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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

PROSPECT STOCK FARM.—Registered, imported and high-grade Olydesdale stallions and mares for sale cheap. Terms to suit purchaser. Thoroughbred Short-horn cattle for sale. Two miles west of Topeka, Sixth street road. H. W. McAfee, Topeka, Kas.

CATTLE.

L'NGLISH RED POLLED CATTLE AND COTS-wold Sheep.—Young stock for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo.

NEOSHO VALLEY HERD OF SHORT-HORNS.— Imported Buccaneer at head. Registered bulls, heifers and cows at bed-rock prices. D. P. Norton, Council Grove, Kas.

HOLSTEIN-FRIESIANS.—From this herd were furnished some of the winners at the World's Fair. Write for catalogue. M. E. MOORE, Cameron, Mo.

H. W. CHENEY, North Topeka, Kas., breeder of Farm four miles north of town.

VALLEY GROVE HERD OF SHORT-HORNS.— For sale, choice young bulls and helfers at rea-sonable prices. Call on or address Thos. P. Babst, Dover, Kas.

HOLSTEIN-FRIESIANS

From this herd were furnished some of the win ners at the World's Fair. Write for catalogue M. E. MOORE, CAMERON, MO.

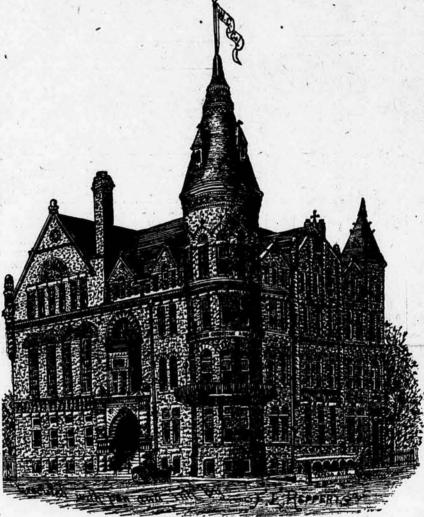
SWINE.

MAPLE GROVE HERD OF FANCY BRED PO-land-China swine. Also Light Brahma fowls. Owned by Wm. Plummer & Co., Osage City, Kas. Stock of all ages for sale at reasonable rates.

D. TROTT, Abilene, Kas.—Pedigreed Poland-Chinas and Duroć-Jerseys. Also M. B. Turkeys, Light Brahma, Plymouth Rock, S. Wyandotte chickens and R. Pekin ducks. Eggs. Of the best. Cheap.

DIETRICH & GENTRY, OTTAWA, KAS.—Our Poland-China spring pigs are sired by W. Z. Swallow's Ideal Black U.S. 25050., Guy Wilkes 3d 12131C., Pet's Osgood and the great Loyal Duk# 29823 O. For choice pigs write us.

A. W. THEMANSON, Wathena, Doniphan Co., Kansas.— Large Poland-China pigs sired by Early Sisson 11936 S. and other-good boars. Write to-day. Mention KANSAS FARMER.



WICHITA COMMERCIAL COLLEGE.

The above illustration will give the reader some idea of the Wichita Commercial College, at least some conception of the exterior of the building in which scores of students, ladies and gentlemen, have made themselves proficient in commercial business, banking, shorthand and typewriting and normal penmanship. Every facility is provided for a thorough training in all departments. A very strong and efficient faculty and corps of assistants, whose years of practical experience is perhaps one of the greatest reasons for the success of the institution since its founding. The terms, of course, are regular, but the students may enter at any time and take any part of the course that they may desire in any of the departments. The expenses are reduced to the very lowest possible, and being situated as the college is makes it very accessible and convenient for Kansas or Oklahoma students. The system of banking taught and the bookkeeping course is on the international plan, that is, with other colleges in all parts of the United States, making every day's work of the student in reality just as it is in actual business. The business of the institution has grown to that extent that the proprietors have been compelled to enlarge their quarters and now occupy the second and third floors of the building. The officers of the institution are E. H. Robins, President; W. R. Peacock, Vice President, and F. E. Reppert, Secretary. Either of these gentlemen will, upon application, furnish any and all information desired, and in case you contemplate taking a course and fitting yourself for the business affairs of active life later on you will gratify the Kansas Farmer and please the Wichita, College folks by writing them.

OHIO IMPROVED CHESTER SWINE—Pure-bred and registered. Stock of all ages and both sexes for sale by H. S. Day, Dwight, Morris Co., Kas.

V B. HOWEY, Box 103, Topeka, Kas., breeder and shipper of thoroughbred Poland-China and English Berkshire swine and Silver-Laced Wyandotte

BERKSHIRES.—Wm. B. Sutton & Sons, Rutger Farm, Russell, Kansas. Choice February and March pigs. Young boars ready for service. Young swys bred. Good individuals and choicest breeding

CATTLE AND SWINE.

CHOICE Poland-Chinas J. H. TAYLOR, Pearl Kas

M. H. ALBERTY, Cherokee, Kas., Registered Hol-Jersey swine, Rose-comb Brown Leghorns. Stock of all ages and both sexes for sale. Orders booked now all ages and both for pigs and eggs.

MIDLAND STOCK FARM.—F. M. Owens, Melvern. Kas., breeder of Galloway and Holstein cattle. Poland-China swine and thoroughbred poultry. Best of strains. Come, send or write.

HEREFORD CATTLE.—Archibald 1st 39258 and Cheerful Anxiety 49233 service bulls. One car bulls and one car heifers for sale. Leading families. Also Poland-Chinas. J. F. Waters, Savannah, Mo.

ASHLAND STOCK FARM HERD OF THORoughbred Poland-China hogs, Short-horn cattle
and Plymouth Rock chickens. Boars in service,
Admiral Chip No. 7918 and Abbottsford No. 28351,
full brother to second-prize yearling at Worlds Fair,
Individual merit and glit-edged pedigree my motto.
Inspection of herd and correspondence solicited.
M. C. Vansell, Muscotah, Atchison Co., Kas.

KAW VALLEY HERD FANCY POLAND-CHI.

NAS-Of the most noted families, bred for feeding qualities as well as fancy points. Bebout's Tecumseh at head of herd. M. F. Tatman, Proprietor, Rossville, Kansas.

DIVERSIDE POULTRY YARDS—Have for sale M. B. Turkeys, S. L. Wyandottes, B. P. Rocks, S. C. White Leghorns, Brown Leghorns, Light Brahmas, Pekin ducks, and their eggs in season. Chloks at all times. Lucille Randolph, Emporia, Kansas.

EUREKA POULTRY YARDS.—L.E. Pixley, Emporia, Kas., breeder of Plymouth Rocks, S. Wyandottes, Buff Cochins, B. and White Leghorns, B. Langshans, M.B. Turkeys and Pekin ducks. Chicks at all times. Eggs in season.

HARRY T. FORBES—FINE S. C. BROWN LEG-express to any part of the United States. Address 701 Polk St., Topeka, Kas.

I IGHT BRAHMAS AND S. L. WYANDOTTES— Breeding stock scores 90 to 93 points. Eggs, both breeds, \$1.00 per setting. Prize-winning Poland-Chinas. J. F. Thomas, Maple City, Cowley Co., Kas

WHITE GUINEA FOWLS \$2 each; eggs, \$1 per thirteen. Plymouth Rock Cockerels, \$2 each; eggs, \$1 per thirteen. White Holland Turkeys, \$3 each; eggs, \$2 per thirteen. MARK S. SALISBURY, Independence, Mo.

A. B. DILLE & SONS, EDGERTON, KAS., breeders A. of choice B. P. Rocks, S. L. Wyandottes, Light Brahmas and M. B. turkeys. Chicken eggs \$1 to \$2 per 15; turkey eggs \$3 per 11. Satisfaction guaranteed.

J. T. HARRAH, Pomona, Kas., breeder of pure-bred B. Langshans, B. P. Rocks and S. C. B. Leg-horns. Eggs \$1 per thirteen. Young stock for sale after August 16.

POULTRY.

PURE-BRED LANGSHAN, BAS outh Rock and S. C. B. Leghorn per thirteen. Address Robert Croclific Railway Agent, Pomona, Kas, D PLYM-i, one dollar fissouri Pa-

CATTLE

SUNNY SLOP FARM.

C. S. CROSS, Proprietor, Emporia, Kas.

Breeder of pure-bred Herefords. Beau Real 11055 heads the herd. Young bulls and heifers for sale. Also for sale, Poland-China swine. Choice bred young boars and sows by the World's Fair prizewinner, Longfellow 20785; and Berkshire swine of the noted Duchess and Lady Lee strains of N. H. Gentry. Bismarck and General Lee, both Gentry bred boars, in service.

Brookdale Herd of Red Polled Cattle.

Has won more prizes in 1892 and 1893 than any other herd out, including championship at six State fairs and World's Columbian Exposition on Iowa Davyson 10th 3149. His calves for sale. Write.

WM. MILLER'S SONS, Wayne, Neb.

MAKIN BROS.. Florence, Kansas.

Breeders of HEREFORD CAT-TLE. We offer cheap good well-bred young bulls and helfers. olce show helfers and bulls. Write or come.

SHORT-HORN CATTLE



Inspection invited. E. L. KNAPP, Maple Hill, Kansas

SHANNON HILL STOCK FARM. Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashlonable families. The grand Bates buils Waterloo Duke of Shannon Hill No. 89879 and Winsome Duke 11th 115,137 at head of herd. Choice young buils for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

SWINE.

Thoroughbred Duroc-Jersey Hogs

Registered stock. Send for 44-page catalogue, prices and history, containing much other useful informa-tion to young breeders. Will be sent on receipt of stamp and address. J. M. STONEBRAKER, Panola, Ill.



S. McCULLOUGH,

Ottawa, Kansas.
Breeder of Pure-bred
BERKSHIRE SWINE.
Stock for sale at all times.
Write for what you want. Satisfaction guaranteed.



JAMES OUROLLO. Kearney, Mo. Large Berkshires,

C. Brown Leghorns and Bronze Turkeys. On H. & St. Joe, 28 miles northeast of Kansas City.



A. E. STALEY, Ottawa, Kansas. CHESTER WHITES AND POLAND-CHINAS. Light Brahma eggs, twenty for \$1.

W. S. ATTEBURY,



Rossville, Kansas. BREEDER OF Chester Whites

HILLSDALE HERD



Short-horn cattle and Poland-China hogs, bred by C. C. KEYT, VERDON, NEB. Aberdeen King 101458, a pure Cruickshank, heads the herd. Stock for sale at all times. Visitors welcome. A fine lot of young male pigs for sale. Farm two miles north of Verdon, Nebraska.

MAINS' HERD OF POLAND-CHINAS.



JAMES MAINS, Oskaloosa, - - Kansas. Jefferson Co.

A grand lot of early pigs
for sale, sired by Monroe's
Model U. S. 29933 O., Tornado
30695 O., I. X. L. King and Royal Chief 30343 O., from
highly-bred sows, many of them and the two first
named boars purchased direct from Ohio's best
breeders. I pay express on pigs to August 7. Sows
bred to farrow in the fall for sale. Write me for
No. 1 stock. Safe arrival of all guaranteed.

(Breeders' Directory continued on page 16.)

The Stock Interest.

THOROUGHBRED STOCK SALES

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

OCTOBER 2—C. C. Keyt, Short-horn cattle and Poland-Chinas, Verdon, Neb. OCTOBER 3—W. H. Wren, Poland-Chinaswine, Marion, Kas.

FACTS ON FEEDING.

Agricultural college, Ames, Ia., show- Agriculture, 1892.

ing the average amounts of water, organic matter and ash in the more common American feed-stuffs; also the composition of the digestible portion of the organic matter.

Nearly all the figures for the composition of the digestible portion are the result of Prof. Henry's calculations, based upon the average composition of American feed-stuffs (tables of Jenkins and Winton) and the most reliable digestion coefficients available. Special A table compiled by G. E. Patrick, Report, United States Department of

DIGESTIBLE

		WATER, ORGANIO MATTER AND ASH IN THE FEEDS — AVERAGE Pounds per 100 lbs		DIGESTIBLE NUTRIENTS: Composition of Digestible Por- tion of Organic Matter Pounds per 100 lbs			NUTRI-
	of the feed			Pounds per 100 lbs of the feed			
	Water	Total organic matter	A8h	Crude protein	Carbhydrates	Ether extract	RATIO
		inic		in		act	
Green Fudder and Silage— Pasture grass. Corn fodder, flint varieties. Corn fodder, Dent varieties Corn fodder, sweet varieties ked clover Sorghum, whole plant. Rse fodder Corn silage. Sorghum silage.	76.1	18.0 19 1 19.8 19.6 27.1 19.5 21.6 35.3 19.5 22.8	2.0 1.1 1.2 1.3 2.1 1.1 1.8 2.5 1.4 1.1	2.6 1.5 1.2 1.4 2.9 .8 2.1 2.7 1.2	10,6 12.0 12.8 12.6 14.1 12.7 14.1 22.7 11.8 14.9	.5 .5 .4 .7 .4 .10 .6 .2	1: 4.5 1: 8.7 1:11 8 1: 9.6 1: 5.4 1:17.0 1: 7.1 1: 9.2 1:10.9 1:25.6
Hay and Dry Coarse Fodders— Corn fodder, field-cured. Corn stover, field-cured. Hay from mixed grasses. Timothy hay Hay from Hungarian grass. Red clover hay. Oat straw. Wheat straw. Rye straw.	7.7 15.3 9.2 9.6	55.1 56.1 79.4 82.4 86.3 78.5 85.7 86.2 89.7	27 3.4 4.6 4.4 60 6.2 5.1 4.2 3.2	2.8 2.0 3.6 3.0 4.5 6.5 1.6 .6	29.5 34 1 43 7 43.9 46.4 34.9 41 7 88.3 40.6	1.0 .6 1.0 1 2 1.0 1.6 .7 .5	1:11.8 1:17.7 1:12.5 1:15.5 1:10.9 1: 5.9 1:27.0 1:65.7 1:69.1
Roots and Tubers— Mangels, Rutabagas Turnips Red beets. Sugar beets. Carrots Potatoes.	88.6	8 0 10.2 8 7 10.5 12 6 10.4 20.1	1.1 1.2 .8 1.0 .9 1.0	1 1 .9 .6 .9 1.1 1.0 1.4	4.8 7.1 5.5 7.6 9.3 7.1 16.1		1: 4.4 1: 8.0 1: 92 1: 8.4 1: 8.5 1: 71 1:11.5
Grain and other Seeds— Corn (maize), average of all varieties. Wheat, average of all varieties. Barley Rye. Oats Buokwheat Peas (pea meal) Roja Bean. Flaxseed (ground).	10.9 10.5 10.9 11.6 11.0 12.6 10.5 10.8 8.1	87.6 87.7 86.7 86.5 86.0 85.4 86.9 81.5 87.2	1.5 1.8 2.4 1.9 3.0 2.6 4.7 4.7	7.1 92 9.5 8.3 9.1 7.7 18.0 29.6 18.5	62 7 64.9 66.1 65.5 44.7 49.2 56.0 17.7 26.0	4.2 1.4 1.2 1.2 4.1 1.8 9 15.9 27.4	1:10.1 1: 7.4 1: 7.2 1: 8.3 1: 5.9 1: 6.9 1: 8.2 1: 1.8 1: 4.7
Mill Products and Refuse Feeds— Corn meal, unbolted, same as corn grain above Corn and cob meal. Corn-cob. Corn bran. Wheat bran, roller process. Wheat bran, old process. Wheat shorts. Wheat middlings. Rye bran. Oat meal. Malt sproats. Brewers' grains. dried. Gluten meal, average of all varietles. Cotton seed meal. Linseed meal, old process Linseed meal, new process. Cows' milk. Skimmed milk, centrifugal Buttermilk. Whey.	15.1 10.7 10.9 12.0 12.0 11.6 7.9 9.6 8.2 9.2 10.1 87.2 90.6	83.5 87.9 87.4 83.1 83.6 84.5 84.8 90.1 84.5 88.7 89.7 84.1 12.1 9.2 5 9	3.4 3.6 2.0 5.9 8.6 .7 7.2 5.7 5.7	12.2 9.7 11.3 19.8 16.2	58.8 43.9 50.9 44.1 47.5 45.4 47.2 48.0 49.2 35.5 49.4 18.1 32.2 31.8 4.8 4.0 4.7	7.1 2.7 8.7 .8 1.1	1: 9.6 1:27.8 1: 9.4 1: 4.0 1: 5.3 1: 4.5 1: 5.5 1: 2.9 1: 1.2 1: 1.7 1: 1.4 1: 3.7 1: 2.9 1: 1.7 1:

The nutritive ratio of a feed or ration is found by multiplying the digestible fat by 2.2, adding the product to the digestible carbhydrates, and dividing the sum by the digestible protein. That is, by making a ratio having for its first term the digestible protein, and for its second term the digestible carbhydrates plus 2,2 times the digestible fat. To illustrate, take the grain of Indian corn average of all varieties. Digestible fat $4.2 \times 2.2 = 9.24$; plus digestible carbhydrates 62.7 = 71.94; the digestible protein being 7.1, the nutritive ratio is 7.1:71.9, which, reduced to its simplest form by dividing both figures by the first term of the ratio, becomes 1:10.1. The reason for multiplying the digestible fat by 2.3 is that one pound of fat will produce as much heat as two and two-tenths pounds of carbhydrates (i. e., starch, sugar, gums and fibre).

TABLE II-FEEDING STANDARDS

PER DAY PER 1,000 POUNDS LIVE WEIGHT.

A .- Wolf's Standards, commonly known as the German Standards.

	Total organic matter, lbs	Digestible organic matters, (Nutrients,)			Total di organic lbs	Nutr
		Protein,	Carbhy- drates, lbs	Fat, lbs	digestible inic matter,	Nutritive ratio
FOR GROWING CATTLE: Av. weight Age, months. per head. 2 to 3. 165 lbs. 3 to 6. 330 lbs. 6 to 12. 550 lbs. 12 to 18. 770 lbs. 18 to 24. 940 lbs.	22.0 23 4 24.0 24.0 24.0	4.0 32 2.5 2.0 1.6	13.8 13.5 13.0 1.80 1.20	2.0 1.0 0.6 0.4 0.3	19.8 17.7 16.6 15.4 13.9	1: 47 1: 5.0 1: 6 0 1: 7 0 1: 8.0
FOR GROWING FAT PIGS: 2 to 8	42 0 34.0 31 5 27.0 21 0	7.5 5 0 4.3 8.4 2.5	30. 25. 23 20 16	.0 .7	37.5 30.0 28.0 23.8 18.7	1: 4.0 1: 5.0 1: 5.5 1: 6.0 1: 6.5
*For fattening steers. *For milch cows.	26.0 24.0	3.0 2.5	14.8 12.5	0.7 0.4	18 5 15.4	*1: 5.5 *1: 5.4

^{*}Rations corresponding to these two standards will not usually be found as profitable in Iowa, or elsewhere in the Western corn-belt, as those containing less protein and more carbhydrates and fate, and having therefore a somewhat wider nutritive ratio. The following standards for milch cows are better adapted to existing Iowa conditions:

B.-Prof. Woll's Standards for Milch Cows, based upon the practice of successful American Dairymen.

(1) Average for 28 American herds (1892)....... (2) Average for 128 American herds (1893)......

Standard (2) represents the average winter dairy rations fed by 128 successful dairymen, scattered over twenty-four States of the Union, and Canada. (Prof. Woll, Wiscensin Experiment Station Bulletin No. 38, January, 1894.)

TO COMPUTE A RATION.

