

# KANSAS FARMER

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## BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$8 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.

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

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**VALLEY GROVE HERD OF SHORT-HORNS.** For sale, choice young bulls and heifers at reasonable prices. Call on or address Thos. P. Babst, Dover, Kas.

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

**NEOSHO VALLEY HERD OF SHORT-HORNS.** Imported Lord Lieutenant 120019 at head of herd. Young bulls and heifers for sale. Address D. P. Norton, Council Grove, Kas.

**ROCK HILL HERD OF SHORT-HORNS.** An Elbert & Falls "Waterloo" bull and Norton's "Clipper" Scotch bull "Cupid" head the herd. Ten Scotch and Scotch-topped daughters of the great Linwood "Lord Mayor" and several daughters of C. C. Norton's "Imp. Salamis" included. Young bulls for sale. J. F. TRUE, Newman, Kas. Twelve miles east of Topeka on U. P. railroad.

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**CENTRAL KANSAS HERD OF THOROUGHbred POLAND-CHINA hogs.** C. S. Snodgrass, Galt, Rice county, Kansas, breeds the best. Stock for sale now. Come or write.

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**POLAND-CHINA SWINE and LIGHT BRAHMAS.** Barred Plymouth Rocks, Dark Brahmans, Silver L. Wyandottes, Buff Cochins, Buff Leghorns. Eggs, \$1 per setting. A. M. RICHARDSON, Altoona, Kas.

**G. F. GLASS, Marion, Kas.,** breeder of thoroughbred Jersey cattle, Poland-China and Large English Berkshire hogs, M. B. turkeys, B. P. Rock and S. C. White Leghorn chickens, peacocks, Pekin ducks and Italian bees.

**KANSAS HERD OF POLAND-CHINA SWINE.** Headed by a Black U. S. boar by a Tecumseh U. S. sow. Twenty sows bred to him for March farrow. Also eight May and June boars for sale, and one Tecumseh show pig. I have thirty-eight Klever's Model pigs that show fine markings. Address F. P. Maguire, Haven, Kas.

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## BLACK LANGSHANS EXCLUSIVELY

EGGS. Breeding and show stock with score-cards. J. C. WITHAM, Cherryvale, Kas.

**PARTRIDGE COCHINS.** I took all premiums on Partridge Cochins at Hutchinson show. Hens score 90 to 94. Headed by Mitchell cockerels, 90%, 91% and 92. Eggs \$1 per 15. J. W. Cook, Hutchinson Kas.

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Thoroughbred poultry for sale at reduced prices. Also free with each shipment recipe for making cheap Lice Killer Paint. Correspondence solicited. P. O. Box 60. White 'Dotte Poultry Yards, Mrs. V. Odell, Prop'r.) Wetmore, Kas.

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**AT FARMERS' PRICES.** Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Light Brahmans, Silver Wyandottes, Black Javas, S. C. Brown Leghorns White Leghorns, Buff Leghorns, Silver-Spangled Hamburgs, White Guineas, Pearl Guineas and Buff Turkeys. Single birds, pairs, trios and breeding pens. Our stock is from the leading breeders and prize-takers of the country. Birds from \$1 up. Eggs \$1 per 13; \$5 per 100. Recipe for "Liquid Lice Killer" free with each order. (Enclose stamp.) A. H. DUFF, Larned, Kas.

### SWINE.

## BOURBON COUNTY HERD BERKSHIRES.

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## Thoroughbred Duroc-Jersey Hogs

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

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

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

## SELECT HERD OF BERKSHIRES

For ten years winners at leading fairs in competition with the best herds in the world. Visitors say: "Your hogs have such fine heads, good backs and hams, strong bone, and are so large and smooth." If you want a boar or pair of pigs, write. *Ship from Topeka.* G. W. Berry, Berryton, Shawnee Co., Kas.

## T. A. HUBBARD,

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

## Mound Farm Herd of Poland-Chinas.

100 head. Foundation stock, Tecumseh. Boars in service, Tecumseh Joe 13444 S., Chief 13840 S., Butler Wilkes 17764 S., U. S. Tecumseh 17850 S., 15 fall gilts, 30 spring pigs, 30 summer pigs. Inspection and correspondence invited. H. E. Bachelder, Fredonia, Wilson Co., Kas.

## Verdigris Valley Herd Poland-Chinas.

125 head. The best individuals and most popular strains that money and judgment could buy and experience breed. Thirty choice spring pigs both sexes, by Black Stop Chief 16316 S., he by the great breeding boar Black Stop 10550 S., a son of the World's Fair winner, Short Stop. Write or visit us. WAIT & EAST, Altoona, Wilson Co., Kas.

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Herd boars, Gold Standard Wilkes by Guy Wilkes 2d 17777 S. and Ideal Quality by Darkness Quality 2d 14361 S. Brood sows, Tecumseh, Black U. S. and Wilkes. Thirty spring pigs, both sexes, ready to go. Farm two miles north of Welda. J. M. COLLINS, Welda, Anderson Co., Kas.

## BLUE RIBBON HERD PURE POLAND-CHINA SWINE

and Barred Plymouth Rock chickens. Tecumseh Short Stop 14750 at head of herd, assisted by Hadley Jr.'s Equal 15119 and King Tecumseh 16307. One hundred choice pigs for sale. Farm located three miles southwest of city. Calls or correspondence invited. R. H. WHEELER, Lawrence, Kas.

### SWINE.

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

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

## 60-Poland-China Fall Pigs—60

Both boars and sows, for sale reasonable. Sired by the noted Nox All Wilkes, Highland Chief by Chief Tecumseh 2d, and Look at Me by Look Me Over. Three fine young sows safe in pig for sale. Plymouth Rock eggs out of high-scoring birds, \$1.25 for fifteen. DIETRICH & SPAULDING, Richmond, Kas.

## Kansas City Herd Poland-Chinas

The future villa of Hadley Jr. 13314 O., the greatest boar of his age. I have pigs for sale now by Hadley out of Tecumseh Mortgage Lifter 32649 S. Order quick and orders will be booked as received. Farm nine miles south of Kansas City, on Fort Scott & Memphis R. R. Postoffice Lenexa, Kas. W. P. GOODE, Proprietor, Lenexa, Kas.

## Standard Herd of Poland-Chinas

A choice lot of yearling sows for sale, sired by Ideal U. S. (he by Ideal Black U. S.) and King Dee (he by What's Wanted Jr.) Also some good young males large enough for service and young gilts ready to breed, sired by Ideal U. S. The yearlings will be bred to Tecumseh Chief, he by Chief Tecumseh 2d. Prices right. WM. MAGUIRE, Haven, Kas.

## Nation's Poland-Chinas.

Fifty boars and gilts for this season's trade. My herd boars consist of Darkness Quality 14361, Princeton Chief 14543, Col. Hidestretcher 37247 and Standard Wilkes. My sows are splendid individuals and of the right breeding. Personal inspection and correspondence invited. LAWRENCE NATION, Hutchinson, Kas.

## BLUE MOUND HERD BERKSHIRE SWINE.

Herd boars, Victor Hugo 41799 (sire imp.), Barkis 30040 (weight 300 lbs.), Prince Jr. 17th. from World's Fair winner. Forty-eight spring and summer pigs for sale. Also breed choice B. P. Rock chickens. Write. Allen Thomas, Blue Mound, Linn Co., Kas.

## PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE

Westphalia, Anderson Co., Kas. Breeder of high-class pedigree Poland-China swine. Herd headed by Lambing's Ideal. Sixty spring pigs for this season's trade, sired by herd boars King Perfection and Tecumseh's Grand out of sows by Chief Tecumseh 2d. Free Trade, Black U. S., etc. Write. E. A. BRICKER.

## ESTABLISHED 1882. SERVICE FEE \$50. KLEVER'S 1st MODEL 18245 S.

Sired by Klever's Model 14694 S., the \$5,100 king of boars; first dam Graceful Maid (43851); second dam Graceful F. 3d (28670), litter sister to Old Look Me Over 9011, the \$3,000 boar. This gives Klever's 1st Model all that could be asked in breeding and sale ring backing. He is black as ink, low down, deep and broad, extra head and ears. His get follows the pattern perfectly. He will be assisted by other good boars in service on thirty matured sows of modern type and breeding. I sell nothing but tops; keep my knife sharp for culis. Free livery at Roberts' stables. F. W. BAKER, Council Grove, Morris Co., Kas.

## COUNCIL GROVE HERD POLAND-CHINA SWINE.

Herd boars are H's World's Fair No. 2 11930, grandson of Seldom Found 7815, Klever's Model 3d 19789, King Hadley 15057 (C). This hog is not only a show hog, out a prize-winner, breeding Hadley Blood. One Price Imitation, Guy Wilkes 2d, Black U. S., L's Tecumseh and Chief Tecumseh 2d. Did you ever see such a combination? Where can you get more of the blood of the great sires combined in so grand an individual? Choice gilts and fall pigs for sale. W. F. Shamleffer, Council Grove, Kas.

## GROUND LINSEED CAKE (OLD PROCESS)

For stock of all kinds. Write for prices. Manufactured by the KANSAS CITY WHITE LEAD & LINSEED OIL CO., 24th & Broadway, KANSAS CITY, MO.

### SWINE.

## SHADY BROOK POLAND-CHINAS STOCK FARM.

H. W. CHENEY, Prop., NORTH TOPEKA, KAS. Cheney's Chief I Know, assisted by Model Hadley, at head of herd. Topeka is the best shipping point and my stock the best kind to buy. When in Topeka call at 1182 N. Harrison St. and be shown stock.

## FRANKLIN COUNTY HERD POLAND-CHINA SWINE.

To champion herd of the big fair at Ottawa, 1897. Herd headed by Chief Editor 17936, assisted by Tecumseh Short Stop 14750 and an extra young boar, High Hadley. Twenty-five sows and gilts for sale, bred to the above-named boars. Call or write ED. T. WARNER, Princeton, Franklin Co., Kas.

## MILES BROTHERS' HERD Registered Poland-Chinas.

Peabody, Marion Co., Kas. We have for sale now some choice fall pigs by Miles' Look Me Over and out of a full litter sister to Corwin Sensation, that sold February 2, 1898, at Mr. Wren's sale for \$167.50. Also some nice ones by Hadley Corwin Faultless, and by a son of Chief Tecumseh 2d. We can suit you in quality and price. Write us.

## HIGHLAND FARM HERD PEDIGREED POLAND-CHINAS.

Herd headed by Corwin I Know, a son of the noted Chief I Know 11992 S. Corwin I Know won second as a yearling at Iowa State fair in 1897. Weighed 600 pounds at 13 months. Assisted by Hadley U. S., a son of Hadley Jr. 13314 S.; dam by Mosher's Black U. S. 25 Brood Sows—Klevers' Model, Look Me Over, Chief I Know and What's Wanted Jr. breeding. Inspection and correspondence solicited. John Bollin, Kickapoo, Leavenworth Co., Kas.

## PURE-BRED POLAND-CHINA SWINE

Brood sows by Wren's Medium, Hadley M. Washington, Protection Boy and Darker 1st 38753 in this herd. Tanner 19212, a son of Gen. Hidestretcher by the famous Hidestretcher, now heads my herd, and a finer breeder and individual is not in Kansas to-day. I need not comment on Tanner's breeding, nor on that of my brood sows. Pigs by One Price Medium 2d 18306. Prompt attention given to all inquiries. Prices reasonable. J. R. WILLSON, Marion, Kas.

## Mains' Herd Poland-Chinas

Headed by the three grand breeding boars, Model Combination—his sire was J. D. Model, he by Klever's Model 14694 out of McKelvey's Lass 42107; his dam Lady Chief 42919, she by Chief Tecumseh 2d 9115 and out of Ralph's Fat 42788; One Price Chief 33615—she by Royal Chief's Best and out of Bell O. 74594. The sows are all selected and equal in breeding and quality to any. A few sows bred will be offered. Young males and gilts ready. Satisfaction guaranteed. James Mains, Oskaloosa, Jefferson Co., Kas.

## 150 PIGS FROM PREMIUM CHESTER WHITE.

stock; choice breeding, good length, bone and ham. Pairs and trios not akin from five grand boars and twenty-five sows. Special offering now of best breeding. Also B. P. Rocks and Buff Cochins for sale from best strains. Prices right. J. C. CANADAY, Bogard, Carroll Co., Mo.

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FLOWER SEEDS.  
Catalogue for 1898 Free.

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**J. G. Poppard** MILLET CANE  
1400-2 Union Avenue, CLOVERS  
KANSAS CITY, MO. GRASS SEEDS. TIMOTHY

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**"OLD PROCESS" GROUND LINSEED CAKE**

It is the best and cheapest feed used. It makes more fat, of a better quality, does it quicker, and costs less than any other feed. Fed alone or mixed with wheat, corn, oats or bran, it makes good, lasting flesh. It regulates the bowels, keeps the skin loose, and the hair soft and glossy. It will quickly fatten horses, cattle, cows, sheep, hogs and poultry. Send us a trial order.  
**FREE** For a 2-cent stamp to cover cost of postage, we will send you one of our handsome 1898 steel-engraved, gold-embossed "F" calendars. Our "F" calendar is a beauty.  
**TOPEKA LINSEED OIL WORKS, TOPEKA, KANSAS.**

**SEEDS**

**ALFALFA SEED A SPECIALTY,**  
Choice Cane and Millet, Kaffir, Spring Wheat and Jerusalem Corn, White Hullless Barley, Seed Oats, Full particulars and book, "How to Sow Alfalfa," free.  
**McBETH & KINNISON, Garden City, Kansas.**

**VERNON COUNTY HERD OF REGISTERED POLAND-CHINAS.**

125 head in herd. Herd boars, King Hadley 167868, and Turley's Chief Tecumseh 2d 17978 S. Ten Choice Glits sired by King Hadley 167868 S., the second prize boar in Missouri, and bred to Turley's Chief Tecumseh 2d 17978 S., at \$15 to \$20 each. Must have room for coming pig crop.  
**J. M. TURLEY, Stotesbury, Vernon Co., Mo.**

**R. S. COOK, WICHITA, KAS., Poland-China Swine**

**BREEDER OF**  
The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28808, World Beater and King Hadley. For Sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

**Sir Charles Corwin 14520 and Darkness Wilkes 18150**  
**HEADS OF HERD.**

We have been in the show ring for the last three years, always winning the lion's share of the premiums. If you want prize-winners and pigs bred in the purple, we have them. All ages of Poland-China swine for sale. Write or come and see us. We have an office in the city—Rooms 1 and 2, Firebaugh Building.  
**ELM BEACH FARM, Wichita, Kas.,**  
**C. M. IRWIN. S. C. DUNCAN, Supt.**

**IF YOU ONLY KNEW 1900**  
The Price of a Good Horse in 1900



You would buy some good breeding stock now. While our herd is not so large as formerly, we still have the finest collection of  
**Percheron and Coach Horses**  
In the West. Prospects never so bright. Prices never so low.  
All Ages. Either Sex. Choice Colors.  
**HENRY AVERY, WAKEFIELD, KANSAS.**

J. W. ROBERTSON, Gen. Mgr. J. W. BARNHILL, Saddle Horses. D. H. ROBERTSON, Harness Horses.

**J. W. ROBERTSON & CO.'S**  
**14TH SPECIAL BLUE RIBBON SALE!**

Fancy Saddlers, Speed Horses, with and without records, Road Horses, Coachers, Pairs, Knee Actors and Cobs.  
**TWENTY-THIRD AND GRAND AVENUE HORSE AND MULE MARKET, KANSAS CITY, MO., APRIL 6, 7 and 8, 1898.**  
This will be the grandest sale ever held in the West. It will be the best time and place to sell your high-class business, road and speed horses of all kinds. Entries close March 15, 1898. Send for entry blanks, fill out and return at once to Col. Jas. W. Sparks, Auctioneer. **J. W. ROBERTSON & CO., Marshall, Mo.**  
We will also hold sale at same place, May 25-26-27, 1898, of first-class Business, Pleasure and Speed Horses.

**DISPERSION SALE OF HIGH-CLASS**  
**ABERDEEN-ANGUS CATTLE**  
South Omaha, Neb., Tuesday, March 8.

I will sell my entire Highland herd, consisting of eight bulls and thirty-four cows and heifers, including the wonderful young stock bull AXTELL OF ESTILL #3688, probably the best bull ever bred by Mr. Estill. He was sired by Heather Lad 2d, the great Columbian prize-winner and sire of the Woodland champions, and his dam is full sister to the celebrated Abbess of Turlington, champion cow at the Columbian Exposition. All females old enough will be in calf to this bull and some have calves at foot by him and bred back to him. Included also are nineteen Queen Mothers, bred along same lines as the noted Queen Mother #825 bull, Gay Lad, champion of 1895 and 1896; twenty Alices, which family has been brought to a high state of perfection at Highland; one Trojan Erica cow and bull calf, the cow a granddaughter of Eone, that Ballindaloch's owner received \$2,500 for.  
Rarely, if ever, was there such an opportunity presented to purchase breeding animals where you can see their calves, their dams and granddams. Five generations will be seen and sold, and it is with pride that I invite all interested in the production of a superior beef animal to attend the sale and see what I have accomplished. Catalogue ready and sent on application to  
**COL. F. M. WOODS, Auctioneer. T. J. McCREARY, Proprietor, Highland, Kansas.**

**110 HEREFORD CATTLE AT AUCTION 110**

**50 A GRAND DISPERSION SALE--FIFTY HEREFORD CATTLE 50** **60 PUBLIC SALE OF HEREFORD CATTLE 60**  
The very choice collection known as the Sycamore Springs Herd.  
**At Kansas City, Mo., Tuesday, March 15, 1898.**

This offering includes herd bulls, foundation cows, young bulls and heifers, and contains the foundation draft purchased of T. F. B. Sotham at his public sale in 1894, which draft of fourteen head included five members of his very successful young show herd, very favorably known to visitors at the State fair circuits, also the draft from Makin Bros.' famous World's Fair herd. This foundation with produce contains animals of proven usefulness, whose breeding and individual merit cannot now be found for sale at any price except at an actual dispersion sale.  
For catalogues and other information concerning the offerings and sale, address  
**Col. F. M. Woods, Auc., Lincoln, Neb. H. M. HILL, La Fontaine, Wilson Co., Kas.**  
**JAS. A. FUNKHOUSER, Plattsburg, Mo. Col. J. W. Judy, Auctioneer, Tallula, Ill.**  
**GUDGELL & SIMPSON, Independence, Mo.**

**MILLET SEEDS**

and CANE  
**LANDRETH'S GARDEN SEEDS.**

**T. LEE ADAMS,**  
Clover, Timothy, GARDEN TOOLS, 417 Walnut St., Blue Grass Seeds. Kansas City, Mo.  
**POULTRY SUPPLIES.**

—Free Catalogue of Fresh Kansas Seeds—  
Now ready. Send for one to **KANSAS SEED HOUSE, F. BARTELDES & CO. Lawrence, Kas.**

**Bulls--Aberdeen-Angus.**

Seven head of choicest breeding and individually twenty to thirty-six months old. In fine condition. Weights 1,200 to 1,600 pounds. Prices reasonable.  
**WM. B. SUTTON & SON, Russell, Kas.**

**SILVER CREEK HERD**  
**SHORT-HORN CATTLE.**

Scotch and cotch-topped, with the fleshy-bred Champion's Best 11471 in service. Also high-class DUBO-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.  
**J. F. STODDER, Burden, Cowley Co., Kas.**

**PURE-BRED SHORT-HORNS.**

I have for present sale thirteen pure-bred Short-horn bulls old enough for service, including my herd bull, Imperial Knight 119609, a pure-bred Cruickshank, which I can now spare. I have also twenty cows and heifers bred or will have calves at foot, all of my own breeding. For sale at reasonable prices. **John McCoy, Sabetha, Kas.**

**DEER PARK FARM.**

**H. E. BALL, Proprietor.**  
Registered Jersey cattle. Young bulls and heifers for sale.  
Registered Poland-China swine. Young boars for sale.  
Farm two miles east of Topeka on Sixth street road.  
**T. P. CRAWFORD, Mgr., Topeka, Kas.**

**ROSE CREEK FARM**  
**JERSEY CATTLE**  
and POLAND-CHINA SWINE.

Our SILVER WYANDOTTES and Mammoth Bronze Turkeys are from premium stock. Write us if you want the best. (Farm in Republic Co., Kansas.)  
**H. WOODFORD, Mgr., Chester, Neb.**



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



**MARK STOCK WITH JACKSONS EAR TAGS.**  
Always Bright, Cant Come Out, Always Satisfactory.  
**JACKSON, ST. FRANCIS, ARK.**  
NORTH TOPEKA, KAS., Nov. 11, 1897.  
**Geo. M. Jackson**—Send me some more ear-markers. They are the best of all kinds I ever tried, and I am sure I have used all ever gotten up. I have the first one to lose out of ear yet, and they are so handy to put in.  
**O. P. UPDEGRAFF, Secretary Kansas Swine Breeders' Association.**

**2806 lbs.**  
weight of two of the

**Famous O I C Hogs.**  
We Sell one pair of them and give agency On Time to the first applicant in each locality. Description free. We ship to all States and foreign countries.  
**L. B. SILVER CO.**  
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**OAKLAWN FARM**



**350 Percherons**  
—AND—  
**French Coachers**

Stallions and Mares of highest type on hand at present time.  
**90 Stallions Old Enough for Service.**  
Good colors, large size and best of breeding. 18 of them imported in 1896. No man wishing to buy can afford to miss seeing this collection. Oaklawn Farm meets all trains. Separate catalogue for each breed. Say whether Percheron or French Coach is wanted.  
Address **M. W. DUNHAM, Depago Co., ILL.**  
40 Holstein heifers and bulls for sale; heaviest combined milk and butter families of the breed. Prices reasonable.

**SAVED FROM HOG CHOLERA**

Many farmers in the West, where hog cholera rages most, have saved their hogs  
**BY USING McCLEERY'S HOG CHOLERA PREVENTIVE.**  
Mixed with the feed it gets into the blood and destroys all cholera and disease germs, kills stomach and intestinal worms, regulates the bowels and stomach and promotes good health.  
**Free Trial Package** Enough to treat 2 hogs mailed for 15c, so pay postage. One dollar's worth will treat ten average cases. Price circulars and testimonials.  
**T. C. McCLEERY, M. D., EXETER, NEB.**

**A SIRE IS NOT TRULY GREAT**

whose offspring fade in comeliness as their veal turns to beef. T. L. Miller said: "The fattest calf is the best." But that was a gross error, for though fat hides a multitude of faults, it cannot create, cover up, nor add to refinement and character.  
I invite a comparison of the get of **CORRECTOR 48976**, of all ages, from one day to maturity, with those of similar stages of development, the get of other sires. Judged by his get, developing and matured, and the latter's ability to "breed on," **Corrector** marks a new era in Hereford breeding. Thirty of his get in my annual sale, **APRIL 13.**  
**T. F. B. SOTHAM,**  
Weavergrace Breeding Establishment, Chillicothe, Mo.  
N. B.—I shall be in attendance at each of the grand lot of public sales provided by other Hereford breeders. Bids entrusted to me will be executed on my fixed terms. Blank contracts mailed on application.

## Agricultural Matters.

### SOME THOUGHTS ON CORN-RAISING.

By David W. Matsler, of Chanute, Kas., read before Allen County Farmers' Institute, February 3, 1898.

Corn-raising in Kansas is one of the most important industries we, as an agricultural class, are engaged in.

I shall not go into the details, but will say that a full corn crop means plenty of beef, pork, mutton, hominy corn, prosperity and contentment, and a contented people should be happy. A short corn crop means disappointment, hard times and business depression that will affect all classes of industry.

I want to say that I am firmly of the opinion that we have not attained the highest degree of proficiency in corn-raising. It has been said that he who makes two blades of grass grow where but one grew before is a benefactor. The average yield of corn in our State is around twenty-seven bushels. If the average can be increased, surely that would be a benefit. This can be done by proper culture of the soil and a correct method or system of planting.

We have depended too much upon surface conditions necessary to plant life and too little upon soil conditions. In our State we are more or less subject to drought during the crop season. In order to obtain a better yield of corn we must observe soil conditions. Never plow or plant when land is wet. It kills the soil, makes a hard seed-bed and retards the development of the corn plants. Proper culture of the soil will mitigate the effects of drought.

Soil culture means plowing, harrowing and cultivating. Plow at least eight inches deep, as the deep-plowed soil will hold moisture better. By chemical analysis it has been demonstrated that the larger per cent. of the elements necessary to plant life have accumulated in the top four inches of the soil at the end of the season. By plowing eight inches deep we have turned the best portion of the soil down four to eight inches below the surface.

In order to obtain good, thrifty corn plants, the seed must be planted in the zone that contains the greatest amount of plant life and moisture. To accomplish this we must remove the top three inches of the soil from seed row and thoroughly pulverize seed-bed in bottom of furrow.

Plant seed one and one-half inches deep and compact the soil to conserve the moisture. Corn planted in this way has all the advantages in a given soil. It is protected from the bleak winds, admits the sun's rays to warm it to birth, hastens germination, has not exhausted all the strength of the mother kernel to reach the surface, and breathes into life. The feeder roots start in the zone that contains the necessary elements to plant life, and below the point to which the surface soil should be cultivated. The result is that it will develop faster and stronger than surface-planting or listing, and will reach the stage of earing earlier than would that planted otherwise, using from the same variety of seed. The plant in the position described has stronger feeders and the base of the plant is far enough below the surface so that the circle roots strike directly into the soil, and as the furrow is gradually filled up by cultivation, the plants continue to increase their circles of roots. By this method 90 to 100 per cent. of the roots have a firm hold in the soil and are thus enabled to withstand drought and wind storms better than the surface planting, which fails to send more than 40 to 60 per cent. of the circle roots into the soil.

I have followed the open furrow system, as outlined above, during the last four seasons, and have obtained better results than during any like period in twenty-five years' experience in Kansas, and am firmly of the opinion that stubble land intended for corn should be plowed shallow in the fall, thoroughly pulverized in spring and replowed. Land that had corn the last season, on which it is intended to follow with corn, should be cultivated or disked and harrowed before planting, that is, where it has been pastured or otherwise compacted. By this method the soil is made more congenial to plant life, easier to handle in cultivating, and we obtain better results. I do not believe there is anything gained by winter plowing, and would prefer early fall and spring plowing.

Do not harrow before planting, unless very cloddy or surface has become compact. When corn is large enough use slant-tooth harrow. If too dry to thoroughly pulverize, put on roller and follow with harrow. After this use a two-horse cultivator. Use large shovels next to corn row, narrow ones outside;

use open fenders. Never use narrow shovels next to corn, as they are liable to slip into the root zone and rob the plants of their feeders. Work center thoroughly and but little soil to corn plants. For second cultivation, raise inside shovels above root zone and in a position to throw the soil from row; bring shovels in as close to plants as possible. By this method obnoxious weeds are cleaned out. After this keep shovels six to eight inches away on either side of corn. Cultivate shallow—three to four inches deep; work soil back around plants.

### Planting of Kaffir Corn.

Editor Kansas Farmer:—As Kaffir corn is going to be one of the principal crops of Kansas and the acreage is increasing yearly, it is appropriate that the best methods of planting, along with other requirements, should be thoroughly discussed, so that the best methods for any particular section of the State may be set forth and clearly outlined.

