure-bred Berkshire swine that are eligible to registry. It has been his constant aim to have the best to be had, and one finds that the representatives on his 640-acre farm prove that he has succeeded in carrying out his idea. Elsewhere in this issue the reader



The bud is more easily blighted than the full-blown rose. A young girl is more susceptible to weakness and disease that will wreck her in a womanly way than she is after she has attained to healthy womanhood. Thousands of women have their lives wrecked by troubles of this delicate description because of their own ignorance and the prudery of their mothers.

Whenever the wandering demon of ill-health finds a ship adrift upon the sea of ignorance, he steps on board, takes the helm, and steers straight for the maelstrom of death. The young woman who has not been taught the necessity of taking care of her health in a womanly way is a ship adrift upon the sea of ignorance. Diseases that will wreck her future happiness will soon assume command. Young women who suffer from weakness and disease peculiar to their sex live under a terrible nervous tension, and if they escape death are always threatened with insanity. The whole nervous system is affected by the constant drag and drain upon the delicate and feminine organs. Dr. Pierce's Favorite Prescription is the one perfect and unfailing specific for every derangement and disorder of this description. It fits a woman for wifehood and motherhood. It is the best of all known nerve tonics. It is the discovery of one of the most eminent and skillful specialists in disease of women.

"I was troubled three years with female weakness," writes Miss Ellen Otey, of Bedford City, Bedford Co., Va. "I had two physicians, but neither did me any good. I was troubled with pains in my left side all the time. When it was time for my monthly periods I thought I would die with pains in my back and stomach. I also had chills. I could not get up without fainting. Finally I took three bottles of Dr. Pierce's Favorite Prescription and two of his 'Golden Medical Discovery.' I do not have any pains at all and am in better health now than I ever was in my life."

How to preserve health and beauty are told in Dr. Pierce's Medical Advertiser. It is free. For a paper-covered copy send 21 one-cent stamps, to cover mailing only; cloth binding, 31 stamps. Address Dr. R. V. Pierce, Buffalo, N. Y.

#### HOW DOES HE DO IT?

Prof. Weltmer's Unprecedented Success Continues to Dumbfound and Astonish the Scientific World.

No discovery of late years has created such a profound sensation as Prof. Weltmer's method of healing the sick. Medical and scientific men the world over stand aghast at the wonders being performed by this new and grand method. That it does the work has never been questioned for a single moment, as prominent men and women everywhere endorse it. Rev. James O. Swinney, founder of Pritchett College, Glasgow, Mo., after suffering for many months with bladder, stomach and prostatic troubles, and failing to get even relief through old time methods, was cured by this great healer. Mr. J. S. Small, Colfax, Ill., was totally deaf in his left ear for three years. Was fully restored by Prof. Weltmer in three days. Not only does Prof. Weltmer cure hundreds of people at his Infirmary at Nevada, Mo., but he possesses the remarkable ability to cure at a distance, and does this with the same wonderful ease. Hon. T. T. Rotes, Prosecuting Attorney, Paris, Mo., was greatly afflicted with sciatic rheumatism. He was restored in 30 days by absent treatment. Mr. H. E. Rose, Novelty, Mo., had a large goitre on his neck that was literally choking him to death. It was removed in a single night by this eminent healer without seeing him. Thousands, all over the world, relieved in the same manner. This is positively the only known method that will restore lost vitality and kindred troubles. A copy of the Magnetic Journal, a forty-page illustrated magazine, giving a list of the most miraculous cures on record, will be sent free to any sufferer.

**TEACHES HIS ART TO OTHERS.** Prof. Weltmer teaches his wonderful art to others, and it is the grandest and best paying profession of the age. Many of his students are making \$10 to \$50 per day. Taught by mail or personal instructions.

Address, Prof. S. A. Weltmer, Nevada, Mo., The American School of Magnetic Healing.

#### Are you Interested in California?

See for yourself if all that is claimed for its climate and opportunities is true.

The Santa Fe Route will make very low round-trip rates in late June and early July, on such liberal conditions that you may see not only California, but any other portion of the great West. Many hours shorter to Los Angeles than any other route.

T. L. KING, Agent, Topeka.

**MICA AXLE GREASE**

lightens the load—shortens the road.

helps the team. Saves wear and expense. Sold everywhere.

MADE BY STANDARD OIL CO.



will find his announcement concerning his fifth annual sale of Shorthorn cattle, which will take place at the fair grounds adjoining Chillicothe, on Wednesday, May 24, 1899, when he will offer 45 head, consisting of cows with calves at foot, serviceable bulls, and heifers. Several years ago Mr. Morris arrived at the conclusion that Scotch blood would materially add value to his herd, and after due trial the results have been very gratifying indeed. The predecessor of Red Cup 121750, the present premier herd bull, was imported Chief Steward 96703, that was bred by Amos Cruickshank, Aberdeenshire, Scotland, sired by the famous Cumberland (46144), he by Pride of the Isles (35072). His dam, Coltsfoot, was by Dunblane (47792), a son of Roan Gauntlet (35284). Such were the good results by the use of Dunblane that he was used four years in the Sittytton herd of Mr. Cruickshank. Individually Chief Steward was one of the short-legged, beefy, thick, wide-out representatives that insured the deep-fleshed, early-maturing kind. His successor, Red Cup 121750, is a son of imported Cup Bearer 91223, and out of imported Fox Glove, a Cruickshank cow by Perfection (61408). This bull was secured by Mr. Morris in 1896 and was the highest-priced Shorthorn bull of that year. All well-up Shorthorn breeders will call to mind the championships won by his sire in Great Britain, Canada, and our country. A major portion of the offerings are by either of these sires, hence the reader will readily understand the value of the offering. For further information write for a free copy of the sale catalogue.

#### \$19—Denver and Return via Santa Fe Route.

Tickets on sale May 16 and 17. Good for return until June 15, 1899. Pullman sleepers and free chairs through. Berths reserved, baggage checked, and tickets sold by T. L. King, Agent, Topeka.

## There Is Only One...

### "Overland Route"



DIRECT LINE for all Points in Kansas, Colorado, Wyoming, Utah, Pacific Coast and Puget Sound.

Palace Sleeping Cars Ordinary Sleeping Cars  
Free Reclining Chair Cars  
Dining Cars.

For time tables, folders, illustrated books, pamphlets descriptive of the territory traversed, call on F. A. Lewis, City Ticket Agent, or J. C. Fulton, Depot, Agent, Topeka, Kans.

#### PERSONALLY CONDUCTED TOURIST EXCURSIONS

WEEKLY TO

## CALIFORNIA



WEEKLY TO

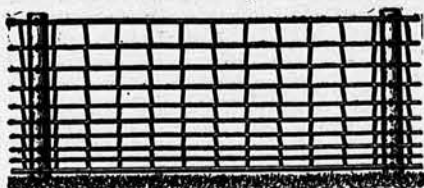
## CHICAGO AND EASTERN POINTS

Accompany these Excursions and SAVE MONEY. For the lowest rate tickets are available in these

#### Popular Pullman Tourist Cars

For full description of this service and the benefits given its patrons, also dates of excursions and rates, see your local ticket agent or address  
John Sebastian, G. P. A., E. W. Thompson, A. G. P. A.  
CHICAGO, ILL. TOPEKA, KANS.

#### A Farm Fence of Special Merit.



The cut shown herewith is that of the Advance Woven Wire Fence, manufactured by the Company of the same name, at Peoria, Ill. It combines in a high degree all the qualities of a good farm fence. It is strong, handsome, harmless and the way in which it is sold makes it reasonable in price. These people sell direct from the factory to the farmer at practically wholesale prices. They do not allow the dealer to handle it at all, but give you all the profit he would make on its sale. If you need fencing, write them for prices, circulars, etc. Address as follows: Advance Fence Co., 4104 Old St., Peoria, Illinois.

#### The Best Summer Route to California

is the Santa Fe. The average temperature during the journey is less than that for the same period at your home. Then the cars are so comfortable, fatigue is scarcely noticeable. Pullman palace and tourist sleepers and free chair cars on all California trains. T. L. King, Agent, Topeka.

\$28.85. \$28.85.

The Union Pacific has made the greatly reduced rate of \$28.85 to Portland and other Puget Sound points; also to Helena and Montana points, Salt Lake City and Utah points.

For tickets and full information call on F. A. Lewis, City Ticket Agent, or J. C. Fulton, Depot Agent, Topeka.

## THE STRAY LIST.

#### FOR WEEK ENDING APRIL 13, 1899.

Lyon County—H. E. Peach, Clerk.  
MARE—Taken up by E. E. Williams in Americus tp. (P. O. Emporia), one light bay mare, white left hind foot, white in forehead.

#### FOR WEEK ENDING APRIL 27, 1899.

Lincoln County—J. S. Stover, Clerk.  
MARE—Taken up by George Keizer, on the 8th day of March, 1899, in Highland tp. (P. O. Wilson), one black pony, about 8 years old, weight about 800 pounds; three white feet, star on forehead, white on nose; valued at \$12.

Montgomery County—D. S. James, Clerk.  
MARE—Taken up by Fred Ringlisen, in Rutland tp. (P. O. Havana), April 5, 1899, one gray mare, weight 900 pounds, 15 hands high, about 14 years old, roached mane; valued at \$15.

#### Excursion Rates to Western Canada

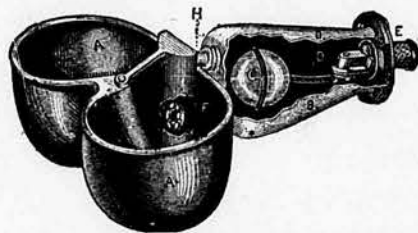
And particulars how to secure 160 acres of the best wheat-growing land on the continent, can be secured on application to the Superintendent of Immigration, Ottawa, Canada, or to the undersigned.

Specially conducted excursions will leave St. Paul, Minn., on the first and third Wednesdays in each month, and specially low rates on all lines of railway are being quoted for excursion leaving St. Paul on April 5 for Manitoba, Assiniboia, Alberta and Saskatchewan.

#### J. S. CRAWFORD,

214 West Ninth St., Kansas City, Mo.,  
Government Agent.

#### The "Dewey" Double Automatic Stock Waterer.



Valve eight inches in water; governed by water closet brass float which cannot rust, freeze nor allow mud to collect under it. Attachable to tank, barrel or pipe instantly by the most inexperienced. Waters 150 to 300 hogs a day, also sheep, calves, chickens and ducks. Stock Fountain Co., Lake City, Ia.

#### ROOFING IS GOING UP.

Buy your Corrugated iron roofing, steel roofing, metal shingles, etc., before the advance in price. CHEAPER THAN SHINGLES, easier put on, last longer. How to order and how to use, estimates of cost, etc., contained in our catalogue No. 8 to all who enclose 2c for postage. Tells all about DONKEY PAINT, rust proof, for metal, wood or felt. Mention this paper.

THE KANSAS CITY ROOFING & CORRUGATING CO.,  
KANSAS CITY, MO.

#### Free Samples of WRIGHT'S CONDENSED SMOKE.

Send us 10 cents in stamps (to pay postage) and the names of ten or twenty of your neighbors that cure their own meats and we will send you a sample of WRIGHT'S CONDENSED SMOKE, the great meat preservative, the great time, money and labor saver. Address, E. H. Wright & Co., 915 Mulberry street, Kansas City, Mo. In writing mention KANSAS FARMER.

## AFTERNOONS OFF



Tied down to housework, to the scrubbing brush and bucket, to the dish pan and housecloth, is the condition of the woman who still uses soap in her cleaning. On the other hand the woman who uses Gold Dust has her work all done by noon, does as she pleases in the afternoon. With Gold Dust she does her cleaning with half the effort, in half the time and at half the cost as with soap or any other cleanser. For greatest economy buy our large package.

## GOLD DUST Washing Powder



THE N. K. FAIRBANK COMPANY Chicago St. Louis New York Boston

## PASTEUR VACCINE

IS THE ORIGINAL AND SUCCESSFUL PREVENTIVE REMEDY FOR

## BLACK • LEG.

Write for particulars, official endorsements of our Vaccine and testimonials from thousands of stockmen who have used Pasteur Vaccine upon nearly one million head in the United States during the last three and a half years and prevented losses from Black Leg. "Single" Vaccine and "Double" Vaccine, as preferred.

PASTEUR VACCINE CO., 52 Fifth Ave., CHICAGO.

## BUY AT WHOLESALE

and save all intermediate profits and expenses. Traveling men's expenses, agents' and dealers' commissions, losses on bad accounts, etc.

#### We have no Agents.

We sell to you direct from our factory at wholesale prices. We are the largest manufacturers of vehicles and harnesses in the world, selling to the consumer exclusively. You may not have been accustomed to dealing this way but just one trial will convince you of its advantages. We are not dealers or jobbers. We make every article we sell. 170 styles of vehicles and 65 styles of harness to select from. No matter where you live, we can reach you.

We ship our goods anywhere for examination

and guarantee and warrant everything. Send for our large Illustrated Catalogue—FREE.

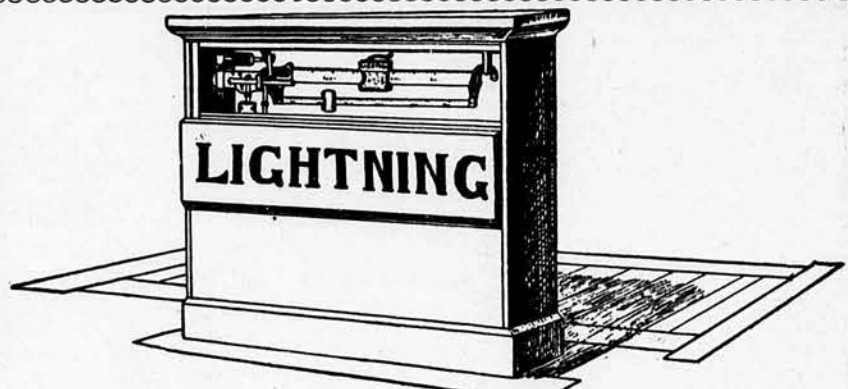
Elkhart Carriage and Harness Mfg. Co. W. B. PRATT, Secretary, Elkhart, Indiana.

## HODGES HERCULES MOWER

This is the Best Representative of the Modern Mower,

embracing in its construction everything that is latest and best. It has our new broad faced close meshed concealed gear; direct right angle long stroke pliant compound spring foot lever for lifting the cutter bar. This acts instantly and easily and does away entirely with the old hand lever. The only hand lever on this machine is used for tilting the cutter bar. Provided with serrated lodger plates—doubles the cutting capacity and the life of the guard. These are but a few of the many superior points of this mower. Above all it is lightest in draft and free from side draft. Made in four sizes, to cut 4 1/4, 4 1/2, 5 and 6 feet. We also manufacture the famous Hodges Headers, Hodges "Laddie" and "Lassie" Hand and Self Dump Rakes, Monarch and Acme Sweep Rakes and Acme Stackers. Don't buy until you get our new illustrated catalogue. Send for it, it's free.

Acme Harvester Co., Pekin, Ill.



## U. S. STANDARD SCALES.

GUARANTEED ACCURACY, STRENGTH AND DURABILITY.

Compound Beam Furnished on all Scales. No Extra Charge.

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

## DO YOU WANT A FARM

OR A RANCH? 7,000,000 acres Ranch land—1,000,000 acres Farm land, located in NEBRASKA, KANSAS, COLORADO, WYOMING and UTAH. For sale by the UNION PACIFIC RAILROAD COMPANY at greatly REDUCED PRICES on ten years' time and only 6 percent interest. LIBERAL DISCOUNT FOR CASH. Please refer to this paper when answering advt. B. A. McALLISTER, Land Commissioner, U. P. R. CO., Omaha, Neb.



## The Home Circle.

### SWEET SIXTEEN.

You may hear her laughing and singing,  
In tones that make us rejoice.  
The sound of the dinner bell ringing  
Can never equal her voice.

The pride of her father and mother,  
Cheerful, and happy, and gay;  
Companion and help to her brother,  
At work as well as at play.

She is fond of music and dancing,  
And says she will be an old maid;  
How gaily her pony came prancing  
Last Fourth of July in parade.

And being so much of a charmer,  
She has a number of beaux;  
The favorite one is a farmer,  
Perhaps, but nobody knows.

There are few such girls in the city,  
But few that I have in mind;  
And it seems to me 'tis a pity  
There are so few of the kind.  
Wakarusa, Kans. JAY VEE.

### A BACKWOODS AMBITION.

Some wants to be a hero  
With tassels on his clo'es;  
Some wants to be the scholar  
Displayin' what he knows;  
Some seek the statesman's power  
With plausible device;  
But, as for me, I'd rather be  
The man as gives advice.

It doesn't raise no income  
To help you pay your rent,  
But, then, it's an investment  
As doesn't cost a cent.  
The job won't bring much profit,  
But it lasts well an' it's nice  
To have the neighbors p'int you out  
As him as gives advice.  
—Washington Star.

### IN HAVANA.

Any one who had a share in the work of reconstruction in the South after our Civil War knows the monumental labor involved in the transition from chaos to order which that work entailed. The situation to-day in Cuba is very similar to the reconstruction period in the South, except that the difficulties are greatly enhanced by the wide difference in character of Spanish laws and institutions from our own. No one, unless he is on the spot, can realize the responsibilities and duties which are part and parcel of the office of the present Military Governor as now constituted.

General Brooke, the Military Governor of Cuba, arrived in Havana a few days before the first of the year, and had his headquarters for about ten days at the Hotel Inglaterra. It was his original intention to have gone immediately to the Captain General's palace after General Castellanos and his staff had departed, but the filthy condition of the building compelled him to give up the idea until it could be thoroughly cleaned. The quarters at the Inglaterra proving inadequate to carry on the work of administration properly, he removed to the Hotel Trocha, the old quarters of the Evacuacion Commission. It is situated in the Vedado, a suburb of Havana, nearly four miles from the heart of the city. The Vedado is a beautiful place, full of handsome villas and tropical gardens belonging to the wealthier class of the city. It stretches along the shore of the sea for a considerable distance, and its elevated position enables one, on a clear day, to see plainly the roofs and spires of Havana. It is reached by means of a superannuated steam dummy and a couple of cars, likewise aged, leaving the foot of the Prado every half hour. The Hotel Trocha was celebrated in former days for being the ultimate destination of newly married couples of Havana and the surrounding country, who came there to spend their honeymoon. No more unlikely place in the world could be imagined as the seat of government of an island the size of Cuba than this one-story frame building in the midst of country houses and sweet-smelling gardens. Mounting a high flight of steps, one is ushered into a wide vestibule flanked on each side by long corridors running the entire length of the building. Its interior resembles very much the interior of a ship, built, as it is, with a two-storied row of small sleeping rooms, entering upon a double-decked corridor, whose two decks are connected by small winding stairways. At the end of the left-hand corridor is a small ten by twelve room, the office of General Brooke. From 8 a. m. to 6 p. m., broken only by an hour for luncheon, he sits in this liliputian room receiving all sorts and conditions of people, who have infinite faith in the General's capacity to help them in all their troubles. It is one steady stream pouring into his office morning and afternoon; and it is only the watchful care of some of his personal staff, who are in front and inquire of each one their particular business, that prevents his time being taken up unnecessarily. One of his staff is the celebrated scout, Captain E. D. Campbell, who served under Sheridan during the Civil War, and whose exploits in the Indian country are well known throughout

the army. He takes a sort of paternal interest in General Brooke, and woe betide the man who says a word derogatory to his chief! It is rather amusing to remain in the reception hall, and note the people who are awaiting an audience with the Governor. Two Cuban priests, in their shovel hats and long gowns, are seated at a table chatting away in an amiable manner, and apparently in no great hurry to be off. They have come simply to pay their respects to the Governor, and are compelled to wait two hours until he is free. Some distance away, also seated, is a lady with an anxious look on her face that seems to increase with each minute's wait. She is the owner of two houses occupied by a number of recalcitrant Cubans, who neither pay rent nor are willing to move. She has an idea that the Governor, with a stroke of his pen, and sending two or three boys in blue, can adjust the matter in a jiffy. In former times it was done in just this manner by the Spanish Captain General, whose powers were absolute. It will be some time before the natives discover that the United States has courts of justice to settle affairs of this nature, and that the old days of "one-man power" have passed forever. In the corner of the hall are two well set-up men talking in low tones, and referring from time to time to papers which the larger one carries. They are capitalists interested in some government contracts, and wish to consult perhaps with General Brooke regarding the terms of their fulfillment. Then there are always to be found a number of army officers just arrived in Havana from the States, or from other provinces, who, according to army etiquette, are first required to pay their respects to the commanding general. And so the heterogeneous procession keeps on from day to day, interminable and unceasing.—Collier's Weekly.

### Origin of Old Sayings.

Many of the phrases one uses or hears every day have been handed down to us from generation to generation for hundreds of years, and in many cases they can be traced back to a quaint and curious origin.

One of the oldest of these familiar expressions is to "cut a dido," which is said of a person when he plays a sharp trick, and carries us back to 800 years B. C., when Dido, Queen of Tyre, after the murder of her husband by her brother, fled to the northern coast of Africa and founded a city. She bargained for as much land as could be surrounded by a bull's hide, and in order to claim as large a tract as possible, she had the hide cut into narrow strips, and on the land thus surrounded she built a citadel. The natives, seeing that they had been quietly outwitted by a woman, submitted gracefully to this "cutting of a Dido."

"There's many a slip 'twixt the cup and the lip" is nearly as old, and is attributed to Anceaus, King of the Island of Samos, in the Grecian archipelago. This king, so runs the story, had planted a vineyard, but he had treated his slaves so badly that one of them predicted that his master would never live to even taste of its wine. When the vintage came, however, the king called for a cup of wine, and then asked the slave what he thought of his prophecy. "I think there's many a slip between the cup and the lip," he solemnly answered. Just at that instant a messenger in hot haste rushed into the palace, informing the king that a wild boar had broken into the vineyard and was destroying it. Anceaus put down his wine cup untasted and hurried out to attack the ravager, but in the chase was killed.