First make a "working table," showing the amounts of organic matter and of digestible nutrients in one pound of each of the feeds you intend using. Do this by dividing the figures for organic matter and digestible nutrients in Table I. by 100—by moving the decimal point two places to the left in each case. Suppose the ration is to be for milch cows and you wish to feed corn fodder, clover hay, mangels, corn meal and oats, and will supplement if necessary with wheat bran. The working table will be as follows:

IN ONE POUND OF EACH FEED:

	Total organic matter, bs	Digestible nutrients.			
		Protein, lbs.	Carbhy- drates, lbs.	Fat, lbs	
Corn fodder. Clover hay. Mangels. Corn meal. Oats. Wheat bran (roller).	.551 .785 .080 .876 .860 .824	.028 .065 .011 .071 .091 .126	.293 .349 .048 .627 .447	.010 .016 .042 .041 .029	

Then, by use of this working table, compute a trial ration. Try, say:

	Tote	Digestible nutrients.				Nut
	Total organic matter, lbs	Protein, ibs.	Carbhy- drates, lbs.	Fat, Ws	Total digestible nutrients, ibs	Nutritive ratio
Corn fodder, 12 pounds	6 610 7.850 .640 3,504 3,440	.336 .650 .(88 .284 .364	3,540 3 490 884 2,548 1,788	.120 .160 .168 .164		
First trial ration, deficient all around	22.044 2.472	1·722 .378	11.710 1.823	.612 .087	14.044	
Second trial ration Add one pound more of bran	24.516 8,24	2.100 .126	13.033 .441	.699 .029	15.832	1:6.94
Third trial ration	25.340	2.226	13.474	.728	16.428	1:6.8

Both the second and third trial rations conform quite closely to Woll's standards, based upon American practice. (See Feeding Standards—B—other column.) The nutritive ratio could, of course, be made narrower, and the ration brought nearer to the German standard, if desired, by using linseed meal in place of part or all of the wheat bran.

Study Your Horse's Face.

Roman nose in a horse, like a corresponding aquiline shape in a man, generally indicates strong individual ity, often accompanied by great intelligence.

A straight facial line is quite often found with a high degree of intelligence, but a dish-faced horse is rarely anything but a nonenity in character or a fool. We have seen few exceptions

to this rule, but they only prove it.

A fine muzzle usually denotes a high nervous organization, while a coarse and large muzzle with small and nonexpansive nostrils and pendulous lower lip means stupidity.

A sensitive and trumpet-shaped nostril means courage and intelligence, even when, as it does sometimes, it also means heaves.

A broad and full forehead and length from eye to ear are good indications of ntelligence, but the eye and ear are the speaking features of a horse's face.

—Breeder and Sportsman.

Irregular Feeding.

"Promptness in the performance of every duty on the farm is the first requisite for success," says Rural Life. "This means close application to the study of the business and to the labor necessary to carry out every detail in the growing of crops or in the care of the domestic animals. Live stock especially needs the best of attention.

"Irregular feeding is the source of many disorders among live stock. Regularity in the time of feeding is advisable, because stock that is fed at stated periods each day will soon learn to look for their meals at that hour, and in the intervals will contentedly go out and forage for the rest of their living. The exercise they thus obtain is conducive to health and production. But if fed at irregular hours, now early and now late, one day twice a day, and another day three or four times, they will be sure to loaf about the feed troughs anxious to see what is coming next. Regularity as to quantity is as important as regularity in time. To Y. M. C. A. building.

have a feast one day and a famine the next, is not good for man or beast. The digestive organs cannot endure it a great while, and sooner or later there will be a break-down."

A Grand Berkshire for Kansas.

Kansas is determined to be in the front with her hogs. Within the last few years great strides forward have been made. The latest and perhaps the greatest addition to her swine is an importation which has just arrived at Wm. B. Sutton & Sons' Rutger farm, Russell, Kas. The new arrival is Earl of Wantage 33125, bred by W. Puniock, Littleworth, Berkshire, England, and purchased by Metcalf Bros., of East Elma, N. Y., for Rutger farm. He was sired by Lord Curzon 23161, and is a full brother to Lord Windsor 30461, one year younger. Lord Windsor was first prize winner in his class at all the great English shows in 1893. He was then imported to America and won first prize in his class at the Columbian Exposition, at Chicago. Lord Curzon and his three sons, Windsor Supreme, Lord Windsor and Earl of Wantage are, in the judgment of English experts, the greatest boars England has produced. The family has produced more prize-winners than any other. Earl of Wantage is of the Lord Windsor type, very smooth and even, with great quality. He was farrowed March 17, 1893, and now weighs about 600 pounds. His head is small, short, wide and deeply dished, ears are small, thin and erect. His neck is short and thick. His back is broad, slightly arched, with even lines. He particularly excels in the hams. His legs are very short, straight, strong and set wide apart. His feet are perfect. His coat is thick, long, black and very soft. He is active and "has some style about him." You can read his pedigree from the end of his nose to the tip of his tail and it is as faultless as is his certificates.

Actual business practice through United States mail at Wichita Commercial College,

Agricultural Matters.

Anti-Option.

It may surprise some readers to know that the fight for the enactment of an anti-option law has not been given up and that the bill somewhat modified -possibly improved since the last defeat—has again passed the House. J. H. Brigham, Master of the National Grange of Patrons of Husbandry, has sent out the following circular. It is safe to say that should every farmer who reads the circular heed its suggestion and write to his Senators at Washington, urging the passage of the bill, all question as to its speedy enactment would vanish:

"The anti-option bill has passed the House by a large majority, and it now depends upon the Senate and the President whether or not an effort shall be made to stop gambling in farm prod-

"It is highly important that all who favor the bill make their wishes known to the Senate at once. Some of the Senators may not have much confidence in the benefits to be realized from its passage, but if they are made to understand that the people are in favor of the object of this legislation enough of them will vote for it to insure its pass-

"Please write to your Senators at once on this subject. Also try to secure favorable reference to it in your local papers. As the Senators, in the pending tariff bill, have carefully protected every 'trust' in the country except the farmers' trust (which is principally 'trust to luck,' so far as a vast majority are concerned), they may now feel inclined to do something for us. At all events, we should do our duty. Col. Hatch has made a grand fight, and he should receive a shower of congratulations from the farmers. I am glad to be able to say for our order that the reports from nearly all sections of the country are very encouraging. Extensive preparations are being made for a vigorous summer campaign. Speakers who confine their remarks to the legitimate work of our order and avoid partisan questions are doing very effective work.

"There is a time and place for all things that are right. Fight for your party principles zealously in the political campaign, but in the Grange campaign fight for Grange principles only. We must avoid the 'reef' upon which other farm organizations have met

shipwreck."

What Cheap Wheat Will Buy.

We do not know who R. R. Lambert, of Rush, Minn., is, but he writes to the St. Paul Pioneer Press an optimistic letter on the relative price of wheat and some of the things which the farmer has to buy. He says:

"I can buy twelve pounds of sugar with a bushel of wheat, while I could buy eight pounds of it with a bushel when wheat in the '70s was above \$1. During the '70s it cost from five to six bushels of wheat to a hundred-weight of nails. I can buy a hundred-weight for four bushels of wheat or eight bushels of oats, and it used to cost ten bushels of oats. At 60 cents a bushel a mowing machine cost seventy-five bushels; in the '70s it cost 120 bushels. I can buy a plow for twenty bushels of wheat, and that is what they used to

"Price does not determine profit. Profit depends on the relation of things. I want to know what the other thing is that any given thing is compared with. If I sell for 5 cents something which cost 4 cents the profit is 25 per cent. If I sell for \$10 something which cost \$8 the profit again is 25 per cent. We get as many things with a bushel of wheat at 60 cents as we used to with

wheat at \$2, and we get as many things for a bushel, whether that bushel be estimated at a penny or \$10 a bushel. All that is necessary is that other things in the future, as in the past, fall accordingly. We may raise it then at a profit, though it bring but 10 cents a bushel. This will and must occur, for it is the goal of civilization. I build

from this incontestable proposition.

furnish the necessities of life at a minimum price. All human beings are engaged in that effort. There is no fact of trade more obvious than this, that all people 'bear' the market for all they are worth. Prices decline because men will not let them go up. The farmer will not buy unless he can buy for less and less each year, and all other forms of industry do the same with him. What we all want is a cheap market to buy in.

"We must face the inevitable. Plan business so that you can sell in a falling market and you will succeed, but if you plan to sell in a rising market you may get left."

To this the American Cultivator, of

Boston, replies:

"There is some truth in this, but it has little comfort for the farmer who is badly in debt and whose interest or principal cannot be reduced as the price of wheat declines. It may cost the farmer less for living expenses than it did when wheat was higher, but he has to grow twice as much wheat for the same money as he did ten or twelve years ago. There are other crops in which prices are better maintained, and a few, as for example potatoes, in which the price has averaged higher the last few years than it did when wheat was \$1 or more per bushel. Farmers in the East are learning to make specialties of these more profitable crops."

SPECIAL FOR JULY .- For new subcribers, both the KANSAS FARMER and Topeka Weekly Capital, to January 1, 1895, for 50 cents, club-raiser to keep half the money.

SPECIAL FOR JULY.-For new subscribers, both the Kansas Farmer and the Topeka Advocate, to January 1, 1895, for 50 cents, club-raiser to keep half the money.

A Bad Thistle.

A farmer from Osage county, a few days ago, brought into this office a specimen of a thistle, and inquired whether it were not the much-dreaded Russian thistle. A comparison with illustrations and descriptions of this pest showed conclusively that the specimen was of another family. In these times, when we have so many importations of bad as well as some good things, it was thought best to have this thistle authoritatively identified, and the specimen was sent to the Botanical department of our Agricultural college, and Prof. J. B. S. Norton kindly makes the following report:

"The thistle is the common thistle of the Eastern and Northern States Cuicus lanceolatus). It is also called bull thistle, boar thistle, or pasture thistle. It is considered a bad weed, especially in meadows and pastures. It is not abundant in Kansas, but it is possible that it may become so if not kept down now while its numbers are few. This thistle is like the Canada thistle, of European origin, but is not nearly so bad a weed as the latter."

Drilling Alfalfa.

The Field and Farm, of Denver, Col., calls attention in the following to the new method of drilling alfalfa, which has been tested by Mr. A. B. Bent, Manager of the Prowers County Land and Irrigation Co.:

"Mr. Bent has one hundred acres in seed alfalfa planted in drills thirteen inches apart, cultivated and irrigated the total yield aggregated fifteen bushels to the acre. This spring Mr. Bent put in fifty acres with the drills set nineteen inches apart. By the latter plan it is thought that the production of two seed crops annually will be hereafter a regular occurrence. The theory of Mr. Bent is that the drill system allows the plants to stool out and become stocky in such a way that the sunlight and nitrogen of the air are so much more readily assimilated by the growing plant and in this way the success of the seed crop is more certainly assured. With two crops of alfalfa seed in the season there is no other Colorado crop that can compare with it."

Its either Direct Legislation through is the goal of civilization. I build om this incontestable proposition.
"The object and end of industry is to write W.P. BRUSH, Topeka, Kansas.

Want to Rent Kansas Farms.

EDITOR KANSAS FARMER:-Will you kindly send me sample copy of FARMER with supplement of benefits? I have lived in Kansas (Haskell county), in 1886 to 1891. I like the State and expect to return to it. Parties here who wish to try Kansas before settling would like to rent farms to try it. Are there any farms to rent within a few miles of Topeka or some other good town? Please refer this question to some real estate agent for an answer. W. F. FALLON.

Du Quoin, Ill., July 11, 1894.

[The above is referred to the whole army of KANSAS FARMER readers, which includes some of the best real estate men in the West. Our correspondent will doubtless hear from some of them.—EDITOR.]

Orop Averages.

The July returns to the Statistician of the Department of Agriculture make the following averages on condition:

Corn, 95; winter wheat, 83.9; spring wheat, 68.4; all wheat, 79.3; oats, 77.7 winter rye, 93.9; spring rye, 81.7; all rye, 73; barley, 76.8; rye, 91.1; potatoes, 92.3; tobacco, 81.

The preliminary acreage of corn as reported by correspondents shows 106 per cent. as compared with the acreage of 1893, being an increase in round numbers of 4,000,000 or 76,000,000 against 72,000,000 last year.

The averages of the principal States are: Iowa, 108; Missouri, 109; Kansas, 110; Nebraska 118.

The average condition is 95 against 93.2 last July.

The averages of condition in the principal States are: Ohio, 92; Indiana 96; Illinois, 99; Iowa, 100; Missouri, 101; Kansas, 96; Nebraska, 96; Texas, 94; Kentucky, 90; Tennessee, 89; Michigan,

The condition of the winter wheat is 85.9 against 83.2 in June and 77.7 last year. The percentage of the principal States are as follows: Missouri 91: Kansas, 56; California, 51; Oregon, 97 Jashington, 99. -

The condition of spring wheat is 68.4 against 88 in June and 74.1 in July, 1893. State averages are: Iowa, 78; Kansas, 69; Nebraska, 40; South Dakota, 44; North Dakota, 68; Washington, 85; Oregon, 98.

The average condition of both winter and spring wheat or all wheat for the country is 79.3 per cent.

Tanning.

The following recipes for tanning are furnished by Mr. O. C. Burch, of Fair-bury, Neb. The first is for tanning, blacking and finishing for leather in from six to thirty days, and is as fol-

"For a twelve-pound calf skin, take terra Japonica, three pounds; common salt, two pounds; alum, one pound. Put these into a copper kettle with sufficient water to dissolve the whole by boiling. The skin should at first be limed, haired and treated in every way as for the old process, then it should be put into a vessel with sufficient water to cover it, then put in one pint of the composition, stirring it well; adding the same amount each night and morning for three days, then add the whole, handling two or three times between the rows. Last year this field daily while tanning. You can continue produced two crops of alfalfa seed, and to use the tanning liquid by using half the quantity each time, of new liquor, and by keeping these proportions for any amount, and if you desire to give the leather the appearance of bark color put in one pound of Sicily sumac. Kip-skins will require about twenty days, light horse hides for harness thirty days to make good leather, while calf-skins will only require six to ten days at most. The Japonica is put up in large cakes of about one hundred and fifty pounds, and sells in common times at about 4 cents per pound. Some tanners use one quart of oil of vitriol to fifty sides of leather, with the Japonica and alum as above. Leaving out the salt will very much improve it. The acid opens the pores and quickens the process without injury to the

> The second process given is for tanning sheep or lamb skins with the wool on, and will doubtless serve for any

kind of tanning where it is desired to retain the wool or hair. It is as fol-

"For mats, take two long-wooled skins, make a strong suds, using hot water: when it is cold wash the skins in it, carefully squeezing them between the hands to get the dirt out of the wool, then wash the soap out with clean water. Now dissolve alum and salt, of each one-half pound, with a little hot water, which put into a tub of cold water sufficient to cover the skins and let them soak over night, or twelve hours, then hang on a pole to When they are well drained, spread or stretch carefully on a board to dry. They need not be tacked if you will draw them out several times with the hands while drying. When yet a little damp, have an ounce each of saltpetre and alum, pulverized, and sprinkle on the flesh side of each skin, rubbing in well; then lay the flesh sides together and hang in the shade for two or three days, turning the under skin uppermost every day until perfectly dry; then scrape the flesh side with a blunt knife to remove any remaining scraps of flesh, trim off projecting points, and rub the flesh side with pumice or rotten stone and with the hands. They will be white and beautiful, suitable for a foot mat, or nice in a sleigh or wagon on a cold day. They also make good robes, in place of the buffalo, if colored and sewed together. And lamb skins (or sheep skins, if the wool is trimmed off evenly to about one-half or three-fourths of an inch in length,) make most beautiful and warm mittens for ladies and gentlemen."

To improve the appetite, restore healthy action of the bowels, promote digestion and regulate all the bodily functions, Ayer's Pills are the best. As a mild but effective aperient, no pill is in greater demand or more highly recommended by the medical profession.

Leasing Oklahoma School Lands.

All persons wanting to lease school land in Oklahoma will be rewarded by sending for a free sample copy of the Home, Field and Forum, Guthrie, Okla., the leading agricultural paper of Oklahoma Territory.

Climate and Crops Just Right.

Oklahoma has thousands of acres of the finest farming land in the world, waiting for you or anybody else with a little cash and lots of gumption. Climate crops are just right. Farms will cost more next year than this. To find out if this is the country you want, ask G. T. Nicholson, G. P. A., Santa Fe route, Topeka, Kas., for free copy of Oklahoma folder.

"Among the Ozarks,"

the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri sceneryl including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks and will prove of great valve to the order. America, the southern slope of the Ozarks and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home Mailed free. Address,

J. E. LOCKWOOD, Kansas City, Mo.

Texas Wants You. You Want Texas.

If you like May weather in winter, apply to nearest agent of Santa Feroute. He will supply it in thirty-six hours. It is done by buying a ticket to Galveston or Houston. Perhaps less expensive than staying at home, because a big coal bill is saved. Regular winter tourist tickets can be bought any day, but special excursions will be run the second Tuesday of each month from a limited territory to all points in Texas.

The excursion fare? Cheap enough

The excursion fare? Cheap enough—a little over a cent a mile; tickets good thirty days, with stop-overs south-bound.

The Gulf coast of Texas is a charming resort for invalids who don't like zero weather. Big attractions also for home-seekers; twenty acres of land there planted in pears nets the owner \$6,000 each year after orchard is established. Strawberries and grapes also profitably raised.

and grapes also profitably raised.

Talk it over with agent Santa Fe route, or address G. T. Nicholson, G. P. A., A. T. & S. F. R. R., Topeka, Kas., and ask for a free copy of "Texas Gulf Coast Country."

CONSUMPTION SURELY CURED. To THE EDITOR—Please inform your read-

ers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy free to any of your readers who have consumption if they will send me their express and post office address.

Respectfully, T. A. Slocum, M.C.,

No. 183 Pearl Street, New York.

Irrigation.

THE PHILOSOPHY OF IRRIGATION. Maj. J.W. Powell, before the Omaha Irrigation Convention.

Now I want to talk to you a little bit more about the use of water, and about why you want water on your plants. Vegetation drinks water; it lives on water. The life of the plant is the sunlight, but the body of the plant is water. Of course you have to have in the body of the plant some bones as well, but the body is largely made up of water. The plant drinks a vast amount of water, and the water which it drinks must be about as pure as it must be for man. Suppose that man had to take all his food in solution in water; he would require a great quantity of it. Now the plant is provided with an apparatus by which it drinks a vast amount of water. In that fact is found the secret of success in intensive agriculture, for success in intensive agriculture primarily depends upon the amount of water which you feed to your plants. This success, of course, depends to a slight extent upon the materials which you put into the water—the fertilizing materials—but to a much larger extent it depends upon the way in which you feed the water to the plant. The plants which are the most useful to mankind will not live in water, nor will they live without water. It is necessary in order that plants should grow well that the water be given to them in small drinks or in small doses; it must be distributed finely. The roots permeate the soil everywhere, and if they get into a place in the soil where it is too moist, they cannot drink.

It has been found practically that a 70 per cent. saturation of the soil will give the best results. Speaking in a broad way, a soil will retain, say, about its own bulk—not its own weight—but its own bulk of water; some soils more and some soils less. Now, if you fully saturate these soils with all the water which they can contain and plant them in wheat, rye, orchards and vineyards, they will not grow. But if you will give the soil about 70 per cent. of the water which it can take up, so that there is a circulation of water and air within the soil, then the plants can take their almost infinitesimal drinks of water and grow with the greatest rapidity. The soil carries this water up to the plant, and the plant uses a part of it and evaporates it into the air. Put too much water upon the plant for one day or two days and the mouths, or the roots of the plants, will adjust themselves to that new condition, and it will be days or weeks before the plant will readjust itself to its old conditions of life, and perhaps it never will. Reduce the amount of water below 70 per cent. and the mouths of the plant will adjust themselves to these new conditions, and if you reduce the percentage too low they may never drink any more.

The success which modern intensive agriculture has reached depends upon the adjustment of the conditions of life in such a manner that you give to the plant every hour of the day and night just as much water as the plant will drink, and no more. So you must not irrigate too much. It is just as destructive to your crops to irrigate too is at the present time a great

For success in intensive agriculture, then, it is necessary to give your plants, hour by hour, day by day, just the proper amount of water, and if you will keep that up day and night you can do -what do you suppose? I am almost afraid to tell you. You can raise a crop of wheat-where you have raised twenty bushels you can raise 100 bushels-150 bushels-if you will just give the water to the land in the right way and at the right time; no more, no less. POSSIBILITIES OF SCIENTIFC FARMING.