On our farm, in Chase county, we have had several years' experience in planting Kaffir corn, and I have observed methods employed by others in this vicinity.

First of importance is the obtaining of seed, the vitality and germinating power of which is unquestioned. To say that is similar to Indian corn in the preservation of these qualities is going too far. Quite frequently it would be more advisable to buy seed from some reliable seed firm rather than experiment with seed purchased from some farmer merely because he may have the seed and who may be unacquainted with the variety and has allowed it to lie exposed all winter or placed it in too large piles at the time of cutting.

It should be planted as soon as the danger of frost is over—probably about the middle of May; for should it happen to frost later than this it is not likely that it would be much above ground, if any. The mistake is made by many nearly every year—sometimes on account of not getting good stands at first and sometimes otherwise—of planting too late and then letting the frost ripen it instead of having ample time to mature during the growing season.

As to the best methods of planting, there seems to be a good deal of discussion, some advocating listing, others surface planting. The certainty of getting good stands at first with Kaffir corn is of great importance, for otherwise it may not reach maturity, if replanted. For this reason I have found surface planting to be preferable on several accounts. Plowing can be deferred until just before seeding, thus giving the weeds a chance to start, when they can be effectively destroyed. Listing at such time or earlier facilitates the growth of weeds on the sides of the ridges, and any one familiar with the slow growth of Kaffir corn at first knows how difficult it is to remove the weeds when it is yet very small in the listed trench. With surface planting, small eagle claw cultivating attachments can be applied to ordinary cultivators and close cultivating can be secured. Surface-planted Kaffir corn also grows faster than listed. One essential drawback to listed Kaffir corn is that the soil is not usually sufficiently well pressed about the seed to obtain the best results in germination with the ordinary lister in dry times. Even the more hardy varieties of Indian corn sometimes fail to germinate and sometimes dry out after sprouting, on account of the coarse granulation of the soil grains at the bottom of the listed furrow inducing too extensive aeration. Another noteworthy drawback to listed Kaffir corn is that should heavy washing rains occur in two or three weeks after listing, which is apt to occur at this time of the year, there is increased liability of its becoming submerged with washed soil, which may become baked, effectually destroying the young plants.

In using a shoe press drill, the best implement I know of for surface planting, removing all the shoes except the middle one and the two outside ones on a thirteen-shoe drill, making the rows three feet apart, fifteen acres can be conveniently planted per day, at suitable depth.

While there may be a possibility of getting an occasional larger crop by listing, on account of its increased resistance to drought, it certainly increases the disadvantage of future plowing of the stubble, and Kaffir corn usually stands drought well enough, even when surface-planted, if too much seed is not used.

ALBERT ROGLER,  
Matfield Green, Kas.

The celebrated remedy, Salvation Oil, is recommended by experienced veterinary surgeons as just the thing for the stable and cattle yards.

## A Cougher's Coffers

may not be so full as he wishes, but if he is wise he will neglect his coffers awhile and attend to his cough. A man's coffers may be so secure that no one can take them away from him. But a little cough has taken many a man away from his coffers. The "slight cough" is somewhat like the small pebble that lies on the mountain side, and appears utterly insignificant. A fluttering bird, perhaps, starts the pebble rolling, and the rolling pebble begets an avalanche that buries a town. Many fatal diseases begin with a slight cough. But any cough, taken in time, can be cured by the use of

## Ayer's Cherry Pectoral.

More particulars about Pectoral in Ayer's Curebook, 100 pages. Sent free. J. C. Ayer Co., Lowell, Mass.

### Good Roads Will Save Big Money.

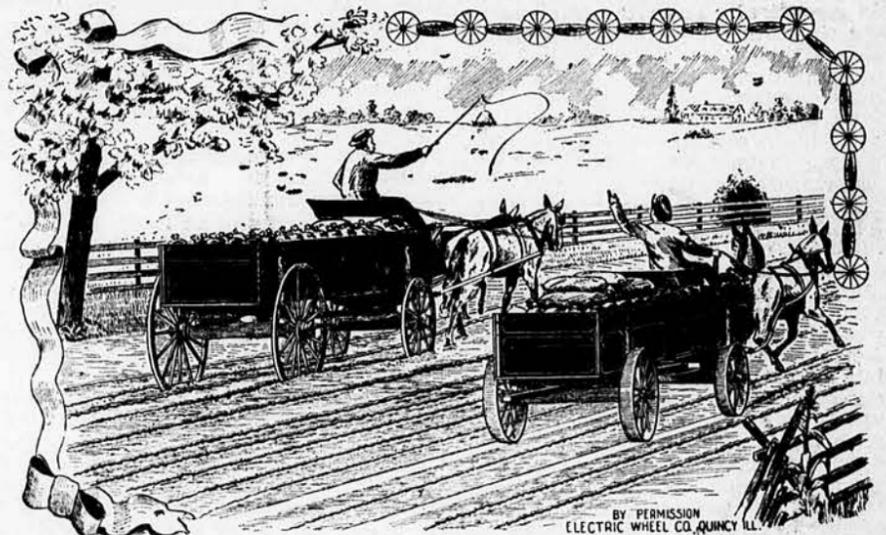
The Electric Wheel Co. submits the following estimates:

"The average cost of moving a ton one mile over our country roads is 25 cents, and to move a ton ten miles it will cost \$2, or 20 cents per mile, and this does not include the driver's time. The average distance of our farms from their local market or mill is ten miles. The average price of wheat on the farm is 10 cents less than it is at the local mill or market. This seems to indicate beyond all doubt that the average cost of transporting wheat from the farm to the nearest market is 10 cents per bushel, and this is about 20 per cent. of the price of wheat at the average local mill.

"Now it costs 10 cents a bushel to haul this wheat because the roads are poor, and if the roads were good the average cost of hauling would be cut in two and thus 10 per cent. would be saved to the farmer. This saving would not only apply to wheat, but everything the farmer sells or buys. It is fair to say that the saving made by good roads in a

mined by means of self-recording dynamometer. The beneficial effect of the wide tire on dirt roads is strikingly shown in some recent tests at the station. A clay road, badly cut into ruts by the narrow tires, was selected for the test, as presenting conditions least favorable to the broad tire. A number of tests of the draft of the narrow tire were made in these open ruts, and immediately followed by the broad tires running in the same ruts. The first run of the broad tires over the narrow ruts was accompanied by an increased draft; the second by a draft materially less than the original narrow tire, third by a still greater decline, and in the fourth trip the rut was practically obliterated and filled. In another trial, when a clay road was so badly cut into ruts as to be almost impassable for light vehicles and pleasure carriages, after running the six-inch tires over this road twelve times the ruts were completely filled and a first-class bicycle path made.—Columbia Herald.

"Put wide tires on your wagon. You can buy wheels of steel or wood to fit your wagons with these wide tires at



few years would be sufficient to give every farmer an asphalt pavement from his front door to the nearest market.

"The total amount of farm products sold in this country annually is about \$3,000,000,000 and the amount of purchases made by the farmer is about \$1,500,000,000, hence good roads will save 10 per cent. on these amounts, or \$4,500,000 annually to the American farmer. The best road machines in the world are wide tires. They take the place and render almost unnecessary the road-scraper, etc. The narrow tires cut the best roads to pieces in a short time and make the bad roads worse. The wide tires improve and preserve the good roads and make bad roads into first-class highways.

"Elaborate tests of the draft of wide and narrow tired wagons have just been completed by the Missouri Agricultural College Experiment Station, Columbia, extending over a period of a year and a half. These tests have been made on macadam, gravel and dirt roads in all conditions, and also on the meadows and plowed fields of the experimental farm. Contrary to public expectation, in nearly all cases draft was materially lighter when tires six inches wide were used, than with tires of standard width. The load hauled was in all cases the same, and the draft was most carefully deter-

reasonable prices, and the Electric Wheel Co., of Quincy, Ill., who have kindly loaned the cut shown in this article, have a book called "Preservation of Farm Profits," which they send free to any one upon application, which is full of information on this subject."

### How Fast Does Your Mill Grind?

Editor Kansas Farmer:—I see quite a number of sweep grinders advertised in this paper, and all of them seem to be the very best. Now, my friend farmers or feeders, it is evident that some of those grinders are grinding faster than others, and the best are not grinding too fast. Those of you having a mill grinding fast, please measure one bushel of shelled corn in the hopper, and then start your team and count the rounds they make in grinding that bushel of corn, and let me know through this paper. Of course, between grinding coarse or fine there is quite a difference; but I will say, grind it just the same as you like it to feed cattle. I would rather pay \$35 for a mill that will grind one bushel of corn in eight rounds than \$25 for one that will have to make twelve rounds to do the same work. I am thinking of buying a new mill and I would like to buy the very best.

Hutchinson, Kas.

D. E. MAST.

## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

FEBRUARY 25—Jos. R. Young, J. D. White, S. M. Smook and J. M. Turley, Poland-Chinas, Nevada, Mo.  
 FEBRUARY 26—Jno. Braselton & Sons, Poland-China brood sows, Wathens, Kas.  
 MARCH 2-3—C. S. Cross, Herefords, Emporia, Kas.  
 MARCH 4—T. J. McCreary, Aberdeen-Angus cattle, South Omaha, Neb.  
 MARCH 16—Jas. A. Funkhouser, Gudgeon & Simpson, Herefords, Kansas City, Mo.  
 MARCH 17—W. T. Clay-H. C. Duncan, Short-horns, Kansas City, Mo.  
 APRIL 12—T. F. B. Sotham, Herefords, Chillicothe, Mo.  
 APRIL 15—Scott & March, Herefords, Belton, Cass Co., Mo.  
 APRIL 28—M. J. Bagley, Short-horns, Kansas City, Mo.

### TUBERCULOSIS.

Abstract of a lecture by Dr. James Law, Professor of Veterinary Science at Cornell University, delivered at Kansas State Agricultural College, upon the occasion of the slaughter of tuberculous animals of the college herd.

I will preface my remarks with a statement of the results of the post-mortems to-day. All of the animals destroyed have been tested at least twice; once in January of the present year, and once again in the past week or two. At each test, all of these animals responded, giving a rise of temperature that indicated that they were subjects of tuberculosis more or less pronounced. The result of the examination of the bodies has fully indorsed the result of the second test by tuberculin. Every animal examined was unmistakably and unequivocally tuberculous; and the disease was not merely a thing of yesterday, but showed plainly that it had been in existence for several months, probably even before the original test in January. I will read the record.

[The record appeared in the Kansas Farmer, October 23, 1897.]

Every case fully substantiated the testimony of the tuberculin test.

### TUBERCULOSIS AN OLD, CONTAGIOUS DISEASE.

I will now ask attention to the general subject of tuberculosis, and would disabuse the mind of any one of the impression that this is a new disease. I find some Kansas people who think we are dealing with a new contagious fever. It is an old disease, as old as we have. It is recognized in human beings as consumption, decline, phthisis, and by other names under which the disease has gone in time past. There is nothing more to be feared from it now than in the past. At the present time we recognize the disease as contagious. It was not always so recognized. From the thirteenth to the sixteenth centuries we find all over Europe this disease was recognized as essentially contagious, and laws were enacted against its propagation. These laws remained in force in central Europe until comparatively recent dates, and are in force still in Italy and some other southern countries.

In the present century or shortly before its beginning the idea of contagion in this disease died out. Attention was drawn to its supposed hereditary nature and it came to be recognized, truly enough, as running in families. So much was this the case that when, in 1865, Villemant began to inoculate the disease into animals and so to produce it, physicians generally turned against him, and utterly refused to receive his results. I remember a man as prominent as Burden Sanderson, of London, physician to the consumption hospital at Brompton, saying it was quite evidently a mistake, because he and his fellow physicians had been for a great length of time attending daily on the patients in the Brompton hospital; of the nurses in attendance some had grown old, and a number of them were forty and over; if it were contagious they must certainly have contracted the disease. Sanderson went to work, with his customary energy, to disprove Villemant's results, and at first he thought he was disproving; but the more he experimented the more he came to think that Villemant was right, and came around to think the disease was a pure contagion.

This truth became more and more plain, and when Robert Koch, of Berlin, discovered and cultivated the bacillus of tuberculosis, and transmitted it back to animals in large numbers, there could be no further dispute.

### TUBERCULOUS MEAT AS FOOD.

Meanwhile experiments in feeding were carried on by Gerlach and others. They found that animals fed on tuberculous meat or milk became tuberculous—calves, pigs, guineapigs, and to a less extent carnivora, became victims of tuberculosis through treatment in this way. At the same time these feeding experiments often failed to produce disease. However, there is good reason for this. In the first place, the food passes through the stomach, and comes in contact there

with excellent antiseptics and disinfectants. The pepsin and hydrochloric acid of the stomach are active disinfectants; if they saturate thoroughly the food while it is passing through the stomach, the chances are against any disease germ passing through to the intestines and being able to propagate its kind. There are conditions, however, that favor the passage of the germ through the stomach. We find these conditions, to begin with, in the large ruminants. We have in them three large cavities—like macerating tubs—where food is received and ground up to a state of fine division. In these we do not find the antiseptic element, nor any strongly acid reaction. In the absence of any disinfecting constituent, there is a greater probability of the germ attacking the walls of these three stomachs than there is in the case of the fourth, in which the disinfecting pepsins and hydrochloric acid are found. It is not at all uncommon to find tubercles on the walls of these three first stomachs when there are none on the fourth.

Then there is the factor of dyspepsia, or imperfect digestion. In the monogastric (i. e., single stomach) animal, food passes much more rapidly through the single stomach than through the four of the ruminant; and if the stomach is disturbed it is quite possible for a good portion of the food to pass undigested. In the center of such undigested masses it is quite possible and frequent to find germs of tuberculosis. If this food, which is swallowed and passed somewhat hurriedly through the monogastric stomach, contains a large amount of fat, and this fat envelopes the germ, as it often does, it may carry the germ through safely, fat not being soluble in the secretions of the stomach nor in the salivary secretions. If it carries living germs through to the intestines, they meet at once with a favorable medium. Fat, then, so long and justly trusted as a cure for consumption, is really an agent sometimes for conveying it. Over-feeding may be looked upon as a cause of the passing of living germs through the stomach into the intestines. When overloaded, the organ works imperfectly, allowing portions of food to pass undigested. Too heavy or injudicious feeding favors infection through the stomach. General debility and debility of the digestion act together in laying the system open to attack.

### HEREDITARY TRANSMISSION RARE

Heredity, as it applies to tuberculosis, had better be named susceptibility; it means merely a readiness of the system to receive the germ and to succumb to it. It is very rare indeed to find one of the lower animals born tuberculous. Such a thing does occur sometimes, but so rarely that we may leave it out of consideration. What we do have transmitted is a strong susceptibility to the disease. This is what determines the running in families.

Families are kept in the same house. If the germs exist in one member of the family, they are present in numbers more or less for all the family; and moreover, the susceptibility which comes by inheritance is common to all. The running in families is no less marked in cattle than in men.

I remember an interesting case before tuberculin testing was discovered, when I had occasion to examine a herd of Jerseys. They were many of them imported; some grades. I examined them twice. On the last occasion I picked out a number that I saw clearly were tuberculous; also had killed two or three others, the symptoms of which were less clearly marked, but which I had condemned on the former visit. The owner wanted this done as a mere test. We found them all tuberculous. The owner then said he had not a single member of that particular family left, not even a grade. All of the remaining cattle of the herd were of another family, which did not possess the same high susceptibility.

### THOROUGHBREDS AND TUBERCULOSIS.

Especially in thoroughbred herds there is another reason why it should run in families. There is the fact that a calf is nourished by a tuberculous mother, though it may have been born free from tuberculosis. It is not an uncommon thing for the udder of that mother to be a seat of tuberculosis. In that case, the milk cannot fail to be infected. A calf is practically a monogastric animal. When any disturbance occurs, the milk passes through rapidly so as to carry the infected material to the intestine.

Inbreeding renders animals more or less increasingly susceptible.

As to the breeding out of tuberculosis—some claim that by introducing strains of blood which are not susceptible they can eliminate the disease from a herd. There is no race that is not susceptible;

it is mere nonsense to say there is. Some are more, and some less; but none are free from susceptibility. The attempt to breed out has some practicability, but is not effective by itself, nor the best method.

### CONFINEMENT INDOORS.

In judging the probabilities of infection, the first question is whether the animals are of a susceptible strain. Next, have they lived an indoor life for any length of time? Indoor life has good effects, but many evils. Weakness comes from constantly living in the unduly warm atmosphere, danger of contracting chills, and being laid open to disease. The germ of tuberculosis is comparatively easily destroyed in free sunshine in which it will live but a few days. But indoors in the shade it may live for months, maybe for years, if kept dry, and above all, if covered and packed closely.

### METHODS OF INFECTION.

The use of rebreathed air, highly charged with carbon dioxide, is one of the most favorable conditions for the development of tuberculosis.

The greatest danger of indoor life is in droppings from the nose and mouth of the animal. These dry and spread on the ground in the dust and rise in the air. A handkerchief is a most dangerous thing to be used by consumptive persons. Still worse is spitting on the floor. It is very reprehensible for a person suffering from consumption to spit on the floor. It is less objectionable outdoors. It has been repeatedly noticed in large stores, with one or more consumptive inmates that case after case followed each other among the clerks, and especially among the persons who swept the floors. Indoor life decreases an animal's energy and the resisting power of the blood globules, both red and white.

The manger of a diseased animal is very apt to become infected. If the manger is kept wet, that is a preventive of the spread of germs in the form of dust. But at the same time it increases the danger to a succeeding animal eating from the same manger. In general, to keep damp the places where infecting material falls, serves to prevent the rise of dust from those places, and is a matter of no small moment. A more important danger of indoor living is the accumulation of the infection in a small area. In the open air it is scattered everywhere and lost, so there is small chance of its being inhaled. Inclosed in a building, the air becomes more and more charged by repeated infection. Another cause of infection in breeding and dairy herds is that animals are invariably kept as long as profitable, until they are old, which gives a longer time for the disease to strike. The danger is in proportion to the length of time an animal is kept. Among young animals there may be 1 or 1½ per cent. infected, while among the old there will be 6 per cent. and upward. This was shown by an examination of dairy cattle in Baltimore, all of them recently country cattle; 2 per cent. were tuberculous. In Chicago and other slaughtering centers, an examination was made of steers from Western States, all of which were young, and had lived outdoors, and not more than two per thousand were affected.

There is danger of infection to hogs in running after cattle; and above all, in keeping them about slaughter-houses, where offal is fed to them in a raw state. In packing-houses, where offal is tanked, it is subjected to heat, which kills the germs.

I found about 50 per cent. of the cattle in the dairy herd of the Willard insane asylum in New York to be tuberculous, by an examination of objective symptoms alone, without tuberculin, which had not then been discovered; the use of tuberculin would probably have shown them nearly all diseased. The offal from cattle killed for the asylum was fed to the hogs; and they were worse if possible than the cattle.

### SYMPTOMS—WHAT PARTS OF THE ANIMAL MAY BE AFFECTED.

By what symptoms can tuberculosis be recognized? This is a difficult question. I will name some of the different seats where it is liable to be found. The bronchial glands around the lower end of the windpipe are commonly affected. Here the disease does not tend to give rise to any change in the sounds of breathing. Very many cases are of this nature. The mediastinal glands are situated back of the bronchial ones in the partition between the two cavities of the chest; these come next after the bronchial glands in susceptibility. Infection usually first takes place in the lungs, and then goes to the bronchial glands. All the lymph of the lungs proceeds through these glands. The disease may be slight in the lungs and much developed in the bronchial glands. So with

## Food Caused Pain

### Catarrh of the Stomach Cured by Hood's Sarsaparilla.

"I was taken sick about a year ago with catarrh of the stomach. At times I would have a ravenous appetite and at other times could not eat. My food caused me excruciating pain. I was running down so fast I had to stop work. My friends urged me to take Hood's Sarsaparilla. I did so and soon began to feel better. The disagreeable symptoms of disease gradually passed away and flesh and strength returned. I owe it all to Hood's Sarsaparilla." MARY L. CUMMINGS, North Brookfield, Mass. Remember

## Hood's Sarsaparilla

Is the best—in fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

### Hood's Pills

cure Liver Ills; easy to take, easy to operate.

the mediastinal gland; if they are affected the lungs are more likely to be affected.

When the lungs are affected we may often detect the disease by listening to the sounds of breathing, by the cough, the discharge, and other symptoms. The cough is very characteristic.

The pharyngeal glands are often affected, giving rise to a wheezing noise in breathing. A bovine animal showing this is to be suspected, especially in an infected herd.

The glands above the small intestine and in the tissue supporting the intestines are called mesenteric glands. They may receive the disease from the intestine.

We often find tubercles in the mediastinal glands, over the heart, on the surface of the three first stomachs, in the walls of the intestines, and in the portal glands at the entrance to the liver. The last are particularly susceptible, because the liver is so. All the blood coming from the intestines circulates through the liver, and any germ is liable to be arrested and developed there. If it does develop or gain access to the liver, it is not confined to a narrow area, but through the lymph channels is often carried throughout the whole organ. The disease follows the lymph vessels and glands, more than any other tracts.

The udder is a very common seat of tuberculosis; and oftentimes is the means of conveying the disease through the milk. The milk becomes blue, serous, watery; and there is an unduly solid feeling in that part of the udder which yields the offensive milk. The glands close behind or in front of the udder, and those up in the groin, are liable to be enlarged in such cases. Some of the surface glands are quite subject to tubercle, as those in front of the stifle, which can sometimes be felt to be enlarged. Also the glands in front of the shoulder blade may become swollen and hardened. This effect may come from other causes, but is a very suspicious feature when found in a tuberculous herd.

The spleen, pancreas, kidneys, and the ends of the long bones, may become the seats of the disease. When it occurs in the bones, the animal goes lame, especially the young animal. An old bull went lame during the test the other day; after death the cause was found in a diseased joint.

Deposits in the skin are sometimes formed by the disease. Warts are common enough in cattle, and no more serious than on the human hand; but there is a wart in the human hand and on the skin of cattle that is really tuberculous. Growths of this kind are not proof of tuberculosis, but may well be ground of suspicion.

Tubercles in and between the muscles are not common in cattle, but constitute a common form of tuberculosis in pigs. You might take them for abscesses, being usually soft.

A general unthrifty tendency is a symptom. It is commonly supposed that tuberculous animals run down to walking skeletons. They do if very bad; but many harbor the disease and remain for a long time in apparently very fine condition—as we saw in those cattle killed today. Yet even such may show themselves entirely unable to keep up a former degree of good condition, though the feed and care are better.

The difficulty of judging accurately by symptoms makes it a thing of great importance to have a test that can be applied to a healthy-looking animal.

### TUBERCULIN AND THE TUBERCULIN TEST.

Tuberculin was discovered by Robert Koch, the same man who discovered the germ of tuberculosis. He was going to

cure tuberculosis by its means, but he failed in that; as did others who tried it, for it became a scientific fad for a time. However, these experiments furnished us with an agent of the highest value. Koch found that if a small measured dose of tuberculin is injected under the skin of a tuberculous animal, it causes a rise in temperature, which is spoken of as the reaction. On that we can base our diagnosis with far more confidence than on any examination of symptoms, no matter how skillfully conducted. I think I have done well with examinations in time past; and have succeeded in eliminating the disease from herds; but I can detect three cases with tuberculin for one I can without it, after all the experience I have had.

What is tuberculin? It is the poisonous product of the life of the disease germ, just as alcohol is the poisonous product of the yeast cell. They are chemical compounds produced by these germs. We can grow the germs in suitable media, in flasks, at a proper heat, and keep them for several weeks, until they have used up the material, and charged the liquid with the poisonous product. By using a small dose, varying according to the strength, we can produce the reaction of temperature with something like infallibility. It is not absolute infallibility, but fairly near it. Without tuberculin we could not get to the end of tuberculosis, but with it we think we can.

There are disturbing causes that must be guarded against by the administrator. A fever, or heat (aestrum), or change of feeding or housing may raise the temperature at the time when the test is made; if this rise happens within a few hours after the application of the tuberculin, the unusual cause must be taken into account. I have known a delay in watering for three hours to raise the temperature; after the cattle were watered the temperatures of the whole herd went down again. A half hour's delay of the milking raised the temperature of the herd till after the milking was done. The same effect was caused in one cow by the fact that a new milker was practicing on her. If the weather is very hot, or if the building is too hot, it may cause a rise.

In any doubtful case we can fall back on a repetition of the test. It is not likely that the same disturbance will happen to coincide with the test a second time, after one or two months. But if we find the same result with the second test, as in these cattle killed to-day, and there is no disturbing circumstance that we know of, then it shows plainly that they are tuberculous.

Some of the very worst cases do not give a rise at all when the tuberculin is applied, for the reason that their bodies are already so full of the poison that the small amount given in the dose has no additional effect. Such animals are sure to be unthrifty, and so far on the downward road that they can be recognized without the test.

#### HOW KEEP HERDS FREE FROM TUBERCULOSIS?

How can we keep our herds free from tuberculosis? In the first place, have a safe herd. Compose it only of animals that have been tested, and no others, unless they come from tested herds. You cannot be sure of a herd that has not been tested. The owner of a herd will rarely confess that an animal has died of anything save accident, seldom that there is tuberculosis. But if an animal has died at all, then test all that come from that herd.

Keeping animals in the open air is the best preventive. In the barn every animal should have its own stall. Fence up the stall so they cannot get their noses together; this, above all, at the front between the mangers; otherwise they reach over into each other's feed, and might as well be in the same stall. Sprinkle the manger daily with brine. The disease comes more commonly from the droppings from the nose and mouth than by any other channel, and these should be kept from rising in dust. Brine is a poor disinfectant, but lays the dust, and is somewhat antagonistic to the germ.

Avoid everything that tends to injure the general health; drafts on the animals, chills from passing out, everything that weakens the surface on which the germ is liable to fall favors colonization. Keeping the animals in good condition is opposed to the disease; careful, regular, nourishing feeding, careful regular watering, are healthful; if indoors, good ventilation is important, air that has been breathed once is depressing, and may have the germs floating in it. It is very important to avoid the employment of consumptive attendants. A consumptive man, who goes around splitting, seriously endangers the animals. It is quite possible by removing the

calves from the cows at once when born, and putting them under other nurses, or giving them sterilized milk, to raise these calves as healthy animals.

If this is done, preservation of diseased animals should be confined to those that have the disease in a very slight form. When a case advances enough to show plain symptoms, other than by the tuberculin test, then destroy the animal. If infective discharge starts from the nose or mouth, presumably the things on which it has fallen should be destroyed.

#### STATE ACTION.

Finally we have the question of State action for stamping out tuberculosis. This has been taken in the Eastern States; costly appropriations have been made therefor. People who believe or fear tuberculosis in their herds apply to the State for treatment, but after destroying and disinfecting they are at liberty to buy new diseased animals and reinfect. After a herd has been purified it should be kept in control, all additions from without being tested, and the whole herd tested at intervals of three, six or twelve months, until it is certain that the disease has been thoroughly eradicated from herd and premises. If it were not for human tuberculosis we could stamp it out of cattle, as other cattle diseases have been stamped out. The time will doubtless come when there will be a systematic attempt to check the disease in human beings; then it will be easy to clear it from the herds.

#### CONSUMERS' INTERESTS.

In the meantime let consumers in any city say no milk shall be supplied in the city except from tested herds. Another way is for the individual buyer to use only milk from tested cows. If a dairyman finds he can get from 1 to 3 cents more for milk from tested cows than from untested, then it will become not worth while to keep any that are not tested.