"He's a brick," meaning a brave and noble fellow, doubtless originated with Agesilaus, King of Sparta, about 380 B. C. A visitor at the Lacedaemonian capital was surprised to find it without walls or other visible means of defense, and asked his royal host what they would do in case of invasion by a foreign power.

"Do!" replied the heroic king; "why Sparta has 50,000 soldiers and each man is a brick."

"Done to a turn" suggests the story of St. Lawrence, who suffered martyrdom by being roasted on a gridiron. During his torture he calmly requested the attendant to turn him over, as he was thoroughly roasted on one side. Hence the phrase, "Done to a turn."

In one of the battles between the Russians and the Tartars, 400 years ago, a private soldier of the former cried out: "Captain, I've caught a Tartar." "Bring him along, then," answered the officer. "I can't, for he won't let me," was the response. Upon investigation it was apparent that the captured had the captor by the arm and would not release him. So "catching a Tartar" is applicable to one who has found an antagonist too strong for him.

The familiar expression, "robbing Peter to pay Paul," is connected with the history of Westminster Abbey. In the early

middle ages it was the custom to call the abbey St. Peter's Cathedral. At one time, the funds of St. Paul's Cathedral being low, those in authority took sufficient from St. Peter's to settle the accounts, much to the dissatisfaction of the people, who asked, "Why rob Peter to pay Paul?" Some 200 years later the saying was again used in regard to the same collegiate churches, at the time of the death of the Earl of Chatham, the city of London declaring that the famous statesman ought to lie in St. Paul's. Parliament, however, insisted that Westminster Abbey was the proper place and not to bury him there would be, for the second time, "robbing St. Peter to pay St. Paul." The abbey properly carried the day.

"Dying in the last ditch" was, according to Hume, first used by William of Orange. When Holland was so hotly pressed by her enemies that complete disaster seemed imminent, the Duke of Buckingham implored the Prince to change his tactics or the country would be ruined. "There is one way to prevent my seeing the ruin of my country," answered the Prince; "I will die in the last ditch."

"He has an ax to grind." Early in the century the story was told of a lad who was induced by a promised reward to turn the grindstone for one who wished to sharpen his ax. The promised payment was not made. Since then, one who disguises his selfish aims by false promises is said to have an ax to grind.

"O. K." has many alleged origins. The most probable is the following: In 1840, when Alvah Adams organized the Adams Express Company, a young country lad applied for work. He was employed to do all sorts of odd jobs and make himself generally useful in the office. The boy had an observant eye, and saw that the shipping clerk placed upon the manager's desk each night a list of the packages marked "all correct." The clerk being absent one day, the boy was asked to write the list, or, rather, to check it. When he placed it on the desk it bore on the outside the letters "O. K." Asked what they meant, the youth replied "'O. K.' means 'all correct.'" Mr. Adams enjoyed a hearty laugh, and adopted the striking abbreviation thereafter.

"Cut and run" originated in a peculiar custom of the Egyptian embalmers. A low-caste was employed to make the first incision in the corpse, a process viewed with much dislike by the people, who held him accursed who should mutilate the dead. As soon as the fellow had made his "cut," he had to run through a storm of curses, stones, and sticks. He "cut" for a living, and had to "run" to save his life.

The true origin of the expression "to dun a man" is curious. In the reign of Henry VII a bailiff of Lincoln, named Joe Dun, was so active and clever in collecting debts that it became a proverb, when a person tried to avoid payment, "Why don't you Dun him?"

"Hobson's choice" is derived from one Hobson, who used to let out horses for hire, and who obliged every person who wanted one to take that next the stable door, being the one that had taken the most rest.

"Grog," a sea term for rum and water, originated from Admiral Vernon, who first introduced it on board ship. He was called by the sailors "Old Grog," from his wearing a program coat in bad weather.

"Topsy-turvy." When things are in confusion they are said to be topsy-turvy, an expression derived from the way in which turf for fuel is placed to dry on its being cut. The surface of the ground is pared off with the heath growing upon it, and the heath is turned downward and left some days in that state, that the earth may get dry before it is carried away. It means, therefore, really, "topside turf-way."

"Tawdry" is a corruption of St. Audrey, and originated in those times when they tricked out and bedecked altars and shrines of the saints with finery. The votaries of St. Audrey exceeding all the rest in the dress and equipment of her altar, it grew into a by-word upon anything that was gaudy that it was all tawdry—i. e., all St. Audrey.

"Coxcomb" is a corruption of cock's comb, which is considered as an unnecessary part and is always cut off from game birds and only suffered to grow on those of the barn-yard breed. Hence, coxcomb is a ridiculous fellow who pays more attention to the decoration of his person than to the improvement of his mind.

"Hurly-burly" denotes confusion or tumult, and is said to owe its origin to two neighboring families, Hurleigh and Burleigh, who filled their part of the country with contest and violence.—Chicago Tribune.

Health for 10 cents. Cascarets make the bowels and kidneys act naturally, destroy microbes, cure headache, biliousness and constipation. All druggists.

### The Black Stone of Islam.

So carefully is the black stone of the Temple of Mecca guarded, even to this day, that the accounts given by different writers as to the nature and appearance of the black stone exhibit some considerable variations; for orthodox Mussulmans cannot be prevailed upon to give a straightforward description of it, and mere adventurers, like the several European Hajis (Burckhardt, Burton and the others) could only gratify their intelligent curiosity by stealthy investigations. Detection in the act of pursuing such investigation would have cost the travelers their lives, in pursuance (as Mahometans suppose) of the law of the prophet. Your faithful Mussulman can not understand that any other motive than worship should lead anyone to visit Mecca.

Mr. Bate mentions what intelligent travelers have recorded concerning the nature of the black stone. One of them tells us that it is undoubtedly a large aerolite—an opinion which scarcely harmonizes with its reputed quality of floating in water, since aerolites usually contain a large percentage of heavy metallic matter, such as iron pyrites. Another traveler reports that it looks like a piece of lava, containing small extraneous particles of some white and yellowish substance. Still another of these authorities affirms that it is a fragment of volcanic basalt, sprinkled throughout its surface with small pointed colored crystals, and varied with feldspar upon a dark ground, like coal—excepting one of its protuberances, which happens to be a little reddish. Others, again, claiming an equal title to exact knowledge, give it as their opinion that it is nothing else than an ordinary piece of stone from quarries in which the Meccan territory abounds. These last mentioned travelers, however, appear to overlook the circumstance that this opinion of theirs does not take due cognizance of that property of the stone to which we have just alluded, and also the circumstance that the only kind of stone yielded by the Meccan quarries is a sort of gray granite.

Not so difficult is it to form an idea as to its size and present appearance. In form it is an irregular oval, the inequality of its two longer sides imparting to it a somewhat semi-circular appearance. It measures about six inches in height and eight in breadth, the diameter on its lower and wider side being eight inches and a half. The surface is protuberant and somewhat knobby or undulating, and has the appearance of being composed of a number of smaller stones of different sizes and shapes, securely fitted together with cement and perfectly smooth. Its appearance is as though the original piece of stone had been broken to pieces by a violent blow and then repaired. And, as a matter of fact, this appears to be the true explanation of this irregularity of the surface; for it is recorded by the Arabian historians that in the year 413 of the Hajira an emissary of a certain Egyptian Khalifa, known as "the mad Khalifa Hakim," shattered it to pieces by a stroke of a club; and they relate that, after this event the pieces, and even the dust also, were carefully restored, and the fragments cemented together.

The protuberances mentioned are twelve or fifteen in number, and are such as to impart to the surface of the stone a muscular or pebbly appearance. Near the middle there is a hollow which reaches to about as much as two inches below the outer edge of the stone, and is of a kind to suggest to the visitor the surmise that one of the protuberances may have been removed. The color of the surface of the relic is at the present time a deep reddish brown, or, as some have described it, a metallic black, and notwithstanding the polished appearance imparted to it by the constant touching of unnumbered myriads of devotees, it yet bears on its undulating surface what appears to be evident marks of volcanic origin. These muscular protuberances, however, are attributed by the Moslem authorities to the incessant osculations and rubbings of the faithful. The smoothness may perhaps be attributable to this cause, but the obviously fractured and pebbly appearance is not accounted for in this way.—Asiatic Quarterly.

### Quaint Sayings.

It is interesting and instructive to read bright and well constructed advertisements. Messrs. C. I. Hood & Co., of Sarsaparilla fame, must have been at a great feast and taken everything home with them. They are using a bright selection of quaint old sayings and proverbs as the starters in a series of clever advertisements, wherein the proverbs are neatly turned and paraphrased to fit the subject matter. The public like this breezy advertising, as it reminds of other proverbs and opens up discussion.

We can save you money, if you want most any paper or magazine, in connection with Kansas Farmer. Write for special club list.



## The Young Folks.

### THEY ARE DEAD.

There was a man who never told a lie—  
But he's dead;  
Never said it was wet when the weather  
was dry—  
Never said  
He'd caught fish when he hadn't caught  
one,  
Never said he'd done something that he  
hadn't done,  
Never scolded his wife, and never got mad,  
And wouldn't believe that the world was so  
bad.  
A respecter of men, a defender of woman,  
Who believed the divine, and in that which  
was human.  
Meek as Moses—he never was understood.  
And the poor man died of being too good.  
And he's dead.

There was a woman who never had gos-  
siped a bit—  
She's dead, too;  
Who hated all scandal, nor listened to it;  
She believed in mankind, took care of her  
cat,  
Always turned a deaf ear to this story or  
that;  
Never scolded her husband—she never had  
one;  
No sluttish was she, but rose with the  
sun;  
Never whispered in meeting, didn't care for  
a bonnet,  
Or all of the feathers that one could put  
on it;  
Never sat with the choir, nor sang the  
wrong note;  
Expressed no desire to lecture or vote;  
For the poor soul was deaf as a post—also  
dumb;  
You might have called forever and she  
wouldn't have come.  
And she's dead.  
And she's dead.

—Outlook.

### THE CLOCK.

There was in Epinal in 1600 or 1700 and  
something—it is so long ago that I do not  
remember the exact date—a clock with  
chimes, music and moving figures that ex-  
cited the admiration of all the neighboring  
towns.

From Vesoul, Chaumont, Nancy and  
even Strasburg, from the four cardinal  
points, in fact, flocked inquisitive men and  
women, who, at the approach of noonday,  
crowded into the back shop of old Master  
Tiphaine, the ingenious constructor of this  
complicated machine. Master Tiphaine  
had never consented to part with his mas-  
terpiece; to the offers of honors and money,  
a hundred times repeated, he gave formal  
refusals, saying:

"My native town will inherit it after my  
death. If you took away my clock now  
you would kill me, you see, for it is a part  
of my life."

Master Tiphaine did not exaggerate; for  
long years, absorbed in the most impossi-  
ble calculations, he had conceived and  
thought out his plan of mechanism; in  
fact, it took ten years before his project  
was realized. He made all the pieces him-  
self, and fitted them together patiently  
after a thousand futile trials—oh, how  
many sleepless nights, how many hidden  
discouragements!—he attained finally the  
certainty of triumph. Indeed, Master  
Tiphaine did not exaggerate in claiming  
that his clock was a part of his life.

One day, then, the inhabitants of Epinal  
learned that the old clockmaker had  
solved the problem, and that they were  
summoned to assure themselves of the per-  
fect working of the apparatus.

They took care not to miss the appoint-  
ment. They admired very much the con-  
struction of the machine, but when at the  
stroke of twelve the mechanism set in  
motion the figures, men-at-arms, heralds,  
apostles, etc., when the chimes rang, mys-  
terious bells played a popular air, the cock  
crowed, the ox bellowed, the ass began to  
bray, and the fat goose to utter his hoarse  
cry—due, as every one knows, to a cold  
contracted by an ancestor on Christmas  
night—there was a wild admiration, an ir-  
resistible enthusiasm among the spectators.

"Once more!" they called out.

"I cannot oblige you," replied Master  
Tiphaine, "the machinery is arranged to  
work only every twenty-four hours. If I  
disturb the least thing the whole is de-  
ranged, and I am too old to recommence  
such labors. Come back to-morrow!"

On the next day the sightseers came in  
still greater numbers. Then the news  
spread, reached the country and the neigh-  
boring towns. Every day the back shop  
was filled with admirers who were untiring  
in applauding the masterpiece of Severien  
Tiphaine.

But for some years Master Tiphaine had  
remained indifferent to the sincerest and  
the loudest praises. In the confused din  
of exclamations he listened only to the  
laugh of a child, a clear laugh, joyous and  
fresh as the chant of a mountain cascade,  
purer and more melodious than the mys-  
terious bells that sang in the clock. Among  
all the faces that bent toward him gaping  
with surprise, Tiphaine observed only the  
pink and white cheeks of Guillemine, a  
pretty little child of 5 years of age, his  
granddaughter.

Guillemine did not miss one of the mid-

day representations. Master Tiphaine in-  
stalled her in the first row, then he raised  
the curtain that protected his clock. From  
this moment all his attention was directed  
to his granddaughter. With as much im-  
patience as the child he counted the tick-  
ings, he awaited the preliminary clicks.  
Immovable, in a state of ecstasy, Guille-  
mine fixed her wide-opened blue eyes on  
the clock.

Click! click! f-r-r-rou! Gears, springs,  
cogwheels began to move with a noise like  
the flapping of wings.

Master Tiphaine read on Guillemine's  
face the emotions that pervaded it, and  
he felt a childish joy.

Coo-coo-ricoo! the cock rose on the top  
of the belfry.

Guillemine clasped her hands. The bells  
tingled, and the infant Savior, lying in the  
manger, appeared. There was the ox, the  
ass and the fat goose. Higher up angels  
hovered in the clouds, which the dove,  
carrying the olive branch, flew across. The  
magi, the shepherds, followed by their  
bleating flocks, filed by in procession.  
Guillemine began to fidget on her stool;  
she bit her lips, pulled her fingers; Master  
Tiphaine himself is restless; like the little  
girl, he is awaiting the surprise.

There it is! The temptation of St. An-  
thony! Theimps which dance about and  
the fiend that gambols, cavorts unceas-  
ingly. That was the surprise that Guille-  
mine was waiting for. Wild with joy,  
she jumped about, clapped her hands and  
laughed. Ah, this laugh! That was the  
surprise that Master Tiphaine waited for.

The old grandfather laughed in his turn;  
he laughed until he was ready to weep,  
and the procession ended as the cock ris-  
ing again closed the entertainment with a  
crowning coo-coo-ricoo! Master Tiphaine  
seized the little girl, shaking with laugh-  
ter, clasped her in his arms and mingled  
his snowy locks with the blonde ringlets  
of Guillemine.

One cold day in December the sightseers  
of Epinal who, in spite of the cold, came  
to the shop of the master clockmaker as  
punctually as certain citizens of Paris, not  
long ago, used to go to the Palais Royal to  
regulate their watches by the report of the  
cannon, found the door obstructed by old  
Severien Tiphaine.

"No one can come in to-day," said he,  
sadly.

"Why?" they asked. "Is the clock  
broken?"

"The clock is not broken," replied  
Tiphaine in a still sadder tone; "but Guille-  
mine is sick, poor little one, and we are  
expecting the doctor, who ought to be here  
soon; so then I ask you please to go away  
without noise."

They acceded to his request, made their  
excuses and withdrew. Master Tiphaine  
then entered a room with closed shutters,  
lit up by a few burning fagots. At the  
end of this room in an alcove, where the  
fantastic shadows danced about, there was  
a white bed, and in that white bed, quite  
pale and delicate, Guillemine was lying.  
At the foot of the bed a young man and a  
young woman were standing, looking sadly  
at the little girl. Master Tiphaine ad-  
vanced with soft steps, trying to prevent  
the floor from creaking under his weight,  
and when he was quite near the bed he  
said, addressing the young man:

"Well, my son, has she spoken?"  
"No; she has not. She does not seem to  
hear when she is spoken to, and yet she  
looks at us with her beautiful blue eyes."

"Father," said the young woman, "I am  
frightened, for our Guillemine is like a  
dead person, lying with the eyes wide  
open."

Master Tiphaine bent over the couch,  
trying to smile.

"Guillemine," said he, "little Guille-  
mine."

The prostrate child fixed on him eyes  
that seemed to see no longer. She did not  
stir.

"God have pity on us!" sighed Master  
Tiphaine, drawing aside.

Poor, gentle Guillemine! On the pre-  
vious day, a little after the midday repre-  
sentation, a high fever had seized her. Dur-  
ing a part of the night she had been delir-  
ious, crying out and struggling against  
the invisible beings, and since morning she  
had remained in this state of alarming  
torpor, her limbs stiffened, her eyes star-  
ing. Master Tiphaine looked at the lips of  
Guillemine, those poor, pale lips, from  
which only yesterday the melody of laugh-  
ter escaped.

There was a knock at the door. Tiphaine  
went to lift the latch. An old man en-  
tered.

"Guillemine," said Master Tiphaine,  
"here is the doctor, who has come to pay  
you a visit."

The doctor examined the child and med-  
itated a long time.

"Well," said Master Tiphaine.

The doctor shook his head with an anx-  
ious air.

"It is serious, very serious," he said.

The young man, hearing these words,

made a sign to the young woman and went  
out.

"What is to be done?" asked Tiphaine.  
"Above all, she must be roused from  
this fatal torpor. It is this prostration  
that makes me uneasy. Now, then, try to  
divert her, rouse her up, otherwise I can  
answer for nothing."

Thereupon the doctor went away. Then  
the young woman sat down near Guille-  
mine, and, repressing her sobs, sang an old  
roundelay that used to please the child;  
but Guillemine's eyes showed that she did  
not hear.

"What is to be done? What is to be  
done?" sobbed the young woman, and she  
began her song again. Hours passed.  
Guillemine became more and more pale  
on the white pillows. Afflicted, hopeless,  
Tiphaine, the young man and the young  
woman became silent now, and all was still  
in the room. Suddenly a rhythmical noise  
was heard.

Tick, tock, tick, tock!  
Master Tiphaine knit his eyebrows and  
relapsed into a profound meditation. Ab-  
ruptly he arose and went toward his son.

"Help me to roll Guillemine's bed up in  
front of the clock," said he.

"What do you want to do?" asked the  
young man.

"You will see."

They rolled the bed into the back shop,  
and placed it before the clock. Master Ti-  
phaine raised the curtain that covered his  
masterpiece. The clock appeared. Guille-  
mine's eyes seemed to move.

"Look closely, now, Guillemine! You are  
going to see the manger and the wise  
Kings and St. Anthony. \* \* \* How you  
are going to laugh!"

"But, father," said the young man, "it is  
11 o'clock at night, and the figures will  
not appear until noon to-morrow. Can  
Guillemine wait until then?"

"She shall not wait," replied Master  
Tiphaine, in a low tone, "and the figures  
are going to appear."

"But," said the young man, turning pale,  
"you can only bring about such a result by  
breaking up the mechanism."

"Yes, that is true."

"Father, this is your life work—"

Master Tiphaine motioned to his son to  
be silent.

"Bring me a light," he said.

He then drew out nails, screws, plates,  
laying bare the system of wheels, etc. Ti-  
phaine worked slowly, for his hands trem-  
bled a little.

"Give me the hammer," he said, sud-  
denly.

Armed with the hammer, he was about  
to strike a blow, then stopped. Was he  
hesitating? He looked at Guillemine, who  
was staring fixedly at the clock.

"Pay attention, my Guillemine. Now  
you are going to laugh. You will laugh,  
won't you?"

He struck a sharp blow. The machine  
seemed to groan. The spring unbent with  
a formidable humming, the gears rolled  
around. Master Tiphaine threw the ham-  
mer far from him, and, staggering, had to  
lean against the wall.

"Light up the clock now," said he to his  
son, "and look, my Guillemine!"

The hands turned wildly. There came  
the cock, the men at arms, there was the  
ox, the hoarse, fat goose, and the bells  
tingled and the chimes rang out.

Guillemine had raised her head, her  
lips partly opened as if in hesitating pre-  
lude to laughter. Ah, there is St. Anthony,  
who, quicker than ever, runs along,  
dragged by his friend with extraordinary  
gambolings, and the imps, and St. Anthony  
and the Wise Men and the shepherds  
danced a frantic round to the hurrying  
sounds of the chimes and the bells.

At last the hesitating laugh of Guille-  
mine rose by degrees, ascending like a  
song of reviving life, and finally breaking  
forth clear and radiant.

But while she, the gentle little girl, was  
thus reviving to new life, the poor clock  
was in its last agony. Sinister cracking,  
like a death rattle, from which Master Ti-  
phaine suffered horribly, shook its frame.

In order not to hear these final moans  
Tiphaine listened to the laughter of the  
child. Once more a prolonged cracking, a  
last effort of the machinery, and then all  
was over; the clock lived no longer; but  
Guillemine was laughing still. \* \* \*

And so, when this famous clock was shown  
some years ago at Epinal, it was said—  
on the authority of competent persons who  
had studied the mutilated mechanism—  
that the masterpiece of Severien Tiphaine  
was a failure and had never worked.—  
Translated from the French for Short  
Stories.

We can save you money, if you want  
most any paper or magazine, in connection  
with Kansas Farmer. Write for special  
club list.