The maximum conditions can be reached outdoors as well as under glass. The great crops of which I now speak have been put under glass, where they are able to conduct the water to their plants exactly as they wanted it. When you get to that point there is no known limit to the growth of crops. You can, in the course of a few generations, develop new and better varieties in contact with the air as it is for the

of wheat, corn, cabbage, potatoes, under such maximum conditions, until at last I do not know what cannot be cultivated on forty square yards of soil. The experiments which they are now conducting all over the world are turning out to be marvelous. Already they are beginning to compose their soils in such a manner and to feed it with water and fertilizers in such a manner that the soil which the gardeners about London have made, while the lands themselves belong to large land-holders, the soils belong to the gardeners or tenants, and if they move away they take the soils with them. The crops which they raise on those soils are marvelous. And in France, Germany and Italy they are beginning to have a new property—a property in soils, independent of the property in lands. The soils they move about with them as they please. This means intensive agriculture in a sense in which it cannot be applied here at the present time, but I am going to prophesy-I am an old man and I will be dead before it is found out on me-I am going to prophesy that you who live here in another decade or two in these low hills about Omaha—these hills so delightfully adapted to vine culture-will have little gardens and orchards and vineyards and beds of flowers filled with roses and lilies and violets, cultivated in this intensive manner in that good time coming, not many decades in the future. That this intensive agriculture which is developing so rapidly all over the civilized world will be taken up by the enterprising people of this region of the country I doubt not. You want just as much irrigation here in this region as they want in the arid region; that is the point I want to

IRRIGATION IN THE HUMID REGION.

The results of intensive agriculture have all to come from irrigation. Why is it that in the hills of New England and in the arid sand hills of Virginia they are beginning to irrigate? Why are they irrigating in the valleys of Italy and amongst the vine-clad hills of Germany? Because they find that to reach success in this intensive agriculture they must irrigate.

In these humid lands the cost of irrigation is less. You do not have to make the same extensive preparation and build the same great works, and you do not have to depend upon irrigating merely a patch here and a patch there, but you can irrigate all your lands. But there is one precaution which I must give you. In the humid region, if you irrigate your land you must make proper preparations for drainage. If you are in a region where you are sure you will not have an abundance of rain you can irrigate without such preparations, but if you may have rain to-morrow or next day in plenty, it is dangerous to irrigate without having furnished means of draining your land, for if you give too much water to your plants you kill them as quickly and surely as if you took the water away from them. You cannot successfully irrigate in the humid regions without at the same time providing the necessary drainage. That precaution is necessary.

Water-Sick Land.

EDITOR KANSAS FARMER:-As there interest being taken in the subject of irrigation, it is well for those who contemplate trying the experiment to study well the modus operandi and the laws that govern the successful water-cultivation of crops. There is no general rule to be laid down that can be followed successfully under all conditions. The kind of soil, the lay of the land, the subsoil and the sub-drainage enter into all those calculations that go to make up the formula of the successful water farmer. No land can be profitably irrigated that has not got either a natural or an artificial drainage. While no plant can grow without water, too much water will drown and kill it.

The same law that governs the animal governs the vegetable kingdom. Neither can live without water, and too much very soon kills. It is just as essential for the roots of plants to come

IRRIGATION SUPPLIES.





COMPLETE, GUARANTEEING RESULTS.

FAIRBANKS, MORSE 1310 UNION AVE., KANSAS CITY, MO.

tops. And any process that tends to draw the air out of the air-cells and fill those cells with dirt is detrimental to the growth of all plants. One of the most essential elements that contribute to the rapid growth of plants is nitrogen, and the roots assimilate more of it than the tops. Therefore it is very necessary that the ground should be kept loose and light, so it can contain as much air as possible. I claim that irrigation by flooding should never be practiced only where the sub-strata is saud or gravel or of a very loose nature. Any plant whose roots stand in stagnant water is doomed. Where water is plenty and handy most men are apt to use too much.

I have known good lands to be spoiled by too much water, or, as the Chinaman would say, "water sick." In heavy clay subsoils it is best to drain with tiling laid some two feet below the surface. For all hoed creps and fruit trees shallow trench irrigation is the best. If you don't put your trenches too far apart, the capillary attraction will take care of the space between the trenches. If one has water under pressure he can apply it to small plants advantageously by hose and nozzle.

J. SIDNEY SHERMAN.

To Irrigate Potatoes.

A company is being organized at Independence to see what can be accomplished by irrigation along our bottom land near the river, where an abundance of water is available.

One of the main objects in view is the raising of late potatoes. While the raising of early potatoes has always been successful in Montgomery county, there has been but one season in the past twenty-four years when late potatoes did well. This is owing to the dry weather which always prevails during the latter part of the summer. It is believed that by resorting to irrigation as fine potatoes can be raised here as anywhere, and the experiment will be made.

The necessary pumping machinery will be put in at once and operated with natural gas as fuel, the location being near the gas wells. The company expects to get out ten acres in potatoes this season, and will also experiment with cabbage and celery.

If you would have an abundance of dark glossy hair, if you would have a clean scalp, free from dandruff and irritating humors, or if your hair is faded and gray, and you would have its natural color restored, Ayer's Hair Vigor. It is unquestionably the best dressing.

Many Persons

Have fair health during the cooler months of the year, yet suffer greatly from debility during the hot summer. The relaxing ef fects of the heat, the loss of the salts of the tissues through the excessive colliquative perspiration prove exceedingly depressing perspiration prove exceedingly depressing to the vital powers, which predisposes the victims to attacks of disease which they would otherwise be able to resist. Thus, towards the latter end of the heated term, we have a long list of exhaustive fevers for the fatal issue of which the extreme debility of the nationts is largely responsible. ity of the patients is largely responsible. In this we may see another demonstration of the value of Lion Nerve Tonic Restora-

tive, which furnishes the tissue salts and the vitalizing agents in the animal economy. We advise a careful reading of the com-pany's announcement elsewhere in this issue.

The Shawnee Company.

Insurance is a recognized business protection of which careful and wise men avail themselves. The cost is small for the owner and the risk is great—too great for the average and individual owner, hence strong companies assume these risks, and by being careful in taking risks the percentage is usually in their favor and a reasonable profit is realized on the money they have invested.

The bulk of these companies doing business in Kansas are located outside of the State, but as the State has developed strong home companies have been formed. The most notable of the home fire insurance companies is that of the Shawnee Fire Insurance Company, of Topeka, Kas., which was organized in 1882, and has had over twelve years of successful business. It is a strong Western company with a capital of \$100,000. The Shawnee has a splendid reputation for prompt payment of losses. It insures business and farm property against fire, lightning, cyclones, wind storms and tornadoes. This company naturally makes a specialty of Kansas business, although its business

has extended into adjoining States.

The Shawnee Company has agents in all of the principal cities and towns of Kansas, and in view that this company makes a specialty of Kansas business, our readers are advised to patronize them to the fullest extent and thereby encourage home institutions, especially when the home company is just as safe to insure with as the foreign companies. If there is no local agent near you, look up their advertisement, which appears in this paper, and write J. W. Going, Secretary and Manager, Topeka, Kas., who will cheerfully furnish any desired infor-

Publishers' Paragraphs.

McClure's Magazine for August, following up Hamlin Garland's striking article in the June number on "Homestead and its Perilous Trades," will contain a study of life and work "In the Depths of a Coal Mine." It will be by Stephen Crane, and, like the Garland article, will be very notably illus-

As if the record-which has proven to thousands that Ayer's Sarsaparilla cureswas not enough, the World's Fair committee bestowed upon this most excellent blood-purifier the distinguished honor of being the only preparation of the kind not belonging to the class entitled patent medicines, secret nostrums and experiments. Ayer's was the only Sarsaparilla admitted

Resumption of Service.

The Nickel Plate railway (the New York, Chicago & St. Louis railway) was impeded but a short time by reason of the recent "strike." On July 11 the road resumed its regular passenger service, and was enabled to make service effective at once. Its superb trains, between Chicago, Cleveland, New York and Boston, are furnished with through buffet sleeping cars, insuring convenience and comfort to all passengers. Trains No. 1, 2, 5 and 6 have palace buffet sleeping cars between Chicago, Boston and New York via the West Shore & Fitchburg railroad.

Remember they are in the field for summer tourist business to Chautauqua Lake, Niagara Falls, Thousand Islands, lower Canadian provinces and Atlantic coast resorts. The officers of the road will gladly furnish illustrated printed matter, showing the many beauties of the route, to whoever applies. Address J. Y. Calahan, General Agent, 199 Clark street, Chicago, Ill.

Five World Beaters. "SICKLES" BRAND HARNESS. All genuine stamped with this "Trade Mark." Made in five styles at \$6.50, \$9.00, \$10.00, \$15.00 and \$25.00 per set complete. The best harness for the money on the market. Ask your harness dealer for them. Manufactured only by J. B. Sickles Saddlery Co., St. Louis, Mo.

The Experiment Station.

EDITOR KANSAS FARMER:-It is a pleasure always to find men like Prof. Hay interested in the work of the State Agricultural College and Experiment Station, even though it be chiefly "from without." Some of the statements and suggestions of Prof. Hay's article in your issue of July 11 are worthy of further remark.

I am sorry that the article should inadvertently misrepresent the income of the experiment station, for such an error backed by such a man is likely to be repeated for years. No doubt Prof. Hay quoted from some hearsay statement, for the annual report gives a carefully analyzed account of expenditure of the \$15,000 appropriated each year by Congress. The station has no other funds whatever, and never has had. No part of the State has ever paid a cent in taxes for the support of the station, though all parts have received benefit in fair proportion. For even the extreme west, good work has been done in introducing forage plants and sustaining the good name of alfalfa. As to dividing the work of the station, it is well to know that such a division was not contemplated in the act of Congress, and that no authority is conferred upon anybody to make such a division. A very little consideration would show that \$15,000 annually would sustain two but poorly-equipped stations, with necessary duplication of experts; and if four were demanded, as might easily be the case, if climatic conditions were made the chief interest of investigations, there would be practically no stations at all. The majority of questions for experiment are not climatic. The position of the managing board, in accord with the chief promoters of the station act, has been that one good station can do more for all interests than any number of weak ones, and that special experiments for local interests should be tried as suggested in various parts of the State whenever the local interest is sufficient to warrant it. With this view the culture of sugar beets was tried in more than one hundred localities. With the same spirit the questions involved in irrigation have been taken up in two entirely distinct regions— one at Garden City and one at Oberlin The chief reasons for selecting these two spots were the earnest interest of farmers themselves near these two centers, and the facilities easily secured for immediate work.

The experiment at Garden City, already in progress, is started upon the assumption that a water supply from a thirty-foot well is secured. will deal with numberless questions upon which little is known as yet, as soil preparation and tillage for irrigation, the exact quantity of water needed for different crops, the best methods of application, the crops yielding best returns for the outlay, as well as the actual working force of the windmill as a motor, and the most effective arrangement of pumps and well points. These are questions asked by those who have been irrigating for years, and one is astonished to find how little of accurate information as to economical irrigation exists.

At Oberlin the problem is a quite different one, from the fact that water comes from a well more than twice as deep, and the supply is to be tested. What power is cheapest for lifting water so far also remains to be proved. The general questions in irrigation farming will be similar, though varied by differcareful records of weather conditions will be made for permanent use. The best interests of the localities will be sought by all concerned.

Evidently the chief question of irrigation with Prof. Hay is a geological one, the location of a water supply. For such an investigation I know of no man better qualified than Prof. Hay, and trust that liberal provision may soon be made either by Congress or by the State Legislature for such a survey as Prof. Hay is capable of directing. At the same time it is proper to remember that such a survey is not experiment in agriculture as contemplated in the act of Congress creating the experiment station, and that the problems now being studied will exist own State to develop varieties of best selling wool; are the best mutton pro-

still wherever a water supply shall be

In conclusion, I second the suggestion of Prof. Hay, that all interested give a careful study to the work of the experiment station, past, present and future, with the hope that care will be taken to search for facts before assuming conclusions.

GEO. T. FAIRCHILD.

Canaigre.

EDITOR KANSAS FARMER:—I enclose a small tuber of the canaigre plant, which has long been used by Indians and others for tanning purposes. The dry root contains from 20 to 27 per cent. of tannic acid. Leather tanned with canaigre was exhibited at the Territorial fair of New Mexico in 1892, and was said to be very soft, impervious, and to wear better than leather tanned with oak or hemlock.

Canaigre belongs to the dock family; the rhubarb, or pie plant, belongs to the same family. The roots are produced in clusters, like sweet potatoes, single roots varying in weight from two to twenty ounces. It grows plentifully in a large section of the country



on both sides of the Rio Grande, in Texas, New Mexico, Arizona and California, in arid climate and in poor soil.

When a plant is taken from a wild state and is brought under cultivation it is a rule that many new varieties are produced which allow the cultivation of the plant to be greatly extended. It is probable that if the canaigre plant should be cultivated in Kansas a few years, varieties suited to Kansas would be produced. As canaigre produces seeds and also tubers, new varieties should be easily produced. After all of the lands which receive sufficient rainfall have been brought under cultivation, and after all irrigable lands in Kansas have been watered, there will still remain a large area in the State unsuited to the growth of ordinary crops. The cultivation of these arid lands is very easy, for weed growth is trifling in comparison with that of humid climates, and it seems that these dry sections of the State may be ucilized in the cultivation of plants like the canaigre, which are especially suited to dry climates. The fact that canaigre grows plentifully without cultivation in arid climates indicates

cultivation in the same dry regions. The cactus plant is well known to be found growing wild in the dryest climates. If the cactus had value for some purpose, it is reasonable to suppose that plantations of cactus would be made in the dryest sections of the country. As the canaigre plant grows plentifully wild, in dry climates, and as it has a marketable value for tanning purposes, it seems to promise well as a field crop for drouthy regions. Acting on these views, the Agricultural Experiment Station of New Mexico has planted ten acres of dry and sandy soil to canaigre, and the results will be watched with interest. It is to the interest of a large section of our

plants suited to field culture where rainfall is insufficient and where irrigation is impossible, and we hope that experiments will be made in this State in the cultivation of canaigre. Sterling, Kas.

Weekly Weather-Crop Bulletin.

Issued by the United States Department of Agriculture, in co-operation with the Kansas State Board of Agriculture, for the week ending July 16, 1894, T. B. Jennings, observer:

Light rains have occurred in several counties, with good rains in Johnson, Montgomery, Labette and Cherokee. With the small rainfall the average daily temperature has ranged slightly below normal with moderate winds, yet it has been a week of sunshine.

The absence of rain was the only drawback to a perfect crop week, and this deficiency is being tolerably gen-erally supplied at the close of the

Corn has made great progress during the week and is pretty generally in silk, while in the south roasting ears are in the market. Wheat is being threshed and is yielding from ten to forty bushels per acre of a very good berry. Oat harvest is progressing and some being threshed, yielding from

twenty to fifty bushels per acre.

Tame hay is now generally in the hay-barns and has proved a fair crop. Late potatoes are in bloom and, with apples, promise a good crop., Prairie meadows and pastures are needing rain. Broom-corn and cane are generally doing very well in the west, where the alfalfa seed crop is now being cut in good condition.

In Montgomery and Labette apples are ripening and are of good quality.

Orimson Olover.

EDITOR KANSAS FARMER:-I have some land I wish to seed to clover. It was seeded last winter but failed to catch. Crimson clover is said to do well if sown in July or August; will its superiority over common red clover merit my sowing now? To be used for hog pasture.

C. W. LOOMIS. hog pasture. Tonganoxie, Kas.

Practically very little is known here about crimson clover. Seedsmen are saying a good deal about it and some of the most reliable of these speak most enthusiastically in its praise. Its geographical limits are by no means determined. It is now grown in Pennsylvania, Delaware, Maryland and Virginia. It will be well to try it in a small way, observe results, and be sure

Gossip About Stock.

to report through the KANSAS FARMER.

Kansas horses are getting to the front in great form this season. Nina Medium, owned at Ottawa and driven by an Emporia man, won the free-for-all trot at Mendota, Ill., last Friday.

The movement of feeders has commenced. As the corn crop becomes more assured business will blossom out in earnest. Several large bunches from the country have been recently sold.

Official receipts last week at the Kansas City stock yards, 83,660 cattle, 2,196 calves, 38,888 hogs, 7,891 sheep and 338 horses and mules, showing a loss of 6,802 cattle, 287 calves, 16,160 hogs and 7,010 sheep compared with last year.

H. H. Hague & Son, Walton, Kas., have placed a new breeders' card in this issue. They report that the drought in that section has been broken and late crops are very promising. They offer some first-class breeding sheep for sale that were prizewinners at leading Kansas fairs last season.

More than 100 entries have been made for Live Stock and Breeders' Association, which will begin August 22. Laura T. 2:09. Fred K. 2:11, Dandy O. 2:12, and John Carpenter 2:10 have been entered in the free-for-all pace. Gonzales McGregor, the big bay gelding that created a sensation at the Overland park meeting in Denver a year ago, will be there.

The American Southdown Breeders' Association met in annual session at Springfield, Ill., July 13, 1894. The report of the Treasurer, D. W. Smith, shows the financial condition of the association good, and the Secretary's report indicates that the conditions that have been and are yet depressing the sheep industry have affected the Southdown as well as other breeds, but the outlook for the Southdown breeder is considered better than for breeders of other sheep, because the Southdowns produce the

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ducers; bear flocking in large numbers and require less care than any other mutton or middle-wool breed; are hardy and thrive on less feed, and are therefore the best of any sheep for arid and grainless regions; are good mothers and more prolific than other breeds; are early maturers, compar-ing in weight at 6 to 10 months old with the larger breeds, and because in every par-ticular they are the best, the natural cross for fine-wool breeders to use in bringing their flocks into the earliest and best mutton condition. The following officers were re-elected: President, J. H. Potts, Jack-sonville, Ill.; Secretary, Jno. G. Springer, Springfield, Ill.; Treasurer, D. W. Smith, Springfield, Ill.

THE FAIR.

What Did the Buildings Contain?

The beauty of the buildings themselves, the landscape effects and water views have been shown in many forms, but what of the treasures of art, of science, of industry that filled these palaces to overflowing. The study of such a stupendous collection is of itself a liberal education. Thousands of surprising creations and curiosities—the telautograph and other marvelous developments of electricity, the latest mechanical devices, the ethnological treasures from all the most noted collections; the display of the nations in the Liberal Arts building, the statuary from Italy, the gold and silver-smiths' exhibits from London, the Tiffany gems, the Swiss wood carving, the Bohemian glass from Austria, the French bronzes, the German porcelain, Japanese vases, the great telescope and countless others; the Horticultural building, with the rare ferns; cacti, fruits and flowers from every land, the United States government display; the model postal car, mint, models from the patent office, the historic relics; the life-size soldiery from the Puritan to the staff officer of to-day; the Fisheries, with its monster aquarium and interesting exhibits; the Palace of Fine Arts, with its seventy-two galleries of statuary and paintings; the foreign buildings, teeming with interesting, strange and curious collections illustrative of the customs, habits, resources and art of people of other lands; the State buildings; the Midway, its cosmopolitan life and features; the Mines building, with the greatest mineral display ever brought together, the coal pyramid, the diamond mines of South Africa, and the great Strumm exhibits; the Agricultural building, illustrating the agricultural resources of the nations of the world; the Krup partition, the Transportation, building showvilion; the Transportation building, showing the methods of transportation from the earliest period to the present time, the original Grace Darling boat, the sectional steamship, the Nicaragua canal model, the great 999 engine, the mammoth locomotive, "Lord of the Isles;" the Woman's building, with the Queen of Italy's laces, the French salon, the Colonial exhibits, the examples salon, the Colonial exhibits, the examples of woman's work in all countries. There is but one work which illustrates and describes the wonderful exhibits. It has been in course of preparation for nearly two years, and is the most magnificently illustrated work ever issued in America. The title is "The Book of the Fair," 2,500 coperatings 1.00 heaviful pages title is "The Book of the Fan, per-plate engravings, 1,000 beautiful pages. Text by Hubert Howe Bancroft. Published in twenty-five parts at \$1 each. Applicants in twenty-five parts at \$1 each. App for agencies should address as below rated pamphlet mailed free on application

THE BANCROFT COMPANY, Publishers, 30 and 31 Auditorium Building,

The serious labor troubles have, to a considerable degree, affected all branches of business. The uncertainty of transportation has caused shippers to withhold con-signments. The trouble is now over and Messrs. Silberman Bros., 212-214 Michigan street, Chicago, Ill., announce that the wool market is no longer disturbed and that prices are not affected and shipments are being received and promptly disposed of with usual regularity. Apply to them for information.