The consumer has another resort in Pasteurizing or boiling the milk before using. This has the drawback that it causes coagulation of the albumen, and other changes which impair the digestibility and wholesomeness of the milk, but for infants and invalids it may be a lesser evil than the danger of infection.

The consumer of beef has usually the protection of the cooking. But in rare steaks, frizzled sausages, and the centers of roasts, the heat is often insufficient to kill the bacillus, and then there is danger that the disease may be transmitted. Apart from the intermuscular lymph glands, tubercles are not common in the red flesh of cattle, yet they are by no means unknown in such situations, and in pork, tubercles among the red muscles are quite frequent. Until we can have a thorough inspection of all slaughter-houses, or better, a thorough eradication of tuberculosis from our breeding and dairy herds, the course of safety is to eat no underdone meat.

The Farmers' Alliance Insurance Company of Kansas is one of the meritorious institutions of the State. It is nine years old, is carrying over \$9,000,000 in first-class farm risks, has upwards of 12,000 members, has paid its fire and wind-storm losses to date in full, and has on hands \$9,500 in cash, and resources of over \$105,000. The insurance is carried on the mutual plan. Assessments are levied annually, when necessary to meet losses and expenses. A note is given for the amount of the premium, and one-fifth is payable annually if needed. There can be no liability beyond the face of the note. This insurance company is leading all others on farm property, and at no distant day will no doubt be at the head of the best and safest mutual insurance in the West.

#### \$100 Reward. \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers that they offer \$100 for any case that it fails to cure. Send for list of testimonials.

Address F. J. CHENEY & CO.,  
Toledo, O.

Sold by druggists, 75 cents.

#### No-To-Bac for Fifty Cents.

Guaranteed tobacco habit cure, makes weak men strong, blood pure. 50c, \$1. All druggists.

#### Meteorological Summary for 1897.

Prepared by Chancellor F. H. Snow, of the University of Kansas, from observations taken at Lawrence.

The year 1897 was warm, dry and calm. It had the warmest September and October, the cloudiest February, the calmest September, the smallest total rainfall and the clearest month (September) on our thirty years' record. Only six years in that time have been warmer. The months of April, May, June, August and December were cooler than usual; and the remaining months were warmer than usual. Only two years have had a longer interval between severe frosts, and only five have had a larger number of hot days.

The rainfall for the year was greatly deficient, being less than two-thirds the average amount, and by nearly an inch the lowest annual amount on record. The precipitation for each of the first three months of the year was above the average, resulting in an immense wheat crop; for each of the succeeding months it was below the average, resulting in a deficient corn crop. The amount of snow was five inches above the mean.

The total distance traveled by the wind was much below the average; for only one year (1877) has it been less. The relative humidity was over 2 per cent. above the average. The mean cloudiness and mean barometer were slightly above the normal.

#### TEMPERATURE.

Mean temperature of the year, 54.37 degrees, which is 1.27 degrees above the mean of our thirty years' record. The highest temperature was 101 degrees, on August 1; the lowest was 4 degrees below zero, on January 24, giving a range of 105 degrees. Mean at 7 a. m., 48.74 degrees; at 2 p. m., 62.64 degrees; at 9 p. m., 53.05 degrees.

Mean temperature of the winter months, 29.24 degrees, which is 0.29 degrees below the average winter temperature; of the spring, 53.46 degrees, which is 0.27 below the average; of the summer, 75.42 degrees, which is 0.05 degrees above the average; of the autumn, 59.35 degrees, which is 5.73 degrees above the average. The warmest month of the year was July, with a mean temperature of 79.60 degrees; the warmest week was July 27 to August 2, mean 83.94 degrees; the warmest day was August 1, mean 88 degrees. The mercury reached or exceeded 90 degrees on forty-nine days (twelve above the average number). Of these forty-nine hot days, nine were in June, eighteen in July, nine in August and thirteen in September. The coldest month was January, with a mean temperature of 27.09 degrees; the coldest week was January 23 to 30, mean 8.82 degrees; the coldest day was January 24, mean 0.75 degrees.

The last hoar frost of spring was on May 14; the first hoar frost of autumn was on October 22, giving an interval of 161 days entirely without frost. The average interval is 153 days.

The last black frost of spring was on March 27; the first black frost of autumn was on November 2, giving an interval of 220 days without severe frost. This is nineteen days longer than the average interval.

#### RAIN.

The entire rainfall, including melted snow, was 23.34 inches, which is 12.86 inches below the annual average. Either rain or snow, or both, in measurable quantities, fell on ninety-two days, six less than the average. On twenty-six other days rain or snow fell in quantities too small for measurement. The heaviest rain of the year was 1.38 inches on June 26. The number of thunder showers was forty, which is nine above the average number.

#### SNOW.

The entire depth of snow was twenty-five inches, of which seven fell in January, fourteen in February, and four in December. No snow in measurable quantities fell in March or November. Snow fell on twenty-one days, on five of which the quantity was too small for measurement. The last snow flurry of spring was on March 22; the first snowfall of autumn was on December 2.

#### FACE OF THE SKY.

The mean cloudiness of the year was 43.38 per cent. of the sky, which is 0.07 per cent. above the average. The number of clear days (less than one-third cloudy) was 160; half clear (from one to two-thirds cloudy), 113; cloudy (more than two-thirds), 92. There were 52 entirely clear days and 34 entirely cloudy. The clearest month was September, with a mean of 15.27 per cent.; the cloudiest month was February, with a mean of 63.87 per cent. The percentage of cloudiness at 7 a. m. was 48.60; at 2 p. m., 46.87; at 9 p. m., 34.68.

#### DIRECTION OF THE WIND.

During the year, three observations

## Any guarantee

you want—even *this* we will do:

We will pay \$100 reward for any case of colic, horse ail, curbs, splints, knotted cords, or similar trouble, that



## Tuttle's Elixir

will not cure. It is the veterinary wonder of the age, and every stable should have a bottle always on hand. Locates lameness when applied by remaining moist on the part affected.

WATTS RIVER, VT.

DR. S. A. TUTTLE.

Dear Sir:—I have used your Elixir on one of the worst spavins that I ever saw on a horse, and it entirely cured the lameness. I also used it for rheumatism in my family, with just as good a result, and will cheerfully recommend it to any one in want of a liniment.

O. B. GOVE.

Tuttle's Family Elixir cures Rheumatism, Sprains, Bruises, Pains, etc. Samples of either Elixir free for three 2-cent stamps for postage. Fifty cents buys either Elixir of any druggist, or it will be sent direct on receipt of price. Particulars free.

DR. S. A. TUTTLE, Sole Proprietor,  
27 Beverly Street, Boston, Mass.

daily, the wind was from the east 64 times; southeast, 141 times; south, 80 times; southwest, 353 times; west, 43 times; northwest, 186 times; north, 145 times; northeast, 83 times. The south winds (including southwest, south and southeast) outnumbered the north winds (including northwest, north and northeast) in a ratio of 574 to 414.

#### VELOCITY OF THE WIND.

The number of miles traveled by the wind during the year was 117,552 miles, which is 17,160 miles below the annual average. This gives a mean daily velocity of 322.06 miles, and a mean hourly velocity of 13.42 miles. The highest velocity was 60 miles an hour on April 12. The highest daily velocity was 860 miles on April 13; the highest monthly velocity was 14,160 miles, in April. The three windiest months were January, March and April; the three calmest months were July, August and September. The average velocity at 7 a. m. was 11.8 miles; at 2 p. m. 15.1 miles; at 9 p. m., 12.8 miles.

#### BAROMETER.

Mean height of barometer column, 29.121 inches, which is 0.010 inch above the annual average. Mean at 7 a. m., 29.130 inches; at 2 p. m. 29.106 inches; at 9 p. m., 29.126 inches; maximum, 29.813 inches on February 26; minimum, 28.403 inches on March 19; yearly range, 1.410 inches. The highest monthly mean was 29.215 inches in January; the lowest was 29.025 inches, in June. The barometer observations are corrected for temperature and instrumental error only, the altitude being 874 feet above the level of the sea.

#### RELATIVE HUMIDITY.

The average atmospheric humidity for the year was 72.35; at 7 a. m., 83.73; at 2 p. m., 58.27; at 9 p. m., 75.07. The dampest month was January, with a mean humidity of 86.38 per cent.; the driest month was September, with a mean humidity of 60.52 per cent. There were eight fogs during the year, which is five below the average.

People who suffer from loss of appetite, indigestion, sour stomach and flatulence find prompt relief in the use of Ayer's Pills. As an after-dinner pill they are unequalled, causing the digestive and excretory organs to perform their functions as nature requires.

#### To Cure Constipation Forever.

Take Cascarets Candy Cathartic, 10c or 25c. If C. C. C. fail to cure, druggists refund money.

Send \$1.25 for Kansas Farmer one year and book, "Samantha at Saratoga."

## Quinn's Ointment



is a boon to suffering horse flesh and yielder of profit to man. It cures all diseases of the legs and feet, making lame horses sound, thus converting loss into profit.

All Druggists Sell It.....

If by chance you should not find it there we'll mail you package for \$1.50. Smaller size 50 cents.

W. B. EDDY & CO.,  
WHITEHALL, N.Y.

## The Veterinarian.

We cordially invite our readers to consult us whenever 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 the KANSAS FARMER. Give age, color and sex 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. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, DR. PAUL FISCHER, Professor of Veterinary Science, Kansas State Agricultural college, Manhattan, Kas.

**SWINE PLAGUE.**—We have lost twelve pigs from some disease which I am not familiar with, and would like to learn how to treat them. Symptoms: They start first to coughing, then take the scours, and dwindle along until they do not eat at all, and become so weak they die. We cut one open and examined it but could not find anything wrong but its lungs. They looked irritated in spots. The pig, when it breathed, could be heard wheezing. A FARMER READER. Menoken, Kas.

Answer.—This is a form of swine plague—the pulmonary form—and should be treated according to directions given in a November number of the Farmer.

**FATTY DEGENERATION OF LIVER.**—I had a sow that refused her food and got poor. Gave her charcoal, salt, Glauber's salts, beef offal, etc. Still she got worse, until she died, at last. A post-mortem showed the liver to be spoiled—of a whitish-gray color. Nothing else could be seen out of fix. H. F. M. Carson, Kas.

Answer.—The post-mortem changes that you describe indicate "fatty degeneration" of the liver, a symptom common to many diseases, and hence it is impossible for me to say what the particular disease of which your sow died was. A sow, however, that is fed charcoal, salt, Glauber salt and beef offals, etc., ought to die, because she is not fit to be killed for human food. Feeding beef offal to pigs is a practice that cannot be too strongly condemned. It is the source of many forms of disease in hogs that can be transmitted to man.

**ABSCESS ON LIVER.**—I send you the symptoms of a peculiar sickness of one of my milch cows. Her first symptom was losing flesh, next failing in milk and no appetite. Lay around nearly all day. This ran on for near three weeks before she died. On opening her there was nearly two gallons of matter around the liver and heart. Liver was twice normal size and spotted and heart was as large as a two-gallon pail and was more like a gray rock, all covered with rough lumps, and had a crust over two inches thick. The contents of the stomach were very dry; would break in cakes, a little as in murrain. J. W. C. Leoti, Kas.

Answer.—Your cow had a liver abscess—something quite common and due to various causes, but in this instance unusually large. Such a condition cannot be treated, still less cured. The affection of the heart, its increased size, was a result of the liver disease—hypertrophy.

**SMALL ABSCESSSES ON NECK.**—I have a gelding, 14 years old. Has been in stable nights and stormy days all winter; ran out in field during day. Is in fair flesh. Has had hay and two or three ears of corn night and morning. Done no work since last August. Lately he has been rubbing his neck, and, on examining, I find small running sores on places along neck and in mane, but worse in foretop. The pus dries and forms a yellowish scab or scurf. S. P. B. Parker, Kas.

Answer.—Wash the affected parts with warm soapsuds. Cut away the long hair where necessary to accomplish thorough work. Treat the ulcerated spots with a 10 per cent. solution of chloride of zinc, applied with a wad of absorbent cotton, and wash all the surrounding parts with a 3 per cent. solution of creolin; one tablespoonful of creolin in one pint of water is approximately a 3 per cent. solution. Please report the progress of this case in two weeks.

**SICK COLT.**—Bay horse colt, coming 2 years old, has been running with cattle and other horses in pasture and fed on corn fodder with but little grain. He is in fair condition. Got lame in one fore leg and a lump was noticed near the ankle. In a few days he got lame in one hind leg and then in the other and then in the other fore leg. Swelling in the hind legs is farther up than in the front legs. Gets around with difficulty, eats well. Have been rubbing the swollen parts with hot liniment. Swollen parts are very hot. WM. L. Freeman, Kas.

Answer.—Give your horse a ball made

as follows: Powdered Barbadoes aloes, 4 drachms; mild chloride of mercury, 1 drachm; powdered althea root, sufficient to make a pill mass, with water. Rest the animal at least twenty-four hours after giving the pill. Apply the following mixture on all the swollen parts, twice daily: Acetate of lead, 2 ounces; crude alum, one-half ounce; triturated camphor, 2 drachms; water, one quart; mix, and shake well before using. Apply, by rubbing in thoroughly, enough to make all affected parts wet. When rubbing, always do so with an upward stroke of the hand. After the second day give horse gentle exercise or free run of a yard.

**WHOLESALE LICE-KILLING.**—Is there any way of destroying lice on cattle in a large herd, where the application of external remedies is impracticable? If so, I should be obliged for information as to what it is and how to use it. I have been told that feeding sulphur was a good remedy. If so, how, and how much of it should be given? WM. J. Enid, Okla.

Answer.—Lice cannot be destroyed by internal remedies. A wholesale way of treating cattle, the way you suggest, might be to apply kerosene emulsion with a spray-pump. This could be done without harm to the cattle, in warm weather only. Riley's kerosene emulsion would be proper to use, and is made as follows: Kerosene, 2 gallons; whale oil soap, ¼ pound; water, 1 gallon. Heat the solution of soap and add it boiling hot to the kerosene. Churn the mixture for five or ten minutes. Dilute the emulsion with eight parts of water and then apply it to the animal. It really ought to be rubbed in. But by spraying, and using a larger quantity, the same effects may be obtained. When rubbed in it takes about a quart for each animal.

**TREATMENT FOR LUMPY-JAW.**—I am very desirous of having explicit directions how to treat lumpy-jaw in cattle. If you will advise through columns of the Kansas Farmer you will no doubt benefit many farmers. J. F. T. Newman, Kas.

Answer.—Large tumors, when practicable, should be extirpated or cut out with a knife. This often results in serious bleeding, and in the hands of one not a surgeon the application of caustics would be preferable. Use arsenious acid, 4 drachms; caustic potash, 2 drachms; gum arabic, 3 drachms; mix the powdered ingredients with sufficient water to make a thick paste, and then spread this in a thin layer over the tumor. If the tumor has broken and is discharging pus, insert a wad of cotton, soaked in this mixture, into the cavity. This prescription should be filled by a druggist and it may not be needless to state that it is exceedingly poisonous and corrosive and should not come in contact with the hands of the operator or any other part of his body that he does not desire to have destroyed. Another method of treatment that can be used alone or in connection with the above is to apply tincture of iodine on all the tumors daily or twice daily, and give internally, three times a day, 1 drachm of iodide of potash dissolved in drinking water. Reduce this dose to one-half after four or five days, and then keep it up until improvement sets in, which should be in ten days or two weeks.

**INDIGESTION.**—A neighbor's milch cow, 3 years old, got off her feed about ten days ago. Feed was ear corn, wheat straw, and occasionally a feed of sorghum hay. She was droopy a day or two, and one warm day she took a shivering spell or chill, which lasted for fifteen or twenty minutes. Her horns are cold and her legs seem cold half way to body. Her dung is scanty, rather dry and dark. She will take corn in her mouth and mumble it around and spit it out, as though her teeth were sore or her jaws were sore or stiff. Hair rough and stands on end. I don't think she has had water very regularly this winter. Lays down most of the time. The last few days she refuses to eat or drink anything. Chews cud once in a while. People used to call such complaints hollow-horn or "wolf in the tail." Equal parts of turpentine and ammonia has been rubbed on her horns and top of head and back; no other treatment. Wellsford, Kas. W. K. M.

Answer.—The cow has indigestion, a very common disorder in cattle, and due to irregularity in feeding, watering, or other proper care. Sometimes overfeeding is the cause, but other causes are so numerous that I can't mention even all the important ones. Give two ounces of the following prescription three or four times a day, as a drench, in a quart of water or give it in drinking water: Hydrochloric acid, 4 ounces; dilute alcohol, 12 ounces; mix. Regulate the animal's

diet, feed pure and wholesome food regularly, reduce her rations to one-half or one-fourth of regular allowance, and increase it very gradually, or she will overfeed herself and bring back the old trouble in a worse form. Give only such water as has had its chill removed. There is no such thing as "wolf in the tail" nor such a disease as "hollow-horn." All cows have hollow horns.

**INDIGESTION—LICE.**—(1) I have a three-month-old Holstein bull calf, which I raised on skim-milk, hay and shelled corn, and it has done well until about three weeks ago. Then the animal began to swell up, and more so on the left side, after drinking, much as if bloated with clover. It suffers a great deal all day long, seems to be all right the next morning, and so on every day. I tried a change of feed, giving bran in place of corn and water instead of milk, and only a little at a time, without relief. (2) The mother of said calf, a thoroughbred Holstein, 4 years old, is keeping in poor flesh, although not giving a great quantity of milk, and is constantly infested with lice. The cow has good care and I have tried several things to kill the lice, viz., coal oil diluted, insect powder and mercurial ointment, and have had them decreased in numbers but cannot exterminate. These insects appear in greater numbers on the smooth fleshy parts of her genitals, and multiply here in so short a time that I begin to believe they don't hatch from nits, as usual, but are generated on that organ. J. S. Paxico, Kas.

Answer.—(1) Examine the condition of the skim-milk you feed. See that it is not too old, sour, etc., before giving it. Shelled corn is poor feed for such an animal. It is not improbable that the animal now and then overeats itself and thus brings on that condition. Regulate the amount you feed, reducing the rations for a few days and going up to the normal gradually. Give the following as one dose, one to three times a day, whenever the animal shows the symptoms you described: Creolin, ½ drachm; alcohol dilute, 1 ounce; water, 1 pint; mix. (2) The use of insect powder or mercurial ointment, either alone or the two in combination, if thoroughly applied will rid your cow of her lice. The probability, however, is that your whole stable is infested and you no sooner have your cow freed than she is infested from another source. The only way out of the difficulty is to treat your whole stable for lice. Clean it out thoroughly and then fumigate with burning sulphur (plenty of it), or spray with a one-tenth per cent. solution of corrosive sublimate. This, and this alone, will stop the "spontaneous generation" of lice. Persian insect powder is a rather mild remedy and cannot always be relied upon. Mercurial ointment often produces serious after effects in cattle and therefore other insecticides are preferable. A 5 per cent. lysol or creolin solution in water, to which about one-fourth a volume of alcohol has been added, applied to the affected parts, and thoroughly rubbed in with a stiff brush, and the operation repeated in four or five days, is usually very effective. If the hair is very long it should be clipped off before making the application. Only the affected parts of the body need be treated; the whole surface of the body should in no case be treated at once, especially not in cold weather. Rub the parts dry after making the application.

**POLL-EVIL.**—I have a four-year-old horse, weighing about 1,300 pounds. He was always in good health and very hearty. About November 1, last, we noticed a lump on the right side of his head just behind the ear. It was swollen some and we put some black oil on it to blister it. Then we began to grease it, and the swelling did not seem to grow any larger for nearly six weeks. It then began to grow larger, and about January 5, this year, we blistered it twice with corrosive sublimate cut with turpentine. We then greased it with lard and washed it with warm soapy water. It appeared to be well blistered and was very sore. On January 22, it broke and discharged a bloody, mattery substance very profusely, and is still running today. We suppose it is the disease known as poll-evil. G. E. M. Burrton, Kas.

Answer.—Yes, your horse has poll-evil. This is simply an abscess, and differs from ordinary abscesses simply in its seat at or near the poll of the animal. It must be treated on the same principles according to which all abscesses should be treated, viz., the use of the knife and the application of antiseptics. The knife is used to incise the abscess in such a way as to allow the liquid contents (pus) to escape and give the cavity a perfect drainage for all the secretions formed within it. The disin-



A man who neglects his health is sailing his craft of life in dangerous seas. He cannot too soon awaken to the fact that he is imperiling his most precious endowment. All the wealth in the world, all the power in the world, all the pleasure in the world, all the love and poetry and music and nobility and beauty are but dust in the mouth of the man who has lost his health. Keeping healthy means looking after the disorders that ninety-nine men in a hundred neglect. You cannot get the average, every-day man to believe that indigestion or biliousness, or costiveness or headache or loss of sleep or appetite, or shakiness in the morning and dullness through the day amount to much anyway. He will "pooh, pooh" at you, until some morning he wakes up and finds himself sick abed. Then he will send for a doctor and find out to his surprise that all these disorders have been but the danger signals of a big malady that has robbed him of his health, possibly forever. It may be consumption or nervous prostration or malaria or rheumatism or some blood or skin disease. It matters not, they all have their inception in the same neglected disorders. Dr. Pierce's Golden Medical Discovery makes the appetite keen, the digestion perfect, the liver active, the blood pure, the nerves steady and gives sound and refreshing sleep. It is the great blood-maker and flesh-builder. It cures 98 per cent. of all cases of consumption. In fact bronchial, throat and lung affections generally yield to it. Medicine stores sell it.

One or two at bedtime cure constipation.—Dr. Pierce's Pleasant Pellets. They regulate and invigorate the stomach, liver and bowels. By all medicine dealers.

fectants (3 or 4 per cent. solution of carbolic acid or creolin) are used to destroy the germ of life at the bottom of the suppurating process. They should be applied at the very least twice daily, and in the most careful and thorough manner. A one-ounce hard rubber syringe is the best instrument for injecting the disinfecting fluid into the cavity. The fact that poll-evils are situated at such a vital part of the animal, that they are usually deep-seated, and thus hard to drain and disinfect, and that they are usually of long standing (hence chronic) before treatment is sought, makes poll-evil a very unsatisfactory malady to treat, but the above outlined principles, if carefully and thoughtfully followed out with a fair amount of patience and perseverance, will in most cases lead to a permanent cure. Many poll-evils heal up, and after a short time break out

## THE STRAY LIST.

### FOR WEEK ENDING FEBRUARY 10, 1898.

Harvey County—S. M. Spangler, Clerk.  
STEER—Taken up by J. W. Robinson, in Alta tp. (P. O. Burton), November 15, 1897, one red yearling steer, bit out of under side of each ear, dim brand on left hip, no horns; valued at \$17.  
Phillips County—I. D. Thornton, Clerk.  
STEER—Taken up by A. A. Baldwin, in Dayton tp., January 3, 1898, one roan steer, about 2 years old, HO on hip and side, right ear clipped, left ear snipped; valued at \$18.  
Ottawa County—W. M. Trullitt, Clerk.  
STEER—Taken up by Frank Schwerman, in Logan tp., November 16, 1897, one red and white spotted wild Western steer, H on left side, weighs about 600 lbs.; valued at \$15.

### FOR WEEK ENDING FEBRUARY 17, 1898.

Labette County—E. H. Hughes, Clerk.  
COW—Taken up by Mrs. Johanna Tucker, in Elm Grove tp., January 29, 1898, one brown cow, slope in left ear, no brands.  
COW—By same, one yellow cow, tip of both ears, brand thus ) on right hip, brand ~ on left hip.

### FOR WEEK ENDING FEBRUARY 24, 1898.

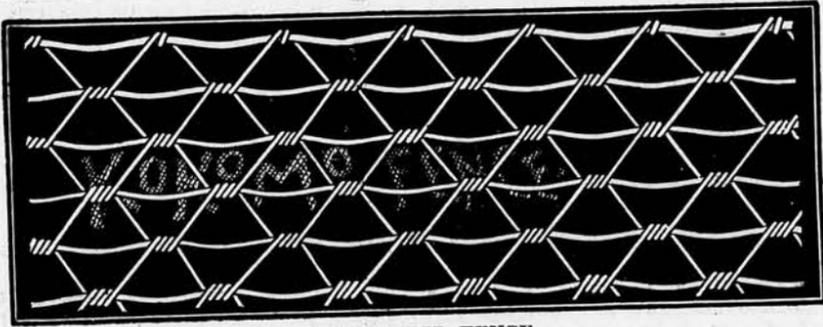
Greenwood County—Perry Clemons, Clerk.  
STEER—Taken up by J. R. Holman, in Janesville tp., January 20, 1898, one red steer, 2 years old, four feet high, indistinguishable brand on right side and hip; valued at \$20.  
HEIFER—Taken up by G. P. Teegarden, in Bachelor tp., November 21, 1897, one white heifer with roan neck, 2 years old, no brands; valued at \$15.  
Pottawatomie County—A. P. Scritchfield, Clerk.  
STEER—Taken up by Philip Thorne, in Sherman tp., February 10, 1898, one red steer, some white in flanks, little white in forehead, no marks or brands; valued at \$20.  
Labette County—E. H. Hughes, Clerk.  
HORSE—Taken up by James Wilmoth, in Elm Grove tp., February 7, 1898, one dun horse, H on left jaw; valued at \$12.  
MARE—By same, one black mare, H on left shoulder; valued at \$15.  
COLT—By same, one black colt, no brands; valued at \$7.50.  
Cowley County—S. S. Neer, Clerk.  
HORSE—Taken up by C. M. Wilmoth, in Grant tp. (P. O. Otto), January 23, 1898, one dun horse, 5 years old, 14½ hands high, hind feet white, star in forehead, half circle on right arm, wire cut on right foot; valued at \$15.

again. In such cases the healing is only apparent; the lips of the wound heal together and the suppurating process continues below. For this reason care should be exercised to allow the deep parts to grow together first, i. e., to allow the wound to heal from below, upwards. A small plug of absorbent cotton saturated in an antiseptic solution and inserted into the opening of the abscess cavity will make this possible. Such an animal should not be worked.

**RABIES OR HYDROPHOBIA.**—On December 19 a dog, supposed to be mad, went through our corral and left his mark on three head of cattle; was in the barn and marked two horses, also two dogs, before I got in my work with the shotgun. The dogs were immediately killed. By consulting the stock books at hand, found ecampane root, 1½ ounces in one pint new milk and boiled to one-half pint, given when cold at a dose, every other morning until three were given, a remedy for cattle. We doctored the horses and cattle. Did not know that any of the rest of the cattle were bitten. Twenty-one days after, one grade Short-horn heifer, 9 months old, refused to eat or drink; kept switching and stamping as if the flies were bad. The second day had no passage from bowels; urinated frequently, but very scant and dark; strained a great deal, so that the insides would protrude each time. Gave two doses of lard, one and one-half pint each, but did no good. Slabbered a great deal. The third day did not strain. Bawled lots and was very persistent in keeping her head towards any one who was in sight, reaching out and trying to kick when within reach. The eyes had a spell, when she would put her head against the side of the stable and push.

ing, severe straining to void dung, switching tail and stamping feet, wild, glassy stare of eyes, pushing head against side of stable, finally a stiff gait and paralysis, taken collectively, together with the fact that these symptoms occurred within four to eight weeks after the biting by the dog occurred, are decidedly characteristic of this disease. Treatment of this disease in animals should, of course, never be attempted. It is entirely useless and absolutely dangerous. Prevention is the only remedy.