### NEW SCALE, STYLE AA

Believing that there is always demand for  
the highest possible degree of excellence in  
a given manufacture, the Mason & Hamlin  
Company has held steadfast to its original  
principle, and has never swerved from its  
purpose of producing instruments of rare  
artistic merit. As a result the Mason & Ham-  
lin Company has received for its products,  
since its foundation to the present day, words  
of greatest commendation from the world's  
most illustrious musicians and critics of tone.  
Since and including the Great World's Ex-  
position of Paris, 1887, the instruments man-  
ufactured by the Mason & Hamlin Company  
have received wherever exhibited, at all  
Great World's Expositions, the HIGHEST  
POSSIBLE AWARDS.

Send for Catalogue

**Mason & Hamlin Co**

BOSTON NEW YORK CHICAGO

## BUY GOODS IN CHICAGO



Have you tried the Catalogue system of buying  
EVERYTHING you use at Wholesale Prices? We  
can save you 15 to 40 per cent. on your purchases.  
We are now erecting and will own and occupy the  
highest building in America, employ 2,000 clerks  
filling country orders exclusively, and will refund  
purchase price if goods don't suit you.

Our General Catalogue—1,000 pages, 16,000  
illustrations, 60,000 quotations—costs us 72  
cents to print and mail. We will send it to you  
upon receipt of 15 cents, to show your good faith.

**MONTGOMERY WARD & CO.**  
MICHIGAN AVE. AND MADISON ST.  
CHICAGO.

### Big Reductions in Brass Band Instruments,

Drums and Uniforms. Write for catalog.  
445 illustrations, FREE; it gives Band  
Music & Instructions for Amateur Bands.  
LYON & MEALY 26 Adams St., Chicago.

### No Money in Advance!

**\$1550 HIGH GRADE BICYCLES**  
Shipped anywhere C. O. D., with  
privilege to examine.  
Latest styles for Men,  
Women, Boys and Girls,  
well made and durable.  
\$60 "Oakwood" \$24.50  
\$50 "Arlington" \$22.00  
Others at \$10, \$12.50, \$15.50, \$17.50 & \$19.50; all splendid  
value. Buy direct from manufacturers, thus saving  
dealers' large profits. Write today for special offer. Illus-  
trated Catalogue Free. **CASH BUYERS' UNION,**  
162 W. Van Buren St., B-64, Chicago, Ill.

### Given Away!

**HOME REPAIR OUTFIT.**  
Every Family Needs One.  
This exceptional and complete out-  
fit of 44 tools and other articles, as  
shown in cut, securely packed in  
wooden box, weight 20 pounds.  
These tools bought at a hardware  
store separately would cost between  
\$7.00 and \$9.00. A complete outfit  
of tools for Boot, Shoe, Rubber,  
Harness and Tinware Repairing.

**\$2.50**

**U. S. FAMILY SCALE.**

Should be in Every House.

Fine white tile platform, highly japan-  
ned case, brass dial and neater ornamental  
picture on sides. Guarantee to register  
correctly, by ounces, from 1 oz. to 20 lbs.

Price of Repair Outfit alone, \$2.50  
Price of Scale alone, \$2.50

With every Outfit ordered we give a Scale. With every Scale or-  
dered we give an Outfit. Send us \$2.50 and you obtain both articles.

Morris Mfg. Co., 18 W. Randolph St., Chicago.



New, complete, ready to ride. Agents Wanted. Others \$17.50  
to \$35.00, cash or time. Sent on approval. Guaranteed one year.  
**\$13 SOLD ON TIME.**  
Beautiful  
catalog free.  
Bicycle sun-  
dries cheap. Get our prices before buying.  
**AMERICAN MACHINE CO., Dept. 207, Flint, Mich.**



# KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the  
**KANSAS FARMER COMPANY.**

E. B. Cowgill, Pres. J. B. McAfee, Vice Pres.  
D. C. Nellis, Sec'y and Treas.

OFFICE:  
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

E. B. COWGILL, Editor.  
H. A. HEATH, Advertising Manager.

## ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).  
Special reading notices, 25 cents per line.  
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.  
Annual cards in the **Breeders' Directory**, consisting of four lines or less, for \$16.00 per year, including a copy of **KANSAS FARMER** free.  
Electrons 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 advertising intended for the current week should reach this office not later than Monday.  
Every advertiser will receive a copy of the paper free during the publication of the advertisement.  
Address all orders—  
**KANSAS FARMER CO., Topeka, Kans.**

## THE SUCCESSOR.

The Advocate and News, which, during the Leedy administration, was the official paper of Kansas, has become non-political, and has changed in name to the Farmers Advocate. The Advocate was established in 1890 by the late Dr. S. McLallin. He was a vigorous thinker, a strong writer, a man of unimpeachable integrity. The paper was devoted to the reforms advocated by the Farmers' Alliance, and was a powerful factor in the Alliance movement. Later the Farmers' Tribune was consolidated with the Advocate. After the death of Dr. McLallin, J. W. Morphy conducted the paper until the expiration of Senator Peffer's term, when that veteran writer and editor took charge, having acquired the property while in the Senate. Prior to this time the News had been established by Geo. B. Harrison & Co. It was a vigorous paper devoted to news and reform. Consolidation of the Advocate and the News came about very naturally. Later Senator Peffer retired from all connection with the paper.

George B. Harrison & Co., the publishers of the Farmers Advocate, are possessed of both the energy and the capital needed to build up a great paper. The editor, Mr. George B. Harrison, is a vigorous writer and conscientious thinker. He announces that his plan is for a paper of the sort which will make an ideal weekly visitor to the households of farmers and wage workers. In an interview in the Topeka Capital he states that in politics he is a "Social-Democrat." He has set for himself the task of making each issue of his paper a little better than the one preceding, a task which he well knows involves work and plenty of it.

## SWINE MANAGEMENT.

Editor Kansas Farmer:—Please give me a few pointers on feeding oil meal to hogs to best advantage, and in what shape to feed—dry or soaked—and how much to each hog? My hogs are nearly all young—about 7 to 10 months old. I have one pen with nine barrows in; another pen with eight sows, and another with six barrows and sows mixed, also two brood sows, which I purchased about three weeks ago from D. Trott, of Abilene. It was through the advertisement in the Kansas Farmer that I ordered these sows, and I think I got my money's worth. These sows are due to farrow this month. What is the best feed for them? One is a young sow; the other has had one litter. Please instruct me some how to feed so that they will not have any trouble in getting their pigs, as I would like to have good luck with them if in my power to do so. If artichokes can be got for about 75 cents a bushel, would it pay to feed them at the price hogs are here now—\$3.25 and \$3.30, and corn 25 to 30 cents a bushel? Please give me your opinion in this matter, as my hogs don't do as well as I would like to have them. I feed soaked corn and sometimes slop made of shorts and bran, yet they are not doing as well as hogs should do at their age.

Downs, Kans. FRANK RYPMA.

Oil meal is a useful feed for hogs under many circumstances, as was shown in these columns last week in answering inquiries by Mr. J. B. Wangler. Corn, the grain which not infrequently constitutes almost the entire ration for swine, has not such composition as to fully meet the requirements. It is lacking in lean-meat formers.

This deficiency may be supplied or the ration may be "balanced" by adding any of several feeds rich in the flesh-forming materials, or protein. Oil meal is one of these. It has the further property of tending to correct costiveness should such disorder prevail, a condition to be carefully guarded against in the brood sow. Oil meal is best fed mixed with other ground feed and made into a slop. Soaking feed for swine is practiced by many, but it is doubtful whether anything is gained by long soaking. There is positive loss if the feed sours.

The importance of providing a properly balanced ration is especially urgent with the brood sow. Fattening hogs may lay on fat and gain in weight without a balanced ration, although recent experiments at the Kansas Experiment Station show there is great economy in balancing their rations. But the brood sow is called upon to supply materials from which are constructed the tissues of the litter. This demand requires an unusual proportion of protein in her food. Her appetite is strong for the kind of materials she is required to furnish. If her supply of food rich in such materials is greatly deficient, the craving of her appetite sometimes impels her to eat her own offspring, her instinct telling her that she may thus obtain the elements craved. If the sow eats her pigs the owner may know that she has not been properly fed.

There are many feeds which may be used to balance the ration by supplying a larger proportion of protein than is found in corn. Among these are alfalfa, artichokes, barley, beans, clover, middlings, milk, oats, oil meal, peanut meal, pease, and wheat bran. Cottonseed meal is also rich in protein, but seems to contain some sort of poison which renders its continued use unsafe. There are other feeds than those mentioned which may be used for bringing up the proportion of protein to the requirements of the brood sow, but the above list embraces those most economical to use in Kansas. If our correspondent can give his sows plenty of alfalfa and skim-milk in addition to their grain he will probably meet the requirements of his case at less expense than in any other way. Roots are good on account of their succulence, but artichokes or any other roots at 75 cents per bushel can only be used as a sort of medicine in the production of pork at \$3.25 to \$3.30.

On the subject of "Feed for the Brood Sow," Prof. Henry says in his excellent work on "Feeds and Feeding": "The feed for the sow before farrowing should be nutritious but not concentrated. Heavy, concentrated feed-stuffs may be extended or given volume by using bran, which serves well for this purpose, and roots, which are much relished, and by supplying chaffed clover or alfalfa hay softened with boiling water. Some corn may be fed, but meals rich in protein—oats, pease, middlings, and barley—should supply most of the nutriment. Breeders differ in their management of sows before farrowing, some insisting that they be held in thin flesh, while others would have them in high condition. They will prove satisfactory when in good flesh, provided it is put on under proper regulations as to character of feed and amount of exercise. As farrowing time approaches let the feed be sloppy and limited in quantity. Any tendency to costiveness should be corrected by feeding bran, oil meal, roots, or other feeds of a corrective character. For two or three days after farrowing supply only a limited quantity of feed. A thin warm slop made of middlings or oatmeal with a little oil meal, poured a little at a time into the feeding trough, will quench the thirst of the new mother and answer all requirements."

It will be well for our correspondent to write to the Kansas Experiment Station, Manhattan, Kans., for the bulletins giving results of feeding experiments. These are free to farmers in this State and they contain much valuable information.

On April 11, thirteen head of tuberculous cattle were slaughtered at the Ohio Experiment Station. Three experiment stations—and perhaps others—have had occasion to slaughter cattle affected with this disease. The three alluded to are those of Iowa, Kansas, and Ohio. Some of the animals at the Ohio station were not affected to the extent of rendering the flesh unfit for use. Such cattle are liable to infect others, however, and should be disposed of as rapidly as possible throughout the country.

Exports and imports during the first three months of 1899 compare with those of 1898 as follows:

	1899.	1898.
Exports.....	\$313,914,736	\$315,964,523
Imports.....	191,291,423	165,464,546

Excess of exports....\$122,623,313 \$150,499,977  
Compared with 1898 the excess of exports over imports for three months decreased \$27,876,664. The balance is still on the right side by a large majority and would be considered phenomenally large but for comparison with the exceptional figures of a year ago.

## WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending April 24, 1899, prepared by T. B. Jennings, Section Director:

### GENERAL CONDITIONS.

A cool week, the average temperature for the eastern division being 55.5°, for the middle division 54.3°, for the western 52.8°, and for the State 54.2°. Frosts occurred in many of the central and southern counties the first of the week, while ice formed in some of the northern and many of the western counties. The precipitation averaged 1.47 inches in the eastern division, 0.18 inch in the middle, and a trace in the western division, while for the State it averaged 0.63 inch.

### RESULTS.

#### EASTERN DIVISION.

Much work was accomplished the first half of the week. Corn-planting progressed well in the southern and central counties and began in the northern. In Chautauqua the early-planted corn is coming up, but the weather is too cool for good results. Wheat has improved. Oats-sowing is completed and flax-sowing well advanced. Apples promise a full crop; other fruits promise well, except peaches.

Allen County.—Farm work delayed by rain; wheat, oats and flax growing nicely; very little corn planted this week.

Anderson.—Last half of week wet; oats coming up; corn-planting hardly begun, corn will be listed, principally.

Atchison.—Oats all sown, and some flax; good week for work but too cool for growth; some corn planted but ground cold; trees beginning to leaf, no blooms yet.

Bourbon.—Ground too wet to work.

Chase.—Warm first of week, cold last part.

Chautauqua.—Wheat, oats and grass made good growth; wheat gained at least five points; much corn planted first of week,

growing some; stock doing poorly; leaves showing a little on trees.

Lyon.—From present indications half of the acreage of winter wheat will be plowed up and put into other crops; acreage of oats will be small; plum and peach trees are in blossom, the peach crop will be light.

Marshall.—Ice one-eighth inch thick the 16th; a good week for farm work, which has gone forward rapidly; oats are all sown and some corn planted; about half the wheat being plowed up; rain needed, ground hard.

Miami.—Some corn planted first of week, latter part too wet for farm work; oats are all in.

Montgomery.—White frost on 16th; good growing weather first part of week, too wet to plow last part; apples and cherries blooming; apples a full crop; cherries and plums light; a few scattering peach blooms.

Morris.—Wheat improved very much the past week; corn-planting being pushed; grass growing very slowly; plum and apricot trees in blossom.

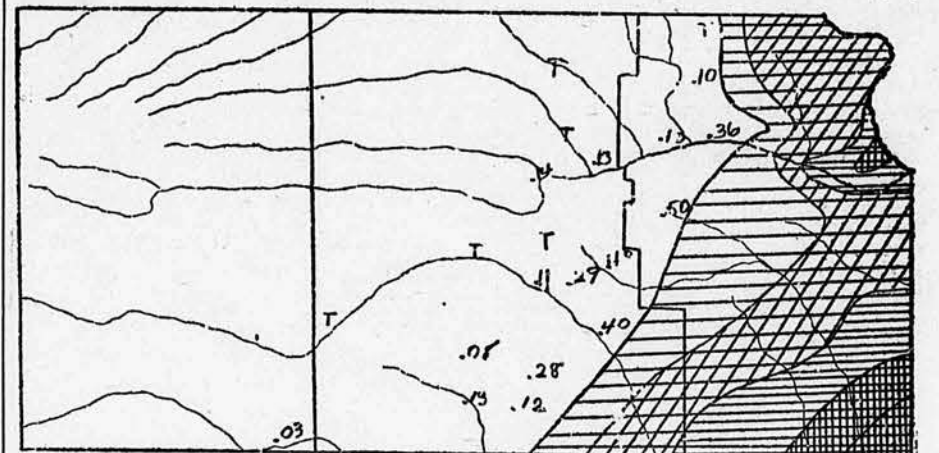
Osage.—A good week for farming; plowing and planting progressing; a large acreage of potatoes being planted; grass growing finely; fruit trees in bud, some in blossom; clover mostly killed; not much improvement in wheat.

Pottawatomie.—Very little of the wheat will be disturbed, prospect is good for two-thirds of a crop; apricots in bloom; plums nearly out; corn-planting begun; pastures starting nicely.

Riley.—A favorable week; oats sown; potatoes planted; ground ready for planting corn, some corn planted; much alfalfa sown; alfalfa about four inches high; prairie grass very backward; light frost 16th.

Shawnee.—First of week warm, last part cold and wet; bad hail storm on 16th; leaves coming out rapidly on trees and plants; oats and grass growing finely; early potatoes planted; wheat prospect good; ground ready for corn-planting.

Wilson.—Though the rain is helping



ACTUAL RAINFALL FOR WEEK ENDING APRIL 22, 1899.

last half too wet; early-planted corn coming up but does not look well, too cool; cattle are out on the grass, though short; early apples, plums, cherries, and a few peaches are in full bloom.

Cherokee.—A bad week for farm work, with fields covered with water; wheat improving slowly, probably 25 per cent will be plowed; fertilized wheat will make a full crop; about 10 per cent of the corn planted and 35 per cent of flax sown; oats look well; all tree fruits promise well except peaches; frost 16th.

Coffey.—First half of week fine for field work, last half too wet; corn-planting well under way; flax-sowing nearly finished; oats coming up slowly; apples, cherries and plums promise well; a few peach blooms visible.

Doniphan.—About three-fourths of the wheat winter-killed and the ground being put in oats; weather unfavorable for farm work.

Douglas.—Wheat doing well; a little corn planted; last days too wet; hail knocked off some fruit buds; grass growing finely.

Elk.—Light frost 16th; some cattle turned on grass, which is short yet; corn not all planted, and too wet to work.

Franklin.—Considerable plowing and flax-sowing first of week, last days too wet; wheat and grass starting nicely.

Greenwood.—Everything growing well; rain interferes some with work.

Jackson.—A large acreage of clover and timothy being sown; some corn being planted; oats beginning to come up.

Jefferson.—First half of week fine for sowing flax and oats, last half too wet, with floods in southern part; pastures getting green.

Johnson.—Cool, wet week; too wet to plow or plant, but beneficial to oats, wheat and grass.

Labette.—Wet week; wheat but little improved; oats a little better; fruit in full bloom but it is feared that so much rain will prevent fertilization.

Leavenworth.—Cold, wet week; a little plowing done; wheat improving; grass

wheat and grass, it delays planting and is liable to rot corn already planted; trees leafing out rapidly.

Woodson.—Much corn has been planted, probably one-half; apple trees are loaded with buds and promise the largest yield for some time.

### MIDDLE DIVISION.

Wheat has improved. Oats, barley and alfalfa sowing are about completed. Corn-planting and listing progressing rapidly. Corn beginning to come up in Cowley. Fruit trees are blooming, but the grass is growing slowly and rain is needed.

Barber.—Favorable week for farm work; corn-planting progressing; what wheat remains is now doing fairly well; prairie grass growing slowly; alfalfa doing better; peaches, early apples and cherries in bloom; cattle doing fairly.

Barton.—Corn-planting general; barley coming up nicely; wheat growing slowly.

Butler.—Grass growing very slowly; oats and wheat are looking well; planting corn rapidly.

Cloud.—Conditions very unfavorable, rain needed badly; corn-planting well under way, with ground in fine condition; peach trees killed; cherry and plum trees in good condition; alfalfa starting nicely; grasses backward.

Cowley.—Apple trees in full bloom, promising a large crop; corn-planting progressing, the acreage will be large; some corn coming up; oats promising a good stand; grass growing rapidly; wheat, looks poorly.

Dickinson.—Oats all in, some coming up; potatoes planted; gardens made; some corn planted; wheat in central part improving; blue grass growing rapidly; apple and plum trees in bloom.

Edwards.—Cool and dry, with frosty nights; corn-planting in progress; oats and barley coming up slowly; grass quite backward; cherries, plums and apricots in bloom; good prospect for apples; peaches a failure; wheat looks badly.

Ellis.—Much wheat destroyed by high winds; need rain.

Harper.—Conditions favorable for wheat



and spring work; oats all sown and in good condition; pasture very late; fruit trees in bloom; peaches injured and will not make a fourth of a crop; wheat estimated at nearly half a crop; will be an increased acreage of corn planted.

Harvey.—Cool and cloudy week; corn-planting progressing rapidly; wheat prospect improving somewhat; pastures turning green; pears, plums and peaches in bloom.

Kingman.—Corn-planting progressing; wheat improving; oats coming up in good condition; peaches in bloom; grass starting on upland.

McPherson.—Corn-planting in progress; wheat looking better; trees leafing out; warm rain needed.

Marion.—Wheat improving with late rains and promises better crop; oats and alfalfa growing rapidly; corn-planting begun; stock mostly on pasture but grass is backward.

Ottawa.—Dry week, latter part cold, light rain Saturday; wheat looks well, but close inspection shows only one-half stand; many have begun planting corn; need warm showers to bring up oats and start grass well.

Pratt.—The cold weather retards growth to some extent; oats and barley all sown, considerably more barley than usual; corn-planting is in progress.

Reno.—Cool and dry; wheat looks fairly well but needs rain; oats and grass coming up well; listing and planting corn progressing rapidly with ground in good condition; apricot, pear and plum trees in bloom.

Republic.—Favorable week for finishing sowing alfalfa and oats; wheat looks better.

Rice.—Wheat plant weak, slow growth; no grass, farmers pasturing wheat; warm, wet weather will choke the wheat with weeds, cold weather gives it no chance to stool, perilous condition.

Rush.—Ice formed on two nights, yet wheat has visibly improved; an increased acreage of oats and barley have been sown.

Russell.—Wheat generally good, though suffering for rain; many are planting corn; potatoes planted.

Saline.—Rain needed for wheat; alfalfa growing nicely; corn-planting in progress; apples are all right; pastures very backward.

Sedgwick.—But two warm afternoons in the week; just enough rain to revive the growing crops; wheat damage probably a little greater than was reported; alfalfa growing well; peaches in bloom; apples beginning to blossom; corn-planting progressing; oats look well.

Stafford.—Oats and barley growing finely; wind damaging wheat some on clean and sandy soils; listing corn in rapidly.

Washington.—Oats mostly sown; wheat going backward; very little planting yet; apples, cherries and wild fruits will bloom full.

#### WESTERN DIVISION.

The high winds, cool days and nights have retarded growth. Wheat is doing fairly well. Oats and barley are sown, and are coming up. Alfalfa is making a fair growth. A warm rain is needed.

Clark.—Very dry; grass growing, but many weak cattle are dying.

Decatur.—First days of week fine, last days unfavorable; crop prospects continue favorable.

Finney.—Pleasant week; ranchers sowing sorghum for feed; alfalfa growing; cattle will be put on range coming week.

Ford.—Frost on 20th, ice on 21st, yet fruit trees and blossoms are apparently uninjured; wheat has improved somewhat but will be a small crop at best; alfalfa growing rapidly; range grass much improved.

Gray.—Freezing nights and cool days; peaches and apricots killed; gardens made; corn-planting begun.

Hamilton.—Frosts; ice formed on three nights, alfalfa touched; too dry for seed to germinate, but the week closes with rain.

Kearny.—The freezing, windy weather has injured the wheat and alfalfa, but the latter will soon come out with growing weather.

Logan.—Rain needed, but crops not suffering except wheat.

Morton.—Grass starting, but, like the wheat, needs a warm rain; but little oats and barley sown; not many peach or apricot blossoms; plums in full bloom; gardens late.