The Kansas Weekly Capital publishes more Kansas news than any other weekly paper. A free sample copy will be sent on application to The Topeka Capital Co., Topeka, Kas.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

The Law for the Wolves.

Now this is the law of the Jungle—as old and as true as the sky;
And the Wolf that shall keep it may prosper, but the Wolf that shall break it must die,
As the creeper that girdles the tre-trunk the Law runneth forward and back—
For the strength of the Pack is the Wolf, and the strength of the Wolf is the Pack.

Wash daily from nose-tip to tail-tip; drink deeply but never too deep;
And remember the night is for hunting, and forget not the day is for sleep.

The jackal may follow the tiger, but, Cub, when thy whiskers are grown, Remember the Wolf is a hunter—go forth and get food of thy own.

Keep peace with the Lords of the Jungle, the Tiger, the Panther and Bear, And trouble not Hathi the Silent, and mock not the Boar in his lair.

When Pack meets with Pack in the Jungle, and neither will go from the trail, Lie down till the leaders have spoken, it may be fair words shall prevail.

When ye fight with a Wolf of the Pack ye must fight him alone and afar. Lest others take part in the quarrel, and the Pack is diminished by war.

The Lair of the Wolf is his refuge, and where he has made him his home,
Not even the Head Wolf may enter, not even the Council may come.

The Lair of the Wolf is his refuge, but where he has digued it too plain,
The Conneil shall send him a message and so he shall change it again.

If ye kill before midnight be silent and wake not the woods with your bay, Lest ye frighten the deer from the crop and thy brothers go empty away.

Ye may kill for yourselves, and your mates, and your cubs as they need and ye can; But kill not for pleasure of killing, and seven times never kill Man.

If ye plunder his Kill from a weaker, devour not all in thy pride; Pack-Hight is the right of the meanest; so leave him the head and the hide.

The kill of the Pack is the meat of the Pack. Ye must eat where it lies,
And no one may carry away of that meat to his lair, or he dies.

The Kill of the Wolf is the meat of the Wolf. He may do what he will, But, till he has given permission, the Pack may not eat of that Kill.

Lair-Right is the right of the Mother. From all of her year she may claim One haunch of each Kill for her litter, and none may dany her the same.

Cub-Right is the right of the Yearling. From all of his Pack he may claim
Full-gorge when the killer has eaten; and none may refuse him the same.

Cave-Right is the Right of the Father, to hunt by himself for his own; He is freed of all calls to the Pack. He is judged by the Council alone.

Because of his age and his cunning, because of his gripe and his paw, In all that the Law leaveth open the word of the Head Wolf is Law.

Now these are the Laws of the Jungle, and many and mighty are they;
But the head and the hoof of the Law and the haunch and hump is—Obey!
—Rudyard Kipling, in Pall Mall Budget.

HISTORY OF OUR FLAG.

"A Boy" wants to know something about the American flag. He says his mother told him that the stripes and the stars all meant something. But she couldn't tell him what it was.

Every boy and girl should know all about the flag, and it is no credit to our schools

that they do not. Neither do they know much, if anything, about the Declaration of Independence, the Constitution nor the Bill of Rights.

The fact that they do not know a good deal about these shows that we are not educating our young people to become intelligent, loyal, patriotic citizens.

There is a good deal of interesting history connected with the American flag. suffrage and the advancement of woman The most of this was collected into a neat generally. In its columns are found the little pamphlet recently by the Rev. A. N. Whitmarsh, of this city, and sold quite ex-

The design of the flag is claimed by some to have been suggested by General Washington, while others incline to the opinion that he at first favored another design. The descendants of Mrs. Betsy Ross, of Philadelphia, who made the first flag, claimed that she designed it herself and submitted it to the flag committee of the Continental Congress, by whom it was at once accepted. The house in which she lived still stands, and the occupants point out the window through which she watched for General Washington and the committee that came to inspect it.

She explained that there were thirteen stripes, alternate red and white, one for each of the colonies, and thirteen white

State. Each new State admitted would add one more star to this galaxy, but the number of stripes was to remain the same.

The workmanship on this original flag was highly praised by Washington. Mrs. Ross had sewed every stitch of it herself, cut out the stars and sewed them on both sides of the blue field, and there wasn't a wrinkle or "pull" in it. So satisfactory was it in design and finish that it was accepted as the flag of the new born pattern without as the flag of the new-born nation without a dissenting vote, and flung to the breeze

from the flag-staff on Independence hall. Following is the record in the journal of the Continental Congress relating to the

flag:
"The American Congress, in session at
Philadelphia, established by its resolution of June 14, 1777, a national flag for the United States as follows:

"Resolved, That the flag of the thirteen United States be represented by thirteen stripes alternately red and white.

"That the Union be represented by thirteen stars, white in a blue field, representing a new constellation."

Some years ago a little pamphlet was compiled by two or three members of Congress, that had a large sale at the stands in the rotunda of the capitol, in which it is stated that the flag was designed by Mrs. John Ross, and afterward re-drawn by George Washington "to a proportion more to his liking." And that, while drawing it, the General sat in the back parlor of Mrs. Ross' little house and wrote "upon a small rosewood table."

The first time the flag was ever carried was at the battle of Brandywine in the fall of 1777. And the first ship that ever bore American colors was the ship Ranger, commanded by Paul Jones. The Ranger was bound for a French port, and when the ship came in sight the French people saluted it, and this was the first salute ever paid to the flag by a foreign country. This was in February, 1778. And the day was February 14, St. Valentine's day.

In 1777 an order was given on the treasury to pay Betsy Ross £14 12s. and 2d. for flags furnished to the fleet in Delaware river.

Betsy Ross afterwards married John Claypoole, and her grave may be seen in Mt. Moriah cemetery, Philadelphia. On the plain headstone is the following in-scription: "Elizabeth Claypoole, died Jan-uary 30, 1836, aged 84 years. The Daughters of the Revolution should

take charge of this grave and see that an appropriate monument is erected to one to whom the nation owes the ensign and construction of its matchless flag.

Of the hundred and more flags that represent nations on sea and on land "Old Glory" is conceded to be the handomest and no other is so universally respected and admired. It is welcomed in every port in the world, is heartily saluted by every other flag and cheered by the people in every clime. It not only represents this great nation, but it is the flag of Washington, of Lincoln, of Garfield, the million of noble men who died for it, but it is the banner of human freedom-free thought, free speech, free press and free men.

No wonder it is loved and respected the world over.

The manufacture of flags has become an extensive and prosperous industry since our late war. No less than 5,000,000 flags are made and sold annually, ranging in price from 1 cent to \$100 or more.

General Benjamin F. Butler was one of

the first to go into the manufacture of flags on an extensive scale. He owned or held controlling interests in a couple of cotton mills not far from Boston into which he introduced special machinery for turning out flags and bunting by the bolt. Following the close of the war there was a wonderful demand for these products, which led other mills to embark in the business .- Pittsburg Commercial Gazette.

Equal Suffrage.

I have read with interest the articles on equal suffrage, by your correspondents, pro and con. Some are very sensible and some very weak. Perhaps all of your readers have not access to the Woman's Journal published in Boston, devoted to equal advances that women are making in all the industrial pursuits, from which none are now debarred, all of which is due to the noble band of women who, for the last twenty or thirty years, have been working

for equal suffrage.

I will quote from an address by Dr. Mary Putnam Jacobi, delivered May 31, before the suffrage committee of the Constitutional convention assembled in Albany, N. Y. She says: "The tremendous influence of untrammeled liberty of thought in America has brought about not only an unrivaled degree of liberty for men, but a degree of personal liberty for women hitherto unparalleled. The tremendous activity of industrial expansion has drawn women into the vortex of industrial life, so that they have become important and recognized factors in the wealth of the State. In 1840. stars on a clear sky, each representing a only a half dozen forms of employment

other than household labor were open to women. In 1884 they were found employed in 354 sub-divisions of industries catalogued in the census. In 1892 it has been shown that there are few lines of remunerative employment not open to women. The United States census of 1880 showed two and a half million women engaged in gainful employment, and of these 360,000 were so engaged in the State of New York."

This being so, what a tremendous army of self-supporting women there are in the United States. The activities of educated woman are thus stated: "In 1849 the first woman physician received her medical diploma at Geneva. In 1865 the first in-stitution claiming to confer collegiate instruction was founded by Mathew Vassar, at Poughkeepsie. Up to 1890, nine hundred graduates had left this one institution.

"In 1892 women were admitted to the great Cornell State university at Ithica. In 1875 a New York millionaire made his initial gift of \$250,000 for the residence of women students at Cornell. In 1889, Barnard college received its official sanction and grant of affiliation from the trustees of Columbia college, one of the oldest universities in the United States, and in 1893 a class of girls thence received their academic diploma together with the Columbia

"The first hospital in the world to be conducted by women physicians, the New York infirmary, was founded by Elizabeth Blackwell, in 1857, and its medical college received a legal charter from the State in

"Nor have the activities of educated women been confined to this one sphere of professional work. The normal schools of Albany, N. Y., and Oswego, have trained several generations of teachers, to whose hands are now mainly intrusted the pri-mary and secondary education of the youth of the State of both sexes.

"Through the public press women share in increasing numbers, and with increasing influence in moulding public opinion.

"Women were active in the civil war. A veteran philanthropist, Aby Hopper Gib-bons, directed hospitals on the Potomac. The Sanitary Commission originated in a parlor conference called by a New York woman, Dr. Elizabeth Blackwell.

"In 1873, a group of New York women led by Miss Louisa Lee Schuylor, organized the State Charities Aid Society and inaugurated reform in the administration of the hospital, almshouses, prisons and insane asylums throughout the State. In partial recognition of the value of this work, Governor Tilden appointed one of the members of the association, Josephine Shaw Lowell, as a member of the State Board of Charities, the first woman ever officially appointed. In 1887 the Mayor of New York city appointed two women to serve on the school board.

"In 1888 was thrown open to women the profession of law. This is the profession whose exercise stands so closely related to political prerogative that in both Italy and Belgium women, though admitted to medicine, have been excluded from the bar on the ground that they must be disqualified for this profession so long as they remained deprived of political rights."

In the name of justice, how long shall this be? In our own State of Kansas this same question is pending and will come to a crisis in the approaching fall.

Dr. Jacobi has well said: "That all the reforms in the legal position of woman and much of the educational advancement have been due to the impulse given by the women who were working for the suffrage, and to them also is indirectly due much of the industrial emancipation." M. M. D. Wichita, Kas.

SPECIAL FOR JULY.-For new subscribers, both the Kansas Farmer and the Topeka Advocate, to January 1, 1895, for 50 cents, club-raiser to keep half the money.

SPECIAL FOR JULY.-For new subscribers; both the Kansas Farmer and Topeka Weekly Capital, to January 1, 1895, for 50 cents, club-raiser to keep half the money.

Women in Politics.

Women are undoubtedly the large majority of the readers in America. A large number of the most earnest workers are however, somewhat limited, and restrict themselves to special lines in literature. All reform parties put woman suffrage on their platforms, but the suffragists are not generally eager after reform in principle, though they expect to elect men of better character when they have the vote. It is quite probable that the first results of the feminine vote will be reactionary, tending to abridge human liberty-a desire to make people virtuous by legislation. It is, however, a necessarp stey in human evolution. a true fulfillment of republican and democratic ideals.

The desire of the suffragists for the vote does not prove that they are diligent students of politics. American travelers are surprised at the close watch which educated English women keep over all the details of political life and Parliamentary debates. The diligent reading of the Times, or some other



FOR THE BABY.

THE PROCTER & GAMBLE CO., CIN'TI.

paper which gives accurately the current history of the world, has no parallel in America. The newspapers do not give the information. They tell of a multiplicity of detached events, but give no coherent chronicle.

. Politics, too, is the profession of gentlemen in the United Kingdom more than anywhere else in the world. England's foreign relations give dignity and interest to the study of that current history in which she takes so large a part. Her world-wide Indian and colonial empire brings her into close touch with all nations, civilized and barbarous. Great as the American republic is in itself, it has not this cosmopolitan life.

Another thing that contributes to the interest felt in politics by women in the United Kingdom is the purity of elections, the security of the civil service, the honesty of the public administration. One cannot take up an American newspaper without seeing an account of a steal or a dicker, of falsified elections, of bribed voters, of dishonest contracts, of faithless representatives. Prof. Jenks, of Cornell University, has traced the steps through which the most shamelessly corrupt electoral system in the world has been moralized and purified. Step by step law, with public opinion to enforce it, has been enacted against bribery, direct and indirect. Civil service reform preceded the secret Australian ballot, but the main thing was the strength of public opinion. Prof. Jenks hopes much from the Australian ballot in America, and possibly from proportional representation, which is being adopted in Switzerland; and the latter reform is, I think, the most valuable of all, and is more needed in America than in England.

Although the Radical party in Great Britain think the classes have too much power, and although they demand reforms in taxation and administration, there is no in taxation and administration, there is no hint that the classes give or take bribes. All accounts are published; every penny of public money, spent wisely or unwisely, is accounted for. Although the personale and the platform of the ministry may be changed as the result of a single night's debate, not a single official on the permanent civil service is removed. These things nent civil service is removed. These things give dignity and interest to the history which is making itself every day.—From "An Australian's Impressions of America," by Miss C. H. Spence, in Harper's Magazine for July.

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The Houng Folks.

When Ma Was Near.

I didn't have one bit o' fear
'Bout nuthin' 't all, when ma was near;
The clouds could bank up in the sky.
Or 'fore the wind in white streaks fly,
But somehow 'nuther I didn't keer
A enap for them when ma was near.

Goblins that sneak at night to skeer Us little folks—when ma was near Jes' fairly flew and wouldn't stay 'Round there one bit, but runned away; An' didn't seem to be one bit queer— They couldn't help it when ma was near.

It wan't bad to be sick, where
You felt the joy that ma was near:
The throbs o' pain couldn't stay much
Under the cooling o' her touch,
But seemed to stand in mortal fear
Of ever'thing, when ma was near.

—E. N. Wood, in Atlanta Constitution.

The Optimist.

What's the use of growling,
What's the use of howling,
What's the use of yowling,
When "the world is going wrong?"
What's the use of sneering,
What's the use of jeering?
Men are sick o' hearing
That old, dyspeptic song.

See the flowers springing;
Hear the robins singing;
See the glad sun filinging
His light scross the sky!
Earth's a sea of gladness;
Brush away your sadness;
Else, in all your badness,
Go, crawl away and die.
—Cleveland Plain Dealer.

THE OREGON AND SANTA FE

TRAILS.

& advantage of the state of the sta

Since the creation man's onward movement has been westward. He has watched the orb of day rise, run its magnificent course across the heavens and sink, in all its gold and purple glory, in the west. It seems natural for humanity to follow a brilliant leader, and so man has girded himself and commenced his long race after the sun.

He set out from the highlands of central Asia with his face turned toward Europe. He bridged the Hellespont and built up historic Greece, whose crystal atmosphere, perfect skies, fairy vales and landscapes of wondrous beauty united to inspire in her subjects the spirit of artist, poetor sculptor.

Soon he reached Italy, and imperial Rome, "which sat on her seven hills and from her throne of beauty ruled the world," sprang into her power as if by magic under

Further to the north, a multitude came surging westward with the Celts as vanguard, followed by the Teutons, who were in turn jostled and crowded onward by the advancing Sclaves. From these all the great nations of Europe were formed. Nor is this the extent of the influence of a westward impulse. The beginning of the migratory movement dates back five thousand years. The dim and misty dawn of history chronicles the birth of a movement that has rippled onward like the waves of the sea. Even at the present time the cry is, "Go west, young man, go west!"

"Go west" led to the discovery of America. It brought the Pilgrims from the oppression of a sovereignty on whose possessions the sun never sets, to the liberty of forest-bound New England.

A spirit of fearlessness and power is soon breathed into the child of the West. He fears nothing but oppression. He places freedom next to his God. So when the yoke of England became too heavy the colonists would no longer bear it; they dashed it to the ground, while the wind caught up the words, "America is free," and wafted them over seas and isles. It whispered them over seas and isles. It winspered through remotest lands, "America is free." It shouted in the ears of tyrants, "America is free." Then a startled world learned that "Go west" indeed meant freedom. The colonies had become the United States, a child in years, yet recognizing no other master than itself. At first its boundary was confined to a narrow strip along the Atlantic coast, but its domain was not to be limited by the Alleghenies. The mysteries hich lay beyond these protecting mountains were not left unfathomed long. From time to time immense tracts of land were added to the country, until its dominion reached the Mississippi, and then stretched away over rolling prairies, winding rivers and lofty mountains, to be washed by the peaceful waters of the Pacific.

The "Land of Promise," the "Garden of the World," includes the romantic country lying west of the Mississippi. It has been obtained, a portion at a time, by treaty, purchase or annexation. However acquired, every State or Territory formed therefrom has proved a source of wealth, either commercially, or in its mineral and agricultural

About 1846, when the great tide of emigration began to pour into Oregon, Westport and St. Joseph, in western Missouri, were called the jumping-off places. Beyond, all was uncertainty. Hostile Indians lurked

in the fastnesses of the hills. The terror of loneliness made the stout hearts of sturdy pioneers grow faint.

The advance of emigrants from the East was made by water-ways until St. Joseph and Westport Landing were reached.

Just a few words about. Westport. It is Kansas City now, and the following is a partial description of the place as it was in 1850: "It is a queer place in which to build a town. Its site is simply a collection of river bluffs. It is all ups and downs. Some of the principal streets have been cut through high banks of clay, leaving houses perched jauntily a hundred feet above the roadway." It is spoken of as the place where the "cows fell out of pasture and broke their necks," and where one's "dooryard was as dangerous as the brink of Niagara."

From this busy place hunters, settlers, explorers and traders set out on the trail, which there took the place of water-ways, for the far West. What a wealth of history there is clustered about that one word "trail." Fancy the thrill in the hearts of Eastern friends when the word would reach them that a certain little party had entered the trail at last. What nameless terrors they associated with the "trail." With what trembling reluctant fingers they opened each letter from the West, fearing lest they should learn that some harm had befallen their loved ones. They would picture to themselves the wide, winding, hard-beaten track, stretching away over lonely prairies, through wild and treacherous forests for many weary miles, and at last emerging in a land where men did nothing but hunt, dig gold and grow rich.

In 1822, the Santa Fe trail was opened. This busy road was about eight hundred miles in length, and it rose so gradually from its initial point, at Westport, until it reached the Rockies, that it seemed to the traveller to be almost perfectly level and not a bridge was built upon it throughout its length.

It is interesting to follow this road through the principal points to its terminus in Santa Fe. Starting from Westport, the course across Kansas to Council Grove was southwest; thence to the western border of Kansas the line of direction was almost straight west. It entered Colorado and continued southward along mountains and over deserts into New Mexico, where it crossed the Rockies and entered Santa Fe. This old trail, which has done so much for Kansas, is held sacred by her now. To protect it from obliteration it is fenced throughout the greater part of its length. The Santa Fe railroad for miles follows closely the original Santa Fe route. Extensive trade between East and West was carried on over this line—the East sending cloth, foods, implements and clothing, receiving in return furs, hides, tallow, beef and mutton.

The traders, with their ponderous wagons, would rumble away across Kansas,
their long train winding like a serpent down
the tortuous trail, creeping on for hours
without a tree in sight; the scorching sun
rays beating down as if to set the very dust
on fire; not a bird note in the sky—their
only music the dull "thud," "thud" of the
oxen's tardy feet upon the hard beaten
track.

It may have been the good fortune of some of you to know one of these old traders whose delight it is to help while away the long winter evenings by recounting his experiences upon the trail. He could feel with Fremont that—

"The whispering woods and fragrant breeze,
That stirred the grass in verdant seas,
On billowy slopes,
And glistening crag in sunlit sky,
'Mid snowy clouds piled mountain high,
Were joys to me;
My path was o'er the prairie wide,
Or here on grander mountain side,
To choose all free."

He will tell of the hardships endured, of the many narrow escapes from the Indians, and of the mad joy of the company when the first faint glimpse of Santa Fe told them that their long, dangerous journey was almost at an end. He has known what it is to suffer from hunger, for often while traveling across the desert provisions became low. No game could be found in that dearth region, and the men grew desperate under the pangs of hunger. The brave captain of the caravan urged them to keep on just a few more hours. These few hours passed by and the men, on the verge of mutiny, were horrified when the leader pointed to a low mound, saying, "If you are hungry, dig." What! open a grave to satisfy the craving for food? But the grave was opened and proved to be one of the caches in which was buried a supply of cured buffalo meat, to hide it from the ravages of the Indians.