**ACTINOMYCOSIS.**—(1) I have a Jersey heifer, not yet quite 2 years old. Was fresh 13th of last November. Before fresh, noticed one quarter of her udder was not filling up equal to the rest. When fresh did not see so much difference, though did not get so much milk from that teat. Two or three weeks later discovered a lump, or probably a congested gland, about the size of a lead-pencil, extending from within one-half inch of base of teat up towards center of udder. Did not appear sore nor tender. It has now grown to about the size of a pigeon's egg at the lower end, making it resemble an onion in form with bulb next to teat and top extending upward and spreading through the udder. Seems more tender now than when first discovered. So far as I can tell, the milk is all right. (2) Have a fine 1,400-pound brown horse, 7 years old, that has a mark of wire cut on right side of heel of right fore foot. Last September he became lame after a terrible drive over a dry hard road, and worse after hard play in the feed lot when turned out to roll. Gave him rest and bathed foot and ankle with cider vinegar (supposing the trouble was a strain or bruise in coffin joint). Got some better but not well. Noticed the



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that will stand any strain and keep its shape through all kinds of weather, that animals cannot break down, is the popular Kokomo fence. There is no fence so easily and economically manufactured and so readily put up. The Kokomo Fence Co., Kokomo, Ind., who are the manufacturers of this machine, have reason to be proud of their record for the year 1897. Their Steel King Machine took first premium at every State Fair at which it was exhibited where premiums were offered and hundreds of county fairs, and their business has increased over 300 per cent. They sold 24,786 feet of ornamental fence in the last two months and 326 gates, 1,100 tons of galva-

nized wire and 456 tons of coiled spring wire in ten months. The price of the fence-making machine and complete outfit is very reasonable. The following iron-clad guarantee accompanies all orders: "We guarantee our Machine to be as represented; that all the frame of machine, stretcher and reel is the best Bessemer steel, made in good workmanlike manner, and to give satisfaction or money refunded; and that there will be no royalties to pay on the machine or fence it builds. Kokomo Fence Machine Co." For circulars and complete information address Kokomo Fence Machine Co., Kokomo, Ind.

Gave an injection of warm soapsuds. The fourth day quiet in the forenoon. Gave another injection in the morning and at noon. In afternoon had paroxysms of pain; would throw herself on side and roll over like a dog. Died at evening. The twenty-seventh day a grade Jersey heifer, 14 months old, was taken as the one I have tried to describe, except that the second day she had scours and frothed at the mouth almost constantly. Had her shot the third day. The same day (twenty-seventh) one of the horses (bay mare, 10 years old) began to stiffen; her lips and tongue seemed to be paralyzed; slabbered a good deal; tried to eat and drink in the morning but could not; through the day would neigh whenever she saw or heard any one; grew steadily worse through the day; that night got down; the second day lay unconscious all day, and that night died. Last Saturday (January 29) a grade Hereford heifer, 15 months old, was taken same as the others, except the switching. Have her shut up by herself and up to Tuesday night she had not eaten or drank anything or laid down, and from Monday night has kept bawling a great deal of the time. To-day (Wednesday) she is down; cannot get up, but still continues to bawl; do not think she will live through the night. Do you think this all comes from that dog, or is it a disease of some kind? The cattle and one horse we treated are all right at present writing. The cattle have been fed with sorghum hay, corn fodder and prairie hay. Have only been in stalls a few days, about an hour each day. J. W. G.

Peabody, Kas.

Answer.—There is hardly any doubt but that your cattle and your horse died of hydrophobia. The symptoms that you describe, viz., the bawling, slabber-

ing, severe straining to void dung, switching tail and stamping feet, wild, glassy stare of eyes, pushing head against side of stable, finally a stiff gait and paralysis, taken collectively, together with the fact that these symptoms occurred within four to eight weeks after the biting by the dog occurred, are decidedly characteristic of this disease. Treatment of this disease in animals should, of course, never be attempted. It is entirely useless and absolutely dangerous. Prevention is the only remedy.

hoof growing faster on that foot than on the rest. Had him shod, having that foot or hoof well pared down. Seemed to improve then till nearly free from lameness, then began to get worse again, till had him shod anew and the hoof pared down again, then improved again. Used half a bottle of T. H. Jackson's "Common Sense Liniment" on foot and muscles of leg and shoulder. Still does not get entirely over his lameness. Shows only when trotting or standing; often throws it forward and stands on other foot. Heavy pulling does not seem to make him any worse, but trotting over hard roads does. J. B. K. Winchester, Kas.

Answer.—(1) This is probably actinomycosis, the same disease as lumpy-jaw, only localized in the udder. A local examination, perhaps, aided with the microscope, could alone decide it definitely. The swelling will probably soon break and discharge pus. Collect some of this in a small bottle that has previously been cleaned with boiling water and then send it to the Agricultural Experiment Station for examination. I will let you know the result of the examination. I wouldn't use milk of animal until I knew what the trouble was. (2) Use your animal for work in field and on soft roads; avoid hard, stony roads. If you can, give him a clay floor in his stable. Discontinue the use of "Common Sense Liniment" and continue the "common sense shoeing." Have him re-shod frequently, seeing to it that his hoof is properly trimmed every time—trimmed in such a way that in size and form it will resemble its mate, which I presume is normal, and that the whole wearing surface of the wall comes in even touch with the shoe, and that the sole does not touch the shoe.

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

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## The Home Circle.

### THE WHIPPOORWILL.

Do you remember, father—  
It seems so long ago—  
The days we fished together  
Along the Pocono?  
On the edge of dark I waited  
For you, beside the mill;  
And there I heard a hidden bird  
That chanted "whip-poor-will!"  
"Whippoorwill! whippoorwill!"  
Sad and shrill—"whippoorwill!"

The place was all deserted;  
The mill-wheel hung at rest;  
The lonely star of evening  
Was quivering in the West;  
The veil of dusk was falling,  
The winds were folded still,  
And everywhere the trembling air  
Re-echoed "whip-poor-will!"  
"Whippoorwill! whippoorwill!"  
Sad and shrill—"whippoorwill!"

You seemed so long in coming;  
I was a little lad;  
I had not learned the lessons  
That make men wise and sad.  
I dreamed of human sorrow,  
And felt my bosom fill  
With the far-off pain that haunts the  
strain  
Of mournful whip-poor-will.  
"Whippoorwill! whippoorwill!"  
Sad and shrill—"whippoorwill!"

'Twas but shadowy trouble  
That lightly passed away;  
I've come to know the substance  
Of sorrow since that day.  
And nevermore at twilight,  
Beside the silent mill,  
I'll wait for you, in the falling dew,  
And hear the whip-poor-will.  
"Whippoorwill! whippoorwill!"  
Sad and shrill—"whippoorwill!"  
—Henry van Dyke.

But if you still remember,  
In that sweet land of light,  
The shades of grief that touch us  
Along this edge of night,  
I think our earthly mourning  
And all our mortal ill,  
To you must seem like a boy's sad dream  
Who hears the whip-poor-will.  
"Whippoorwill! whippoorwill!"  
A passing thrill—"whippoorwill!"  
—Henry van Dyke.

Written for Kansas Farmer.

### AN HISTORICAL FACT.

John Seger was a tall lad, of great courage and a wonderful gift of being able to impersonate other characters, and this gift saved him his life when yet a boy in his teens.

In the winter of 1869-70, that part of Kansas now known as Mitchell county was a vast wilderness, covered with short grass, that was grazed by thousands of buffalo, followed by bands of Cheyenne and Arapahoe Indians.

Owing to the large percentage of bottom land in this county and the many mill privileges on the Solomon river, that flows through the county from the northwest corner, in an easterly direction, bearing a little south, this county was looked upon with longing eyes by many an Eastern immigrant. But not until the early spring of 1870 did actual settlers begin to take up claims in the western part of the county.

The United States government established a military post early in 1870, west of the Great Spirit Springs, in what is now Cawker township. This protection gave the settlers courage, and early that spring many settlers came in and took up claims.

John Seger had come to the eastern part of Mitchell county early in 1866, with the family of Joseph Decker. Seger helped Decker to drive his large herd of cattle from Missouri to the eastern part of Mitchell county and acted as their herder during that summer. The native buffalo grass was a short, succulent sort of a moss, which grows by being trampled upon and broken from the parent stem, and at each point where it breaks off it extends a runner, as does the strawberry vine, and immediately sets another root. The cattle which Seger was herding grew very fat and he had plenty of chances to amuse himself while his employer went to the northwestern part of the county and took up a claim. The cattle were herded quite a ways east of the claim, in order to save the small plot of corn from destruction. In the early fall, while Seger was away from the cattle to meet his employer, who had a week's provisions for him, the Indians drove off every one of the cattle, and Decker became alarmed and left the country. John Seger tarried in Cloud county until early in 1870, when he again came to the western part of Mitchell county and located near the post at Great Spirit Springs and engaged in making salt from the water of the spring. He soon gave up this work and in April started up Oak creek, with Lew Best, John Hatcher and R. Kshinka, who thought to make money by hunting up and locating valuable claims for new settlers. They had been out but a short time when they fell in with a full-blooded Chippewa Indian, named McIntosh, who was Second Lieutenant in command at the military post. This Indian warned them that signs of Indians were plenty and urged them to go back. But he

finally left them, and they went on with their work. On the morning of May 9, 1870, they were surprised by a large party of Indians, and, hastening into an old buffalo wallow, they killed their horses, and behind their bodies these three well-armed men kept the whole horde of savages at bay for four long, weary hours, when the Indians gave it up and passed east over to Limestone creek, across Granite creek, and passing down to the Solomon river they surprised and killed three men named Meiser, Geer and Kenyon. Geer was tomahawked, Kenyon shot with a navy revolver and Meiser pierced by seven arrows, and their bodies thrown into the river, where they lodged on a sandbar near the ford. In the "round-up" in the buffalo wallow Lew Best was shot in the rear while lying prone on the ground. As soon as the three defenders of this improvised fort were permitted they went to the post and gave the alarm. The soldiers sallied out and drove off the Indians, John Seger going with them.

A colony of settlers had started a town by building a block house and a dug-out stable, and had called it Cawker City. After the scare was over the colony all left and went down the valley to haul up a saw-mill and some lumber, and during their absence they hired John Seger to guard the town and the horses that were left.

It was here that Seger displayed his talent and saved his scalp. So adept was he in disguising himself that he had already won the name of "Uncle" John Seger.

Early in the morning of the 29th of May, 1870, Seger was startled by the appearance of thirty mounted Indians, who were bent on murder, but not knowing how many settlers were in the block house and sod stable, they halted at a safe distance to reconnoitre. Young John Seger rushed out to meet them and acted as if he wanted to parley. But the hostiles kept at a safe distance, and Seger returned to the house and clad himself in another jacket and hat and rushed out again. He repeated this a score of times, each time putting on a different suit of clothes and acting out the different characters of the owners of the clothes who were absent, the last time using the uniform of an officer of the United States army, flourishing his sword in great shape, and convincing the Indians that the sod stable was full of brave whites who were itching for an attack from them. Just before dusk the Indians drew off and traveled up Oak creek, and two miles west of Cawker City they stole ten horses from the ranch of Best & Hatcher, while a dozen well-armed cowboys lay concealed in the house, silent but passive witnesses of their own robbery. Seger was again chased by Indians on July 2d, of the same year, but he succeeded in reaching Cawker City, and the inhabitants having returned, they beat the Indians off, but the cattle Seger was herding were driven off. On July 5, 1872, Seger was again run into town by a herd of buffaloes, one of which he shot on Main street, and the great beast dropped and died on the hay scales in front of Mead & Tandy's store.  
C. J. NORTON.

### The Duke of Wellington.

In Dean Hole's "Memories" are related several anecdotes of the Duke of Wellington, the first of which shows that he had the modesty common among great men that is unconscious of its own greatness.

He met a lady who was going up the steps to see the model of Waterloo, and remarked to her:

"Ah, you're going to see Waterloo. It's very good—I was there, you know."

A bishop was once preaching in the Chapel Royal of St. James, when he was much perplexed by the conduct of the verger, who at the close of the sermon, opened the door of the pulpit and suddenly closed it with all his force, so that the noise rang through the building.

"He informed me in a whisper," reports the bishop, "that his Grace the Duke of Wellington was asleep and that, not liking to touch him, they adopted this method of rousing him from his slumbers." This ingenious simulation of a bombardment never failed to stir the old warrior.

Wellington left behind him three memorable sentences: "Education without religion would surround us with clever devils." To a verger who pushed aside a poor man who was going up before him to the altar, with the words, "Make way for his Grace the Duke of Wellington," he said: "Not so; we are all equal here." And when a young clergyman was speaking in disparagement of foreign missions, he rebuked him with: "Sir, you forget your marching orders, 'Go ye into all the world, and preach the gospel to every creature.'"



### Gladstone in Debate.

Harry Furniss, the artist of London Punch, whose caricatures of Gladstone are so well known in America, has written and illustrated a paper for the September Century on "Glimpses of Gladstone." Mr. Furniss says:

I noticed that he always appeared to be very anxious and restless before rising to make a speech. His first movement upon such an occasion was to arrange his carefully-prepared notes upon the box in front of him; then, taking from his pocket the historical pomatum pot, which contained, I believe, a mixture of egg flip and honey—a recipe of Sir William Clarke's—he would place it out of view on the edge of the table by the side of the box. Then he would sit, placing both hands upon his knees, with his face firmly set, and with his hawk-like eyes fixed on the Speaker, waiting for the signal to spring to his feet. Once up, he seemed composed enough, playing with the notes in front of him and arranging and rearranging them. Then, leaning forward and laying his hand upon the box, he would begin slowly, latterly with a husky voice. When the graceful introduction with which he preface his remarks was over, there would come an ominous tug at his wristbands, followed by an easing of his collar with one finger, a step back, a flash from those passionate eyes, and then—but let others describe his speeches.

As an artist, accustomed, perhaps, to use my eyes more than my ears, I content myself here with noting down certain personal traits—such, for instance, as that when the great orator paused to consider a difficult point he was wont to scratch the top of his head with the wrist of his left hand. When determined to drive an argument home to his listeners he used to emphasize it by bringing down his ringed hand upon the box with a tremendous bang, of which energetic action evidence remains in the shape of many tell-tale dents in the boxes. I have examined these evidences, and it is interesting to find that the energy of the orator was much greater when he was out of office than when he was in power, the box upon the opposition side being much more severely marked than its fellow in front of the government bench, notwithstanding the terrific thumping to which that receptacle was subjected during the memorable oration of Thursday, April 8, 1886.

Another habit peculiar to Mr. Gladstone during debate was that of turning around and addressing members behind him.

Upon great occasions in the House Mr. Gladstone's dress was very noticeable. He was then spruce, in a black frock coat, light trousers and wearing a flower in his button-hole. This generally indicated that a great speech was imminent. Whenever there was any excuse for wearing them, Mr. Gladstone had a partiality for gray clothes which were not too fashionably cut; and once I remember that he caused some sensation by appearing in the House wearing a wedding favor. Something had evidently tickled his sense of humor upon the occasion, for he was "smiling all over," as he came in, and when he sat down by Sir William Harcourt, to whom he related the joke, his merriment seemed to increase. Afterward he repeated it to Mr. Chamberlain, and again to the Speaker, finally quitting the House to tell it anew outside.

### Dogs Can Tell the Time.

"The Street Dogs of Constantinople" is the title of an article in September St. Nicholas by Oswald Garrison Villard. Mr. Villard says:

"The instinct which enables these poor

tramps to tell time is the most astonishing thing about these dogs—I mean their being on hand, day after day, at regular hours when the scraps are thrown out, and their never being much too early or too late. The superintendent of one of the great railway lines ending in Constantinople told me the most remarkable case of this I have yet heard. The Oriental express, the famous train from Paris to Constantinople, arrives, it seems, three times a week at a certain hour in the afternoon. When the train comes in there are always many dogs ready to receive it. Before the passengers have had time to get out, the dogs jump into the carriages and search everywhere under the seats and in the corners for the scraps of luncheon left by the passengers, and when they have found all the pieces they go away. The remarkable thing is that they never come at any time except when the Oriental express is due; that they never make a mistake in the day, and always remember that between Friday and Monday there are two days and not one. They pay no attention to local trains, because little or no food is left in them owing to the short rides the passengers take. Exactly this same knowledge of the time table and of the difference between local and long-distance trains has been noticed at the station of the Asiatic railways in Scutari, across the Bosphorus.

### So-called Sulphur Rains.

"Among the superstitions engendered by ignorance of the laws of meteorology," says the Revue Scientifique, "we must include the 'showers of sulphur.' Without absolutely denying that the wind may be able to carry to great distances real sulphur coming from volcanoes, it is certain that the majority of such showers are due to quite another cause. At Bordeaux the phenomenon of the so-called sulphur shower is quite frequent; it is seen every year in April and May, chiefly with fine rain and west winds. Objects are covered by this rain with a very fine yellow powder, which collects in hollow places. This powder has no odor and is impalpable, but if it is examined with the microscope it may be shown to consist of kidney-shaped bodies swelled at both extremities. The origin of this yellow powder is not doubtful. Bordeaux is surrounded towards the south and west by vast pine forests. At the period of flowering the pollen is carried by the wind up to the clouds, whence it falls with the rain. The special form of the corpuscles collected is absolutely identical with that of grains of vegetable pollen."—Translated for the Literary Digest.

That the blood should perform its vital functions it is absolutely necessary it should not only be pure but rich in life-giving elements. These results are best effected by the use of that well-known standard blood purifier, Ayer's Sarsaparilla.

### Mothers! Mothers!! Mothers!!!

MRS. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEething, with PERFECT SUCCESS. It SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHŒA. Sold by Druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

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Utilize spare moments. Success sure. A modern system simplified. Course by mail for \$3; time unlimited. No books to buy. Send a dime for first lesson and full particulars. Western Shorthand Co., 1326 Penn St., Kansas City, Mo.

## The Young Folks.

### CONTENTMENT.

Little I ask; my wants are few;  
I only wish a hut of stone,  
(A very plain brown stone will do)  
That I may call my own;  
And close at hand is such a one,  
In yonder street that fronts the sun.

Plain food is quite enough for me;  
Three courses are as good as ten;  
If nature can subsist on three,  
Thank Heaven for three. Amen!  
I always thought cold victual nice;  
My choice would be vanilla ice.

I care not much for gold or land;  
Give me a mortgage here and there,  
Some good bank stock—some note of hand,  
Or trifling railroad share.  
I only ask that Fortune send  
A little more than I shall spend.

Honors are silly toys, I know,  
And titles are but empty names;  
I would, perhaps, be Plenipo,  
But only near St. James;  
I'm very sure I should not care  
To fill our gubernator's chair.

Jewels are baubles; 'tis a sin  
To care for such unfruitful things;  
One good-sized diamond in a pin,  
Some, not so large, in rings,  
A ruby and a pearl or so,  
Will do for me—I laugh at show.

My dame should dress in cheap attire;  
(Good, heavy silks are never dear;)  
I own perhaps I might desire  
Some shawls of true Cashmere,  
Some narrow crapes of China silk,  
Like wrinkled skins on scalded milk.

I would not have the horse I drive  
So fast that folks must stop and stare;  
An easy gait—two forty-five—  
Suits me; I do not care;  
Perhaps, just for a single spurt,  
Some seconds less would do no hurt.

Of pictures, I should like to own  
Titians and Raphaels three or four—  
I love so much their style and tone—  
One Turner and no more,  
(A landscape—foreground golden dirt—  
The sunshine painted with a squirt).

Of books but few—some fifty score  
For daily use, and bound for wear;  
The rest upon an upper floor;  
Some little luxury there  
Of red Morocco's gilded gleam,  
Or velvet rich as country cream.

Busts, cameos, gems—such things as these,  
Which others often show for pride,  
I value for their power to please,  
And selfish churls deride;  
One Stradivarius, I confess,  
Two meerschauts, I would fain possess.

Wealth's wasteful tricks I will not learn,  
Nor ape the glittering upstart fool;  
Shall not carved tables serve my turn,  
But all must be of buhl;  
Give grasping pomp its double share—  
I ask but one recumbent chair.

Thus humbly let me live and die,  
Nor long for Midas' golden touch;  
If heaven more generous gifts deny,  
I shall not miss them much—  
Too grateful for the blessing lent,  
Of simple tastes and mind content!  
—Oliver Wendell Holmes.

Written for Kansas Farmer.

### YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 18.

#### A REQUIEM MASS.

It is not always pleasant to die, and some people practice a great deal of procrastination with reference to the "debt" which all must pay, and even would like to plead the "statute of limitation" or claim "exemption" when payment is demanded. However this may have been with Princess Hohenlohe I do not know, but she did die on the 23d of December and had a grand funeral—a much grander one than was arranged for Mr. Fanshaw, as related by Mark Twain.

It is possible that everybody may not have heard much about the Princess and may not "place" her readily, so I will just say she was the wife of Prince Hohenlohe, who is Prime Minister of Germany and does the same kind of work Prince Bismarck used to attend to before his retirement from political life. Prince Hohenlohe is known as the uncle of the Kaiserin. My Deutsch newspaper says he is the "uncle twice removed of Kaiserin Augusta." What relationship that is I do not know. I once had an uncle twice removed, once from New York to Chicago and from Chicago to Iowa, but I suppose this is different.

Before I tell much about the funeral, I want to get the lady definitely located. You will remember the Hohenlohe family have been somewhat divided during the past five hundred years. There are the Hohenlohe-Bruneck, Hohenlohe-Holloch, Hohenlohe-Speckfeld, Hohenlohe-Neuenstein, Hohenlohe-Waldenburg, Hohenlohe-Neuenstein-Oehringen, Hohenlohe-Neuenstein-Langenburg-Wickersheim and Hohenlohe-Jagstberg-Bartenstein-Walderburg-Schlingensfuerst. Well, she was of the last kind. She was a Schlingensfuerst by marriage. She seldom wrote her name in full, but simply Hohenlohe-Waldenburg-Schlingensfuerst. She had been a famous

sportswoman in Germany and was greatly honored and loved by all.

She was about fifty-five years old at the time of her death, and her body was buried December 28th, at Schlingensfuerst, a long distance from Berlin.

On the 29th her "official" funeral was celebrated in Berlin, at "Saint Hedwig's Kirche," which is the only large Roman Catholic church in the city. This church is a plain imitation of the Pantheon at Rome and was erected in the time of Frederick the Great, about one hundred and thirty years ago. It is situated in the Opera-Platz, behind the Royal opera house and next to the Dresdner bank.

We went to the funeral. Policemen were stationed on all sides of the church, and in the streets were many to keep the crowds on the sidewalk.

This being a royal funeral, all the Ambassadors, Ministers and those connected with the various embassies and legations had to be present—in order to show proper politeness. It had been rumored that their Majesties, the Kaiser and Kaiserin, would attend; but they did not—they "sent a hand." They were represented by the Prince and Princess Leopold. The latter is a younger sister of Kaiserin Augusta.

We were a little late in arriving at the church but found that they had concluded to commence without us.

The interior of the church was draped in "deep" mourning and palms were in profusion. Only about one hundred people had seats, and these were the Ambassadors, Ministers, German Ministers of State, Generals of the army and some of the nobility. The rest of the people were permitted to stand.

Tall lighted wax candles were burning in all parts of the church, besides the many in the altar where the casket of the Princess was nearly buried in palms and flowers. She, herself, was not there, as the body had been buried the day before, which fact has been mentioned.

The Ambassadors, eight in number, sat in the first row of seats, and our Ambassador was the first one in the row. That's his position in Germany. In the second row were the foreign Ministers, and in the third row were the Secretaries and attaches of the various embassies and legations.

After these were the German state officials and Generals of the army. The gentlemen sat on the left of the middle aisle and the ladies on the right. Royal etiquette required the ladies to be "in deep black" and the gentlemen wore black gloves.

The service was all in Latin, of course, and lasted nearly two hours. The chanting of the priests, as they sang the solemn requiem mass, and the burning of the incense, which soon filled the church with "holy smoke," made the occasion seem—as it really was—a very solemn affair. I seemed to realize as I never had before that the smoke from burning incense, as it rises upwards, bears the prayers of the righteous into the "holy of holies" unto the Lord, who, smelling the "sweet savour" (see Genesis viii, 21), condescends to bless the devout worshippers. But the music by the choir, as it sang the hymn beginning: "Requiem aeternam dona ea Domine," was grand. I cannot describe it. I am not a Catholic, but usually find that when I want to hear really grand singing, if I go to a Catholic church I will not be apt to be disappointed.

#### A BIRTHDAY CELEBRATION.

Frederick the Great was born on January 24, but it was very unfortunate for him that the event did not occur three days later, for then it would have been the same date that marks the birthday of Emperor Wilhelm II., the present ruler of the Fatherland. It is barely possible that one, if not more, of the gentlemen above named considers the great Frederick a great loser by reason thereof.

But Kaiser Wilhelm had a big birthday this year, and if his people do not really love him, they at least gave him a "crowded house" out of doors. It seemed as if all of Germany and its near neighbors were on the Unter den Linden and adjoining streets on January 27th to pay their respects to His Royal Highness and wish him many returns of his anniversary. He was thirty-nine years old—the same age as Johannes Stecklebaum, who lives seventeen miles west of Salina.

But Prussia and every state in "Deutschland" most royally celebrated the Kaiser's "geburtstag" this year and did it more elaborately and heartily, I am told, than ever before, for this was the birthday which came in the tenth year of his reign.

As on New Year, all the Ambassadors, Consuls and other diplomats called on the Emperor in full dress and with much display. The weather had been

ARMSTRONG & McKELVE Pittsburgh.  
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JEWETT  
ULSTER  
UNION  
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COLLIER  
MISSOURI St. Louis.  
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THE statement made by many reputable practical painters, that two coats of paint made with the "old Dutch process" White Lead is equal to three coats made with White Lead made by quick process, is fully warranted.

As the cost of applying paint is about three times the cost of the materials, it follows that White Lead made by the "old Dutch process" is by far the cheapest. It is also the best.

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rainy and generally disagreeable for a week previous, but on the 27th of January there was no rain. While the sun did not shine during the day and the air was damp and cold, still it was considered a tolerably fine winter day for this part of Germany.

The ceremony of paying diplomatic respects to the Emperor was a repetition of the same on New Year's day, but there were more people on the streets in the vicinity of the Royal palace than on the former occasion.

No carriages except those of royalty and royalty's visitors were allowed on the Linden or within two blocks of the same. The view from one end of the street to the other presented one solid mass of humanity except in the open roadway reserved for the carriages from the Brandenburg gate up to the palace. Besides the ones who made their calls on New Year's day, there were this time dozens and scores of Princes and Princesses with an occasional King or two from all the smaller German states. The only ones I knew personally (by hearsay, of course,) were the King and Queen of Saxony, and two of the Emperor's sisters, daughters of Emperor Frederick and granddaughters of Queen Victoria.

The carriages were constantly going and returning from 11 o'clock till 12:30, when the Kaiser with a body-guard of two hundred finely-dressed soldiers came on foot, from the palace to the "Zeughaus," which building I will describe in a future letter and tell you that it is an armory and military museum.