Ness.—Too dry, cool and windy for crops, with three freezing nights; fruit was winter-killed; wild fruit more promising; oats and barley frozen some but not killed; wheat doing well; potatoes and gardens being planted.

Norton.—The probable damage to winter wheat is about one-half, and the dry, cold winds are still further reducing the prospect; corn-planting has begun; ground in good condition; alfalfa starting.

Rawlins.—A cold week with a bad dust storm; ice on three mornings.

Scott.—Windy and cold, very unfavora-

ble to growth of vegetation; soil is drying rapidly and will need rain soon.

Thomas.—High winds and frost are preventing fair growth; oats and barley all sown; grass growing slowly; wheat coming up nicely; corn-planting begins next week; rain needed.

Trego.—High winds and freezing nights have done some damage; range grass making a fine growth.

#### Large Prizes for Swine.

A movement is now being made to offer four sweepstake prizes of \$500 each at the Iowa, Illinois, Ohio, and New Jersey State fairs, open to the competition of all breeds. The movement is backed by the Poland-China, Berkshire, Chester White, Essex, Jersey Duroc, and other record associations, and it is strictly for the improvement of the hog. By hanging up these large purses it is hoped that it will help to raise the standard of each and all breeds. When breeds battle it means an improvement.

Every breeder and owner of pure-bred swine should be interested in this move, and give it their support. The conditions of competitions will be so arranged as to be valuable to swine growers in general.

Every owner of pure-bred swine should be interested in such a movement. Arrangements have been made by which every breeder and owner may receive a benefit from the offering of these purses, whether he exhibits or not. Full particulars as to the contests, premiums and conditions may be had by writing to Blooded Stock, Oxford, Pa. Every breeder should look this matter up at once, and give it their hearty co-operation.

#### "The Old Farm House on the Hill."

We have just received from the publishers one of "the greatest home songs ever written, suitable for the piano or organ. Words and music by J. W. Lerman. It bids fair to have a run of a million copies. The same is now being sung in New York, Boston and Philadelphia theaters with immense success and is received with great applause. We print the first verse and chorus:

#### FIRST VERSE.

There's a farm house I remember, 'twas my childhood's happy home,  
And I'll ne'er forget its scenes while life shall last.  
Oh! I often wish that I could cross its threshold as of yore,  
And live once more the life that now is past.  
With father, kind and gentle, and dear, sainted mother, too,  
Who always tried their duty to fulfill,  
I would that I were young again and had them with me now  
In that dear old roomy farm-house on the hill.

#### CHORUS.

To me it was a palace of grandeur unsurpassed;  
I loved it when a child, I love it still,  
And no greater joy I covet than to visit once again  
And live within that farm-house on the hill.

Price, 50 cents per copy. All readers of our paper will receive a copy of it, by sending 20 cents in silver or postage stamps, to the Union Mutual Music and Novelty Co., No. 20 East 14th street, New York.

#### Wants 100 Kansas Cows.

Colonel Thomas Holland, secretary of the Salvation Army colonization department and head of the successful colony located at Amity, Col., writes to the Kansas agricultural department that he desires to buy 100 dairy cows for the use of the colonists, and wishes advice as to where he might best find them. His idea is that good milking Shorthorn grades would most nearly serve their purpose, combining, as they do, both the milk and beef quality. It would be well for readers having numbers of such cows to dispose of to communicate with Colonel Holland.

#### Beware of Ointments for Catarrh That Contain Mercury.

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten-fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.

Sold by Druggists; price 75 cents per bottle.

A perfect reproduction of a Philippino village is one of the attractions of the Greater America Exposition at Omaha this year. It is designed literally to portray the Philipinos as they are. About twenty families of natives will be brought over, representing all classes of the people. There will be also a band of musicians, a troupe of acro-

## You Must Have a Watch!

WALTHAM WATCHES are the best you can buy. They are guaranteed by the AMERICAN WALTHAM WATCH COMPANY. The movement engraved with the trade-mark "RIVERSIDE" is specially recommended. Insist on a Waltham Watch, and do not be persuaded that something else is better, for there is no better.

For sale by all jewelers.

"The Perfected American Watch," an illustrated book of interesting information about watches, sent free on request.

AMERICAN WALTHAM WATCH CO., WALTHAM, MASS.

bats and conjurers, dancers, and other attractions in the amusement line, together with a large number of animals and birds, and a variety of products showing the resources of the islands.

#### Publishers' Paragraphs.

Rudyard Kipling will have a story in the May McClure's entitled "The Flag of Their Country," which exhibits very dramatically the difference between a popular orator and a sensitive, high-minded boy in their respective ways of "honoring the flag."

We wish to call the attention of our readers to the advertisement of the Sheldon Cream Separator, which appears on another page of this issue. It is an entirely new device for the purpose, and operates by what is known as the dilute process of separation. It is manufactured by Eberhart & Stoddard, at 34 Clark St., Chicago, who will take pleasure in mailing you circulars, price, etc.

Ship your wool to Silberman Bros., Chicago, one of the most reliable concerns in that market. They are the most favorably situated of any wool house in the country. They make prompt and good returns to the shipper and only charge a small and reasonable commission for selling. Kansas sheep owners should write them for ruling prices of wool in Chicago. Their reviews of the market conditions have always been fair and reliable.

A. W. Themanson, Wathena, Kans., who has been fishing for orders on evergreen trees, writes: "We are purveyors by special appointment to his excellency, the governor of the State of Kansas; also to the people of the great commonwealth of Kansas." This distinction is due to a sale of 500 trees to the commissioner of forestry for Kansas. The trees sold by Mr. Themanson always give satisfaction. See his advertisement in this issue.

#### Blackleg Vaccination.

Although the name of Pasteur is best known to the general public on account of his celebrated cure for hydrophobia, yet this name is now best known to a majority of live stock raisers west of the Mississippi in connection with the preventive treatment of blackleg. This treatment consists in vaccination on the same principle as the preventive treatment of vaccination for smallpox.

Blackleg vaccination had been largely and successfully practiced in Europe for ten years before it was introduced into America by the Pasteur Vaccine Company in the summer of 1895. During that year it was thoroughly tested on about five thousand head, and during the last three years Pasteur vaccine has been successfully used upon nearly one million head of cattle in the United States alone. The average loss from blackleg among the young cattle raised in infected localities is 10 per cent, and the practical elimination of these losses by vaccination has therefore created quite a revolution in the cattle business. Pasteur vaccine produces no ill effects, nor does it interfere with the growth of the calves. The vaccine can easily be applied without any previous experience, while the protection it affords against blackleg is practically absolute. One application is usually sufficient, though two applications are generally given to graded or thoroughbred calves, as the double treatment is somewhat better. Moreover, Pasteur vaccine is cheap—so cheap, indeed, that it is more economical to vaccinate one hundred head of range calves than to lose even one from blackleg. The success of Pasteur vaccine has given rise to the production of a vaccine remedy by other manufacturers, but Pasteur vaccine is the original article which is made by the originators or discoverers of black-

leg vaccine, and is therefore the standard preparation. Last, but not least, Pasteur vaccine has stood the severe test of time, and the requisite proof of its long-continued success is evidenced by the lengthy list of testimonials from the leading cattle raisers of the country who have used Pasteur vaccine upon from fifty to five thousand head. An interesting book upon "Blackleg and Its Successful Treatment by Preventive Vaccination" will be mailed upon request by the Pasteur Vaccine Co., 52 Fifth Ave., Chicago, Ill.

#### A MONSTER MEETING

Of the Modern Woodmen of America, in the New Convention Hall, Kansas City.

The Head Camp Meeting of the Modern Woodmen of America, during the week beginning June 6, at Kansas City, Mo., promises to be one of the largest attended meetings ever held in the West. The Kansas City committee on arrangements have secured the new Convention Hall with a capacity of twenty thousand people for its sessions. One hundred thousand visitors are expected. Thirty-five bands and seventy-five Forester teams (uniform rank) with fully fifteen thousand marching men will be seen in line Thursday morning, June 8, in the great parade. Band and Forester team contests will extend through the week. The prizes are the largest ever offered. For Forester teams: First prize, \$500; second prize, \$200; third prize, \$100; fourth prize, \$75; fifth, \$50. Local Kansas City teams are excluded. Band prizes: First prize, \$150; second prize, \$100; third prize, \$50. All delegation bands admitted. Special railroad rates to this meeting.

J. H. LYON,

Western Passenger Agent, Missouri Pacific Railway, Kansas City, Mo.

#### National Baptist Societies Anniversaries, Portland, Ore., June 2-5, 1899.

One fare plus \$2.00 for round trip via Union Pacific. For dates on which tickets will be sold, limits, and full information, call on F. A. Lewis, City Ticket Agent, or J. C. Fulton, Depot Agent.

#### \$60—San Francisco and Return.

Tickets on sale May 15 to 18, inclusive. Final limit, July 15, 1899. Stop-over privileges in each direction. You may go one way and return another. Thos. L. King, Agent Santa Fe Route, Topeka, will cheerfully respond to all inquiries for information.

#### One Fare

for the round trip, via the Union Pacific, to San Francisco, Cal., for National Baptist Societies Anniversaries, May 25, 1899. For dates on which tickets will be sold, limits, and full information, call on F. A. Lewis, City Ticket Agent, or J. C. Fulton, Depot Agent.

## Nasal CATARRH

In all its stages there should be cleanliness.

Ely's Cream Balm cleanses, soothes and heals the diseased membrane. It cures catarrh and drives away a cold in the head quickly.

Cream Balm is placed into the nostrils, spreads over the membrane and is absorbed. Relief is immediate and a cure follows. It is not drying—does not produce sneezing. Large Size, 50 cents at Druggists or by mail; Trial Size, 10 cents by mail.

ELY BROTHERS 50 Warren Street, New York.





## Horticulture.

### KANSAS EXPERIENCE IN ORCHARDING.

From "The Kansas Apple."

Dr. J. Stayman, Leavenworth, Leavenworth County: We came to Kansas thirty-nine years ago, and traveling over the eastern portion of the State selected Leavenworth as the most desirable point to commence tree and fruit growing. We were then engaged in that business in Illinois, and had collected over 1,000 varieties of apples, which we brought to Kansas; among them were nearly all the leading varieties then grown and many new and rare kinds of local reputation. Our object in making this collection was to grow them side by side, under the same conditions, to ascertain their value. In 1860 we set an orchard of a few hundred trees, consisting of about seventy varieties, two years old. Among them were Ben Davis, Winesap, York Imperial, Willow Twig, Rambo, Rawle's Janet, White Pippin, and Jonathan, and the leading apples generally grown, including summer and fall varieties. At the same time we set out about 1,000 root grafts in a nursery. We then collected over 1,000 more [scions] and top-grafted them [into standard trees], to get the fruit sooner. Over 1,000 of these were received from the late Charles Downing. From this collection, and from specimens of fruit received, we have been able to accurately describe over 2,200 varieties, with an outline cut of each, with seeds and core and all other characteristics. And to ascertain what effect climate had upon each variety, we kept an accurate meteorological record of the weather. This we furnished to the Smithsonian Institution, Washington, D. C., for ten years. We also grew the leading varieties on an elevation 400 feet higher, and on various aspects not over two miles apart, and learned what effect elevation and aspect had upon the bearing quality of different varieties.

For commercial orchard I prefer Stayman, Winesap, York Imperial, Jonathan, and White Pippin. It will be noticed that in the commercial list we omitted Ben Davis, Missouri Pippin, Gano, and Willow Twig. These varieties are all productive and profitable, but we believe the time has come (or soon will be) that the public will demand something better, and to meet this demand we have made the change; but to those who do not believe in progress the above varieties will prove at least productive, if not so profitable as in the past. In making out the list of apples we have hesitated somewhat in heading the list with Stayman, not from any doubt about the apple, but from the fact that it is not generally known; but this objection can be made against any apple when first introduced. The following is the description we gave twenty-one years ago in our fruit notes: "Fruit large, heavy, form oblate conic, regular; color greenish-yellow, mostly covered, splashed and striped with dark red; flesh yellow, firm, fine, tender, juice, rich, mild, aromatic, subacid; quality good to best; season January to May. Seedling of Winesap; bore the ninth year from the seed." After fruiting this apple over twenty years we can add the following: It is a strong grower, has a darker leaf, is a better bearer, hangs on the tree better, is of larger size, is of much better quality, and will keep better than Winesap. Charles Downing gave a similar description of this apple in his appendix. [Stayman Winesap.] R. J. Black, of Ohio, one of the best-posted pomologists, who has fruited it for years, puts it at the head of both the commercial and family lists, and says: "It has all the qualities of the Winesap without any of its faults." Prof. H. E. Van Deman, who has fruited it and seen it fruited in Delaware, puts it at the head of the list, and writes in respect to the change of name: "Stayman (apple) is worth almost a lifetime to produce." "Now, I have been so impressed with its coming value and popularity, that I have thought it ought to be shortened in name to Stayman." J. W. Kerr, of Delaware, says: "It is superior to its parent, the Winesap, in size, color, flavor, and keeping quality. The tree is more vigorous in growth. After several years' fruiting, I have no hesitation in saying it is the finest all-round winter apple that has come under my notice." Professor Heiges writes us about the same in substance. Prof. G. H. Powell, of the Delaware Experiment Station, says: "In quality it equals the Northern Spy, and is in season from October to May." We could give many quotations of equal value from Rural New Yorker, Green's Fruit Grower, and National Stockman and Farmer.

Since writing the above we find the following in the last-named paper of May 26: "One variety, Stayman, mentioned frequently in these columns, a seedling raised by our correspondent, Dr. J. Stayman, of Kansas, from the old Winesap, receives

special commendation. It is remarkable that, in the wide section of country between Kansas and Delaware, in Ohio, Indiana, Pennsylvania, and Missouri, wherever this variety has been tried, it has developed the same excellencies of size, quality, and keeping, as well as of vigor and productiveness. Lovers of choice apples will not fail to make a note of this." Winesap we placed second on the list, after a fair trial of over thirty-five years side by side with Ben Davis. Give it good soil and high cultivation and but few apples will excel it. York Imperial we place third. It is not of the highest quality, but it is better than Ben Davis, and will keep in a common cellar, and command a high price. It is very productive in alternate years, and a hardy tree. Although we introduced this apple into the State thirty-eight years ago, yet its commercial value is scarcely known. Jonathan, perhaps, should stand at the head of the list for its great beauty, fine quality, and productiveness; but it matures so early, drops so badly, keeps so poorly, and requires so much care in handling, that we hesitate doing so. It is, however, a very profitable apple when well handled, and can not be omitted, as no other in its season equals it. White Pippin: This apple of unknown origin and seldom mentioned should be better known, as it is far superior to the famous Newtown or Albemarle Pippin of the same type. We have had it in bearing on high and low land as long as any other apple, and find it very productive in alternate years, of the best quality, and bringing the best price. It keeps better, drops less, is of larger size, equal in quality, and will bring as high a price, where known, as the Jonathan. In a commercial orchard there should be few, if any, fall or summer varieties, unless favorably located; they should be of the best shipping and market varieties, as Early Ripe, Duchess of Oldenburg, Orange Pippin, Cooper's Early White, Jefferis, Muster, and Dr. Watson. These are all early bearers, very productive and salable, and of fine quality for table or kitchen. Those best for a family orchard are Stayman, Winesap, Jonathan, White Pippin, Mason's Orange, Summer Extra, Garretson's Early, Summer Pearmain, Early Joe, Jefferis, Early Ripe, Duchess of Oldenburg, Dr. Watson, Muster, and Wagoner; and for sweet apples there are none better than Broadwell, Ramsdell, Superb, Baltzby, and Mountaineer.

All these apples are early bearers, productive, and fine for family use, and we can not well discard any; but eight or ten trees, of summer and fall varieties together, are enough to supply the largest family. It is better, however, to plant one of each variety, that we may have a succession of fruit throughout the season; also, if one variety should fail, others might not. It would require a very long list to name all we have tried and discarded, but we will name some: Rawle's Janet we reject, as it runs too small and cracks badly; Ben Davis, Missouri Pippin, Willow Twig, Gano, Arkansas Black and Mammoth Black Twig are all productive, but of poor quality; Maiden's Blush, Lowell, Porter, Rome Beauty, Western Beauty, Fulton, Trenton Early, Cole's Quince, and many others, because they ripen too irregularly and drop too badly. The White Winter Pearmain, Lawver, McAfee and Kansas Keeper blight badly and are not sure bearers; Early Harvest and Red Astrachan are not hardy; Summer Rose, Early Strawberry and Benoni are fine, but too small; Primate, Chenango and Gulley of Pennsylvania are too tender to handle; Smith's Cider, Hay's Wine, Fallwater, Scott's Best and Nonpareil Russet are productive, but ripen early and are not profitable. Many Southern winter varieties are too small, such as Haley, Gulley, Kittageskee, and Harris. Few if any Eastern winter apples are of any value here, as Northern Spy, Baldwin, Canada Red, Swaar, Sutton Beauty and Melon all ripen too early, and become poor, dry, fall apples. It is the same with all Northern apples, from whatever source or locality. It is a mistake to think we can find a winter apple adapted to Kansas that originated north of Kansas, under a lower mean temperature. This we have fully demonstrated beyond the possibility of a doubt. Early apples require a specific amount of heat to bring them to maturity from the time the fruit forms. If brought from a colder climate to a warmer one, you hasten the growth and accelerate maturity just in proportion to the difference in mean temperature of the two localities, and consequently they ripen in the fall here. I prefer hilltop for quality, keeping, and color, and bottom for size.

Hilltop and steep bluffs are the best for all kinds of winter apples, as they produce the richest fruit, with the finest color, and they keep the best and are not so subject to injurious pests. Fifty feet of abrupt elevation is equal in its effect to fifty miles of latitude south on frosty nights. It retards spring growth as much as forty miles north. An elevation of 400 feet makes a

difference of from 10 to 25 per cent in the amount of saccharine matter in fruit, to which rich quality, fine flavor and aroma are due. Bottom land produces the largest apples, more murky in color and more irregular in bearing. Rolling, intermediate Kansas land will prove satisfactory. East and south slopes hasten the maturity of fruit, and are the best for early varieties; a northern slope retards the ripening of fruit and is the best for winter apples. The best specimens of apples we ever saw in Kansas grew on a northern bench about thirty feet below the top of an elevation of 400 feet, on good, rich, well-drained soil. They were large in size, clear in color, and perfect in form. We prefer any good soil that will produce a good corn crop, with a well-drained clay subsoil; mucky, wet or hard-pan soils are not fit for fruit. Land that produces a good crop of wheat is rich enough. We have seen a very heavy crop of York Imperial at its native home on quite thin freestone land. Almost any of the land in Leavenworth County is naturally rich enough if we only keep it so.

I prefer two-year-old untrimmed trees, set in furrows made with a two-horse plow, no deeper than we plant the trees, but wide enough to take in the roots. We set them about two inches deeper than they stood in the nursery, on the solid subsoil, and pack the dirt firmly amongst the roots; lean or set the heaviest top to the southwest. The largest and heaviest roots, if convenient, should be in the same direction. After filling the hole, bank up a steep mound of earth around the tree. If this is properly done no ordinary wind will ever move it. We prefer two-year-old or strong one-year-old trees, because they can be set more rapidly, cost less labor, less money, live better, and grow more stocky. We want them taken up with care, give no pruning whatever, neither "cut their tops in to balance the roots," when planting in orchard. Trees that are taken up when young and set out in an open orchard without pruning grow stronger and more stocky, bear sooner, and are less subject to blight, sunscald, and the attack of flat-head and round-head borers. We have root-grafted as many as 500,000 in one season on sections of roots from two to six inches long with scions from three to twenty inches long, to see which were the best. Two-inch sections from one-year roots, grafted with scions about six inches long, set deep enough to form roots on the stock, are best. This "whole-root graft" is simply a humbug. It is the strength and vigor of seedling roots, not the length of them, that make the best-rooted trees. No sensible man will pretend to graft whole seedlings [roots] and set them out in a nursery. It can not be done with success. We must cut off a portion of the root to do it. The question arises, how much? It is then not a whole root, and it becomes a question what length of root is best. It is not advisable to bud or graft seedling trees in the nursery, for all seedlings are not of the same vigor and hardiness; consequently the trees would differ similarly.

I plant my orchard to corn, potatoes, garden-truck, and small fruits, and keep this up, with clean cultivation, using a Planet Jr. horse hoe, until they begin to bear, and cease cropping after ten years, planting nothing unless the above-mentioned crops or clover in a bearing orchard. Wind-breaks are injurious unless planted at least 200 feet from the orchard. The best protection is to plant the two outer rows of fruit trees close together; they can be cut out, if desired, when they become too thick. This is better than high-growing shelter trees or evergreens. We want a free circulation of air to pass among the trees. A high and heavy protection produces an eddy which blights and sunscalds the trees, as well as hastens the ripening and dropping of apples. We have had no occasion to use any protection from rabbits and borers since we quit pruning off the lower limbs. Pruning is not thoroughly understood. Trees are pruned to make them live, grow fast and stocky, and also slender; to make them bear young, give form, light and air, and to make them look alike; to bear heavy crops and fine specimens. It is claimed all this can be done by pruning; it can be accomplished without pruning in a much shorter time and without extra labor. We do not recommend pruning apple trees at any times excepting after the trees are well established in the orchard; then the lower limbs may be gradually removed to form the head, about two feet from the ground; but the longer we allow them to remain the heavier and stockier they become; for the body of the tree increases in size just in proportion to the amount of foliage on the lower limbs. We prune off dead, broken and sucker limbs, and have no objections to taking off limbs that chafe each other (if this should happen from neglect). We have lost more trees from pruning than from all other causes together. We have seen

ST. JACOBS OIL

ST. JACOBS OIL

Cures Rheumatism  
" Neuralgia  
" Lumbago  
" Sciatica  
" Sprains  
" Bruises  
" Soreness  
" Stiffness  
" Backache  
" Muscular Aches

large orchards just in their prime that have been so injured from pruning that they never recovered. On the other hand, I have seen orchards that were so neglected, dilapidated and crowded that I thought a thorough pruning would make them more productive. I never thin the fruit on the trees; it is not necessary.