It is not so strange that the West has grown in so short a time into the wonderful country it is, for only the bravest and strongest men dared face these hardships, and with hands like theirs to guide the West quickly gained her place in the front ranks of prosperity and wealth.

While the traders' wagons were creeping back and forth along the Santa Fe road, the northern part of Kansas did not lack for

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travelers. There were hundreds of emigrants whom unseen fingers beckened to the Oregon trail, to whom unknown voices whispered of the wealth that lay beyond.

Imagine a train of five hundred picturesque, white-topped wagons, taking their slow way along the trail. The jovial, rollicking Yankee was there. His irrepressible spirits were ever bobbing up like a cork on the water. Nothing short of a scalpless head could check his merriment and make him see the serious side to life on the frontier. Bold Northerners and valiant Southerners also helped to swell the numbers of the motley company. When at night the long train halts and the wagons are drawn into a circle and the camp-fires kindled within, then the songs and jokes warded off the terror of what the night might have in store for them. Sad the sequel if the midnight air is rent by the weird and terrifying war-cry of the Indians. How hideous their painted faces when a fitful glare from the dying camp-fire falls upon them. The slaughter that follows is better left undescribed.

They follow the Kansas river until the Blue is reached. Who would not follow its clear waters and pleasant valleys? The trail keeps its onward course along the Blue into Nebraska. More than once has the train halted by the banks of the quiet river to perform the sad rite of burial of one of its company, and as they moved sorrowfully away sun-browned, tearful faces turned lingeringly toward the grave which they never would see again.

In Nebraska the trail takes the course of the Platte and the North Platte to Fort Laramie, in Wyoming. At this place the company would stop for rest and replenishment of provisions before entering the wild and barren Rattlesnake hills, near the center of Wyoming, whose treacherous ravines and dark caverns afforded hiding places for the Indians, from which they would dash out with flendish yells, add a few more "pale face scalps" to their trophies and then swiftly return to their caves without the loss of a single brave.

It is by no means true, however, that all the tribes the Western travelers met were hostile. Many times the peace-pipe was brought out and smoked, and the white man's hand was given in friendship to the Indian. The Rattlesnake hills were not the homes of peaceful tribes and the travelers felt that their painful, anxious vigilance might be for a moment relaxed when the hills were passed and they rested by the Sweetwater for the night. This beautiful river breaks through the Wind River mountains in western Wyoming, forming what is called the South pass. The caval-cade gladly takes advantage of this divide. They soon find themselves on the western side of the mountains, without having climbed them, and are making their way over a more level country, almost a desert in places, to the western border of Wyoming. They cross it and enter the neighboring State singing, "We're coming, Idaho," and Idaho stares curiously at the train of wagons just as though she had not seen hundreds of them winding across her plains, rivers and mountains many times before. They pass through Fort Hall in the southeastern part of Idaho—a fort established for trading with the Indians and trappers who depended upon supplies brought them from St. Louis. On account of the long and dangerous journey these supplies brought fabulous prices, and Fort Hall lowered the expense by bringing sup-plies from the Pacific coast in shorter time and with much less danger to life. Fort Hall the stars and stripes first floated on the breeze of the central wilderness.

Near the western border of the State is Fort Boise, a short distance from Boise City, on the Snake river. When this point is reached the travelers feel that their long, wearisome journey is drawing to a close.

The story of this journey would not be complete without the description of a buffalo hunt. Towards sunset, as the caravan travels along the Snake river, in the far distance the experienced eye of the hunter can see the herd coming toward the river for water. As the black, heaving mass approaches, the clashing of horns and the roar of thousands of koofs come down on the breeze like sounds from a distant battle field.

The hunters take the swiftest ponies and start in pursuit. At the first firing there is

confusion in the herd; their great heads are lifted as if to question what this intrusion meant; there is a moment's hesitation, and then the prairie trembles under the mad stampede as the mass thunders away like an army in full retreat. Occasionally a wounded animal, made furious by his pain, turns upon his persecutor and the pursuer becomes the pursued. But soon the great clumsy creature staggers and falls, and if this has been a successful chase twenty more may lie dead upon the plains. The best of the meat is carried back to the wagons and there is no scarcity

of food for a few days.

The company moves on up the Snake river until they reach its junction with the Columbia, when they know their journey is accomplished; they stand on Oregon soil, with thankful hearts that for the last time they have pitched their tents and built their camp-fires in a treacherous, hostile country; for the last time they have drawn up the wagons and set their guards to proect them from the murderous onset of the Indians. It was early spring when they left their home in the East and now fall is spreading her brown carpet over the prairies and setting all the forests on fire with her gaudy colors. From a rocky prominence they look back over the trail and their eyes follow the stretch of timber along the river until it vanishes in the distance. All crimson and gold are the quivering leaves, just ready to loose their hold and flutter silently down to cover the ground in their brilliant colors. They look away to the east and behold the bold, rugged mountains, the deep defiles, the plains which lie between them and their old homes, and it is little wonder that hearts grow sick with longing to be back again. But they came there to work and no time must be lost in useless repining. A place for the home is soon selected and then each man finds employment in the mines, fisheres, fur trading and the struggle for wealth begins.

Now, how changed are the scenes among the Rockies. As Irving says: "The savage chief, plumed and painted and ever on the prowl, the trader's cavalcade winding over the plains, the buffalo chase, the hunting camp, the night attack, the mad stampede, the fierce skirmish among the rocks and cliffs, all seem like the fictions of chivalry and fairy tale." The railroad has taken the place of the historic trail. Indian and buffalo fiee before the panting, screeching engine as though it were a living monster rushing out to destroy them, and it is in that it brings civilization in its train.

is in that it brings civilization in its train. What has it all meant—the privation, the dangers, the tears, the graves along the grass-grown trail? It has meant the extension of our free land until we can boast my country spans a continent and stretches its broad arms from the Atlantic to the Pacific. It has made a home for us here in the West, a loved and peaceful home. It has finished the great race-course down which man has followed the sun and fulfilled the prophecy of Bishop Berkeley:

"Westward the course of empire takes its way.
The first four acts already past.
A fifth shall close the drama with the day.
Time's noblest offspring is the last."

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KANSAS FARMER

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SUBSCRIPTION PRICE: ONE DOLLAR A YEAR. *An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

KANSAS FARMER CO., Topeka, Kansas.

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EF 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, Kas.

The receivers of the Santa Fe railroad have applied to the court for authority to borrow \$250,000 with which to pay wages.

Some who receive sample copies of the KANSAS FARMER will be pleased to know that it is sent at the request of some friend. Such requests are honored without inquiring whether the party is already a subscriber and may result in an old-time reader receiving a duly marked sample. In such case please pass the sample on to some friend who ought to subscribe.

The advantage of the worker for himself and of being close to the soil, even though the products bring a low price, are clearly seen on comparing his situation with that of the thousands of heads of families and others in- towns who have recently, through circumstances and movements over which they have no control, been cut off from the means of earning their daily bread.

The Shawnee County Horticultural Society will hold its monthly meeting at Scott Kelsey's, east of Oakland, Wednesday, July 25. Those taking the cars will get off on Belmont and Oakland streets and go four blocks east. Everybody is invited. Be sure and bring your lunch baskets. After dinner the society will have its usual papers and discussions on fruit. Philip Lux, Treasurer.

Speaking of the wheat crop, W. H. Marston, of New York, says: "I do not consider it unreasonable to put it at 500,000,000 bushels. To this add 126,000,000, our surplus July 1, and we have 626,000,000 bushels for food, seed, export and surplus for the next year's crop. Our mean population for the coming twelve months will be 69,000,-000 people. They will consume 276,-000,000 bushels; seed, 56,000,000 bushels, giving us 294,000,000 for export and for surplus July 1, 1895. From the business outlook economy in food will be practiced during the coming year the world over."

The report of F. D. Coburn, Secretary of Kansas State Board of Agri- man who has the quality of either reculture, for the month ending June 30, quired and offers it for the least money, is just out. It contains: "Crop Re-just out. It contains out. Crop;" "The Cost of Farm Crops:" 'Subsoiling, and the Action of Water in Soils;" "System in Plowing;" "Subirrigation vs. Surface Irrigation;" "For Beginners with Alfalfa;" "Hog Raising on Alfalfa;" "Status of Sorghum Sugar Making;" "British and American Meat Markets;" "Flavor and Color of Butter;" "The Forehanded Farmer;" "Live Stock Statistics;" "List of Agricultural Societies and Fair Associations in Kansas, and Dates of Fairs, 1894;" "Meteorology for April, May and June." Every farmer in Kansas ought to have a copy of this valuable pam-phlet, and if the writer were not getting these periodical reports regularly the Secretary would certainly get a postal card requesting this June re-

ARBITRATION.

The labor troubles of the past few months, and especially of the last three weeks, have been so serious as to call forth some of the best thinking ever done, by practical men, on the present situation, and the best remedial and preventive measures. The "practical" man rarely goes to the root of the difficulty, and seldom suggests a removal of the cause, but, rather, sees where a patch may be applied with advantage. Sometimes his remedy goes only to the abatement of the obstruction to moneymaking; but occasionally the practical man sees that, to insure anything like permanency of this abatement, some of the grinding of humanity in the money mills must also be abated.

One day last week the Evening Journal, of Topeka, interviewed a large number of practical men as to the method of dealing with the labor problem. Almost without exception these favored arbitration. The best considered answer was by a levelneaded retired farmer, Major Wm. Sims, who said:

"I have always advocated arbitration of such disagreements. A few years ago the farmers and shippers felt that they were not being treated right by the railroads and they asked for a board to which grievances could be referred, and so we had the Board of Railroad Commissioners which, when the corporation has refused to listen to the shipper or other interested person, may shipper or other interested person, may take up his case, listen to both sides and make a ruling. The results have been gen-erally satisfactory and what we must have now is a board to act as between the corporation and the men rendering service to the corporation the same as we now have between the corporation and those for whom the corporation does service. I do not look for less trouble until something of the kind a done."

Almost every lawyer who discusses the case thinks that arbitration would be all right if you could only get the parties into it and bind them to abide by the finding. But Major Sims has anticipated this objection by citing a practically parallel case, in which the aw has provided a method by which an unwilling party may be brought to a hearing, and has almost as effectually provided for the enforcement of the finding by requiring that it shall be presumed to be correct unless set aside by the finding of the proper court.

The entire machinery necessary for arbitration of the questions which lead to labor troubles is paralleled in the Railroad Commissioner laws of several States, and is working with such degree of satisfaction that in no State is a repeal even thought of. Even to a greater extent than in disagreements about railroad charges, three parties are interested in the adjustment of wage disputes in every case where considerable numbers are employed. These are, first, the employing companies or corporations; second, the employed, and third, the public, whose business and industries are subject to delays on account of disturbances.

It will generally be held of the first that they have not invested their money and taken the risks of business for their health, but that they are in it for profit. This profit is, of course, the difference between the cost of operation and the returns. Managers for these employers are expected to buy all raw materials and appliances and to employ all labor at the lowest possible figure in order to widen the difference which constitutes the profit. They see no difference between buying labor and buying coal or iron. The and at such times there is always a great abundance of surplus labor offered, prices of products go down or are hard to realize and the manager thinks it perfectly proper to secure labor at the reduced price which the competition of the market makes possible.

Without organization laborers could offer no resistance to these efforts at reduction and labor would be subject to be bought at competitive prices, like wood or stone. If labor's organization were universal and perfect, it could, on the other hand, force suspension of industry and traffic until such wages as it might see fit to demand should be extorted, and that without regard to the price which could be realized for the free.

product of labor. The more or less definite realization of this last mentioned fact leads employing managers to seek the utter overthrow of labor organizations, and it is the incentive to labor leaders to seek to make their organization universal and perfect. If, for instance, in the last strike the railway union had induced all trainmen, engineers, firemen, conductors, brakemen and switchmen, as well as dispatchers and telegraphers, to drop out n a body, commerce and traffic would have been absolutely paralyzed and not a law violated. The interest of the third party, the public, would then have suffered equally with the others.

These considerations certainly leave no doubt as to the right and duty of the State to provide adequate means of securing settlement of the difficulties by regular and orderly means.

If even two persons have a disagreement as to their rights with respect to a piece of wood, iron or stone, or ever so small a fraction of land, the law provides a method of settlement. If shippers and a railroad company disagree as to the question of compensation for hauling a hog to market, the law provides a regular and orderly method of determining the matter. But when one man or 100,000 men and their employers disagree about the vital question of wages, society has thus far been content to let them engage in a contest of physical endurance as the only method of determining the right in the case. These contests have continually grown more destructive of both the interests of the contestants and of the general public, and in this last one have required the active service of the entire armed force of several States and of the United States to maintain even the semblance of order and to prevent wholesale destruction of life and property. The indications are that an orderly and just method must be found for dealing with the differences which lead to labor troubles or labor disturbances will destroy society. The opportunity is one for statesmanship and will immortalize the man who devises and secures the enactment of an efficient measure.

JUSTICE A PREVENTION OF STRIKES.

There has been no little surprise that the great Santa Fe system of railroad suffered comparatively so little in the labor disturbance of the last few weeks. On last Saturday morning the editor of the KANSAS FARMER put the question to a Santa Fe conductor on the Arkansas valley division. His reply was: "It is not possible to maintain a strike against a road which has always treated its employes and the public well. I have worked for the Santa Fe for twenty years and in all that time the road has been generous to its men and has instructed all its employes to treat the public well. You can't make a strike stick against that kind of thing. Public sympathy is always with the road. Now the case is different with the Southern Pacific, for instance, and as soon as a strike is declared the public is ready to burn the bridges, kill the engines and to fight everybody that wants to hinder the strike. The strong point on the Santa Fe is the way it uses people."

This conductor proceeded to express the greatest sympathy with the Pullman strikers and with labor in its struggle for compensation and to avow himself in favor of such legislation as shall assure the laborer liberal pay and etermine disputes in a ma render strikes unnecessary. His statement, however, constitutes a powerful plea for generosity and fair dealing as an antidote for dissatisfaction and a preventive of labor disturbances.

A Grange Picnic.

There will be held a general picnic, under the auspices of the order of Patrons of Husbandry, at Coberly's grove, on the Wakarusa, two miles south of Tevis, on July 25. Addresses will be made by Hon. J. H. Brigham, Master of the National Grange, and Hon. A. P. Reardon, Master of the Kansas State Grange. Everybody invited. Refreshments on the grounds. Visitors coming on the Missouri Pacific will be transported to the grounds

LOWERING THE SCALE.

Whether desirable or not, there has developed between the owners of "capital" and the possessors of labor a distinct sentiment of antagonism. This is almost lost sight of on the middle ground, or where, as with the "inde-pendent farmer," the owner of the property applies to it his own labor, and therefore represents both sides. His instincts and inclinations are leading him more and more to array himself with the laborer, from the impression prevalent that "capital" is exerting every effort to possess itself of his moderate holding and to consign him to the less desirable position of simply "labor."

These two antagonizing interests are represented by distinct and separate classes of literature and are apparently under distinct leaderships and organizations. There are extremists and conservatives in each camp. The increase in numbers is very much more rapid in the camp of labor than in that of capital, from the fact that our material and industrial development is in the direction of a few very rich and many very poor. The power and influence of wealth have, however, up to this time more than compensated for the disparity of numbers, and the contest has been an unequal one, with the advantage in the outcome of almost every contest on the side of "capital."

In speaking of the last great strike, Henry Clews says: "Wall street has become so familiar with labor disturbances as to know pretty well how to value them. It understands the intrinsic weakness of the strike principle, when fairly put to the test, and has learnt that such contests are most apt to end in some form of relief from the restraints or exactions that have been arbitrarily enforced by the unions."

As to the elements of strength which the Wall street writer enumerates as recently acquired by his side, he says: 'The firm attitude assumed by the government in, for the first time, affirming that these violent methods of strike are fundamentally opposed not only to the rights of the citizen but also to the laws of the United States, is an invaluable contribution towards confidence in the future immunity of our railroads and other large corporations against the lawless interruptions of labor from which the country has suffered so much and by which the use of capital has been surrounded with very serious risks."

That "capital" exults in the belief that it has achieved a victory which disarms its opponent in the conflict and leaves the way clear for a play upon the necessities of the poor in the adjustment of wages, is shown in a short sentence: "In brief, Wall street regards the struggle as the crowning battle between the employing class and the employed class, in which the former has regained its right to unobstructed freedom of contract in the employment of labor."

What use "capital" proposes to make of "its unobstructed freedom of contract in the employment of labor" is almost immediately stated: " * * * The roads have felt the necessity of a general reduction in wages, and yet they have hesitated to enforce it lest it should produce a labor disturbance. They have now an opportunity of replacing their past employes, and are doing so upon a generally reduced scale of wages."

The effect of the program of "capital"upon industries in the permanent reduction of prices is incidentally mentioned: "A valuable opportunity has thus been afforded for the railroads conforming their scale of expenses to the general, and probably permanent, reduction in prices. Thus what has been dreaded as a possible great national calamity turns out to be a valuable contribution towards completing the process of readjustment which our material interests are now undergo-

ing."
It is this readjustment on the scale of lower prices which, continued so long, has made industry unprofitable. It is this which affects the farmer and the manufacturer and makes it so hard to realize from the products of industry the expense of production. It is this which has borne especially hard

upon the debtor, requiring of him so much more property to satisfy the debt when due than was purchased with the money for which the debt was contracted. It is this which is rapidly arraying every producer, whether a laborer on his own account or on account of some employing capitalist, in one camp, against those who have planned for a "reduction in prices" and are exulting in the expectation of forcing "a greatly reduced scale of wages."

"THE CHANCE OF A LIFETIME."

Under the above catching heading, has recently been sent out a circular, the first sentence of which reads: "Farmers, hold your corn." The circular issigned "A Farmer," but bears no name and no date. Whether issued in the interest of some clique of speculators now owning large amounts of corn or for the purpose of conferring a benefit on the corn-raisers is not apparent. The argument presented in support of the admonition to hold corn is far from accurate in its statements. It is as follows:

There never was such an opportunity for

There never was such an opportunity for the farmer to dictate the price of corn as at the present in this country. The crop of 1892 and 1893 was over 600,000,000 bushels short and the country is all oversold. The farmer, as a rule, not keeping enough to last through till a new crop.

The country elevators are all bare of corn, having shipped it all into the leading markets. The stock of corn in St. Louis elevators is 70,000 bushels, against last year's stock of 700,000 bushels. Cincinnati has none in store. Kansas City 10,000 bushels. All the leading corn markets are short of corn. The only market with any bushels. All the leading corn markets are short of corn. The only market with any corn in store is Chicago, and that is less than last year, and two-thirds of that is owned or held by one firm.

There has been 15,000,000 bushels of corn more exported during the first four months of this year than during the same length

more exported during the first four months of this year than during the same length of time last year.

The distilleries are running at full blast and consuming more corn this year than ever before; the crop of oats was short and corn has had to take their place.

Farmers, do not sell a bushel of your surplus until corn is worth 50 cents a bushel in Chicago. It will all be wanted at that price before a new crop comes, which does not get into market for four or five months yet.

"Farmers, hold your corn." "Farmers, hold your corn."

The facts as to amounts of corn in store June 30, at the points referred to, are, that at St. Louis the stock was 76,000 bushels, while same date in 1893, 71,000 bushels, instead of 700,000, as the circular states; Cincinnati had none either this year or last; Kansas City is correctly stated for this year and had only 13,000 last year.

The visible supply of corn in the United States July 1, for ten years, has been 6,441,000 bushels in 1894, 8,075,000 in 1893, 7,844,000 in 1892, 3,850,000 in 1891, 14,822,000 in 1890, 9,489,000 in 1889, 11,315,000 in 1888, 10,180,000 in 1887, 9,132,000 in 1886, and 5,291,000 in 1885.

From these figures it will be seen that the visible supply is not large yet is nearly double that of 1891. Each farmer can form his own conclusion from these facts and need not be led away by circulars of any kind.

GREAT EXCESS OF EXPORTS.