As he entered the Zeughaus, we could not see the Emperor distinctly, but as he returned from it we had a fine view of the man who is more talked about, beloved, hated and admired than any other one in Europe. He wore a gray uniform of a Lieutenant. He addresses the Lieutenants on his birthday, and it was for this purpose that he went to the Zeughaus. While he was inside, his body-guard were "at rest," and on his reappearing they were straightened up in proper line and the band begun to play "America," that is, I thought it was America—"God bless our native land." A German lady near me said it was "God bless our noble Kaiser," which has the same melody; but an English lady said she knew better, that it was "God bless his grandmother," and she had heard it often in London when the Queen would be having an "outing" in public.

The Emperor then "reviewed" his guard, and when the last one had passed by, he walked with two of his officers across the Linden to the palace of the Empress Frederick, to call on his mother. Of course, there were policemen (guards) on all sides, so that royalty was "hedged about" in fine shape, but he walked very proudly between his two Generals, and indeed presented a very fine appearance of physical manhood.

There are many other features that might be described of the birthday ceremonies, but the telling would be too long and tiresome. The most beautiful part of the celebration occurred in the evening, when the city was made brilliant by thousands of colored lights.

At 7 o'clock the many thousands of

the "common people" were in the vicinity of the Royal opera house to see the royal carriages arrive and the royal insides of said carriages go into the Royal opera house; it was indeed a royal sight. On his birthday Emperor William "buys the whole house," that is to say, the "oberhofmeister" or marshal of his household engages every seat in the opera house, so that no common mortal may be present, and injure the circumambient atmosphere. Then tickets are sent to the Ambassadors and other diplomats from foreign countries, to Princes and Princesses, Counts and Countesses, Dukes and Ducklings, who thus become the honored guests of the Kaiser for the evening.

As in the morning, no vehicles were allowed anywhere near the opera house or in the Linden, so we were compelled to walk; but we were determined to see all that was to be seen, although the chance of being crushed in the crowd was fairly good. We walked up Unter den Linden to the palace at the Frederick monument and then back to the Brandenburg gate, so as to see the illuminations on both sides of the street. There were no "fireworks" such as we see in the Fourth of July country, but all consisted in beautiful figures constructed of colored electric lights and gas jets which bordered the doors and archways into the court yards of the princely dwellings along this aristocratic street. We then turned into Leipziger and thence into Freidrich strasse, which are the two greatest business streets of this large city.

Every store and shop window was brilliantly lighted. An immense W, the Kaiser's initial, seemed to be the favorite figure, and on either side was the Prussian eagle in small gas jets. The slight wind that was blowing caused the jets to shimmer sufficiently to make them appear like a shower of diamonds as one looked along the whole street. Besides the electric and gas displays, nearly every window contained a picture or bust of the Emperor and Empress.

As our party passed the American embassy building on Kronen street, we saw "old glory" floating in the German breeze. We patriotically saluted, and felt that we had just met a very dear friend.

The motto, "God bless our Kaiser," was seen on every hand, and I have no doubt that for this one day there were but few Germans who would have cared to substitute any other word for "bless" in the motto.

On the roofs of some of the large buildings were huge torches with colored lights flaming high in the air, and as the flames glared upward into the inky blackness of the clouds overhead, it reminded one of the pictures of burning Rome. But there was no Nero here; instead, it was Wilhelm, the beloved sovereign of the German people, who gloriously celebrated a "felertag" in his honor, and with them we say "Hoch! Wilhelm!"

Luxuriant hair, of uniform color, is a beautiful head covering for either sex, and may be secured by using Hall's Vegetable Sicilian Hair Renewer.

The misery of it is awful. USE ST. JACOBS OIL TO CURE **SCIATICA** You'll feel it is worth its weight in gold.



# KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the

**KANSAS FARMER COMPANY.**

OFFICE:

No. 116 West Sixth Avenue.

**SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.**

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.  
Address: **KANSAS FARMER CO., Topeka, Kansas.**

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Display advertising, 15 cents per line, agate (fourteen lines to the inch).

Special reading notices, 25 cents per line. Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$6.00 per line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$15.00 per year, including a copy of KANSAS FARMER free.

Electros must have metal base. Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All 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.**

Luther Burbank, of Santa Rosa, Cal., is continually producing by cross-breeding such variations in fruits, vegetables, shrubs and trees that he is entitled to be enrolled as the wizard of vegetable development.

Miss Frances E. Willard, President of the W. C. T. U., perhaps the most prominently known and universally respected woman in America, died in New York early on Friday morning, February 18. Her place will be hard to fill.

The name of the St. Louis Journal of Agriculture has been enlarged, making it "The Mississippi Valley Democrat and Journal of Agriculture." The paper has been enlarged to twenty-four pages to make room for the large increase of political matter.

It is intimated in Wall street that negotiations are pending and likely to succeed whereby the Missouri, Kansas & Texas railway is to be consolidated with the Chicago, Burlington & Quincy. This is another factor in the change of traffic lines and an increased use of the Southern outlet.

It is said that 2,000 acres of Arkansas valley land in Colorado will this year be planted in cantaloupes. These will be irrigated, and where well cultivated are expected to yield 300 crates to the acre. The inefficient cultivator will, however, have to be satisfied or dissatisfied—Dame Nature cares little which it is—with fifty crates or less per acre.

There is a dear little Kansas girl in Germany who is taking lessons on the violin in Berlin from the German masters, and she is writing home some highly entertaining letters. Her name is Anna Marie Nellis, and her father is one of the publishers of the Kansas Farmer, ex-District Judge D. C. Nellis, of Hays City, in which town Miss Anna Marie was born. Her letters are being published in the Kansas Farmer, but for old acquaintance sake Miss Nellis has been kind enough to furnish Topics with copies of her letters, which have on several occasions appeared in this department. She writes with the swing and verve so characteristic of the children of the plains, and though it is a far cry to call a letter from Germany a Kansas item, nevertheless it becomes such by reason of the Sunflower origin of its author.—Kansas City Journal.

The Creamery Butter-makers of the nation have possession of Topeka this week. They are here in great numbers and from every creamery butter section of the United States attending their annual national convention. Topeka has ample hotel facilities for nearly every occasion, but the creamery butter people have proven too numerous for the accommodations. There is a magnificent display of creamery appliances and a great collection of butter in competition for the prizes. The proceedings of the convention will begin after the forms for this week's Kansas Farmer shall have gone to press, so that any extended account of the meeting will have to be deferred until next week. The papers of the program will treat of practical subjects. The meeting will doubtless give an impetus to the butter-making industry in the entire West and in Kansas especially.

## THE MAINE DISASTER.

The United States battleship Maine was blown up in Havana harbor, at 9:40 p. m., February 15. About 250 of her crew were killed by the explosion or were so badly injured that they died soon after. Every possible assistance to the survivors was afforded by an American merchant vessel anchored near by and by the Spanish battleship Alphonzo XII. The Maine immediately took fire and sunk to the bottom, leaving only a portion of the top projecting above the water to mark the place where the ship went down.

Of those who lost their lives only two were officers, the explosion having destroyed only the forward portion of the vessel, in which were located the quarters of the men, while the officers' quarters were in the rear.

A naval investigation of the disaster, covering an inquiry as to both cause and effect, has been ordered by the United States Navy Department, and was commenced on Monday of this week. At this writing no information as to the progress of the official investigation has been given out. The public anxiety for news has been somewhat appeased by various reports from newspaper correspondents who have faithfully telegraphed every conjecture they could hear as to the cause of the disaster.

The circumstances, so far as known, leave the conviction strongly on the minds of Americans that the Maine was blown up by a torpedo or by a submarine mine, at the hands of the Spaniards. It has been suggested that the explosion was an accident, and that it occurred from overheating or from the spontaneous combustion of some of the explosives on board the vessel. A few have hinted that it was the work of the Cuban insurgents, done with the design of throwing the blame upon the Spaniards and thereby precipitating an open rupture between Spain and the United States. This last position is the least tenable of all. Havana harbor is under the strictest military supervision of the Spanish authorities, and it would be impossible for any body of insurgents to either plant a mine or launch a torpedo in those waters.

That the Spanish have the harbor liberally planted with mines of explosives and with giant torpedoes is not doubted. That the explosion has destroyed one of our most powerful battleships, the loss of which would be severely felt in case of a conflict with Spain, or any other country, is painfully true. But whatever may be private opinion as to the origin of the explosion, officially, President McKinley, the members of his Cabinet and our war and navy officials must assume that the explosion was an accident. To assume otherwise would be but slightly removed from an open insult to Spain.

It should not be forgotten that the Maine was a "guest" of Spain at Havana. That country was under obligation not only to treat the guest with courtesy, to abstain from doing her harm, but also to protect her from outside interference by either friend or foe to Spain. Should the investigation prove that the destruction came from without, the responsibility of Spain to the United States will assume an importance which may become embarrassing to that country.

## WAR WITH SPAIN NOT LIKELY.

The question is frequently raised as to whether there is likely to be war with Spain. Two occurrences of recent date have fired the war spirit of patriotic Americans to a high degree. First the Spanish Ambassador at Washington wrote a long letter to one of his countrymen in Cuba. This letter was stolen by an agent of the Cuban insurgents, and a translation was immediately published in this country. In it the representative of Spain at our capital spoke of President McKinley as "a low politician," and made other uncomplimentary remarks. The original letter was sent to the Department of State. The Spanish Ambassador acknowledged its authorship and immediately resigned. The letter was sent by the State Department to the person for whom it was intended.

While public feeling was still high on account of this insult, the battleship Maine was blown up while on a friendly visit at Havana.

Should the investigation prove that this ship was destroyed through negligence of the Spanish authorities, or, worse still, by their authority, will there be war? In either of these cases the United States will be entitled to demand reparation. Should this be granted to the full extent demanded, what will there be left to fight about? The extent and the nature of the reparation which we may reasonably ask will depend upon circumstances. If it shall appear that the vessel was destroyed from without, but shall not be proven that Spanish

authorities had anything to do with it, that they took reasonable precautions to assure the safety of the ship, but that through the act of some miscreant the vessel was lost, we should be entitled to ask for full compensation for the value of the property destroyed and reasonable indemnity to the families of the men killed or maimed. This country might also assume, in view of the insulting letter written by the Spanish Ambassador at Washington, that the contempt of Spanish authorities towards this government was such that our vessel was not accorded the vigilant protection that would have been accorded to a French, a German, an English or a Russian ship, and that this lack of attention to our interests and respect for our dignity has hurt our feelings to an extent not to be cured by a mere money indemnity. Certainly we may well take this position if it shall be proven that the Maine was destroyed through Spanish connivance or as an act of secret hostility.

Would there then be war?

Not necessarily.

We may well in such case assume that the hostile attitude was the result of our sympathy for the Cubans. We may also assert that the wretched manner in which Spain has misgoverned the island has caused serious losses to the commerce of this country and that a continuance of the conditions of the last few years will cause a great interruption to our peace and prosperity; that Cuban waters are under this misgovernment unsafe for our merchant marine, and even our war vessels are subject to wanton destruction, and we therefore demand the withdrawal of all Spanish authorities from the island.

The compliance, on the part of Spain, with such sweeping demands would probably be cheaper than war with this country. Such compliance, including complete financial indemnity, would leave us nothing to fight about.

It is safe to say that there will be a large amount of diplomacy before the issuance of a declaration of war, and that one of the last things likely to happen is war. It is well, however, that our government proceed rapidly with her naval preparations. To be up to date in our equipment for marine torpedo warfare is the best possible safeguard against the danger of having to go to war.

## THE MAIZE PROPAGANDA.

The first general "corn convention" ever held in the United States took place at Chicago last week, February 16 and 17. It was attended by representatives of the great corn-growing States. Of course, Kansas was there. The meeting was presided over by Secretary F. D. Coburn, of the Kansas State Board of Agriculture. On taking the chair, Mr. Coburn made a few remarks, which were so full of information and so adapted to the occasion that the Associated Press immediately telegraphed them over the entire country. They were reported as follows:

"The object of our coming together is conference for ways and means by which America's premier crop and wonderful cereal may be better understood and appreciated by the rest of the world. We are satisfied that scarcely one person in a million comprehends the magnitude of its product, its money value, its innumerable uses and possibilities, or its wholesomeness as a universal food for animal and human kind. The Central Western States, of which Chicago is rightly the great commercial port, are the home and habitat of Indian corn.

"As suggesting the acreage devoted to this crop in the United States, I may say that our government's statistics show it to have been in recent years about 10 per cent. greater than all the aggregate devoted to wheat, oats, barley, buckwheat and potatoes; in 1896 the acreage was greater by 18 per cent. We hear much of the wheat crop, and the casual reader of the public prints would suppose we had no other which rightly could compare with it. In spite of this our statistics show that during the last decade the value, one year with another, of our corn crop has been nearly double, or 99 per cent. greater than that of all of the wheat produced in all our wide-stretching wheat fields. The value of this corn in this decade has been about the same as the combined values of all our wheat, oats, barley, buckwheat and potatoes produced in the same period.

"In the last three or four years we have heard much of silver and its importance, and from the attention, oratory and printer's ink devoted to it we might suppose that it was the one interest before which all others paled and sank into insignificance. I find, however, that the average product of American silver mines during the three years ending with 1895 was less than \$46,500,000; the average

value of our American corn for each of the last ten years has been nearly \$636,000,000, or more than thirteen and one-half times the value of all our silver, which, in the minds of so many, is endowed with well-nigh god-like attributes. Add to this silver the output of gold, and annually we were producing corn worth more than seven times as much as both these precious and much-coveted metals combined.

"I am proud to come from a State regarded by many of the benighted and unsophisticated as something of a desert, which, while being transformed from a buffalo range into the wonderful garden it is coming to be, has produced corn that, in the fields where grown, had a value of more than \$326,000,000, and in the last two years had a crop of 375,000,000 bushels. The few simple facts I have presented, which could be amplified indefinitely, it seems to me, considering even the ignorance that obtains in our own country, to say nothing of other parts of the world, in reference to this wonderful grain, afford ample justification for our meeting here to devise ways and means by and through which it shall attain a wider recognition and more of the appreciation its merits must command. I consider it not only a great pleasure and a great honor, but a patriotic duty as well, to be identified with such an effort, which I and the people I represent wish a hearty Godspeed."

Plans were mapped out for future work in educating the people as to the food value and desirability of corn. A permanent organization was effected, under the name, "The American Maize Propaganda."

The following officers were elected: President—Clark E. Carr, Illinois. Vice President—John Cownie, Iowa. Secretary—Bernard W. Snow, Illinois. Treasurer—Andrew Langdon, New York.

Following are the members of the Executive committee, each selected by the delegation of his State:

C. J. Bachelder, Concord, N. H.  
Herbert Myrick, Massachusetts.  
J. M. Brinter, Buffalo, N. Y.  
F. E. Dye, Trenton, N. J.  
W. W. Gibbs, Philadelphia.  
F. P. Holland, Dallas, Texas.  
Lucas Moore, Frankfort, Ky.  
J. H. Canfield, Columbus, O.  
J. B. Connor, Indianapolis, Ind.  
Charles Bogardus, Paxton, Ill.  
John Cownie, South Amana, Iowa.  
W. A. Henry, Madison, Wis.  
John L. Gibbs, Minnesota.  
J. R. Ripley, Columbia, Mo.  
Col. T. W. Harrison, Topeka, Kas.  
R. M. Allen, Ames, Neb.  
H. D. Hurlley, North Dakota.  
W. W. Cooke, Fort Collins, Col.  
George E. Morrow, Stillwater, Okla.  
H. J. Patterson, College Park, Md.  
Henry G. Hay, Cheyenne, Wyo.  
Col. C. J. Murphy, delegate at large.  
Col. Clark E. Carr, delegate at large.  
The officers and committee chosen will serve until the first annual meeting of the propaganda at Omaha in October.

## Time for Redemption of Real Estate.

Editor Kansas Farmer:—I wish to ask if the law is still in force requiring eighteen months to regain possession of a piece of property on which you have foreclosed mortgage.

Leoti, Wichita, Co., Kas.  
Section 521 of Webb's statutes answers this inquiry, as follows:

"The defendant may redeem any real property sold under execution, special execution, or order of sale, at the amount sold for together with interest, costs and taxes, as provided for in this act, at any time within eighteen months from the day of sale as herein provided, and shall in the meantime be entitled to the possession of the property; but where the court or judge shall find that the lands and tenements have been abandoned, or are not occupied in good faith, the period of redemption for defendant owner shall be six months from date of sale. \* \* \*

For further details, see subsequent sections, also sections 471-472.

Many Greeley, Col., potato-growers buy their seed up on the "divide." It is thought that better results are obtained from this than from seed grown at Greeley. There is an inclination to attribute the superiority of the seed grown at the higher altitude to the fact that it is grown without irrigation. The real reason is probably similar to that which makes seed grown in the far North desirable in Kansas.

FOR RELIEVING THROAT DISEASES, COUGHS AND HOARSENESS, use "Brown's Bronchial Troches." Sold only in boxes. Avoid imitations.

Send \$1.25 for Kansas Farmer one year and book, "Samantha at Saratoga."

### Shelton's Successful Sale.

We are in receipt of a report of the successful Poland-China sale held by C. P. Shelton, of Paola, on the 17th inst. This is the first public sale Mr. Shelton has made since he moved from Ohio to Kansas, and he is certainly well pleased with the result. He also says: "I believe the Kansas Farmer did me more good than all the other papers combined in which I advertised."

The only unsatisfactory feature of the sale was the fact that of the breeders whose sales Mr. Shelton had patronized only one was present at his sale, but notwithstanding this discouragement forty-two head averaged \$35.21. D. W. Cherry, of Paola, topped the sale at \$135 for Priceless Gem 2d, and resold her same evening for \$150. P. Carmean, of Paola, secured Victor C. gilt for \$100. G. W. Vall took Priceless Gem 3d for \$97.50. Mr. W. P. Goode, of Lenexa, took No. 22 at \$65, so that in this case four head averaged \$99.37; six head \$83, and nineteen head averaged \$50. The stock offered were good individuals and well bred, representing such grand strains as Black U. S., One Price and Victor M. In fact, the offering was much better than was anticipated by the breeders present. The auctioneer, Col. J. N. Harshberger, of Lawrence, deserves much credit for his part of the success. Mr. Shelton says that his style of selling has the touch of business which pleases the purchasers. Mr. Shelton announces that next fall he will hold another sale, which will be properly advertised in the Kansas Farmer.

We give the following list of purchasers:

- No. 17, D. W. Cherry, \$135.
- No. 21, P. Carmean, Paola, \$100.
- Priceless Gem 3d, G. W. Vall, Paola, \$97.50.
- No. 22, W. P. Goode, Lenexa, \$65.
- No. 20, W. P. Goode, Lenexa, \$49.
- No. 14, Thos. Schwartz, Bucyrus, \$51.
- No. 4, G. W. Vall, \$40.
- No. 24, G. W. Vall, \$30.
- No. 10, C. P. Ricketts, Chiles, \$34.
- No. 1, Geo. W. Caton, Paola, \$30.
- No. 46, Geo. W. Caton, Paola, \$40.
- No. 11, C. A. Griffith, Wellsville, \$40.
- No. 15, Victor Kohler, Paola, \$34.
- No. 23, Victor Kohler, \$25.
- No. 2, Z. E. Jobs, Wellsville, \$31.
- No. 30, Z. E. Jobs, \$23.50.
- No. 27, J. H. Holman, Paola, \$26.
- No. 18, F. L. & C. R. Oard, Vassar, \$37.50.
- No. 9, F. L. & C. R. Oard, Vassar, \$32.50.
- No. 12, S. D. Condon, \$45.
- No. 19, John Morwood, Mulberry, Mo., \$42.50.
- No. 3, John Morwood, Mulberry, Mo., \$42.50.
- No. 5, John Morwood, Mulberry, Mo., \$42.

### The Two Days' Sale of Herefords at Kansas City, Mo., March 15 and 16.

On Tuesday and Wednesday, March 15 and 16, there will be offered at public auction 110 head of Herefords, whose breeding and individuality are the equal of those in any country where the white-face is found. The first day's offering will consist of the entire herd known as the Sycamore Springs herd, founded and owned by Mr. H. M. Hill, of La Fontaine, Kas. In this offering will be a consignment of four choicely-bred bulls from the Clover Leaf herd of G. Hornaday & Co., Fort Scott, Kas. The herd of Mr. Hill contains choice imported cows and drafts from Mr. Sotham's famous Weavergrace herd that has always secured its share of State prizes since it was founded. Some of the best attainable came from the Makin Bros., Florence, Kas., World's Fair prize-winning herd. The draft of Mr. Hornaday's are Gudgell & Simpson's breeding, the dams belonging to a draft secured at the Independence, Mo., sale, October 23, 1896. These young bulls are Klondike 72010, a grandson of the World's Fair winner, Beau Brummel 51817; Lamplighter Jr. 72003, by Lamplighter 51834, the first prize yearling at the Columbian; Earl of Roseland 72000, another grandson of Beau Brummel 51817, and Beau Don 71997, by Beau Brummel 51817 and he by Don Carlos 33734, that won second, aged bull, at the World's Fair.

### THE FUNKHOUSER-GUDGELL & SIMPSON DRAFT.

On Wednesday, the day following the Hill dispersion, Messrs. Funkhouser and Gudgell & Simpson will offer sixty bulls and heifers, whose ancestral and show-yard history at the annual State fairs of this country and at the Columbian have no superior in Hereford history. The sons and daughters of the individual and breeding bulls, Hesiod 2d 40679 and Free Lance 51626, are certainly strong enough to call forth every ambitious

beef breeder throughout the land. On the other hand, sons and daughters of Don Carlos 33734, Beau Brummel 51817, Lamplighter 51834, the Imp. Chesterfield 56697 and Roseland 51840, he by Earl of Shadeland 47th 33644, whose great-grandfathers were Regulus 3849, Challenge 1561, Lord Wilton 4057 and The Grove 3d 2420. His dam, Rosette 3d 31106, was by the great Anxiety 4th 9904. The first three of these harem kings were World's Fair winners. Imp. Chesterfield has three very excellent sons that will go into the sale. Roseland has been catalogued and will be offered, affording prospective buyers an opportunity to secure a herd-header whose breeding and tested worth makes him worthy a premier place in any herd.

### Gossip About Stock.

Lawrence Nation, Hutchinson, Kas., reports good sales of Poland-Chinas in western Kansas and Colorado, having sold twelve head recently. There seems to be no limit to the territory where pure-bred stock is being demanded.

The thirteenth annual meeting of the Holstein-Friesian Association of America will be held at the Iroquois hotel, Buffalo, N. Y., on Wednesday, March 16, at 10 o'clock a. m., for the election of officers and the transaction of other business.

One of our recent advertisers of poultry, Mrs. V. Odell, of the White 'Dotte' poultry farm, Wetmore, Kas., sends free with every shipment of eggs or poultry a recipe for making a good lice-killer paint that will entirely clean the hen-house of these pests; or she will send the recipe alone for 25 cents, which may be deducted from any subsequent order.

Mr. H. T. Forbes, of 706 Polk street, Topeka, Kas., considers the Stahl Excelsior incubator one of the finest machines of the kind that could be invented. His first trial with it this season resulted in hatching 158 very fine chickens. Mr. Forbes' Buff Cochins have already become noted as being the highest-scoring birds in the State. He intends to increase his stock so as to be able to fill all orders, which at present have been coming in faster than he could handle them.

J. W. Robertson & Co., Marshall, Mo., will hold a special blue ribbon sale on April 6, at the Grand Avenue Horse and Mule Market, Kansas City. The intention is to make this the horse event of the season, and nothing but a very desirable class of horses will be offered. Breeders desiring to make entries for this sale should write the advertisers at once. J. M. Robertson & Co. are the most successful organizers and sellers of good horses in the West, and it is to the interest of every breeder to co-operate with them for the benefit of the horse industry of the West.

Dietrich & Spaulding, Richmond, Kas., have sent us a detailed report of their recent sale of Poland-Chinas, in which they say that there were a good many breeders from a distance and that most of the sales were outside of Franklin county. Owing to the bad condition of the roads, the local attendance was disappointing. The range of prices realized was from \$20 to \$60, and the following are the names and addresses of the purchasers: Lawrence Nation, Hutchinson; Frank Farrar, Osage City; Harry Boeken, Funston; Thomas Parker, LeLoup; W. D. Vawter, Carbondale; T. T. Gentry, Ottawa; V. B. Howey, Topeka; J. N. Harshberger, Lawrence; J. N. Henson, Council Grove; G. L. Bell, Quenemo; F. W. Cannady, Yates Center; H. T. Ruble, Fulton; M. Durst, Ottawa; Waltmire & Son, Fountain; A. J. Bowman, Quenemo, and H. Davidson, Waverly.

Splendid reports come from Weavergrace Herefords. The herd was never in such good shape. The celebrated show cow, Benita (property of T. F. B. Sotham, Chillicothe, Mo.), whose wonderful sale, even quality and beautiful feminine finish, has made her an attraction in the victorious Weavergrace show herd, dropped a splendid bull calf February 12, by Sir Bredwell, that headed the same herd. It will be remembered that Benita was exhibited with her heifer calf, Benison, by her side, making a pretty picture of beauty and usefulness, not duplicated by any other exhibitor. Lady Plushcoat (full sister to Protection), that was shown last fall by Mr. Sotham as a two-year-old, and previously in both yearling and calf form, also dropped a bull calf on February 4, by Sir Bredwell. Lady Chloe will calve this month. Manager Taylor suggested the name of "Provost" for Lady Plushcoat's bull, while Benita's bull will appropriately be known as "Bequeather." Both are rare, good calves, and bound to make great bulls if well developed. Manager Taylor and Mr. Sotham are anxious to

hear as favorable reports from the other "crack" females in competing ages. Let us hear from them all, beginning with Jessamine and Beau Real's Maid.

As an evidence that the "better days" have come for all those engaged in the breeding of improved stock, we point with pride to the page advertisement in this issue of Kansas Farmer. This is the largest live stock advertisement that we have ever published. The great offering of Sunny Slope Hereford cattle, including the entire English importation, will be sold at public auction on March 2 and 3, 1898, at the home farm, Emporia, Lyon county, Kansas. Mr. C. S. Cross, the proprietor, says: "Every reader of this paper is hereby given a cordial invitation to be present at our sale of 150 head of registered Herefords." For the benefit of every breeder of Herefords in Kansas, we trust that they will make this sale the greatest Hereford success ever achieved in America. The superior quality of the offering and the enterprise of the owner merits that this should be the crowning event of Hereford sales in this country.

Rose Creek farm, Chester, Neb., has sold to Edward Hunzicker, of Colony, Kas., the yearling Jersey bull, Pride of Colony 50191. This youngster was sired by Calvin S. Brice 37820, grandson of Pedro and Marjoram 2d, of World's Fair fame, and his dam was Allena B. 98348, a show cow and descendant of Coomassie and Albert 44. They have sold to F. P. Stutler, of Humboldt, Kas., the yearling Jersey bull, Originator 50460, sired by Superior of Menlo 40089 (that was exported to Central America), and has for a dam Zoroanda 3d 89699, granddaughter of Tormentor, the sire of forty cows with recorded tests. They have also sold to J. Seyster, of Concordia, Kas., the two-year-old Jersey bull, Baron Romeo 44577, a son of Andalusia's Pride 36152, at the head of Congressman Henry's fine herd at Rockville, Conn., and has for a dam Emerald of Argyle 103704, that traces to Stoke Pogis 3d, Victor Hugo, Lord Lisgar and other noted sires. They credit all these sales to the Kansas Farmer, which brings them more inquiries than any other paper. At present they are offering a solid-colored Jersey bull, dropped June 3, 1897, sired by their herd bull, Calvin S. Brice 37820, and out of Countess de Castellane 102863, one of their best cows. Address H. Woodford, manager, Chester, Neb., for further information.