Pollination is no doubt an important factor in productiveness, size, quality, and form. We have had no opportunity to test the result with apples, as our varieties are all mixed up together. We would not plant in an orchard large blocks of any variety exclusively; better have them intermixed with other varieties that bloom at the same time. The pollen of one variety may be congenial to some, while it may be neglected [repelled] by another; we will have to learn this by experience, or plant a less number of varieties together. We have little experience yet in planting large orchards of few kinds. Perhaps none of these varieties that are esteemed so highly are congenial to each other. We had better go slow about planting out 10,000 to 20,000 of one kind together. We may have gone too far now. We don't use any fertilizer for our trees only as we crop the land. The virgin soil of our county does not need fertilizing if planted in orchard until the tree comes into bearing, except we crop the land. It is, however, a mistake to think we can grow an orchard and crop the ground at the same time, without any injury to the orchard, unless we restore the lost fertility in some way. Orchards so exhaust the soil in about sixteen years' cropping that it is worth little afterwards. "It is estimated that an acre of apples in good bearing removes annually about forty-nine pounds of nitrogen, thirty-eight pounds of phosphoric acid, and seventy-two pounds of potash. If the fertility and productiveness of the orchard are to be kept up, these fertilizing elements must be returned in some form." At the market value of these fertilizing materials they amount annually to about twelve dollars an acre. It is estimated that an orchard will be in full bearing in about ten years. Then in six years of full bearing it will have exhausted the soil to the amount of \$72 per acre. Take in consideration the previous cropping of ten years, need we wonder what is the matter with our orchard? Should we diminish the feed of a vigorous horse annually for ten years, do you think he could pull the same load, or be of much value? The nitrogen is the most expensive element, representing about half of the whole, yet it can be restored to the soil by crimson or red clover, peas, vetches, beans, cow-peas, or turnips, which have the ability of converting the free nitrogen of the air into available plant food. The best method of accomplishing this end is to grow these crops on the land and plow them under in their green state at about maturity. I do not pasture my orchard; it is not advisable and does not pay. My apples are troubled with codling-moth. I do not spray. For borers, I bank the trees, so that if they deposit their eggs they can be gotten out easily.

I pick my apples in baskets and sacks, from a ladder, and sort them into three classes: first, second, and culls. I pack in baskets and barrels; press them in barrels, and mark with name of variety. I wholesale my apples in the orchard to dealers; market the best in baskets and barrels, sell my second and third grades the best way I can, and throw the culls away. My best market is at home. I never tried distant markets, and do not dry any. I am successful in storing apples for winter in boxes and barrels in a cellar, and find Ben Davis, Stayman, Willow Twig and York Imperial keep best. In storing apples for winter, they should be picked before they are too ripe and when the weather is not too hot; when picked they should be taken at once to shade and packed and stored away during the cool of the evening. They should be well sorted, packed in tight barrels, and headed up to exclude the light and air. They will keep longer if each apple is wrapped with paper. The temperature of your cave or cellar should be reduced as much as possible by throwing the doors open at night and closing them through the day. A gradual reduction and a regular tempera-



ture is better than a sudden change. Apples should not be hauled about in the hot sun before storing them away, neither should they be placed in cold storage at once. The change is too sudden. It is the same in taking them out of cold storage. It should not be done at once. A storing room for this purpose should be provided in every cold storage plant. I do not have to repack stored apples if they are sold early, but if not until late we have to repack. The loss depends upon the variety. I have tried irrigation on a small scale, but do not irrigate now. Prices have been from 50 cents to \$2 per barrel. I employ men that are capable of packing apples, paying from 5 to 10 cents per hour.

We seldom hear anything about fall planting, as if it was a settled fact that the spring was the best or the only time it could be done successfully. All of our trees for the last thirty-eight years have been transplanted in the fall, excepting the last three years they were set out in the spring. The difference is decidedly in favor of fall planting; they start in growth earlier and make a much stronger growth the first season, and there is a gain of nearly a year in size over those planted in the spring, and they certainly have lived better. Why should they not do better? We have more time and less hurry to do the work well, the ground is in better condition, the trees have more time to callous and become firmly established. It is often too wet to take the trees up and transplant them early, and late setting is not advisable. The distance trees should be set apart is a more important matter than is generally supposed. Very few ever think how large a tree will grow and the space it will occupy. Almost every thrifty variety will grow and spread, and require a foot of space each year; that would be ten feet in ten years and forty feet in forty years; in other words, the trees will meet in forty years, if set forty feet apart. This holds good in Kansas; consequently, forty feet apart is too close to plant trees if we expect an orchard to last that long. Apple trees will bear and be profitable for that length of time if they have sufficient space, receive proper care and cultivation, and the fertility of the soil is not allowed to become exhausted. Many set their trees 16 by 32 feet for the purpose of getting a large crop when the trees first come into bearing, with the intention of cutting out every other row when they crowd, but we fear very few if any ever think this will have to be done in fifteen years from the setting or the orchard would be ruined and the land very much impoverished. It would be much better and more profitable to set the trees 24 by 24 feet and cut every other row out in twenty-four years, at least one way, and if they crowded, both ways, and not crop the land at all, except to keep up the fertility of the soil. By this method we could have a good bearing orchard for forty years or longer, which would pay better than closer planting and cropping the land to pay the expenses.

"Did she marry well?"

"No; it's a case of true love."—Puck.

## Your Butter Money



and cow profit may be greatly increased if you only embrace the means within your easy reach. For instance, if you buy a.....

### LITTLE GIANT

#### • SEPARATOR

you will not only get more butter from the same cows, but it will be so much improved in quality as to command a much better price. Our free Illustrated Catalogue, No. 19, explains

the details.

BRANCHES: P. M. SHARPLES, West Chester, Pa.  
Toledo, O. Omaha, Neb.  
Dubuque, Ia. St. Paul, Minn.  
San Francisco, Cal.

## DON'T PAY FOR THIS UNTIL YOU TEST IT.



SEPARATES All the Cream

in from 30 to 60 minutes. Increases the yield over 5 percent. Produces sweeter and better butter. Saves over half the usual labor. The "SELDON" in use last season with universal success.

Sold on Trial.

10 Gal. size, \$10.  
15 " " \$12.  
20 " " \$14.

GOOD LIVE AGENTS WANTED EVERYWHERE.

For sale ONLY by

EBERHART & STODDARD, CHICAGO, ILLS.  
84 Clark St., Cor. Lake.

## In the Dairy.

Conducted by D. H. OTIS, Assistant in Dairying, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

### GET READY FOR THE DROUGHT.

Press Bulletin Kansas Experiment Station.

June 4, 1898, the college herd of thirty milking cows was being well fed on twenty acres of tame grass pasture from which an early crop of hay had been cut. June 19, this pasture not furnishing sufficient feed, forty-two acres of prairie grass pasture were added; and August 19, these two pastures getting short, eleven acres of tame grass meadow were added; making seventy-three acres of pasture. With this amount it became necessary, the latter part of August, to begin feeding green Kaffir corn to keep up the flow of milk.

Contrast the college record, seventy-three acres of pasture for thirty cows, supplemented with green feed from the latter part of August, with that of a patron of the Manhattan creamery, who, having no pasture, turned his cows into a dry lot, cut green alfalfa and fed it to them, feeding ten head all they needed through the summer on four square rods less than two acres.

It pays to keep dairy cows supplied with full feed throughout the summer. From July 5 to August 16 the college herd on full feed dropped 4½ per cent in daily milk yield, while eight herds in the vicinity of the college dropped 39 per cent in milk yield because short pastures were not helped out with other feed.

A drought may be expected some time in every summer. When it comes the milk yield goes down all over the country and the price of dairy products goes up. Not many dairymen can add more pasture when the drought comes, and the Kansas dairyman who can not should without fail provide for feed to supplement short pastures, so as to insure a good milk flow when prices are the highest.

If the pasture does not become too scanty the milk flow may be kept up by feeding grain, but for most dairymen this is too expensive. Liberal feeding of either green alfalfa or of alfalfa hay helps out short pasture, and both are cheap feeds where the dairyman has them. The cheapest and most convenient feed for summer drought where the dairyman has a silo is silage. The silo may be uncovered and the silage fed whenever other feed is short. If rains come and the grass again is sufficient feed, cover up the silo and wait for the next drought or for winter.

Many dairymen have neither grain, alfalfa, nor silage, and should put in crops this spring that will supply green feed when the drought comes. Plan to-day. Green wheat, green oats and green millet are good, but last only a short time. Begin cutting these crops as soon as the first heads appear and continue until the stalks begin to harden. Sweet corn comes early, and is a good milk-producing feed, but the yield is too small. Field corn, Kaffir corn, and sorghum are the most profitable green crops for the Kansas dairyman who does not have alfalfa.

Below are given the average dates at which the various crops are available as green feed for dairy cows on the college farm:

Alfalfa—May 20 to September 30.

Wheat—June 1 to 15.

Oats—June 15 to 30.

Sweet corn—July 15 to 31.

Field corn—August 1 to September 15.

Sorghum—August 1 to September 30.

Kaffir corn—August 1 to September 30.

Wheat—Fall pasture until ground freezes.

Many write asking how many acres of each crop is needed. The season, soil and thoroughness of cultivation affect the yield so much that we can not answer these questions. Green crops are most needed in dry summers, and in estimating the acreage required for a herd, plans should be made to have an ample supply for a very dry year. In a good year the surplus can be cured for winter. With these considerations, we have made the following estimate of the number of acres of each crop required to feed our thirty cows for the period during which the crop is available: Alfalfa 10, wheat 3, oats 3, sweet corn 3, field corn 4, sorghum 3, and Kaffir corn 3.

### A Feeding Problem.

Mr. W. D. F., Lincoln, Neb., writes: "Please give me a ration out of the following feeds for a Jersey cow weighing between 800 and 900 pounds: Corn and cob meal, \$9 per ton; bran, \$13 per ton; linseed oil meal, \$21 per ton. I feed alfalfa hay at night and sorghum hay and millet during the day."

No price is given for alfalfa hay, sorghum hay, or millet, but assuming that alfalfa is worth \$6 per ton, sorghum hay

\$2 per ton, and millet \$4 per ton, it is possible to work out some good and economical rations from the above feeds. Mr. F. does not state how much alfalfa he has at his disposal, but the following rations allow the use of different amounts of the feeds named, and represent the amount to be used per 1,000 pounds live weight:

#### RATION No. 1.

Formula.	Digestible Nutrients.			Cost.
	Protein.	Carbo-hydrates.	Fat.	
Alfalfa, 20 lbs.....	2.12	7.46	.28	\$ .06
Sorghum hay, 5 lbs	.12	2.03	.06	.005
Millet, 3 lbs.....	.13	1.55	.04	.006
Corn-cob meal, 2½ lbs.	.16	1.40	.07	.011
Total.....	2.53	12.44	.45	.082
Required.....	2.50	12.50	.40	....

#### RATION No. 2.

Formula.	Digestible Nutrients.			Cost.
	Protein.	Carbo-hydrates.	Fat.	
Alfalfa hay, 10 lbs	1.06	3.73	.14	\$ .030
Sorghum hay, 5 lbs	.12	2.03	.06	.005
Millet, 5 lbs.....	.22	2.58	.07	.010
Corn-cob meal, 4½ lbs.....	.29	2.53	.13	.020
Bran, 3 lbs.....	.37	1.11	.08	.019
Linseed meal, 1½ lbs.....	.43	.49	.10	.015
Total.....	2.49	12.47	.58	.099

Since Mr. F.'s cows weigh from 800 to 900 pounds, he should decrease the amount of feed 10 to 20 per cent according to the weight of the animal, but keep the ratio between the feeds the same. It should be noted, however, that these standard rations serve only as guides. There are some cows that will eat considerably more than indicated above, and others considerably less. The feeder should study the individual make-up of his cows and vary the amount of feed in accordance with the capacity of the animal to convert it into milk. It sometimes happens that a good dairy cow profitably consumes a larger amount and also a larger percentage of protein than is called for by the standard. This can only be determined by a careful study of the individuality of the cow.

It will be noticed that in the first of the above rations all the feeds named can be grown on the farm, and thus save the expense of buying and hauling more concentrated feeds. This first ration comes nearer the standard than the second, and costs 1.7 cents less. For two hundred feeding days, this would amount to \$3.40 per cow, and with a herd of thirty, would amount to \$102 per annum besides the expense of hauling the bran and linseed meal from town. A comparison of these two rations shows very clearly that the dairyman should have plenty of alfalfa, and that where this feed is wanting the deficiency will have to be made up with high-priced bran, oil meal, or some other concentrated feed.

D. H. O.

### A Point for Creamerymen to Consider.

Editor Kansas Farmer:—We read in an article on creamery examinations, in your issue of April 6, of the value of skim-milk as feed for calves and hogs, and that patrons of creameries need education on the subject to make the business more profitable.

I think some of our factory men need a little educating; we patronize a cheese factory and they tell us there is profit in feeding whey. Now we have fed it to hogs right from the factory when the whey was so bad that we could not bear the smell of it in the yard, and were not able to sweeten the cans for a week after emptying the whey, so we quit using it.

The average patron uses the can out of which he empties the whey in the morning for fresh milk in the evening, and the can, after having contained such spoiled whey, is not fit to contain sweet milk for a week; and then they tell us the patron is the one who needs education, but I think some training would benefit the other side. I think the product manufactured from milk received in such a condition should be condemned; still it is represented and

## Some Facts About A Cream Separator

(Saves Endless Work.)

Vinton, Iowa, Jan. 10, 1899.

"About one year ago I purchased an 'Alpha-Baby' No. 2 after giving it a thorough test and finding that with the same quantity of milk we were able to produce 3 lbs. more butter per day than we were getting by the old method. This was with the milk from twelve cows. I am satisfied our separator has paid for itself the first year, besides saving an endless amount of work for Mrs. Austin and her help in the house, in that there were a great many less pans, etc., to wash and keep clean. I feel that I cannot recommend the 'Alpha-Baby' too highly to any one in the dairy business."

S. B. AUSTIN.

(Big Difference in Results.)

St. Mary's, O., June, 1898.

"We have finished our test of the 'Baby' separator. We made the test from six milkings. The milk was well mixed and carefully divided. The half skimmed by the separator made 11 lbs. and 8 oz. of butter. The other half was set in crocks in the old way and very particular care taken of it. It made 8 lbs. and 12 oz. This is almost unbelievable, but my wife is willing to state the same under oath. We sell butter at 16c. to 20c. per lb. so that the separator will make us a net profit of 30c. a day over the old way. It will more than pay for itself inside of one year, with our seven cows. Calves and pigs are doing very well on the skim-milk."

F. W. NEDDERMANN.

(Any Kind of Cream.)

No. Grafton, Mass., 1898.

"The Dairy Turbine 'Alpha' De Laval separator which I purchased in September, 1896, is giving perfect satisfaction. I have separated with it from 40 to 80 cans of milk per day ever since. Some days the temperature of milk is as low as 55 and 58 deg., but the samples of skim-milk show only from .01 to .02 of 1 per cent butter fat. There is no trouble in making the cream of any desired thickness that I may wish, which is a great benefit to me, as I can supply cream at any price that my patrons desire. Had I purchased one of these machines several years ago it would have saved me a good many hundreds of dollars."

S. L. DAVENPORT.

(De Laval Superiority.)

Webster City, Iowa, Jan. 19, 1899.

"About eighteen months ago the creamery to which we had been hauling milk shut down. Our product was about 400 lbs. of milk per day and we had very poor conveniences for making butter, so concluded we would try a cream separator. Being entirely ignorant as to the merits of the different machines, we thought the proof of the pudding was in the eating, so tried a Sharples, U. S. and an 'Alpha-Baby' side by side. After a thorough test of six weeks we bought the 'Alpha-Baby' No. 2, even though it cost more than either of the others. Our reasons for making such decision were, first, that its capacity was more than advertised; second, it run with much less power; and, third, it is of better mechanical construction and less liable to get out of order.

"At the time of selling milk to the creamery we were being paid for only 3.3 lbs. of butter from 100 lbs. of milk. After purchasing the 'Baby' we weighed 200 lbs. of milk, which was separated and churned, and the product was 8 lbs. of butter, cows being on grass without grain."

C. D. CARPENTER.

## RAPE IS THE BEST FORAGE PLANT.

It furnishes succulent food from May to December. No equal for summer and autumn SHEEP FOOD. Equally good for cattle, calves and pigs. Beats clover and alfalfa by scientific test. Grows 20 to 40 tons Green Feed to Acre—no green food approaches it for fattening. Salzer's Dwarf Essex, best, 100 lbs. \$7.00; 10 lbs. \$1; 15 to 99 lbs. 8 cents per lb.; for less than 100 lbs. add 25 cts. cartage if sent by freight. Send 6 cents for pamphlet on Rape. Seed Dep. Amer'n Sheep Breeder, 124 Michigan St. Chicago.

### WHAT THE PRESIDENT SAYS ABOUT THE IMPROVED U. S. SEPARATOR.



BRATTLEBORO, Vt., Feb. 27th, 1899. It gives me pleasure to say that the dairy machinery bought of your company two years ago, including a No. 5 Improved U. S. Separator and a Pony Power, is working well and giving entire satisfaction.

The Improved U. S. Separator is doing all and even more than was claimed by your agent. The separation is perfect, it runs easily, without noise or friction, and it is easy to manage and care for. Of all the separators placed upon the market, there is none that excels the Improved U. S. in my opinion.

G. W. PIERCE, President Vt. Dairymen's Ass'n.

Write for our latest Illustrated Catalogues.

VERMONT FARM MACHINE COMPANY,

• Bellows Falls, Vt.



sold as a first-class article, and I suppose our factory is not the only one run in that way.

Now creamerymen tell us to feed the skim-milk to calves sweet. I saw our neighbor who patronizes a separator creamery and he says he often brings skim-milk home and it is clabbered before he gets it unloaded. Such milk is not fit to feed to any stock unless it is hogs. I think the way to use skim-milk with good results is to have a separator at the barn and separate as soon as drawn from the cow, and feed to calves while warm and fresh; but when the skim-milk stands for a while it arrives at a turning point where it is not fit food for a calf.

Now these leading creamerymen in the article mentioned tell us: "We want you to bring us the milk and we will separate it and sell you the skim-milk," little knowing what condition that milk is in when the farmer brings it home.

There is a movement on foot here to start a creamery and have each patron get a separator and separate his own milk and send the cream to the factory. The man who is running the creamery is selling the separators. He has been at work all winter and succeeded in selling a few machines at \$10 each. People would like the idea quite well were it not for such an exorbitant price. To pay \$100 for a \$25 machine does not take very well. They try to educate us up to the fine points of the separator—how much it cost to manufacture them (twenty years ago). We were told the same thing about sewing machines; they could not be sold for less than \$75; now they sell one as good for \$15; bicycles the same. Were the separators sold at what would appear a reasonable price, Mr. Morgan would have no trouble in starting his creamery.

ONE WHO MILKS COWS.

Herington, Kans.

#### Skim-milk.

Paper by E. J. Davis, read at Farmers' Institute, Valley Falls, Kans., December 2, 1898.

For the first three months that I sent milk to the creamery I was fully convinced that it was almost worthless, scarcely worth returning to the farm, but my experience has taught me to place it a notch higher than when I first became a creamery patron, so much so that to-day I believe the farmer who raises the right kind of calves to consume his skim-milk makes as much clear profit in this way at the end of the year as he does from his sale of butter fat. Of course to get the best and most satisfactory results the milk must receive the right kind of care. It should not be allowed to stand in the can, for hours, in the hot sun, as is too often the case when other work is pressing, but should be fed at once, for when permitted to become rancid it loses about one-half its feeding value. My method of raising calves with skim-milk is as follows:

To about five quarts of milk I add one small handful of meal. This has given far better results than any other method that I have tried, and about 25 cents worth of meal will raise a calf until large enough to consume whole grain. Calves when fed this way will make a good growth and will be in good condition and at 10 or 12 months old will find a ready market at from \$18 to \$20.

In an experiment in Germany 12 pounds of skim-milk made 1 pound of gain on calves. At the Utah Experiment Station calves were sold at 4 cents, making a return of 22 cents per hundred for the skim-milk fed, while Prof. Cottrell, of the Kansas Experiment Station, tells of calves at the age of 6 months which returned 2 1/2 cents for the skim-milk fed to them.