During the month of June, 1894, the total exports of merchandise from the United States were valued at \$57,471,-945, as compared with \$65,446,569 during the corresponding month of 1893, while the imports during June, 1894, were valued at \$51,624,904, as compared with \$69,694,544 in June, 1893. During the fiscal year ending June 30, 1894, the total exports were valued at \$892,-111,280, against \$847,665,194 during the twelve months of the previous fiscal cal year ending June 30, 1894, were valued at \$654,835,875, against \$866,-400,922 during the corresponding period of the previous year, leaving a balance of trade in favor of the United States during the fiscal year just closed of \$237,275,407, whereas during the previous fiscal year a balance of \$18,735. 728 appeared against the United States.

During the fiscal year 1894 \$77,038,-729 worth of gold was exported, as compared with \$108,680,844 worth during the previous fiscal year, while the imports of gold during the first period were valued at \$72,453,066, as compared with \$21,174,381 worth imported during the fiscal year ending June 30, 1893. So it will be seen that during the fiscal year 1894 the excess of exports of gold extension.

over imports of gold amounted to only \$4,585,633, while during the fiscal year ending June 30, 1893, the exports of gold exceeded the imports by \$87,506,-

The exports of silver during the fiscal year 1894 were valued at \$50,541,043, and the imports at \$13,282,605, or an excess of exports over imports of \$37,-168,438, while during the fiscal year ending June 30, 1893, the exports of silver were valued at \$40,737,319, and the imports at \$23,193,252, or an excess of exports over imports of \$17,544,067.

We are probably discharging considerable amounts of our foreign interestbearing indebtedness. How much debt we are paying it is impossible to determine, for this depends not only upon our excess of exports over imports, including not only merchandise and gold and silver, but also upon the amount of our foreign interest charge and the expenses of wealthy Americans who spend much of their money in Europe.

SUBSTANTIAL MEN FOR PUBLIC PLACES.

The interest sometimes manifested by certain persons in political matters is so great as to bewilder the substantial citizens and to convey the impression of wondrous public spirit. If the citizen will remember back over the years of the past he will observe that the enthusiasts of a not very long ago, the men who assumed to know all about what was good for the country and to have the most perfectly defined convictions as to the necessity of electing Bill and Tom and Joe to office have disappeared, while the said Bill and Tom and Joe have not shown that they ever had any considerable interest in anything save their own advancement, certainly none in the substantial progress of the country.

It is time to make an end of this reign of political promoters and to select for positions of public trust men who are firmly identified with their communities. Men who own the soil, men who may prosper under good government and must suffer under abuse of power are the safest.

The KANSAS FARMER is not going into politics, but it desires to impress upon its readers the importance of the selection of the right men at the primaries of all the parties. Then there will be an end of the reign of promoters of doubtful, not to say thieving schemes at the public expense—the expense of the tax-payers. To do this, the substantial farmers and other citizens must take time to inform themselves about who is running for nomination, must attend to voting at the primaries and perhaps do some talking beforehand in favor of the men who ought to be put into public posi-

The conviction is continually gaining ground that much of the wrong in the present situation is the result of unwise legislation. It is even charged that much legislation has been procured and much prevented by corruption. The voters have it in their power to correct this by sending to the Legislature such well-known, capable and honest men as are to be found in abundance in every legislative district. See to it that such a man is nominated by your party in your district. You owe it to yourselves, to your children and to your State.

The reports from the sugar works at Medicine Lodge state that the cane plete and high-priced fertilizers with-crop is the finest ever produced, the out the help of the lime. Thus by sas, was the only Republican member of acreage is large and the supply for the in excellent condition, and the managers and hands have now had sufficient experience to insure efficient operation of the plant, and it is expected that as good results as are possible will be obtained. The English owners of the property consider this the test season, and upon its results will rest the future of the industry. If they shall warrant the belief that the sugar industry may be profitable with such measure of protection as the present Congress shall leave to it or without protection they are prepared to invest as much money as is is needed for its

LIME AND FERTILIZERS.

The subject of artificial fertilization of soil is one which has attracted little attention in Kansas from the fact that the native soils of this State contain, in excellent proportions, the native elements of fertility. These have been wasted far less by leaching than in the States of excessive rainfall. While in the older portions of the State the value of manure is beginning to be appreciated, there has as yet been but little attention given to mineral fertilizers. Some inquiries have, however, come to this office on the subject, and we are able this week to present an article on the subject from Prof. W. F. Massey, whose experience has been an extended one and has been extended to the reclamation of lands which produced nothing. He says: "The subject of nitrification in soils

well stored with organic matter is one

of absorbing interest to all cultivators of the soil. We must distinguish between nitrification in soils well filled with humus and the fixation of nitrates by means of the symbiotic organisms in certain nodules on the roots of leguminous plants. Only one form is engaged in this work, while the ordinary nitrification in a fertile soil is carried on by three distinct organisms. The first carries the process only to the formation of ammonia. The second form changes the ammonia into nitrite and the third forms nitrates, the only form apparently in which nitrogen is used by the roots of green plants. Now it has been found that in a soil abounding in humus or vegetable mold, nitrification is always most active in the presence of a plentiful supply of carbonate of lime, and this has recently been demonstrated to be due to the fact that these organisms can take their carbon from the carbonate of lime. The greatest value from this nitrification comes in when there is abundant potash at hand, and the nitrogen is fixed as a nitrate of potash. This comes in as a constant accompaniment of the nitrogen fixing by the root organisms of leguminosæ. And herein consists the great value of these plants, such as clover and cow peas, the capturing, as it were, without cost, the nitrogen of the air, instead of buying it at high rates in fertilizers. But it must be remembered that clover and peas are greedy consumers of potash and use more lime than most other plants. In an experiment made eight or ten years ago to test the value of different forms of lime on clover, we applied to adjoining fields waterslacked lime and plaster or sulphate of lime. The same money value of each was used, but far the larger quantity per acre of the slacked lime. The field where the lime was used had had a crop of peas plowed under two years before; the other field had been an old sod on which a small grain crop had been sown to seed the clover with. Both fields gave good results, but that one where the lime was applied was remarkable. It was a steep, rocky, upland field of only moderate fertility, but I had a ranker growth of clover on that rocky hill than on a fertile bottom near by. Lime is really of little use as plant food direct. All of the cultivable soils have in them all the lime essential for plants; but by the liberal use of lime we are not only enabled to unlock plant food existing in an insoluble state in the soil, but we are enabled to get better results from the use of the cheaper mineral forms of for payment in any money that shall fertilizers than we could get with comusing liberally dissolved South Caro- the committee who voted with the mafactory will be abundant. The mill is lina rock phosphate and some form of potash we can get a good growth of clover. Lime added to the surface on the young clover will rapidly promote the nitrogen fixing and the growth of the clover, too, and when the clover sod is broken the presence of the lime carbonate is an active assistant in the nitrifying process in decaying organic matter. We do not approve the plowing under of a crop of peas or clover ordinarily, as the crop on a fairly fertile soil is worth more for feed than for clover or peas, it may pay to plow un- to be illegal.

der the whole growth in such a soil. If this is done a dressing of lime at rate of not less than thirty bushels per acre should at once be added, not only to actively promote nitrification, but to prevent injurious acetous fermentation. There will be little danger from this source if the crop is not plowed under until mature. Mr. Ruffin, of Virginia, used to limit the region where lime would pay to the section of his State where the loblolly pine was the 'old field' growth, but I found it profitable up at the foot of the Blue Ridge, where no loblolly grows. The use of lime in connection with acid phosphate and kainit and the growing of clover and other legumes by their help is to be the farm practice of the future for all who wish to do the best for soil and crops at the same time."

A man in Hackensack, N. J., has written to Governor Lewelling, warns ing him that a severe storm entailing much loss of property, etc., will pass over Kansas July 22-25. He particularizes as to the character of the storm in different parts of the State, and claims that he sent a similar prediction to Governor McKinley of a storm which recently passed over Ohio. He thinks he has a new and exact system of meteorology by which may be foretold with accuracy the coming of storms. He should remember, however, that he is not the first and is not likely to be the last to make such a claim.

Some of the statisticians now place the present year's wheat crop in the United States at 444,000,000 bushels. The following from the Cincinnati Price Current, is probably a fair estimate of the stocks available for the

resent crop year.	Therebole
rospective harvest, 1894isible supply, July 1arm reserve, July 1	Bushels. 444,000,000 55,000,000 50,000,000
Pacific coast stocks in transit and Pacific coast stocks	
Total stocks Jnavailable stocks (farm reserve)	585,000,000 50,000,000
Available stocks July 1	535,000,000

*Estimate of the Daily Trade Bulletin.

The interest of the tiller of the soil in a just and effectual settlement of the labor troubles is possibly less immediate but no less important than that of the inhabitants of cities subject to the immediate effects of violence. Already there are wandering bands of unemployed as well as the desultory tramps. These subsist from the contributions of the people. While these are freely given and while they still retain the hope of some time regaining a respectable standing in society, there will be little or no trouble. But these conditions are both wearing away rapidly. Should the interruption of industry continue until the tramp and the wandering "industrial" become brigands, the exposed situation of the farmer will make him their easiest prey. It cannot be permitted that the intelligence, philanthropy and patriotism of this age allow a condition of barbarism to succeed. Radical steps must be taken in advance and thus avert retrogression. No people can stand still.

Representative Lane, of Illinois, has secured a favorable report from the Judiciary committee upon his bill which provides against gold contracts and declares that contracts for the payment of gold shall be construed as be legal tender at the time the debt jority. Mr. Lane considers that society has a right to have a staple money to use in business, and that it is unjust to hold borrowers responsible for the fluctuation of currency, because if gold goes to a premium the debtor is compelled to pay much more than the amount of the indebtedness. He also holds that individuals should not be allowed to discredit the money of the country, and cites the laws of England which make it a felony to discredit the money of the realm, and those of manure. But if on a soil barren in France, under which a contract disvegetable matter we have gotten, by criminating between notes of the bank means of fertilizers, a good growth of of France and coin had been declared

Borticulture.

SWEET POTATO FLOWERS.

EDITOR KANSAS FARMER:-I enclose a sweet potato flower. Probably few of your readers have ever seen one, for the sweet potato blooms rarely. This season there are many blossoms on the vines of Mr. F. Blades, of Sterling, and it is quite possible that these flowers may produce a few fertile seeds. There is no evidence that there has ever been an attempt to propagate the sweet potato by seed, although the great improvement which has been made in the Irish potato is well known to have been made by growing seedlings from potato seeds.

The sweet potato is a tropical plant, and there are many tropical plants which produce no seeds, or produce seeds very rarely. The pineapple, the banana, the sugar cane and the sweet potato have been propagated by the buds of the stem or of the roots, and not by seed, and it is very seldom that a new variety originates in that way, but all of these plants probably produce

seeds occasionally.

Although sugar cane has been grown extensively in tropical countries for many centuries, yet it has been believed until recently that it never produced seeds. In Louisiana sugar cane very rarely flowers, and in no country were seeds known to be produced, but it has lately been found that sugar cane does, sometimes, produce seeds which are too small to be seen without a magnifier, and many thousands of seedlings have been grown from the seeds. It has been found that these seedling canes differ surprisingly from canes of known varieties, and from each other, some being no larger than a lead pencil, some being of extraordinary size, some ripening early, and some much later. Great hopes are now based upon the development of new and superior varieties of sugar cane by propagation from sugar cane seeds, for this makes it possible to produce new varieties.

These facts make it appear possible that new varieties of the sweet potato may be also produced by carefully looking for seeds whenever the sweet potato blossoms, and by growing seed-

About 1850 Mr. C. E. Goodrich undertook the improvement of the Irish potato by planting the seeds, which are numerously produced in the "potato balls." He thus produced many thousands of seedlings. Many of these were very different from potato plants of any known varieties. By far the larger number were inferior. A few were quite superior, and from these originated varieties which were decidedly superior to those which had been previously grown. The old varieties were quickly displaced, and all, or nearly all, of our best present varieties were due to the seedlings produced by Mr. Goodrich. It has been said that the greatest event in modern potato culture was the introduction of the Early Rose variety, and that was a seedling from one of Mr. Goodrich's varieties, and this is true of all of our

These facts make it seem possible that new varieties of the sweet potato may be also produced by carefully looking for seeds on the rare occasions when the sweet potato produces blos-

As the sweet potato is a tropical plant which is grown far north of its original home, by special culture, it seems that it would be desirable that hardier varieties, as hardy, perhaps, as the Irish potato, should be originated from seedlings. Varieties may be found which mature earlier, which have better keeping qualities, and which do not require hot-bed culture, or which are superior in some other

respect. It appears from census returns that the sweet potato is grown to some ex-tent in every State in the Union. If it were possible to produce seedlings, va-rieties suited to the special conditions of every section of the country would be quickly developed, but new varieties are very rarely produced from the buds of the tuber or of the stem of any

Florida in which the peach does not thrive, for the reason that the peach is sub-tropical, not a tropical fruit. The Peen-to variety, brought from China, succeeded best in the lower part of Florida, but failed above the frost line. But it was not long cultivated in Florida before new varieties of the Peen-to type were developed from seedlings of the Peen-to variety, and these new varieties succeed far north of the frost line. If, however, the Peen-to variety had been propagated by buds only, as the sweet potato is propagated, new varieties suitable to the north could not have been pro-

It is said that the sweet potato grown in the South contains more sugar, and that the sweet potato grown in the North contains more starch. The Southern sweet potato being "soggy" when cooked, while the Northern sweet potato is "mealy" when cooked, and it is said Southern people value the sweet potato according to its sweetness, while Northern people esteem it more for its "mealiness," and so the Northern peo-ple and the Southern people think their own sweet potatoes are the best. This seems to show that change of latitude changes the plant and also changes tastes.

The great sweet potato growing States are North Carolina, Georgia, Texas, Alabama, Mississippi, New Jersey, South Carolina, Tennessee and Louisiana. The development of hardier and earlier varieties would quickly carry the production northward, and would mark an advance in sweet potato growing as the development of the Early Rose variety marked an advance in Irish potato growing. What C. E. Goodrich accomplished by growing Irish potato seedlings may possibly be accomplished by growing sweet potato seedlings.

It seems to be a general rule that varieties of plants which originate in and are developed in the country where they grow succeed better than varieties which are imported from countries where the conditions of soil and climate are different. It is seldom that a foreign variety has the highest excellence. American fruits have won their reputation mainly from American varieties, and in attempting to improve foreign varieties of plants, as, for instance, sorghum or the sweet potato, the first effort should be to develop home varieties, thus obtaining varieties better suited to the conditions which prevail here.

Sterling, Kas.

[The foregoing paper from the pen of Mr. A. A. Denton, of Sterling, is most valuable and interesting. The sweet potato flowers sent have much the appearance of morning-glories, except that the sweet potato flowers are smaller. The horticultural world will not probably be disappointed in its expectations that Mr. Denton, who is an expert in the propagation of new and in producing improvements in old varieties of plants, will make the most of the present rare opportunity to produce sweet potatoes from seed should these flowers, as appears probable, develop seed.—EDITOR.]

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SPECIAL FOR JULY.—For new subscribers, both the KANSAS FARMER and the Topeka Advocate, to January 1, 1895, for 50 cents, club-raiser to keep half the money.

Keeping Early Potatoes.

EDITOR KANSAS FARMER:-Will you kindly tell me through the FARMER how to prevent early potatoes (which must now be dug and stored) from wilt-ing, growing and rotting, in short, how to preserve in bin or hole?

H. S. HOGUE. Highland, Kas. This inquiry was referred to Prof. S. C. Mason, at the Agricultural college, who answers as follows:

"Replying to the above, I would say that an outdoor cave or cellar is the best place to keep early potatoes that I know of. If this is built in a northern slope or hill-side, all the better. The roof should be well supported, as the earth covering should be deep and suflant.

As an illustration, there is a part of water. Front wall should be either liable specific, Hall's Hair Renewer.

very thick or double. Double doors with an air space of a foot between are best. Slight ventilation should be given by means of a tile flue through the roof and a small gate in the doors. If the potatoes are pitted in the open ground the piles should not be made too large. Ample ventilation must be provided, a sufficient thickness of earth covered over them to keep as cool as possible, and surface water kept away from the pit."

Growing Celery.

Since it has been found out that the peculiar muck soil of certain swamp lands is especially adapted to the cultivation of celery, an increased acreage of such land is devoted every year to raising that vegetable for market, and in some places, especially in Michigan, its cultivation has become a very large industry. When this plant was first introduced, and raised only here and there, few insects attacked it; but many of our native insects have acquired a liking for it, so that the species which attack celery have rapidly increased in number and in the severity of their attacks. Bulletin 102 of the Agricultural Experiment Station of Michigan, which is devoted to these insects, will therefore be especially welcome to all commercial growers, as well as the owners of private gardens. A very complete history of the various insects which have been found to injure celery, together with the most available methods of preventing their ravages, are here set forth in about thirty pages of carefully illustrated text .- Garden and Forest.

Drying Tomatoes.

Italy is the native home of tomatoes, where they were called Eve or love apple. They were brought from that country to this by one of their men being a prisoner. He had the seed in his pocket and planted them. In Italy an extensive business is carried on in drying tomatoes to use in those portions of the year when fresh fruit cannot be obtained. According to the Italian Rural Record tomatoes are grown, for the most part, between rows of grape vines. Sometimes the tomatoes are trained on the lower bars of the trellis to which the vines were attached. The tomatoes are allowed to remain in the bunches until they are quite ripe, then they are picked and pressed in bags made of coarse cloth, which allows its pulp to pass through, but retains the seeds and skins. The pulp is then thinly spread out on a cloth, boards or shallow dishes, and exposed to the sun to dry. When it becomes quite dry it is broken up fine or ground and put into boxes or bags and sent to market. A large part of it is used for making soups, but a considerable portion is employed as we do tomatões when preserved in tins or other cans. It is soaked for a few hours in warm water, then cooked in the ordinary manner.

There is a great prejudice against canned tomatoes, many being unwholesome. The acid juice which they contain unites with the solder of the tin cans and forms a disagreeable compound. Heat the tomatoes in a hot oven to kill the germ of insects before putting in bags .- Florida Agriculturist.

Concerning the remedial value of buttermilk, the Medical Advisor says that it is of so much worth that it has gained a distinct place in materia medica, and is largely prescribed by the best physicians for chest and lung troubles. An excessive buttermilk diet has seemed to bring about a cure for Bright's disease. A proper and constant use of it will greatly reduce and sometimes cure the craving for alcoholic liquors with which many persons are afflicted. The craving may be satisfied and the system benefited and strengthened instead of weakened. Buttermilk alone will often remedy acidity of the stomach. The lactic acid needed in many cases is supplied by it much more than by any other drink or food. It is said to alleviate the oppression about the heart that so many old people suffer from, and it should be constantly drunk by them. It is also to a certain extent a stimulant for the entire system; just what the aged need.

Improper and deficient care of the scalp will cause grayness of the hair and baldness. Escape both by the use of that re-



M. Hammerly, a well-known business man of Hillsboro. Va., sends this testimony to the merits of Ayer's Sarsaparilla: "Several years ago, I hurt my leg, the injury leaving a sore which led to erysipelas. My sufferings were extreme, my leg, from the knee to the ankle, being a solid sore, which began to extend to other parts of the body. After trying various remedies, I began taking Ayer's Sarsaparilla, and, before I had finished the first bottle, I experienced great relief; the second bottle effected a complete cure."

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FARMERS

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In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

Oleo Legislation.

Three of the best dairy States in the Union, viz., New York, Iowa and Wisconsin, have enacted stringent laws regulating the sale of oleomargarine, which has added largely to the sales of honest butter at better prices, and turned into the pockets of hard-working dairymen some of the money that would otherwise have gone to swell millions already accumulated by means of the filthy compound. The time is now ripe when every one interested in the suppression of adulterated food should agitate this same question in Kansas and instruct their representatives that on their action depends the success or failure of one of the most important industries in our State, and to allow the one article of spurious butter unlimited sale is to cripple a branch of farming that is getting well established and with protective laws is destined to supplant other branches that have heretofore yielded little or no profit. Kansas butter at the World's Fair made a record which placed her among the leading dairy States, and to be compelled to lower our standard to compete with a counterfeit production should be looked upon be every voter as degrading to our reputation, and shorn of the profits which a legitimate calling is entitled to.