### Publishers' Paragraphs.

If you will write to H. B. Rusler, at Johnstown, Ohio, he will forward you free catalogue and hints on spraying and will be able to convince you that the Comet is not only the best but the fastest selling Sprayer on the market. The very low price at which the Comet is sold places it at once within the reach of every one.

The Woman's Supplement in The Chicago Sunday Times-Herald is a new and very popular feature. It tells what women are doing and keeps them in touch with the leaders in each field of woman's work and progress. It portrays the latest fashions, gives helpful suggestions in the economy of the household and is brimful of human interest. Order next Sunday's Times-Herald from your dealer.

Our readers have no doubt noticed the advertisement of Bateman Mfg. Company, of Greenloch, N. J., who have a splendid up-to-date line of garden implements. We desire to say that the Harnden Seed Company, of Kansas City, Mo., is State agent for the Bateman line of goods, and if our readers will confer with them or call upon them when in the city they will be exceedingly well pleased with this line of seed implements, as well as the supply of field and garden seeds.

It is now nearly three-quarters of a year since the bold Norwegian, Andrée, sailed out of all human sight in his balloon, in the hope of reaching the North Pole. Experts in Arctic travel and exploration are far from convinced that he is lost; indeed, they are quite confident that he will yet be heard from. One of them, Mr. Walter Wellman, who himself conducted an expedition into the Arctic in 1894, will review the chances for and against Andrée's safety in an article in McClure's Magazine for March.

For over fifty years Mrs. Winslow's Soothing Syrup has been used by mothers for their children while teething. Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain of cutting teeth? If so send at once and get a bottle of "Mrs. Winslow's Soothing Syrup" for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures diarrhea, regulates the stomach and

bowels, cures wind colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. "Mrs. Winslow's Soothing Syrup" for children teething is pleasant to the taste and is the prescription of one of the oldest and best female physicians and nurses in the United States, and is for sale by all druggists throughout the world. Price, 25 cents a bottle. Be sure and ask for "Mrs. Winslow's Soothing Syrup."

The question of reliable life insurance is one which confronts the head of the family as he contemplates the uncertainties of fortune. The prudent Kansas man makes no mistake if he takes a policy in the Kansas Mutual, a company which finds it entirely in harmony with its way of doing business to comply with the strict letter of the Kansas law, for the protection of policy-holders, as enforced by the most exacting Insurance Commissioner the State ever had. An investment in the Kansas Mutual is wise and prudent.

The Pasteur Vaccine Co., of Chicago, has just completed some statistics in regard to the vaccination of cattle against blackleg with the Pasteur vaccine. In 1897 the largest number of cattle were vaccinated in Texas, nearly 49,000 head. Colorado is second, with 41,000, and Nebraska third, with 23,000. The mortality among animals treated with the Pasteur vaccine last year was found to be practically nil. This is a very satisfactory showing, not only for preventive vaccination, but also for the Pasteur vaccine.

Are You Sick?—In another column will be found a card of the National Dispensary, of Cincinnati, Ohio, in which they make a very generous offer to our readers. This is done to become acquainted with our people, and to advertise their institution, which furnishes a home treatment for any form of chronic, broken-down and lingering ailments. Should any of our readers be afflicted and in need of a first-class physician, we suggest that they open correspondence at once. The address will be found at the bottom of their card. Our Cincinnati correspondent states that Dr. Beatty, in charge of the institution, is thorough, capable and responsible, and a regularly graduated physician.

### BLOCKS OF THREE.

Every present subscriber for Kansas Farmer who will send in two new subscribers and \$2, may have his own subscription extended one year without additional cost. We mean it; blocks of three—one old and two new subscribers for \$2. This offer is made for the purpose of greatly enlarging the Kansas Farmer's subscription list, and is confined strictly to the proposition as stated. It will be an easy matter for any old subscriber to get two new ones, and it is almost certain that after reading the "Old Reliable" for a whole year they, too, will become permanent members of the Kansas Farmer family. This is to the publishers the business end of this extraordinary proposition. Blocks of three—one old with two new subscribers—all for \$2.

If upon fruit you'd keep insects from preying, stop their little game by liberal spraying.—Exchange.

### Summer Land in Winter.

Southern California; the California Limited takes you there in 54 hours over the Santa Fe Route. Most luxurious service.

### Don't Tobacco Spit and Smoke Your Life Away.

To quit tobacco easily and forever, be magnetic, full of life, nerve and vigor, take No-To-Bac, the wonder-worker, that makes weak men strong. All druggists, 50c or \$1. Cure guaranteed. Booklet and sample free. Address Sterling Remedy Co., Chicago or New York.

### Have You Noticed the New Lights?

The Santa Fe chair cars, coaches and dining cars are illuminated by electricity generated by the revolution of the axle. 'Tis the first line to adopt the system.

An elephant keeper in the Central Park menagerie, New York, has been experimenting with an elephant and a hose. The elephant has learned during the hot weather how to handle a hose with very good effect, until now he is able to bathe himself all over, and thus secure some relief from the heat. Tom sometimes fills his trunk from the end of the hose and sprinkles himself in that way. He is able, however, to take the hose and put water on any part of his body.

Send \$1.25 for Kansas Farmer one year and book, "Samantha at Saratoga."

**Horticulture.**

**SOME SHADE TREE INSECTS.**

By E. A. Popenoe, Entomologist State Horticultural Society.

In the Kansas Farmer of February 17, is published a paper on "Forestry," by Mr. Geo. M. Munger, read, in the writer's absence, by the Secretary before the State Horticultural Society at its meeting in Topeka, December 29, last. As it appears in the Farmer without the discussion that followed the original presentation before the society, it seems worth while to present here some of the comments there made, with some additional facts, for the benefit of tree-planters.

In the paper certain trees are given special mention as desirable for orchard protection because of their freedom from insect pests, and others are, for the contrary reason, named as open to objection. In noting this relation of shelter belt trees to the orchard, it may be supposed that the objection lies to some trees because they nourish insects that may threaten also the trees of the orchard, or, on the other hand, that the approved sorts do not thus nourish orchard pests. That this is the view held by Mr. Munger in his paper, is evident from the specific mention of certain orchard pests in proper connection with some of the trees named. In the discussion following, I raised the point that the approval of some trees as to their freedom from orchard pests was not well founded, and that some excluded on account of their furnishing a harbor for such insects were really not properly excluded on this ground. One of the trees approved is the box elder. In fact, this tree is one of those most open to the objection of being "a harbor or breeding place for insects," and among these insects are some well-known orchard pests. Trees of the box elder in the vicinity of orchards, as elsewhere, are generally disfigured by the ugly nests of the fall web-worm, which will be found equally abundant in the orchard at the proper season. Another of these box elder pests that threaten cultivated plants is the troublesome "box elder bug," originally more common westward, but now one of the most abundant insects in Kansas. This is the black, red-striped bug that gathers in such swarms in protected corners and in windows during warm days in fall, coming into houses and greenhouses, attacking house plants of most sorts, as well as many ornamental plants out of doors. Its full history was first worked out by Mr. C. L. Marlatt and myself and an account published by us in the report of the Kansas Experiment Station for 1888, abridged accounts having also been published by myself in the Industrialist and the Kansas Farmer about the same time. As its common name suggests, this insect is especially abundant on the box elder, and everything points to the conclusion that this tree is the original, as it is the present, home of this pest. As noted in the above report, they have been observed by Mr. A. L. Siler, of Ranch, Utah, as seriously attacking apple orchards in that State, "destroying the fruit crop, eating the fruit as fast as it ripened. On one tree which Mr. Siler examined, and which bore apples of medium size, they were present in enormous numbers, and every apple he could see was covered with the bugs. They were stated to have bred on the box elder shade trees (Megundo aceroides)" (Riley. Twelfth Bulletin, Department of Agriculture). This fruit-eating tendency is also evidenced in Kansas, especially by the attacks of the bugs upon the mulberry, upon which I have seen them literally in swarms.

The caterpillar of the Cecropia moth is one of the largest and most striking insects found upon the apple and plum. Every treatise on economic entomology from Harris down has noted its habits. This insect in Kansas feeds also, and even more abundantly, upon the box elder. I have had a half bushel of its cocoons from wind-breaks of this tree in Osborne county, and have been informed by several correspondents from Finney county, for whom I have identified the insect, of its equal destructive abundance upon this tree in their locality. It occurs at times in the given localities so numerous as completely to strip the trees of their leaves.

The flat-headed borer is another orchard pest that is equally destructive in its attacks on the box elder. Though its work on this tree is invited, as is the case on the apple, by the ill health or poor cultivation of the tree attacked.

The prominent insects above given do not exhaust the list of pests found on this tree and fruit trees alike, and it seems that if a freedom from insect pests

is the ground of approval, the box elder falls to stand approved.

The black wild cherry is another approved tree to which exception may be taken, if its liability to attack by orchard insects is to be the basis of judgment. Packard gives this tree as "undoubtedly the native food plant of the peach tree borer before the importation of peach trees." It is also the favorite home of the apple tent caterpillar and the forest tree tent caterpillar, the latter species probably the one referred to by Mr. Munger, in his remarks on the white ash, as the "web-worm." It feeds also the cherry slug, the red-humped apple caterpillar, the cherry leaf roller, and the large flat-head borer (Dicerca divaricata), a special enemy of the pear and apple. The list might be extended beyond the patience of the reader and the space of the present article.

In referring to the Catalpa speciosa, Mr. Munger states that "no insect enemy to this grand tree is known." So far as Kansas is concerned this may yet be practically true. But it is worth noting that the catalpa does support a special foe which, after it once appears in the Farlington forests, as one day it may, will probably defoliate those extensive plantations as completely as do now the frosts of autumn. This insect is the catalpa sphinx, well known in the South and East, where, at times, it is extremely abundant, its increase from its former scarcity seeming to have been encouraged by the cultivation of its food plant as an ornamental and forest tree. I saw it in August, 1891, at Fortress Monroe, Virginia, in such abundance that the trees of the catalpa about the parade grounds and the quarters were as bare through its work as in winter, and the branches were literally a-crawl with the large hungry caterpillars in search of more leaves to devour. I have also had it in quantity from middle Georgia, and it is reported by Webster (Insect Life, II. 382) as exceedingly abundant and very destructive in southern Indiana, and as defoliating trees in the forests of Arkansas in May. It occurs also in Delaware (Beckwith, Report, 1896), and doubtless at points intermediate between the localities given. So far as I have learned, this insect is not to be considered an enemy to the orchard. It is probably restricted closely to its food plant, as sphinx moths usually are. But it is well for catalpa planters to know that there is apparently nothing to prevent the spread of this insect from its present localities to our own State in time, and apparently nothing in the conditions here to prevent its being perfectly at home when once it appears.

In speaking of the Russian mulberry, Mr. Munger says that, except for the "tent caterpillar (which tent caterpillar it is not stated), this tree is not known to be a harbor for any insect pest." This may be generally true for insects that are also troublesome in the orchard, yet the tree is now the adopted home, along with the Osage orange, of at least two species of long-horn borers of the same family as the black locust borer and the round-headed apple tree borer. These are at times quite common upon the mulberry in question. At Manhattan I gathered the two species at the same time by beating the branches, in June, over an umbrella. As many as a dozen of the beetles at once were sometimes thus dislodged from a single branch. These beetles are known to entomologists as Dorcaschema Wildii and D. alternatum, and have as yet received no common names. They may also be taken by the same method from older plants of the Osage orange in neglected hedges. The larvae of these borers may be found in living plants of both mulberry and Osage orange. It is not at all likely, however, that they will ever be found to attack the usual orchard trees of this latitude.

On the other hand, the soft maple is held to be open to objection because it makes a home for injurious insects. While this tree is subject to the attacks of a number of different species, its worst enemy, and the one whose occasional abundance is responsible for the disesteem in which this tree is held, is the green striped maple worm, and this will scarcely be feared by orchardists.

**The Economic Importance of the San Jose Scale.**

Editor Kansas Farmer:—In a late issue of the Kansas Farmer, Mr. Mac J. Crow, formerly a resident of California, but recently located in Pike county, Missouri, writes concerning the comparative ease with which the San Jose scale can be combated. He states that the insect in kept in check in California by the use of resin washes and the lime, sulphur and salt spray. He strongly rec-

ommends the same treatment in this region.

In this connection I have thought it wise to call your readers' attention to the fact that it has been repeatedly proven by experiment against the San Jose scale that methods reported as effective against the San Jose scale in California and Pacific States are practically valueless in States east of the Rocky mountains. This is largely due to the effects of the different climatic conditions upon the life of this insect.

The economic importance of this scale is not being overestimated. Germany has taken active steps toward restrictions upon shipments of fruit from this country in order to guard her fruit interests against the possible introduction of this pest. In the international correspondence that has taken place, Secretary Wilson, of the United States Department of Agriculture, says that Germany's action is not altogether uncalled for, and he has asked Congress to pass a law subjecting all trees and fruits exported or imported to strict inspection.

Other insects injure certain fruits or trees; the San Jose scale attacks the life and products of all deciduous fruit trees. The San Jose scale is not known to exist in Kansas. Instead of a knowledge of remedies, then, it is sufficient for the horticulturists of Kansas to know that this scale can be brought into the State upon fruit or shipments of trees, buds or cuttings, and to protect themselves by subjecting such importations to close inspection. S. J. HUNTER.

Department of Entomology, University of Kansas.

**Soil Moisture.**

Editor Kansas Farmer:—In late issues of the Farmer and other journals I notice frequent articles on "Soil Moisture." It occurs to me that the farmers of Kansas and Nebraska were a long time finding out how to prevent the rapid escape of moisture. When I came to Kansas, nearly twenty years ago, the first thing I did, after planting a five-acre patch of strawberries, was to order a blacksmith to make me a nine-tooth cultivator; had it made according to my idea of the needs of the soil, for keeping the soil moist and finely pulverized between the rows of strawberries. I learned before I had six months' experience in working Kansas soil that if the spaces between the rows were permitted to bake the moisture would escape, and my plants would soon die in times of drought. Soon I learned that it was best to stir the soil as soon after every hard, beating rain as possible; then in times of drought to continue stirring the soil every week or two, as long as the drought lasted.

I have several soil cultivators of the later improved patterns, but the old one of my own invention, though not as good a pulverizer, still holds an honored place among the implements of my warfare on weeds and drought. The writer has frequently told his neighbors that he owed his success in berry-growing to the old nine-tooth cultivator. When I began berry-growing in Kansas, in 1880, I was told by a prominent fruit-grower of Lawrence, well known in the State, that I would have to protect my strawberries from the heat and hot winds of July and August with a mulch of straw or my plants would die. My kind friend was courteously informed that I had an implement provided that would keep my plants alive and save the expense of a midsummer mulch.

Several years ago I applied the same kind of treatment in a field of corn that was worked during drought in the berry patch. Notwithstanding the season was a very dry one, I made sixty-five bushels of corn to the acre, while many farmers in the neighborhood made from twenty-five to forty bushels. Were I engaged in grain and stock farming I would use my strawberry cultivators for growing corn and preparing my soil for wheat, except in very wet seasons, when the weed growth would require larger plows for their destruction.

From the publishing of my first cata-

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logue, seventeen years ago, on small fruit growing, down to this year's catalogue, I have called attention to the importance of keeping the soil pulverized in berry patches—that otherwise failure would surely follow. The writer could have told Kansas farmers seventeen years ago how to conserve soil moisture, but had he done so, the farmer with his 500 to 2,000 acre corn field would have considered him a fit subject for the insane asylum.

Having a few minutes more time, permit me to say a word to the man who is mourning over the departure, or plowing up his prairie grass lands, and how he may re-seed it at a small cost. I learned it from the use of prairie hay to mulch my berry patches for winter protection. The soil having been well pulverized by cultivators, before referred to, is in fine condition for grass seed to germinate and come up the next spring. Owing to the hay seed coming up so thickly some seasons, I can only get one crop of berries before having to plow up the patch to get rid of the prairie grass. In case one wants to re-seed some part of the farm that has grown thin and poor, to the original grasses, let him spread thinly over a well-prepared soil two tons of hay cut when the seed is about ripe, and in two years he will have a crop of the old original grass, that is rich and nutritious, the kind that supported the buffalo, the antelope and deer in days of auld lang syne.

Lawrence, Kas. B. F. SMITH.

The honest public sentiment of the people of the United States is unanimously in favor of Dr. Bull's Cough Syrup. The dealers pronounce it to be the only standard cough remedy.

**Mammoth White Artichoke Seed for Sale**

Cheapest and healthiest hog feed one can raise. Especially adapted to Kansas and Nebraska soil and climate. For further particulars and prices address Geo. A. Arnold, Haydon, Phelps Co., Neb.

**1,000 Peach Trees** one year from bud, 2 to 3 ft., mostly branched, with freight prepaid to any station in Mo., Kas. and Ia., for \$21; or 500 for \$12. Sample prepaid, 25c. Other sized trees proportional prices. R. S. JOHNSTON, Box No. 17, Stockley, Del.

<p><b>1000</b> Box Elder &amp; Ash \$1.25. Rus. Mulberry and Osage Hedge at about same price.</p>	<p><b>100</b> APPLE, 3 to 4 ft. \$6 Cherry, 3 to 4 ft., \$10 Concord Grape, \$1.75 We pay the freight Complete price list free Jansen Nursery, Jansen, Nebr.</p>
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**BEST CORN FOR KANSAS.**

One Kansas customer says: "Your C. Y. Dent corn is two weeks earlier than, and will make ten bushels per acre more than our native corn alongside." 26 best kinds. Catalogue, 2 samples and proof free. Address, J. C. SUFFERN, Seed Grower, Voorhies, Ill.

**WE CAN SAVE YOU MONEY**

On small fruit plants—100 varieties of Strawberry plants; 75,000 Kansas Raspberry, best raspberry ever introduced. Write for our new 1898 catalogue, now ready. Address, F. W. DIXON, Holton, Kas.

**EVERGREEN NURSERY COMPANY,**  
(Box 109) EVERGREEN, WISCONSIN.

Growers of hardy, first-class evergreen and deciduous trees for shade, ornament or timber. Largest stock, lowest prices. Write for free catalogue, and let us know your wants.

**Plant! Plant! Plant! Strawberry Plants!**

I have them to sell. Best of the old with best new varieties. For my 1898 illustrated instructive catalogue, five 2-cent stamps. Price list free. B. F. SMITH. Box 6, Lawrence, Kas.

**POTATOES---Northern Grown Seed.**

Five best from 140 kinds to produce on Western soil. 3,000 bushels in premiums or we pay the freight. How to raise a big crop. Circular free. Fountain Head Experimental Potato Farm, Beaver Crossing, Neb. T. G. Ferguson, Proprietor.

2,000,000 Strawberry Plants at \$1.50 per 1,000 and up; 12,000 Peach trees 1 1/2c. and up; Osage Orange Hedge \$1 per 1,000; Ash Seedlings 75c. per 1,000. A large supply of all kinds of exceedingly well-rooted, true to name and strictly first-class nursery stock. Write for price list to BOHEMIAN NURSERIES, Reynolds, Neb.

### In the Dairy.

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

#### Compliment to Delegates.

An announcement made lately adds immensely to the anticipated pleasures of the excursion to Topeka to attend the convention of the National Creamery Buttermakers' Association. The announcement was made by F. A. Tripp, of the Transportation committee, that the Chicago, Rock Island & Pacific and the Santat Fe railroads would tender to the delegates who go out in the Rock Island's great special train from Columbus Junction, Iowa, a complimentary excursion through Kansas. The Rock Island has shown the greatest interest in the Topeka meeting and gives this free excursion, thus showing its appreciation of the favor which the delegates all over the Northwest are showing that road. The excursion will leave Topeka at the close of the convention and make a daylight run, visiting the following points of interest: Enterprise, Abilene, Marion, Peabody, Wichita, Newton, Hutchinson, Great Bend and Canton. This route is through the most beautiful part of Kansas. There will be receptions all along the route. The railroads have the excursion in hand and will see to it that the delegates have a royally good time.

#### Retailers Increase and Amount Manufactured Decreases.

Notwithstanding the passage of the anti-color law in Illinois, last June, the number of dealers is larger, but the amount manufactured is somewhat less than formerly, as may be seen by the following:

"Last month the internal revenue office in Chicago issued 79 licenses to retailers of oleomargarine, carrying the total of licenses issued since the beginning of last July to 964. In January, 1897, only 35 licenses were issued and the total in force February 1, 1897, was 928. In that district at the present time there are 36 more retailers selling oleomargarine than were engaged in the business at this time last year. During the whole of the year from July, 1895, to July 1, 1896, the total of licenses issued was 940. This year has already passed that by 24.

"The output, estimated from the amount of money collected from stamps, continues to show less. In January, 1897, the collections were \$43,104.70, representing an output of 2,155,235 pounds. Last month's collections were \$36,039.10, which represents an output of 1,801,955 pounds.

"Total production for each month of the year beginning July 1, 1897, and the corresponding months of the preceding year is shown in the table which follows. The total represents fifty-pound tubs:

	1897.	1896.
July.....	13,874	26,293
August.....	18,494	31,443
September.....	22,555	43,090
October.....	40,255	52,174
November.....	49,103	40,567
December.....	48,370	58,834
January.....	36,039	43,105
Totals.....	228,690	295,506

#### The Science of Feeding.

Under the above heading Hoard's Dairyman says:

"Strictly speaking, the matter of feeding for milk is yet a long way from being an exact science. Probably it never will be, owing to two very variable factors in the problem—the cow and the man who feeds her.

"But we are fast learning something from science concerning the principles and laws which govern results. We do not need to be wholly blind and stupid on this matter unless we wish to.

"There is a simple and yet potent reason why the cow must have a sufficient amount of protein each day in her food if she is expected to give a profitable mess of milk. Of course she must be the right kind of a cow, and be handled right otherwise. But that is another branch of the science.

"The reason why she must have her daily protein is that she must put a certain proportion of protein in her milk—that is the casein, or cheesy part. There is a great big MUST behind the cow in this. There is only one way out of it, that is, to make less milk. Does any one want her to make less milk? If so, feed her without any regard to the science of her work and she will do it. Thousands of stupid men all over the country who despise science, calling it 'book farming,' are practicing that way. "The cow cannot change the proportions of her milk to any extent. As she

was born to do, so must she continue to do. The cow, not the feed, governs the proportions of the solids in the milk. Here is where individuality comes in. Breed is nothing more than established individuality in a certain direction. But whatever her individuality or breed she cannot make something out of nothing.

"She cannot make butter fat without making a due proportion of casein.

"She must make a balanced product, and she cannot unbalance it to suit any man. She is bound down by the rigid law of her being. Science is studying it every day, spending the money of States and nations by experiments to find out what? The law of her being. And yet there are men who keep cows who declare that their ignorance is a safer guide with a cow than the wisdom of all the rest of the world.

"Albumen is protein; and so the cow, if she cannot get what protein she needs to put the casein in her milk, shuts down the gate and gives less milk.

"Because such a great number of farmers who keep cows will not read and study out this matter is the reason why they are making so little money. If they would read here they would read in other things about the cow to their profit. But they shut the light out of their minds, saying: 'It's all humbug; I can't farm it the way that paper talks,' and so continue with their poor cows, poor methods and poor results."

#### Oleomargarine.

Here is an echo from the days when it was not reckoned unlawful to sell oleomargarine as butter:

"We no longer have the same profitable way of disposing of our waste products that we had a few years ago," said a fur dealer the other day. He looked retrospectively and a trifle regretful, as he continued: "There was always a ready market then for every particle of fat scrapings from different skins. Who took them? Why, the oleomargarine manufacturers, to be sure. They would send wagons up to my place every day to carry away several barrelsful of the fat and grease which have to be taken off the under side of the heavy pelts. Skunks, opossums, all kinds of animals contributed. It all went into the butter. But that is over with now. Since this new law has been in operation, that branch of the business has been dead. People could eat skunk and opossum grease, you know, so long as it was called butter, but if the dealers are obliged to come out frankly with a description of its real character, their customers object."

#### The Choke Ball.

Cows will often get choked with a small potato or other articles of food. The following peculiar remedy is sometimes employed: Take of fine-cut chewing tobacco enough to make a ball the size of a hen's egg. Dampen with molasses so that it adheres closely. Lift up the cow's head, pull the tongue forward and crowd the ball as far down the throat as possible. In fifteen minutes it will cause sickness and vomiting, relaxing the muscles so that the object will probably be thrown out.

Catarrh in the head, that troublesome and disgusting disease, may be entirely cured by a thorough course of Hood's Sarsaparilla, the great blood purifier.

Hood's Pills cure nausea, sick headache, indigestion, biliousness. All druggists. 25c.

### STRAWBERRIES

\$2.00 a 1000 for standard kinds. Only New Beds. Best Plants you ever saw. Raspberries, \$5. a 1000. Other fruits at like rates. Lists SENT FREE. JOHN F. DAYTON, WAUKON, Allamakee Co., IOWA.

### TESTED • SEED • CORN.

Send five 1-cent stamps for three sample packages of the best varieties of corn grown, and book, "Hints on Corn Growing, and How the Up-to-date Farmer Grows the Big Crops." The Iowa Agricultural College grew 94 bushels per acre of this corn, which gave 82 pounds of shelled corn from 70 pounds of ears.

PLEASANT VALLEY SEED CORN FARM, J. B. ARMSTRONG, Proprietor, SHENANDOAH, IOWA.

### SEED POTATOES.

The Three Great Earliest, Pure, Smooth and Vigorous.

Sacked and delivered at depot, Topeka. EARLY OHIO.....85c per bushel EARLY ACME.....85c per bushel EARLY SIX WEEKS.....85c per bushel Ten bushels of any variety above, 80c per bushel.

B. H. PUGH, Box A, Topeka, Kas.

## ONE HUNDRED MILLIONS OF DOLLARS A YEAR



THE DE LAVAL CREAM SEPARATORS have revolutionized the Creamery and Dairy methods of the world since their introduction fifteen years ago. They have increased the productiveness of the Dairy industry fully One Hundred Millions of Dollars a year in that time, and practically earned that much a year for their users. They have been the "keystone" of modern dairying. They are now used in every country of the Globe, and the total number in use is 125,000, or more than ten times that of all the one hundred or more various kinds of imitating machines ever made in the different parts of the earth combined.

As the De Laval machines were first, so likewise have they been kept best, ever keeping further in the lead through constant improvement from year to year. They are now sufficiently superior in all respects to nearly save their cost each year of use over and above what is possible with any of the imitating and infringing machines.

The De Laval machines are made in every conceivable size and style and operating form, adapted to the requirements of the dairy of one cow to the creamery of one thousand or more cows, at prices ranging from \$50. to \$800.

They are sold, as ever, on the basis of their unqualified and guaranteed superiority to all other existing methods and devices.