#### Horse Owners! Use

GOMBAULT'S



**Caustic Balsam**

A Safe Speedy and Positive Cure

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

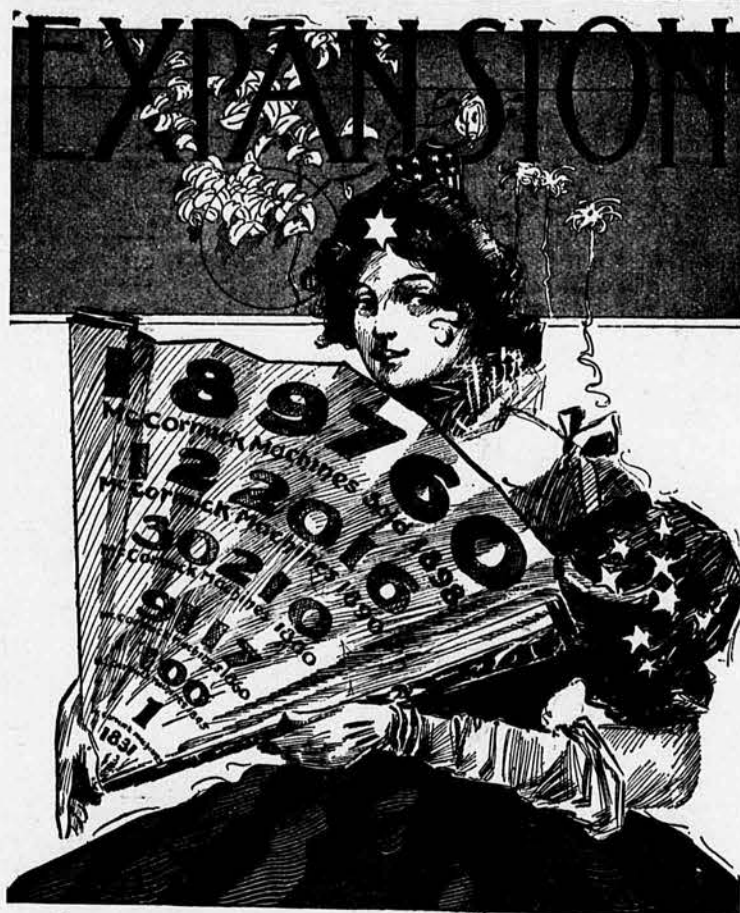
#### Don't Pay High Prices

TO YOUR DEALER.

You can buy the

**Advance Fence**

direct from us at wholesale prices. It's a first-class fence in every way. Write for circulars and prices. ADVANCE FENCE CO. 4104 Old St., Peoria, Ill.



Last season the McCormick Harvesting Machine Company of Chicago built and sold 189,760 machines. This kind of expansion dwarfs every other achievement American history records in favor of the well being of the farmers. Buy McCormick machines and you will get your money's worth.



**DON'T SET HENS** The Same Old Way. THE NAT'L HEN INCUBATOR beats the old plan 3 to 1. 100-Egg Hatcher \$2. Cheap in price but a mighty money maker. Send for cat'g telling how to get one free. Agents wanted. Natural Hen Incubator Co., 183, Columbus Neb.

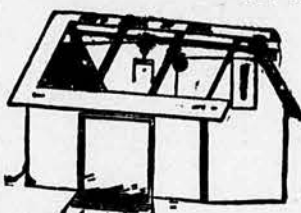
#### You Can Save Money

this season, by buying

**OSGOOD SCALES**

Write for Special Offer—don't wait. Osgood Scale Co., 35 Central St., Binghamton, N. Y.

#### RONEY HAY FORK RETURNER.

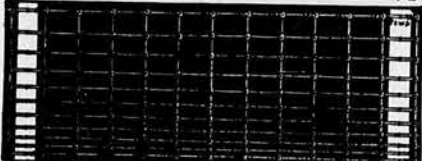


It will return FORK, CARRIER AND ROPES back to starting point, saving all the hard work of pulling them back by trip rope.

Terms and prices on application. Agents wanted

RONEY RETURNER CO., Box U., Independence, Ia.

#### DON'T EXPERIMENT



Buy the Pittsburgh Woven Wire Fence and avoid all mistakes. It's a good long-lived fence at a reasonable price. Takes up all expansion and contraction and never sags. It's close enough and strong enough to turn all livestock. Keeps yours in and your neighbor's out. We want good agents in every locality. First order secures township agency. Circulars free. Pittsburgh Woven Wire Fence Co., Penn. Av., Pittsburgh, Pa.



#### YOUR LIFE

and that of your family may depend upon the quality of your buggy and harness. When you buy a buggy, buy one that won't break. This buggy is **Guaranteed for 5 Years.** Every stick in the gear is hickory, tough as whale bone; every forging, best Norway iron. Handsome as it is strong. Trimming and painting, highest art known to buggy building. An agent or dealer would ask you \$75 for one not as good. OUR PRICE, \$44.10. **WE HAVE NO AGENTS** but sell direct to you at lowest prices. Shipped subject to your approval without any money with order. Our line comprises: Buggies, Road Wagons, Phaetons, Surries, Runabouts, Stanhopes, Spring Wagons, Road, Speeding and Breaking Carts, Farm Wagons, all kinds of Harness and Saddles. We issue the largest vehicle catalogue ever printed. Write us for it now. **THE F. E. HILL.** Marvin Smith Co., 55-57-59 N. Jefferson St., N35. Chicago.

#### WE PAY YOU

children to the busy business man.

sent on receipt of 5 cents (stamps).

DOUGHERTY'S SCHOOL OF SHORTHAND AND TYPEWRITING, 725-27 Kansas Avenue, Topeka, Kans.

50 cents a Hundred for NAMES, on certain conditions, on our special blanks. We want Boys and Girls everywhere to help advertise our unique **SHORTHAND** self-instructor—just the thing for everybody—from the first grade school Blanks and particulars, with a first book in **SHORTHAND**, We will not notice postal card requests.

#### THE SHAWNEE FIRE INSURANCE COMPANY,

TOPEKA, KANSAS.

Insures Against Fire, Lightning, Windstorms, Cyclones and Tornadoes.

The only company in Kansas with a paid-up capital of \$100,000. It writes more business in Kansas than any other company. It has paid losses amounting to \$493,366.63. Call on your home agent or write the company.

#### A SPLENDID JOURNEY FREE!

You may visit the Paris Exposition in 1900 without expense. Particulars, and other valuable information, sent on receipt of four cents in stamps for postage by **TURF, FIELD AND FARM,** 41 Park Row, New York.

#### BINDER TWINE

Our famous **BLUE LABEL BRAND.** It's the best in the world. Prices will surprise you. We deliver from Chicago, Omaha or St. Paul, as desired. Write for prices and samples. **MONTGOMERY WARD & CO., CHICAGO**

**STARK** have a 74-YR. Record. Fruit Book Free **STARK BROS.** Stark, Mo. We **PAY FREIGHT**

**TREES!** Apple, Peach, New Grapes, Cherry, and a full line of Fruit Trees, Grape Vines, Small Fruit Plants, Evergreens, Roses, at low prices Address **J. F. CEILL, Nurseryman, North Topeka, Kans.**

#### Best Corn for Kansas.

One Kansas customer says: "Your C. Y. Dent Corn is two weeks earlier than, and will make ten bushels per acre more than our native corn alongside." Twenty-six best kinds. Catalogue, two samples and proof free. **J. C. SUFFERN, Seed Grower, Voorhies, Ill.**

**700,000 BERRY PLANTS FOR SALE. 700,000** My stock of old and the cream of the new Strawberries for 1899 is first-class. Also Raspberries, Blackberries, Gooseberries and Pear Trees. Send for price list. **B. F. SMITH, Box 6, Lawrence, Kans.**

**PEACH TREES** 4 to 6 ft. at 35 cts.; 3 to 4 ft. at 25 cts.; all 1 yr. from bud, healthy and thrifty; no scale. Official certificate accompanies each shipment. Sample by express if wanted. Can ship any time. Trees kept dormant till May 10th. **R. S. JOHNSTON, Box 17, Stockley, Del.**

#### Trees, Plants and Shrubs.

Gano and Ben Davis apple, 4 ft. 5 cents; Peach, 3 to 4 ft. 5 cents. Fine condition. Strawberry, 25 cents per 100—\$2 per 1,000. Raspberry and Blackberry, 50 cents per 100. Hybrid Perpetual and Climbing Roses, 2 year, 10 cents. Potted Tea Roses, 10 cents; Summer flowering bulbs, 5 cents, 25 for \$1. Cannas, Greenhouse plants, Dahlias, etc., 30 for \$1. Tomato and Cabbage plants 30 cents per 100.

**H. H. KERN, Bonner Springs, Kans.**

#### PRICES THAT TALK.

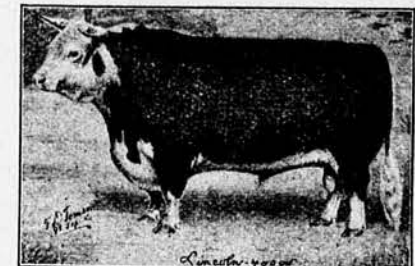
Choice Re-cleaned Clover Seed, \$3.50 per bushel. Choice Re-cleaned Timothy, \$1.20 per bushel. German Millet, choice, 80c per bushel. Choice Re-cleaned Cane Seed, \$1.20 per 100 pounds. Bags, 15c each. Dwarf Essex Rape, 15c per pound. Artichokes, choice variety, 50c per bushel. Potatoes, choice Red River Ohio, \$1.15 per bushel. Seed Corn, Golden Cap, \$1 per bushel. Other best varieties. Address

#### A. A. BERRY SEED CO.,

Drawer L. Clarinda, Iowa.

#### CLOVER CLIFF FARM.

Registered Galloway Cattle. Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbu, and the saddle stallion, Rosewood, a 18-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address **BLACKSHERE BROS., Elmdale, Chase Co., Kas.**



#### SPRING VALLEY HEREFORDS.

Lincoln 47095 by Beau Real and Klondike 42001, at the head of the herd. Young stock of fine quality and extra breeding for sale. Personal inspection invited. **ALBERT DILLON, HOPE, KANS.**



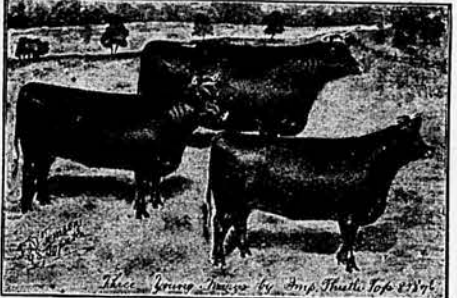
#### CEDAR HILL FARM.

Golden Knight 108086 by Craven Knight, out of Norton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysie 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale; also offer a choice lot of grade bull and heifer Shorthorn spring calves. **C. W. TAYLOR, PEARL, DICKINSON CO., KANS.**



**GLENDAL SHORTHORNS, Ottawa, Kans** Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 119370, by Ambassador, dam Galanthus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale. **C. F. WOLF & SON, Proprietors.**

#### ELDER LAWN HERD OF SHORTHORNS.



**THE HARRIS-BRED BULL, GALLANT KNIGHT** 124466, a son of Gallahad, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 88876, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. A few good cows for sale now bred to Gallant Knight. Address **T. K. TOMSON & SONS, DOVER, KANS.**



#### SHORTHORN CATTLE.

I have combined with my herd the Chambers Shorthorns and have the very best blood lines of the Bates and Cruickshank families. Herd headed by Baron Flower 114352 and Kirklevington Duke of Shannon Mill 126104. The Cruickshank Ambassador 110811 lately in service. Best of shipping facilities on the A. T. & S. F. and two branches of the Missouri Pacific Railways. Parties met by appointment. **B. W. GOWDY, GARNETT, KANS.**



## MARKET REPORTS.

## Kansas City Live Stock.

Kansas City, April 24.—Cattle—Receipts since Saturday, 2,973; calves, 93; shipped Saturday, 534 cattle; no calves. The market was steady to weak and slow on the heavy kind. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.			
No.	Ave. Price.	No.	Ave. Price.
19.....	1,442 \$5.00	17.....	1,347 \$4.95
19.....	1,345 4.90	60.....	1,293 4.85
22.....	1,329 4.75	32.....	1,229 4.60
40.....	1,116 4.50	1.....	1,230 4.00

## WESTERN STEERS.

No.	Ave. Price.	No.	Ave. Price.
36.....	944 \$4.60	14.....	1,040 \$4.60
30.....	1,182 4.45	46.....	1,107 4.40
49.....	994 4.35	1.....	1,170 4.35
34.....	1,031 4.20	19.....	910 4.05

## NATIVE HEIFERS.

No.	Ave. Price.	No.	Ave. Price.
57 s. & h....	736 \$4.60	14.....	840 \$4.40
166.....	764 4.30	11.....	837 4.30
1.....	830 4.25	13.....	942 4.20
8.....	555 4.05	2.....	690 3.75

## NATIVE COWS.

No.	Ave. Price.	No.	Ave. Price.
4.....	1,202 \$4.25	19.....	1,180 \$4.00
7.....	995 3.80	6.....	1,255 3.75
4.....	1,002 3.65	4.....	740 3.25
2.....	960 3.00	1.....	760 2.00

## NATIVE FEEDERS.

No.	Ave. Price.	No.	Ave. Price.
10.....	1,004 \$4.65	28.....	1,171 \$4.02 1/2
19.....	1,092 4.60	11.....	949 2.60
17.....	1,235 4.50	5.....	1,045 4.50
1.....	1,130 4.00	1.....	950 3.80

## NATIVE STOCKERS.

No.	Ave. Price.	No.	Ave. Price.
23.....	504 \$5.50	38.....	578 \$5.45
2.....	570 5.25	23.....	572 5.30
24.....	737 5.15	28.....	737 5.00
5.....	534 4.85	5.....	1,114 4.50

Hogs—Receipts since Saturday, 3,971; shipped Saturday, 2,341. The market was 2 1/2 to 50 lower. The following are representative sales:

No.	Ave. Price.	No.	Ave. Price.	No.	Ave. Price.
98.....	353 \$3.85	72.....	289 \$3.80	61.....	268 \$3.77 1/2
74.....	247 3.77 1/2	63.....	248 3.75	63.....	288 3.75
77.....	226 3.75	98.....	229 3.75	80.....	250 3.75
73.....	227 3.72 1/2	55.....	232 3.72 1/2	75.....	270 3.72 1/2
74.....	242 3.70	47.....	239 3.70	48.....	214 3.70
14.....	285 3.70	66.....	255 3.70	44.....	169 3.70
158.....	239 3.70	71.....	230 3.67 1/2	67.....	194 3.67 1/2
47.....	204 3.65	8.....	236 3.65	95.....	200 3.65
51.....	224 3.65	53.....	240 3.65	82.....	211 3.65
3.....	253 3.65	63.....	176 3.62 1/2	30.....	213 3.60
11.....	185 3.65	96.....	195 3.60	89.....	196 3.60
90.....	155 3.55	56.....	200 3.55	94.....	167 3.55
53.....	201 3.55	49.....	149 3.55	108.....	166 3.55
91.....	179 3.52 1/2	18.....	146 3.50	12.....	106 3.40
11.....	121 3.40	1.....	270 3.40	50.....	227 3.40
5.....	121 3.30	2.....	440 3.25	19.....	127 3.25
1.....	340 3.25	1.....	120 3.25	2.....	220 3.10
1.....	90 3.10	15.....	90 3.00	12.....	72 3.00

Sheep—Receipts since Saturday, 3,445; shipped Saturday, 1,809. The market was steady. The following are representative sales:

No.	Ave. Price.	No.	Ave. Price.
7 spg. lbs....	42 \$7.00	95 Kan. lbs..	73 \$5.10
187 N. M. c. l. 1.	66 4.60	1044 T. mx. cl	82 4.40
99 T. clp.....	80 4.25	42 clp. sh....	89 4.15
68 W. ew.....	68 3.65	39 W. ew.....	71 3.65

## St. Louis Live Stock.

St. Louis, April 24.—Cattle—Receipts, 1,600; market steady; native shipping steers, \$4.50@5.75; light and dressed beef and butcher steers, \$3.35@5.25; stockers and feeders, \$3.35@5.00; cows and heifers, \$2.00@5.00; Texas and Indian steers, \$3.50@4.80; cows and heifers, \$2.25@3.80.

Hogs—Receipts, 6,000; market 5 to 10c lower; pigs and lights, \$3.80@3.90; packers, 3.85@3.95; butchers, \$3.95@4.05.

Sheep—Receipts, 1,300; market strong; native muttons, \$4.50@5.00; lambs, \$5.50@6.00; spring lambs, \$8.00@8.50.

## Chicago Live Stock.

Chicago, April 24.—Cattle—Receipts, 17,000; market weak to 10c lower; beefs, \$4.10@5.70; cows and heifers, \$2.00@4.90; Texas steers, \$4.00@4.80; stockers and feeders, \$3.40@5.00.

Hogs—Receipts, 44,000; market mostly 10c lower; mixed and butchers, \$3.75@4.00; good heavy, \$3.90@4.00; rough heavy, \$3.65@3.80; light, \$3.70@3.95.

Sheep—Receipts, 16,000; market weak; natives, \$3.25@5.00; lambs, \$4.25@5.80.

## Chicago Grain and Provisions.

	April 24.	Opened	High'st	Lowest	Closing
Wh't—May.....	72	73 1/4	72	73 1/4	73 1/4
July.....	73 1/4	74 1/4	72 1/2	74	74
Sept.....	72 1/4	73 1/4	72 1/2	73 1/4	73 1/4
Corn—May.....	34 1/4	34 1/4	34	34 1/4	34 1/4
July.....	34 1/4	35 1/4	34 1/4	35 1/4	35 1/4
Sept.....	35 1/4	36	35 1/4	36 1/4	36 1/4
Oats—May.....	20 1/4	20 1/4	20 1/4	20 1/4	20 1/4
July.....	21 1/4	21 1/4	21 1/4	21 1/4	21 1/4
Sept.....	22 1/4	22 1/4	22 1/4	22 1/4	22 1/4
Pork—May.....	9 00	9 02 1/2	8 97 1/2	9 00	9 00
July.....	9 23 1/2	9 23 1/2	9 15	9 17 1/2	9 17 1/2
Sept.....	9 35	9 37 1/2	9 32 1/2	9 32 1/2	9 32 1/2
Lard—May.....	9 20	9 20	5 15	5 17 1/2	5 17 1/2
July.....	5 32 1/2	5 35	5 30	5 30	5 30
Sept.....	5 45	5 45	5 42 1/2	5 42 1/2	5 42 1/2
Ribs—May.....	4 70	4 72 1/2	4 70	4 70	4 70
July.....	4 82 1/2	4 85	4 82 1/2	4 85	4 85
Sept.....	4 97 1/2	4 97 1/2	4 95	4 97 1/2	4 97 1/2

## Kansas City Grain.

Kansas City, April 24.—Wheat—Receipts here to-day were 103 cars; a week ago, 53 cars; a year ago, 168 cars. Sales by sample on track: Hard, No. 2, 67 1/4@69c; No. 3 hard, 64 1/4@67c; No. 4 hard, 59 1/4@64c; rejected hard, 59 1/4c. Soft, No. 2 red, 84 1/4c; No. 3 red, 80c; No. 4 red, 70c. Spring, No. 2, 66@68c; No. 3 spring, 63@65 1/4c.

Corn—Receipts here to-day were 51 cars; a week ago, 32 cars; a year ago, 104 cars. Sales by sample on track: Mixed, No. 2, 32 1/2@33 1/4c; No. 3 mixed, 32 1/2@33c; No. 4 mixed, nominally 31 1/4@32c; no grade, nominally 31c. White, No. 2, 34@34 1/4c; No. 3 white, 34c; No. 4 white, nominally 33c.

Oats—Receipts here to-day were 19 cars; a week ago, 7 cars; a year ago, 18 cars. Sales by sample on track: Mixed, No. 2, 29 1/4c; No. 3 mixed, 29 1/4c; No. 4 mixed, nominally 27 1/4c. White, No. 2, 30 1/4@31c; No. 3 white, 29 1/4@31c; No. 4 white, nominally 28c.

Rye—No. 2, 53 1/4c; No. 3, nominally 53 1/4c; No. 4, nominally 51c.

Hay—Receipts here to-day were 27 cars; a week ago, 69 cars; a year ago, 33 cars. Quotations are: Choice prairie, \$7.50@8.00; No. 1, \$7.00@7.50. Timothy, choice, \$8.50@9.00. Clover, pure, \$6.75@7.50. Alfalfa, \$7.00@8.00.

## Chicago Cash Grain.

Chicago, April 24.—Wheat—Cash, No. 2 red, 75@77c; No. 3 red, 72@74c; No. 2 hard winter, 68@70c; No. 3 hard winter, 67@68c; No. 1 northern spring, 72 1/2@73 1/4c; No. 2 northern spring, 71 1/4@72c; No. 3 northern spring, 67@71 1/4c.

Corn—Cash, No. 2, 34 1/4c; No. 3, 33 1/4c.

Oats—Cash, No. 2, 27 1/4@27 1/2c; No. 3, 27 1/4@27 1/2c.

## St. Louis Cash Grain.

St. Louis, April 24.—Wheat—Cash, No. 2 red, elevator, 77c; track 77c; No. 2 hard, 70@71c. Corn—Cash, No. 2, 34 1/4c; track, 35 1/4c. Oats—Cash, No. 2, 28 1/4c; track, 29@29 1/4c; No. 2 white, 31@31 1/4c.

## Kansas City Produce.

Kansas City, April 24.—Eggs—Strictly fresh, 12c per doz. Butter—Extra fancy separator, 19c; firsts, 16c; seconds, 14c; dairy fancy, 15c; country roll, 11@12 1/4c; store packed, 11@12c; packing stock, 9@11c.

Poultry—Hens, 7 1/2c; springs, 10c; old roosters, 15c each; young roosters, 20c; ducks, 8c; geese, 6c; turkeys, hens, 9c; young turkeys, 9c; old toms, 9c; pigeons, 75c per doz.

Vegetables—Navy beans, \$1.35 per bu. Lima beans, 4 1/4c per lb. Onions, red globe, \$1.00 per bu.; white globe, \$1.00 per bu. Beets, northern, \$3.00 per bbl. Turnips, home grown, 15@25c per bu. Lettuce, home grown, \$1.25@1.40 per bu. Pieplant, 50c per doz. bunches. Parsnips, 65@75c per bu. Spinach, home grown, \$1.00@1.25 per bu.

Potatoes—Home grown, 60@65c per bu. Sweet potatoes, 50@60c per bu.

## Rocky Hill Shorthorns.

Five yearling Scotch and Waterloo bulls for sale. Now offer one choice seven-eighths Scotch by the Linwood Lord Mayor, which we had reserved for service in our herd. Send for catalogue.