The Legislature at its coming session will be asked to formulate some law affording relief to an honest calling that is now struggling against this infamous traffic.

The Dominion of Canada, by enacting such laws; has almost entirely prohibited the sale of oleo, and in consequence the price of dairy goods is not cheapened by the introduction of a fictitious article.

It is not expected that by placing a barrier against the sale of oleo the price of genuine butter would be advanced to an exorbitant figure, as legitimate competition will at all times regulate the market on the common necessities of life. The future success of our farmers depends largely on turning the products of the soil into such channels as will return the largest profits, and we firmly believe that when oleo is left out of our cuisine the creamery and the private dairy will take the lead as paying investments.

The Fall Dairy School.

The next term of the dairy school at the Iowa Agricultural college begins July 24 and continues sixteen weeks. For those who can only stay one term this is the very best time to attend. More milk is received during this term than at any other time, and the student has the very best opportunity to get a thorough training in the practical work, simply because there is more work to be done and fewer students to do it. We urge young men who wish to study dairying as a business to make arrangements to attend this school. Full information can be had by addressing President Beard-shear or Prof. Wilson, Ames, Iowa.

Dairy Notes.

The hired man who will never shirk to milk the last stripping, who is neat and withal a rapid milker, is a good hand to keep the year round. Watch for him.

It is often actually true that the dairyman prime milker than to take an ordinary cow for nothing. Reckon it up for yourself where the average difference in daily yield would be, say, five quarts, reckoning for the productive life of the cows.

A writer in the Jersey Bulletin says: "I have a heifer that calved when a little over thirteen months old. Before she was fourteen months old her milk for one day was churned and made a pound of worked butter. How is that for a baby cow? She is well developed for her age, with a first-class udder and teats, and the characteristic dairy form."

Shall we keep up the herd by buying or breeding cows? is a question that can only be answered by each dairyman for himself. In some districts fairly good cows can be bought at reasonable prices, while in others it is a difficult matter to get a good cow unless she is bred at home. There is this to be be answered by each dairyman for himself.

said in favor of breeding our own cows, we are surer of having good ones if we are careful as to the sire and dams from which we breed, while on the other hand there are farmers who sell milk, have but limited pasture, buy most of their grain feed, and so the growing of their own cow costs them much more than where these conditions are different.

One great point of advantage in dairy farming over almost all other specialties, says a recent writer, is that on the dairy farm the work is better divided. The grain harvest comes so close to haying that it often gets mixed up with it to the detriment of both; but where corn is grown and put into the silo for dairy feed, and not so much or no grain raised, the harvests are everal weeks apart.

It is said that Wisconsin has over 700,000 cows that give 350,000,000 gallons of milk in a year, or 1,000,000 gallons every day. So t would only require the morning's milk to start the ship canal, which is to carry 300,-000 cubic feet of water per minute. There are 2,500 creameries and cheese factories in the State, and these, with the large private dairy interests, represents 100,000 voters deriving their support from this industry. The capital invested in lands, herds, cream eries and cheese factories is variously esti-mated from \$130,000,000 to \$150,000,000. Each of the 700,000 cows earns \$45 a year, making a total income of \$31,000,000 a year from this business.

It is a very natural thing for a man to figure that he can make twice as much butter from ten cows as he can from five cows, and certainly the thing is possible, but very few persons will do it. The trouble is that the greater the number of cows kept the less individual attention will be given to each, and it is this individual attention that counts. A writer in one of our exchanges. speaking of this matter, says: "A man with thirty cows does not have time to give each one a pat a day; when the last cow is going out of the stable—and the owner had to milk eighteen of them because one of his milkers was sick-he may possibly touch her up with his boot and say, 'hurry up, you

The conformation which, according to Prof. Law, usually indicates a weakness constitution and a susceptibility to tuber-culosis in cattle is the following: Head narrow between the horns; sunken eyes; lepth of cavity (temporal) back of the eyes thin, narrow ewe neck; chest small, lack-ing in both breadth and depth; hollow flank and tendency to pot belly; a general lack of muscle, so that the limbs seem loosely attached to the body; in breeds that show a variety of colors, animals of the lighter shades of brown or yellow. If, how ever, such animals are of high value for the dairy and can be kept free from infection they need not be rejected. The finest conformations of Short-horns, Devons, Hol-stein-Friesians, black or red polled furnish no protection in the presence of the germ.

If you want to make money with your cows, give them some ground feed while they are on pasture. No matter how good the pasture is, the cows will do better with some grain to help out. This will look like painting the lily to many of my old-fashioned readers, but it is a cold fact all the same. The best dairymen at the north do it, and Prof. Cooke, of the Vermont station, says: "Cows that have been properly fed at the barn do not shrink in quality of milk when turned to pasture. They usually increase, both in quality and quantity. Full feeding with grain at the barn and while cows are on pasture produces a much larger flow of milk during April and May, and causes the flow of milk to keep up considerably later in the fall." Grass is supposed to be a perfect food, and so it is for simple growth and moderate milk yielding, but in these days we have passed beyond the "natural" condition of affairs, and now find the cow an artificial creature that must be treated artificially to get the greatest profit out of her, and profit, you know, is what we are after.

Elgin, Ill., you know, is the head center of two of the greatest industries in this country, watch-making and butter and cheese-making. These, you also know, are hard times, and many heretofore successful industries have met with financial collapse. Here is what the paper says: "The citizens of Elgin ought to doff their hats to every cow they meet. Hard times succeeded in shrinking our great watch factory from 3,000 hands to considerably less than half that sum; from six to four days, and at a material reduction in the scale of This was a 'body blow' to Elgin, and had it not been for the festive bovine there is no telling what would have become of us. Our dairy interests have been our of us. Our dairy interests have been our salvation, and to the good old motherly cow, the fountain head of our dairy industries, I, for one, feel like bowing in grateful recognition. The cow has proved to be our Moses, our deliverer. Long live the cow!" So say all of us. The cow is the mortgage-lifter, the farm-buyer, the educator of those who present study and profit by her. She

The Boultry Hard

Different Management.

EDITOR KANSAS FARMER:-The different kinds of poultry require different kinds of management if the best profit is realized.

With chickens, it is always best to select out a sufficient number of the earliest and best pullets for layers and for hatching, in fact, the earliesthatched pullets are the principal dependence for winter layers.

With turkeys, a sufficient number of the best and earliest-hatched hens should be selected to keep for layers next spring. It is only by this plan and the use of a well-matured gobbler that the quality of the flock can be

with geese, in nearly all cases the better plan is to keep the old fowls, especially for breeding, and the younger ones should be pushed and when reasonably well matured marketed. The old geese make the best breeders and yield the most feathers, and with reasonably good treatment can be kept for a number of years without change. In making a start it is best to select out a sufficient number of the best until the number it is desired to keep is secured, and then keep these and market the younger fowls.

With ducks, a very good plan of management is to market the earliesthatched, feeding them well and pushing the growth as much as possible. If hatched in good season and good care is taken to push the growth they ought to be ready for market by the time they are ten weeks old and should weigh on an average seven pounds a pair. The best time to sell is in June and July, and generally it will be best to sell all that are in a marketable condition at this time. The later-hatched can be kept to make up the desired number that can be kept with profit.

With guineas, a very good plan of management is to sell the eggs during the early part of the season and then when prices get low allow them to hatch out. Guineas are not a good market fowl. In many places they can hardly be sold at all, so that outside of what it is desired to keep and what can be used on the table there is no special advantage in hatching a large number. They lay a large number of eggs but do not commence laying until in the spring, rather late usually, but if in good condition are an excellent table fowl and as they are better able to take care of themselves than any other kind of poultry, a few at least can always be kept with profit.

N. J. SHEPHERD. Eldon, Mo.

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No Secret About It.

By a practical poultryman, in Live

Stock Indicator:

"I would like to start a poultry farm and make it pay me. What would you charge me to give the secrets, so that I can make a success of it?" writes a would-be poultryman. There are no secrets in the business. The whole matter, for profit or loss, lies in the management. If there are any hidden mysteries they must be quartered in that. It is just as natural for a hen to lay when properly fed and cared for as it is for a cow to give milk. Yet some good farmers, who are experts in the growing of crops and adepts in making the dairy pay, cannot get a profit from their hens. Should we say they do not know how to care for poultry they would be insulted, yet such is the case. Any one who cannot make a hen profitable knows very little about her wants. A good dairyman knows how many years a cow is profitable, and at what age he had better send her to the butcher. He does not keep her beyond the allotted time-yet in his poultry yard are hens of all ages; hens that long since have outlived their usefulness.

The practical egg farmer knows that

by forcing the hen they can in two years get all the profit out of her, and at the end of that time she makes the most acceptable roaster. They profit in two ways. They save expense by keeping her but two years, and in that time get out of her all her real worth. By not forcing her she will in three years give the best of her product. But if, by forcing, she will give three years' work in two, does it not follow, then, that there is more profit in pushing her? That is egg-raising for profit.

The practical egg farmer also knows that there is more money in winter eggs than in those produced in summer. He likewise knows that if he allows the fowls to roost in open sheds and cold places and feeds nothing but corn he cannot secure a winter egg crop. He gets ahead of the average farmer by having good, warm houses, by feeding the very best grains for manufacturing eggs, by keeping the birds at work in scratching pens while the ground is covered with snow, by hatching his pullets in April and May and bringing them to profit at the right time. The farmer so manages it that his cows 'come in' at a time when there is the most money in butter, but he hatches his pullets at all times of the year. He is wise in the one and foolish in the other.

An experiment was tried last year by the writer. He kept a separate account of a family cow and fifty hens. The cow's milk and butter, for a year, brought \$144.10, and eggs and chicks raised by the hens netted \$150.8I. Now, if we count the feed of the cow, nine quarts of ground grain and the hay, alongside of four quarts of ground grain and six quarts of wheat or oats to the hens, we see a vast difference. Furthermore, to enumerate the work of feeding, milking and caring for the cow, to say nothing of the labor at making the butter, compared with the work of feeding the hens, cleaning up the manure and setting the hens, is it not plain that fifty hens will give less labor than the family cow? Yet the average farmer looks upon the hen as of very little consequence. Poultryraising, however, is growing annually, and each year the farmers are becoming better acquainted with the indus-The census report of poultry and eggs for the year 1890 shows that in the United States there were 258,871,-125 chickens, 10,844,060 turkeys, 8,440,-175 geese and 7,544,080 ducks, or a total of 285,699,440 fowls of all kinds, which at 25 cents each are valued at \$71,469,-860. There were 818,249,201 dozen eggs produced, which valued at 121 cents per dozen amount to \$102,281,150. This is a large sum for one year, and which is now probably \$200,000,000 per year for both poultry and eggs, being not far behind the wheat crop in value. Does that look like an "insignificant hen" business? Farmers, you had bet-ter think seriously over the matter and do your share in the work.

About Cheese-Making.

Mrs. A. J. Brown, of Tripp, South Da-kota, writes C. E. Kittinger, of Powell, South Dakota: "I never knew before that good cheese could be made so easily on a farm without any special apparatus until I tried your process. I sell all the cheese I can make to my neighbors, and it is easier made than butter, besides it brings me three times as much as butter would." See Mr. Kittinger's announcement on this page.

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For one dollar I will mail you ten rennets, with instruction curing cheese at GHEESE for making and ham apparatus as GHEESE every farmer now has. Hundreds using my process. Your money refunded if you fall. C. E. KITTINGER, Powell, Edmunds Co., South Dakota.



The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeks, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

The Universal Vice of Mankind.

Prescribing is the universal vice of mankind; the only vice that all men, women and children, sane and insane, are guilty of. Who ever sees a state, condition or thing that does not seem right to him or her is ready to offer a remedy. We all know just how to bring about the millennium, if only the balance of mankind would follow our advice-our prescription.

The preacher does nothing but beg and prescribe. He asks for his living and in return prescribes a course of conduct which he assures you will bring relief from wrongdoing of yourself and others, and set up peace and prosperity here and hereafter.

The lawyer demands and prescribes. He says: "Give me a good retainer's fee and I will tell you just what the law is and just how to get out of your scrape or your dilemma. I will prescribe the legal remedy for your particular case."

The doctor, who is supposed to be a born prescriber, with a special prescriber's edu-cation added to the born qualities, says to all mankind: "Hear ye! Hear ye! Hear ye! I have the panacea; I know the laws of life; I can cure you, and my charges are very moderate for so great a service as I shall render. Now, who will be saved? Who will buy my great medical discovery? Who will be first to take my 'favorite pre-

Then along comes Dictator Debs, saying: "Ho, all ye laboring men, hear me. I can and will prescribe the sure cure for your wrongs and hardships, your starvation prices, your unappreciated toil and sweat and sorrow. Give me a good salary and full authority and I will prescribe the dose that will settle the plutocrats, the bondholders, the coupon-cutters, the railway magnates and all the proud and arrogant oppressors of honest toil."

Geo. M. Pullman and the board of railway managers say to the bondholders and other investors in their enterprise: "We have watched the course of events, we know thoroughly the temper and calliber, the moods and make-up of these wild labor agitators, who are deluding their ignorant followers into paying them good salaries to form combinations to break down all the safeguards to property and investment and who seek to set the rule of anarchy and iconoclasm in the land. We have wisdom and we can prescribe the dose that will set-

tle Debs and his deluded followers."

The politicians sit in the shade, all the way from the dome in Washington to the last totem pole in Alaska, calling out to all men: "We know the remedy for your wrongs and misfortunes, for the panic and the hard times. Elect us to office and we will prescribe the remedy that will set all the looms and spindles and forges and fac-tories and mines and manufactories going again." And a deafening chorus arises like the sound of many waters: "Vote the Republican ticket! Vote the Democratic ticket! Vote the Populist ticket! Vote the Greenback ticket! Vote the Prohibi-tion ticket! Vote the Nationalist ticket! Vote the Single Tax ticket! Vote for woman suffrage! Vote for silver! Vote for sound money! Vote for the bonds! Vote against the bonds! Vote for good roads! Vote for the Nicaragua canal! Vote for government ownership of railways and all of the general utilities of the country! Vote for the tariff! Vote for free trade! Vote for reciprocity! Vote the Chinese out! Vote to abolish immigration! Vote against competition with cheap foreign labor! Vote for Mrs. Lease for Senator! Vote! Vote! Vote!" and the noise and clamor becomes so deafening that one cannot hear and distinguish all the prescriptions that the politicians and office-seekers offer to the dear people for their sole and separate good.

The disappointed in wedlock come along and prescribe the abolition of marriage, declaring it a failure. The Mormons pre-scribe polygamy. The Mohammedans prescribe four wives and the Koran, for the miseries of men. The Hindoo prescribes as many wives as one chooses to take care of for human happiness. The Polynesian and Thibetan prescribe polyandry for wo-man's welfare -all the husbands she cares to smile on. The Vatican prescribes monogamy and no divorce for its unhappy sexes. Madam Blavatska will send the Mahatma to every afflicted mortal to confer lasting happiness. And all the people with one accord cry out: "Take this! Take this! It will do you good. It will cure you. It will banish all your ills!" From every hill-top, from every plain, from every hamlet and village and city and metropolis the universal chorus goes up: "Take, take, take," and every hand holds aloft some "favorite prescription." Dr. Pierce's favorite prescription is far from being the only "favorite prescription." You offer

all the other dose-mongers and nostrumvenders, and pharmaceutists and pillwal-lahs of the whole earth offer their prescriptions, and yet some of us live, notwithstanding. Many, alas, are not here to tell the tale. "Drugs have killed more people than war, pestilence and famine combined," says one, and yet we go righton prescribing all the concoctions of pharma-

A missionary who escaped being eaten in Korea has recently returned from that delightful terra incognita and gives us the following paragraph on Korean prescriptions:

"To cure any local swelling or irritation, red-hot needles are dipped into a native medicine and then thrust into the flesh regardless of the locality of the trouble. For fevers the head is shaved and the top thereof burned with a hot iron. When things get to the worst, a brother or sister of the patient sometimes consents to have a finger cut off, which is burned to a crisp and powdered for the sick man to swallow."

And is it any wonder that Japan has just sent 10,000 troops into Korea to prescribe some Japanese nostrum for the body politic?

On the 11th of last month two lady missionaries in Canton, China, were walking in Honam and found a Chinaman by the wayside, apparently dying. The instinct to prescribe came swiftly to hand and they gave the poor fellow some tea and allowed him a few whiffs from a smelling bottle, But he went on with his own program and died by the roadside. And the infuriated mob, taking exceptions to the prescriptions of these "Christian dogs," set upon the ladies and beat and stabbed and stripped them of their apparel, and were only compelled to desist from giving the ladies a Chinese mob's prescription by themselves being forced to take the prescription of the embassy and local authorities.

The missionaries are great prescribers They go abroad to prescribe if they cannot find people at home to take their prescriptions. And in foreign lands they not only go about prescribing moral and religious remedies, but go into medical prescribing, avowedly in order to enhance their opportunities for successful theological prescrib-

And now the Mohammedans are coming back at us and have set up Mohammed Ali Webb, or some such dignitary, in New York, to prescribe good Moslem doctrines and panaceas for us who have done so much prescribing for them. Gun Wa and Wau Chin and Loo Fair and a host of Mongolians are going about this country with bulging pockets as the result of their fine arts in prescribing for our own host of pre-

Ah! What a joy forever and supreme delight is prescribing! The ignorant may prescribe as well as the wise, and they will readily admit that they make the wisest prescriptions of all. Their modesty is at a discount and self-abnegation is nowhere. The world's most sublime exhibit of complacency and self-satisfaction is best shown when somebody thinks he or she has made a great prescription that overtops' all the other prescriptions.

Answers to Correspondents. (NUMBER 30.)

H. W. Roby, M. D.:—I have had a pain in the small of my back more or less for nine years. I got it from lifting too heavy early in the spring when I was not used to hard work. I have it more in warm weather than cold. I generally get it from stooping, and it comes as quick as if some one had shot me. I am 44 years old and otherwise a me well and hearty. Can you do anything for it? If you can, please inform me through the Kansas Farmer.

Glen Elder, Kas. Samuel Hubaker.

Your trouble is like that of a great many other men. Large boys and green young men often think they are very smart and foolishly try to outlift all creation, and frequently they rupture a muscle in the back or loin or hip or leg, or break a ligament, and then they are laid up for weeks or months and even years with what is com-monly called a weak back, and there fre-quently come spells, when a sudden stitch of pain comes into the weak spot, and then the man is "done for" for a few hours, or days or weeks. He is laid up with what is wn as lumh rheumatism It does not afflict all men, and but few women, for, as a rule, women do not try to outlift Sandow, or Dr. Winship, or Samson, and they seldom break their backs by that foolishness. I have been there and I know now how foolish it is to overtax one's lift-

ing capacity.
Small doses of arnica internally, or bryonia, or nux vomica, or rhus tox. will often greatly improve the condition and sometimes cure permanently. The galvanic battery (not the electric) will do the case much good if applied correctly. But orificial surgery does more than all other remedies combined for lumbago. It cures the internal hemerrhoids and frees the great sympathetic nerve from a pinch and thus allows the process of nutrition to go on untrammelled in the system and the ruptured muscle is put in a state of fine yours, I offer mine, Jones and Pildash and repair, and with proper care will remain so.

A New Veterinary College.

To the intending student no institution in the country offers greater advantages than the McKillip Veterinary college, of Chicago. Among the many advantages may be mentioned the new college building, which is the finest of its kind, especially constructed for the business, containing all the more modern improvements, and embracing two large, well-lighted lecture rooms, chemical laboratory; two eperating rooms, dissecting room, a thoroughly equipped hospital, students' reading room and library, forges, etc. The curriculum is most complete and thorough, and reaches over a term of three years, of six months each, beginning October 1 of each year. Students will have the advantage of assisting in the largest and most lucrative practice in this country, in addition to the usual college training. The faculty is composed of gentlemen of high character and wellknown experience and ability in the veterinary art. Olaf Schwarzkopf, V. M. D., late professor of veterinary medicine at the University of Minnesota, is Dean of the faculty, and those contemplating a course in veterinary medicine would do well to address him at the office, 1639 Wabash avenue, Chicago, for catalogue or further

Railroad Fares Reduced.