Send for "Dairy" catalogue No. 257 or "Creamery" catalogue No. 507

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## Ford's SEEDS Produce Paying Crops.

Catalogue Free. Not many pictures, but Lots of Good Seeds, Plants, Trees, and Potatoes for your money. \$300 in prizes. FRANK FORD & SON, Ravenna, O.

We PAY FREIGHT is only one of Stark 12 Challenge Points—the full 12 plainly show WHY Stark Bro's grow and sell the most trees. Then, we will not cut quality no matter how LOW our price. If interested in trees or fruits drop postal for new edition; finest, most complete yet issued sent free. STARK BROS, Louisiana, Mo. Stark, Mo. Rockport, Ill. Dansville, N.Y.



### CAMPBELL'S EARLY SEEDS Need Not Be Swallowed.

"First of all Grapes," says Rural New-Yorker. Scaled 96 points in possible 100. "Will ship round the world." Early or Late. Insist on our Seals and get what you buy. Largest stock of other Grape Vines, Small Fruits. Elegant Catalogue FREE. GEORGE S. JOSSELYN, FREDONIA, NEW YORK.

# REID'S TREES

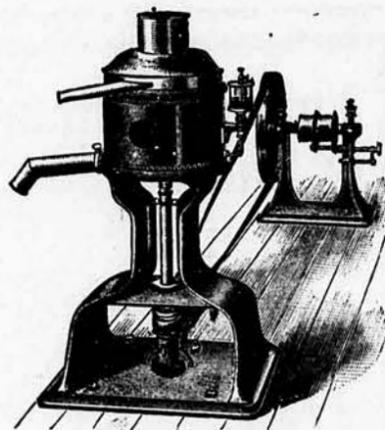
ARE RELIABLE. Everything grown in Reid's Nurseries is healthy, well-rooted and true to name. Every effort is made to save expense to customers. We sell direct and ship direct, saving fifty per cent. on Trees, Shrubs, Vines. Write for catalogue, estimates or suggestions. Try Star Strawberry, Eldorado Blackberry. REID'S NURSERIES, Bridgeport, Ohio.

## IT IS VERY AMUSING

To see how disparagingly "would-be competitors" speak and write of the value of Experiment Station tests of Cream Separators, when the tests show, as they do, that the Improved United States Separators do better and more thorough separation than any others. Before the Improved United States Separators came on the market, and the "would-be competitors" had some records, but not so good or so many as the Improved United States Separators have, they esteemed them very highly and advertised them with a great flourish of trumpets. Now that the Improved United States Separator beats them so much they strive to make dairymen believe there is no value to Experiment Station records because the "would-bes" are beaten

Examine the Records, some of which we give below:

Maine,	Feb. 2.....	0.03
"	" 9.....	0.04
Vermont,	Jan. 13.....	0.01
"	" 28.....	0.02
"	" 29.....	0.03
"	" 30.....	0.04
New Hampshire,	Feb. 18.....	0.01
"	" 19.....	0.04
Massachusetts,	Feb. 10.....	0.01
"	" 12.....	0.03
Illinois,	Mar. 12.....	0.01
"	" 15.....	0.005
Ohio,	Jan. 15.....	0.02
"	Feb. 2.....	0.00
"	" 15.....	0.02
18 tests not over.....		0.05
Cornell, in 23 tests, Jan. 7 to Mar. 18,		Trace
9 showed only.....		0.03 to 0.05
Wisconsin,	Jan. 4.....	0.03
"	" 5.....	0.02
"	" 21.....	0.03
South Carolina,	April 23.....	0.04
"	" 24.....	0.05
"	" 30.....	0.04
Michigan,	Mar. 10.....	0.05
"	" 10.....	0.05
Nebraska,	May 19.....	0.06
Jan., 1897, to Mar., 1897.....		0.05
Minnesota,	June, 1897, 0.03 0.03 0.02	
Average of 9 runs.....		0.05



THE IMPROVED UNITED STATES SEPARATORS are taking the lead in all dairy sections, and this is what makes the "would-be competitors" writhe so and talk against Experiment Station Records.

Send for catalogues, they are furnished free.

VERMONT FARM MACHINE COMPANY, Bellows Falls, Vermont.

**A Composer's Wife.**

A brave woman has often cheered her husband on to victory, but perhaps no woman ever had greater reason to rejoice over her own action than had Signora Mascagni on a certain morning in May, 1890. On that day the musical world was ringing with the praises of her husband, to whom a telegram had just been delivered. "Come to Rome at once. The first prize has been awarded to you," it said.

Mascagni did not even know that any work of his had been entered for the contest. Ten months before he had read in the village paper an advertisement inviting musical composers to compete for a prize offered by Szogono, the publisher, of Milan. The compositions were to be one-act operas, and must be by composers who had had no production presented on the stage.

Mascagni set himself to the task of composition, but before the work was completed discouragement had taken the place of hope. Why should he win, he asked, when the best talent in Italy was entered in the competition?

In vain his wife persuaded him to send in his work, alleging that he could but try.

"I have suffered enough. I should but eat out my heart with waiting and then die of disappointment," was his answer.

"Pietro, let me send it," pleaded Signora Mascagni.

"No," he replied, desperately. "I will send it where it will trouble me no more."

With that he threw the manuscript into the fireplace and ran from the room that he might not see it burn. But the fire was the fire of the poor—of too economical a character to burn anything rapidly—and Signora Mascagni rescued the paper, not even scorched. She sent it without telling her husband, and he returned to his band, his teaching and his organ in the village church, where he was employed as director of the choir.

When he heard that he had won the prize he had to go to his wife for an explanation. Just then success meant to him simply the prize money, \$400.

"I can buy my wife a new dress," was his first exclamation when he got to Rome.

But when, that night, he appeared before the eager crowd waiting to welcome the creator of the composition which had taken the musical world by storm he understood what his success meant. He was overwhelmed by the reception given him.

"Come to me; I need you," he telegraphed to his wife.

She went at once, to support him now by her presence as she had formerly supported him by her encouragement.

**A French Hero.**

Long before dogs were trained to do service on the battlefield a dog distinguished himself as an ally of the soldier. He was a French dog, and his name was Moustache. Mr. G. H. Dierhold tells some of his brave deeds in the Outlook. He was not a pretty dog, but he managed to attach himself to a company of grenadiers who were about to start for Italy. His new friends trained him to carry a gun, to act as sentinel and to keep step. It was in Italy, in the vicinity of Alessandria, that Moustache rendered his first distinguished service to the French army.

A detachment of Austrians, was concealed in a neighboring valley, and advanced at night to surprise the Frenchmen. The plan would have succeeded if Moustache, going his rounds with his nose to the wind, had not scented the enemy and given the alarm. He uttered cries of warning, and when the Austrians found that they were detected they beat a retreat.

Again, some time before the battle of Austerlitz, the dog did valuable service. A spy had penetrated into the French camp and had deceived every one, so that he would have returned to tell all that he had learned if Moustache had not been on the scene. He scented an enemy, and hurled himself upon the intruder with a howl. His warning was not disregarded. His friends had faith in his sagacity, and the stranger was put on trial and convicted of being a spy.

In one battle Moustache saw the standard-bearer of his regiment fall, wounded and dying. He tried to defend the body, and lost a paw in the encounter. But this did not daunt him. The enemy having been swept aside by a discharge of grape-shot, the gallant dog tried to secure the colors, but the dead man's hand had stiffened around the staff. There was nothing to be done but to detach the flag in shreds, and this the dog succeeded in doing, returning to camp lame, bleeding and exhausted, but triumphantly bearing the colors.

For this brave deed he was awarded a

medal that bore the inscription: "He lost a leg at the battle of Austerlitz, and saved the colors of his regiment;" and on the reverse side: "Moustache, a French dog. Let him be everywhere respected and cherished as a hero."

Moustache served with the dragoons in ten campaigns and fought in all the battles. He was killed by a cannon ball at the taking of Badajoz in 1811, and was buried on the field of battle, his collar and medal being buried with him.

**Short Stops.**

It is generally conceded that this Congress will enact no money legislation.

Are the plans made for next season's farm work? If yes, then the work will be methodically done.

In renting a farm have an understanding about the ownership of straw, the disposition of manure, and other details that are often forgotten and lead to unpleasant controversy afterwards.

The Governor of Indiana is insisting that less public money be used in promoting the study of Greek and Latin roots, and more be devoted to teaching how to grow beets, 'bagas and other agricultural roots.

By a majority of 136 the lower house of Congress decided to keep open the government free-seed shop. Congressmen are not given to letting go of what looks like a good thing for them, even if it is a little one.

Beware of the stranger who would top-graft the old orchard; he will both deceive and rob you. It will be cheaper to root-graft his spinal column with a stoga boot, even if a fine for assault and battery results.—Farm, Stock and Home.

A constituent wrote to an Iowa Congressman asking for copies of all obituaries of deceased Congressmen, saying: "I do so like to read about dead Congressmen." Perhaps he thinks of the Congressman as of the Indian, the only good one is a dead one!

Carlyle wrote: "All reformers that will ever much benefit this earth are always inspired with a heavenly purpose." And that purpose must inspire reformers now; and if the overthrow of the selfishness, greed and corruption that now reigns in this country is not a "heavenly purpose," what is?

**Home-Seekers' Excursions.**

Tickets will be sold on the first and third Tuesdays of January, February and March via the Union Pacific to points in Missouri, Arkansas, Indian Territory, Oklahoma, Texas, Louisiana, Arizona and New Mexico, where the minimum round trip rate is \$7 or over, at one fare for the round trip, plus \$2.

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



**ELY'S CREAM BALM** is a positive cure. Apply into the nostrils. It is quickly absorbed. 50 cents at Druggists or by mail; samples 10c. by mail. ELY BROTHERS, 56 Warren St., New York City.

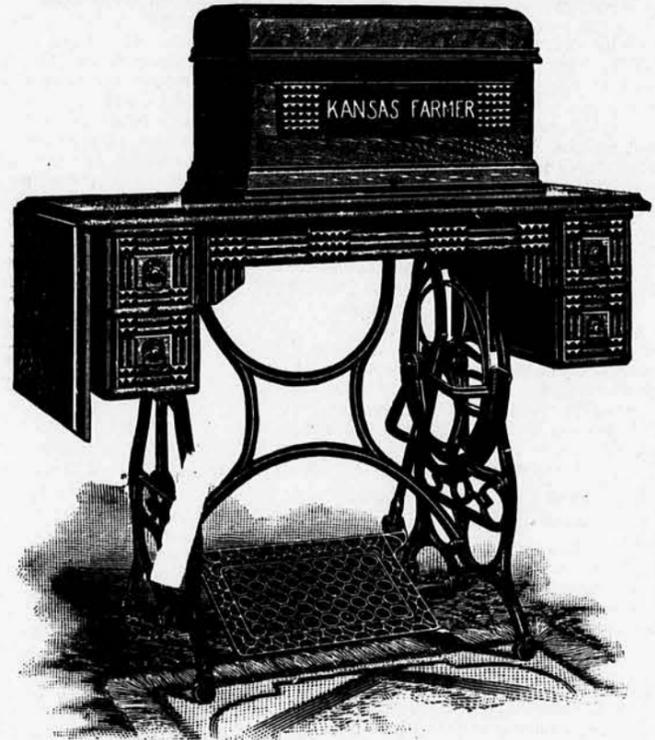
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Can be avoided by spending the time in Southern California, leaving on the California Limited via the Santa Fe.

W. J. BLACK, G. P. A., Topeka, Kas.

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**\$20 This Machine and Kansas Farmer one year \$20**  
**THE Kansas Farmer Sewing Machine**



**Finished in Either Oak or Walnut. Freight Charges Prepaid to All Points East of the Rocky Mountains.**

**High Arm Sewing Machine.** This machine is of the same high grade that is usually sold by agents and dealers for from \$45 to \$50.

**We Claim for It** That it has all the good points found in all other machines of whatever make; that it is as light running a machine as any made; that every part is adjustable and all lost motion can be readily taken up; that it has the simplest and most easily threaded shuttle made; that all the wearing parts are of the best case-hardened steel.

**The Attachments** supplied without extra charge are of the latest design, interchangeable, and constructed to slip on the presser-bar. They are made throughout of the best steel, polished and nickel-plated, and there is not a particle of brass or other soft metal or a single soldered joint about them. They consist of Ruffler, Tucker, Binder, Braider Foot, Under Braider Slide Plate, Shirring Slide Plate, Four Hemmers of assorted widths, Quilter, Thread-Cutter, Foot Hemmer and Feller.

**The Accessories** include twelve Needles, six Bobbins, Oil Can filled with oil, large and small Screwdrivers, Sewing Guide, Guide Screw, Certificate of Warranty good for five years, and elaborately illustrated Instruction Book.

**Guarantee:** We give with it the manufacturers' guarantee, who agree to replace at any time in TEN YEARS any part that proves defective.

Address **KANSAS FARMER CO., Topeka, Kas.**

**HERE • YOU • ARE!**

**COMBINATION OUTFIT.**

**CONTENTS:**

- 1 Iron stand for lasts.
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- 1 Iron last for wom'n's w'k
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- 1 Shoemaker's knife.
- 1 Patent peg awl.
- 1 Peg awl.
- 1 Sewing awl handle.
- 1 Sewing awl.
- 1 Harness awl handle.
- 1 Harness awl.
- 1 W'rch for pg.awl h'ndl
- 1 Bottle leather cement.
- 1 Bottle rubber cement.
- 1 Bunch bristles.
- 1 Ball shoe thread.
- 1 Ball shoe wax.
- 1 Pkg 1/2 half-soleing nails
- 1 Pkg 3/4 " " "
- 1 Pkg 1 " " "
- 1 Pkg 1 1/2 " " "
- 1 Pkg 2 " " "
- 4 Pairs heel plates.
- 1/2 Doz. shoe and brns ndls
- 1 Saw and harness clamp
- 1 Ex. h'rns and belt rivts
- 1 H'rns and belt punch
- 1 Pair pliers.
- 1 Sold'r'ng iron, with hndl
- 1 Bar solder.
- 1 Box resin.
- 1 Box soldering fluid.
- 1 Dir'ct'ns for sold'ng, etc
- 1 Copy directions for half soleing, etc.

Securely packed in wooden box with hinged lid. Weight 25 pounds. No family can afford to be without one of these outfits. Will pay for itself many times over each year.

**OUR PRICE**—Delivered, east of Rocky mountains and west of Mississippi river, \$2.50; or, with KANSAS FARMER one year, \$3.

Address **KANSAS FARMER CO., Topeka, Kas.**



**THE COMBINATION FAMILY COBBLER-TINKER-HARNESS MENDER**  
A COMPLETE OUTFIT FOR GENERAL SHOE, HARNESS AND TIN WARE REPAIRING

**BURPEE'S FARM ANNUAL 1898** FOR THE LEADING AMERICAN SEED CATALOGUE.  
The best seeds that grow, at lowest prices. This handsome new book of 144 pages is mailed free to planters everywhere. **WRITE TO-DAY.** W. ATLEE BURPEE & CO., PHILADELPHIA, PA.

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Feb. 21.—Cattle—Receipts since Saturday, 3,419 cattle; 191 calves; shipped Saturday, 1,876 cattle; no calves. The market was steady to strong. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various cattle and sheep categories.

WESTERN STEERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various western steers.

NATIVE HEIFERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various native heifers.

NATIVE COWS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various native cows.

NATIVE FEEDERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various native feeders.

NATIVE STOCKERS.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various native stockers.

Hogs—Receipts since Saturday, 8,771; shipped Saturday, 1,031. The market was strong to 10c higher, but closed weak. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various hog categories.

Sheep—Receipts since Saturday, 4,572; shipped Saturday, 436. Sheep were steady to strong and lambs steady to 10c lower. The following are representative sales:

Table with columns: No., Ave. Price, No., Ave. Price. Rows include various sheep categories.

Horses and mules—The receipts at the Grand avenue barns this morning were about 8 cars, including mules. The prospects were only fair. The market was slow except on best stock, and prices on this class generally ruled steady with the close last week.

St. Louis Live Stock.

ST. LOUIS, Feb. 21.—Cattle—Receipts, 3,007; market strong for natives and steady to strong for Texans; native shipping and export steers, \$4.40@5.35; dressed beef and light steers, \$3.75@4.90; stockers and feeders, \$3.80@4.50; cows and heifers, \$2.00@4.25; Texas and Indian steers, \$3.00@4.50; the bulk at \$3.70@4.15; cows and heifers, \$2.50@3.25.

Hogs—Receipts, 7,000; market 5 to 10c higher; yorkers, \$4.00@4.10; packers, \$4.05@4.15; butchers, \$4.10@4.25.

Sheep—Receipts, 830; market strong, no Texans here; native muttons, \$4.00@4.60; lambs, \$5.00@5.75.

Chicago Live Stock.

CHICAGO, Feb. 21.—Cattle—Receipts, 11,500; market strong and generally 10c higher; beefs, \$3.90@5.40; cows and heifers, \$2.10@4.50; Texas steers, \$3.50@4.35; stockers and feeders, \$3.50@4.50.

Hogs—Receipts, 23,000; market opened 5 to 10c higher, trade later dragging and early advance partly lost; light, \$3.95@4.15; mixed, \$4.00@4.20; heavy, \$4.00@4.22; rough, one load early, \$4.27, closed \$4.00@4.05.

Sheep—Receipts, 20,000; market steady to strong; native, \$3.15@4.65; western, \$3.60@4.55; lambs, \$4.25@5.65.

Chicago Grain and Provisions.

Table with columns: Feb. 21, Opened, High'st, Low'st, Closing. Rows include various grain and provision categories.

Kansas City Grain.

KANSAS CITY, Feb. 21.—Receipts of wheat here to-day were 283 cars; a week ago, 287 cars; a year ago, 167 cars.

Sales by sample on track: Hard, No. 1, nominally 91c; No. 2 hard, 1 car 80-lb. 91c, 1 car 59 1/4-lb. 90 1/4c, 10 cars 59-lb. 90c, 3 cars 59-lb. 89 1/4c, 2 cars 58 1/2-lb. 89 1/2c, 2 cars 58-lb. 89c, 3 cars 58 1/2-lb. 88 1/2c, 5,000 bushels to arrive 90c, 1 car 59 1/2-lb. mixed 89 1/2c; No. 3 hard, 3 cars 59-lb. 89c, 2 cars 58-lb. 88 1/2c, 1 car 57 1/2-lb. 88 1/2c, 2 cars 58-lb. 88c, 2 cars 57-lb. 88c, 2 cars 57-lb. 87 1/2c, 2 cars 56 1/2-lb. 87 1/2c, 3 cars 56 1/2-lb. 86 1/2c, 4 cars 55-lb. 86c; No. 4 hard, 1 car 56 1/2-lb. 86 1/2c, 1 car 55-lb. 82c; rejected hard, 1 car 54-lb. 80c, 1 car plugged 70c. Soft, No. 1, nominally 95c@96c; No. 2 red, nominally 93c@95c; No. 3 red, nominally 90c@92c; No. 4 red, nominally 88c@89c, 1 car 57-lb. 90c; rejected, nominally 82c@84c. Spring, No. 2, nominally 85c@88c; No. 3, 1 car 55-lb. 84c; rejected, nominally 80c@83c.

Receipts of corn here to-day were 167 cars; a week ago, 187 cars; a year ago, 217 cars.

Sales by sample on track: Mixed, No. 2, 8 cars 27 1/2c, 2 cars 27c, 1 car special 27 1/2c; No. 3, 2 cars 27 1/2c, 7 cars 27c; No. 4, nominally 26 1/2c; no grade, nominally 25 1/2c. White, No. 2, 4 cars 27 1/2c, 2 cars special 27 1/2c, 1 car special 27 1/2c; No. 3, 2 cars 27 1/2c; No. 4, nominally 26 1/2c. Receipts of oats here to-day were 19 cars; a week ago, 14 cars; a year ago, 27 cars.

Sales by sample on track: Mixed, No. 2, 1 car 25c, 1 car red 25 1/2c; No. 3, nominally 24 1/2c@25c; No. 4, nominally 24c. White, No. 2, nominally 26c; No. 3, nominally 25 1/2c; No. 4, nominally 24c.

Rye—No. 2, nominally 46c; No. 3, nominally 45c; No. 4, 44c.

Receipts of hay here to-day were 57 cars; a week ago, 60 cars; a year ago, 31 cars. Quotations are: Choice prairie, \$7.00; No. 1, \$6.50@6.75; No. 2, \$6.00@6.25; No. 3, \$5.00@5.50; choice timothy, \$8.50@9.00; No. 1, \$7.50@8.00; No. 2, \$6.75@7.25; choice clover, mixed, \$6.75@7.00; No. 1, \$6.25@6.75; No. 2, \$5.50@6.00; pure clover, \$5.50@6.50; packing, \$4.50.

Kansas City Produce.

KANSAS CITY, Feb. 21.—Butter—Extra fancy separator, 18c; firsts, 15c; dairy, fancy, 14c; choice, 12c; country roll, 10@11c; store packed, 9@10c; fresh packing stock, 8c.

Eggs—Strictly fresh, 11 1/4 per doz. Poultry—Hens, 5 1/2c; broilers, 8c; roosters, 12 1/2@15c each; ducks, 6c; geese, 4 1/2c; hen turkeys, 8c; young toms, 8c; old toms, 6c; pigeons, 75c per doz.

Apples—Jonathan, \$5.00@6.00 in a small way; Bellefleur, in car lots, \$4.50@5.00 per bbl.; fancy Missouri Pippin, \$3.75@4.00; fancy Ben Davis, \$3.00@3.50; Winesaps, \$3.75@4.25; Willow Twigs, \$3.75@4.00; Huntsman's Favorite, \$4.00. In a small way varieties are selling at 40@55c per half bu.

Vegetables—Cabbage, 75c@81.25 per 100-lb. crate. Beets, 25@40c per bu. Green and wax beans, \$2.50@3.00 per crate. Navy beans, hand picked, \$1.12 1/2@1.15 per bu. Onions, \$1.00@1.25 per bu.

Potatoes—Northern stock, fancy, bulk, 65@70c; sacked, 70@75c; choice to fancy, 50@60c, bulk; Colorado stock, 65@70c; home grown, 50@55c. Sweet potatoes, 60c. Seed potatoes, northern grown Early Ohio and Early Rose, 65@70c per bu.

Wire Fence Machine advertisement with image of a machine.

Advertisement for wire fence machine, \$8.00 for a machine to weave your own fence of Coiled Hard Steel Spring Wire.

It Makes Pigs Healthy advertisement with image of a pig.

TOPEKA FOUNDRY, Manufacturers of castings in grey iron, brass or aluminum. Patterns, models and machine work.

MANITOBA, ASSINIBOIA, ALBERTA, SASKATCHEWAN.

These four Provinces form that portion of the Dominion of Canada known as Western Canada. The resources are Agricultural, Timber and Mineral. A Homestead of 160 acres can be had FREE. \$15 to \$25 per acre per year are yields that have been had off these lands, and no taxes but school taxes. Write for pamphlets, maps, etc., to J. S. CRAWFORD, 408 Board of Trade Bldg., Kansas City, Mo.

WHEN OTHERS FAIL

Consult the famous Chinese physician, DR. GEE WO CHAN, who cures all Chronic, Nervous and Private Diseases of men and women. Lost Manhood, Varicocele, Premature Decay, and all Blood and Skin Diseases are positively and permanently cured by means of his wonderful Chinese remedies. Over 5,000 vegetable remedies that have never before been introduced into this country. No experiments or failures, but each case is treated under a positive guarantee, backed by a capital stock of \$100,000. The Doctor is a man of such renown in his own country that he was appointed by the Chinese government to take charge of its interests at the World's Fair. The Chinese doctors understand the treatment of Lost Manhood, Impotency and Nervous Diseases better than any other nation. Unnatural losses quickly checked without weakening the sexual system, as is done by all American medicines. Undeveloped and shrunken organs enlarged to their natural size. These remedies are not simple tonics that tone up the system for a little while, but their wonderful effects are positive and permanent. Delicate and complicated cases are specially urged to try this wonderful treatment. Send a 2-cent stamp for a question list and he will tell you all about your case free of charge. Address: DR. GEE WO CHAN, 258 State St., Chicago, Ill., Dept. A. Mention this paper.

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Kansas City Live Stock Commission Co. Rooms 277 A, B, C, D Stock Exchange, KANSAS CITY STOCK YARDS. L. A. ALLEN, CHAS. W. CAMPBELL, PEYTON MONTGOMERY, Cattle Salesmen. W. T. MCINTIRE, Sheep Salesman. J. T. MEGREY, Hog Salesman. Correspondence and consignments solicited. Good sales, prompt returns. Ample capital. Twenty years actual experience. Market reports free on application.

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No Charges whatever for Medicines, Instruments, Apparatus or Appliances which may be necessary to effect a Positive and Permanent Cure.

By our new system of Home Treatment, thousands of sufferers from some form of Chronic, Broken down or Languishing ailment of the Head, Nose, Throat, Lungs, Stomach, Heart, Liver, Bowels, Kidneys, Bladder, Female Complaints, Nervous and Spinal Affections, Epilepsy, Rheumatism, Paralysis and Blood Diseases are being cured and lifted from beds of pain and death.

**From a Prominent Citizen and Ex-Postmaster.**

Col. J. H. Marshall, of Bayard, W. Va., writes:—I spent at least \$300 for medicines of different kinds before I heard of your wonderful cures. I decided to try your method of Home Treatment with much misgiving, as my system was all broken down. My head, throat and stomach was diseased with Catarrh; my liver and kidneys out of order and my nervous system entirely broken down. In fact, I never expected to get well again, but thanks to your skillful treatment, I feel like a new man. I will cheerfully answer any letters in regard to my case.



**A Fair and Intelligent Lady Speaks.**  
Mrs. J. A. Duvall, of Warren, N. C., writes:—Any one to see me 3 months ago and see me now would not take me for the same person. Then I was so nervous and weak I could not sleep, eat or stand on my feet, my voice trembled and I verily believe I could not have lived another two weeks. As a last resort I answered Dr. Beatty's ad. and told him to send his medicines at once. He did so and from the first day I began to pick up and have been gaining in flesh and health ever since. I never weighed so much in my life and have not been so perfectly well for many years. I gladly recommend Dr. Beatty's Treatment to all suffering women. My picture tells the story of recovery.  
Dr. M. Beatty has an enviable reputation for ability in his profession, and will not promise what he can not carry out. We advise our readers to write to him.—CHRISTIAN STANDARD.

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To introduce and prove the merits of this new method of treatment we will give free treatment until cured, to a limited number of the readers of this paper, only asking in return that when cured you will recommend us to your friends. All medicines and necessary instruments to effect a cure absolutely free.  
Send a description of your trouble, name and P. O. Address at once, or write for our "Question Blank," and prompt attention will be given you free.

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**The Poultry Yard**

**Farmers and Poultry.**

Editor Kansas Farmer:—These columns should be made up, mainly, of material furnished by us farmers, as the conditions under which we keep fowls differ materially from those surrounding the breeder for points. As we need him and his knowledge, it is by no means desired to exclude him therefrom. He, in a great measure, has given the poultry industry its present impetus, and, having set the ball to rolling, justice would demand that we grant him the opportunity of an occasional kick at it. It is well known to every one who reads (and who does not read in Kansas?) that the aggregate value of eggs and poultry produced annually in this country is something stupendous, but few probably realize the possibilities of the "Helpful Hen." It may not be amiss to mention here that those interested in poultry who were not sufficiently alert to secure a copy of this splendid compilation by the efficient Secretary of our wide-awake State Board of Agriculture have missed a treat. It was sent free.