J. F. TRUE & SON, Newman, Kans.

## Geo. Groenmiller &amp; Son,

Centropolis, Franklin Co., Kas., Breeders of Red Polled Cattle and Cotswold Sheep, Buff and Partridge Cochins, Light Brahmas, Brown S. C. Leghorns and Golden Wyandottes. Only a few seven-eighths Red Polled bulls for sale.

## RIVERSIDE STOCK FARM.

Percheron and Roadster Horses and Shetland Ponies; also one Denmark Saddle Stallion; also Shorthorn Cattle Stock of each class for sale.

Also a car-load of young Shorthorn bulls for sale. Pedigrees guaranteed. Address

O. L. THISLER, Chapman, Kas.

## D. P. NORTON,

Breeder of Registered Shorthorns, DUNLAP, KANSAS.

Imp. British Lion 133692 and Imp. Lord Lieutenant 120019 in service. Sixty breeding cows in herd. Lord Lieutenant sired the second prize yearling bull at Texas State Fair, 1898, that also headed the second prize herd of bull and four females, any age, and first prize young herd of bull and four females.

## SILVER CREEK HERD

## SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruickshank bulls, Champion's Best 11671 and Gwendolne's Prince 130913, in service. Also high-class DUROC-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.

J. F. STODDER, Burden, Cowley Co., Kans.

## Gluten Feeds.

The cheapest source of Protein for a Balanced Ration.

Will produce richer milk and more of it; a more rapid growth and development of Cattle and Hogs, and better meat for market purposes than any other feed on the market. Highly recommended by Prof. H. M. Cottrell, of Manhattan Agricultural College. For information and prices address

N. T. GREEN & CO. Kansas City, Mo.

## NO DRUGS. NO MEDICINE.

Cures every known disease, without Medicine or Knife. Hundreds willingly add their testimony.

Prof. Axtell heals all manner of diseases, and teaches this art to others.

He grants to all men the power he claims for himself. The reason why he can heal without medicine is because he knows how; he not only cures all manner of diseases in his office but HE CURES AT A DISTANCE WITH EQUAL EFFICACY. Circulars of many prominent people—who sign their names and recommend his treatment—mailed on application.

Prof. Axtell is endorsed by the leading business men of this city. Address all communications to

PROF. S. W. AXTELL,

200 W. 3d St., Sedalia, Mo.

## CANCER CURED

WITH SOOTHING, BALMY OILS. Cancer, Tumor, Catarrh, Piles, Fistula, Ulcers, Eczema and all Skin and Womb Diseases. Write for Illustrated Book. Sent free. Address

DR. BYE, Cor. 9th & Broadway, Kansas City, Mo.

Ladies Our Monthly Regulator never fails. Box FREE. Dr. F. May, Bloomington, Ill.

BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

## SILBERMAN

## The Most Money For Your Wool,

will be secured by sending it to people who can afford to hold it for you until market conditions are right for selling; who have the best facilities for handling, grading and storing it. Who have stock enough to attract the largest buyers and manufacturers.

## We are the Largest Wool House in the West,

handling annually over 15,000,000 lbs. of wool. We have the best and lightest lofts. We have the best reputation with the trade, both as to quantity and quality of wool and as to methods of doing business. We make liberal advances on consignments at the low rate of 5 per cent. per annum for money thus loaned. We supply all our customers with free wool sacks and sewing twine. We mail our Circular Letter to all who ask for it. Gives prices on all classes and grades of wool and the existing market conditions.

## SILBERMAN BROS.

122-124-126-128 Michigan Street, CHICAGO, ILL.

## BROTHERS

## WOOL WANTED! 500,000 Pounds of Wool,

For which we will pay the highest market price in cash. Send us sample, giving number of fleeces. Place your name on sample, and on receipt of same we will quote you prices. For small lots you can send sample by mail. Address Oakland, Kans.; or you may ship direct to us and we will allow you all it is worth. For large clips send three or four fleeces by freight or express. We will furnish sacks or wool twine if desired. Address TOPEKA WOOLEN MILL, Topeka, Kans.

## THE AMERICAN GALLOWAY BREEDERS' ASSOCIATION

Has just issued an interesting pamphlet containing some well-written articles, which will be of interest to every stockman. They are for free distribution and you can get a copy by writing to

FRANK B. HEARNE, Secretary, Independence, Mo.

## Higgins' Hope Herd Registered Poland-China Hogs.

I am now offering a Choice Lot of Gilts and Sows bred to my Herd Boar, Eberley's Model 20854. If you are looking for the right kind, drop me a line and get my list before buying.

J. W. Higgins, Jr., Hope, Kans.

## VALLEY GROVE SHORT-HORNS.

## THE SCOTCH BRED BULLS

Lord Mayor 112727 and Laird of Linwood 127149 HEAD OF THE HERD.

LORD MAJOR was by the Baron Victor bull Baron Lavender 2d, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

Address T. P. BABST, PROP., DOVER, SHAWNEE CO., KAS.

## DON'T BE A— MIGHT HAVE BEEN,



But buy some Good Young Breeding Stock now—while prices are reasonable and opportunities great.

For 25 Years the Leading Western Breeder of Percheron and Coach Horses.

I have now the finest collection of young Home-Bred Stallions and Mares ever owned in the State. Correspondence solicited. Visitors welcome.

HENRY AVERY, WAKEFIELD, KANSAS.

## Nelson &amp; Doyle

Room 220, Stock Yards Exchange Building, KANSAS CITY, MO.,

Have for sale at all times, singly or in car lots... Registered Herefords and Short-horns. Cross-bred Hereford Short-horns and grades of other breeds. Bulls and females of all ages.

Stock on Sale at Stock Yards Sale Barn, Also at Farm Adjoining City.

N. B.—We have secured the services of John Gosling, well and favorably known as a practical and expert judge of beef cattle, who will in the future assist us in this branch of our business.

## THE KANSAS CITY STOCK YARDS

Are the Finest Equipped, Most Modern in Construction and afford the Best Facilities for the handling of Live Stock of any in the World. The Kansas City Market, owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other. It is the Largest Stocker and Feeder Market in the World, while buyers for the great packing houses and export trade make Kansas City a market second to no other for every class of live stock.

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1898	1,846,233	3,672,909	980,303
Sold in Kansas City 1898	1,757,163	3,596,828	815,580

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST, Vice Pres. and Gen. Mgr. Secy. and Treas. Asst. Gen. Mgr. Traffic Manager



## The Poultry Yard

Conducted by C. B. TUTTLE, Excelsior Farm, Topeka, Kans., to whom all inquiries should be addressed. We cordially invite our readers to consult us on any point pertaining to the poultry industry on which they may desire fuller information, especially as to the diseases and their symptoms which poultry is heir to, and thus assist in making this one of the most interesting and beneficial departments of the KANSAS FARMER. All replies through this column are free. In writing be as explicit as possible, and if in regard to diseases, give symptoms in full, treatment, if any, to date, manner of caring for the flock, etc. Full name and postoffice address must be given in each instance to secure recognition.

### YARDING VERSUS FREE RANGE.

Among the most modern ideas of improvement in the care of fowls is the fast-growing, I may say fast-becoming popular, method of yarding fowls. From time's earliest date in the care of poultry, we were taught to let our stock run at large. I can say that the farmers have improved since those early days, and some are generous enough to provide a sort of coop and throw their fowls, not oftener than once a day, a little corn. They will adhere to the free range idea, and I am convinced it is not purely because they think it necessary, but it saves feed and other bother. It has been estimated that a flock of common dung-hill hens, such as are seen on the average farm, lay, in a year, less than 100 eggs each. The figures are 80 to 90. Farmers who have become breeders, and who thus give the hen decidedly more consideration, have increased this egg yield to 150 and better. Breeders who are following the strictly up-to-date methods and have yarded their layers, have obtained an average of 175 eggs, and some have even reached the 200 mark.

The advantages gained by yarding stock are manifold. First of all, by confining stock to a certain space, we are sure they eat the food provided, and the quantity we mean them to have. Feeding layers to produce eggs is becoming every year a more delicate operation. Formula after formula is tried by different breeders, as an experiment, with the hope of increasing the egg yield. If we can force each hen to lay ten eggs a year more, it means a considerable increase in the total of the flock and a better return in dollars and cents to the breeder. Yarding stock is a means toward this end. The food fed is converted, as we mean it to be, into muscle. It is decidedly more troublesome to care for stock in this way, and necessitates additional labor and expense, but we are looking for the increase all the time, and are thus continually hoping to be compensated for the extra trouble.

Fowls in yards must be supplied with everything they require, which means all they would naturally seek if running at large. This includes, besides the grain we feed by formula, green food, meat, a scratching place and dusting spot, and grit and water. Of all these I consider green food the most necessary, and the one thing to be impressed upon the mind, because it is the one thing too often forgotten. Green food of any variety is acceptable. The ideal yarding of fowls is what is known as double yarding—a house in the middle and a yard on each side. These yards can be sown with rye or oats alternately, so that the fowls have a constant green run as long as the rye or oats will grow, which is until frost. Failing in the double-yard system, green food may be supplied by lawn clippings, green cabbage, mangel-wurzels, turnips, or any vegetables fed whole in warm weather and boiled and mixed in mash in cold. Meat can be fed in a variety of ways. Turning up the ground of the yards with a cultivator, or by shallow plowing, will bring the worms or bugs within reach, or sheep's heads cut open and fed raw can be thrown in, and this, in my opinion, is an ideal meat feed. Ground beef scraps softened may be mixed in mash, and last, and probably the best, cut green bone.

Yarded fowls need exercise. It must not be understood that because they are confined they do not get exercise, or as much as if let run at large. The yards should be at least 150 feet long, if they are the width of the average coop, which is 10 to 12 feet. Some breeds are decidedly more active by nature than others; for instance, the Leghorns are compared to the Cochins or Brahmas. This does not affect the health of the fowls particularly. A Leghorn is no healthier because of her activity than a Cochin is. It is simply the difference in their natures; but because of this excess of activity in one breed over another, the one must have more room than the other. A Leghorn stands the confinement of a small coop 10 by 12 feet in winter, provided she can be kept actively hunting for her food. But the same bird would mope and become out of condition if confined too long in an exhibition coop in the show room. On the other hand, a Cochin, being of a lazier nature, forages slowly and wanders quietly over her yard, takes things

easy in the winter coop, stands the confinement of the exhibition coop excellently. The foraging nature of any breed can be killed by excessive feeding. Even birds with free range, if overfed at specified meal hours, will take but limited exercise, exactly as those treated the same way and yarded. Exercise is induced by short feeding. In other words, no laying strain should be fed all they can eat except at night. Hunger induces exercise, whether a fowl be let run or yarded. Therefore fowls fed short and induced to hunt for more will lay eggs, while those overfed, in the morning especially, will sit around, moping in the sun, and convert the food into flesh instead of eggs.

Another advantage of yarded fowls is the certainty of finding all the eggs laid every day, and thus being able to guarantee them as strictly fresh. This is a point of great importance, and constitutes the difference between eggs produced by an up-to-date breeder with yarded fowls and those sold by the "honest" farmer who collects them wherever found, and can not swear that they were laid to-day and not two weeks ago.

Yarded fowls are tamer than any others. This is natural. The feeder comes in contact with them, and they become accustomed to his presence at stated intervals. This makes quite a difference in the egg

## Nervous People.

Nervous people not only suffer themselves but cause more or less misery to everyone around them. They are fretful, easily worried and therefore a worry to others.

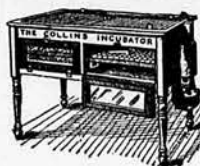
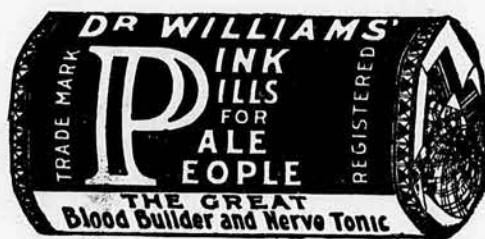
When everything annoys you; when your pulse beats excessively; when you are startled at the least unexpected sound, your nerves are in a bad state and should be promptly attended to.

Nervousness is a question of nutrition. Food for the nerves is what you need to put you right, and the best nerve food in the world is Dr. Williams' Pink Pills for Pale People.

They give strength and tone to every nerve in the body, and make despondent, easily irritated people feel that life has renewed its charms. Here is proof:

Miss Cora Watrous, the sixteen-year-old daughter of Mr. I. C. Watrous, of 61 Clarion St., Bradford, Pa., was seized with a nervous disorder which threatened to end her life. Eminent physicians agreed the trouble was from impoverished blood, but failed to give relief. Mr. Watrous heard Dr. Williams' Pink Pills for Pale People were highly recommended for nervous disorders and gave them a trial. Before the first box had been taken the girl's condition improved. After using six boxes her appetite returned, the pain in her head ceased and she was stronger than ever before. "My daughter's life was saved by Dr. Williams' Pink Pills for Pale People," said Mrs. Watrous. "Her condition was almost hopeless when she commenced taking them, but now she is strong and healthy. I cannot recommend these pills too highly."—Bradford (Pa.) Era.

Most druggists are reliable. Some are not. A dealer who tells you that he has "something just as good" as Dr. Williams' Pink Pills for Pale People is unreliable. Insist on having the genuine. At all druggists, or sent postpaid by the Dr. Williams Medicine Co., Schenectady, N.Y., on receipt of price, fifty cents per box; six boxes, \$2.50.



### COLLINS INCUBATOR CO.

Full line of Poultry Supplies and Bone Mills. Write for circular or send 6 cents for catalogue.

1411 Main St., Kansas City, Mo.

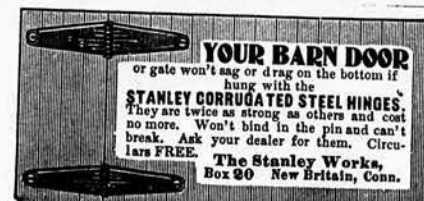
INCUBATORS AND BROODERS



**THE IMPROVED VICTOR Incubator**  
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE. G. E. ETEL CO., QUINCY, ILL.



**HATCH CHICKENS BY STEAM**—with the simple, perfect, self-regulating EXCELSIOR INCUBATOR. Thousands in successful operation. Lowest priced first-class hatcher made. G. E. ETEL CO., QUINCY, ILL. 214 to 125 N. 6th St., Quincy, Ill.



**YOUR BARN DOOR** or gate won't sag or drag on the bottom if hung with the **STANLEY CORRUGATED STEEL HINGES**. They are twice as strong as others and cost no more. Won't bind in the pin and can't break. Ask your dealer for them. Circulars FREE. The Stanley Works, Box 20 New Britain, Conn.



### IF YOUR COAT FADES

you bought the wrong kind. If your wire fence "looks like a fish net," you didn't buy The Page, or else your posts have given away.

PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.



### MATERIAL & MERCHANDISE AT ONE HALF PRICE.

Write at once for our Free Illustrated Catalogues for anything required for the HOME, FARM or FACTORY.

**CHICAGO HOUSE WRECKING CO.,** West 35th & Iron Sts., CHICAGO. The largest mail order depot in the world for Merchandise bought at Sheriff's, Receivers', Assignees' and Manufacturers' Sales.



yield. Fowls are so much creatures of habit that they are frequently upset by having these habits interfered with. A hen that is a good layer chooses to perform this duty in her own particular way—she establishes for herself certain times in which to feed, drink, dust, and lay. If these times are interfered with, it upsets her, at least for a day, and she consequently is off in her laying. Even a cock, during the winter, may bother a hen by his gallant attentions, and thus reduce her egg production considerably. It has been estimated that a flock of hens, without a cock, will lay almost a third more eggs during the fall and winter. And yet there are many people—yes, nine out of ten—who think a hen can not lay an egg without a cock.

Water and grit are very necessary to a hen's health and general well being. The former should be given every day fresh and clean; the latter as often as the boxes are empty, and they will be empty quickest when the most eggs are laid. Yarded fowls reduce the system of care and feed for layers to a certainty as to results. We can, by having our flock within range and control, watch their health, habits, and ability to earn their own living; all of which is of vital consequence if we wish to make them earn us a profit. Fowls with free range become, in these days of modern poultry culture, almost a matter of guesswork, and they are never under our control except when housed at night.

I believe I am safe in saying that the yarding of fowls is fast taking the place of the old method, and I consider it so full of advantages that it makes the free range idea seem obsolete.—E. O. Roessle, in the Country Gentleman.

#### Inquiry Department.

Will you inform me how long it is necessary to have Plymouth Rock hens and roosters mated before the eggs become fertile?

Answer.—A week or ten days is generally considered the safe length of time, although instances are recorded where eggs were fertilized in two and three days, when the conditions were just right.

Are the Golden Wyandottes better layers than the Plymouth Rocks?

Answer.—There is generally very little difference in laying qualities of the 'Dottes and Rocks, or any of the American class. When a difference occurs, it is due more to breeding than variety, some strains of each variety proving to be better layers than others, having been bred in that direction.

Which of the large breeds are the best winter layers?

Answer.—The question of winter eggs being dependent so much on care and feeding, including warmth of house, it is difficult to say that any one breed is the best winter layer. However, with same care, etc., I have found the Langshan and Cochins would give me more eggs in cold weather than any others.

Mrs. Seekamp, Mulvane, Kans., is in trouble with her incubator, having a good many chicks die in the shell when just ready to hatch. She writes: "Will you or some of your readers please answer: Why do the chicks die about the last day of incubation? Sometimes the shell is partly broken, and they die. We have had this to happen every time. About one-fourth of them die, and the rest are strong and healthy."

This question, "Why do the chicks die?" is one very frequently asked. The poultry papers are full of it, and it matters not how, or how often answered, the chicks continue to die. They even do the same under hens. The answer as to the why, depends on so many things that it will be impossible to give all the reasons at this time. Among the reasons for this to occur may be mentioned the following, any one of which would cause it: Parent stock weak in stamina and vigor, over-fat hens, either causing weak germs; too high or too low a temperature in the incubator; too much or too little moisture; opening the doors to egg chamber when chicks are beginning to hatch; and many others might be mentioned. The editor has been at work for some time on an article on this very subject, and hopes to have it ready for publication in the Farmer within the next few weeks. The editor has also operated the same make of incubator mentioned by Mrs. S., and had largely the same results. The best hatch obtained from this machine was in a dry cellar, and using no moisture whatever, regulating the drying down by the use of the ventilators. Would suggest to Mrs. S. that she try this plan and report results. She says: "About one-fourth of them die." This means, I suppose, the fertile eggs, leaving 75 per cent of "strong and healthy" chicks. Honestly, there is very little to complain of in this, as it is considerably above the average hatch. Will the hen beat that? We doubt it. Accounts are often seen of



hatches of 95 to 100 per cent of eggs placed in machine, and again of the same percentage of the fertile eggs, but the writer has never made them, and does not expect to make them soon; 75 per cent is good enough for us. If we could always be sure of that many, we should surely be satisfied. Still, it would be nice to know the cause of death of the other 25 per cent, it is admitted. Perhaps some day we shall know.

In seeking an engine of any kind, either SEMI-PORTABLE, PORTABLE or Traction, buy the

## RUMELY ENGINES

They are simple or compound and represent unusual value. For sawmills, well drilling, threshing—anything. Also Threshers, Horse Powers, Sawmills, etc. Catalogue FREE. T. RUMELY CO., La Porte, Ind.

Do You Want Any More Proof? of the merits of our **HAND CULTIVATOR**. Well we have hundreds of letters just as good as this: Gentlemen: The Cultivator came to hand a few days ago and I am delighted with it. Rev. H. T. COWEN, Carrollton, Miss. Send \$1.25 for sample delivered. Agents wanted. ULRICH MFG. CO., 46 River St., Rock Falls, Ill.

**LIGHTNING WELL MACHY** IS THE STANDARD STEAM PUMPS, AIR LIFTS, GASOLINE ENGINES. WRITE FOR CIRCULAR NO. 1. THE AMERICAN WELL WORKS. AURORA, ILL. - CHICAGO, DALLAS, TEX.

**\$2.75** on THIS HARNESS. **\$19.75** on THIS BUGGY. GUARANTEED. Send for our Catalogue, it's FREE, will put you on prices and save you money. **CONSUMERS CARRIAGE & MFG. CO.** 269-271 S. Dearborn St., CHICAGO, ILL. (Special Reference: The Chicago National Bank.)

We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them. **CURRIE WINDMILL CO.,** AGENTS WANTED. Manhattan, Kas.

**A Small Thresher**. The COLUMBIA has great capacity—runs easy. Will thresh all grains with less help, at less expense. Full line of sweep and tread powers. Send for free illustrated Catalog. **Belle City Mfg. Co.,** Racine, Wis. Box 78. The farmer's friend.

**FROM MAKER TO USER DIRECT AT WHOLESALE PRICES**. Buggies \$35 and Up. **"WINNER" TOP BUGGY \$35.00**. Thoroughly good. Fully guaranteed. No better one retails for \$60. Such a price with quality is only possible under our plan of business. We sell you direct from our Factory At Wholesale Prices. Surries, Phaetons, Buggies, Spring Wagons and Road Wagons. Our vehicles excel in quality of stock, material, workmanship, finish and style. We make every vehicle we advertise. In Single and Double Harness everything you could wish. An excellent single Harness as low as \$4.80. Illustrated catalogue sent free. All prices marked in plain figures. Write at once. Address, **EDWARD W. WALKER CARRIAGE CO.** 85 Eighth St. GOSHEN, INDIANA.