The Nickel Plate road has made material reductions in the fares to many points on that line, including Fort Wayne, Cleveland, Painesville, Ashtabula, Erie and many other Eastern points. Ticket office, 199 Clark street; depot, Twelfth street viaduct and Clark street, Chicago.

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The Deterinarian.

We cordially invite our readers to consult us wherever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one doing. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. Orr, Manhattan, Kas.

HEIFER MOANING.—We have a fine two-year-old Holstein heifer that will be fresh for the first time in October. She is running on pasture and seems to be healthy, but when lying down she groans and moans in a most distressing and alarming manner. We would be pleased to know what is the cause. Solomon, Kas.

Answer.-It is quite common for cattle to grunt and groan while lying down with stomachs "stuffed" with green grass. Do not give medicine unless there are signs of sickness.

LAME MULE.—I have a mule, 2 years old, that bruised one of its hind legs at the pastern joint; itswelled and broke, then healed, but it is still swollen. What will remove it?

Seward, Kas.

Answer. - Make a blister of one drachm of biniodide of mercury and one ounce of lard, well mixed. Take enough to go over it and rub in for twenty minutes, then tie the mule's head away from it for twenty-four hours, when a little clean lard should be rubbed on and the mule turned loose. Repeat the blister in four weeks.

SICK PIGS.—Our pigs do well until three or four weeks old, then begin to run down. When they get very bad they carry one side of the head lower than the other. Their mother had the cholera last spring. D. J. M.

Concordia, Kas.

Answer.-If the sow had the cholera last summer the probability is that the pigs have it now. Put a teaspoonful of concentrated lye in two and a half gallons of swill and give the pigs all they will drink of it twice a day. This may have a beneficial effect, but there is no 'sure cure" for the complaint.

GARGET.—We have a cow, 6 years old, that swelled in one part of her udder; then it left that and went to another part, and we get no milk from the swelled parts. What shall we do? Sedgwick, Kas. H. C. U.

Answer .- Give the cow one pound of Epsom salt dissolved in half a gallon of warm water; then give half an ounce of saltpetre twice a day for a week. Bathe the udder twice a day with hot water; wipe it dry each time and rub on a little of the following: Sweet oil, 1 pint; gum camphor, pulverized, 2 ounces; mix. Milk three times a day.

MANY QUESTIONS .- (1) I have a horse that has been lame in one hind foot for about six weeks. It is swollen around the coronet. (2) My horses have done poorly. They have been fed on bottom-land hay with a little old hay of the previous year that hap-pened to be raked up with it. About the middle of June a thin mare had an attack of cramp colic, a nice young horse was foundered and a yearling colt bloated up and died. In the colt's stomach were white worms about one inch long and some bots. Most of my other horses have the same worms.
(3) What is the name of this worm, where does it originate and what is its life history? Please answer through the Kansas Farmer. E. P. Arlington, Kas.

Answer .- (1) There is either inflammation of the coronet, requiring continued poulticing, or there is a ringbone forming which will require firing by a competent veterinarian. (2) Old hay that has been exposed to the weather for a year is unfit for food. Indigestion was the cause of the colic in both the mare and the colt. The founder was the result of careless feeding or watering. (3) Oxyuris curvula, or so-called "pin-worm." It is produced from the ova or eggs of the worm which are expelled from the bowels of the horse with the excrement and are then taken into the stomachs of other horses with the food or water. We have neither time nor space to give a complete treatise on helminthology. Sulphate of iron given in one drachm doses twice a day, accompanied by an injection per rectum, twice a

week, of one part turpentine and three parts oil, will generally remove them from the horse's bowels. A mixture of equal parts of salt and wood ashes kept before the horses where they can eat it as they want it will have a tendency to keep them clear of worms.

Horse Markets Reviewed.

KANSAS CITY.

W. S. Tough & Son, managers of the Kansas City stock yards horse and mule de-partment, report the market during the past week as being on a standstill. There was a fair amount of receipts, but buyers absolutely refused to take hold on account of the tie-up in railroad matters, but now that the blockade is open things look much brighter, and while buyers are very conservative and are taking hold very slowly everything points to a good market next week at prices from \$5 to \$10 lower than before the strike. There is some little inquiry for nice smooth Southern mares and geldings, toppy good stylish drivers and some 1,200 to 1,300 pound streeters for New Orleans.

The mule market has shown the same state of affairs as the horse market. Very little trading done until yesterday. Prospects much brighter.

Where Will You Spend the Summer?

The Baltimore & Ohio Southwestern railway has an attractive list of summer resorts reached via its lines. Before you decide where to go, ask some agent of the B. & O. S. W. Railway for a copy, or write O. P. McCarty, General Passenger Agent, St. Louis, Mo.

THE STRAY LIST.

FOR WEEK ENDING JULY 4, 1894. Brown county-J. V. McNamar, clerk.

MARE—Taken up by G. E. Joss, in Walnut tp., June 10, 1894, one black mare, 10 or 12 years old, left hind foot white, slit in right ear, saddle marks.

Phillips county-I. D. Thornton, clerk. Hallips county—I. D. Thornton, clerk.

MARE—Taken up by Ell Holt, in Walnut tp.,
P. O. Woodruff, June 3, 1894, one blue-roan mare
pony, 2 years old; valued at \$5.

COLT—By same, one black horse colt, 1 year old,
muzzle on; valued at \$8.

MARE—By same, one light gray mare, 7 years
old, weight about 1,000 pounds, large wire cut on
right forearm; valued at \$20.

HORSE—By same, one dark gray horse, about 4
years old, weight 800 pounds, white hind feet; valued at \$16.

HORSE—By same, one dark bay horse about 6.

HORSE—By same, one dark bay horse, about of years old, four white feet, star in forehead and strip on nose, weight about 1,000 pounds; valued at \$20.

Scott county-Jos. Griffith, clerk. PONY—Taken up by Eugene Walzthonig, in Val-ley tp., June 2, 1894, one bay mare pony, three white feet and star in forehead, branded SD; valued at \$10.

Osage county-E. C. Murphy, clerk. the country—R. C. Murphy, cierk. HORSE—Taken up by Samuel Benton, in Barclay tp., June 13, 1894, one sorrel horse colt, 4 or 5 years old, has white spot in forehead, wire cut on right front foot just above the hoof.

PONY—Hy same, one chestnut sorrel mare pony, about 8 years old, has white face and a little white on right hind foot.

FOR WEEK ENDING JULY 11, 1894.

Thomas county-Jas. M. Stewardson, clerk. MARE—Taken up by J. V. Davis, in Randall tp., P. O. Mingo, June 8, 1894, one black mare, weight about 1,100 pounds, right hind foot white, branded O on left shoulder, T on left hip; valued at \$35.

FOR WEEK ENDING JULY 18, 1894.

Wallace county-Hugh Graham, clerk. COLT-Taken up by Samuel Halsey, in Morton tp., P. O. Wallace, June 23, 1894, one iron-gray horse colt, 1 year old, star in forehead, old hair long and rough; valued at \$15.

Graham county-D. C. Kay, clerk.

MARE—Taken up by J. B. Reiniche, six miles south of Bogue, April 27, 1894, one black mare, 8 years old, weight 1:000 pounds, star in forehead, left hind foot white, blemish on right hock, scar on left shoulder; valued at \$25.

Montgomery county - Jno. W. Glass, clerk. MARE—Taken up by H. S. Walters, in Fawn Creek cp., one brown mare, 3 years old, white strip in fore-need, branded ace of spades on left shoulder; val-need at \$20.

MARE—By same, one sorrel mare, 6 years old, white strip in forehead, same brand; valued at \$10. MARE—By same, one sorrel mare, 8 years old, star in forehead, same brand; valued at \$10. MARE—Taken up by John Sack, in Independence tp., one dark iron-gray mare, 5 years old, collar-mark on shoulder, weight 900 pounds, no brands; valued at \$25. MARE—By same, one bay mare, 4 years old, scar on left buttock eight inches long, no brands; valued

at \$12. Osage county-E. C. Murphy, clerk.

2 MARES—Taken up by B. F. Burkhardt, in Burlingame tp., ten miles northwest of Burlingame, May 31, 1894, two gray mares, 3 years old, branded E on left shoulder; valued at \$30.

Atchison county-Chas. H. Krebs, clerk. HORSE—Taken up by Giles Hargus, in Kaploms tp., P. O. Harrington, June 25, 1894, one bay horse, 7 or 8 years old, small size, white strip in f.ce, pacer; valued at \$25.

Brown county-J. V. McNamar, clerk. COW-Taken up by Alex Robertson, of Mission p., one roan cow, 8 or 10 years old, white face and

Cherokee county - P. M. Humphrey, clerk Cherokee county — P. M. Humphrey, clerk.

HORSE—T ken up by E. H. Stevens, two and a haif miles north of Empire City, June 29, 1894, one sorrel horse, about 3 years old, blaze face, right front and both hind feet white, shod all around, white spot in right nostril, heavy mane, foretop clipped, sixteen hands high, weight about 1,000 pounds.

MULE—Taken up by J. C. Mowland, in Ross tp., June 13, 1991, one bay horse mule, about 3 years old, fifteen hands high.

MULE—By same, one black mare mule, 2 years old, fourteen hands high.

Logan county-H. G. Kiddoo, clerk. HORSE—Taken up by Samuel West, in Western tp., May 5, 184, one large-boned black gelding, 10 years old, no marks or brands; valued at \$10. MARE—By same, one roan mare, 9 years old, no marks or brands; valued at \$15.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

July 16, 1894.

CATTLE—Receipts. 4.018 cattle: 474 caives. Dressed beef and shipping steers, \$3 52\(\pmu\) 40\(\pmu\) 0.008, against last week's range of \$3 25\(\pmu\) 40\(\pmu\) 0.008, \$1.40\(\pmu\) 270; brills, \$1 55\(\pmu\) 23; heifers, \$1 95\(\pmu\) 230; caives, \$2 75\(\pmu\) 60\(\pmu\) 50; stockers and feeders, \$2 15\(\pmu\) 260; stockers and feeders, \$2 15\(\pmu\) 260; 10dian and Texas caves, \$1 30\(\pmu\) 210; Indian and Texas caives, \$1 75\(\pmu\) 23; Indian and Texas caives, \$4 00\(\pmu\) 52.

HOGS—Receipts, 2.151. Heavy hogs, \$4 67\(\pmu\) 64 71\(\pmu\), against \$4 75\(\pmu\) 5 12\(\pmu\) a week ago; pigs and lights, \$4 70\(\pmu\) 4 72\(\pmu\).

SHEEP—Receipts, 1,912. Lambs, \$2 75\(\pmu\) 35; Texas and New Mexico, \$2 00\(\pmu\) 200.

Chicago.

Chicago. July 16, 1894.

CATTLE—Receipts, 7,000. Grassers weak and Texans duil. Beef steers, \$375@4 80; stockers and feeders, \$2 00@3 10; bulls, \$1 85@3 00; cows,

and reeders, \$2 0000 16, 000. Mixed. \$4 9005 10; \$1 0003 00. HOGS—Receipts, 16,000. Mixed. \$4 9005 10; heavy, \$4 9005 20; light weights. \$4 9005 15. SHEEP—Receipts, 4,000. Dull. Natives, \$1 50 003 35; lambs, per cwt., \$2 50004 40.

July 16, 1894. CATTLE—Receipts, 2,200. Natives slow; better class Texans strong. Top, \$3 15. Native steers, common to best, \$3 50@4 50. HO(8—Receipts, 2,500. Top, \$5 00. Bulk, \$85@4.00. \$4.85@4.90. SHEEP—Receipts, 600. Market steady. Some lambs at \$4.00. Natives, \$2.00@3.25.

GRAIN AND PRODUCE MARKETS.

Kansas City.

WHEAT—Receipts for forty-eight hours, 10,-200 bushels; last year, 87,600 bushels. Millers and elevator men both buying. By sample on track on the basis of the Missisaippi river, local 6c per bushel less: No. 2 hard, 2 cars 59 pounds at 58c, 24 cars 59 to 69 pounds at 58c, 20 cars 60 to 69 pounds at 58k, 1 car poor billing at 52k, 2 cars special billing at 58k, 1 car appecial billing at 56t, 1 car old at 55c, No. 3 hard, 10 cars 57 and 58 pounds at 52c, 1 car at 52k, 1 car at choice at 52k, 1 car choice at 53c, 3 cars poor billing at 50k; No. 4 hard, 1 car at 51c, 1 car at 49c; No. 2 red, 10 cars 60 pounds at 53k, 1 car at 49c; No. 2 red, 10 cars 60 pounds at 53k, 2 cars choice 59 and 61 pounds at 54c, 6 cars at 53k, 2 cars at 58k, 4 cars 60 to 62 pounds at 53k, 2 cars at 58k, 1 car at 49k; No. 2 red, 10 cars 60 pounds at 53k, 2 cars at 58k, 1 car at 49k; No. 2 red, 10 cars 60 pounds at 53k, 8 cars at 58k, 1 car at 49k; No. 2 red, 10 cars 60 pounds at 53k, 8 cars at 58k, 1 car at 50k, 1 car at 50k, 2 cars at 58k, 3 cars 60 to 62 pounds at 53k, 8 cars at 58k, 8 cars at 58k, 1 car at 49k, 2 cars at 58k, 2 cars at 58k, 1 car at 58k, 2 cars at 29k, 2 cars at 29k, 1 car at 28k, 2 cars at 29k, 1 car at 28k, 2 cars at 28k, 1 car at 28k, 2 cars at July 16, 1894.

@28c.
RYE—Receipts for forty-eight hours, 600 bushels; last year, 600 bushels. Dull and weak. By sample on track, on the basis of the Mississippi river: No. 2, 48@49c; No. 3, 46@47c.
FLAXSEED—In fair demand at \$1 11 per bushel upon the basis of pure.
BRAN—Quiet but steady. Bulk, 52c; sacked, 58c ner cwt.

bushel upon the basis of pure.

BRAN—Quiet but steady. Bulk, 52c; sacked,
58c per cwt

HAY—Receipts for forty-eight hours, 450 tons.
Dull and weak. Fancy prairie, \$6 00@6 50; choice,
\$5 50@6 00; low grades, \$4 00@4 50; timothy.
choice, \$9 00@9 50; No. 1, \$5 50; No. 2, \$7 00@8 00;
choice clover. mixed, \$8 00@6 50.

BUTTER—Best table goods in fair local demand; store-packed dull, with packers the only
buyers. Creamery—Highest grade separator,
16@17c per pound; finest grade ream. 14c;
fine fresh, good flavor, 13c; fair to good, 12c.
Dairies—Fancy farm, 12@13c; fair to good, 12c.
Dairies—Fancy farm, 12@13c; fair to good lines,
10c. Country store-packed—Fancy 11c; fresh
and sweet packing, 10c.

EGGS—Receipts light and market a little
firmer. Fresh, 5%c.

CHEESE—Kansas and Missouri, full cream,
8c.

Sc.
POULTRY—Not enough in to make a change.
Values on hens remain firm; springs about steady; not much doing in turkeys and ducks, with supplies light. Hens, per pound, 5c; roosters, 15c each; springs, per pound, 8&9c; turkeys, per pound, 5c; ducks, young, 8c; old, 5c; soslings, 8c; pigeous, per dozen, 90c; veal, choice, 80£100 pounds, per pound, 4½@5c.
POTATOES—Market rather quiet and not a great many in. The movement is confined to home-grown, which sell at 40@45c by the wagon load.

load.

MELONS—A fairly active market is reported and the supplies on hand have been materially cut down. Nice stock sold at \$2 00@2 25, while common went as low as 5c each.

BERRIES—A good run in and selling at \$1 50 @1 75 for the bulk. Plums plentiful and thirds brought 60@75c; half-bushel baskets, 80c@\$1 00; crates, \$1 00@1 25.

PEACHES—There is fair offering, with the

bronght 60g/hc; half-bushel baskets, 50c@\$1 00; crates, \$1 00@125.

PEACHES—There is fair offering, with the stock from Tyler, Tex., in bad shape, owing to the fact that they were on the road too long. Sales made at 75@50c for quarters and 65@75c for baskets.

FRUIT—Apples, fancy, per bushel box, 50@60c; choice, one-half bushel, 25@40c.

VEGETABLES—Jobbing prices: Beans, navy, California, per bushel, \$2 10@2 15; country, \$2 00@2 10; cabbage, per 100 pounds, \$4 00; celery, California, 75c@1 00 per bunch.

EARLY VEGETABLES—Cabbage, homegrown, per pound, 1@1½c; cucumbers, per dozen, 10@20c; beans, per bushel, 30@40c; beets, per dozen bunches, 10@15c; egg plant, per dozen, 30@40c; new corn, per dozen, 10@15c; peas, per bushel box, 60@65c; tomatoes, Misstssippi, four-

basket crate, 75@90c; one-third bushel box, 25@ 30c. New onions, 40@50c per bushel. Squash,

30c. New onions, 40@50c per bushel. Squash, 20@25c per dozen.
BROOMCORN — Hurled, green, 3@34/6 per pound; green, self-working, 24@3e; red-tipped, do., 24@26; crooked, half price. Dwarf, 2@34/6.
GROUND LINSEED CAKE—We quote car lots sacked at \$25 per ton; 2000 pounds at \$25; 1,000 at \$14; less quantities \$1.50 per 100 pounds.
WOOL—Demand fair and prices steady; Missouri and similar—Fine, \$211c; fine medium, 10@12c; medium, 12@14c; combing, 12@15c, coarse, 11@15c. Kansas, Nebraska and Indian Territory—Fine, 7@10c; fine medium, 8@11c; medium, 10@13c; combing, 12@14c; coarse, 920c. Colorado—Fine, 7@10c; fine medium, 8@11c; medium, 10@15c; coarse and carpet, 9@10c; extremely heavy and sandy, 5@7c.
Ohicago.

Chicago. The following table shows the range of prices for active "futures" in the Chicago speculative market for the speculative grades of the commodities. This speculative market is an index of all prices and market tendencies:

	High- est.	Low- est.	Closed July 9.	Closed July 16.
WHEAT—July	43%	56%	58%	58¼
Sept		57%	58%	58
Dec		60%	61%	61
CORN— July		42%	41%	43¾
OATS— Sept	43%	42%	42	48 %
May	39¼	88%	37¼	39 %
July	85¼	85%	37%	35 %
Aug	29½	29%	29¾	29 %
PORK— Sept	12 60	12 50	12 40	12 55
Sept	12 624	12 574	12 65	12 60
LARD— July Sept	6 82%	6 80	6 77%	6 8214
S. Ribs—July Sept	6 5714 6 5714	6 5714	6 5214	6 57%

WHEAT—Cash—No. 2 red, 56c; No. 3 red, 51c; No. 2 hard, nominally, 54%c; No. 3 hard, 53c. CORN—Cash—No. 2, 43%c; No. 3, 42%c. OATS—Cash—No. 2, 35c; No. 2 white, 38c.

St. Louis.

St. Louis.

July 16, 1894.

WHEAT—Receipts, 176,000 bushels; shipments, 1,000 bushels. Fluctuated a little erratically, closing about unchanged. No. 2 red, cash, 52c; July, 52%c; August, 51%c; September, 53%c.

CORN—Receipts, 123,000 bushels; shipments, 68,000 bushels. Gained ½c on crop reports. No. 2 mixed, cash, 39%c; July, 40c; August, 40c; September. 40%c.

OATS—Receipts, 55,000 bushels; shipments, 2,000 bushels. Higher and firm. No. 2 cash, 31c, August and September 28%c.

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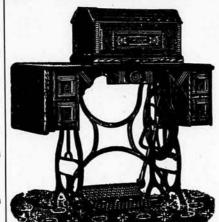
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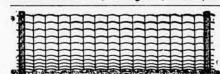


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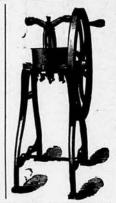


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BREEDERS' DIRECTORY.

(Continued from page 1.)

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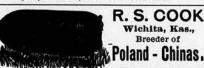


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	Cattle and calves.	Hogs.	Sheep.	Horses and mules	Cars.
Official Receipts, 1893	956,792	1,948,373 1,427,763 10,125	569.517 372,385 71,284	35,097	99,755
Sold to shippers Total sold in Kansas City	360,237	1,948,357	15,200 458,869	22,522	

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