The readers of "The Poultry Yard" columns of this paper are principally farmers, who will be benefited by its contents in proportion to the interest they take in it. Let each one contribute his mite, always from experience, and we may feel assured that such a course will speedily bring this department to the high standard of excellence attained by the other divisions. Just the other day, I read of a farmer of my county who marketed during January, 1898, ninety dozen of eggs, averaging 18 cents. Here is \$16.20 per month earned by the hen, we may say. Would it not be worth something to possess that farmer's knowledge and know his methods of handling those chickens?

There is noticeable a general awakening among farmers here to the fact that the hen is, and can be made a still greater source of revenue. Many are buying pure-bred males, some even going to the extra expense of providing enclosures to be used for breeding purposes. I have followed this plan two seasons, obtaining satisfactory results, one of these being that I found ready sale for surplus males at prices which are remunerative. I ought not to say this, as the aforesaid breeder for points may do some violent kicking when he sees which way the ball is rolling—when he realizes that

competition from farmers robs him of a market which has heretofore taken many of his pure-bred scrubs.

The issue of February 10 contains splendid reading. The articles on "Cheap Food and Poultry" and "Losses in the Beginning," if studied and acted upon, mean dollars in our pockets. I speak from experience in this matter.

I should be instructed by reports on the following questions: Do you find the digestion of your fowls in any way affected by the free use of corn at moulting time? If so, what remedy should be applied? Do those who fail to furnish grit to their fowls on the farm, act wisely? What is the average egg yield per hen, that you have recorded, during the months of November, December and January?  
G. B. RUTH.  
Halstead, Kas.

**Some Popular and Current Lies.**

Popular and current lies in poultry culture are numerous and injurious. Of course, old, experienced breeders may not believe these myths which float about in the papers, but the beginner picks them up as truth, and perpetuates them until he learns better, if he has the good sense to unlearn. Those who have the interests of the poultry industry at heart should prick these bubbles of error with the sharp sword of truth. Here are some of the current lies:

1. That fowls ever die for want of grit.
2. That corn is injurious as feed for laying hens or fowls at any season of the year.
3. That corn meal is injurious as a feed for young chicks.
4. That fowls ever have indigestion.
5. That fowls ever have hypertrophy of the liver.
6. That drugs ever cure the so-called, manufactured diseases, made by medicine vendors, or originated by them.
7. That drugs are useful, or are ever needed in the poultry yard at any time.
8. That tonics are ever needed for fowls at any time to brace them up, to help them in the moulting period, or to assist nature in any way.
9. That any preparation is necessary to make hens lay, other than good feed, pure water and freedom from lice.
10. That an experienced breeder, one who has made a specialty of a certain breed for years, has no right to give score-cards written by himself when he sells fowls, if cards are demanded.
11. That a score-card given by a professional judge is any better than a score-card given by a professional breeder.
12. That the professional judge who does not breed fowls, or breed only one variety, or few varieties, knows more about the varieties he does not breed and never has bred, than the breeder who makes a specialty of them.
13. That twenty or thirty years' service as a breeder does not qualify a man to judge his own fowls, but that a judge with little or no experience as a breeder, is duly qualified to say whether the old breeder's birds are good or bad, and to give his opinion written on a score-card, while a card, written by the old, experienced breeder, is no good.
14. That fowls have to have oyster shells or lime water to make egg shells from.
15. That fat hens are not good layers.
16. That soft-shelled eggs are caused by over-fat in hens.
17. That the broody hen is always the fat hen.
18. That the sick hen is always the fat hen.
19. That too much corn is the cause of fat hens.
20. That corn is more fattening than wheat.
21. That incubator chicks are not as hardy as chicks hatched by hens.
22. That incubator chicks are apt to be deformed or misshapen.
23. That a person can make money with a few hens in the back yard.
24. That there is big money in the poultry industry for everybody.
25. That there is a big opening for all who want to go into the broiler business.
26. That a man can succeed in the poultry business without he has money to back up his experience and is able to fix up for the business in the right way.

These are a few of the things which, in our experience, we have proven to be lies. There may be others who think the same way.—J. H. Davis, in Practical Poultryman.

The period when the poultry interests of this country received their first impetus was in 1852, nearly half a century ago. The Shanghais, Chittagongs and Brahma Pootras were the three breeds which created much excitement, because

**A Veteran's Peril.**  
AN INSIDIOUS FOE SEEKS HIS DESTRUCTION.  
Foiled by the Timely Interference of a Stranger—  
A Thrilling Experience.

From the Carbondalian, Carbondale, Kan.

Three miles southeast of the city of Carbondale, Kansas, in a cozy cottage surrounded by broad, fertile acres, resides Mr. A. B. Hackett. He migrated to Kansas in 1857.

He was active in the Kansas border war, also served four years in the war of the rebellion, (in the 1st Kan. Light Artillery,) and at its conclusion pre-empted the piece of land which now constitutes his home. He is beloved by his neighbors and friends, a man of sterling integrity, sound judgment and a good citizen. The reporter of the Carbondalian recently had a long and interesting conversation with Mr. Hackett in which he listened to strangely fascinating tales of the exposures, privations and hardships incidental with the early settlement of the "Sunflower State."

"But," said Mr. Hackett, his face aglow with the flush of health, "though I suffered much during my pioneer days and army service, yet my sufferings were but trifles in comparison with the excruciating tortures I endured in the winter of 1895-96. About December 1st, 1895, I was taken sick. I had no appetite, became very weak, and the least excitement would cause me to tremble. My stomach rejected food, and if I did swallow a morsel, the constant retching which followed produced intense soreness across the abdomen. I had daily recurring flushes of fever, followed by distracting headaches.

"I suffered intense pains in the regions of the liver and kidneys, and every bone in my body ached constantly. I was nervous, could not sleep, and spent my nights in fruitless efforts to alleviate my sufferings and in brooding over my unfortunate condition.

"A prominent physician whom I had summoned diagnosed my case as the grippe. He prescribed the usual medical treatment, but it proved of no avail. My sufferings were intensified by the addition of a dry, hacking cough,

accompanied by soreness of the lungs and chest. "About Christmas a friend and neighbor, Mr. Frank Foster, called to see me. He advised me to try Dr. Williams' Pink Pills for Pale People, a remedy which he had known to prove most efficient in cases similar to mine.

"I concluded to try them. I sent to the city for six boxes, and took the first dose on Christmas. In less than one week I experienced beneficial results. By the time I had taken three boxes I was walking and doing fair justice to my wife's culinary efforts.

"With the consumption of the fourth box my appetite was simply enormous. The nights brought refreshing sleep, the soreness and pain in my lungs, chest and bones had left me, and my recovery from that time on was rapid.

"After taking two boxes of the pills, I had no return of the fever, but the nervous headaches lingered until I had taken the fourth box. On finishing the sixth box the cough had entirely disappeared, and with it, all of its attendant annoying consequences. I felt stronger, my appetite was better, and my general health more satisfactory than it had been for years.

"I shall always cheerfully recommend Dr. Williams' Pink Pills for Pale People, to any one seeking knowledge as to their efficacy."

Comrade Hackett is 57 years old, and looks to be good for many years of life to come.

His address is A. B. Hackett, Carbondale, Osage Co., Kansas.

Dr. Williams' Pink Pills for Pale People are now given to the public as an unfailing blood builder and nerve restorer, curing all forms of weakness arising from a watery condition of the blood or shattered nerves. The pills are sold by all dealers, or will be sent post paid on receipt of price, 50 cents a box, or six boxes for \$2.50 (they are never sold in bulk or by the 100), by addressing Dr. Williams' Medicine Company, Schenectady, N. Y.

of their large size compared with the birds of that day. They were different from the breeds now known. A Shanghai cock could eat from the top of a flour barrel, and in describing them it was a frequent remark that "If the head of a Shanghai were cut off his legs would fall apart," as they were tall, gawky, coarse and voracious. But these breeds served as a foundation upon which our present excellent breeds have been built, though they have been aided by importations from Europe which gave us some of the best we have. The Asiatic breeds are founded upon the breeds named, excepting the Langshan, which was introduced later by a lady breeder in Maine.

**Raise Cabbage for Poultry.**

Set out a few hundred cabbage plants for the use of the hens. It matters not whether the cabbages make hard heads or not, or whether they become large or small. The hens will enjoy them during the winter when green food is not easily obtainable. There is but very little nutriment in cabbages, yet they serve a dietary purpose, providing a change of material, thus preventing injurious effect from a continual dry food. They can be grown at a small cost and pay well for the purpose.—Poultry Paper.

**The Best Breed for Market Fowls.**

Fowls that are plump and have plenty of meat on their breasts will always sell well in market. The carcass, however, depends on the breeds. To know which should be preferred, it may be stated that breeds that are the most active and fly the highest have the most meat on the breast. This is easily explained, as the ability to fly implies great muscle power, and the muscles are mainly on the breast. The Games, Dorkings and even Leghorns are plump on the breast, and they can fly over a high fence. Brahmas cannot fly, and they have but little breast-meat. The Langshans and Cochins are apparently of the same stock, but when a fowl of both breeds is dressed for market, Langshans will be found much superior, as they have a larger proportion of meat on the breast.

Educate Your Bowels With Cascarets. Candy Cathartic, cure constipation forever. 50c. 25c. If C. C. C. fail, druggists refund money.

65 Cash (50 egg size) On Trial \$5.75. "Shades with Bantam, 20, 37 and 48 chicks for 50 eggs." Jacob Whippert, Cecil, O. Large size cheap. Send 4c for No. 96 catalog. Buckeye Incubator Co., Springfield, O.

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Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE. GEO. ERTEL CO., QUINCY, ILL.

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OUR LARGE '98 GUIDE of 100 pages explains all. Worth \$25.00 to any one. The largest, finest and most complete book ever published in colors. Contains over 113 new illustrations, hundreds of valuable recipes and plans, and HOW TO MAKE POULTRY PAY. Sent post paid for 15c. JOHN BAUSCHER, JR., Box 14, FREEPORT, ILLS.

HATCH Chickens BY STEAM—  
With the MODEL  
**EXCELSIOR Incubator**  
Simple, Perfect, Self-Regulating. Thousands in successful operation. Lowest priced first-class Hatcher made. GEO. H. STAHL, Co. 114 to 122 S. 6th St. Quincy, Ill.

**Hens Make Money**  
under proper conditions. Those conditions are defined in our MAMMOTH NEW POULTRY BOOK and CATALOG for 1898. Bigger & better than ever before. Printed in colors and description of all leading breeds of fowls; poultry house plans, tested remedies, prices on poultry, eggs, etc. Worth \$5, but sent postpaid for 15 cents in stamps or coin. The J. W. Miller Co. Box 152, Freeport, Ill.

**A SURE WINNER.**  
OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send for our new 128 page catalog and study the merits of our machines. Has valuable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes 50 to 500. Prices from \$3.00 to \$70.00. DES MOINES, IOWA.  
Testimonials by the yard.

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HAS LOST HER OCCUPATION  
and in the production and brooding of chicks she has been supplanted by the better and every way  
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Reliable Incubator and Brooder Co., Quincy, Illinois.

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—more economical & produces better results than whole grain  
**STAR Feed Grinders** prepare it in the best and cheapest way. Grind all kinds of grain single or mixed. Grind ear corn dry, damp or frozen. Circulars of Steam and Sweep Mills, free. **STAR MFG. CO.,** 26 Depot St. New Lexington, O.

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SQUIRTS tell the story  
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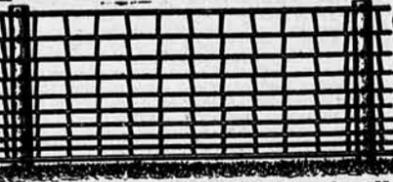
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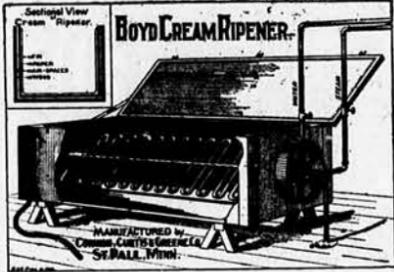
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Drops a whole hill at once. A positive movement accurate dropping planter. All Steel except tongue. Thoroughly braced throughout. **Best Steel Shoes,** double concave wheels for covering Automatic reel for check row wire. **Strong, Durable, Accurate.** Extra plates for planting in drills.  
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HOW TO BUILD ASK **WILLIAMS MFG. CO.,** KALAMAZOO, MICH.

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Is now open. It runs on Van Buren Street, directly in front of **The Chicago, Rock Island & Pacific Station.**  
Passengers arriving in Chicago can, by the new Union Elevated Loop, reach any part of the city; or, for a 5-cent fare, can be taken immediately to any of the large stores in the downtown district. All Elevated Trains will stop at the "Rock Island" Station. Train every minute. These facilities can only be offered by the **"GREAT ROCK ISLAND ROUTE."** If you will send a 2-cent stamp for postage we will mail you at once a new bird's-eye view of Chicago, just issued, in five colors, which shows you just what you want to know about Chicago and the new Loop and Elevated System. This map you should have, whether you live out of the city and expect to come to it, or whether you now live in Chicago and you or your friends contemplate making a trip. Address **JOHN SEBASTIAN, G. P. A.,** Chicago.

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Finest and fastest regular train between Mississippi river and Eastern seashore over greatest system of transportation in the world—the Vanderbilt lines. Stops allowed at Niagara Falls, Washington, Philadelphia and Virginia Hot Springs. This train allows half day's stop in St. Louis and goes into the only depot in New York city. **C. W. GREEN,** Traveling Pass'r Agt., Kansas City, Mo. **A. J. WHITEHEAD,** Traveling Pass'r Agt., Dallas, Texas. **WILLIAM P. DEPPE,** Assistant General Passenger Agent, St. Louis, Mo.

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Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

CLOSING-OUT SALE—Of Light and Dark Brahmas, Buff and Partridge Cochins, and a few B. P. Rocks and S. C. B. Leghorn cockerels at \$1 each until gone. Some of these are show birds. Stamp for written reply. Address Sunny Side Poultry Yards, Walton, Harvey Co., Kas.

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FOR SALE OR TRADE—A first-class Morgan and Hambletonian stallion. For pedigree and description address J. E. Barnes, Mound City, Kas.

SEVERAL FARMS WANTED.—Address, giving price and location, A. H. Russell, Akron, Ohio.

POLAND-CHINA BROOD SOWS.—Wilkie Blair, Beulah, Crawford Co., Kas.

CANE AND MILLET SEED WANTED—Highest market price. Send samples; state quantity. Kansas City Grain & Seed Co., Kansas City, Mo.

WANTED—Onion sets. Red tops, red bottoms, or anything you have to offer. Correspond with Harnden Seed Co., Kansas City, Mo.

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GOLD BASIS.—Two varieties of yellow dent corn from Northern seed—Early Rose and Gold Basis. Matures in 90 and 110 days. Heavy yields last year. Write for prices. A. E. Jones, Topeka, Kas.

I WANT TO BUY—A large well-bred stallion, from 8 to 9 years old, well broke to work and gentle to handle; Percheron or Norman. C. F. Colcord, Perry, Okla.

DUROC-JERSEY MALE PIGS—Six months old, for sale at farmers' prices. L. F. Brost, Fontana, Kas.

WANTED NOW—Agents to sell Sash Locks and Door Holders. Sample Sash Lock free for 2c stamp. Immense; better than weights; burglar proof; \$10 a dozen. Write quick. Address BROHARD & CO., Dept. 108, Philadelphia, Pa.

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BLACK LANGSHAN EGGS FOR SALE—\$2 per setting. W. J. Barnes, 216 Western Ave., Topeka.

500 BUSHELS SEED SWEET POTATOES—For sale. Nine best kinds. Rates low. Call on or write to N. H. Pixley, Wamego, Kas.

ALFALFA SEED—I will furnish nice, clean alfalfa seed at 4 1/2 cents per pound. Sacks 15 cents each. H. L. Zimmerman, Garden City, Kas.

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EGGS FROM PREMIUM STOCK—Twenty-one premiums on poultry at three shows this winter. B. Ply. Rocks, \$1.50 to \$2 setting; Pekin ducks, \$1.50 setting; M. B. turkey eggs, 25 cents each. Agent Prairie State Incubator. Five-cent stamp for catalogue. M. S. Kohl, Furley, Kas.

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FOR SALE—One twelve-horse-power boiler, one eight-horse-power engine, and one steam jacket kettle. Bennett & Lowe, 303 Kansas Ave., Topeka, Kas.

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RAISE POULTRY—Do you? If so, why not use an incubator? The Successful is all the name implies; it does the work successfully. There's nothing just as good. Send 6 cents for catalogue to J. T. Dale, Wichita, Kas., special agent for Southwest. His Black Langshans and Buff Pekin Bantams and Ducks are winners. Eggs and fowls reasonable.

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POLAND-CHINAS—Extra spring boar by Wren's Model 17400; big bone and good at both ends, deep middle. \$25. Glits bred to Hadley Boy, \$15. W. S. Powell, Moline, Elk Co., Kas.

NASON'S FEEDER, SOAKER AND STREAMER.—Recommended by feeders and farmers generally. For sale by the inventor, E. J. Nason, Washington, Kas.

A FORTY-ACRE FRUIT FARM—One and one-half miles from Hutchinson. The finest varieties of every class of fruit; good soil, fine water. Terms to suit purchaser. Address Whitelaw Houk, Partridge, Kas.

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FOR GREENHOUSE PLANTS, ROSES, etc., now or next spring. Send for price lists. Tyra Montgomery, Florist, Larned, Kas.

JACK FOR SALE—Black with mealy points, fifteen hands one inch high, heavy bone, 7 years old; all right. Will be sold at a bargain. Porter Moore, Parsons, Kas.

SUNFLOWER HERD DUROC-JERSEYS.—For sale, choice pigs, September farrow. A. D. & H. L. Perrin, Prescott, Linn county, Kansas.

BARRED AND WHITE PLYMOUTH ROCKS—White and Silver Wyandottes, White Holland Turkeys, White Pekin Ducks and White Guinea. Stock and Eggs for sale. Porter Moore, breeder and judge, Parsons, Kas.

FOR RENT—Eighty-acre fruit, truck and poultry farm, five miles from Topeka. Two-story poultry building, fifty feet long, equipped with hot water apparatus. For particulars apply to Claton Hummer, Grantville, Kas.

FOR SALE—Thirteen fine Poland-China boars. Call on or address H. W. McAfee, Topeka, Kas. (Farm three miles west of Kansas avenue.)

VINELEAF SWEET POTATOES—For sale, very productive. T. J. Skinner, Columbus, Kas.

SWEET POTATOES—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas. Mention this paper when writing.

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MY NEW ELEGANT POULTRY CATALOGUE—Contains colored plates, illustrations and much valuable information. Don't miss it. Will be sent for only 6 cents in stamps. Address F. B. Stork, Freeport, Ill.

PIG FORCEPS and watering fountains save farmers many dollars. Write for advertising prices. J. N. Reimers & Co., Davenport, Iowa.

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FOR SALE—A few boars, fifty bred glits, twenty-two bred sows, 125 fall pigs, all pure-bred, both Polands and Berkshires. I have too many and will price anything you want so low you will buy them, and guarantee satisfaction. O. P. Updegraff, North Topeka, Kas.

WANTED—Millet and Cane Seed. Correspond with F. Barteldes & Co., Lawrence, Kas.

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DO YOU KNOW YOUR NEIGHBOR? Do you know him well enough to talk business to him? If you do here is a chance to make some money this winter and spring. We want an agent in your neighborhood to sell "Spaulding Fruit Trees." Trees free from disease, vigor certified to by Inspector State Entomologist; strong root and body growth, well grown tops—the result of our 40 year's experience in a 600 acre nursery. You know your neighbor better than we do; HE WILL BUY FROM YOU more readily than from us. We will stand behind you with "Spaulding Trees and Plants," the best stock grown of standard varieties and guarantee honest dealing. We pay you cash weekly, including your expenses. Write for terms, catalog and "Trade Getters." SPAULDING N. & O. Co., Box 10, Spaulding, Ill. Send Recommendation or Reference.

\$200 FOR A NAME for this New Tomato and a New Beet which we shall introduce in 1899, to those wishing to test them this season and compete for name prizes we will send a packet of the seed of each, also one of our Star Prize Collection NEW WHITE PRIZE ONION NEW WINTER QUEEN CELERY CINCINNATI MARKET RADISH. All for 10c, in stamps or silver, together with 1898 GARDEN AND FARM MANUAL. JOHNSON & STOKES Dept. 27 217 Market St. PHILADELPHIA

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NEW MULTIFLORA ROSES. With seed of these new Roses, plants may be had in bloom in 60 days from time of sowing. Plant at any time. They grow quickly and flowers appear in large clusters and in such quantity that a plant looks like a bouquet. Perfectly hardy in the garden, where they bloom all summer. In pots they bloom both summer and winter. From a packet of seed one will get Roses of various colors—white, pink, crimson, etc.—no two alike, and mostly perfectly double and very sweet. Greatest of novelties. Seed 20c. per pkt., 3 pkts. for 50c.—or for 40c. we will send 1 pkt. New Multiflora Roses. All colors. Chinese Lantern Plant. Magnificent. Cupid Dwarf Sweet Pea. A real gem. Verbena, Giant White Scented. Tree Strawberry. Largest, finest berry. Double-flowered Tuberosus Begonia. Fancy Gladiolus. Extra fine. Giant Flowered Gladiolus Childel. Spotted Calla Lily. 1 Montbretia. Fancy Gladiolus. All different colors. Flowering Oxalis. Mixed colors. Also our Great 160-page Color Plate Catalogue and THE MAYFLOWER Monthly Magazine for a year; illustrated—colored plate each month—devoted to Flowers and Gardening. Worth \$1.50 but for trial All the above for 40c. postpaid. Our Great Colored Plate Catalogue of Flower and Vegetable Seeds, Bulbs, Plants, and Rare New Fruits, is the finest ever issued; profusely illustrated. 12 Magnificent Large Colored Plates, 160 pages. Mailed for 10 cts., or FREE to any who expect to send us an order after getting it. JOHN LEWIS CHILDS, Floral Park, N. Y.

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### The Apiary.

Conducted by A. H. DUFF, Larned, Kas., to whom inquiries relating to this department should be addressed.

#### Bees in Late Winter.

The most critical time with bees during the whole year is at the winding up of winter. Bees are always at their most extreme weakness then, and it requires the best kind of care and judgment to bring them over this period.

Strong colonies are usually all right, and beyond the danger line, but frequently a large per cent. of colonies are weak, and a little timely attention will save the greater number of them. There are many colonies lost now by starving, as well as dwindling on account of weakness, and these are very easily saved by feeding.

A thorough cleaning and drying out of the hives is of great importance at this time, and many will be found very damp inside. This dampness contaminates their food and produces disease. There are usually in all weak hives a large number of dead bees, and in almost every case of this kind will dampness be found; and when a few warm days come this will produce a bad smell, which is very offensive to the bees, and which will in some cases induce the bees to swarm out and leave the hive entirely.

After extreme cold weather is past, the entrances to hives that have been contracted during winter may be again opened to their full capacity, and thus give the hives more air to enable them to dry out. Hives so arranged as to remove the lids and lay the combs bare on top during a warm day, will be found very beneficial to the bees. Hives that have no opening thus on top may be raised up from the bottom-board a little distance and allow of a free circulation of air under the bees.

Hives manipulated in this manner should not be allowed to remain so, but should be thoroughly closed up again to be ready for the changes of weather should a cold snap come. After settled warm weather, when the bees are flying every day, they will of themselves clean up and put things in proper shape in the hives. If bees are healthy and in good condition, generally they will begin to rear brood very early. They usually begin in the month of March, and the strongest colonies oftentimes have considerable brood during this month. A strong colony that is rich in stores now is worth several weak ones, and the best time to make strong colonies in spring, is the fall previous, as it depends upon the condition at the beginning of winter to a great extent.

#### Notes for the Apiary.

When bees are confined to their hives by cold weather they cannot be fed liquids, but candy only.

Bees will gather pollen very early, and long before the blossoms open in spring. They may be furnished pollen from the dust of finely-ground grain of the small varieties.

In early spring the brood should occupy the center combs, and the combs containing brood should be in a compact body and not scattered here and there through the hives.

The beginner, when he takes off his first set of section, well filled with nice comb honey, enters into a stage of the bee fever that remains with him the balance of his natural life.

No drones are reared in a colony until the colony becomes very strong and the combs well filled with worker brood. When bees build their comb in the natural way an excess of drones are usually produced.

Colonies may be doubled in strength by feeding a little sirup daily to them during spring at times when no honey can be gathered from flowers. They may be made thus to swarm two weeks earlier than they otherwise would.

To produce a large crop of honey, bees should not be allowed to swarm, but should be kept together and given all the room they need to store honey. If bees are given plenty of storage room they are not so liable to swarm. They usually swarm on account of limited space.

Colonies frequently come through the winter in good shape but may have lost their queen. Usually they cannot rear one now, and they must be furnished with a queen or put with some other colony. They cannot do any good in this condition and will become a total loss in a short time. At almost any other time in the season they will raise a queen by giving them brood from another colony, but even if they do succeed in raising one now, she would, nine

times out of ten, do no good. On account of the scarcity of drones she would not become fertilized.

There is no time during the year that a strong colony does not need an upper story added to the hive, except in the winter, and in early spring until they get strong again. At this time the upper story is quite a damage to them, and should not be added in spring until the brood chamber is full, and at the beginning of the honey season.

About 2,000 cubic inches is the proper size for the brood chamber of the beehive, but this in most cases is only half of the hive, and in many cases but one-third of the hive. The main body of hive in importance is small compared to the surplus department, and the manipulation of the supers is what counts in dollars and cents; but the brood chamber must work in harmony with the supers or the latter will be a blank.

All hives that contain honey, that the bees may have died and left, should be taken up and put out of reach of the other bees, as they will find it and cause trouble by starting robbing. This should be prevented by all means, at this time of season especially, as the bees are weak and in poor shape to defend their hives and are much more susceptible to robbing than when strong at other times. When bees get a start at robbing in early spring they do not forget it for a long time and keep up trouble constantly.

Hives and fixtures of all kinds should be prepared for the bees long before they are ready for them. The greatest trouble with those who keep but a few bees, farmers for instance, is that they never prepare anything in the way of hives and surplus boxes, and when the bees begin to swarm they will then begin to look around for something to put them in, and perhaps settle on a soap-box or nail-keg, and thus they are left again to do as they please, and at the end of the season a lot of weak colonies—those that did not go to the woods—are left. No honey, and the following winter the "soap-box" colonies all die. The farmer that fixed up a little comes out with honey enough to feed his family and sold considerable to his neighbors and has a nice lot of colonies, well worth \$10 each. With the proper fixings, and at a very small cost, too, each good colony of bees ought to produce in any ordinary season one or two hundred pounds of honey, and oftentimes double this amount.

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At an institute in Iowa one of the speakers stated that ensilage and the separator had increased his production of butter to the extent of sixty-five pounds per cow per year; another said the separator had increased his product by \$12.50 per cow, and that he could raise the best calves from separator milk. There is a difference of opinion regarding the last statement, however.

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