## ACME PULVERIZING HARROW, GLOD CRUSHER AND LEVELER

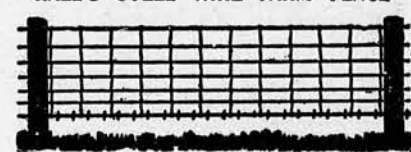
For all soils, all work—crushes, cuts, lifts, pulverizes, turns and levels. Cast steel and wrought iron—therefore indestructible. Cheapest riding harrow and best pulverizer on earth. Sizes 3 to 13½ feet. Catalogue free.

**SENT ON TRIAL** to be returned at my expense if not Entirely Satisfactory.

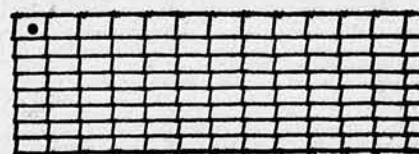
I deliver free on board at New York, Chicago, Columbus, O., Louisville, Ky., Minneapolis, San Francisco and other points. Address **DUANE H. NASH, Sole Mfr., MILLINGTON, N. J., or CHICAGO, ILL.**

PLEASE MENTION THIS PAPER.

### HALL'S STEEL WIRE FARM FENCE



The strongest, most durable and best fence on the market, being constructed of the best heavy galvanized steel wire, with a heavy cable at top and a barbed wire at the bottom. The only fence on the market that a hog cannot root under. Manufactured by J. W. D. HALL, St. Joseph, Mo.



### CABLED FIELD AND HOG FENCE

With or without lower cable barbed. Cabled Poultry, Garden and Rabbit Fence, Steel Web Picket Fence for lawns and cemeteries, Steel Gates and Posts. **DE KALB FENCE CO.,** 23 High St., DE KALB, ILL.

## DR. COE'S SANITARIUM.

11th and Walnut Sts., KANSAS CITY, MO.

We use the X Rays in the Examination of Diseases.

Consultation Free, In Person or by Mail. Write for Catalogue.



### THIS SANITARIUM

Is a private hospital—a quiet home for those afflicted with medical and surgical diseases, and is supplied with all the remedial means known to science and the latest instruments required in modern surgery.

### 50 ROOMS

For the accommodation of patients, together with our complete Brace-Making Department, make this the largest, oldest and the only thoroughly equipped Sanitarium in the west. We treat Spinal Curvature by means of a suspension carriage giving ease and comfort to the patient while this dreadful deformity is being successfully overcome. Club Feet, Bow Legs, Knock Knees, etc. are successfully treated.

### DISEASES OF DIGESTION.

Dyspepsia, "Liver Complaint," Obstinate Constipation, Chronic Diarrhoea, Tapeworm and kindred affections are among these chronic diseases in the treatment of which we have attained great success.

### DISEASES OF WOMEN.

Space will not permit us to enumerate the diseases peculiar to women. We pay special attention to all the diseases, and have every advantage and facility for their treatment and cure. We have comfortable and well furnished rooms and offer a quiet home during confinement. We have a neatly prepared treatise describing Diseases of Women which will be mailed free to any address.

**IF YOU ARE AFFLICTED** with any of the above diseases, or in any way in need of medical or surgical aid, and are thinking of going abroad for treatment, you are requested to call on the Editor of this Paper, who will give any information you may desire concerning the reliability of this Sanitarium. Address all communications to **DR. C. M. COE, Kansas City, Mo.**

### PILES AND FISTULA.

There is nothing that so completely unites a man for business as Piles. Many men and women suffer for life with this annoying disease. There is no cure so safe and permanent as a surgical operation. We have permanently cured hundreds of patients who have suffered for years, having tried all kinds of remedies without relief. We have published an illustrated book containing many testimonials from patients treated with entire satisfaction; will be mailed to you free.

### VARICOCELE.

Varicocele is radically and permanently cured by our surgical operation in from five to fifteen days. No medicine or local application will ever cure this trouble. We annually cure hundreds of this class of patients, leaving them in a vigorous, healthy condition.

### SURGICAL OPERATIONS

As a means of relief are only resorted to where such interference is indispensable. In such cases as Varicocele, Piles, Stricture, Fistula, Ruptures, Hernia, Cleft Palate, Cross Eyes, Tumors, etc. Although we have in the preceding made special mention of some of the ailments to which particular attention is given, the Sanitarium abounds in skill, facilities and apparatus for the successful treatment of all chronic ailments, whether requiring for its cure medical or surgical means. We have a neatly published book, illustrated throughout, showing the Sanitarium, with photographs of many patients, which will be mailed free to any address.



### OUR 60c NERVE AND BRAIN PILLS.

Guaranteed the highest Grade on the market. Six boxes positively guaranteed to cure any disease for which they are intended. THIS WILL CURE YOU if you feel generally miserable or suffer with a thousand and one indescribable bad feelings, both mental and physical, among them low spirits, nervousness, weariness, listlessness, weakness, dizziness, feeling of fullness, like bloating after eating, or sense of emptiness or emptiness of stomach in morning, flesh soft and lacking in firmness, headache, blurring of eyesight, specks floating before the eyes, nervous irritability, poor memory, chilliness, alternating with hot flushes, lassitude, throbbing, gurgling, or rumbling sensations in bowels, with heat or rippling pains occasionally, palpitation of the heart, short breath on exertion, slow circulation of blood, cold feet, pain and oppression in chest and back, pain around the joints, aching and numbness in lower limbs, drowsiness after meals but nervous wakefulness at night, languor in the morning, and a constant feeling of dread as if something awful was going to happen. If you have any of these symptoms our NERVE AND BRAIN PILLS will cure you. No matter what the cause may be or how severe your trouble is, DR. CHASE'S NERVE AND BRAIN PILLS will cure you. These pills have a remarkable effect on both old and young. They cannot be equaled by any other medicine as a cure for impotence, spermatorrhoea, night sweats, emissions, varicocele (or swollen veins), weakness of both brain and body, arising from excesses and abuses of any kind. It will tone up the whole nervous system, no matter how much worn out, overworked or depressed you may be; the weak and timid young man made strong and bold again; they will give youthful vigor and a new lease of life to the old. BEWARE OF QUACK DOCTORS who advertise to scare men into paying money for remedies which have no merit. Our Nerve and Brain Pills are compounded from a prescription of one of the most noted of German scientists, and are the same as have been used in German hospitals for years with marvelous success. HOW TO CURE YOURSELF, and full and explicit directions, are enclosed with every box. All orders and inquiries concerning these pills will be treated confidentially, and all shipments made in plain sealed packages. ONLY \$3.00 FOR SIX BOXES. Enough to cure any case; no matter how long standing, whether young or old no matter from what cause. Send us \$3.00 and we will send you six boxes by return mail, postpaid, in plain sealed package, with full instructions, full directions. No. 115141. Price per box, 60c. (6 boxes (an amount to cure anyone), \$3.00. If you need these pills, don't delay, this is the first time the American people have had an opportunity of getting the genuine Dr. Chase's Pills, and the first time they have been sold anywhere at anything like our price. LARGE DRUG CATALOGUE FREE. Size 9x12x3. Be sure and send for it. We can save you money on Drugs. All orders filled by registered Pharmacists. There is no line of goods you pay so much for as Drugs when you buy them at retail. T. M. Robert's Supply House, Minneapolis, Minn.



**J. G. Peppard**  
1400-2 Union Avenue,  
KANSAS CITY, MO.

**MILLET CANE  
CLOVERS  
TIMOTHY  
GRASS SEEDS.**

**SEEDS**

**SEEDS**

Clover,  
Timothy,  
Blue Grass,  
Rye, Barley,  
Millet, Cane Seed  
and Garden Seeds.

**TRUMBULL & CO.,**  
1426 ST. LOUIS AVE.,  
KANSAS CITY, MO.

## SUCCESS WITH ALFALFA

### Special Want Column.

"Wanted," "For Sale," "For Exchange," and small 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. Cash with the order. It will pay. Try it!

**SPECIAL.**—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

**HEREFORD BULLS FOR SALE.**—Four pure-bred and five high-grades; well marked. W. E. Spears, Richmond, Kans.

**HEREFORDS FOR SALE.**—Imported Bertha and heifer calf; one pure-bred bull and heifer and ten high-grades bulls. Address Mrs. E. A. Leibfried, Emporia, Kans.

**MAMMOTH WHITE ARTICHOKE** for sale at 50 cents per bushel, by A. G. Landis, Lawrence, Kans.

**FOR SALE.**—Hereford bulls—three registered yearlings; Anxiety strain. Prices reasonable. Address John R. Francis, Chanute, Kans.

**FOR EXCHANGE.**—A. J. C. C. Jerseys and registered Poland-China pigs, for well-bred trotting, saddle or coach horses. Address W. T. Ballagh, Nevada, Mo.

**A LARGE BLACK KENTUCKY JACK** will make the season of 1899 at my farm five miles south of Topeka on the Burlington road; mares kept until bred. W. W. Clark, Topeka, Kans.

**GOOD LOCATION** for small bunch of stock; garden and orchard; will leave enough cattle to herd to more than pay rent. C. Stinson, Kearney, Kans.

**FOLGER'S EARLY SORGHUM SEED.**—A high-grade variety, rich in sugar; been kept away from Kaffir and broomcorn; 65 cents per bushel, sacked. A. H. Knox, Hymer, Kans.

**FOR SALE.**—Ten desirable grade Hereford bulls, yearlings. Wm. E. Corbett, Seabrook, Kans.

**WANTED.**—A Jersey cow that will be fresh this month; either a registered or half-blood and must be a guaranteed extra milker and butter-maker. J. W. Higgins, Jr., Hope, Kans.

**BLACK LANGSHANS EXCLUSIVELY.**—Eggs for hatching \$1 per 15. Mrs. T. E. Whitlow, Morantown, Kans.

**POLAND-CHINAS.**—No better anywhere. Five dollars each. Write for breeding. Hemenway, Hope, Kans.

**THOUSANDS** of fine greenhouse plants now ready. Samples by mail, 20 for 50 cents. Lists free. Mrs. T. Montgomery, Larned, Kans.

**MAGNOLIA POULTRY YARDS.**—B. P. Rocks exclusively. Four pens this season. Eggs \$1.50 per 15; \$2.50 per 30; \$4 per 60. David Enoch, Salina, Kans.

**FOR SALE.**—An imported Catalonian jack. Good breeder; can show plenty of his mules; he is a good one. Price \$300, half cash and balance on time. For further information, address W. Q. Hyatt, Carbondale, Kans.

**FOR SALE CHEAP.**—A No. 1 improved farm of 160 acres, four miles from Harveyville, 26 miles from Topeka. Over 700 fruit trees. Would take some stock. Address L. K. Dann, Agent, 17-21 Quincy street, Chicago, Ill.

**FOR SALE.**—Fancy Poland-China pigs cheap. G. W. Harman, Ridge, Woodson Co., Kans.

**FOR SALE.**—Hereford bulls. Two full-blood yearlings and 15 high-grade yearlings; also 10 high-grade Shorthorn yearling bulls. Address Hugh A. Hodgins, Topeka, Kans.

**LOOK!**—Twenty choice male Durocs at one-half price to close out for spring litters. Hogs eligible in N. D. J. Books. Write to G. E. Newton, Whiting, Kans.

**B. P. ROCKS, EXCLUSIVELY.**—Eggs, pure prize-winning stock, \$1 per 15. Mrs. J. W. Holsinger, Cottonwood Falls, Kans.

**EGGS FOR SETTING.**—White Holland turkeys, Barred Plymouth Rocks, Rose-comb White Leghorns, Golden Sebright Bantams, Cornish Indian Games, Pearl guineas, Pekin ducks. J. C. CURRAN, Curran, Harper Co., Kans.

**WANTED.**—Millet, Sorghum seed, Kaffir corn (red and white), Alfalfa. Send samples, give quantity. Field seed orders solicited. Kansas City Grain and Seed Co., Kansas City, Mo.

**FOR SALE.**—Four large black jacks. Address, J. P. Wilson, Wellsville, Mo.

is certain if you sow our Alfalfa Seed. We also sell choice qualities of Cane and Millet Seeds, Kaffir and Jerusalem Corn, etc. All crop '98. Our book, "How to Sow Alfalfa," free. **McBETH & KINISON**, Garden City, Kas.

**SUNNY SLOPE POULTRY YARDS, WHITE P. Rocks exclusively.** E. K. Terry, Proprietor, Burlingame, Kans. My present stock of White P. Rocks are the best I have ever raised, the cocks free from brassiness, with yellow legs and beaks, the pullets with low comb, ideal-shaped bodies, and a good laying strain. Have mated my pens with cocks not related with hens. Will sell eggs this season at \$1 for 15. If two or more sittings are ordered, will prepay express to any express office in Kansas, or any other office within 200 miles. All orders booked in the order received. A few choice cockerels for sale at \$2.50 each.

**FOR SALE.**—Pure-bred Polands and Berkshires from weanlings up, at very low prices. O. P. Uptegraft, North Topeka, Kas.

**ABERDEEN-ANGUS BULLS.**—Three individuals of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

**FOR SALE.**—Russian artichokes for hogs. Yield enormously. Fifty cents per bushel, sacked and put on cars here. Order at once. F. W. Truesdell, Lyons, Rice County, Kans.

**LIGHT BRAHMA COCKERELS FOR SALE.**—GOOD birds, nearly solid black wings. Mrs. Emma Brosius, Quinton Heights, Kans.

**WANTED.**—Kitchen help, able to cook and wash. Thirteen dollars per month. J. H. Taylor, Rhinehart, Kans.

**FOR SALE.**—Poland-Chinas and Duroc-Jerseys, all sizes. Barred Plymouth Rocks and Single Comb Brown Leghorns. Eggs \$1 per 15. Write D. Trott, Abilene, Kans.

**EGGS FOR HATCHING.**—White Leghorns exclusively. One dollar per fifteen. E. F. Ney, Bonner Springs, Kans.

**FOR SALE.**—Good hedge posts, in car lots. E. W. Melville, Eudora, Kans.

**HEREFORD BULLS FOR SALE.**—One carload of very high-grades, some unregistered, from 10 to 14 months old; also 12 head of registered bulls, same age as above, all in good condition or fat. John Drennan, Blue Rapids, Kans.

**2,000 BUSHELS SEED SWEET POTATOES FOR Wamego, Kans.**

**FOR SALE.**—Imported English Coach stallion and Galloway bulls. W. Guy McCandless, Cottonwood Falls, Chase Co., Kans.

**FOR SALE.**—\$3.00 per acre for improved 160-acre farm 1 1/2 miles north of Bushong Station, Lyon Co., Kans. Address, J. B. McAfee, Topeka, Kans.

**WANTED TO EXCHANGE.**—The pure-bred Cruickshank bull, My Lord 118563, bred by Col. Harris; sire Imp. Spartan Hero 77932; dam Imp. Lady of the Meadow (Vol. 30, p. 615), for a pure-bred Cruickshank bull—can't use him any longer in my herd. H. W. McAfee, Topeka, Kas.

**FOR SALE CHEAP.**—Seven good registered Shorthorn bulls. Address John Grattan, Medford, Okla.

**EGGS FROM PURE-BRED WHITE AND BARRED** Plymouth Rocks, \$1 per 15. S. F. Glass, Marion, Kans.

**FOR SALE.**—100 cars cottonseed meal. Also corn and feed. Address Western Grain and Storage Co., Wichita, Kas.

**TOULOUSE GEESE, PEKIN DUCKS, CORNISH** Indian Games, Brown Leghorns, Great Danes, Scotch collies and fox terriers. Burton & Burton Topeka, Kans.

**WANTED.**—To lease or buy a cattle ranch, from 1,000 to 1,500 acres; southern Kansas preferred. Must have living water. Address, J. H. Wallace, 2408 E. Eleventh Street, Kansas City, Mo.

**FOR SALE.**—Imported and full-blood Percheron, Clydesdale and Coach stallions. Good individuals, colors and ages. For further information address W. H. McMillen, Manager, Box 204, Topeka, Kans.

**BLOSSOM HOUSE.**—Opposite Union depot, Kansas City, Mo., is the best place for the money, for meals or clean and comfortable lodging, when in Kansas City. We always stop at the Blossom and get our money's worth.

**TO EXCHANGE.**—A daughter of Hadley Jr., dam by Kiever's Model, for ten bushels of alfalfa seed on track. F. W. Baker, Council Grove, Kans.

**JACKS FOR SALE.**—Three choice black jacks for sale, 3 to 5 years old. Prices right. Theo. Welch selbaum, Ogden, Riley Co., Kans.

**WRITE TO ALEX RICHTER.**—Hollyrood, Kas how to sub-irrigate a garden, etc., and cost of same. Send him the size or dimensions of your garden, and he will give full information.

**WANTED.**—Alfalfa, cane and millet seed; also a limited quantity of Jerusalem corn seed. Correspond with F. Barteldes & Co., Lawrence, Kas.

## TWO NEW MILLETS FROM DAKOTA.

NEW SIBERIAN AND DAKOTA HOG MILLET.

Price per pound by mail, postpaid, 15 cents; price per peck at depot or express office. Lawrence, 50 cents; price per bushel at depot or express office, Lawrence, \$1.25. For description send to

**KANSAS SEED HOUSE, F. Barteldes & Co., Lawrence, Kans.**

Our New Catalogue for 1899 mailed free on application.

## Use Kansas Lump Rock Salt For Stock.

Purest, Healthiest, Best. Highest Awards and Medals for Purity, World's Exposition, Chicago, 1893, Trans-Mississippi Exposition, Omaha, 1899.

**WESTERN ROCK SALT CO., ST. LOUIS, MO.**

Sole Agents for Bevis Rock Salt Co., and Royal Salt Co.

### GROUND ROCK SALT FOR STOCK.

Use Rock Salt for Hides, Pickles, Meats, Ice Cream, Ice Making, Fertilizing, &c., &c.

Mines and Works, Lyons and Kanopolis, Kan.

**FOR SALE.**—At Wyndon Place, 10 miles southwest of Topeka, on Alma road, four registered Shorthorn bull calves, 8 to 12 months old. Postoffice address, J. W. Sheldon, southeast corner Sixth and Van Buren, Topeka, Kans.

**BERKSHIRE SOWS BRED.**—To farrow in March and April. Choice of individuality and breeding, at \$20. Rutger Farms, Russell, Kans.

**SHORT-HORNS FOR SALE.**—Forty-six cows and heifers, Cruickshank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were sired by that grand Cruickshank, Royal Prince 100646, six bulls ready for service, sired by Young Mary bull, Glendon 119871. Theodore Saxon, 222 West Eighth St., Topeka, Kas.

### WHITE WYANDOTTES EXCLUSIVELY.

Eggs, \$1.00 Per Fifteen.

Also, free with each sitting, a recipe for making a cheap Lice Killer Paint. Send for circular.

P. O. Box 60. White 'Dotte Poultry Farm, Wetmore, Kans.

Mrs. V. Odell, Prop.

**INCUBATORS** and **BROODERS** at special low prices until June 1.  Free Catalogue. Address... Sure Hatch Incubator Co., Clay Center, Neb.

### POLAND-CHINA SWINE.

Chief I Know and Hadley Jr. strains.

J. H. TAYLOR, Rhinehart, Kans.

**EVERGREENS** FOR SALE CHEAP. A. W. THEMANNSON, Wathena, Kansas.



Imp. NELSON, 1st Prize in France, 1898.

## M. W. DUNHAM'S OAKLAWN FARM.

Intending Buyers of

### PERCHERON

...and...

### French Coach Horses

Will find no difficulty in making their purchases at Oaklawn by reason of the death of Mr. M. W. Dunham.

**208 STALLIONS.**—Prize-Winners themselves or descendants of prize-winners.

**230 DISTINGUISHED BROOD MARES** and Produce...

**ITS 1898 IMPORTATION INCLUDED THE Greatest Prize-Winners of France**

**In Every Stallion Class.**

For more than 30 years the horses sold from Oaklawn have been unapproached in number, unrivalled in excellence and the prices for which they have been sold, breeding qualities considered, have never been met.

Separate catalog for each breed; say which is wanted. Study Oaklawn's methods and share its success. Address

Estate of M. W. DUNHAM, WAYNE, DU PAGE CO., ILLINOIS.

## FIFTH ANNUAL PUBLIC SALE

# Scotch and Scotch-Topped Registered Shorthorn Cattle

Chillicothe Fair Grounds, Chillicothe, Livingston County, Mo., Wednesday, May 24, 1899.

## 45 COWS, BULLS AND HEIFERS,

ANY FURTHER INFORMATION PROMPTLY GIVEN.

For Catalogues address, **JOHN MORRIS, Chillicothe, Missouri.**

### PROMPT.

#### POTATOES AND PRODUCE.

We offer subject to being unsold:

Fancy Minnesota Beauty of Hebron, per bu. \$1.00  
Fancy Red River Early Ohio, per bu. 1.20  
Fancy Minnesota Rose, per bu. 1.00  
Fancy Minnesota Burbanks, per bu. .90  
Fancy Minnesota Peerless, per bu. .90

### ESTABLISHED 1883.

Fancy Minnesota Bliss' Triumphs, per bu. .90  
Choice Native Early Ohio, per bu. .90  
Choice Native Early Rose, per bu. .90

#### SEED SWEET POTATOES.

Yellow Jerseys, per bu. \$1.00  
Yellow Nansemonds, per bu. 1.00  
Red Nansemonds, per bu. 1.00  
Southern Queen, per bu. 1.10

#### ONION SETS.

Yellow Bottom Onion Sets, per bu. \$2.25  
Red Bottom Onion Sets, per bu. 2.25  
No charge for package or drayage. Ten cents extra on each order for less than one bushel.

We handle Butter, Eggs and Poultry. Our commission 10 per cent on actual sales. Daily

### RELIABLE.

remittances. Ship your Produce direct and receive full cash value.

## COPE & CO.,

117 KANSAS AVENUE,  
TOPEKA, KANSAS.